

Schlumberger ECLIPSE Plugin for EnginFrame 5.0

About

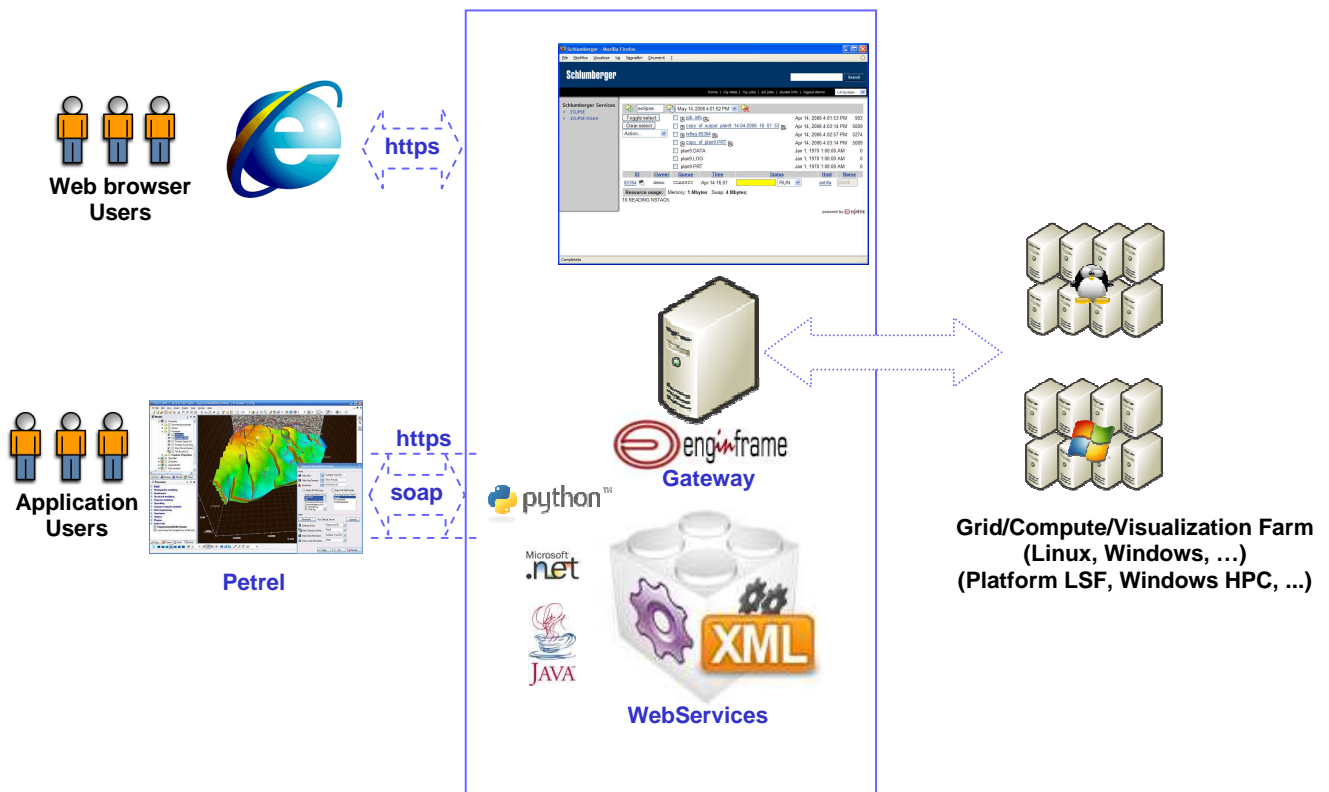
HPC Clusters and software application licenses are a strategic asset for many companies and institutions, but often lack usability and require training to make users fully productive.

EnginFrame addresses HPC usability issues, providing an intuitive, easily customizable, flexible and affordable Web interface suitable for most challenging HPC activities, coping with the policies and the procedures that are specific to each Enterprise.

NICE EnginFrame

Developed and supported by **NICE**, **EnginFrame** is both a Web Server and a Web Services gateway that enables to access to the application services on your corporate Intranet/Internet. Application interfaces can be tailored to the specific users' skills or access rights. Users can therefore access and control their computing and engineering resources via an intuitive, standards compliant web interface, virtually from anywhere using a standard web browser.

EnginFrame has a range of snap-In modules for all major Grid solutions including, **Platform LSF**, **IBM LoadLeveler**, **Sun Grid Engine**, **Microsoft HPC Server 2008**, **Altair PBS/PBS Pro**, **Globus**, **gLite**. **EnginFrame** can also be loaded with customizable data / information management and authentication plug-ins like **LDAP**, **ActiveDirectory**, **PAM**, **NIS**.



ECLIPSE plugin

The EnginFrame **ECLIPSE** Plugin provides web-browser based access to **Schlumberger ECLIPSE** reservoir simulators **eclipse**, **e300** and **frontsim**. Moreover, it exposes the same service to applications like **Schlumberger PETREL**, which take advantage of the web services (SOAP/WSDL) interface. The ECLIPSE plugin has been designed for the Platform LSF job scheduling system.

It provides two interfaces:

- Web interface, to enable users to submit and monitor ECLIPSE jobs and associated data using a common web browser. Through the web browser it is possible to monitor the progress of the simulations looking at the .LOG/.PRT files in streaming mode, to monitor the growth of the file that are being written. Input files can be selected from the File System on the server/cluster infrastructure, or uploaded from the client node.
- WebServices interface, to enable programs to submit jobs and retrieve the results using standard SOAP/WSDL protocols. The primary way to use this interface is through eclrun program, which is natively integrated with **Schlumberger PETREL** simulation front-end. In addition, the same interface can be leveraged by any application.

Feature summary

The description of EnginFrame features is out of the scope of this document. The following is a list of most useful features in the ECLIPSE plugin:

- The job submission service can automatically detect the requirements, like if it is a serial or a parallel simulation or the number of cpus required to run the simulation, and pre-fill the job submission forms with the proper values.
- Single and multiple jobs submission: user can select one or multiple files at once, each file becoming a distinct LSF job. The monitoring of jobs status and associated data is done from a single web page.
- Job-resubmit: the user is provided with a service to resubmit the simulation associated with finished jobs. This can be very useful to support a workflow where 1) a short simulation is submitted to check the input deck and then 2) the long lasting simulation is finally submitted.
- Basic file editing functionalities can be specially useful when combined with job-resubmit, to quickly fix an error in the input file or to manually change a simulation parameter.
- The user can select the **queue** and the **host type** to be used to run the simulation. The queue selection box shows the queue status and the number of pending/running jobs.
- The support for multi-language presentation of the services has been introduced and demonstrated with the *Russian* language. It can be easily extended to other languages. The user can optionally submit jobs to run in the *exclusive mode*.
- When the simulation is running, the user can monitor the progress of the simulation by streaming the tail portion of the **.LOG** or **.PRT** files through a separate window. This is supported for both **local** (LAN) and **remote** (WAN) LSF systems.
- Schlumberger PETREL: the ECLIPSE plugin can take advantage of the Web Services (SOAP/WSDL protocols) support in EnginFrame to play as a gateway between the PETREL instance running on a Windows XP/Vista workstation, and the LSF cluster, running Linux, UNIX or Windows operating systems.
- The SOAP/WSDL interface in EnginFrame and the services in the ECLIPSE plugins can be leveraged by any external program that needs to submit ECLIPSE jobs and retrieve the results in the same way as PETREL does, using Python, .NET or Java client interfaces.

About NICE

NICE has been offering comprehensive Grid Solutions for over 12 years, with expertise in Industrial & Research Grids, Grid Portals and Grid Intelligence. The **NICE** product portfolio completes the Grid solution by increasing usability and user-friendliness, without sacrificing flexibility and control in advanced computing scenarios, like **Oil&Gas, Finance, Life Science, Industrial manufacturing, Electronics, Telecommunications** and **Research**.

Major Oil&Gas companies like **Addax Petroleum, British Gas, CC of Water Resources, Chevron, Conoco-Phillips, DSC-Libya, ENI/Agip, GazPromNeft, Hess, Marathon Oil, Nexen, Rosneft, Shengli Oil, Sibneft, Slavneft, Sonatrach, Statoil, Talisman Energy, Telecom Italia, TNK-BP, TNNC, TOTAL, TyumenNIIgaz, VNIIGaz, Xinjiang Oil** today leverage **NICE EnginFrame** to interface their engineers, partners and customers with the Grid and User-oriented EnginFrame Grid Portals.

Learn More

To try-out or receive additional information on EnginFrame please contact NICE:

Email info@nice-software.com

Phone: +39 0141 90 15 16

Web <http://www.nice-software.com>