Migrating Desktop Platform

Framework for Grid Applications

MAIN PRODUCT FEATURES

- Simple **integration** with **grid applications**
- Easy job defining, submission, monitoring and visualization of results
- Support for **batch** and **interactive jobs**
- Handling of **sequential** and **parallel applications**
- Intuitive **management of grid data**
- Easy **extendable framework**

MOTIVATIONS

The large-scale success of and demand for computing technologies depends heavily on ease of access and use experienced by users that are non-experts in the technology and systems being used. It is also crucial to attract new scientific and industrial user communities and to enable user-friendly and intuitive access to grid environment. To achieve this goal we propose the Migrating Desktop – advanced graphical user interface and a set of tools combined with a user-friendly outlook, similar to window based operating systems.

PLATFORM DESCRIPTION

The Migrating Desktop Platform is a powerful and flexible user interface to Grid resources that gives a transparent user work environment and easy access to resources and network file systems independently of the system version and hardware. It allows the user to run applications and tools, manage data files, and store personal settings independently of the location or the terminal type.
The Migrating Desktop is an advanced graphical user interface similar to a window-based operating system that hides the complexity of the grid middleware and makes access to the grid resources easy and transparent. The Migrating Desktop offers: flexible personalized working environment available independently of the user location, scalability and portability, a set of tools, a single sign-on mechanism and support for multiple grid infrastructure.

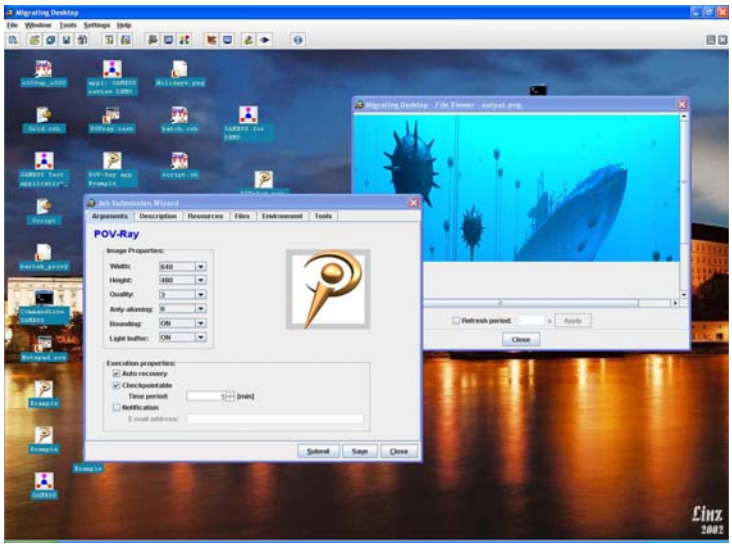

Fig. 1 Migrating Desktop main window

APPLICATION SUPPORT

The key feature of the Migrating Desktop is the possibility of easy adding various tools, applications and supporting different visualization formats. The Migrating Desktop offers a framework that can be easily extended on the basis of a set of well–defined plug-ins used for: accessing data, defining job parameters, pre-processing job parameters, and visualization of job results. Open architecture of the Migrating Desktop speeds up the application integration process and makes that product significantly more flexible than specialized tools (e.g. portals) designed only for a specific application.

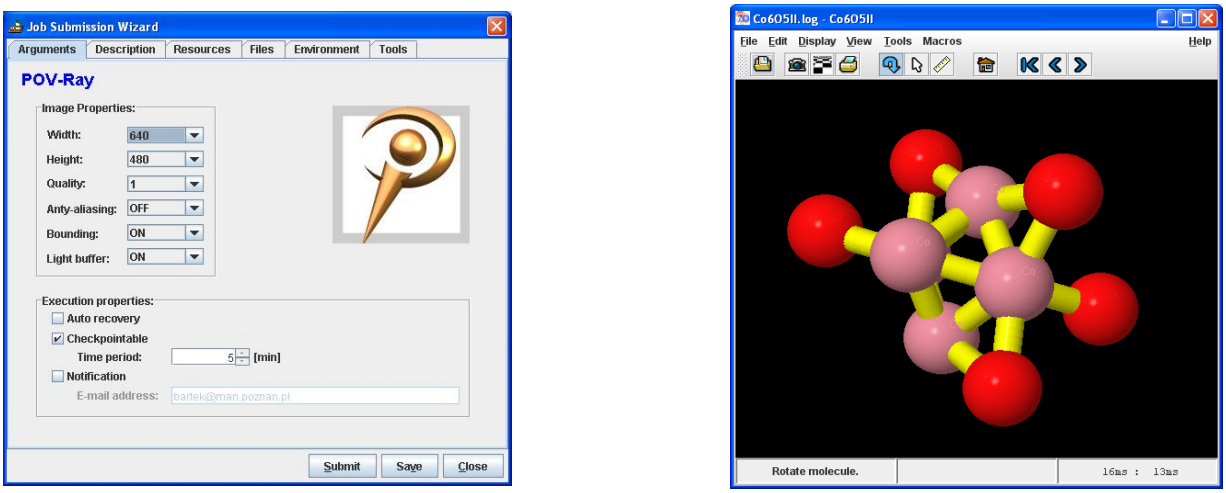

Fig. 2 Job defining and visualization of results (examples of Migrating Desktop plug-ins)

The integration of many applications, come from various projects and science areas, proved correctness of platform integration mechanisms and procedures.

PRODUCT DEVELOPMENT

The Migrating Desktop created in The EU CrossGrid Project was further developed and used in several other EU projects (e.g. BalticGrid, BalticGrid Second Phase, EU Interactive European Grid).
The framework was shown and discussed during numerous conferences, workshops, seminars etc. Demo *"Running interactive and parallel applications on the Grid - Visualization of Plasma Particles in Fusion Devices"* shown within MD framework was the winner of the prize *"Best On-Line Demo of EGEE User Forum 2007"* in Manchester.

The Migrating Desktop is currently used in the FP7 European project - Euforia by the European Fusion community. However, the main development is being made within the Polish NGI project: **PL-Grid,** providing the scientific community with a country-wide grid infrastructure, enabling e-science research in various fields. The Migrating Desktop supports everyday work of PL-Grid users, ensuring unified and user-friendly access to project resources.

COLLABORATING PROJECTS

int.eu.grid · BalticGrid · EUFORIA · PL-Grid

Contact
www: **http://desktop.psnc.pl/**
email: **cgrid@lists.man.poznan.pl**