OPEN H.P.C.
openhpc-project.org

Open HPC

COMPLETED PROJECT

Simulation and High Performance Computing are a strategic stake for the competitiveness. Both for Industry and Research one of the key elements of the HPC chain is application software. It has to be accessible to all the actors of the market, especially for the small and medium-sized firms. Users ask for global software solutions on HPC architecture, mixing both free and commercial software. In the context of this project, Open Source software will be improved in term of quality, interoperability and performance. These developments have to be structured and connected in order to create a coherent software platform, in connexion with other initiatives such as the Complex System Design Lab CSDL.

PROGRESS BEYOND THE STATE OF THE ART

Open HPC aims at building a coherent, interoperable and accessible HPC software platform addressing both commercial and Open Source software. A strong implication of compagnies like ESI Group, Digiteo Scilab, C-S SI, CSTB and Logilab working together confirms the way choosen by the project. The parallelisation and the adaptation of computing tools are a necessary step forward the building of the Open HPC software platform. Then, in order to reach the goals a focus on the process management of the whole computing chain is done.

MAJOR PROJECT OUTCOMES

▶ Products:
The virtual Open HPC platform is made of several Open Source and Commercial products. For exemple the Logilab company launched an open source case study management tool. This Internet tool can gather the whole knowledge on a study case linked to the solver datamanager.
ESI Group worked with CS-SI and the CSTB in order to increase and adapt its process manager VDot to the building market.

▶ Services:
The CSTB worked on simulation with real experiment comparison. So the CSTB used and increased different solvers developed in IOLS in order to run simulation at different scale (city quarter, bridge, anchorage...).

▶ Business creation:
Based on the result of the project, a business plan on the Building Market is in discussion between the Open HPC partners.

CONTACT

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PARTNERS

Large companies:
CS, EDF, NECS

Intermediate size enterprise:
ESI GROUP

SMEs:
DISTENE, LOGILAB, OXALYA, TERATEC

Research institutes, universities:
CEA/DEN, CSTB, DIGITEO SCILAB, ONERA

PROJECT DATA

Coordinator:
CS

Call:
FUI6

Start date:
January 2009

Duration:
18 months

Global budget (M€):
3.6

Funding (M€):
1.7

Related Systematic project(s):
CSDL, EHPOC, IOLS, MOBIL, OPUS, OSCOS