T5. The use of the Windows platform for LCG tasks

Task coordinator : M. Kunze, belonging to team: FZK , deputy V. Korenkov (JINR)

Objectives :

Study of the VMware as a software for emulation of multi-computer clusters for the LCG purposes. Study of performance fall of such clusters. Study of VMware features to complete distributed computations in a batch mode.

Porting some of the LCG software on the MS Windows .NET platform including a development of a set of ActiveX components. Providing the basic set of operations such as queuing of jobs, tracing the job execution process, requests to the GRID information systems and responding to external information requests, encapsulation of terminal access to different components of GRID under MS Windows.

Methodology :

Installation of the VMware with different operating systems. Installation of software required for distributed computations at computing clusters under VMware. Software development for the Windows users taking into account the peculiarities of the software for GRID systems.

Task Input:

Use of PC cluster in Dubna city and computing environment in Moscow State University. Standard LCG software.

Result, milestones :

Building of Linux computations clusters on a top of Windows computers (under VMware) would be a great benefit for the Russian Tier2 by obtaining an additional power for distributed computations in a batch mode. A set of ActiveX components for using some of LCG software on the MS Windows .NET platform.

Milestones of the task research program are indicated in the subtask description.

DELIVERABLES:

Computer programs; report and a publications (preprints).

T5.1. Use of the VMware for construction of VO's on

different platforms and OS versions

Subtask coordinator : V. Mitsyn , belonging to team: JINR

Other participants: H. Wenske and R. Berlich (both FZK)

Objectives :

Studies of a possibility of the use of the VMware in a context of software testing and development to emulate computer clusters for the LCG purposes. Study of VMware ability to provide cross-platform distributed computations. Study of a performance decrease of computing clusters under the VMware.

Methodology :

Installation of the VMware with different operating systems. Installation of software required for distributed computations at computing clusters under VMware.

Task Input:

A large number of locally connected Windows computing clusters being in a partial use. Plan to use such clusters as PC cluster of the Dubna city and computing environment in Moscow State University.

Result, milestones :

MILESTONES:

1. installation of the software required, Feb.2004 - March 2004;
2. development and testing of software to emulate multi-computer clusters, Apr.2004 - Sept.2004;
3. the usage and analysis of efficiency of clusters under VMware for distributed computations, Sept.2004 - Oct.2005.

RESULTS EXPECTED:

Building of Linux computations clusters on a top of Windows computers (under VMware) would be a great benefit for the Russian Tier2 by obtaining an additional power for distributed computations in a batch mode.

DELIVERABLES:

Report and a publication as a preprint

T5.2. Porting some of the LCG software on the MS Windows .NET platform

Subtask coordinator : D.Oleynik, belonging to team: JINR

Other participants: M. Kunze (FZK)

Objectives :

Porting some of the LCG software on the MS Windows .NET platform including a development of a set of ActiveX components. The basic set of operations should be provided, such as queuing of jobs, tracing the job execution process, requests to the GRID information systems and responding to external information requests, encapsulation of terminal access to different components of GRID under MS Windows etc.

Methodology :

Software development for the Windows users taking into account the peculiarities of the software for GRID systems.

Task Input:

Standard LCG software.

Result, milestones :

MILESTONES:

1. development and testing, Feb.2004 - Sept.2004;
2. an active usage, Oct.2004 - Sept.2005.

RESULTS EXPECTED:

A set of ActiveX components for using some of LCG software on the MS Windows .NET platform.

DELIVERABLES:

Computer programs; report and a publication (preprint).

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