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AIDA: Atlas graphical Interface for Distributed Analysis

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AIDA specifically addresses the needs of the ATLAS high energy physics experiment, performing large scale data processing on globally distributed resources. AIDA is an easy-to-use strong tool implemented in java. User faces a single Graphical User Interface, instead of having a set of different applications. In such a way, the application offers the opportunity to avoid the complexity of GRID's command line interaction. This tool assists the user in all steps of a job's life cycle, starting from job creation, data set mining, multiple job submission, job monitoring and result collection.

3. Impact

AIDA does not use it's own grid services, but those in common use. Prior to the job submission action, user must track the desirable data set and identify all available remote resources (storage/computer elements). AIDA gives this opportunity since it comprises the basic LCG and DQ2 commands. In such a way the user avoids any 'command line' interactions. Since AIDA is running from the user's pc, it is more convenient comparing with similar applications such as GANGA which runs the user interface on the Grid UI.
Specifically in the case of the ATLAS experiment, the data – processing applications include simulations, reconstruction and physics analysis based on the Gaudi/ATHENA framework. This provides core services, such as message logging, histogram creation and allows run-time configuration via option files. At it's last phase of development, AIDA already demonstrated reliability and effectiveness in the case of ATHENA reconstruction data analysis work (ZZ4l decay channel).

URL for further information:

http://skiathos.physics.auth.gr/atlas/AIDA/

4. Conclusions / Future plans

All the user requires to run the AIDA GUI is an internet connection and the Java Runtime Environment 1.6 (JRE 1.6) installed on a pc. Trial users showed a very positive response to AIDA. Further development may allow the application to expand it's usage in other GRID user communities.

Provide a set of generic keywords that define your contribution (e.g. Data Management, Workflows, High Energy Physics)

GRID gui, ATLAS, ATHENA, job submission.

1. Short overview

Analyzing data from the LHC experiments will have to deal with data and computer resources distributed along numerous locations around the globe, with different access methods. AIDA is a graphical User Interface for the data analysis of the ATLAS experiment using the GRID infrastructure. The main objective in the development of AIDA is to make the creation, submission and output retrieval of GRID jobs as easy as possible.

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