JAS3 at CHEP'07

CHEP'07 Theme:

> *The theme of the conference will focus on the processing of HEP data at all stages, from the high level triggers that run on farms of CPUs situated close to the experiment through to the final analysis that use resources distributed worldwide.*

> *We expect to draw on the experience from running experiments and also to review the status of new studies of the distributed computing models being made in preparation of the LHC experimental programme.*

CHEP'07 Tracks: http://www.chep2007.com/tracks.html

Possible JAS3/JAIDA topics:

1. Use of JAS3/JAIDA in experiments: GLAST, BaBar, etc.
2. New developments and improvements in FreeHEP and JAS3
3. .....
4.

JAIDA, JAS3, WIRED4 and the AIDA tag library - experience and new developments

JAIDA is a Java implementation of the Abstract Interfaces for Data Analysis (AIDA) and is part of the FreeHEP library. JAIDA allows programmers to easily create histograms, scatter plots and tuples, perform fits, view plots and store and retrieve analysis objects from files. JAIDA can be used for batch processing or with a GUI. JAIDA reads and writes AIDA compliant files and can access data from ROOT, HBOOK/PAW or SQL databases. Access from C++ uses the AIDAJNI adapter. JAIDA includes JMinuit, a complete port of Minuit to Java. JAS3 uses JAIDA providing a full featured GUI.

WIRED4 is a generic Event Display displaying 2D/3D views of HepRep events. As plugin module in JAS3 it has full interactivity, such as scaling, rotation and hiding. Recent extensions handle picking of elements to show detailed information and interactive cuts to hide details.

The AIDA tag library (AIDATLD) is an open source suite of custom tags that provide access to JAIDA from J2EE applications and JSP pages. It can dynamically create high quality physics and astronomy plots and providing access to histograms and Ntuples stored in any AIDA store, including ROOT files via (x)rootd, from web applications.

This software is used by several experiments and collaborations, including BaBar, GLAST, and Geant4. Experience of using this software and new developments will be presented in the talk. In particular, a wide ranging suite of web applications developed using these tools for the GLAST experiment will be described.