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Type: **Parallel Talk**

Multi-threaded event processing with JANA

Monday, 3 November 2008 14:00 (25 minutes)

The C++ reconstruction framework JANA has been written to support the next generation of Nuclear Physics experiments at Jefferson Lab in anticipation of the 12GeV upgrade. This includes the GlueX experiment in the planned 4th experimental hall "Hall-D". The JANA framework was designed to allow multi-threaded event processing with a minimal impact on developers of reconstruction software. As we enter the multi-core era, thread-enabled code will become essential to utilizing the full processor power available without invoking the logistical overhead of managing many individual processes. Event-based reconstruction lends itself naturally to multi-threaded processing. Emphasis will be placed on the multi-threading features of the framework. Test results of the scaling of event processing rates with number of threads will be shown.

Summary

Multi-threaded event processing using the JANA framework developed at JeffersonLab.

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Session Classification: Data Analysis - Algorithms and Tools

Track Classification: 2. Data Analysis