

Distributed Monte Carlo Production for DZero

Thursday 26 March 2009 16:50 (20 minutes)

DZero uses a variety of resources on four continents to pursue a strategy of flexibility and automation in the generation of simulation data. This strategy provides a resilient and opportunistic system which ensures an adequate and timely supply of simulation data to support DZero's physics analyses. A mixture of facilities, dedicated and opportunistic, specialized and generic, large and small, grid job enabled and not, are used to provide a production system that has adapted to newly developing technologies. This strategy has increased the event production rate by a factor of seven and the data production rate by a factor of ten in the last three years despite diminishing manpower. Common to all production facilities is the SAM (Sequential Access to Metadata) data-grid. Job submission to the grid uses SAMGrid middleware which may forward jobs to the OSG, the WLCG, or native SAMGrid sites. The distributed computing and data handling system used by DZero will be described and the results of MC production since the deployment of grid technologies will be presented.

Presentation type (oral | poster)

oral

Summary

Geographically and resource diverse DZero simulation production has grown substantially in recent years. Strategy, architecture, implementation, and results will be presented.

Author: Prof. SNOW, joel (Langston University)

Presenter: Prof. SNOW, joel (Langston University)

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