

PROOF: status and perspectives

Tuesday 27 March 2007 17:00 (30 minutes)

The goal of PROOF (Parallel ROOT Facility) is to enable the interactive analysis of distributed data sets in a transparent way. PROOF represents an alternative to a batch-oriented usage of a distributed computing system. The system is being successfully used by the PHOBOS experiment since a few years.

In view of the startup of the LHC analysis PROOF underwent several developments and improvements mainly with the purpose to adapt it to the large multi-user analysis environments found at LHC. The ALICE collaboration has pioneered test-stressing of the system using the first CAF (Central Analysis Facility), composed by 40 machines located at CERN. The test-CAF represents a realistic environment for LHC analysis, with a non-negligible amount of local disk space managed by the XROOTD daemon populated with dedicated upload facilities (e.g. on-demand stage-in from the CASTOR system).

The ALICE tests have brought in several new developments, among which:

- * augmentation and fine-tuning of package management and environment setting facilities;
- * a new `packetizer` (the system element responsible for work distribution) optimizing the load balancing algorithm;
- * the integration of the system with a user-scheduling facility with the main purpose of increasing fairness in resource allocation.

In this talk we will describe in detail the status of the new developments and outline the future plans to bring PROOF in production for LHC analysis.

Presenter: GANIS, Gerardo (CERN/SFT)