Monte Carlo production using LCG/gLite GRID computing resources

The improvements of the peak instantaneous luminosity of the Tevatron Collider will give CDF up to 2 fb-1 of new data every year, forcing the collaboration to increase proportionally the amount of Monte Carlo data it produces. This is in turn forcing the CDF collaboration to move beyond the dedicated resources it is using today and start exploiting Grid resources. Monte Carlo production was the first obvious step in that direction, since there are fewer technical problems associated with it: A portal to the LCG was implemented with an user interface identical to the CAF (CDF Analysis Farm) infrastructure already used for submission to dedicated CDF resources. CDF code distribution is performed by an AFS filesystem mounted on each worker node while the CDF calibration database is accessed through a local SQUID-based cache located at the CNAF Tier 1 center. The job output is stored on either CDF specific fileservers via kerberos authentication or LCG Storage Elements. We used a few stable sites to produce several millions events for studies of B physics background and tagging efficiencies in top measurements. The observed LCG/gLite performancies and possible improvements will be discussed.

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Track Classification: Distributed Event production and processing