CRAB: a tool to enable CMS Distributed Analysis

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CRAB (Cms Remote Analysis Builder) is a tool, developed by INFN within the CMS collaboration, which provides to physicists the possibility to analyze large amount of data exploiting the huge computing power of grid distributed systems. It's currently used to analyze simulated data needed to prepare the Physics Technical Design Report. Data produced by CMS are distributed among several Computing Centers, and CRAB allows a generic users, without specific knowledge of grid infrastracture, to access and analyze those remote data, hiding the complexity of distributed computational services and making job submission and management as simple as in a local environment. The experience gained during the current CMS distributed data analysis effort is reported, along with CRAB ongoing developments. The interaction of CRAB with the actual and future CMS Data Management services is described, as well as the usage of WLCG/gLite/OSG middleware to provide access to different grid environments. Finally, the use within CRAB of BOSS for logging, bookkeeping and monitoring is presented.

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