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Dynamic parallel ROOT facility clusters on the Alice Environment

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The ALICE collaboration has developed a production environment (AliEn) that implements several components of the Grid paradigm needed to simulate, reconstruct and analyze data in a distributed way.
In addition to the Grid-like analysis, ALICE, as many experiments, provides a local interactive analysis using the Parallel ROOT Facility (PROOF).
PROOF is part of the ROOT analysis framework used by ALICE. It enables physicists to analyze and understand much larger datasets on a shorter time scale, allowing analysis of data in parallel on remote computer clusters.
The default installation of PROOF is a static shared cluster provided by administrators. However, using a new framework, PoD (Proof on Demand), PROOF can be used in a more user-friendly and convenient way, giving the possibility to dynamically set up a cluster after the user request.
Integrating PoD in the AliEn environment, different sets of machines can become workers allowing the system to react to an increasing number of requests for PROOF sessions by starting an higher number of proofd processes.
This paper will describe the integration of PoD framework in AliEn in order to provide private dynamic PROOF clusters. This functionality is transparent to the user who will only need to perform a job submission to the AliEn environment.

Student? Enter 'yes'. See http://goo.gl/MVv53

yes

Author: LUZZI, Cinzia (CERN - University of Ferrara)

Co-authors: MANAFOV, Anar (GSI - Helmholtzzentrum fur Schwerionenforschung GmbH (DE)); GRIGORAS, Costin (Conseil Europeen Recherche Nucl. (CERN)); Mr CARMINATI, Federico (CERN); BETEV, Latchezar (CERN); SAIZ, Pablo (CERN)

Presenter: LUZZI, Cinzia (CERN - University of Ferrara)

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