

CDF software distribution on Grid using Parrot

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Large international collaborations that use de-centralized computing models are becoming a custom rather than an exception in High Energy Physics. A good computing model for such big and spread collaborations has to deal with the distribution of the experiment-specific software around the world. When the CDF experiment developed its software infrastructure, most computing was done on dedicated clusters. As a result, libraries, configuration files, and large executable were deployed over a shared file system. In order to adapt its computing model with the Grid CDF decided to distribute its software to all the European Grid sites using Parrot, a user-level application able to attach existing programs to remote I/O systems through the filesystem interface. This choice allows CDF to use just one centralized source of code and a scalable set of caches all around Europe to efficiently distribute its code and requires almost no interaction with the existing Grid middle-ware or with local system administrators. This system is in production at CDF in Europe since more than 1 year. Here, we present the CDF implementation of Parrot and the performances. We will discuss in detail scalability issues and the improved performances with the usage of cache-coherence which has been developed inside CDF and integrated in the Parrot release.

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Primary authors: Dr LUCCHESI, Donatella (University and INFN Padova); Dr COMPOSTELLA, Gabriele (CNAF INFN); Dr PAGAN GRISO, Simone (University and INFN Padova)

Co-authors: Dr THAIN, Douglas (Notre Dame University); Dr SFILIGOI, Igor (Fermilab)

Presenter: Dr PAGAN GRISO, Simone (University and INFN Padova)

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