

Transparently Distributing CDF Software with Parrot

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The CDF software model was developed with dedicated resources in mind. One of the main assumptions is to have a large set of executables, shared libraries and configuration files on a shared file system. As CDF is moving toward a Grid model, this assumption is limiting the general physics analysis to only a small set of CDF friendly sites with the appropriate file system installed.

In order to exploit as many Grid resources as possible, we have looked at ways to lift this limit. Given the amount of users and existing applications, it is impractical to force the users to change their way of work and stop relying on the CDF software distribution. Instead, we are developing a solution that uses Parrot to transparently access CDF software remotely.

Parrot is a user level tool that allows any executable or script to access remote files as if they were on a local file system. No special privileges are required to install or use Parrot, so it can easily be deployed on a Grid. Parrot supports several I/O protocols including HTTP, FTP, RFIO, and other protocols common in grid computing. Using HTTP and standard caching mechanisms, this allows applications to access a single copy of the CDF software distribution from anywhere in the world.

In the talk we will present our experience with the use of Parrot, including the problems we experienced and how we solved them.

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