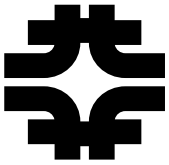

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The Enstore and dCache User's Guide

May 5, 2004

Computing Division
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ABSTRACT

Enstore is the mass storage system implemented at Fermilab as the primary data store for large data sets. Enstore provides access to data on tape or other storage media both local to a user's machine and over networks. It is designed to provide high fault tolerance and availability sufficient for the RunII data acquisition needs, as well as easy administration and monitoring. It uses a client-server architecture which provides a generic interface for users and allows for hardware and software components that can be replaced and/or expanded.
The dCache has been designed as a front-end for a set of Hierarchical Storage Managers (HSMs), namely Enstore, EuroGate and DESY's OSM. It can be viewed as an intermediate "relay station" between client applications and the HSM (Enstore, in our case). Client systems communicate with dCache via any of a number of protocols, and dCache communicates with Enstore (in a manner transparent to the user) via a high-speed ethernet connection. The dCache decouples the potentially slow network transfer (to and from client machines) from the fast storage media I/O in order to keep Enstore from bogging down.
This document describes these tools, how to use them to move data to and from storage media, and how to monitor the progress of jobs through the system.

Revision Record

May 5, 2004	minor updates to manual chapters 7, 8, B to accompany encp v3_2. New enstore info command. New info server. New encp switch: --bypass-filesystem-max-filesize-check.
March 5, 2004	minor updates to manual sections 5.5 and A.2.
January 12, 2004	major documentation revision to accompany release of encp v3_1.