PhEDEx
(Physics Experiment Data Export)

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CMS data model

- At T0: data collected, filtered online, stored, reconstructed with HLT information and
- at DBS registred
- By PhEDEx from T0 to T1 RECO data are moved
- At T1: data are filtered(AOD) according to PhAn group selection for akimming;
- By PhEDEx from T1 to T2 skim output are shipped
- At T2 and T3 data are analysed by physics group users
- In DBS published instance dedicated to the Physics group

CSM tools

- VO - virtual organization - authorized access
- PhEDEx - data movement tools
- DBS - data discovery
- CRAB - job analysis builed
- DashBoard - data, job, resources monitoring
- SAM test, FTS, dCache Monitoring

PhEDEs page

PhEDEx – CMS Data Transfers

Info | Activity | Data | Requests | Components | Reports

| **Overview** | About | Documentation | Presentations | HyperNews Forum | Support Tracker | Developers

Info

Overview
About
Documentation
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Activity

Rate
Rate Plots
Queue Plots
Quality Plots
Routing
Transfer Details
Deletions
Recent Errors

Data

Replicas
Subscriptions
LoadTest Injections
Verification

Requests

Overview
Create Request
View/Manage Requests

Components

Status
Processes
Links

Reports

Daily Reports
Daily Report
File Sizes

The PhEDEx

Project provides the data placement and the file transfer system for the CMS experiment.

The PhEDEx components are:

- Transfer management database(TMDB)
- Transfer agents - movement of files between sites.
- Management agents: allocator agent - distinations - subscriptions
- Tools to manage transfer requests
- Lacal agents for managing files locally
- Web monitoring tools

Location, CVS, configuration

PhEDEx are instaled on VO: cclcgcms01 at:
/home/cmssgm/phedex

Site configuration MUST be in CVS, after any changes should committed in CVS

Config files are on
/home/cmssgm/phedex/SITECONF/T1_FR_CCIN2P3

PhEDEx runns 3 instance: Dev, Debug, Prod

Each instance has its own configuration(shared config files)

- /home/cmssgm/phedex/SITECONF/T1_FR_CCIN2P3/Config25.Dev
- /home/cmssgm/phedex/SITECONF/T1_FR_CCIN2P2/Config25.Debug
- /home/cmssgm/phedex/SITECONF/T1_FR_CCIN2P3/Config25.Prod

Common Cofig files:

- ConfigPart.Common
- ConfigPart.Export
- CinfigPart.FTSDownload
- ConfigPart.Inject
- ConfigPart.MSS
- DBParam
- Storage.xml
- Site-local-config.xml(on JobConfig)

Running PhEDEx: Commands

Starting the agents:
- phedex -config $dev |$debug |$prod start

Stop: normal:
- Phedex -config $dev |$debug |$prod stop

or kill:
- kill -9 …

Agents running check:
- Ps -ef | grep Download

Log files

- Dev : /home/cmssgm/phedex/Dev_T1_FR_CCIN2P3/
- Debug : /home/cmssgm/phedex/Debug_T1_FR_CCIN2P3/
- Prod : /home/cmssgm/phedex/Prod_T1_FR_CCIN2P3/

It is logs files dir and logarcive

Transfer

- Check if the dataset is injected here.
- Check if there is a subscription and it is not suspended here. Don't forget to select the proper destination node.
- Check if there is a link between the source and the destination sites,
- if both end points are up and if none of the end points is ignoring each other here.
- Check if the destination queue is not full.

Update PhEDEx version

- Go to /home/cmssgm/phedex/
- SW: sw=$PWD/sw, echo $sw, ls sw
- Should see bin/slc4_ia32_gcc345
- Set up: myarch=slc4_ia32_gcc345 version=...
- Source $sw/$myarch/...
- On Config25.Prod,Debug,Dev change version
- Restart PhEDEx

PhEDEx

Now we can look all details
on PhDEDx page