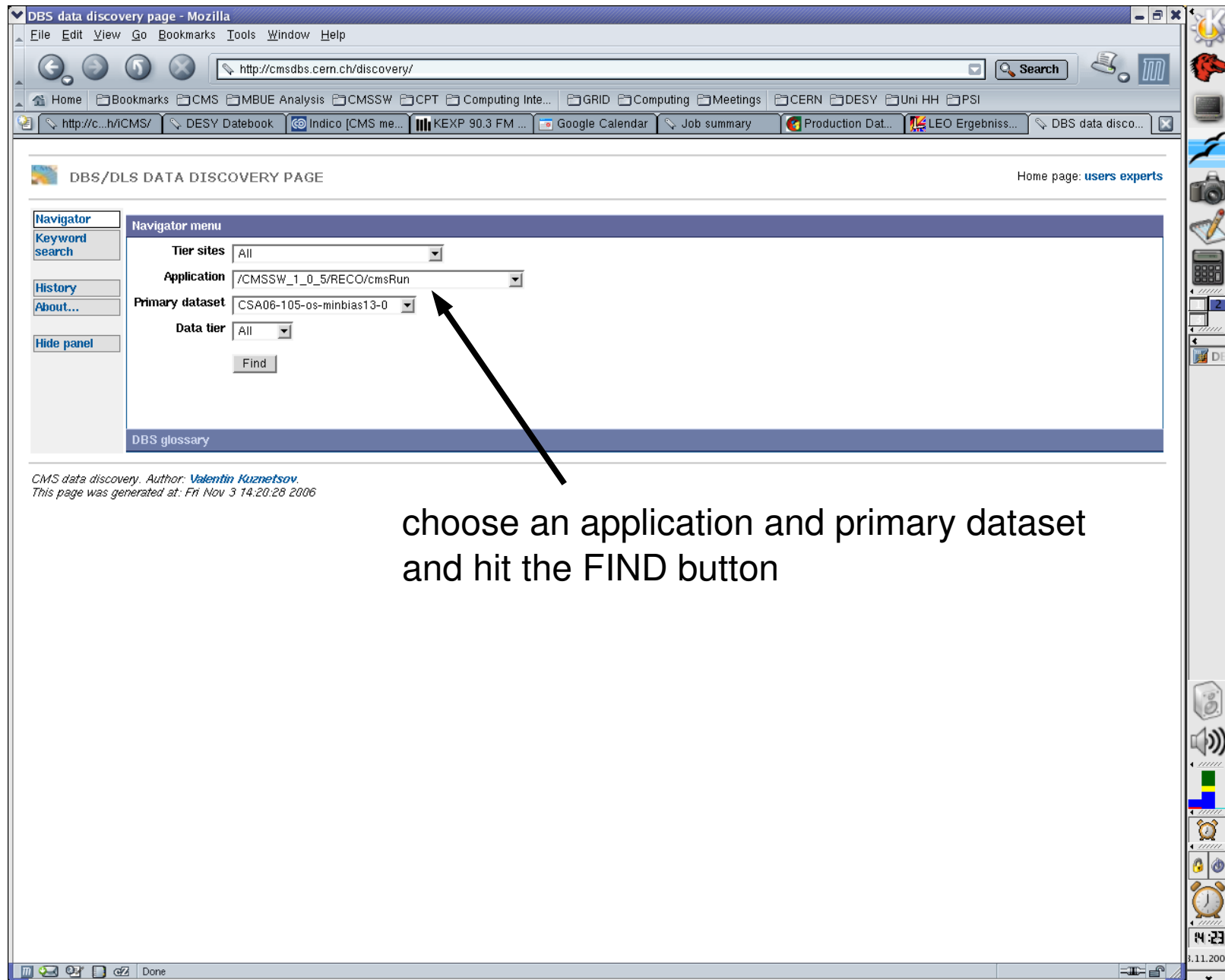


Locating and accessing data samples

Florian Bechtel (Univ. Hamburg)
CMS Hamburg Meeting November 8th 2006

- Need data?
 - DBS data discovery page
 - PhEDEx data transfer overview
- Need local access?
 - local data access in Hamburg

- **standard analysis usually carried out with grid tools (e.g. CRAB)**
- **local data access of interest nevertheless:**
 - new users (without grid experience, grid certificate or neither) get to know CMS software
 - fast development of analysis code
- **overview on**
 - where to find the data you are interested in
 - how to find out which datasets reside at DESY



DBS data discovery page - Mozilla

File Edit View Go Bookmarks Tools Window Help

http://cmsdb.cern.ch/discovery/

Home CMS MBUE Analysis CMSSW CPT Computing Int... GRID Computing Meetings CERN DESY Uni HH PSI

http://c...h/CMS/ DESY Datebook Indico [CMS me... KEXP 90.3 FM ... Google Calendar Job summary Production Dat... LEO Ergebnis... DBS data disco...

DBS/DLS DATA DISCOVERY PAGE Home page: [users experts](#)

Navigator

Keyword search

History

About...

Hide panel

Navigator menu

Tier sites All

Application /CMSSW_1_0_5/RECO/cmsRun

Primary dataset CSA06-105-os-minbias13-0

Data tier All

Find

DBS glossary

CMS data discovery. Author: [Valentin Kuznetsov](#).
This page was generated at: Fri Nov 3 14:20:28 2006

choose an application and primary dataset
and hit the FIND button

DBS data discovery page - Mozilla

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DBS/DLS DATA DISCOVERY PAGE Home page: [users experts](#)

Navigator

Keyword search

History

About...

Hide panel

Navigator menu

Tier sites: All

Application: /CMSSW_1_0_5/RECO/cmsRun

Primary dataset: CSA06-105-os-minbias13-0

Data tier: All

Find

DBS glossary

Results Parents Validation Parameter Set Release Specs

Processed datasets (plain view):

[/CSA06-105-os-minbias13-0/RECO/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370](#)

contains 1532562 events, 478 files, 1.1 TB.

Show: Blocks Summary Both

row	Location	Events	Files	size
1	srn-dcache.desy.de	1532562	478	1.1TB
2	thpc-1.uni.edu	1532562	478	1.1TB
3	cmsrm.fnal.gov	1532562	478	1.1TB

CMS data discovery. Author: [Valentin Kuznetsov](#).
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datasetpath in crab.cfg

learn more about the path by hitting "Blocks"

DBS data discovery page - Mozilla

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DBS/DLS DATA DISCOVERY PAGE Home page: [users experts](#)

Navigator

Keyword search

History

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Hide panel

Navigator menu

Tier sites: All

Application: /CMSSW_1_0_5/RECO/cmsRun

Primary dataset: CSA06-105-os-minbias13-0

Data tier: All

Find

DBS glossary

Results Parents Validation Parameter Set Release Specs

Processed datasets (plain [view](#)):

[/CSA06-105-os-minbias13-0/RECO/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370](#)

contains 1532562 events, 478 files, 1.1TB.

Show: [Blocks](#) [Summary](#) [Both](#)

row	Location	Events	Files	status	size	LFN list	Block name
1_1	srm-dcache.desy.de	1532562	478	closed	1.1TB	cff, plain	/CSA06-105-os-minbias13-0/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370#99a8f771-d1ae-49f7-a745-86fa3d226004
2_1	thpc-1.unl.edu	1532562	478	closed	1.1TB	cff, plain	/CSA06-105-os-minbias13-0/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370#99a8f771-d1ae-49f7-a745-86fa3d226004
3_1	cmssrm.fnal.gov	1532562	478	closed	1.1TB	cff, plain	/CSA06-105-os-minbias13-0/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370#99a8f771-d1ae-49f7-a745-86fa3d226004

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get the list of logical file names by clicking "plain"

DBS data discovery page - Mozilla

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DBS/DLS DATA DISCOVERY PAGE Home page: users experts

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DBS gloss

Results

Processed datasets (plain view)

/CSA06-105-os-minbias13-0/

contains 1532562 events, 476

Show: Blocks Summary B

row	Location
1_1	srm-dcache.desy.de
2_1	thpc-1.unl.edu
3_1	cmssrm.fnal.gov

for datasets at DESY: append this path to
dcap://dcache-dr01.desy.de/pnfs/desy.de/cms/SC4/data
direct access with ROOT and/or CMSSW possible

CMS data discovery. Author: Valentin Kuznetsov.
This page was generated at: Fri Nov 3 14:20:28 2006

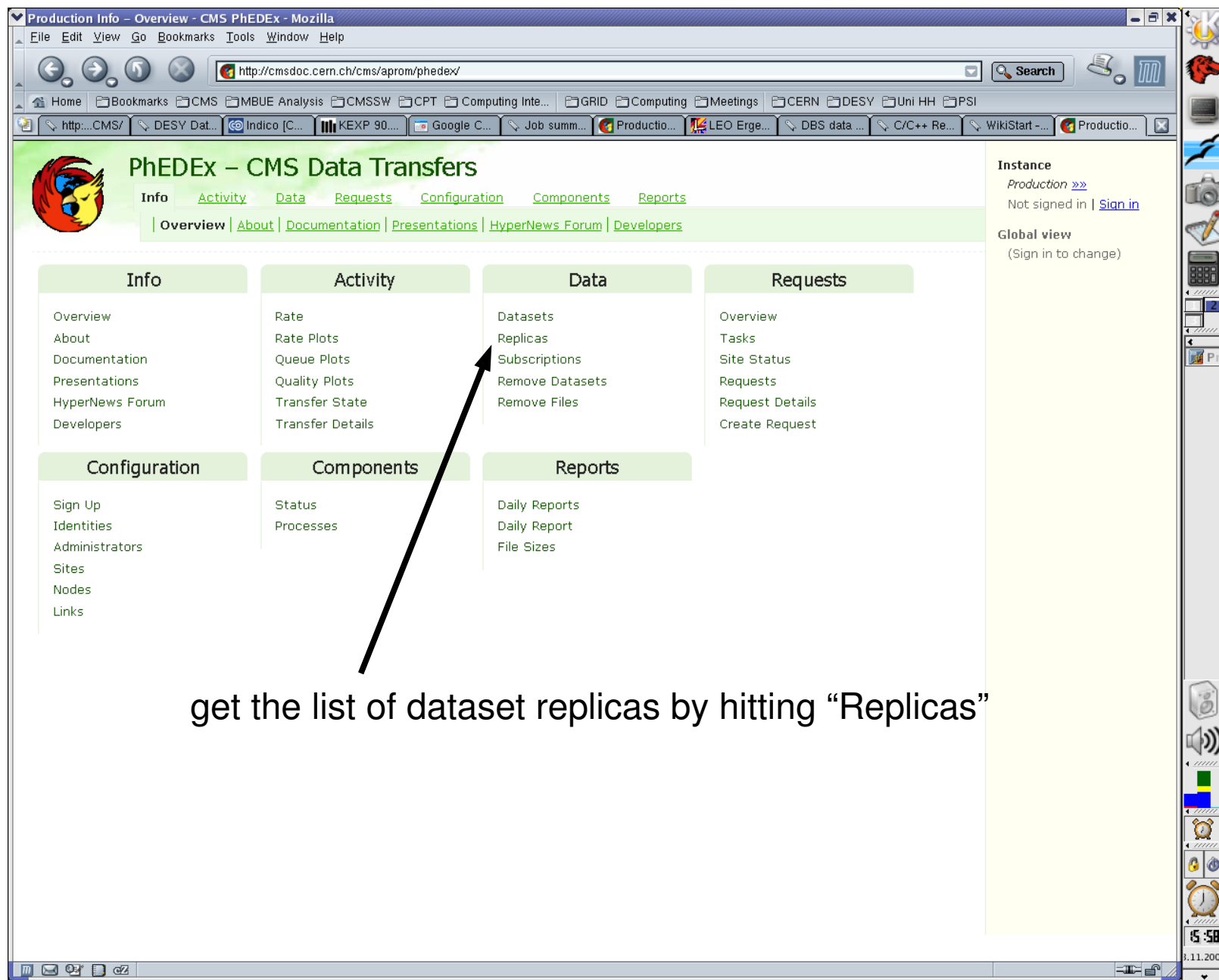
javascript:popUp("http://cmsdb.cern.ch/discovery/getLFN_tx1?dbsInst=MCGlobal/Writ...6-105-os-minbias13-0/RECO/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370_900")

Bare ROOT access:

```
root [1] gSystem->Load("libIOPoolTFileAdaptor");
root [2] TFile *_file0 = TFile::Open("dcap://dcache-
dr01.desy.de/pnfs/desy.de/cms/SC4/data/store/CSA06/CSA06-105-os-
minbias-0/RECO/CMSSW_1_0_5-RECO-
H746ee88eddaa52306cd016b2f689e370/1019/00DEAC4A-255F-DB11-B3E2-
0002B3AFAF99.root");
```

in CMSSW.cfg:

```
source = PoolSource {
    untracked vstring fileNames = { 'dcap://dcache-
dr01.desy.de/pnfs/desy.de/cms/SC4/data/store/CSA06/CSA06-105-os-
minbias-0/RECO/CMSSW_1_0_5-RECO-
H746ee88eddaa52306cd016b2f689e370/1019/00DEAC4A-255F-DB11-B3E2-
0002B3AFAF99.root' }
    untracked int32 maxEvents = -1
}
```



Production Info – Overview – CMS PhEDEx – Mozilla

File Edit View Go Bookmarks Tools Window Help

<http://cmsdoc.cern.ch/cms/aprom/phedex/>

Home Bookmarks CMS MBUE Analysis CMSSW CPT Computing Inte... GRID Computing Meetings CERN DESY Uni HH PSI

http...CMS/ DESY Dat... Indico [C... KEXP 90... Google C... Job summ... Productio... LEO Erge... DBS data ... C/C++ Re... WikiStart -... Productio...

PhEDEx – CMS Data Transfers

Info Activity Data Requests Configuration Components Reports

Overview About Documentation Presentations HyperNews Forum Developers

Info

- Overview
- About
- Documentation
- Presentations
- HyperNews Forum
- Developers

Activity

- Rate
- Rate Plots
- Queue Plots
- Quality Plots
- Transfer State
- Transfer Details

Data

- Datasets
- Replicas
- Subscriptions
- Remove Datasets
- Remove Files

Requests

- Overview
- Tasks
- Site Status
- Requests
- Request Details
- Create Request

Configuration

- Sign Up
- Identities
- Administrators
- Sites
- Nodes
- Links

Components

- Status
- Processes

Reports

- Daily Reports
- Daily Report
- File Sizes

Instance
Production >>
Not signed in | [Sign in](#)

Global view
(Sign in to change)

get the list of dataset replicas by hitting “Replicas”

Production Data - Replicas - CMS PhEDEx - Mozilla

File Edit View Go Bookmarks Tools Window Help

http://cmsdoc.cern.ch/cms/aprom/phedex/prod/Data:Replicas?view=global

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PhEDEx - CMS Data Transfers

Info Activity Data Requests Configuration Components Reports

Datasets Replicas Subscriptions Remove Datasets Remove Files

Sources: MCGlobal² | MCGlobal³ | MCGlocal² | MCLocal^{1_1} | MCLocal^{1_2} | MCLocal^{2_1} | MCLocal^{2_2} | MCLocal^{3_1} | MCLocal^{3_2} | MCLocal^{4_1} | MCLocal^{4_2} | MTCC » other

Nodes: T0_CERN_MSS | T1_CERN_MSS » other

Name Filter

Name	T0_CERN_MSS	T1_CERN_MSS
/CSA06-081-os-minbias/DIGI/CMSSW_0_8_1-GEN-SIM-DIGI-1154005302-merged	-	-
/CSA06-081-os-minbias/SIM/CMSSW_0_8_1-GEN-SIM-DIGI-1154005302-merged	-	-
/CSA06-082-os-TTbar/DIGI/CMSSW_0_8_2-GEN-SIM-DIGI-1155826011-merged	-	-
/CSA06-082-os-TTbar/SIM/CMSSW_0_8_2-GEN-SIM-DIGI-1155826011-merged	-	-
/CSA06-082-os-ZMuMu/GEN/CMSSW_0_8_2-GEN-SIM-DIGI-1155826058-merged	-	-
/CSA06-083-os-EWKSoup/DIGI/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877645-merged	-	-
/CSA06-083-os-EWKSoup/GEN/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877645-merged	-	-
/CSA06-083-os-ExoticSoup/GEN/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877641-merged	-	-
/CSA06-083-os-Jets/DIGI/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877643-merged	-	-
/CSA06-083-os-SoftMuon/GEN/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877643-merged	-	-
/CSA06-083-os-Wenu/DIGI/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877644-merged	-	-
/CSA06-083-os-Wenu/SIM/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877644-merged	-	-
/CSA06-084-os-HLTSoup/DIGI/CMSSW_0_8_4-GEN-SIM-DIGI-HLT-1157592494-merged	-	-
/CSA06-084-os-HLTSoup/HLT/CMSSW_0_8_4-GEN-SIM-DIGI-HLT-1157592494-merged	-	-
/CSA06-102-os-EWKSoup/SIM/CMSSW_0_8_4-GEN-SIM-DIGI-HLT-1157592494-merged	-	-
/CSA06-102-os-EWKSoup0-0/RECO/CMSSW_1_0_2-RECO_He161069e60f9472aa003070c3d42e060	1812	-
/CSA06-102-os-minbias0-0/RECO/CMSSW_1_0_2-RECO_He161069e60f9472aa003070c3d42e060	480	-
/CSA06-102-os-minbias1-0/RECO/CMSSW_1_0_2-RECO_He161069e60f9472aa003070c3d42e060	438	-
/CSA06-102-os-minbias2-0/RECO/CMSSW_1_0_2-RECO_He161069e60f9472aa003070c3d42e060	465	-
/CSA06-102-os-minbias3-0/RECO/CMSSW_1_0_2-RECO_He161069e60f9472aa003070c3d42e060	451	-
/CSA06-102-os-minbias4-0/RECO/CMSSW_1_0_2-RECO_He161069e60f9472aa003070c3d42e060	465	-
/CSA06-102-os-minbias5-0/RECO/CMSSW_1_0_2-RECO_He161069e60f9472aa003070c3d42e060	427	-

Instance
Production »
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Global view
(Sign in to change)

Options

Show columns

- ☐ DBS
- ☒ Name
- ☐ Files
- ☐ Bytes
- ☐ Source

Node value

- ☐ Node blocks
- ☒ Node files
- ☐ Node bytes
- ☐ Destined blocks
- ☐ Destined files
- ☐ Destined bytes
- ☐ Missing blocks
- ☐ Missing files
- ☐ Missing bytes

Filter rows

- ☒ Show all rows
- ☐ Show interesting rows

Update

choose a node
(e.g. T2_DESY_Buffer T2_DESY_MSS)

have PhEDEx only show interesting rows

Production Data - Replicas - CMS PhEDEx - Mozilla

File Edit View Go Bookmarks Tools Window Help

http://cmsdoc.cern.ch/cms/aprom/phedex/prod/Data:Replicas?view=global&filter=&node=26&node=27&column=Name&nvalue=Node+fil

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http...CMS/ DESY Dat... Indico [C... KEXP 90... Google C... Job summ... Productio... LEO Erge... DBS data ... C/C++ Re... WikiStart... Productio...

PhEDEx - CMS Data Transfers

Info Activity Data Requests Configuration Components Reports

Datasets Replicas Subscriptions Remove Datasets Remove Files

Sources: MCGlobal² | MCGlobal³ | MCGlocal² | MCLocal¹₁ | MCLocal¹₂ | MCLocal²₁ | MCLocal²₂ | MCLocal³₁ | MCLocal³₂ | MCLocal⁴₁ | MCLocal⁴₂ | MTCC » other

Nodes: T2_DESY_Buffer | T2_DESY_MSS » other

Name	T2_DESY_Buffer	T2_DESY_MSS
» /CSA06-081-os-minbias/DIGI/CMSSW_0_8_1-GEN-SIM-DIGI-1154005302-merged	2953	
» /CSA06-081-os-minbias/GEN/CMSSW_0_8_1-GEN-SIM-DIGI-1154005302-merged	54	
» /CSA06-081-os-minbias/SIM/CMSSW_0_8_1-GEN-SIM-DIGI-1154005302-merged	230	
» /CSA06-082-os-TTbar/DIGI/CMSSW_0_8_2-GEN-SIM-DIGI-1155826011-merged	859	
» /CSA06-082-os-TTbar/SIM/CMSSW_0_8_2-GEN-SIM-DIGI-1155826011-merged	440	
» /CSA06-083-os-EWKSoup/DIGI/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877645-merged	372	
» /CSA06-083-os-Wenu/DIGI/CMSSW_0_8_3-GEN-SIM-DIGI-HLT-1156877644-merged	291	
» /CSA06-084-os-HLTSoup/DIGI/CMSSW_0_8_4-GEN-SIM-DIGI-HLT-1157592494-merged	419	
» /CSA06-103-os-EWKSoup0-0/RECO/SIM/CMSSW_1_0_4-hg_HiggsTau_1lFilter-1161045561	182	16
» /CSA06-103-os-EWKSoup0-0/RECO/SIM/CMSSW_1_0_4-hg_HiggsWW_SigFilter-1161045561	6	
» /CSA06-103-os-EWKSoup0-0/RECO/SIM/CMSSW_1_0_4-hg_HiggsWW_WWFilter-1161045561	3	
» /CSA06-103-os-EWKSoup0-0/RECO/SIM/CMSSW_1_0_4-hg_Tau_Zand1lFilter-1161045561	60	6
» /CSA06-103-os-EWKSoup0-0/RECO/SIM/CMSSW_1_0_4-hg_Higgs_m0L1Filter-1161784687	211	
» /CSA06-103-os-EWKSoup0-0/RECO/SIM/CMSSW_1_0_6-hg_Tau_Zand1lFilter-1161784687	379	3
» /CSA06-103-os-Jets0-0/FEVT/CMSSW_1_0_4-hg_HiggsTau_1lFilter-1161127916	-	
» /CSA06-103-os-TTbar0-0/FEVT/CMSSW_1_0_4-su_TTbar_2lC35et100ExoFilter-1161090157	62	6
» /CSA06-103-os-TTbar0-0/RECO/CMSSW_1_0_3-RECO_Hcc50df9a16717df4367a80c47fe190b8	1249	
» /CSA06-103-os-TTbar0-0/RECO/SIM/CMSSW_1_0_4-hg_HiggsTau_1lFilter-1161090157	63	6
» /CSA06-103-os-TTbar0-0/RECO/SIM/CMSSW_1_0_4-sm_TTbar_1muFilters-1161090157	31	3
» /CSA06-103-os-TTbar0-0/RECO/SIM/CMSSW_1_0_4-sm_TTbar_dilepton-1161090157	18	3
» /CSA06-103-os-minbias13-0/RECO/CMSSW_1_0_3-RECO_Hcc50df9a16717df4367a80c47fe190b8	133	
» /CSA06-105-os-minbias3-0/RECO/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370	261	26
» /CSA06-105-os-minbias13-0/RECO/CMSSW_1_0_5-RECO_H746ee88eddaa52306cd016b2f689e370	478	4
» /CSA06-106-os-SoftMuon0-0/RECO/CMSSW_1_0_6-RECO_Hee5e8972ca2b9fe5859521c27772ba77	-	
» /CSA06-106-os-ZMuMu0-0/ALCARECO/CMSSW_1_0_6-CSA06ZMuMuMuon_H3ded0a07bfd0450228a3006a0ff2e6a6	-	

get more information on dataset by hitting ">>"

Instance
Production »
Not signed in | Sign in

Global view
(Sign in to change)

Options

Show columns

- ☐ DBS
- ☒ Name
- ☐ Files
- ☐ Bytes
- ☐ Source

Node value

- ☐ Node blocks
- ☒ Node files
- ☐ Node bytes
- ☐ Destined blocks
- ☐ Destined files
- ☐ Destined bytes
- ☐ Missing blocks
- ☐ Missing files
- ☐ Missing bytes

Filter rows

- ☐ Show all rows
- ☒ Show interesting rows

Update

