

Finding Data On the Grid Using dq2 End-User Tools

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Workshop & Tutorial

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dq2 End-User Tools



- User interaction with the DDM system is via dq2 end-user tools:
 - querying, retrieving, creating datasets/dataset containers, etc.
- How to set up (on lxplus):
 - Setup dq2 client tools:
`source /afs/cern.ch/atlas/offline/external/GRID/ddm/DQ2Clients/setup.sh`
 - Create your grid proxy:
`voms-proxy-init --voms atlas`
- More info on setup at:
 - https://twiki.cern.ch/twiki/bin/viewauth/Atlas/SouthCaucasusComputingTutorial#Acquiring_data_with_DQ2_tools

How to Use, dq2-ls



- The most common used ones are dq2-ls and dq2-get
- Let's list available merge.AOD datasets with physics Muon stream in DDM system:

- `dq2-ls data10_7TeV.*.physics_Muons.merge.AOD.*` (bash shell)
- `dq2-ls data10_7TeV.*.physics_Muons.merge.AOD.*` (zsh shell)

`data10_7TeV.00160958.physics_Muons.merge.AOD.f282_m573`

`data10_7TeV.00160954.physics_Muons.merge.AOD.f282_m573`

`data10_7TeV.00160387.physics_Muons.merge.AOD.f280_m568`

`data10_7TeV.00162577.physics_Muons.merge.AOD.f287_m588`

`data10_7TeV.00165591.physics_Muons.merge.AOD.f292_m609`

`data10_7TeV.00165815.physics_Muons.merge.AOD.f293_m609`

`data10_7TeV.00165956.physics_Muons.merge.AOD.f294_m614`

`data10_7TeV.00166964.physics_Muons.merge.AOD.f296_m624`

`data10_7TeV.00160975.physics_Muons.merge.AOD.f282_m573`

...

- The one we'll use in the tutorial is:

`data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624`

How to Use, dq2-ls -r



- Let's query where the replicas of this dataset is located on the grid:
 - `dq2-ls -r data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624`

`data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624`

INCOMPLETE:

COMPLETE:

INFN-T1_DATADISK

FZK-LCG2_DATADISK

TOKYO-LCG2_DATADISK

GRIF-LAL_DATADISK

TRIUMF-LCG2_DATADISK

NDGF-T1_DATADISK

PIC_DATADISK

IN2P3-LPC_DATADISK

RAL-LCG2_DATADISK

TAIWAN-LCG2_DATADISK

IN2P3-CC_DATADISK

BNL-OSG2_DATADISK

...

How to Use, dq2-ls -f



- Let's query the files available in this dataset:
 - `dq2-ls -f data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624`

```
data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624
```

```
[ ] data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624._lb0485.1 62510904-84D9-DF11-BFA1-003048D375C6 ad:567e1e02 1818738612
```

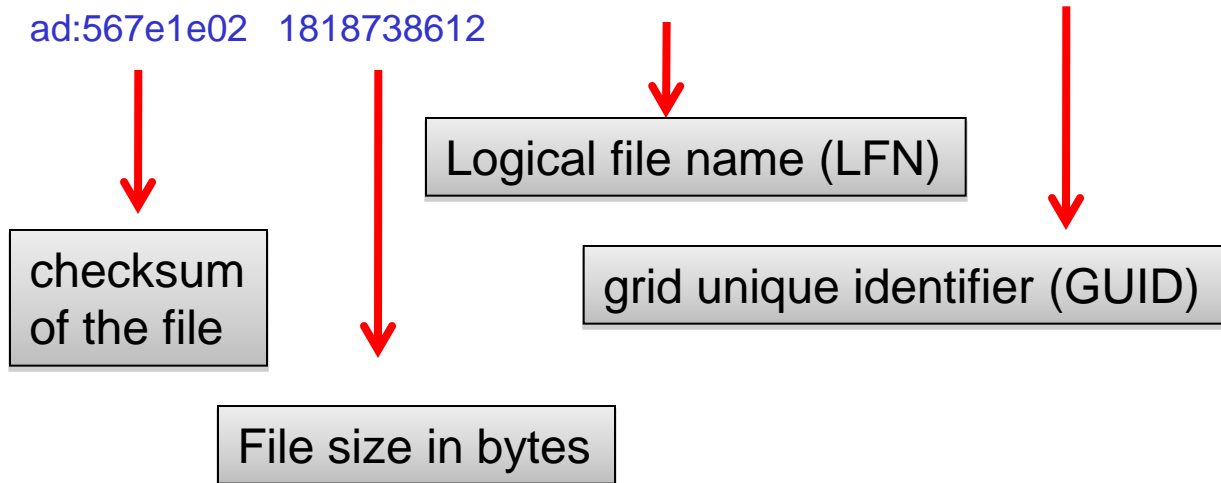
```
...  
...  
...
```

```
total files: 244
```

```
local files: 0
```

```
total size: 491980330286
```

```
date: 2010-10-17 02:00:29
```



How to Use, dq2-get



- Let's copy one file locally to test the analysis code:
 - `cd /tmp/$USER`
 - `dq2-get -n 1 data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624`
- Copy one specific file locally:
 - `dq2-get -f`
`data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624._lb0432.1`
`data10_7TeV.00166786.physics_Muons.merge.AOD.f296_m624`

More Information - DQ2ClientsHowTo



<https://twiki.cern.ch/twiki/bin/viewauth/Atlas/DQ2ClientsHowTo>

A screenshot of a web browser window displaying the ATLAS TWiki page for 'DQ2ClientsHowTo'. The browser's address bar shows the URL 'https://twiki.cern.ch/twiki/bin/viewauth/Atlas/DQ2ClientsHowTo'. The page header includes the ATLAS Experiment logo, a search bar, and navigation links. The main content area features a breadcrumb trail: 'TWiki > Atlas Web > AtlasComputing > AtlasDistributedComputing > DistributedDataManagement > DQ2ClientsHowTo (05-Oct-2010, DanielGeerts)'. Below the breadcrumb are 'Edit', 'Attach', and 'PDF' buttons, and a note stating 'Not yet Certified as ATLAS Documentation'. The title of the page is 'DQ2 Clients How To'. A list of links is provided, including 'I need help or support! What do I do?', 'General concepts' (with sub-links for Datasets and files, Versions, Dataset Containers, Physics Containers, Replicas, Sites, mass storage systems and SRM, and When to use dq2-get or DDM subscriptions), 'Installing/Initializing dq2 commands' (with sub-links for Installing dq2 commands, Initializing dq2 commands, and Initializing dq2 commands from CERN AFS repository), and 'Querying' (with sub-links for list all DDM sites, find a dataset, list the contents of a dataset, list the replica locations of a dataset, list the datasets at a site, list the files in a dataset, list the files in a dataset existing at a site, and list the physical filenames in a dataset). A sidebar on the left contains navigation links for ATLAS, ATLAS Homepage, ATLAS Collaboration, ATLAS TWiki, Public Results, Physics, Detectors, Trigger, Computing, Data Preparation, Documentation Help, Help, Glossary, and a search box. A red text overlay on the right side of the page reads 'Extensive info here'.

Extensive
info here