

## Analyzing 1x8 Data – First baby steps...

- Currently available data:

RECO output (t01.39.00)

RECO\_ANALYZE ROOT tuples (t01.39.00)

Available in SAM, project definitions defined

ROOT files available on SAM cache (i.e. on disk)

- How did I know?

Heidi announced to d0rug mailing list

*Everyone* who is going to analyze data should subscribe (see <http://listserv.fnal.gov/users.html>)

Mailing list archived (see <http://listserv.fnal.gov/archives/d0rug.html>)



 = "we" need better documentation

Date: Wed, 4 Apr 2001 11:16:32 -0400 Reply-To: Heidi Schellman <schellman@FNAL.GOV> Sender: D0RUG Mailing list <D0RUG@LISTSERV.FNAL.GOV>  
From: [Heidi Schellman <schellman@FNAL.GOV>](mailto:schellman@FNAL.GOV) Subject: data files from 1x8 store Comments: To: d0\_commissioning@fnal.gov, d0rug@fnal.gov Content-type: text/plain; charset=us-ascii

I've staged the data files from the 1x8 store and put links to them in  
/prj\_root/802/alg\_18/store1x8

Heidi

There is also a script getraw.py in that directory which, if you run it yourself will stage the sam files if they are not already on disk and create local links for you.

You run it via

setup sam sam run project getraw.py

If you are not in the algo group, you will need to put a group you belong to into getraw.py.

---

OR...

Looking at Heidi's script (getraw4.py), I see farm group is creating SAM "Dataset definitions" using "raw" in title.

So, go to SAM query page and look for %raw% datasets...



[http://d0ora1.fnal.gov/sam\\_data\\_browsing/](http://d0ora1.fnal.gov/sam_data_browsing/)

Follow [Dataset Definitions](#) link

Dataset Definitions Query Page - Microsoft Internet Explorer provided by SoftQuad Software Inc.

File Edit View Favorites Tools Help

Address a1.fnal.gov/sam\_data\_browsing/ProjectDefinitions.html

Links Google HotBot Sports ESPN

# SAM Dataset Definitions

[Clear Form](#) [Instructions](#)

Dataset Definition Name:

Persons First Name:

Persons Last Name:

Username:

Physics Work Group:

Started Before: (dd-mon-yyyy) Ex: 06-JUN-1999

Started On or After: (dd-mon-yyyy) Ex: 06-JUN-1999

Sort Order:

Maximum rows of output:  displaying  per page

Fetch Matching Dataset Definitions:

[Query Tips](#)

Build Edit Make

Done Internet

SAM Catalog Query Interface - Microsoft Internet Explorer provided by SoftQuad Software Inc.

File Edit View Favorites Tools Help

Address <http://d0ora1.fnal.gov/misweb/cgi/misweb.pl> Go

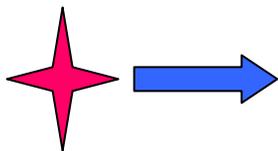
Links [Google](#) [HotBot](#) [Sports](#) [ESPN](#)

## SAM Catalog Web Query Interface

### SAM - Dataset Definitions

Name	CreateDate	Person	UserName	WorkGroup	Descripti
<a href="#">raw_run117125</a>	11-APR-01	Illingworth,Robert	illingwo	algo	
<a href="#">raw_run117430</a>	10-APR-01	duflot,laurent	duflot	dzero	raw data r 117430
<a href="#">raw_run117422</a>	09-APR-01	duflot,laurent	duflot	dzero	raw data r 117422
<a href="#">raw_run117425</a>	09-APR-01	duflot,laurent	duflot	dzero	raw data r 117425
<a href="#">raw_run117121</a>	09-APR-01	Illingworth,Robert	illingwo	algo	
<a href="#">root-raw-t01.39.00</a>	07-APR-01	schellman,heidi	schellma	algo	
<a href="#">reco-raw-t01.39.00</a>	07-APR-01	schellman,heidi	schellma	algo	
					process ra files from runs 117200-

Internet



- Get an area to do analysis:

WZ project area's - Ask Tom

University tmp area's - Ask your university "boss"

(My current area: /home/melanson/projects/wz/store1x8)

- I looked at Heidi's area, and there were 4 getraw scripts. Could have just used existing links to ROOT tuples, but thought I would try making my own.



getraw4.py gets "root-raw-t01.39.00" dataset - used that one.

```
% setup sam
```

```
% sam run project getraw4.py
```

Gets me latest files

- First attempt using root failed - found out I needed root 2.26 instead of 2.25 (I did "setup DORunI I p08.08.00" - need something like "setup DORunI I t01.40.00")



- Learn ROOT...
- I used the following links

[http://www-d0.fnal.gov/newd0/d0atwork/computing/tools/software\\_tools.html](http://www-d0.fnal.gov/newd0/d0atwork/computing/tools/software_tools.html)

[http://www-d0.fnal.gov/newd0/d0atwork/computing/tools/root/about\\_root.html](http://www-d0.fnal.gov/newd0/d0atwork/computing/tools/root/about_root.html)

[http://www-d0.fnal.gov/d0dist/dist/packages/muo\\_analyze/devel/doc/](http://www-d0.fnal.gov/d0dist/dist/packages/muo_analyze/devel/doc/)

- Created chain to analyze all files

## My file: Chain.C

```
{
TChain ch("Global");

ch.Add("files/recoA_reco_store_1x8_0000117103_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117105_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117106_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117112_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117114_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117116_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117117_002.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117117_003.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117129_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117132_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117132_002.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117133_001.raw_t01.39.00.root");
...

ch.Add("files/recoA_reco_store_1x8_0000117158_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117159_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117180_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117181_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117182_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117188_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117205_001.raw_t01.39.00.root");
ch.Add("files/recoA_reco_store_1x8_0000117206_001.raw_t01.39.00.root");

}
```



- What's in the ROOT files?
  - Created by reco\_analyze, which is a combination of many algo/object id analyze packages (I.e. muo\_analyze)
  - Went to Algorithms page, and followed links to Object ID pages

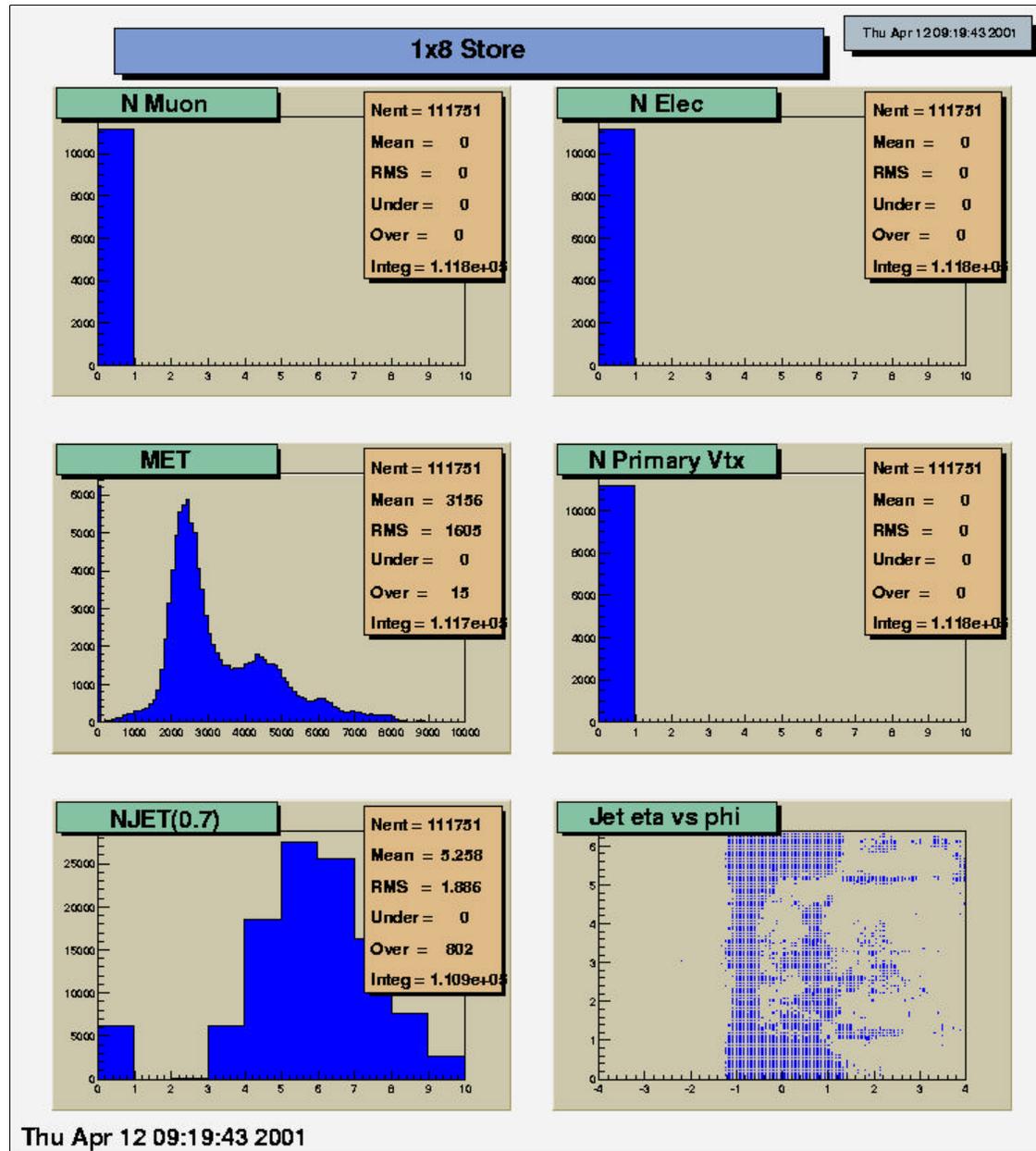
[http://www-d0.fnal.gov/d0dist/dist/packages/muo\\_analyze/devel/doc/](http://www-d0.fnal.gov/d0dist/dist/packages/muo_analyze/devel/doc/)

[http://www-d0.fnal.gov/phys\\_id/emid/d0\\_private/emid\\_docs.html](http://www-d0.fnal.gov/phys_id/emid/d0_private/emid_docs.html)

<http://www-d0.fnal.gov/d0dist/dist/releases/current/jetanalyze/doc/jetanalyze.html>

- Also could have looked for documentation in various analyze packages in software releases

Ta da.



## Why did I get these results ???

- Online logbook: <http://www-d0ol.fnal.gov/>

Tried [Scott's CRL Viewer](#), looked at last 20 days.

What about recoA\_reco\_store\_1x8\_0000117116\_001.raw\_t01.39.00.root  
Look for run number 117116:

Date: Thu Apr 5 23:52:23 2001

Operators: thomas Trefzger

Beam on at about 22:45. Started a global run with 3 trigger, 6 muon, 9 calorimeter, 1 cft and 2 smt crates. Had to stop and start again due to problems with mdt crates, L3 reset and removal of calorimeter crates 0x45 and 0x46. The first run number with the beam was **117116**. Currently taking run 117121.

- What about triggers? streams? Bad runs? Detector conditions? ...

I don't know where to look...



Tom Diehl gave us these hints in the meeting:

`/online/data/coor/state/*runnum*` gives the details of crates and triggers in the run.

`/online/data/runs/2001/04/05/*runnum*` gives the runs, streams, and number of events for April 5, 2001.



- Status of software

- Production releases are described on Algorithms page

<http://www-d0.fnal.gov/computing/algorithms/status/index.html>

- However, during this phase of data taking, most likely will use “t” releases – no page available

- Need to go to

Experiment Integration Meetings (Wed, 3-5, Ninth Circle)

Detector Meetings (see, e.g. D0 News)

Algorithms Meetings (Fri, off-weeks, 10:30-12, Ninth Circle)

Mailing lists: d0rug, d0algo

<http://listserv.fnal.gov/users.html>