Data Retrieval

Data analysis during shifts

During a shift, the DAQ writes data to the NAS in S20. **You must be on facet-srv20 to access the data!** The data can be found here:

```
[fphysics@facet-srv20 /nas/nas-li20-pm00 ]$ pwd
/nas/nas-li20-pm00
[fphysics@facet-srv20 /nas/nas-li20-pm00 ]$ ll -hrt
total 24K
drwxrwxr-x 3 fphysics facet 4.0K Jul 23 16:03 E300
drwxrwxr-x 3 fphysics facet 4.0K Jul 23 16:53 E326
drwxrwxr-x 3 fphysics facet 4.0K Aug 11 16:09 E305
drwxrwxr-x 3 fphysics facet 4.0K Aug 11 17:18 E320
drwxrwxr-x 3 fphysics facet 4.0K Aug 12 16:13 E327
drwxrwxr-x 4 fphysics facet 4.0K Aug 13 13:36 TEST
```

Data retrieval after shifts

Everyday at 10 AM, the data is transferred from the NAS to SLAC Central Computing where it is redundantly stored (no data loss). Both FACET and FACET-II data is located here:

```
sgess@rhel6-64c nas-li20-pm00 $ pwd
/nfs/slac/g/facetdata/nas/nas-li20-pm00
sgess@rhel6-64c nas-li20-pm00 $ ll -hrt
total 11M
drwxrwxr-x 4 fdata ar 512 Dec  7  2015 THz
drwxrwxr-x 3 fdata ar 512 Dec  7  2015 T506
drwxrwxr-x 3 fdata ar 512 Dec  7  2015 E214
drwxrwxr-x 4 fdata ar 512 Dec 10  2015 T504
drwxrwxr-x 4 fdata ar 512 Jan 12  2016 E210
drwxrwxr-x 5 fdata ar 512 Feb  6  2016 E217
drwxrwxr-x 4 fdata ar 512 Feb 13  2016 E212
drwxrwxr-x 4 fdata ar 512 Feb 13  2016 E209
drwxrwxr-x 5 fdata ar 512 Feb 14  2016 E201
drwxrwxr-x 3 fdata ar 512 Feb 14  2016 E204
drwxrwxr-x 5 fdata ar 512 Feb 14  2016 E224
drwxrwxr-x 5 fdata ar 512 Feb 14  2016 E200
drwxrwxr-x 3 fdata ar 512 Feb 18  2016 E215
drwxrwxr-x 4 fdata ar 512 Mar 24  2016 E225
drwxrwxrwx 3 fdata ar 512 Jul 23 16:03 E300
drwxrwxrwx 3 fdata ar 512 Aug 11 16:09 E305
drwxrwxr-x 5 fdata ar 512 Aug 13 13:36 TEST
drwxrwxrw- 2 fdata ar 512 Aug 14 15:04 E320
drwxrwxrw- 2 fdata ar 512 Aug 14 15:04 E326
drwxrwxrwx 3 fdata ar 512 Aug 15 12:13 E327
```

Transferring data (to local machine)

The best way to transfer data is to use the rsync command which is better than scp if the transfer gets interrupted.

To get the data, from your local machine do (for example):

```
rsync -av USERNAME@centos7.slac.stanford.edu:/nfs/slac/g/facetdata/nas/nas-li20-pm00/E301 .
```

The above command will download THE ENTIRETY OF THE E300 FOLDER! You will want to go further to figure out which dataset you actually need /want. To do so:

```
ssh USERNAME@centos7.slac.stanford.edu
ls /nfs/slac/g/facetdata/nas/nas-li20-pm00
```

The above will show all subfolders in nas-li20-pm00/ (such as E301).

To look inside E301:

```
ls /nfs/slac/g/facetdata/nas/nas-li20-pm00/E301
```

And so on. If I want the data from the 08091 run on 5/14/2024 of E301, I would do the following, which will download all of E301_08091/ into the directory the commandline is currently in.

```
rsync -av USERNAME@centos7.slac.stanford.edu:/nfs/slac/g/facetdata/nas/nas-li20-pm00/E301/2024/20240514
/E301_08091 .
```