



Date: September 26, 2002

Rev Date:

Project: Channel Archiving Maintenance

Doc. No: H020926A

Subject: Procedures for Maintaining Channel Archives

1. Overview

1.1. The present archiving for Calorimeter logs all channels every 5 minutes. At that rate the raw data files average about 600MegaBytes for 7 days of running. It is therefore convenient to stop and start a new archive every week. This document covers the procedures to follow to maintain the archives.

1.2. NOTE that these archives should be started and stopped by a d0cal user. Also the d0online and chan_archiver setup should be completed.

```
setup d0online
setup chan_archiver
```

2. Stopping the Archive

2.1. Each week the current running archive needs to be stopped. The following script is run in the /current directory to stop the process. I have this script in my root directory and run it to stop the archive.

```
stop_chan_archiver -p 4814
```

3. Remove Previous Data

3.1. We have been keeping the previous week of data in the /previous folder. Before the new data can be moved to this area the folder must be cleared out. While in the /previous folder issue this command to remove all the files and folders

```
rm -r *
```

4. Move Current to Previous

4.1. With the previous folder empty the current data can be moved there with this script.

```
chan_arch_move cal
```

5. Starting a New Archive

5.1. Run the following script to start a new archive.

```
setup_chan_archiver
cd /projects/archive/cal/current
start_chan_archiver -c config_file -p 4814 -w .
```

6. Determining if the Archiver is running

6.1. To see if the Archiver is running type this command on the machine running the process.

```
ps auxww | grep arch
```

This should return something similar to this...

```
d0rad 31924 0.3 0.2 11868 2532 ? S Sep25 4:52 /d0usr/products/chan_archiver/v1_9_1a/Linux/bin/ArchiveEngine config3
d0rad 31925 0.0 0.2 11868 2532 ? S Sep25 0:01 /d0usr/products/chan_archiver/v1_9_1a/Linux/bin/ArchiveEngine config3
d0rad 31926 1.4 0.2 11868 2532 ? S Sep25 19:58 /d0usr/products/chan_archiver/v1_9_1a/Linux/bin/ArchiveEngine config3
d0cal 14530 0.4 0.5 15332 5016 ? S 11:14 1:03 /d0usr/products/chan_archiver/v1_9_1a/Linux/bin/ArchiveEngine config4
d0cal 14531 0.0 0.5 15332 5016 ? S 11:14 0:00 /d0usr/products/chan_archiver/v1_9_1a/Linux/bin/ArchiveEngine config4
d0cal 14532 0.4 0.5 15332 5016 ? S 11:14 1:07 /d0usr/products/chan_archiver/v1_9_1a/Linux/bin/ArchiveEngine config4
```

It can be seen here that the three d0cal processes are running which are normal for the Archiver.

7. Restarting a Stopped Archive

7.1. Sometimes the Archiver stops for various reasons. If this happens it must be restarted in the following way.

- If the lock file is still present it must be removed.

```
rm archive_active.lck
```

Now restart the archive but use the directory name as one of the command line parameters. For example if the directory name is `dir.20011019-091652` type this..

```
start_chan_archiver -c config_file -p 4814 -w . -d dir.20011019-091652
```

8. Making a CDROM of the data

8.1. A copy of each week's data must be placed on a CDROM. A PC with a CD burner and running WRQ (X-Windows software with Kerberos) can be used to FTP the data to place it on the CD. The only current machine I know with FTP capability is d0ol02. Run FTP and copy the previously made archive to the PC and burn a CDROM disk. Additionally move the files to the archive hard drive for immediate access.

9. Viewing an Archive

9.1. The PC can view an archive using WinBrowser. Please refer to http://d0server1.fnal.gov/www/online_computing/online_computing.html PPT, PDF, or PS : 4-Apr-2001 - DØ Archiver Tutorial, Vladimir Sirotenko for detailed information on Archiving.

10. Hints and Shortcuts

10.1. To make the job of maintaining archives easier some scripts can be used.

10.1.1. Starting an Archive script

```
setup chan_archiver
cd /projects/archive/cal/current
start_chan_archiver -c config_file -p 4814 -w .
```

10.1.2. Stopping an Archive script

```
setup chan_archiver
cd /
cd /projects/archive/cal/current
stop_chan_archiver -p 4814
cd ..
```

10.1.3. Some useful setups for checking the Archive status

Add the following aliases :

```
archrunning    ps auxww | grep arch
arcstat source archstat
```

and script :

```
archstat
```

```
echo "Currently running the following processes-"
archrunning
echo "Archive files presently created"
la current_archive/20*
echo "Todays file name-"
dir /projects/archive/cal/current/`date +%Y%m%d`-000000
echo "Script finished"
```