

dunetpc - Feature #12906

Create service to remove coherent noise from ADC data

06/10/2016 07:15 AM - David Adams

Status:	Closed	Start date:	02/18/2016
Priority:	Normal	Due date:	02/18/2016
Assignee:	David Adams	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
Feature 12701 is providing a new service and module for data preparation. One step is to (optionally) remove coherent noise, i.e. to use signals in neighboring channels to estimate the noise BG in a channel and (perhaps) subtract it. This is needed for the 35-ton data.			
The task here is provide an interface for such a service and an implementation that replicates what is done by a module in the current 35-ton reconstruction.			
Related issues:			
Blocks dunetpc - Feature #12701: New module and services for raw data prepara...		Closed	05/18/2016
Follows dunetpc - Feature #11750: Interface for noise subtraction service		Closed	02/17/2016

History

#1 - 06/10/2016 07:17 AM - David Adams

- Blocks Feature #12701: New module and services for raw data preparation added

#2 - 06/10/2016 07:22 AM - David Adams

- Tracker changed from Task to Feature

#3 - 06/10/2016 07:23 AM - David Adams

- Follows Feature #11750: Interface for noise subtraction service added

#4 - 06/10/2016 11:01 AM - David Adams

The module used for the current noise subtraction resides in

```
dunetpc/dune/daqinput35t/FilterWF_module.cc
```

I have added the authors of that code (Brian Kirby and Michael Wallbank) to this ticket.

#5 - 06/15/2016 10:03 AM - David Adams

- Status changed from Assigned to Closed

The promised service is now implemented:

- Interface: `dunetpc/dune/DuneInterface/AdcNoiseRemovalService.h`
- Implementation: `dunetpc/dune/DataPrep/Service/Dune35tNoiseRemovalService.h`

A unit test is provided.

The data prep service has been updated to include the option to run noise removal via the interface.

I close this ticket.