

VME Intensity Monitor - Task #13962

ADC configuration commands for PXIE Toroids

09/28/2016 10:48 AM - John Diamond

Status:	Assigned	Start date:	09/28/2016
Priority:	Normal	Due date:	
Assignee:	John Diamond	% Done:	80%
Category:	Deploy & Config	Estimated time:	2.00 hours
Target version:		Spent time:	8.00 hours
Description			
Implement CLI commands for manipulating the following ADC registers:			
<ul style="list-style-type: none">• Sync Out Source (0x115)• Average Decimation Rate (0x2b7)• Decimation Sample Size (0x2b4)			
Use the commands to set the following values for the PXIE Toroid ADC -			
<ul style="list-style-type: none">• Sync Out Source = 0x00• Average Decimation Rate = 0x0000• Decimation Sample Size = 0x4000			
Also, with the existing commands -			
<ul style="list-style-type: none">• Sync Delay = 0x0000			

History

#1 - 09/28/2016 10:52 AM - John Diamond

Also, we we're at it we should add the following commands to and update the pxint startup script to use them in place of 'm' -

- ~~Window Size Multiplier~~
- Raw Data Decimation Rate (0x204)
- A32 address pointer (0xc... ??? - not sure why this is set as the DAQPool should be setting it)

#2 - 09/28/2016 01:34 PM - John Diamond

Strike Window Size multiplier, it's configurable via vmeintIntWindowSet(..).

#3 - 09/28/2016 05:01 PM - John Diamond

- % Done changed from 0 to 40

Moved ADC CLI commands from VMEIntCommands.cpp to VMEIntCommandsADC.cpp.
Implemented vmeintADCAvgDecRateSet(..) and vmeintADCRawAvgDecRateSet(..).

#4 - 09/30/2016 10:23 AM - John Diamond

- Category set to Deploy & Config

- Status changed from New to Assigned

- Assignee set to John Diamond

- % Done changed from 40 to 80

Created the following CLI commands:

```
vmeintADCSyncOutSourceSet adc_id, source_str
```

```
vmeintADCAvgDecRateSet adc_id, rate
```

```
vmeintADCRawDecRateSet adc_id, rate
```

```
vmeintADCAvgDecSizeSet adc_id, size
```

Configured the PXIE toroid ADCs (id: 0) as follows:

```
addMirrTorAdc 0, 0x0000 ;  
vmeintADCBaselineAvgSizeSet 0, 0  
vmeintADCSyncDelaySet 0, 0  
vmeintADCAvgDecRateSet 0, 0  
vmeintADCRawDecRateSet 0, 16  
vmeintADCAvgDecSizeSet 0, 0x4000  
vmeintADCSyncOutSourceSet 0, "sync_in"
```

(Startup script and new code are staged for testing at PXIE on Monday)