VME Intensity Monitor - Feature #12632

Milestone # 11965 (New): April Release - 201604A

Support new digitizer gate mode for ASTA

05/13/2016 09:39 AM - John Diamond

Status:	Resolved	**Start date:**	05/13/2016
Priority:	Normal	**Due date:**	
Assignee:	John Diamond	**% Done:**	100%
Category:	DAQ	**Estimated time:**	2.00 hours
Target version:		**Spent time:**	3.00 hours

Description

From Ning:

I added a new mode in the firmware for the ASTA toroids. I basically used a previously unused bit in the "Mode" register, (0x200, D8). The new firmware version is "BBB0B".

Can we please add an Acnet device that is a toggle switch that does the following:

When it's turned ON, set Mode register (0x200,D8) to 0x8A. This enables the digitizer to use the external Gate input to determine the number of bunches of beam being calculated.
When it's turned OFF, set Mode register (0x200,D8) to 0x88, which is the original run mode that we have been using.

Only one bit is changed, which is Bit 1 (2nd least significant bit) of the register. So I guess it could also be implemented by only setting and resetting that one bit. Whatever makes the most sense to you.

History

#1 - 05/13/2016 12:45 PM - John Diamond

- Status changed from New to Resolved

- % Done changed from 0 to 100

Implemented support for the BBB Gate Mode toggle bit. There are two methods for controlling the BBB gate mode:

Command Line

- Login to nmltor
- To enable (where devId is the intensity device ID):

```
vmeintADCBBBGateModeEnable devId
```

- To disable:

```
vmeintADCBBBGateModeDisable devId
```

ACNET (via N:Tnnn)

- Digital status block reports the BBB Gate Mode in bit 19
- Digital control block has two commands: Enable BBB Gate Mode and Disable BBB Gate Mode

NOTE: Since the bit controls the gate mode for the entire ADC board, enabling/disabling the BBB Gate Mode for N:T102, N:T105 and N:T124 affects the two other devices as well.