

VME Intensity Monitor - Feature #11843

Milestone # 11650 (Closed): Mar 2016 Release A - 201603A

PXIE MPS support

02/29/2016 12:57 PM - John Diamond

Status:	Closed	Start date:	02/29/2016
Priority:	Normal	Due date:	
Assignee:	John Diamond	% Done:	100%
Category:	MPS	Estimated time:	0.00 hour
Target version:		Spent time:	15.50 hours
Description			
Integrated support for the PXIE Machine Protection System that Ning implemented in digitizer firmware ABB0B.			
(See Y:\Public\PXIE\Toroid_Digitizer\125MHz_Digitizer_Firmware_Description_ABB0B.pdf)			

History

#1 - 03/01/2016 12:23 PM - John Diamond

- % Done changed from 0 to 30

Implemented driver-level support for MPS functions in ABB0B firmware.

#2 - 03/01/2016 01:38 PM - John Diamond

- % Done changed from 30 to 40

Implemented CLI command for setting MPS thresholds - `vmeintMPSThresholdsSet(intenId, lower, upper)`

#3 - 03/01/2016 02:39 PM - John Diamond

Implemented CLI commands for enabling/disabling the MPS for an intensity device -

- `vmeintMPSEnable(deviceId)`
- `vmeintMPSDisable(deviceId)`

#4 - 03/01/2016 07:30 PM - John Diamond

- % Done changed from 40 to 50

Implemented a MPS section for `vmeintShow()`.

#5 - 03/02/2016 10:34 AM - John Diamond

Implemented a CLI command for resetting all MPS boards - `vmeintMPSReset()`

#6 - 03/02/2016 01:56 PM - John Diamond

- % Done changed from 50 to 60

Implemented a CLI command for setting the MPS alarm signal frequency - `vmeintMPSAlarmFreqSet(device_id, freq_hz)`

#7 - 03/02/2016 05:55 PM - John Diamond

- % Done changed from 60 to 70

Implemented the following ACNET properties for MSP features:

- In MPSACNET:
 - Upper & Lower threshold reading and setting properties
 - Alarm frequency reading and setting properties
- In IntensityAccessor:
 - MPS Reset command for the control property
 - MPS Tripped bit for the status property

Bench testing to follow...

#8 - 03/03/2016 11:00 AM - John Diamond

- % Done changed from 70 to 80

Creates some ACNET devices for testing MPS features on nbeam:

- Z:TOR990, MPS Tripped bit added to status property
- Z:TOR990, MPS Reset command added to control property
- Z:990MPF, MPS alarm signal frequency
- Z:990MPL, MPS lower threshold
- Z:990MPU, MPS upper threshold

#9 - 03/15/2016 02:47 PM - John Diamond

- Status changed from Assigned to Closed

- % Done changed from 80 to 100

Verified upper and lower thresholds working on nbeam. Enabled MPS for Z:TOR990 and left it in nbeamstartup.