VME Intensity Monitor - Milestone #11150

PXIE - ABB ADC Support

12/15/2015 01:58 PM - Roger Tokarek

Status:	Closed	**Start date:**	12/15/2015
Priority:	Normal	**Due date:**	12/16/2015
Assignee:	Roger Tokarek	**% Done:**	100%
Category:		**Estimated time:**	8.00 hours
Target version:		**Spent time:**	2.00 hours

Description

Engineering requests we replace the existing BBB ADC in pxint with an ABB ADC mimicking mi30tor.

History

#1 - 12/15/2015 02:30 PM - Roger Tokarek

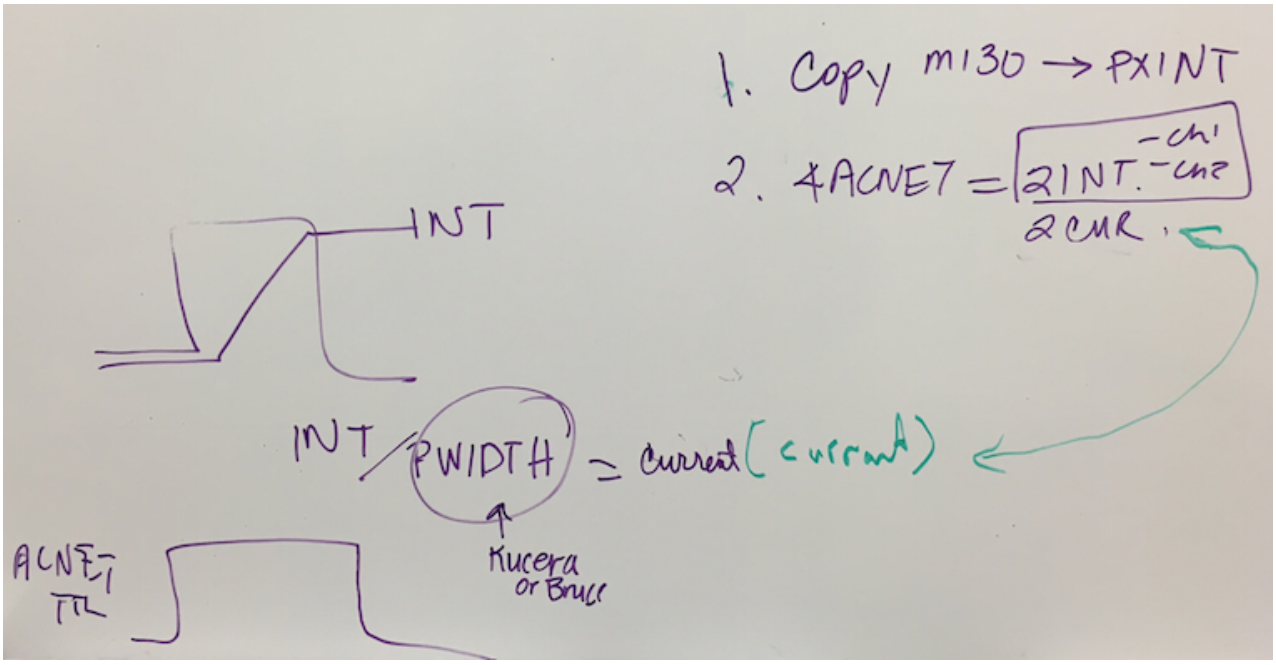
- File img_3239.png added

From Aisha:

Would like this finalized by end January. Useful now as a platform for both software and hardware studies.

- Step 1: Copy mi30tor to pxint with ABB02 Firmware.
- Step 2: Acnet should continue to display current (2 devices).
- Step 3: Short term current (I) display: Bob Kucera or Bruce Hanna may have an Acnet device that provides the current width from a TTL signal. If so, use this value to calculate the current.
- Step 4: Long term current (I) display: Ning will read the width from the TTL or Acnet device and make it available in a register.

current = intensity/width



#2 - 12/16/2015 03:34 PM - Roger Tokarek

Reference D150 pxie <1> or I34 toroid <24>

Ning installed a new ADC in the pxint crate, F/W **ABB02**, base address **0x4000**.

A new pxintstartup script has been created modeled on mi30torstartup. A copy of the original pxintstartup (F/W A09) has been archived in Git as pxintstartupBBBoriginal - yes, the name should have been A09, not BBB.

As of Dec 2015 pxie has only one toroid reporting and that is to Channel 1, Z:PXINT2 and Z:PXCUR2. A test signal is displayed on Channel 0, Z:PXINT1 and Z:PXCUR1.

Next Steps

- Make the pulse width available to pxint to calculate current.
- Calculate current.
- Provide latched current.
- Rename Z Acnet devices to Pxie requests, contact Bruce.

#3 - 12/18/2015 10:07 AM - Roger Tokarek

- % Done changed from 0 to 20

#4 - 08/03/2016 10:21 AM - Roger Tokarek

- Status changed from New to Resolved

- % Done changed from 20 to 100

#5 - 10/13/2016 02:30 PM - Elliott McCrory

- Status changed from Resolved to Closed

Files

img_3239.png	370 KB	12/15/2015	Roger Tokarek