

## adinstbpm - Milestone #19607

Milestone # 20350 (New): IOTA BPM deployment

### IOTA ACNET Interface

04/09/2018 02:30 PM - John Diamond

<b>Status:</b>	New	<b>Start date:</b>	04/09/2018
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	83%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>Spent time:</b>	58.70 hours
<b>Description</b>			
An ACNET interface for the IOTA BPM system.			
Where the Booster ACNET interface was designed to work with the existing console application, the IOTA interface will be starting fresh and we will have more control over it's design.			
<b>Subtasks:</b>			
Task # 19608: Crate status and control device			Work in progress
Task # 20520: IOTA BPM TBT Array Device			Assigned
Task # 20521: IOTA BPM Raw Array Device			Closed
Task # 20522: ACNET device for Arming IOTA BPMs			Assigned
Task # 20663: Separate IOTA ACNET code from BoosterBPMACNET.C and BoosterCrateACNET.C			Work in progress
Task # 20664: Orbit structure device for IOTA BPMs			Work in progress

### History

#### #1 - 07/18/2018 02:04 PM - John Diamond

- Parent task set to #20350

#### #2 - 08/03/2018 09:12 AM - John Diamond

Some specs from Nathan via e-mail:

For each bpm (4 ch) :  
xxxx are the bpm location identifiers  
N is as big as we can make it (8k?)

Turn by turn arrays for selected bunch (1-4) (h=4)  
N:IPBMBN - bunch number select for all bpm's  
N:IxxxxH[0:N] - horizontal positions, 0 is average over threshold  
N:IxxxxV[0:N] - vertical positions, 0 is average over threshold  
N:IxxxxS[0:N] - sum intensity signal, 0 is average over threshold  
N:IxxxxA[0:N] - A button magnitudes, 0 is average over threshold  
N:IxxxxB[0:N] - B button magnitudes, 0 is average over threshold  
N:IxxxxC[0:N] - C button magnitudes, 0 is average over threshold  
N:IxxxxD[0:N] - D button magnitudes, 0 is average over threshold

Raw Data Readback by "paging" bpm raw data readback  
N:IBPMBN - index for selecting bpm to read (1-21)  
N:IBPMPG - page to report from each channel (1-16) to support up to 128k samples  
N:IBPMRA[0:N] - Raw ADC samples for channel A for selected bpm  
N:IBPMRB[0:N] - Raw ADC samples for channel B for selected bpm  
N:IBPMRC[0:N] - Raw ADC samples for channel C for selected bpm  
N:IBPMRD[0:N] - Raw ADC samples for channel D for selected bpm

Other ACNET controls?  
- software arm or TCLK arm control  
- some way to implement buffers for TBT data  
- orbit data...

#### #3 - 08/03/2018 09:15 AM - John Diamond

- Due date set to 08/03/2018

due to changes in a related task: [#20520](#)

**#4 - 08/03/2018 09:19 AM - John Diamond**

- *Due date set to 08/03/2018*

due to changes in a related task: [#20521](#)

**#5 - 08/03/2018 09:23 AM - John Diamond**

- *Due date set to 08/03/2018*

due to changes in a related task: [#20522](#)

**#6 - 08/22/2018 08:45 PM - John Diamond**

- *Due date set to 08/22/2018*

due to changes in a related task: [#20664](#)