

## artdaq - Feature #20388

**Create one or more simple\_test\_configs that are as similar to protoDUNE DAQ that we can get and stress test them on the Mu2e Pilot cluster**

07/21/2018 05:35 PM - Kurt Biery

<b>Status:</b>	Work in progress	<b>Start date:</b>	07/21/2018
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>Co-Assignees:</b>	
<b>Experiment:</b>	-		
<b>Description</b>			
It should have as many BoardReaders as is feasible, 8-16 EventBuilders, a Dispatcher, and online monitoring.			
It should use as many Mu2edaq cluster nodes as is feasible, ideally 4-6 or more.			
It should include the RoutingMaster.			
It should support 100MB+ events at tens of Hz.			
Stress tests should include:			
<ul style="list-style-type: none"><li>• running for days</li><li>• starting and stopping runs without reconfiguring, for days</li><li>• times of extreme backpressure</li><li>• instances of BoardReaders dropping out</li><li>• killing (or sigstop-ing) a BoardReader process and seeing that the system continues to run, and Stops (end-run) cleanly</li><li>• killing and/or stopping an EventBuilder process and seeing that the system continues to run, and Stops (end-run) cleanly</li></ul>			

### History

#### #1 - 07/21/2018 05:35 PM - Kurt Biery

- Subject changed from *Create a simple\_test\_config that is as similar to protoDUNE DAQ that we can get and stress test it on the Mu2e Pilot cluster* to *Create one or more simple\_test\_configs that are as similar to protoDUNE DAQ that we can get and stress test them on the Mu2e Pilot cluster*

#### #2 - 07/21/2018 06:24 PM - Kurt Biery

- Tracker changed from *Bug* to *Feature*

#### #3 - 07/23/2018 09:17 PM - Kurt Biery

- Priority changed from *Normal* to *High*

#### #4 - 07/25/2018 01:34 PM - Ron Rechenmacher

At this point the simple\_test\_config/mediumsystem\_with\_routing\_master is the primary "simple config"

#### #5 - 08/01/2018 01:56 PM - Kurt Biery

- Status changed from *New* to *Work in progress*

branch in artdaq\_daqinterface called mu2edaq\_stresstest

the simple\_config name is protodune\_mock\_system.

24 components ( 1 in push, 4kfragments; even numbered components 1 MB, rest 15 MB fragments)

16 EBs

Routing Master

25 Hz

total rate of 5000 MB/s ; will saturate 4 EB nodes

no disk writing

without disk writing, there should be no back-pressure in this system.