

artdaq Utilities - Bug #21919

If a process dies or enters an error state during boot or config, the run should not proceed

02/18/2019 03:44 PM - John Freeman

Status:	Reviewed	Start date:	02/18/2019
Priority:	Normal	Due date:	
Assignee:	John Freeman	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour
Experiment:	-	Co-Assignees:	Eric Flumerfelt
Description			
As described in Issue #21695 , unless explicitly told otherwise DAQInterface will continue running if a process dies or throws an exception. While this is a good idea from the perspective of keeping a run going, the way DAQInterface is currently coded up, not only will it not break out of the "running" state if a process dies or goes into error, it also won't break out of the "configuring" state either! It seems reasonable that if something goes wrong before we even begin running, that's grounds for DAQInterface refusing to enter the running state.			

Associated revisions

Revision 10c6499c - 03/02/2019 05:33 PM - John Freeman

JCF: to satisfy Issue #21919, if any process dies when we're in booted or ready, DAQInterface returns to stopped.

History

#1 - 02/27/2019 02:46 PM - John Freeman

I'll narrow the scope of this Issue, as I was overly pessimistic about the behavior of DAQInterface in the event of artdaq process problems before running. The remaining concern before running is if an artdaq process we want in a run dies, DAQInterface should refuse to proceed to the run. If, however, an artdaq process **undergoing the init or the start transitions** dies or throws an exception, DAQInterface will already refuse to proceed to the running state. E.g., if an exception is thrown in a fragment generator's constructor or start() function, you'll see:

```
Exception: An exception was thrown during the Init transition as at least one of the artdaq processes didn't achieve its desired state
```

and DAQInterface will enter recovery. And if the boardreader dies in the fragment generator's constructor or start() function, you'll see something like:

```
error: [Errno 111] Connection refused
```

```
Exception caught sending Start transition to artdaq process component02 at localhost:11100
```

#2 - 03/02/2019 05:40 PM - John Freeman

- % Done changed from 0 to 100

- Status changed from New to Resolved

With commit 10c6499c41f9e4b21c2e9aeaab98fb4e1c0beb68 on the branch feature/issue21919_dont_start_run_if_problem, it's now the case that if we're not in the running state, any artdaq process dying will result in DAQInterface returning to the stopped state.

#3 - 03/02/2019 06:05 PM - John Freeman

Crucial point: the change in behavior here applies when we've set DAQINTERFACE_PROCESS_MANAGEMENT_METHOD to "direct".

#4 - 03/21/2019 09:04 AM - Eric Flumerfelt

- Status changed from Resolved to Reviewed

- Co-Assignees Eric Flumerfelt added

Code review and differential testing complete. Merged into develop.