

artdaq Utilities - Feature #24129

DAQInterface should allow for the possibility of a trace script executing before start and after stop

03/04/2020 03:29 PM - John Freeman

Status:	Closed	Start date:	03/04/2020
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:	

Description

A while ago, on Ron's request, I gave DAQInterface the ability to execute a script `"/nfs/sw/control_files/trace/trace_control.sh"` on the ProtoDUNE cluster. It was suggested at this week's meeting that this be made a generic feature for all experiments. After conversation with Ron, we agreed on the following:

- The name of the script should be set by an optional environment variable, `DAQINTERFACE_TRACE_SCRIPT`
- Since `/nfs/sw/control_files/trace/trace_control.sh` doesn't contain any experiment-specific info, it should be added somewhere in the DAQInterface repo if people want to use it
- If the script returns nonzero, DAQInterface should throw an exception rather than merely printing out a warning

Associated revisions

Revision 0bfe126e - 03/04/2020 04:23 PM - John Freeman

JCF: Issue #24129: add check for `DAQINTERFACE_TRACE_SCRIPT` variable

Revision a6e3bafb - 03/06/2020 01:24 PM - John Freeman

JCF: Issue #24129: if the `bin/trace_control.sh` script is run as-is, have it exit out immediately with an error message explaining why this can't be done

Revision 85db0201 - 03/06/2020 02:38 PM - John Freeman

JCF: Issue #24129: finalize support for `DAQINTERFACE_TRACE_SCRIPT`, including appropriate error messages for when things aren't set up correctly

Revision a5852f83 - 03/12/2020 01:31 PM - John Freeman

JCF: Issue #24129: add check for `DAQINTERFACE_TRACE_SCRIPT` variable

Revision 4e7952c7 - 03/12/2020 01:31 PM - John Freeman

JCF: Issue #24129: if the `bin/trace_control.sh` script is run as-is, have it exit out immediately with an error message explaining why this can't be done

Revision a899ac8a - 03/12/2020 01:31 PM - John Freeman

JCF: Issue #24129: finalize support for `DAQINTERFACE_TRACE_SCRIPT`, including appropriate error messages for when things aren't set up correctly

History

#1 - 03/06/2020 02:48 PM - John Freeman

- % Done changed from 0 to 100

- Status changed from New to Resolved

Resolved with commit `85db020188d47700102b40b00e9ac3f88a1791cc` at the head of `feature/24129_trace_script`. If the user defines a script `$DAQINTERFACE_TRACE_SCRIPT`, DAQInterface will execute it just before sending the start transitions to the artdaq processes and just after sending the stop transitions to the artdaq processes with an argument list that looks, e.g., like the following:

```
/home/jcfree/Documents/trace_control.sh /tmp/delete_this_trace --run 3526 --transition start --node-list="mu2e
daq13 mu2edaq12 localhost"
```

The following conditions have to hold, however, otherwise you'll get an error condition if you've got `DAQINTERFACE_TRACE_SCRIPT` defined for DAQInterface:

- The file `$DAQINTERFACE_TRACE_SCRIPT` actually has to exist

- TRACE_FILE must be defined in the DAQ setup script
- The trace script, when executed, must return 0
- The trace script must not be in a subdirectory of the ups/git repo itself (pointed to by \$ARTDAQ_DQINTERFACE_DIR)

A sample trace_control.sh script has been added to the bin/ subdirectory of the DAQInterface package. Note that you can't execute it as-is, both because its location violates the location rule described above, and also because there's ProtoDUNE-cluster specific code in it.

#2 - 03/13/2020 01:59 PM - Gennadiy Lukhanin

- Status changed from Resolved to Reviewed

Capturing of trace buffers works as expected. I ran tests on mu2edaq13 and icarus. However, there is a small wrinkle -- no errors are reported if the directory pointed by the trace_control_logfile variable in trace_control.sh does not exist. I've cut a test release v3_07_02CH11c7c4 and deployed it to /software/product_dev for icarus and sbnd.

#3 - 11/30/2020 12:32 PM - Eric Flumerfelt

- Status changed from Reviewed to Closed