artdaq Demo - Idea #20982

Iterate artdaq_database into quick-mrb-start.sh / run_demo.sh.

09/28/2018 04:56 PM - Gennadiy Lukhanin

Status:	Assigned		**Start date:**	09/28/2018
Priority:	Normal		**Due date:**	
Assignee:	Gennadiy Lukhanin		**% Done:**	80%
Category:	Needed Enhancements		**Estimated time:**	0.00 hour
Target version:				

Description

Add an option to the quick-mrb-start.sh script that would create an instance of artdaq_database and populate it with default test configurations so they can be used by run_demo.sh.

History

#1 - 11/05/2018 10:49 AM - Eric Flumerfelt

- Project changed from artdaq to artdaq Demo

- Target version set to artdaq_demo v3_04_00

- Experiment deleted (-)

I think this should be the defining feature of the v3_04_00 release.

#2 - 01/30/2019 08:48 PM - Gennadiy Lukhanin

- % Done changed from 0 to 80

- Assignee set to Gennadiy Lukhanin

- Status changed from New to Assigned

- Category set to Needed Enhancements

Instructions for testing the integration of run_demo.sh with artdaq_database.

http://scisoft.fnal.gov/scisoft/packages/artdaq_database/v1_04_68/

1. Install and test artdaq_demo; take a note of its qualifiers.
2. Download and install a new version of artdaq_database with the same qualifiers as artdaq_demo into the $MRB_TOP/products directory.

```
source ./setupARTDAQDEMO
cd $MRB_TOP/products
wget http://scisoft.fnal.gov/scisoft/packages/artdaq_database/v1_04_68/artdaq_database-1.04.68-slf7-x86_64
-e15-s64-prof.tar.bz2 -qO- | tar jxvf
```

3. Change the current branch of artdaq_demo to feature/lukhanin_artdaqdb_integration.

```
cd $MRB_TOP/srcs/artdaq_demo
git checkout feature/lukhanin_artdaqdb_integration
```

4. Rebuild and install artdaq_demo.

```
cd $MRB_TOP; mrb b -j32; mrb i
```

5. If run_demo.sh is in the $MRB_TOP directory then copy configure_artdaq_database.sh and run_demo.sh to $MRB_TOP.

```
cp $(find localProducts_* -name configure_artdaq_database.sh) ./
cp $(find localProducts_* -name run_demo.sh) ./
chmod a+x ./run_demo.sh
```

   Note: this step will not be required after the feature/lukhanin_artdaqdb_integration branch is merged into the HEAD of the develop branch.
6. Comment out the put_config_info_base function in $MRB_TOP/artdaq-utilities-daqinterface/rc/control/config_functions_database_v2.py

```
diff --git a/rc/control/config_functions_database_v2.py b/rc/control/config_functions_database_v2.py
index e2d1e35..aa16cfa 100644
--- a/rc/control/config_functions_database_v2.py
+++ b/rc/control/config_functions_database_v2.py
@@ -70,7 +70,7 @@ def get_config_info_base(self):

 def put_config_info_base(self):
-
+    """
     scriptdir = os.environ["ARTDAQ_DAQINTERFACE_DIR"] + "/utils"

     if not os.path.exists( scriptdir ):
@@ -128,7 +128,7 @@ def put_config_info_base(self):
         proc_types = ["BoardReader", "EventBuilder", "DataLogger", "Dispatcher", "RoutingMaster"]

         proc_line = {}
-
+
         with open("%s/ranks.txt" % (runrecord)) as ranksfile:
             for line in ranksfile.readlines():
                 res = re.search(r"^\s*(\S+)\s+([0-9]+)\s+(\S+)\s+([0-9]+)\s*$", line)
@@ -154,7 +154,7 @@ def put_config_info_base(self):
                 proc_line_value = proc_line_value[:-1] # Strip the trailing comma
                 proc_line[ proc_line_key ] = proc_line_value + "]"
                 dataflow_file.write("\n" + proc_line[ proc_line_key ] )
-
+
         with open( "%s/%s/metadata.fcl" % (tmpdir, runnum) ) as metadata_file:
             for line in metadata_file.readlines():
                 if "Start_time" not in line and "Stop_time" not in line and not line == "":
@@ -179,7 +179,7 @@ def put_config_info_base(self):
     assert res, "Unable to find uuidgen-generated temporary directory, will perform no deletions"

     shutil.rmtree( tmpdir )
-
+    """
     return

 def listdaqcomps_base(self):
```

Note: This temporary fix disables archiving of run history records for the tagged version v3_03_02_111318 of artdaq-utilities-daqinterface, which is checked out by default.

7. Run run_demo.sh as you typically would and it will create a new filesystem database in the $MRB_TOP/database/online_config_db directory and use it for managing configurations.

```
./run_demo.sh --basedir=$MRB_TOP --config demo --comps component{01..2} -- --no_om --runduration 30
```

Note: Not all configurations are compatible with artdaq_database, a good one to use is called "demo".

8. Use the "--no_db" option to disable artdaq_database in run_demo.sh.

```
./run_demo.sh --basedir=$MRB_TOP --config demo --comps component{01..2} -- --no_om --runduration 30  --no
_db
```

9. Setup the configuration management tool "conftool.py" from UPS.

```
source $MRB_TOP/products/setup;setup artdaq_database v1_04_68 -q e15:prof:s64
export ARTDAQ_DATABASE_URI=filesystemdb://$MRB_TOP/database/online_config_db
```

10. Run it...

```
$ conftool.py
Usage: conftool.py [operation] [config name prefix]

Example:
 conftool.py exportConfiguration demo_safemode00003
 conftool.py importConfiguration demo_safemode
 conftool.py getListOfAvailableRunConfigurationPrefixes
 conftool.py getListOfAvailableRunConfigurations
 conftool.py getListOfAvailableRunConfigurations demo_
 conftool.py archiveRunConfiguration demo_safemode 23 #where 23 is a run number
 conftool.py updateArchivedRunConfiguration demo_safemode 23 #where 23 is a run number
```

```
conftool.py getListOfArchivedRunConfigurations 23 #where 23 is a run number
conftool.py exportArchivedRunConfiguration 23/demo_safemode00003 #where 23/demo_safemode00003 is a config
uration name
conftool.py listDatabases
conftool.py listCollections
conftool.py readDatabaseInfo
```

#3 - 03/06/2019 11:43 AM - Eric Flumerfelt

- Target version deleted (artdaq_demo v3_04_00)

#4 - 09/17/2019 12:06 PM - Ron Rechenmacher

partial merge into develop