

artdaq Utilities - Bug #17403

Undesirable conversion of +ve integer to -ve in FHiCL array parameter

08/08/2017 11:00 AM - Martin Haigh

Status:	Closed	Start date:	08/08/2017
Priority:	Normal	Due date:	
Assignee:	Gennadiy Lukhanin	% Done:	100%
Category:	artdaq-database	Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour
Experiment:	DUNE	Co-Assignees:	
Description			
When committing FHiCL file to the DB, 32 bit positive ints with the top bit set high are converted to negative (this is a problem with array parameters where reading back into a vector of uint in user code fails). This seems to me to be undesirable behaviour.			
See, e.g., the file common_code/ssp_standard in the configuration sspEmulator00019, where an element of the parameter ARR_pmts_cmd_control was set to 0x80000FFF before importing, but is converted by the database to -2147483648. The same behaviour is observed when the value is written in decimal rather than hex.			
Related issues:			
Related to artdaq Utilities - Bug #17425: FHiCL numerical parameters truncate...		Closed	08/10/2017

History

#1 - 08/08/2017 11:01 AM - Martin Haigh

Clarification: I am talking about a configuration in the DB for the CERN test stand for protoDUNE.

#2 - 08/14/2017 01:10 PM - John Freeman

To reproduce this error, log into pddaq-gen05-daq0 from lxplus.cern.ch as usual, and then do the following:

```
cd /daq/artdaq
source setup_database.sh
tmpdir1=$PWD/$( uuidgen )
mkdir $tmpdir1
cd $tmpdir1
conftool.py exportConfiguration sspEmulator00025
sed -r -i 's/BEGIN_PROLOG/BEGIN_PROLOG\nissuetest: 0xFFFFFFFF/' common_code/ssp_standard.fcl
conftool.py importConfiguration sspEmulator
cd ..
tmpdir2=$PWD/$( uuidgen )
mkdir $tmpdir2
cd $tmpdir2
conftool.py exportConfiguration <name of sspEmulator configuration which was just imported>
cd ..
diff -r $tmpdir1 $tmpdir2
```

#3 - 08/14/2017 02:10 PM - Gennadiy Lukhanin

- Related to Bug #17425: FHiCL numerical parameters truncated by DB! added

#4 - 07/30/2018 01:00 PM - Gennadiy Lukhanin

- Status changed from New to Resolved

Fixed in the version v1_04_46 of artdaq_database.

#5 - 10/31/2019 02:17 PM - Gennadiy Lukhanin

- % Done changed from 0 to 100

- Status changed from Resolved to Closed