cet-is - Bug #20488

DUNE jobs on some off-site worker nodes are terminated with exit status 4 (SIGILL)

07/30/2018 05:05 PM - Vito Di Benedetto

Status:	Rejected		**Start date:**	07/30/2018
Priority:	Normal		**Due date:**	
Assignee:			**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:			**Spent time:**	0.00 hour
Scope:	Internal		**SSI Package:**	
Experiment:	-		**Co-Assignees:**	

Description

Running DUNE (and uBooNE) jobs off-site I get a some of those jobs terminated with exit status 4 (SIGILL)

Details of the code I run are:

```
dunetpc: v06_84_00 with qualifier "debug:e15"
art: v2_11_02
```

command:

```
lar --rethrow-all -c prodgenie_nue_dune10kt_1x2x6.fcl -n 1 -o prodgenie_nue_dune10kt_1x2x6_pass_0.
root
```

gdb backtrace is the following:

```
Reading symbols from lar...done.
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/lib64/libthread_db.so.1".

Program received signal SIGILL, Illegal instruction.
hep::concurrency::getTSCP (cpuidx=@0x7fffffe2954: 0)
    at /scratch/workspace/art-release-build/SLF6/debug/build/hep_conc
urrency/v1_00_02/src/hep_conc
urrency/tsan.cc:28
#0  hep::concurrency::getTSCP (cpuidx=@0x7fffffe2954: 0)
    at /scratch/workspace/art-release-build/SLF6/debug/build/hep_concurrency/v1_00_02/src/hep_conc
urrency/tsan.cc:28
#1  0x00002aaab4b7806b in hep::concurrency::RecursiveMutex::lock (
    this=0x2aaab4a41e0 , opName=...)
    at /scratch/workspace/art-release-build/SLF6/debug/build/hep_conc
urrency/v1_00_02/src/hep_conc
urrency/RecursiveMutex.cc:72
#2  0x00002aaab4b79d40 in hep::concurrency::RecursiveMutexSentry::RecursiveMutexSentry (this=0x7ff
ffffe2a60, mutex=..., name=...)
    at /scratch/workspace/art-release-build/SLF6/debug/build/hep_conc
urrency/v1_00_02/src/hep_conc
urrency/RecursiveMutex.cc:283
#3  0x00002aaaab23548a in mf::(anonymous namespace)::logMessage (
    msg=0x6150960)
    at /scratch/workspace/art-release-build/SLF6/debug/build/messagef
acility/v2_02_02/src/messagef
acility/MessageLogger/MessageLogger.cc:438
#4  0x00002aaaab23582f in mf::LogErrorObj (msg=0x6150960)
    at /scratch/workspace/art-release-build/SLF6/debug/build/messagef
acility/v2_02_02/src/messagef
acility/MessageLogger/MessageLogger.cc:547
#5  0x00002aaaaed6d0b in mf::MaybeLogger_<(mf::ELseverityLevel::ELsev_)3, false>::~MaybeLogger_ (
this=0x7fffffe4da8, __in_chrg=)
    at /scratch/workspace/art-release-build/SLF6/debug/build/messagef
acility/v2_02_02/include/mess
agefacility/MessageLogger/MessageLogger.h:129
#6  0x00002aaaaed2e41 in art::run_art_common_ (main_pset=...)
    at /scratch/workspace/art-release-build/SLF6/debug/build/art/v2_11_02/src/art/Framework/Art/ru
```

```
n_art.cc:287
#7  0x00002aaaaaed215d in art::run_art (argc=8, argv=0x7fffffe5888,
    in_desc=..., lookupPolicy=..., handlers=...)
    at /scratch/workspace/art-release-build/SLF6/debug/build/art/v2_11_02/src/art/Framework/Art/ru
n_art.cc:206
#8  0x00002aaaaaece117 in artapp (argc=8, argv=0x7fffffe5888)
    at /scratch/workspace/art-release-build/SLF6/debug/build/art/v2_11_02/build-Linux64bit+2.6-2.1
2-e15-debug/art/Framework/Art/artapp.cc:51
#9  0x0000000000401628 in main (argc=8, argv=0x7fffffe5888)
    at /scratch/workspace/art-release-build/SLF6/debug/build/art/v2_11_02/build-Linux64bit+2.6-2.1
2-e15-debug/art/Framework/Art/lar.cc:9
A debugging session is active.

    Inferior 1 [process 84628] will be killed.
```

Jobs terminated this way are running on worker node with the following CPU info from /proc/cpuinfo

```
processor       : 0
vendor_id       : AuthenticAMD
cpu family      : 21
model           : 1
model name      : AMD Opteron(tm) Processor 6282 SE
stepping        : 2
cpu MHz         : 2599.948
cache size      : 2048 KB
physical id     : 0
siblings        : 16
core id         : 0
cpu cores       : 16
apicid          : 0
initial apicid  : 0
fpu             : yes
fpu_exception   : yes
cpuid level     : 13
wp              : yes
flags           : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx
 fxsr sse sse2 ht syscall nx mmxext fxsr_opt lm rep_good extd_apicid unfair_spinlock pni pclmulqdq
 ssse3 cx16 sse4_1 sse4_2 popcnt aes xsave avx hypervisor lahf_lm cmp_legacy cr8_legacy abm sse4a
misalignsse 3dnowprefetch osvw xop fma4
bogomips        : 5199.89
TLB size        : 1536 4K pages
clflush size    : 64
cache_alignment : 64
address sizes   : 42 bits physical, 48 bits virtual
power management:

processor       : 0
vendor_id       : GenuineIntel
cpu family      : 6
model           : 46
model name      : Intel(R) Xeon(R) CPU           X7560  @ 2.27GHz
stepping        : 6
microcode       : 4294967295
cpu MHz         : 2260.949
cache size      : 24576 KB
physical id     : 0
siblings        : 16
core id         : 0
cpu cores       : 16
apicid          : 0
initial apicid  : 0
fpu             : yes
fpu_exception   : yes
cpuid level     : 11
wp              : yes
flags           : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx
```

```
  fxsr sse sse2 ss ht syscall nx lm constant_tsc rep_good unfair_spinlock pni ssse3 cx16 sse4_1 sse
4_2 popcnt hypervisor lahf_lm
bogomips    : 4521.89
clflush size    : 64
cache_alignment    : 64
address sizes    : 42 bits physical, 48 bits virtual
power management:

processor    : 0
vendor_id    : GenuineIntel
cpu family    : 6
model    : 62
model name    : Intel(R) Xeon(R) CPU E5-2660 v2 @ 2.20GHz
stepping    : 4
microcode    : 4294967295
cpu MHz    : 2199.980
cache size    : 25600 KB
physical id    : 0
siblings    : 20
core id    : 0
cpu cores    : 20
apicid    : 0
initial apicid    : 0
fpu    : yes
fpu_exception    : yes
cpuid level    : 13
wp    : yes
flags    : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx
 fxsr sse sse2 ss ht syscall nx lm constant_tsc rep_good unfair_spinlock pni pclmulqdq ssse3 cx16
pcid sse4_1 sse4_2 popcnt aes xsave avx f16c rdrand hypervisor lahf_lm xsaveopt fsgsbase smep erms
bogomips    : 4399.96
clflush size    : 64
cache_alignment    : 64
address sizes    : 42 bits physical, 48 bits virtual
power management:

processor    : 0
vendor_id    : GenuineIntel
cpu family    : 6
model    : 44
model name    : Intel(R) Xeon(R) CPU        X5650  @ 2.67GHz
stepping    : 2
microcode    : 4294967295
cpu MHz    : 2659.976
cache size    : 12288 KB
physical id    : 0
siblings    : 12
core id    : 0
cpu cores    : 12
apicid    : 0
initial apicid    : 0
fpu    : yes
fpu_exception    : yes
cpuid level    : 11
wp    : yes
flags    : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx
 fxsr sse sse2 ss ht syscall nx lm constant_tsc rep_good unfair_spinlock pni pclmulqdq ssse3 cx16
pcid sse4_1 sse4_2 popcnt aes hypervisor lahf_lm
bogomips    : 5319.95
clflush size    : 64
cache_alignment    : 64
address sizes    : 40 bits physical, 48 bits virtual
power management:
```

Is this a known issue?

Related issues:

History

#1 - 08/02/2018 08:36 AM - Christopher Green

- Is duplicate of Bug #20246: Illegal Instruction in hep_concurrency added

#2 - 08/02/2018 08:39 AM - Christopher Green

- Status changed from New to Rejected

This is a duplicate of [#20246](#), which was resolved and the fix incorporated into release [2.11.03](#).