halld_recon aborting on DResourcePool static variable deletion

This issue concerns the abrupt termination of halld_recon with jana2 at the end of the execution when the command **hd_dump ../../ hd_rawdata_121120_000.evio -Pjana:nevents=5 -DDBCALDigiHit** was run.

Context:
In the file `/src/libraries/ANALYSIS/ANALYSIS_init.cc:54`, the constructor of class `DHistogramAction_ObjectMemory` is called explicitly; thus, creating an object of this class. This class is defined in `/src/libraries/ANALYSIS/ DHistogramActions_Independent.h` and contains several `DResourcePool<DType*>` variables.

- `DResourcePool` Class:
- The `DResourcePool` template class is defined in `src/libraries/include/ DResourcePool.h`.
- The class contains a static vector member, `vector<DType*> dResourcePool_Shared`, that behaves exactly like a global variable and is deleted when the main program ends.

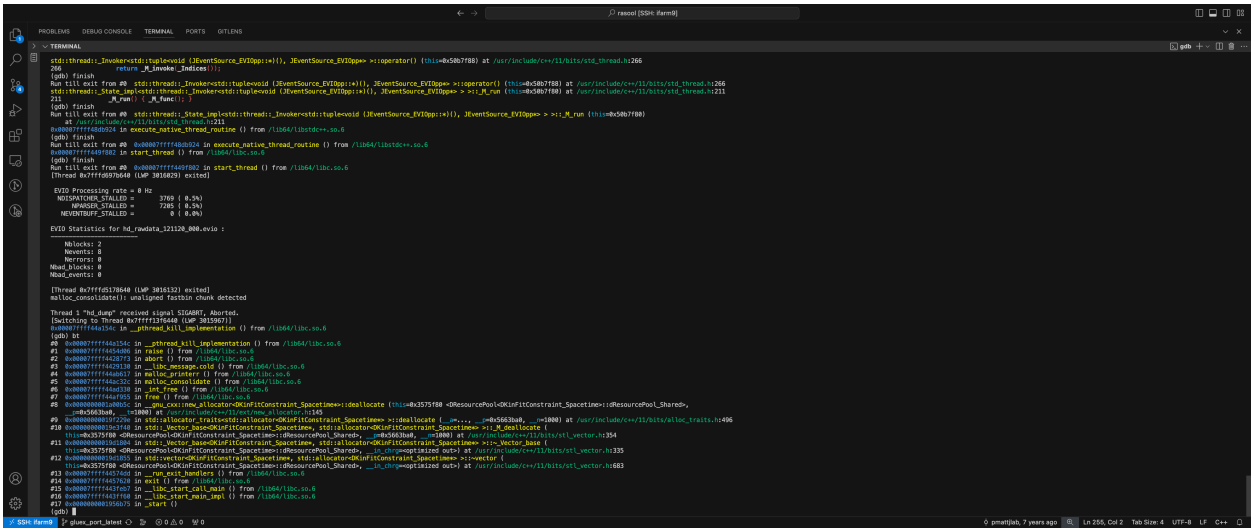
Problem Description:
When the program tries to delete the first static variable (`vector<DKinFitConstraint_Spacetime*> dResourcePool_Shared`) belonging to `DResourcePool<DKinFitConstraint_Spacetime> dResourcePool_SpacetimeConstraint`, the program encounters errors such as `malloc_consolidate(): invalid chunk size` or `malloc_consolidate(): unaligned fastbin chunk detected`. These errors result in the program abruptly aborting.

Resolution:
The solution involves commenting out the `delete app` command located on line 78 within `src/programs/Analysis/hd_dump/hd_dump.cc:main`. This adjustment successfully resolved the issue, suggesting that the problem might be related to the `delete app` command interfering with the deletion of certain variables.

Possible causes:
Redundant Deletion: The static variables, vector<DType*> dResourcePool_Shared, may have been deleted earlier when the `delete app` command is executed and when the program is attempting to delete the same variables again it is causing the program to abort since the variables were already deleted by the `delete app` command earlier. By commenting out the `delete app` command, the program avoids deleting the variables prematurely

and instead deletes them only once at the end of `main`, which resolves the issue.
These assumptions are based on the current observations and suggest potential causes of the problem. However, none of these assumptions are confirmed, and further investigation and analysis are needed to determine the root cause definitively. The reason behind this assumption is because when the `delete app` on line 78 inside src/programs/Analysis/hd_dump/hd_dump.cc:main is commented out the program is no more aborting.

Program Aborting Backtrace



More detailed Backtrace:

For a more detailed backtrace look at the images below

Breakpoints:

1. break src/libraries/include/DResourcePool.h:250
    - **Function:** template <typename DType> DResourcePool<DType>::~DResourcePool(void)
    - **Exact line:** for(auto locResource : locResources)

2. break src/libraries/include/DResourcePool.h:252
    - **Function:** template <typename DType> DResourcePool<DType>::~DResourcePool(void)
    - **Exact line:** dObjectCounter -= locResources.size(); //I sure hope this is zero!

Detailed Bracktrace:

```
$29 = <optimized out>
(gdb) list
247             //delete the resources
248             if(dDebugLevel > 0)
249                     cout << "DESTRUCTOR DELETING " << typeid(DType).name() << ": " << locResources.size() << endl;
250             for(auto locResource : locResources)
251                     delete locResource;
252             dObjectCounter -= locResources.size(); //I sure hope this is zero!
253             if(dDebugLevel > 0)
254                     cout << "All objects (ought) to be destroyed, theoretical # remaining: " << dObjectCounter;
255     }
256
(gdb) step
std::vector<DKinFitResults*, std::allocator<DKinFitResults*> >::size (this=0x7fffd6973a90) at /usr/include/c++/11/bits/stl_vector.h:919
919             { return size_type(this->_M_impl._M_finish - this->_M_impl._M_start); }
(gdb) finish
Run till exit from #0  std::vector<DKinFitResults*, std::allocator<DKinFitResults*> >::size (this=0x7fffd6973a90) at /usr/include/c++/11/bits/stl_vector.h:919
0x00000000019bb0d4 in DResourcePool<DKinFitResults>::~DResourcePool (this=0x55e2178, __in_chrg=<optimized out>) at libraries/include/DResourcePool.h:252
252             dObjectCounter -= locResources.size(); //I sure hope this is zero!
Value returned is $30 = 0
(gdb) step
std::__atomic_base<unsigned long>::operator-= (this=0x3576510 <DResourcePool<DKinFitResults>::dObjectCounter>, __i=0) at /usr/include/c++/11/bits/atomic_base.h:409
409             { return __atomic_sub_fetch(&_M_i, __i, int(memory_order_seq_cst)); }
(gdb) finish
Run till exit from #0  std::__atomic_base<unsigned long>::operator-= (this=0x3576510 <DResourcePool<DKinFitResults>::dObjectCounter>, __i=0) at /usr/include/c++/11/bits/atomic_base.h:409
DResourcePool<DKinFitResults>::~DResourcePool (this=0x55e2178, __in_chrg=<optimized out>) at libraries/include/DResourcePool.h:253
253             if(dDebugLevel > 0)
Value returned is $31 = 0
(gdb) step
255     }
(gdb) step
std::vector<DKinFitResults*, std::allocator<DKinFitResults*> >::~vector (this=0x7fffd6973a90, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_vector.h:681
681                         _M_get_Tp_allocator());
(gdb) finish
Run till exit from #0  std::vector<DKinFitResults*, std::allocator<DKinFitResults*> >::~vector (this=0x7fffd6973a90, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_vector.h:681
0x00000000019bb13a in DResourcePool<DKinFitResults>::~DResourcePool (this=0x55e2178, __in_chrg=<optimized out>) at libraries/include/DResourcePool.h:255
255     }
(gdb) finish
Run till exit from #0  0x00000000019bb13a in DResourcePool<DKinFitResults>::~DResourcePool (this=0x55e2178, __in_chrg=<optimized out>) at libraries/include/DResourcePool.h:255
0x0000000001a4021b in DAnalysisResults_factory::~DAnalysisResults_factory (this=0x55e1fa0, __in_chrg=<optimized out>) at libraries/ANALYSIS/DAnalysisResults_factory.h:48
48                      ~DAnalysisResults_factory(void){delete dSourceComboer;}
(gdb) step
std::map<std::tuple<DAnalysis::DParticleCombo const*, DAnalysis::DKinFitType, bool, std::set<unsigned long, std::less<unsigned long>, std::allocator<unsigned long> > >, DAnalysis::DParticleCombo const*, std::less<std::tuple<DAnalysis::DParticleCombo const*, DAnalysis::DKinFitType, bool, std::set<unsigned long, std::less<unsigned long>, std::allocator<unsigned long> > > >, std::allocator<std::pair<std::tuple<DAnalysis::DParticleCombo const*, DAnalysis::DKinFitType, bool, std::set<unsigned long, std::less<unsigned long>, std::allocator<unsigned long> > > const, DAnalysis::DParticleCombo const*> > >::~map (this=0x55e2148, __in_chrg=<optimized out>) at
 /usr/include/c++/11/bits/stl_map.h:302
302             ~map() = default;
(gdb) finish
Run till exit from #0  std::map<std::tuple<DAnalysis::DParticleCombo const*, DAnalysis::DKinFitType, bool, std::set<unsigned long, std::less<unsigned long>, std::allocator<unsigned long> > >, DAnalysis::DParticleCombo const*, std::less<std::tuple<DAnalysis::DParticleCombo const*, DAnalysis::DKinFitType, bool, std::set<unsigned
 long, std::less<unsigned long>, std::allocator<unsigned long> > >, std::allocator<std::pair<std::tuple<DAnalysis::DParticleCombo const*, DAnalysis::DKinFitType, bool, std::set<unsigned long, std::less<unsigned long>, std::allocator<unsigned long> > > const, DAnalysis::DParticleCombo const*> > >::~map (this=0x55e2148, __in_c
hrg=<optimized out>) at /usr/include/c++/11/bits/stl_map.h:302
0x0000000001a4022d in DAnalysisResults_factory::~DAnalysisResults_factory (this=0x55e1fa0, __in_chrg=<optimized out>) at libraries/ANALYSIS/DAnalysisResults_factory.h:48
48                      ~DAnalysisResults_factory(void){delete dSourceComboer;}
(gdb) step
std::map<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool>, DKinFitResults*, std::less<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shar
ed_ptr<DKinFitConstraint> > >, bool> >, std::allocator<std::pair<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool> const, DKinFitResults*> > >::~map (this=0x55e2118, __in_chrg=<optimized out>) at /usr/include/c++/1
1/bits/stl_map.h:302
302             ~map() = default;
(gdb) finish
Run till exit from #0  std::map<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool>, DKinFitResults*, std::less<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, s
td::allocator<std::shared_ptr<DKinFitConstraint> > >, bool> >, std::allocator<std::pair<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool> const, DKinFitResults*> > >::~map (this=0x55e2118, __in_chrg=<optimized out>
```

```
(gdb) step
std::map<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool>, DKinFitResults*, std::less<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool> >, std::allocator<std::pair<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool> const, DKinFitResults*> > >::~map (this=0x55e2118, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_map.h:302
302         ~map() = default;
(gdb) finish
Run till exit from #0  std::map<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool>, DKinFitResults*, std::less<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool> >, std::allocator<std::pair<std::pair<std::set<std::shared_ptr<DKinFitConstraint>, std::less<std::shared_ptr<DKinFitConstraint> >, std::allocator<std::shared_ptr<DKinFitConstraint> > >, bool> const, DKinFitResults*> > >::~map (this=0x55e2118, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_map.h:302
0x0000000001a4023f in DAnalysisResults_factory::~DAnalysisResults_factory (this=0x55e1fa0, __in_chrg=<optimized out>) at libraries/ANALYSIS/DAnalysisResults_factory.h:48
48                      ~DAnalysisResults_factory(void){delete dSourceComboer;}
(gdb) step
std::shared_ptr<JLockService>::~shared_ptr (this=0x55e20d0, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/shared_ptr.h:122
122         class shared_ptr : public __shared_ptr<_Tp>
(gdb) finish
Run till exit from #0  std::shared_ptr<JLockService>::~shared_ptr (this=0x55e20d0, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/shared_ptr.h:122
0x0000000001a40251 in DAnalysisResults_factory::~DAnalysisResults_factory (this=0x55e1fa0, __in_chrg=<optimized out>) at libraries/ANALYSIS/DAnalysisResults_factory.h:48
48                      ~DAnalysisResults_factory(void){delete dSourceComboer;}
(gdb) step
JFactoryT<DAnalysisResults>::~JFactoryT (this=0x55e1fa0, __in_chrg=<optimized out>) at /work/epsci/rasool/gluex_jana2_2023/JANA2/include/JANA/JFactoryT.h:60
60          ~JFactoryT() override = default;
(gdb) finish
Run till exit from #0  JFactoryT<DAnalysisResults>::~JFactoryT (this=0x55e1fa0, __in_chrg=<optimized out>) at /work/epsci/rasool/gluex_jana2_2023/JANA2/include/JANA/JFactoryT.h:60
0x0000000001a4025d in DAnalysisResults_factory::~DAnalysisResults_factory (this=0x55e1fa0, __in_chrg=<optimized out>) at libraries/ANALYSIS/DAnalysisResults_factory.h:48
48                      ~DAnalysisResults_factory(void){delete dSourceComboer;}
(gdb) step
std::_Rb_tree_iterator<std::pair<std::pair<std::type_index, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > > const, JFactory*> >::operator++ (
    this=0x7fffd6973b48) at /usr/include/c++/11/bits/stl_tree.h:287
287           _M_node = _Rb_tree_increment(_M_node);
(gdb) finish
Run till exit from #0  std::_Rb_tree_iterator<std::pair<std::pair<std::type_index, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > > const, JFactory*> >::operator++ (this=0x7fffd6973b48) at /usr/include/c++/11/bits/stl_tree.h:287
0x00007ffff5454c45 in JFactorySet::~JFactorySet (this=0x50c71e0, __in_chrg=<optimized out>) at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JFactorySet.cc:63
63              for (auto& f : mFactories) delete f.second;
Value returned is $32 = {first = {first = {_M_target = 0x354bca0 <typeinfo for DBCALTruthShower>}, second = ""}, second = 0x50d5e60}
(gdb) finish
Run till exit from #0  0x00007ffff5454c45 in JFactorySet::~JFactorySet (this=0x50c71e0, __in_chrg=<optimized out>)
    at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JFactorySet.cc:63
0x00007ffff5454d30 in JFactorySet::~JFactorySet (this=0x50c71e0, __in_chrg=<optimized out>) at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JFactorySet.cc:69
69      }
(gdb) finish
Run till exit from #0  0x00007ffff5454d30 in JFactorySet::~JFactorySet (this=0x50c71e0, __in_chrg=<optimized out>)
    at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JFactorySet.cc:69
JEvent::~JEvent (this=0x50c6fc0, __in_chrg=<optimized out>) at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JEvent.h:51
51          }
(gdb) step
std::map<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::less<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > >, std::allocator<std::pair<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > const, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > > > >::~map (this=0x50c7100, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_map.h:302
302         ~map() = default;
(gdb) finish
Run till exit from #0  std::map<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> >, std::less<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > >, std::allocator<std::pair<std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > const, std::__cxx11::basic_string<char, std::char_traits<char>, std::allocator<char> > > > >::~map (this=0x50c7100, __in_chrg=<optimized out>)
    at /usr/include/c++/11/bits/stl_map.h:302
0x00007ffff54335c6 in JEvent::~JEvent (this=0x50c6fc0, __in_chrg=<optimized out>) at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JEvent.h:51
51          }
(gdb) finish
Run till exit from #0  0x00007ffff54335c6 in JEvent::~JEvent (this=0x50c6fc0, __in_chrg=<optimized out>) at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JEvent.h:51
__gnu_cxx::new_allocator<JEvent>::destroy<JEvent> (this=0x50c6fc0, __p=0x50c6fc0) at /usr/include/c++/11/ext/new_allocator.h:168
168           { __p->~_Up(); }
(gdb) step
std::allocator_traits<std::allocator<JEvent> >::destroy<JEvent> (__a=..., __p=0x50c6fc0) at /usr/include/c++/11/bits/alloc_traits.h:539
```

```
51              }
(gdb) finish
Run till exit from #0  0x00007ffff54335c6 in JEvent::~JEvent (this=0x50c6fc0, __in_chrg=<optimized out>) at /w/epsci-sciwork18/rasool/gluex_jana2_2023/JANA2/src/libraries/JANA/JEvent.h:51
__gnu_cxx::new_allocator<JEvent>::destroy<JEvent> (this=0x50c6fc0, __p=0x50c6fc0) at /usr/include/c++/11/ext/new_allocator.h:168
168             { __p->~_Up(); }
(gdb) step
std::allocator_traits<std::allocator<JEvent> >::destroy<JEvent> (__a=..., __p=0x50c6fc0) at /usr/include/c++/11/bits/alloc_traits.h:539
539             }
(gdb) finish
Run till exit from #0  std::allocator_traits<std::allocator<JEvent> >::destroy<JEvent> (__a=..., __p=0x50c6fc0) at /usr/include/c++/11/bits/alloc_traits.h:539
std::_Sp_counted_ptr_inplace<JEvent, std::allocator<JEvent>, (__gnu_cxx::_Lock_policy)2>::_M_dispose (this=0x50c6fb0) at /usr/include/c++/11/bits/shared_ptr_base.h:529
529         }
(gdb) finish
Run till exit from #0  std::_Sp_counted_ptr_inplace<JEvent, std::allocator<JEvent>, (__gnu_cxx::_Lock_policy)2>::_M_dispose (this=0x50c6fb0) at /usr/include/c++/11/bits/shared_ptr_base.h:529
std::_Sp_counted_base<(__gnu_cxx::_Lock_policy)2>::_M_release (this=0x50c6fb0) at /usr/include/c++/11/bits/shared_ptr_base.h:180
180               if (__gnu_cxx::__exchange_and_add_dispatch(&_M_weak_count,
(gdb) finish
Run till exit from #0  std::_Sp_counted_base<(__gnu_cxx::_Lock_policy)2>::_M_release (this=0x50c6fb0) at /usr/include/c++/11/bits/shared_ptr_base.h:180
std::__shared_count<(__gnu_cxx::_Lock_policy)2>::~__shared_count (this=0x7fffc0d288f0, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/shared_ptr_base.h:706
706         }
(gdb) finish
Run till exit from #0  std::__shared_count<(__gnu_cxx::_Lock_policy)2>::~__shared_count (this=0x7fffc0d288f0, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/shared_ptr_base.h:706
0x000000000195e65e in std::__shared_ptr<JEvent const, (__gnu_cxx::_Lock_policy)2>::~__shared_ptr (this=0x7fffc0d288e8, __in_chrg=<optimized out>)
    at /usr/include/c++/11/bits/shared_ptr_base.h:1154
1154        ~__shared_ptr() = default;
(gdb) finish
Run till exit from #0  0x000000000195e65e in std::__shared_ptr<JEvent const, (__gnu_cxx::_Lock_policy)2>::~__shared_ptr (this=0x7fffc0d288e8, __in_chrg=<optimized out>)
    at /usr/include/c++/11/bits/shared_ptr_base.h:1154
0x000000000195e67a in std::shared_ptr<JEvent const>::~shared_ptr (this=0x7fffc0d288e8, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/shared_ptr.h:122
122         class shared_ptr : public __shared_ptr<_Tp>
(gdb) finish
Run till exit from #0  0x000000000195e67a in std::shared_ptr<JEvent const>::~shared_ptr (this=0x7fffc0d288e8, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/shared_ptr.h:122
0x0000000002a26760 in DParsedEvent::DFactoryPointers::~DFactoryPointers (this=0x7fffc0d288e8, __in_chrg=<optimized out>) at libraries/DAQ/DParsedEvent.h:226
226                             ~DFactoryPointers(){}
(gdb) finish
Run till exit from #0  0x0000000002a26760 in DParsedEvent::DFactoryPointers::~DFactoryPointers (this=0x7fffc0d288e8, __in_chrg=<optimized out>) at libraries/DAQ/DParsedEvent.h:226
0x0000000002a40b08 in std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>::~pair (this=0x7fffc0d288e0, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_pair.h:211
211         struct pair
(gdb) finish
Run till exit from #0  0x0000000002a40b08 in std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>::~pair (this=0x7fffc0d288e0, __in_chrg=<optimized out>)
    at /usr/include/c++/11/bits/stl_pair.h:211
__gnu_cxx::new_allocator<std::_Rb_tree_node<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::destroy<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > (
    this=0x7fffcc002590, __p=0x7fffc0d288e0) at /usr/include/c++/11/ext/new_allocator.h:168
168             { __p->~_Up(); }
(gdb) finish
Run till exit from #0  __gnu_cxx::new_allocator<std::_Rb_tree_node<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::destroy<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > (this=0x7fffcc002590, __p=0x7fffc0d288e0) at /usr/include/c++/11/ext/new_allocator.h:168
std::allocator_traits<std::allocator<std::_Rb_tree_node<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > > >::destroy<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > (__a=..., __p=0x7fffc0d288e0) at /usr/include/c++/11/bits/alloc_traits.h:539
539             }
(gdb) finish
Run till exit from #0  std::allocator_traits<std::allocator<std::_Rb_tree_node<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > > >::destroy<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > (__a=..., __p=0x7fffc0d288e0) at /usr/include/c++/11/bits/alloc_traits.h:539
std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::_M_destroy_node (this=0x7fffcc002590, __p=0x7fffc0d288c0)
    at /usr/include/c++/11/bits/stl_tree.h:626
626         }
(gdb) finish
Run till exit from #0  std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::_M_destroy_node (this=0x7fffcc002590, __p=0x7fffc0d288c0)
    at /usr/include/c++/11/bits/stl_tree.h:626
std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::_M_drop_node (this=0x7fffcc002590, __p=0x7fffc0d288c0) at /usr/include/c++/11/bits/stl_tree.h:632
```

```
    at /usr/include/c++/11/bits/stl_tree.h:626
std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::_M_drop_node (this=0x7fffcc002590, __p=0x7ff
fc0d288c0) at /usr/include/c++/11/bits/stl_tree.h:632
632             _M_put_node(__p);
(gdb) finish
Run till exit from #0  std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::_M_drop_node (this=0x
7fffcc002590, __p=0x7fffc0d288c0)
    at /usr/include/c++/11/bits/stl_tree.h:632
std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::_M_erase (this=0x7fffcc002590, __x=0x7fffc0d
288c0) at /usr/include/c++/11/bits/stl_tree.h:1892
1892              __x = __y;
(gdb) finish
Run till exit from #0  std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::_M_erase (this=0x7fff
cc002590, __x=0x7fffc0d288c0)
    at /usr/include/c++/11/bits/stl_tree.h:1892
std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::~_Rb_tree (this=0x7fffcc002590, __in_chrg=<o
ptimized out>)
    at /usr/include/c++/11/bits/stl_tree.h:984
984           { _M_erase(_M_begin()); }
(gdb) finish
Run till exit from #0  std::_Rb_tree<JEvent const*, std::pair<JEvent const* const, DParsedEvent::DFactoryPointers>, std::_Select1st<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> >, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::~_Rb_tree (this=0x7ff
fcc002590, __in_chrg=<optimized out>)
    at /usr/include/c++/11/bits/stl_tree.h:984
0x0000000002a60d92 in std::map<JEvent const*, DParsedEvent::DFactoryPointers, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::~map
    (this=0x7fffcc002590, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_map.h:302
302           ~map() = default;
(gdb) finish
Run till exit from #0  0x0000000002a60d92 in std::map<JEvent const*, DParsedEvent::DFactoryPointers, std::less<JEvent const*>, std::allocator<std::pair<JEvent const* const, DParsedEvent::DFactoryPointers> > >::~map (this=0x7fffcc002590, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_map.h:302
0x0000000002a613cc in DParsedEvent::~DParsedEvent (this=0x7fffcc001dd0, __in_chrg=<optimized out>) at libraries/DAQ/DParsedEvent.h:365
365                 }
(gdb) finish
Run till exit from #0  0x0000000002a613cc in DParsedEvent::~DParsedEvent (this=0x7fffcc001dd0, __in_chrg=<optimized out>) at libraries/DAQ/DParsedEvent.h:365
0x0000000002a61972 in DParsedEvent::~DParsedEvent (this=0x7fffcc001dd0, __in_chrg=<optimized out>) at libraries/DAQ/DParsedEvent.h:365
365                 }
(gdb) finish
Run till exit from #0  0x0000000002a61972 in DParsedEvent::~DParsedEvent (this=0x7fffcc001dd0, __in_chrg=<optimized out>) at libraries/DAQ/DParsedEvent.h:365
0x0000000002a4a9d6 in DEVIOWorkerThread::~DEVIOWorkerThread (this=0x50bca00, __in_chrg=<optimized out>) at libraries/DAQ/DEVIOWorkerThread.cc:86
86            for(auto pe : parsed_event_pool) delete pe;
(gdb) finish
Run till exit from #0  0x0000000002a4a9d6 in DEVIOWorkerThread::~DEVIOWorkerThread (this=0x50bca00, __in_chrg=<optimized out>) at libraries/DAQ/DEVIOWorkerThread.cc:86
0x0000000002a4aa58 in DEVIOWorkerThread::~DEVIOWorkerThread (this=0x50bca00, __in_chrg=<optimized out>) at libraries/DAQ/DEVIOWorkerThread.cc:87
87      }
(gdb) finish
Run till exit from #0  0x0000000002a4aa58 in DEVIOWorkerThread::~DEVIOWorkerThread (this=0x50bca00, __in_chrg=<optimized out>) at libraries/DAQ/DEVIOWorkerThread.cc:87
JEventSource_EVIOpp::Dispatcher (this=0x4e2e4b0) at libraries/DAQ/JEventSource_EVIOpp.cc:507
507           for( auto w : worker_threads ){
(gdb) finish
Run till exit from #0  JEventSource_EVIOpp::Dispatcher (this=0x4e2e4b0) at libraries/DAQ/JEventSource_EVIOpp.cc:507
0x0000000002a45755 in std::__invoke_impl<void, void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> (
    __f=@0x50b7f90: (void (JEventSource_EVIOpp::*)(JEventSource_EVIOpp * const)) 0x2a2235a <JEventSource_EVIOpp::Dispatcher()>, __t=@0x50b7f88: 0x4e2e4b0)
    at /usr/include/c++/11/bits/invoke.h:74
74            return ((*std::forward<_Tp>(__t)).*__f)(std::forward<_Args>(__args)...);
(gdb) finish
Run till exit from #0  0x0000000002a45755 in std::__invoke_impl<void, void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> (
    __f=@0x50b7f90: (void (JEventSource_EVIOpp::*)(JEventSource_EVIOpp * const)) 0x2a2235a <JEventSource_EVIOpp::Dispatcher()>, __t=@0x50b7f88: 0x4e2e4b0)
    at /usr/include/c++/11/bits/invoke.h:74
std::__invoke<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> (
    __fn=@0x50b7f90: (void (JEventSource_EVIOpp::*)(JEventSource_EVIOpp * const)) 0x2a2235a <JEventSource_EVIOpp::Dispatcher()>) at /usr/include/c++/11/bits/invoke.h:97
97                                  std::forward<_Args>(__args)...);
(gdb) finish
```

```
74          return ((*std::forward<_Tp>(__t)).*__f)(std::forward<_Args>(__args)...);
(gdb) finish
Run till exit from #0  0x0000000002a45755 in std::__invoke_impl<void, void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> (
    __f=@0x50b7f90: (void (JEventSource_EVIOpp::*)(JEventSource_EVIOpp * const)) 0x2a2235a <JEventSource_EVIOpp::Dispatcher()>, __t=@0x50b7f88: 0x4e2e4b0)
    at /usr/include/c++/11/bits/invoke.h:74
std::__invoke<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> (
    __fn=@0x50b7f90: (void (JEventSource_EVIOpp::*)(JEventSource_EVIOpp * const)) 0x2a2235a <JEventSource_EVIOpp::Dispatcher()>) at /usr/include/c++/11/bits/invoke.h:97
97                                      std::forward<_Args>(__args)...);
(gdb) finish
Run till exit from #0  std::__invoke<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> (
    __fn=@0x50b7f90: (void (JEventSource_EVIOpp::*)(JEventSource_EVIOpp * const)) 0x2a2235a <JEventSource_EVIOpp::Dispatcher()>) at /usr/include/c++/11/bits/invoke.h:97
std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> >::_M_invoke<0ul, 1ul> (this=0x50b7f88) at /usr/include/c++/11/bits/std_thread.h:259
259             { return std::__invoke(std::get<_Ind>(std::move(_M_t))...); }
(gdb) finish
Run till exit from #0  std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> >::_M_invoke<0ul, 1ul> (this=0x50b7f88)
    at /usr/include/c++/11/bits/std_thread.h:259
std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> >::operator() (this=0x50b7f88) at /usr/include/c++/11/bits/std_thread.h:266
266             return _M_invoke(_Indices());
(gdb) finish
Run till exit from #0  std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> >::operator() (this=0x50b7f88) at /usr/include/c++/11/bits/std_thread.h:266
std::thread::_State_impl<std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> > >::_M_run (this=0x50b7f80) at /usr/include/c++/11/bits/std_thread.h:211
211           _M_run() { _M_func(); }
(gdb) finish
Run till exit from #0  std::thread::_State_impl<std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> > >::_M_run (this=0x50b7f80)
    at /usr/include/c++/11/bits/std_thread.h:211
0x00007ffff48db924 in execute_native_thread_routine () from /lib64/libstdc++.so.6
(gdb) finish
Run till exit from #0  0x00007ffff48db924 in execute_native_thread_routine () from /lib64/libstdc++.so.6
0x00007ffff449f802 in start_thread () from /lib64/libc.so.6
(gdb) finish
Run till exit from #0  0x00007ffff449f802 in start_thread () from /lib64/libc.so.6
[Thread 0x7fffd697b640 (LWP 3016029) exited]

 EVIO Processing rate = 0 Hz
  NDISPATCHER_STALLED =       3769 ( 0.5%)
      NPARSER_STALLED =       7205 ( 0.5%)
   NEVENTBUFF_STALLED =          0 ( 0.0%)

EVIO Statistics for hd_rawdata_121120_000.evio :
------------------------
    Nblocks: 2
    Nevents: 8
    Nerrors: 0
Nbad_blocks: 0
Nbad_events: 0

[Thread 0x7fffd5178640 (LWP 3016132) exited]
malloc_consolidate(): unaligned fastbin chunk detected

Thread 1 "hd_dump" received signal SIGABRT, Aborted.
[Switching to Thread 0x7ffff13f6440 (LWP 3015967)]
0x00007ffff44a154c in __pthread_kill_implementation () from /lib64/libc.so.6
(gdb) bt
#0  0x00007ffff44a154c in __pthread_kill_implementation () from /lib64/libc.so.6
#1  0x00007ffff4454d06 in raise () from /lib64/libc.so.6
#2  0x00007ffff44287f3 in abort () from /lib64/libc.so.6
#3  0x00007ffff4429130 in __libc_message.cold () from /lib64/libc.so.6
#4  0x00007ffff44ab617 in malloc_printerr () from /lib64/libc.so.6
#5  0x00007ffff44ac32c in malloc_consolidate () from /lib64/libc.so.6
#6  0x00007ffff44ad330 in _int_free () from /lib64/libc.so.6
```

```
std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> >::operator() (this=0x50b7f88) at /usr/include/c++/11/bits/std_thread.h:266
266             return _M_invoke(_Indices());
(gdb) finish
Run till exit from #0  std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> >::operator() (this=0x50b7f88) at /usr/include/c++/11/bits/std_thread.h:266
std::thread::_State_impl<std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> > >::_M_run (this=0x50b7f80) at /usr/include/c++/11/bits/std_thread.h:211
211           _M_run() { _M_func(); }
(gdb) finish
Run till exit from #0  std::thread::_State_impl<std::thread::_Invoker<std::tuple<void (JEventSource_EVIOpp::*)(), JEventSource_EVIOpp*> > >::_M_run (this=0x50b7f80)
    at /usr/include/c++/11/bits/std_thread.h:211
0x00007ffff48db924 in execute_native_thread_routine () from /lib64/libstdc++.so.6
(gdb) finish
Run till exit from #0  0x00007ffff48db924 in execute_native_thread_routine () from /lib64/libstdc++.so.6
0x00007ffff449f802 in start_thread () from /lib64/libc.so.6
(gdb) finish
Run till exit from #0  0x00007ffff449f802 in start_thread () from /lib64/libc.so.6
[Thread 0x7fffd697b640 (LWP 3016029) exited]

 EVIO Processing rate = 0 Hz
  NDISPATCHER_STALLED =       3769 ( 0.5%)
      NPARSER_STALLED =       7205 ( 0.5%)
   NEVENTBUFF_STALLED =          0 ( 0.0%)

EVIO Statistics for hd_rawdata_121120_000.evio :
-----------------------
    Nblocks: 2
    Nevents: 8
    Nerrors: 0
Nbad_blocks: 0
Nbad_events: 0

[Thread 0x7fffd5178640 (LWP 3016132) exited]
malloc_consolidate(): unaligned fastbin chunk detected

Thread 1 "hd_dump" received signal SIGABRT, Aborted.
[Switching to Thread 0x7ffff13f6440 (LWP 3015967)]
0x00007ffff44a154c in __pthread_kill_implementation () from /lib64/libc.so.6
(gdb) bt
#0  0x00007ffff44a154c in __pthread_kill_implementation () from /lib64/libc.so.6
#1  0x00007ffff4454d06 in raise () from /lib64/libc.so.6
#2  0x00007ffff44287f3 in abort () from /lib64/libc.so.6
#3  0x00007ffff4429130 in __libc_message.cold () from /lib64/libc.so.6
#4  0x00007ffff44ab617 in malloc_printerr () from /lib64/libc.so.6
#5  0x00007ffff44ac32c in malloc_consolidate () from /lib64/libc.so.6
#6  0x00007ffff44ad330 in _int_free () from /lib64/libc.so.6
#7  0x00007ffff44af955 in free () from /lib64/libc.so.6
#8  0x0000000001a00b5c in __gnu_cxx::new_allocator<DKinFitConstraint_Spacetime*>::deallocate (this=0x3575f80 <DResourcePool<DKinFitConstraint_Spacetime>::dResourcePool_Shared>,
    __p=0x5663ba0, __t=1000) at /usr/include/c++/11/ext/new_allocator.h:145
#9  0x00000000019f229e in std::allocator_traits<std::allocator<DKinFitConstraint_Spacetime*> >::deallocate (__a=..., __p=0x5663ba0, __n=1000) at /usr/include/c++/11/bits/alloc_traits.h:496
#10 0x00000000019e3f40 in std::_Vector_base<DKinFitConstraint_Spacetime*, std::allocator<DKinFitConstraint_Spacetime*> >::_M_deallocate (
    this=0x3575f80 <DResourcePool<DKinFitConstraint_Spacetime>::dResourcePool_Shared>, __p=0x5663ba0, __n=1000) at /usr/include/c++/11/bits/stl_vector.h:354
#11 0x00000000019d1804 in std::_Vector_base<DKinFitConstraint_Spacetime*, std::allocator<DKinFitConstraint_Spacetime*> >::~_Vector_base (
    this=0x3575f80 <DResourcePool<DKinFitConstraint_Spacetime>::dResourcePool_Shared>, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_vector.h:335
#12 0x00000000019d1855 in std::vector<DKinFitConstraint_Spacetime*, std::allocator<DKinFitConstraint_Spacetime*> >::~vector (
    this=0x3575f80 <DResourcePool<DKinFitConstraint_Spacetime>::dResourcePool_Shared>, __in_chrg=<optimized out>) at /usr/include/c++/11/bits/stl_vector.h:683
#13 0x00007ffff44574dd in __run_exit_handlers () from /lib64/libc.so.6
#14 0x00007ffff4457620 in exit () from /lib64/libc.so.6
#15 0x00007ffff443feb7 in __libc_start_call_main () from /lib64/libc.so.6
#16 0x00007ffff443ff60 in __libc_start_main_impl () from /lib64/libc.so.6
#17 0x0000000001956b75 in _start ()
(gdb)
```