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Subject: Memory leaks in digitization (TPC!)

Posted by [StefanoSpataro](#) on Mon, 20 Sep 2010 15:49:29 GMT

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Dear all,

I have run valgrind on digi macro, and I have found many messages coming from memory leaks, in particular from TPC (which is the winner) but also from EMC and MVD/DSD.

I would like that detector experts take a look and try to fix them, for a better stability of the code (and also to improve the performances).

This is the log:

Toggle Spoiler

==28629==

==28629== ERROR SUMMARY: 100000 errors from 22 contexts (suppressed: 212 from 3)

==28629== malloc/free: in use at exit: 147,295,160 bytes in 2,337,614 blocks.

==28629== malloc/free: 11,767,347 allocs, 9,429,733 frees, 1,224,016,834 bytes allocated.

==28629== For counts of detected errors, rerun with: -v

==28629== searching for pointers to 2,337,614 not-freed blocks.

==28629== checked 147,791,236 bytes.

==28629==

==28629==

==28629== 2 bytes in 1 blocks are definitely lost in loss record 6 of 469

==28629== at 0x4004405: malloc (vg\_replace\_malloc.c:149)

==28629== by 0x47A1685: G\_\_memfunc\_para\_setup (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x47A1DD1: G\_\_parse\_parameter\_link (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x47A9E22: G\_\_memfunc\_setup\_imp (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x47AA779: G\_\_memfunc\_setup (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x4D859C4: G\_\_cpp\_setup\_func3() (in /home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)

==28629== by 0x4D85D99: G\_\_cpp\_setup\_funcG\_\_MathCore (in /home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)

==28629== by 0x4D86D91: G\_\_cpp\_setupG\_\_MathCore (in /home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)

==28629== by 0x4782AE4: G\_\_call\_setup\_funcs (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x4782DE5: G\_\_main (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x4784BE3: G\_\_init\_cint (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x41F5FD8: TCint::ResetAll() (in /home/spataro/jan10/tools/root/lib/libCore.so.5.26)

==28629==

==28629==

==28629== 46 bytes in 1 blocks are definitely lost in loss record 114 of 469

==28629== at 0x4004405: malloc (vg\_replace\_malloc.c:149)

==28629== by 0x4787D7A: G\_\_register\_sharedlib (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

==28629== by 0x4813684: G\_\_RegisterLibrary (in /home/spataro/jan10/tools/root/lib/libCint.so.5.26)

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==28629== by 0x4782953: G__add_setup_func (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4E373E0: G__cpp_setup_initG__Rint::G__cpp_setup_initG__Rint() (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E36CF6: __static_initialization_and_destruction_0(int, int) (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E36D58: _GLOBAL__I__ZN4ROOT20GenerateInitInstanceEPK5TRint (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E37B08: (within /home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E2151C: (within /home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x76B897: _dl_init (in /lib/ld-2.3.4.so)
==28629== by 0x75F7FE: (within /lib/ld-2.3.4.so)
==28629==
==28629==
==28629== 60 (28 direct, 32 indirect) bytes in 1 blocks are definitely lost in loss record 115 of
469
==28629== at 0x4004405: malloc (vg_replace_malloc.c:149)
==28629== by 0x47AA09B: G__memfunc_setup_imp (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x47AA779: G__memfunc_setup (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4D859C4: G__cpp_setup_func3() (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4D85D99: G__cpp_setup_funcG__MathCore (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4D86D91: G__cpp_setupG__MathCore (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4782AE4: G__call_setup_funcs (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4D8EBB8:
G__cpp_setup_initG__MathCore::G__cpp_setup_initG__MathCore() (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4D87478: __static_initialization_and_destruction_0(int, int) (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4D87504:
_GLOBAL__I__ZN4ROOT20GenerateInitInstanceEPK7TRandom (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4DBD630: (within /home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4CC1BFC: (within /home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629==
==28629==
==28629== 60 bytes in 1 blocks are definitely lost in loss record 123 of 469
==28629== at 0x4004405: malloc (vg_replace_malloc.c:149)
==28629== by 0x4787D3C: G__register_sharedlib (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4813684: G__RegisterLibrary (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4782953: G__add_setup_func (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4E373E0: G__cpp_setup_initG__Rint::G__cpp_setup_initG__Rint() (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E36CF6: __static_initialization_and_destruction_0(int, int) (in

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/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E36D58: _GLOBAL__I_ZN4ROOT20GenerateInitInstanceEPK5TRint (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E37B08: (within /home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E2151C: (within /home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x76B897: _dl_init (in /lib/ld-2.3.4.so)
==28629== by 0x75F7FE: (within /lib/ld-2.3.4.so)
==28629==
==28629==
==28629== 200 bytes in 1 blocks are definitely lost in loss record 140 of 469
==28629== at 0x4004BBE: operator new[](unsigned) (vg_replace_malloc.c:197)
==28629== by 0x41A6792: TArrayl::Set(int) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4136319: TColor::SetPalette(int, int*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x417B5C1: TStyle::SetPalette(int, int*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x417BB3B: TStyle::Reset(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x417C804: TStyle::TStyle(char const*, char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x417D00B: TStyle::BuildStyles() (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x416EDCE: TROOT::TROOT(char const*, char const*, void (**)) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x416F0E1: ROOT::GetROOT() (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4171FA4: _GLOBAL__I_gROOTMutex (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x44E265C: (within /home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41074AC: (within /home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==
==28629==
==28629== 272 (16 direct, 256 indirect) bytes in 1 blocks are definitely lost in loss record 147
of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x41B81AD: TList::NewLink(TObject*, TObjLink*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41B746C: TList::AddLast(TObject*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4162468: TList::Add(TObject*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41B8E2D: TList::Streamer(TBuffer&) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x5F046D5: TKey::ReadObj() (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x5EE0083: TDirectoryFile::Get(char const*) (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x9005784: FairRootManager::OpenInFile(TFile*, bool)
(FairRootManager.cxx:106)
==28629== by 0x9013117: FairRunAna::Init() (FairRunAna.cxx:101)
==28629== by 0x9059859: G__FairDict_792_0_4(G__value*, char const*, G__param*, int)

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(FairDict.cxx:11411)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792A9F: G__execute_call (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 20 bytes in 1 blocks are definitely lost in loss record 152 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x41BC073: TObjArray::MakeIterator(bool) const (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x9279265: PndFieldCreator::createFairField() (PndFieldCreator.cxx:98)
==28629== by 0x9013B29: FairRunAna::Init() (FairRunAna.cxx:213)
==28629== by 0x9059859: G__FairDict_792_0_4(G__value*, char const*, G__param*, int)
(FairDict.cxx:11411)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792A9F: G__execute_call (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792DB1: G__call_cppfunc (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x47748F2: G__interpret_func (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4760F27: G__getfunction (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x484A338: G__getstructmem (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4841F75: G__getvariable (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 36 bytes in 3 blocks are possibly lost in loss record 174 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x98EC8C1: PndTpcElectronicsTask::Exec(char const*)
(PndTpcElectronicsTask.cxx:176)
==28629== by 0x4193924: TTask::ExecuteTasks(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4193720: TTask::ExecuteTask(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x9014083: FairRunAna::Run(int, int) (FairRunAna.cxx:278)
==28629== by 0x9059929: G__FairDict_792_0_5(G__value*, char const*, G__param*, int)
(FairDict.cxx:11420)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792A9F: G__execute_call (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792DB1: G__call_cppfunc (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x47748F2: G__interpret_func (in

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/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4760F27: G__getfunction (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x484A338: G__getstructmem (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 60 bytes in 3 blocks are definitely lost in loss record 202 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0xA07A24A: PndSdsStripClusterTask::SetCalculators()
(PndSdsStripClusterTask.cxx:119)
==28629== by 0xA1E873C: PndMvdStripClusterTask::SetCalculators()
(PndMvdStripClusterTask.cxx:77)
==28629== by 0xA07A549: PndSdsStripClusterTask::Init()
(PndSdsStripClusterTask.cxx:157)
==28629== by 0x9019F6A: FairTask::InitTask() (FairTask.cxx:41)
==28629== by 0x901A305: FairTask::InitTasks() (FairTask.cxx:111)
==28629== by 0x901A006: FairTask::InitTask() (FairTask.cxx:48)
==28629== by 0x901A305: FairTask::InitTasks() (FairTask.cxx:111)
==28629== by 0x901A006: FairTask::InitTask() (FairTask.cxx:48)
==28629== by 0x9013B40: FairRunAna::Init() (FairRunAna.cxx:215)
==28629== by 0x9059859: G__FairDict_792_0_4(G__value*, char const*, G__param*, int)
(FairDict.cxx:11411)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 108 bytes in 2 blocks are possibly lost in loss record 218 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x98DDE77: __gnu_cxx::new_allocator<PndTpcDigi*>::allocate(unsigned,
void const*) (new_allocator.h:81)
==28629== by 0x98DDC54: std::_Vector_base<PndTpcDigi*, std::allocator<PndTpcDigi*>
>::_M_allocate(unsigned) (stl_vector.h:113)
==28629== by 0x990A2E6: std::_Vector_base<PndTpcDigi*, std::allocator<PndTpcDigi*>
>::_Vector_base(unsigned, std::allocator<PndTpcDigi*> const&) (stl_vector.h:100)
==28629== by 0x990A149: std::vector<PndTpcDigi*, std::allocator<PndTpcDigi*>
>::vector(std::vector<PndTpcDigi*, std::allocator<PndTpcDigi*> > const&) (stl_vector.h:221)
==28629== by 0x9909EE8: ppstate_output::heartbeat() (TORPPState_Output.cxx:40)
==28629== by 0x990709D: padprocessor::heartbeat() (TORPadProcessor.cxx:105)
==28629== by 0x990C67D: PndTpcSectorProcessor::process()
(PndTpcSectorProcessor.cxx:117)
==28629== by 0x98F2258: PndTpcClusterFinder::process(std::vector<PndTpcDigi*,
std::allocator<PndTpcDigi*> >&) (PndTpcClusterFinder.cxx:118)
==28629== by 0x9900AEF: PndTpcClusterFinderTask::Exec(char const*)
(PndTpcClusterFinderTask.cxx:152)
==28629== by 0x4193924: TTask::ExecuteTasks(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4193720: TTask::ExecuteTask(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==
==28629==

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==28629== 395 bytes in 8 blocks are definitely lost in loss record 266 of 469
==28629==  at 0x4004BBE: operator new[](unsigned) (vg_replace_malloc.c:197)
==28629==  by 0x417381B: TStringRef::GetRep(int, int) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==  by 0x4173919: TString::Streamer(TBuffer&) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==  by 0x5F8F948: int TStreamerInfo::ReadBuffer<char**>(TBuffer&, char** const&,
int, int, int, int) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629==  by 0x5F1AA08: TStreamerInfo::ReadBufferClones(TBuffer&, TClonesArray*, int,
int, int) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629==  by 0x73CB9E7: TBranchElement::ReadLeaves(TBuffer&) (in
/home/spataro/jan10/tools/root/lib/libTree.so.5.26)
==28629==  by 0x73C5A13: TBranch::GetEntry(long long, int) (in
/home/spataro/jan10/tools/root/lib/libTree.so.5.26)
==28629==  by 0x73C7DA6: TBranchElement::GetEntry(long long, int) (in
/home/spataro/jan10/tools/root/lib/libTree.so.5.26)
==28629==  by 0x73C7D42: TBranchElement::GetEntry(long long, int) (in
/home/spataro/jan10/tools/root/lib/libTree.so.5.26)
==28629==  by 0x741458C: TTree::GetEntry(long long, int) (in
/home/spataro/jan10/tools/root/lib/libTree.so.5.26)
==28629==  by 0x73E0E26: TChain::GetEntry(long long, int) (in
/home/spataro/jan10/tools/root/lib/libTree.so.5.26)
==28629==  by 0x9007A27: FairRootManager::ReadEvent(int) (FairRootManager.cxx:479)
==28629==
==28629==
==28629== 404 bytes in 1 blocks are possibly lost in loss record 269 of 469
==28629==  at 0x4004BBE: operator new[](unsigned) (vg_replace_malloc.c:197)
==28629==  by 0x41B5E05: THashTable::THashTable(int, int) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==  by 0x41B5280: THashList::THashList(int, int) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==  by 0x5EDDA1C: TDirectoryFile::Build(TFile*, TDirectory*) (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629==  by 0x5EF1CA3: TFile::TFile(char const*, char const*, char const*, int) (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629==  by 0x9273C04: PndFieldMap::ReadRootFile(char const*, char const*)
(PndFieldMap.cxx:511)
==28629==  by 0x9270EE8: PndFieldMap::Init() (PndFieldMap.cxx:114)
==28629==  by 0x9283791: PndMultiField::Init() (PndMultiField.cxx:137)
==28629==  by 0x927985A: PndFieldCreator::createFairField() (PndFieldCreator.cxx:158)
==28629==  by 0x9013B29: FairRunAna::Init() (FairRunAna.cxx:213)
==28629==  by 0x9059859: G__FairDict_792_0_4(G__value*, char const*, G__param*, int)
(FairDict.cxx:11411)
==28629==  by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 512 bytes in 1 blocks are possibly lost in loss record 281 of 469
==28629==  at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629==  by 0x4D8E55F: __gnu_cxx::new_allocator<double>::allocate(unsigned, void
const*) (in /home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)

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==28629== by 0x4D8DE10: std::_Vector_base<double, std::allocator<double>
>::_M_allocate(unsigned) (in /home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4D8D728: std::_Vector_base<double, std::allocator<double>
>::_Vector_base(unsigned, std::allocator<double> const&) (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x4D8BB8E: std::vector<double, std::allocator<double> >::vector(unsigned,
double const&, std::allocator<double> const&) (in
/home/spataro/jan10/tools/root/lib/libMathCore.so.5.26)
==28629== by 0x947994F: PndEmcWaveform::PndEmcWaveform(int, long, long, int)
(PndEmcWaveform.cxx:55)
==28629== by 0x949C5BF: PndEmcWaveformToDigi::Init()
(PndEmcWaveformToDigi.cxx:135)
==28629== by 0x9019F6A: FairTask::InitTask() (FairTask.cxx:41)
==28629== by 0x901A305: FairTask::InitTasks() (FairTask.cxx:111)
==28629== by 0x901A006: FairTask::InitTask() (FairTask.cxx:48)
==28629== by 0x9013B40: FairRunAna::Init() (FairRunAna.cxx:215)
==28629== by 0x9059859: G__FairDict_792_0_4(G__value*, char const*, G__param*, int)
(FairDict.cxx:11411)
==28629==
==28629==
==28629== 4,398 bytes in 102 blocks are definitely lost in loss record 363 of 469
==28629== at 0x4004BBE: operator new[](unsigned) (vg_replace_malloc.c:197)
==28629== by 0x4176EFE: StrDup(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4186CF4: TSystem::Which(char const*, char const*, EAccessMode) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x420BC87: TUnixSystem::DynamicPathName(char const*, bool) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4333642: G__G__Base2_237_0_118(G__value*, char const*, G__param*,
int) (in /home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792A9F: G__execute_call (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792DB1: G__call_cppfunc (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x47748F2: G__interpret_func (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4760F27: G__getfunction (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x484A338: G__getstructmem (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4841F75: G__getvariable (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 8,388 (2,952 direct, 5,436 indirect) bytes in 246 blocks are definitely lost in loss
record 367 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x9909ECD: ppstate_output::heartbeat() (TORPPState_Output.cxx:40)
==28629== by 0x990709D: padprocessor::heartbeat() (TORPadProcessor.cxx:105)

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==28629== by 0x990C67D: PndTpcSectorProcessor::process()
(PndTpcSectorProcessor.cxx:117)
==28629== by 0x98F2258: PndTpcClusterFinder::process(std::vector<PndTpcDigi*,
std::allocator<PndTpcDigi*> >&) (PndTpcClusterFinder.cxx:118)
==28629== by 0x9900AEF: PndTpcClusterFinderTask::Exec(char const*)
(PndTpcClusterFinderTask.cxx:152)
==28629== by 0x4193924: TTask::ExecuteTasks(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4193720: TTask::ExecuteTask(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x9014083: FairRunAna::Run(int, int) (FairRunAna.cxx:278)
==28629== by 0x9059929: G__FairDict_792_0_5(G__value*, char const*, G__param*, int)
(FairDict.cxx:11420)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792A9F: G__execute_call (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 8,012 (3,680 direct, 4,332 indirect) bytes in 92 blocks are definitely lost in loss
record 376 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x8FEEB8A: __gnu_cxx::new_allocator<std::_Rb_tree_node<FairLink>
>::allocate(unsigned, void const*) (new_allocator.h:81)
==28629== by 0x8FEEB59: std::_Rb_tree<FairLink, FairLink, std::_Identity<FairLink>,
std::less<FairLink>, std::allocator<FairLink> >::_M_get_node() (stl_tree.h:356)
==28629== by 0x8FEEA56: std::_Rb_tree<FairLink, FairLink, std::_Identity<FairLink>,
std::less<FairLink>, std::allocator<FairLink> >::_M_create_node(FairLink const&)
(stl_tree.h:365)
==28629== by 0x8FEE99C: std::_Rb_tree<FairLink, FairLink, std::_Identity<FairLink>,
std::less<FairLink>, std::allocator<FairLink> >::_M_insert(std::_Rb_tree_node_base*,
std::_Rb_tree_node_base*, FairLink const&) (stl_tree.h:809)
==28629== by 0x8FEE839: std::_Rb_tree<FairLink, FairLink, std::_Identity<FairLink>,
std::less<FairLink>, std::allocator<FairLink> >::insert_unique(FairLink const&) (stl_tree.h:925)
==28629== by 0x8FEE6D2: std::set<FairLink, std::less<FairLink>, std::allocator<FairLink>
>::insert(FairLink const&) (stl_set.h:314)
==28629== by 0x8FEFBC1: FairMultiLinkedData::InsertLink(FairLink)
(FairMultiLinkedData.cxx:137)
==28629== by 0x8FF24BB: FairMultiLinkedData::AddLink(FairLink, bool, float)
(FairMultiLinkedData.cxx:123)
==28629== by 0x91E47EC: PndMdtTrk::SetHitIndex(int, int) (PndMdtTrk.h:98)
==28629== by 0xA6B512A: PndMdtTrkProducer::Exec(char const*)
(PndMdtTrkProducer.cxx:320)
==28629== by 0x4193924: TTask::ExecuteTasks(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==
==28629==
==28629== 12,580 bytes in 75 blocks are possibly lost in loss record 394 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x4172F35: TStorage::ObjectAlloc(unsigned) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)

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==28629== by 0x4205179: TObject::operator new(unsigned) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x42E5965: ROOT::TQObjectInitBehavior::CreateClass(char const*, short,
std::type_info const&, TVirtualsAProxy*, void (*)(void*, TMemberInspector&, char*), char
const*, char const*, int, int) const (in /home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41DDBD8: ROOT::TGenericClassInfo::GetClass() (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x70E45BB: TPad::Dictionary() (in
/home/spataro/jan10/tools/root/lib/libGpad.so.5.26)
==28629== by 0x41711FE: TROOT::LoadClass(char const*, bool) const (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x415533C: TPluginHandler::LoadPlugin() (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4127C68: TApplication::LoadGraphicsLibs() (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41264B5: TApplication::InitializeGraphics() (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41878B9: TSystem::Load(char const*, char const*, bool) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x420844B: TUnixSystem::Load(char const*, char const*, bool) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==
==28629==
==28629== 17,620 bytes in 150 blocks are possibly lost in loss record 401 of 469
==28629== at 0x4004BBE: operator new[](unsigned) (vg_replace_malloc.c:197)
==28629== by 0x5F0EA2F: TStreamerInfo::Compile() (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x5F18FDF: TStreamerInfo::BuildOld() (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x5ED88A6: TBufferFile::ReadClassBuffer(TClass const*, void*, int,
unsigned, unsigned, TClass const*) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x7C872B1: TLorentzVector::Streamer(TBuffer&) (in
/home/spataro/jan10/tools/root/lib/libPhysics.so.5.26)
==28629== by 0x5F915CE: int TStreamerInfo::ReadBuffer<char**>(TBuffer&, char** const&,
int, int, int, int) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x5ED8A92: TBufferFile::ReadClassBuffer(TClass const*, void*, TClass
const*) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0xA594EE3: PndTof::Streamer(TBuffer&) (PndTofDict.cxx:379)
==28629== by 0x41C9A1F: TClass::Streamer(void*, TBuffer&, TClass const*) const (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x5ED6A13: TBufferFile::ReadObjectAny(TClass const*) (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x41BA8D8: TObjArray::Streamer(TBuffer&) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41C9A1F: TClass::Streamer(void*, TBuffer&, TClass const*) const (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==
==28629==
==28629== 18,560 bytes in 43 blocks are possibly lost in loss record 402 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x98F0275: __gnu_cxx::new_allocator<PndTpcSignal*>::allocate(unsigned,
void const*) (new_allocator.h:81)

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==28629== by 0x98EF88A: std::_Vector_base<PndTpcSignal*,
std::allocator<PndTpcSignal*> >::_M_allocate(unsigned) (stl_vector.h:113)
==28629== by 0x98EE7EE: std::vector<PndTpcSignal*, std::allocator<PndTpcSignal*>
>::_M_insert_aux(__gnu_cxx::__normal_iterator<PndTpcSignal**, std::vector<PndTpcSignal*,
std::allocator<PndTpcSignal*> > >, PndTpcSignal* const&) (vector.tcc:244)
==28629== by 0x98EDBD3: std::vector<PndTpcSignal*, std::allocator<PndTpcSignal*>
>::push_back(PndTpcSignal* const&) (stl_vector.h:564)
==28629== by 0x98EC96F: PndTpcElectronicsTask::Exec(char const*)
(PndTpcElectronicsTask.cxx:177)
==28629== by 0x4193924: TTask::ExecuteTasks(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4193720: TTask::ExecuteTask(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x9014083: FairRunAna::Run(int, int) (FairRunAna.cxx:278)
==28629== by 0x9059929: G__FairDict_792_0_5(G__value*, char const*, G__param*, int)
(FairDict.cxx:11420)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792A9F: G__execute_call (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 172,224 (29,484 direct, 142,740 indirect) bytes in 2,457 blocks are definitely lost in
loss record 427 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x98EC8C1: PndTpcElectronicsTask::Exec(char const*)
(PndTpcElectronicsTask.cxx:176)
==28629== by 0x4193924: TTask::ExecuteTasks(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4193720: TTask::ExecuteTask(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x9014083: FairRunAna::Run(int, int) (FairRunAna.cxx:278)
==28629== by 0x9059929: G__FairDict_792_0_5(G__value*, char const*, G__param*, int)
(FairDict.cxx:11420)
==28629== by 0x46FA1D2: Cint::G__ExceptionWrapper(int (*)(G__value*, char const*,
G__param*, int), G__value*, char*, G__param*, int) (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792A9F: G__execute_call (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4792DB1: G__call_cppfunc (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x47748F2: G__interpret_func (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x4760F27: G__getfunction (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629== by 0x484A338: G__getstructmem (in
/home/spataro/jan10/tools/root/lib/libCint.so.5.26)
==28629==
==28629==
==28629== 1,092,492 bytes in 23,879 blocks are possibly lost in loss record 453 of 469
==28629== at 0x4004BBE: operator new[](unsigned) (vg_replace_malloc.c:197)

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==28629== by 0x417381B: TStringRef::GetRep(int, int) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4173B13: TString::TString(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41AEDD7: TClassTable::Add(char const*, short, std::type_info const&, void
(*)(), int) (in /home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41AEE60: ROOT::AddClass(char const*, short, std::type_info const&, void
(*)(), int) (in /home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41E0144: ROOT::TDefaultInitBehavior::Register(char const*, short,
std::type_info const&, void (*)(), int) const (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41DD2ED: ROOT::TGenericClassInfo::Init(int) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x41DEE9D: ROOT::TGenericClassInfo::TGenericClassInfo(char const*, int,
char const*, int, std::type_info const&, ROOT::TInitBehavior const*, void (*)(),
TVirtualsAProxy*, int, int) (in /home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4E30A89: ROOT::GenerateInitInstanceLocal(TRint const*) (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E36CAD: __static_initialization_and_destruction_0(int, int) (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E36D58: _GLOBAL__I_ZN4ROOT20GenerateInitInstanceEPK5TRint (in
/home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629== by 0x4E37B08: (within /home/spataro/jan10/tools/root/lib/libRint.so.5.26)
==28629==
==28629==
==28629== 1,365,098 (1,161,096 direct, 204,002 indirect) bytes in 7,984 blocks are definitely
lost in loss record 455 of 469
==28629== at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629== by 0x4172F35: TStorage::ObjectAlloc(unsigned) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x4205179: TObject::operator new(unsigned) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x66D1DFD: ROOT::new_TGeoHMatrix(void*) (in
/home/spataro/jan10/tools/root/lib/libGeom.so.5.26)
==28629== by 0x41CBA8C: TClass::New(TClass::ENewType) const (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x5ED69D7: TBufferFile::ReadObjectAny(TClass const*) (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x5ED5400: TBufferFile::ReadFastArray(void**, TClass const*, int, bool,
TMemberStreamer*, TClass const*) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x5F8F480: int TStreamerInfo::ReadBuffer<char**>(TBuffer&, char** const&,
int, int, int, int) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x5ED8A92: TBufferFile::ReadClassBuffer(TClass const*, void*, TClass
const*) (in /home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629== by 0x66DEDCD: TGeoNodeMatrix::Streamer(TBuffer&) (in
/home/spataro/jan10/tools/root/lib/libGeom.so.5.26)
==28629== by 0x41C9A1F: TClass::Streamer(void*, TBuffer&, TClass const*) const (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629== by 0x5ED6A13: TBufferFile::ReadObjectAny(TClass const*) (in
/home/spataro/jan10/tools/root/lib/libRIO.so.5.26)
==28629==
==28629==

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==28629== 10,082,749 bytes in 546,993 blocks are possibly lost in loss record 465 of 469
==28629==   at 0x4004790: operator new(unsigned) (vg_replace_malloc.c:164)
==28629==   by 0xC17971: std::string::_Rep::_S_create(unsigned, unsigned,
std::allocator<char> const&) (in /usr/lib/libstdc++.so.6.0.3)
==28629==   by 0xC19DF4: (within /usr/lib/libstdc++.so.6.0.3)
==28629==   by 0xC19F01: std::string::string(char const*, std::allocator<char> const&) (in
/usr/lib/libstdc++.so.6.0.3)
==28629==   by 0x9906FED: padprocessor::reset() (TORPadProcessor.cxx:99)
==28629==   by 0x990C8D2: PndTpcSectorProcessor::reset()
(PndTpcSectorProcessor.cxx:176)
==28629==   by 0x98F2273: PndTpcClusterFinder::process(std::vector<PndTpcDigi*,
std::allocator<PndTpcDigi*> >&) (PndTpcClusterFinder.cxx:119)
==28629==   by 0x9900AEF: PndTpcClusterFinderTask::Exec(char const*)
(PndTpcClusterFinderTask.cxx:152)
==28629==   by 0x4193924: TTask::ExecuteTasks(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==   by 0x4193720: TTask::ExecuteTask(char const*) (in
/home/spataro/jan10/tools/root/lib/libCore.so.5.26)
==28629==   by 0x9014083: FairRunAna::Run(int, int) (FairRunAna.cxx:278)
==28629==   by 0x9059929: G__FairDict_792_0_5(G__value*, char const*, G__param*, int)
(FairDict.cxx:11420)
==28629==
==28629== LEAK SUMMARY:
==28629==   definitely lost: 1,202,437 bytes in 10,899 blocks.
==28629==   indirectly lost: 356,798 bytes in 10,995 blocks.
==28629==   possibly lost: 11,225,061 bytes in 571,147 blocks.
==28629==   still reachable: 134,510,864 bytes in 1,744,573 blocks.
==28629==     suppressed: 0 bytes in 0 blocks.
==28629== Reachable blocks (those to which a pointer was found) are not shown.
==28629== To see them, rerun with: --show-reachable=yes

```

The last one from the TPC Cluster Finder seems a big guy!

Many thanks