Subject: problem when running statistics larger than 2 000 events
Posted by Jerome Boucher on Fri, 17 Oct 2008 14:03:40 GMT
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Hi everybody!

I'm generating events with the macro: run_sim_tpccombi_pgun.C, then I use the macro run_digi_tpccombi.C and finally run_reco_tpccombi.C.

I've done simulation generating up to 1 000 events for different particles (pions, electrons, muons, gammas, ...) and energy ranges (up to 15Gev/c) without problems. So I wanted to increase the statistics to 10 000 events.

Here comes the problem:
I've run the first macro with 10 000 muons of 1Gev/c. It finished normally. Then I ran the run_digi_tpccombi.C and it crashed. I've tried for different numbers of events and I've obtained always the same error. In my case the limit is more or less 2 000 events. Above this limit the second macro stops each time with the following message (also in attached file):

ROOT 5.20/00 (trunk@24524, Sep 04 2008, 12:06:00 on linuxx8664gcc)

CINT/ROOT C/C++ Interpreter version 5.16.29, Jan 08, 2008
Type ? for help. Commands must be C++ statements.
Enclose multiple statements between { }.
- RTDB container factory CbmBaseContFact
- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact

PSaid instance created... access via gSaid->f()

- RTDB container factory PndSttContFact
- RTDB container factory PndEmcContFact
- RTDB container factory PndTpcContFact
- RTDB container factory PndMvdContFact
- RTDB container factory PndTofContFact
- RTDB container factory PndDrcContFact
- RTDB container factory PndMdtContFact
- RTDB container factory PndDchContFact
- RTDB container factory PndLheContFact
root [0]
Processing run_digi_tpccombi.C...
Note: File "/vol0/home2/boucher_loc/soft/buildPanda/lib/libDrc.so" already loaded
-I- CbmRunAna: Opening Input file: points_tpccombi.root

-I- CbmRunAna::Init :
points_tpccombi.root is connected with:

Info in <TGeoManager::CloseGeometry>: Geometry loaded from file...
Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave
Info in <TGeoManager::Voxelize>: Voxelizing...
Info in <TGeoNavigator::BuildCache>: --- Maximum geometry depth set to 100

```
Info in <TGeoManager::CloseGeometry>: 464550 nodes/ 1282 volume UID's in CBM geometry
Info in <TGeoManager::CloseGeometry>: ----------------modeler ready----------------
PndFieldCreator::SetParm()
create PndFieldPar container PndFieldPar
create PndFieldPar container PndSolenoidPar
create PndFieldPar container PndDipolePar
create PndFieldPar container PndTransPar
create PndFieldPar container PndConstPar
create PndFieldPar container PndMultiFieldPar
PndTpcClusterizerTask::SetParContainers
PndTpcDriftTask::SetParContainers
PndTpcGemTask::SetParContainers
PndTpcPadResponseTask::SetParContainers
PndTpcElectronicsTask::SetParContainers
PndTpcClusterFinderTask::SetParContainers
 -I container name PndEmcDigiPar
 -I container name PndEmcRecoPar

************************************************************
    initialisation for run id 347460271
************************************************************

 *** Break *** segmentation violation
Using host libthread_db library "/lib64/libthread_db.so.1".
Attaching to program: /proc/9524/exe, process 9524
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/96/c005fcc474ab8b0d1aa41267111de2f0b647b0.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/64/ce37a1b7ee7ce1c23dcfe9344cbb361c321b8f.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/72/0ad477c75be7d7cbc97c0a6f443746dda98341.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/91/f8d452c6cc80573296b2bbb28a1dd076b0507f.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/e8/abaa654dc4b17b75c06c866898a17ea06f2bcf.debug
done.
[Thread debugging using libthread_db enabled]
[New Thread 139725682149120 (LWP 9524)]
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/ea/5b2fb654311e2dc8beacf2f19c1c6d172ba93d.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/9a/49e1d215d41e033813a1bbbf62c7c160754b78.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/fa/841219472d35412ad631ad0f0fabb78e5c1957.debug
done.
Try: yum --enablerepo='*-debuginfo' install
```

/usr/lib/debug/.build-id/c1/8f4feceb846cc1f5353fd9bf2dead28a8c19e7.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/f9/a87dac1712fade1569dca237e8384e02ba952c.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/5c/a8a05c48617a1c4a32acda9f5651f78b4fe005.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/73/f6ec959fe5cbcddbd9854802fb7013d30aa1ae.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/4e/a27614c91c73ae57ffb4f8310b831355782153.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/0a/cc0e01bf3e954ee01a8ce7eea78c8dd601375d.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/3e/8c340b7e8af36a4cdcc899c4b43e7c8ba87752.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/86/deb4b58dafde62d0b486e3ae1aa33585e5ba14.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/8d/27629eab3703a1b3c02c846b1dc2ebb0b856b7.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/38/699c1e33e43a3e7a1e612e885f8e96d7b4e929.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/4e/013d1f6ea6df2ce9372800ced749434b94c95d.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/0c/3c55b2f32bf731379eb595b06e3d97d8f2a72a.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/95/aaf78f8e9277450782063986aeb0aede0e2fb3.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/09/6ec9eec08d728dd9009ba302d81a197cae89fb.debug
done.
Try: yum --enablerepo='*-debuginfo' install
/usr/lib/debug/.build-id/ce/4b422a4a51c6274c22d7416e881110508daf19.debug
done.
0x0000003ba1a9a835 in waitpid () from /lib64/libc.so.6
#1 0x0000003ba1a3ce39 in do_system () from /lib64/libc.so.6
#2 0x00000000008aa2cd in TUnixSystem::Exec (this=0x127acd0,
#3 0x00000000008a97f1 in TUnixSystem::StackTrace (this=0x127acd0) at
core/unix/src/TUnixSystem.cxx:2121
#4 0x00000000008ac60d in TUnixSystem::DispatchSignals (this=0x127acd0,
sig=kSigSegmentationViolation) at core/unix/src/TUnixSystem.cxx:1089
#5 0x00000000008ac731 in SigHandler (sig=kSigSegmentationViolation) at

core/unix/src/TUnixSystem.cxx:351
#6 0x00000000008a305b in sighandler (sig=11) at core/unix/src/TUnixSystem.cxx:3344
#7 <signal handler called>
#8 0x00007f1463b514b5 in delete_PndGeoEmcPar (p=0xc94e3205205c053e) at
/vol0/home2/boucher_loc/soft/buildPanda/emc/PndEmcDict.cxx:2811
#9 0x0000000000860485 in TClass::Destructor (this=0x20436d0, obj=0xc94e3205205c053e,
dtorOnly=false) at core/meta/src/TClass.cxx:3437
#10 0x00007f146b663f3f in TBufferFile::ReadFastArray (this=0x2df08d0, start=0x2e8d4d0,
cl=0x20436d0, n=1, isPreAlloc=false, streamer=0x0)
    at io/io/src/TBufferFile.cxx:1462
#11 0x00007f146b74221a in TStreamerInfo::ReadBuffer<char**> (this=0x201d6f0,
b=@0x2df08d0, arr=@0x7fff74ab49d0, first=0, narr=1, eoffset=0,
    arrayMode=0) at io/io/src/TStreamerInfoReadBuffer.cxx:911
#12 0x00007f146b660ab9 in TBufferFile::ReadClassBuffer (this=0x2df08d0, cl=0x203cc70,
pointer=0x2e8d460) at io/io/src/TBufferFile.cxx:3327
#13 0x00007f1463b63e7c in PndEmc::Streamer (this=0x2e8d460, R(bool)=@0x2df08d0) at
/vol0/home2/boucher_loc/soft/buildPanda/emc/PndEmcDict.cxx:2626
#14 0x000000000086634d in TClass::Streamer (this=0x203cc70, object=0x2e8d460,
b=@0x2df08d0) at core/meta/src/TClass.cxx:4343
#15 0x00007f146b663b05 in TBufferFile::ReadObjectAny (this=0x2df08d0, clCast=0x17d77f0)
at io/io/src/TBufferFile.cxx:2250
#16 0x000000000085280d in TObjArray::Streamer (this=0x2e2b550, b=@0x2df08d0) at
core/cont/src/TObjArray.cxx:393
#17 0x000000000086634d in TClass::Streamer (this=0x1b6a870, object=0x2e2b550,
b=@0x2df08d0) at core/meta/src/TClass.cxx:4343
#18 0x00007f146b663b05 in TBufferFile::ReadObjectAny (this=0x2df08d0, clCast=0x1b6a870)
at io/io/src/TBufferFile.cxx:2250
#19 0x00007f146b6b3185 in operator>><TObjArray> (buf=@0x2df08d0, obj=@0x2df07c0) at
include/TBuffer.h:348
#20 0x00007f146523d19d in CbmBaseParSet::Streamer (this=0x2df0740,
R(bool)=@0x2df08d0)
    at /vol0/home2/boucher_loc/soft/buildPanda/base/CbmDict.cxx:2057
#21 0x00007f146b6978ad in TKey::Read (this=0x1f825d0, obj=0x2df0740) at
io/io/src/TKey.cxx:1079
#22 0x00007f146549f1bf in CbmDetParRootFileIo::read (this=0x202edf0, pPar=0x2df0740)
    at /vol0/home2/boucher_loc/soft/pandaroot/parbase/CbmDetParRootFileIo.cxx:5 3
#23 0x00007f14654a1d4b in CbmGenericParRootFileIo::init (this=0x202edf0,
pPar=0x2df0740)
    at /vol0/home2/boucher_loc/soft/pandaroot/parbase/CbmGenericParRootFileIo.c xx:25
#24 0x00007f14654a28da in CbmParGenericSet::init (this=0x2df0740, inp=0x1f7f090)
    at /vol0/home2/boucher_loc/soft/pandaroot/parbase/CbmParGenericSet.cxx:37
#25 0x00007f14654a4705 in CbmParSet::init (this=0x2df0740) at
/vol0/home2/boucher_loc/soft/pandaroot/parbase/CbmParSet.cxx:43
#26 0x00007f14654ac8ed in CbmRuntimeDb::initContainers (this=0x19f2430) at
/vol0/home2/boucher_loc/soft/pandaroot/parbase/CbmRuntimeDb.cxx:393
#27 0x00007f14654ad548 in CbmRuntimeDb::initContainers (this=0x19f2430,
runId=347460271, refId=-1, fileName=0x7f1465244940 "")
    at /vol0/home2/boucher_loc/soft/pandaroot/parbase/CbmRuntimeDb.cxx:344
#28 0x00007f14651cb56e in CbmRunAna::Init (this=0x1b5fa40) at
/vol0/home2/boucher_loc/soft/pandaroot/base/CbmRunAna.cxx:130
#29 0x00007f1465209257 in G__CbmDict_531_0_4 (result7=0x7fff74abd0a0,
funcname=0x1b5a020 "\001", libp=0x7fff74ab6890, hash=0)

at /vol0/home2/boucher_loc/soft/buildPanda/base/CbmDict.cxx:9228
#30 0x00007f146beb824b in Cint::G__ExceptionWrapper (funcp=0x7f146520922a <G__CbmDict_531_0_4>, result7=0x7fff74abd0a0, funcname=0x1b5a020 "\001", libp=0x7fff74ab6890, hash=0) at cint/cint/src/Api.cxx:364
#31 0x00007f146bf9ee33 in G__execute_call (result7=0x7fff74abd0a0, libp=0x7fff74ab6890, ifunc=0x1b5a020, ifn=0) at cint/cint/src/newlink.cxx:2305
#32 0x00007f146bfa4263 in G__call_cppfunc (result7=0x7fff74abd0a0, libp=0x7fff74ab6890, ifunc=0x1b5a020, ifn=0) at cint/cint/src/newlink.cxx:2471
#33 0x00007f146bf60c0b in G__interpret_func (result7=0x7fff74abd0a0, funcname=0x7fff74abcaa0 "Init", libp=0x7fff74ab6890, hash=404, p_ifunc=0x1b5a020, funcmatch=1, memfunc_flag=1) at cint/cint/src/ifunc.cxx:5245
#34 0x00007f146bf4e77d in G__getfunction (item=0x7fff74ac2936 "Init()", known3=0x7fff74ac0398, memfunc_flag=1) at cint/cint/src/func.cxx:2534
#35 0x00007f146c052167 in G__getstructmem (store_var_type=112, varname=0x7fff74abf440 "timer", membername=0x7fff74ac2936 "Init()", tagname=0x7fff74abf640 "fRun", known2=0x7fff74ac0398, varglobal=0x7f146c3236a0, the problem objptr=2) at cint/cint/src/var.cxx:6623
#36 0x00007f146c0412cd in G__getvariable (item=0x7fff74ac2930 "fRun->Init()", known=0x7fff74ac0398, varglobal=0x7f146c3236a0, varlocal=0x0) at cint/cint/src/var.cxx:5252
#37 0x00007f146bf17538 in G__getitem (item=0x7fff74ac2930 "fRun->Init()") at cint/cint/src/expr.cxx:1884
#38 0x00007f146bf2bbb9 in G__getexpr (expression=0x7fff74ac31e0 "fRun->Init()") at cint/cint/src/expr.cxx:1470
#39 0x00007f146bfb6fc0 in G__exec_function (statement=0x7fff74ac31e0 "fRun->Init()", pc=0x7fff74ac396c, piout=0x7fff74ac3968, plargestep=0x7fff74ac3960, presult=0x7fff74ac38f0) at cint/cint/src/parse.cxx:601
#40 0x00007f146bfbf053 in G__exec_statement (mparen=0x7fff74ad04ec) at cint/cint/src/parse.cxx:6972
#41 0x00007f146beffda1 in G__exec_tempfile_core (file=0x7fff74ad2b70 " /vol0/home2/boucher_loc/soft/pandaroot/tutorials/lhetrack/./run_digi_tpc combi.C ", fp=0x0) at cint/cint/src/debug.cxx:251
#42 0x00007f146bf0015d in G__exec_tempfile (file=0x7fff74ad2b70 " /vol0/home2/boucher_loc/soft/pandaroot/tutorials/lhetrack/./run_digi_tpc combi.C ") at cint/cint/src/debug.cxx:798
#43 0x00007f146bfd20e7 in G__process_cmd (line=0xf94581 "l_54", prompt=0x127eac8 "", more=0x127eac0, err=0x7fff74ad3bfc, rslt=0x7fff74ad3b90) at cint/cint/src/pause.cxx:3074
#44 0x00000000008976f1 in TCint::ProcessLine (this=0x127ea90, line=0xf94581 "l_54", error=0x7fff74ad65c4) at core/meta/src/TCint.cxx:339
#45 0x000000000088e7a8 in TCint::ProcessLineSynch (this=0x127ea90, line=0xf94581 "l_54", error=0x7fff74ad65c4) at core/meta/src/TCint.cxx:406
#46 0x000000000079ea7b in TApplication::ExecuteFile (file=0x7fff74ad4573 "run_digi_tpccombi.C", error=0x7fff74ad65c4) at core/base/src/TApplication.cxx:936
#47 0x000000000079ec5f in TApplication::ProcessFile (this=0x12b1880, file=0x7fff74ad4573 "run_digi_tpccombi.C", error=0x7fff74ad65c4) at core/base/src/TApplication.cxx:825
#48 0x00000000007a1452 in TApplication::ProcessLine (this=0x12b1880, line=0x7fff74ad4570 ".x run_digi_tpccombi.C", sync=false, err=0x7fff74ad65c4) at core/base/src/TApplication.cxx:798

#49 0x0000000000121ab4 in TRint::Run (this=0x12b1880, retrn=false) at core/rint/src/TRint.cxx:355
#50 0x00000000004010da in main (argc=1, argv=0x7fff74ad6748) at main/src/rmain.cxx:29
The program is running. Quit anyway (and detach it)? (y or n) [answered Y; input not from terminal]
Detaching from program: /proc/9524/exe, process 9524
Root > .q

Is there an event limit in the run_digi_tpccombi.C macro? Did someone already have this problem?

Thanks,

jerome

File Attachments

1) error.txt, downloaded 377 times

Subject: Re: problem when running statistics larger than 2 000 events
Posted by StefanoSpataro on Fri, 17 Oct 2008 14:23:35 GMT
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I would expect that the sim macro is producing more than one output file. How have you handled them?

Subject: Re: problem when running statistics larger than 2 000 events
Posted by Jerome Boucher on Fri, 17 Oct 2008 14:46:09 GMT
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Hi!

I'm running on IPNO laptop. The available memory is about 45 Go. the two output files for 2 000 muons are points_tpccombi.root (~450Mo) and params_tpccombi.root (~2Mo). This two files are used for the next step which in principle produces digi_tpccombi.root (~90Mo).
For the run_sim_tpccombi_pgun.C and run_digi_tpccombi.C, I'm using exactly the one from the Ferrara tutorial.
After reaching the reconstruction macro step, I copy all produced root files to other hard disk before regenerating a new collection of events.

Have you ever run more then 2 000 events? If yes, did you do something special?

jerome

Subject: Re: problem when running statistics larger than 2 000 events
Posted by asanchez on Fri, 17 Oct 2008 15:20:39 GMT

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HI
actually i have a similar problem by running
many events but with other tasks.
In my case are 50k events.

Mohammad told me it can be related with some
memory leak somewhere...

he will look into that on Monday...

Let's hope the best
best regrads
alicia.

Subject: Re: problem when running statistics larger than 2 000 events
Posted by Ralf Kliemt on Mon, 20 Oct 2008 13:27:08 GMT
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Hi,

When I look at the root debugging output you posted, Iread the following:
#37 0x00007f146bf17538 in G__getitem (item=0x7fff74ac2930 "fRun->Init()") at
cint/cint/src/expr.cxx:1884
#22 0x00007f146549f1bf in CbmDetParRootFileIo::read (this=0x202edf0, pPar=0x2df0740)
#10 0x00007f146b663f3f in TBufferFile::ReadFastArray (this=0x2df08d0, start=0x2e8d4d0,
cl=0x20436d0, n=1, isPreAlloc=false, streamer=0x0)
at io/io/src/TBufferFile.cxx:1462

Seaching on the root site leads here.
Finally there is this line which jumps at me:
#8 0x00007f1463b514b5 in delete_PndGeoEmcPar (p=0xc94e3205205c053e) at
/vol0/home2/boucher_loc/soft/buildPanda/emc/PndEmcDict.cxx:2811

So I would say there is a bug inside the frameworks io with root. It appears before the events actually start running, so I wonder why we don't see it in other cases.

Since the PndGeoEmcPar is involved I wonder if you set up you parameters correctly. Which parameter file do you load? Could you rerun the 10k events with other filenames again, to be sure of working with a clean file.

So far, greetings from Dresden.
Ralf.

Subject: Re: problem when running statistics larger than 2 000 events
Posted by Jerome Boucher on Mon, 27 Oct 2008 08:43:28 GMT
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Hi,

Sorry for my late answer.

I saw the Mohamamd's answer, I'll check if my problem is due to the same problem as you.

For PndGeoEmcPar, I've no clear idea what to check and where to look at. My version was installed during the tutorial meeting at ferrara in september.

I've rerun 10 000 events using different name for the output file and I had the same problem.

Just for information, the laptop i'm using is 64 bits one. Could my problem be related to this specificitie?

greetings
jerome

Subject: Re: problem when running statistics larger than 2 000 events
Posted by asanchez on Mon, 27 Oct 2008 11:30:09 GMT
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Hi
try to comment the emc,
and run again!!!

Maybe you should also see as Ralf mentioned if you have set correctly the parameters file in your macro.

Subject: Re: problem when running statistics larger than 2 000 events
Posted by StefanoSpataro on Wed, 26 Nov 2008 14:31:44 GMT
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Just checking this error, again, I find a way to bypass it (it appears only in very few machines).

When you initialite the parameters in your digi macro, you should comment out the line:

rtdb->setFirstInput(parInput1);

and it should work.

The problem, I think, it is related to the fact that PndGeoEmcPar contains fSensNodes, which is not filled in EMC case and neither created (to have a fast simulation).
When in the init ROOT tries to search for PndGeoEmcPar containers in the simparams file, it fails somehow, and gives you the crash. If you comment out the line (even in reco and all the other macros) it should work.

I think, at the moment PndGeoEmcPar is not used at all, so maybe one could exclude it from the container factory, but I need Dima response before doing this, he knows the digi/reco code better than me.

At the moment I think there are no detectors using this simparams.root file to access to paramater informations, so it should not harm the analysis if you comment it out.
Please try and let me know.

Subject: Re: problem when running statistics larger than 2 000 events
Posted by Dima Melnychuk on Wed, 26 Nov 2008 14:49:47 GMT
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Hi Stefano,

I just want to confirm that PndGeoEmcPar is not used in emc digi/reco code and therefore can be excluded from container factory.

Dima

Subject: Re: problem when running statistics larger than 2 000 events
Posted by Jerome Boucher on Fri, 28 Nov 2008 10:36:31 GMT
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Hi!

I commented out the line:
rtdb->setFirstInput(parInput1);
and ran again digi as well as reco macro.

now it is working

Thanks a lot

jerome

Subject: Re: problem when running statistics larger than 2 000 events
Posted by StefanoSpataro on Mon, 15 Dec 2008 17:16:50 GMT
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Hi,
PndGeoEmcPar was removed from the repository (also in the Container factory, of course).
Now, with the latest revision, the parameter line can be uncommented.

If somebody still finds some troubles/errors, just send me a message.

Subject: Re: problem when running statistics larger than 2 000 events

Posted by asanchez on Tue, 16 Dec 2008 10:29:06 GMT
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So what that means, is
that now if you bild the detector parameters
for digitization(for example)
inside the param directory you don't need
to create a parameter file by using the db classes?

ALicia S.

Subject: Re: problem when running statistics larger than 2 000 events
Posted by StefanoSpataro on Tue, 16 Dec 2008 10:32:42 GMT
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This is just for emc,
this means that you can run the normal macro even with large number of events, without the comment suggested before.
Nothing has changed for the digitization and for the db handling, there was just a sort of bug fix.