Subject: Question about geometryversion for EMC
Posted by donghee on Fri, 13 May 2011 15:32:23 GMT
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Hi all,

What is different between SetGeometryVersion(15) and (19) at EMC?

In version 15, the file of "emc_module125.dat" is called.
and for 19 case used "emc_module12.dat".

And I'm wondering whether both case(ver.15 and 19) will be put also very forward calorimeter (Shashlyk-type calorimeter) automatically in the simulation or not.

Thank you for your teaching...
Donghee

Subject: Re: Question about geometryversion for EMC
Posted by StefanoSpataro on Fri, 13 May 2011 17:11:07 GMT
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The 19 has no forward calorimeter.considering that we are not going to use it,that is consuming memory and it occupies disk space it is taken out.

Subject: Re: Question about geometryversion for EMC
Posted by donghee on Fri, 13 May 2011 21:07:07 GMT
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I see, therefore 19 is much faster than 15.
ps, Some peoples are interesting to use forward calorimeter too in some reason like me.

Thanks, stefano

Subject: Re: Question about geometryversion for EMC
Posted by Dmitry Morozov on Wed, 25 May 2011 04:48:40 GMT
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Stefano Spataro wrote on Fri, 13 May 2011 21:11The 19 has no forward calorimeter.considering that we are not going to use it,that is consuming memory and it occupies disk space it is taken out.

There is version 17 with root version of fsc "emc_module5_fsc.root". Is it also consuming memory? I have not noticed that.

Moreover versions with emc_modulexx5.dat is obsolete.

Subject: Re: Question about geometryversion for EMC
Posted by StefanoSpataro on Wed, 25 May 2011 08:38:55 GMT
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Some time ago I have seen that running complete simulation with DPM (10k events), after a while the simulation exits without giving error messages at all. This should be a matter of memory, when it is completely filled (if I remember well).
I have seen that removing the fsc from simulation (emc geometry type 19), this does not happen anymore... My fear that this is connected to the higher number of secondaries, due to the separated physics lists (SetSpecialCuts gMC->SetMaxNStep((int)1E6), or something similar.

Maybe it could be good if a check on the stability for large number of events is performed for such geometry, for sure we want to reduce the risks of crashing macrocand I have taken it out for the TDR production.
Could you please check this point?
Thanks in advance.

Subject: Re: Question about geometryversion for EMC
Posted by Dmitry Morozov on Thu, 26 May 2011 05:13:41 GMT
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Ok, Stefano, I'll check this

Subject: Re: Question about geometryversion for EMC
Posted by Dmitry Morozov on Thu, 02 Jun 2011 04:38:05 GMT
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Hello,

I have tested the full sim with version 17 of EMC geometry (FSC included).

The macros I used tdrct/run_sim_tpccombi_dpm.C and run_digi_tpccombi.C. Number of event 10k, momentum 5 GeV.

sim macro run smoothly without any problem, and results looks reasonable. So, no problems from FSC side. I think you can return it to business.

digi macro have eaten 4GB of RAM plus ~4GB of swap, but PC survived and macro has finished. I believe this memory consumption is due to TPC digi procedure.

My PC is ubuntu 11.04 64 bit, "may11" externals and rev. 12075 of pandaroot.

Best regards,

Dmitry

Subject: Re: Question about geometryversion for EMC
Posted by StefanoSpataro on Thu, 02 Jun 2011 15:25:16 GMT
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Hi,
I have tried to launch the run_sim (g3) at GSI, with exactly the same machine and the same seed number. If I compare the computing time:

Geometry 17: 1999 seconds
Geometry 19: 361 seconds.

I have tried twice and I got almost the same results.
Are you able to reproduce it? Considering that there are also other detectors, it seems the presence of fsc increase a lot the computing time.