Subject: Meaning of fSeed for dpm_gen__ in PndDpmDirect
Posted by Christian Leitold on Tue, 08 Sep 2009 12:48:28 GMT
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Hello,

we use a (slightly modified version of) PndDpmDirect for our simulations. The problem is, the generated events are always the same, so when running a few simulations in parallel with each let's say 1.000 events, you actually get the same 1.000 events from every simulation. So, I would like to set the fSeed variable in PndDpmDirect to a different value for each simulation. Especially I want to avoid the generation of two equal events in two different simulations, caused by a wrong initialization of the RNG. Unfortunately, I am not sure how to set the fSeed values for that purpose -- and I don't understand the dpm FORTRAN code well enough to find that out.

Kind regards
Christian

Subject: Re: Meaning of fSeed for dpm_gen__ in PndDpmDirect
Posted by StefanoSpataro on Tue, 08 Sep 2009 17:17:36 GMT
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Have you tried adding inside your simulation macro the following line at the beginning:

gRandom->SetSeed(XXX);

where XXX is the seed number?

Subject: Re: Meaning of fSeed for dpm_gen__ in PndDpmDirect
Posted by Christian Leitold on Wed, 09 Sep 2009 09:55:22 GMT
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Ok, I'm sorry, I haven't formulated my question well. The problem ist not how to set the seed "technically", that is done by gRandom->SetSeed(XXX), as you have written. It is to which values I have to set the seed in the different simulations to make sure not to get any identical events. If I initialize the seed e. g. with some CPU time, can I by sure not to get identical random numbers in the generator respectively identical events?

Kind regards
Christian

Subject: Re: Meaning of fSeed for dpm_gen__ in PndDpmDirect
Posted by StefanoSpataro on Wed, 09 Sep 2009 15:04:46 GMT
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If you want to be sure, when you send different macros just use a progressive number as seed,

so that you will have different starting values always. If by chance two jobs are starting in the same "time bin" maybe they could have the same values, then I think it would be better simply to set the seeds by hands.

Subject: Re: Meaning of fSeed for dpm_gen__ in PndDpmDirect
Posted by Christian Leitold on Thu, 10 Sep 2009 07:10:45 GMT
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Alright, thanks. My only fear was that starting with different, but "wrong" seeds could eventually lead to the same events.

Kind regards
Christian