
Subject: Some of LandFirstHits are empty - Neutrons simulation.

Posted by [Dmytro Kresan](#) on Mon, 21 Sep 2015 09:18:20 GMT

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Dear Christiaan,

The answer to your problem with fraction of NeuLAND First Hits being not filled, when performing a neutron simulation.

I have also observed this issue.

The first thing I did - place only NeuLAND geometry inside of cave filled with vacuum. The fraction of empty data was reduced. Obviously, there are scattered neutrons on the way to NeuLAND, which are not considered as primaries.

Second - I made the wrapping volumes also active. This has shown that all FirstHits are recorded.

Explanation: stepping function is called only for active volumes (scintillators), and not for passive ones.

Best regards,
Dima

Subject: Re: Some of LandFirstHits are empty - Neutrons simulation.

Posted by [C. A. Douma](#) on Mon, 21 Sep 2015 10:34:12 GMT

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Thank you for checking this. Could you tell me how to make the wrapping volumes active? Then I can adapt this according to my needs.

Christiaan.

Subject: Re: Some of LandFirstHits are empty - Neutrons simulation.

Posted by [Dmytro Kresan](#) on Mon, 21 Sep 2015 11:09:40 GMT

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It is defined in function CheckIfSensitive() - file R3BLand.cxx, line number 451. You have to implement the check whether string volName contains "wrapping", and return kTRUE in this case.

NOTE: this will produce LandPoints also for wrapping volumes, which does not really make sense. To avoid it: implement at line 151 (after call to StepHistory()) check whether volume name contains "wrapping". If yes - make return kTRUE. This will store FirstHits but not the points.

Best regards,
Dima
