Subject: [SOLVED] PVertexFile
Posted by Michael Kunkel on Wed, 13 Jun 2012 21:01:24 GMT
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Greetings,

I had a question on the format of PVertexFile.
Is it one leaf of array vX:vY:vZ, or seperate leafs?

I ask because I am trying to smear vertices along a target that is 400mm in length and 20mm in radius.
I create a uniform distribution of 50M events of a cylinder equally the dimensions mentioned, called vertex.root with separate leaves vX, vY, vZ, tree name "vertex" as prescribed in http://www-linux.gsi.de/~hadeshyp/pluto/v5.40/PVertexFile.html

When I attempt to use this

```
//#include "loadPluto.h";
//Program to generate multiple PLUTO root file
//Author Michael C. Kunkel
#include "TH1.h"
#include "TH2.h"
#include "TH3.h"
#include "TChain.h"
#include "TCanvas.h"
#include "TF1.h"
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PParticle.h"
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PReaction.h"
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PBeamSmearing.h"
#include "/w/hallb/clasg12/mkunkel/PLUTO/pluto_v5.40/src/PVertexFile.h"


void Vertex_Simulation(){

   gROOT->Reset();

   char nam1[60] = "/volatile/clas/clasg12/mkunkel/GG_ETA_SIM/PLUTO_GEN/eta_";

   char nam2[25] = "_gammagamma_vertex";

   for(int ij = 1; ij<=1; ij++){
  char c[10];
  sprintf(c,"%d",ij);
  char creater[75];
  sprintf(creater,"%s%s%s",nam1,c,nam2);
  cout << creater<<endl;


   double ebeam_min = 1.1725;
   double ebeam_max = 5.44575;
   PBeamSmearing *beam_smear = new PBeamSmearing("beam_smear", "Beam smearing");
```

```
    TF1* beam_smear_fn = new TF1("beam_smear_fn", "1./x", ebeam_min, ebeam_max);

    beam_smear->SetReaction("g + p");
    beam_smear->SetMomentumFunction(beam_smear_fn);
    makeDistributionManager()->Add(beam_smear);


    PReaction my_reaction("_P1 = 2.2","g","p","p eta [g g]",creater,1,0,1,0);

        //Construct the vertex container:
    PVertexFile *vertex = new PVertexFile();

vertex->OpenFile("/w/hallb/clasg12/mkunkel/PLUTO/ETA_GAMMAGAMMA_SIM/VERTICES/v
ertex.root");
    //add to prologue action
    my_reaction.AddPrologueBulk(vertex);
    // my_reaction.Print();   //The "Print()" statement is optional
    my_reaction.Loop(50000);

    }

}
```

I receive a segmentation fault, if I remove the vertex the code runs correctly.
