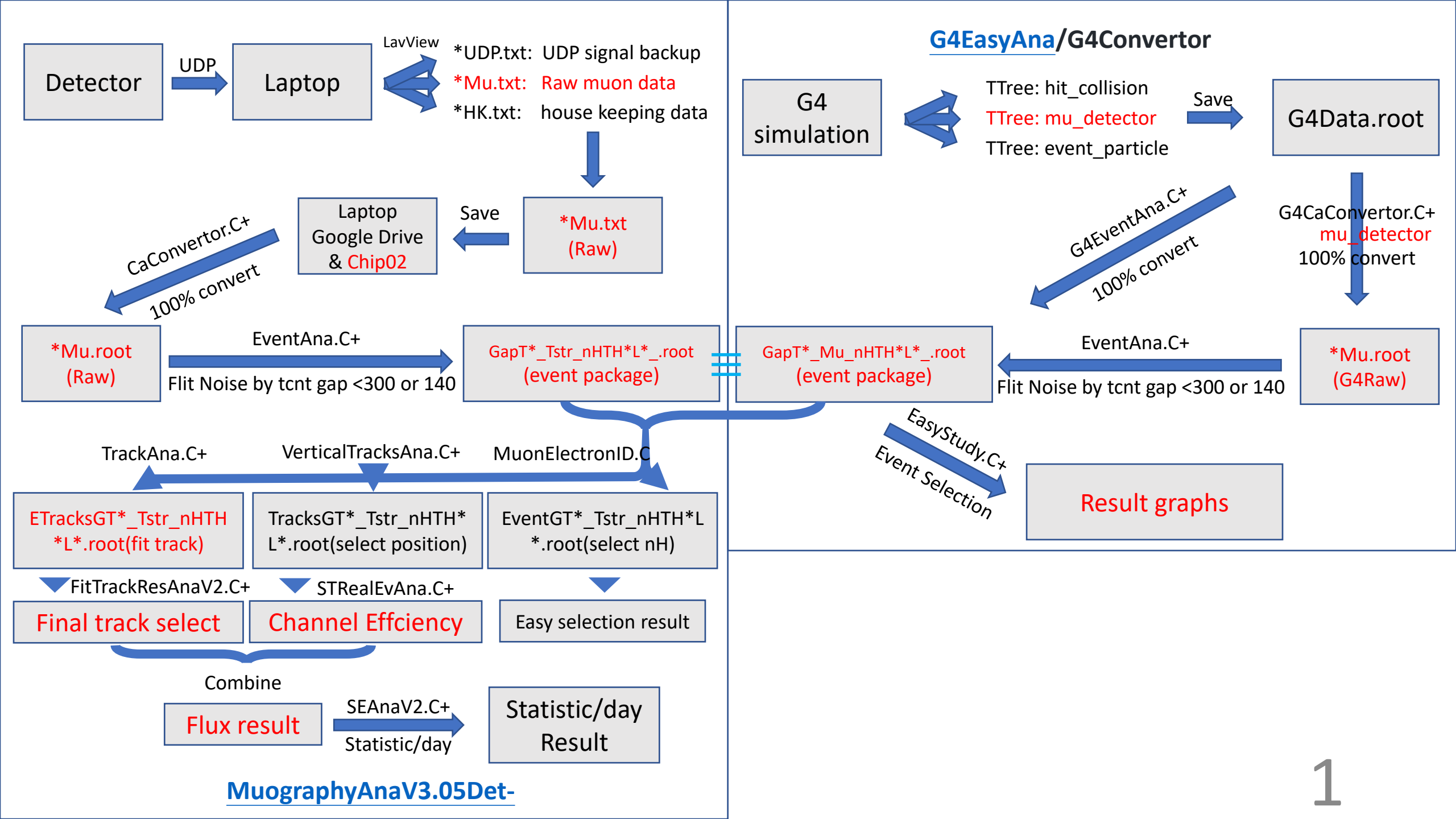
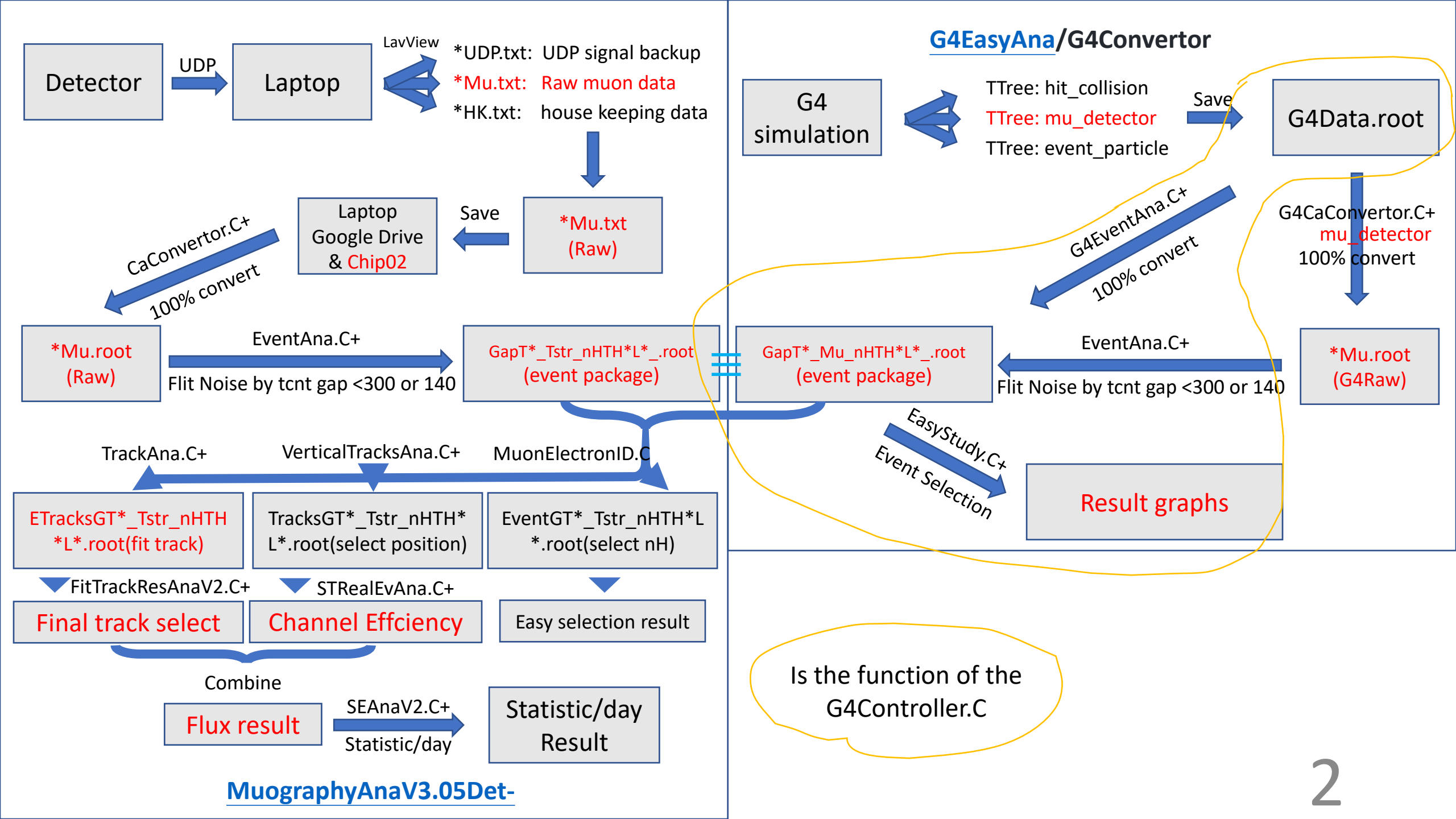

Detector
UDP
Laptop
LavView
*UDP.txt: UDP signal backup
*Mu.txt: Raw muon data
*HK.txt: house keeping data
*Mu.txt (Raw)
Save
Laptop Google Drive & Chip02
CaConvertor.C+
100% convert
*Mu.root (Raw)
EventAna.C+
Flit Noise by tcnt gap <300 or 140
GapT*_Tstr_nHTH*L*_.root (event package)
TrackAna.C+
VerticalTracksAna.C+
MuonElectronID.C
ETracksGT*_Tstr_nHTH *L*.root(fit track)
TracksGT*_Tstr_nHTH* L*.root(select position)
EventGT*_Tstr_nHTH*L *.root(select nH)
FitTrackResAnaV2.C+
STRealEvAna.C+
Final track select
Channel Effciency
Easy selection result
Combine
Flux result
SEAnaV2.C+
Statistic/day
Statistic/day Result
MuographyAnaV3.05Det-
G4EasyAna/G4Convertor
G4 simulation
TTree: hit_collision
TTree: mu_detector
TTree: event_particle
Save
G4Data.root
G4EventAna.C+
100% convert
G4CaConvertor.C+
mu_detector
100% convert
GapT*_Mu_nHTH*L*_.root (event package)
EventAna.C+
Flit Noise by tcnt gap <300 or 140
*Mu.root (G4Raw)
EasyStudy.C+
Event Selection
Result graphs


Detector
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TTree: hit_collision
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G4Data.root
G4EventAna.C+
100% convert
G4CaConvertor.C+
mu_detector
100% convert
GapT*_Mu_nHTH*L*_.root (event package)
EventAna.C+
Flit Noise by tcnt gap <300 or 140
*Mu.root (G4Raw)
EasyStudy.C+
Event Selection
Result graphs
Is the function of the G4Controller.C

In the G4Controller.C

Watch Next Page(P4)

```
void G4Controller()
{
  /*Adjustable variable */
  const char VectorInputGapRootFiles   [200] =
    "/data4/AndyLu/to_cw/4_4_4_tarightbeam_merge.mc
  ;
  const char OuputGapRootFilePathName [200] =
    "/data4/YuSiang/TEST/4_4_4_"
  ;//Format:   Path/Name(GapT*_MC_nHTH*L*.root)
```

This is The Range you need to edit

```
  const Int_t TriggerLessNumberOfHitInEvent  = 1;
  const Int_t TriggerLargeNumberOfHitInEvent = 64;
  const Int_t MaximumEventGapOfTcnt          = 300;//
```

The constant to devote some noise, almost no need to change

```
  TString GapFilePathName =
    Form("%sGapT%d_%s_nHTH%dL%d.root",
      OuputGapRootFilePathName,MaximumEventGapOfTcnt,
```

Don’t change the fixed format.

```
  const char SaveGraphPathName        [200] =
  "/home/yusiang/G4/4_4_4HorizontaBeamTest/test"
  ;
  /*Finish adjustable variable */
```

G4Controller.C: ver230316

```
void G4Controller()
{
/*Adjustable variable */
const char VectorInputG4RootFiles   [200] =
  "/data4/AndyLu/to_cw/4_4_4_starightbeam_merge.roc
;
const char OuputGapRootFilePathName [200] =
  "/data4/YuSiang/TEST/4_4_4_"
;//Format:   Path/Name(GapT*_MC_nHTH*L*.root)

const Int_t TriggerLessNumberOfHitInEvent  = 1;
const Int_t TriggerLargeNumberOfHitInEvent = 64;
const Int_t MaximumEventGapOfTcnt          = 300;//

TString GapFilePathName =
  Form("%sGapT%d_%s_nHTH%dL%d.root",
    OuputGapRootFilePathName,MaximumEventGapOfTcnt,

const char SaveGraphPathName        [200] =
"/home/yusiang/G4/4_4_4HorizontaBeamTest/test"
;
/*Finish adjustable variable */
```

```
1  #include <G4EventAna.C+>
2  #include <BeamEasyStudy.C+>
3  void G4Controller()
4  {
5
6    /*Adjustable variable */
7    const char VectorInputG4RootFiles   [200] =
8      "/data4/AndyLu/to_cw/4_4_4_starightbeam_merge.root"
9    ;
10   const char OuputGapRootFilePath [200] =
11     "/data4/YuSiang/TEST/"
12   ;//Format:   Path/Name(GapT*_MC_nHTH*L*.root)
13   const char OuputGapRootFileName [200] =
14     "4_4_4_"
15   ;//Format:   Path/Name(GapT*_MC_nHTH*L*.root)
16
17   char OuputGapRootFilePathName[400];
18   sprintf(OuputGapRootFilePathName,"%s%s",OuputGapRootFilePath,OuputGapRootFileName);
19   // cout<<OuputGapRootFilePathName<<endl;
20   system(Form("mkdir -p %s",OuputGapRootFilePath));
21   /*Finish adjustable variable */
22
23   const Int_t TriggerLessNumberOfHitInEvent  = 1;
24   const Int_t TriggerLargeNumberOfHitInEvent = 64;
25   const Int_t MaximumEventGapOfTcnt          = 300;//Almost don't need to change
26
27   TString GapFilePathName =
28     Form("%sGapT%d_%s_nHTH%dL%d.root",
29       OuputGapRootFilePathName,MaximumEventGapOfTcnt,"MC",TriggerLessNumberOfHitInEvent,TriggerLargeNumberOfHitInEvent);
30
31   const char SaveGraphPath        [200] =
32   "/home/yusiang/G4/4_4_4HorizontaBeamTest/"
33   ;
34   const char SaveGraphName        [200] =
35   "test"
36   ;
37
38   char SaveGraphPathName[400];
39   sprintf(SaveGraphPathName,"%s%s",SaveGraphPath,SaveGraphName);
40   // cout<<OuputGapRootFilePathName<<endl;
41   system(Form("mkdir -p %s",SaveGraphPath));
42   /*Finish adjustable variable */
43
44   /*1. Convert the G4 data to be analysis format: GapT*_MC_nHTH*L*.root*/
45   G4EventAna(//Convert the G4 data to be GapT*_MC_nHTH*L*.root
46     VectorInputG4RootFiles,
47     OuputGapRootFilePathName,
48     TriggerLessNumberOfHitInEvent,
49     TriggerLargeNumberOfHitInEvent,
50     MaximumEventGapOfTcnt
51   );
52
53   /*2. Use the analysis format file to Draw Graph*/
54   BeamEasyStudy(//Convert the G4 data to be GapT*_MC_nHTH*L*.root
55     GapFilePathName.Data(), SaveGraphPathName
56   );
```

Improve the include problem

automatically create the directory

automatically create the directory

TEXT= new function

System operation

This is The Range you need to edit

The constant to devote some noise, almost no need to change

Don't change the fixed format.