General processing path

This tutorial is intended for those wishing to run the trigger from threshold settings. This makes life easier when developing Hlt2 lines as TCK generation is not required each time a change is made.

As for the other tutorial, a Turbo line is prepared and added to the "TurboTest.py" settings. The extended reports are then generated and Tesla is used to resurrect the decay chain from them.

Detailed steps

1) We can first setup the Moore build that we need.

```
SetupProject Moore
getpack Hlt/Hlt2Lines
getpack Hlt/HltSettings
getpack Hlt/Moore (take offered versions)
cd Hlt/Moore/cmt
cmt br cmt make
SetupProject Moore
```

2) Make the required Hlt2 lines specifying "Turbo = True" when making the line declaration, e.g.

```
        line = Hlt2Line(name
                   ,prescale=self.prescale
                   ,postscale=self.postscale
                   ,algos=algoList
                   ,Turbo=True
                  )
```

(Then "cmt make" in the Hlt/Hlt2Lines/cmt folder)

3) Add the lines to Hlt/HltSettings/python/HltSettings/TurboTest.py

(Then "cmt make" in the Hlt/HltSettings/cmt folder)

4) Get scripts, update "ganga_process.py" as per your requirements and run the trigger:

```
cp -r /afs/cern.ch/work/s/sbenson/public/forTeslaExtendedReps/MakeLineForTurboSimplified YOUR/DES
vi YOUR/DESIRED/FOLDER/ganga_process.py
ganga YOUR/DESIRED/FOLDER/ganga_process.py
```

5) Need a DaVinci environment to run Tesla (in a clean session)

```
SetupProject DaVinci
```

6) Finally, run the Tesla algorithm

```
gaudirun.py Turbo_THRESHOLD.py
```

Note particles will be placed according to the name of your HltLine, i.e. "/Event/Turbo/Hlt2IncPhi/Particles".

 • Sample Turbo_THRESHOLD.py can be found in the options folder of Tesla

7) You can now direct DecayTreeTuple to '/Event/Turbo/HLTLINENAME/Particles'. Requires the DaVinci environment with at least v36r5!!!

```
gaudirun.py TupleToolsCheck_MC_Tutorial.py
```

- Sample TupleToolsCheck_MC_Tutorial.py can be found at:
  /afs/cern.ch/work/s/sbenson/public/forTeslaExtendedReps/

- Note that the HltANNSvc needs to be told about the lines you need as we have not run the trigger with a TCK (see comments in the sample options).

8) Missing variables should be added to the RunningListTurboMissing page.

-- SeanBenson - 2014-12-14

This topic: LHCb > MakeLineForTurboSimplified
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