

Simulation of HLT: Instructions

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Dedication

For Btag POG and TSG

Abstract

This document is a simple instruction about HLT simulation in MC

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Note

That's only EXAMPLE. Please, don't consider it seriously!

1 Instruction

1.1 You can do

a few steps to simulate HLT in MC

```
1 # 1) Prepare environment:
2
3 cmsrel CMSSW_5_3_3
4 cd CMSSW_5_3_3/src
5 cmsenv
6 cvs co HLTriggerOffline/Btag
7
8 scramv1 b -j4
9
10 cvs co HLTriggerOffline/Common
11 checkdeps -a
12 scram b -j4
13 hash -r
14
15 cvs co HLTrigger/Configuration
16 checkdeps -a
17 scram b -j4
18 hash -r
19
20 cp HLTriggerOffline/Btag/doc/HLTValidation_cff.py HLTriggerOffline/Common/python/
21 cp HLTriggerOffline/Btag/doc/hltHarvesting_cfg.py HLTriggerOffline/Common/test
22 cp HLTriggerOffline/Btag/doc/HLTValidationHarvest_cff.py HLTriggerOffline/Common/python/
23
24 scram b -j4
25
26 cd HLTriggerOffline/Btag/test
27
28 # 2) Simulating our HLTTrigger. Here there are examples: user-defined trigger 2.1) and default 2.2)
29
30 # 2.1)
31
32 hltGetConfiguration /users/rwalsh/dev/CMSSW_4_2_8/Run_V139/V12 --cff --offline --mc --unprescale --process RECO > HLT_my_cff.py
33 cp HLT_my_cff.py ../../HLTrigger/Configuration/python
34 cd ../../.; scram b -j4 ; cd -
35 # 2.1.2)
36 ./getHLT.sh # modify, first, master table reference
37
38 # 2.1.3)
39 cmsDriver.py TTbar_SteV_cfi.py -s GEN,SIM,DIGI,L1,DIGI2RAW,HLT:my_cff -n 5 --eventcontent FEVTDEBUGHLT --conditions auto:startup --mc --fileout output.root --no_exec --python_filename hlt_my.py --datamix NODATAMIXER
```

```
40
41 # 2.2)
42 cmsDriver.py TTbar_8TeV_cf1.py -s GEN,SIM,DIGI,L1,DIGI2RAW,HLT:7E33v4 -n 5 --eventcontent FEVTDEBUGHLT --conditions auto:startup_7E33v4 --mc --fileout output.root --no_exec --python_filename hlt_7e33v4.py --datamix NODATAMIXER
43
44 # 3) Produce plots:
45
46 # 3.1)
47 nano -w ../Common/test/hltHarvesting_cfg.py # put output.root file here
48
49 # 3.2)
50 cmsRun ../../Common/test/hltHarvesting_cfg.py
```

That's it.