

LHC ↔ HLT



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HLT requirements of LHC



- **HLT has currently no requirements for any further LHC data**
 - Some parameters filled via ECS already
- **We believe, if we think we need a parameter, off-line also wants it already**
 - To be retrieved via DCS then

- **On-line Primary Vertex**
- **Rate Normalization**

- **Goals**

- HLT calculates on-Line primary vertex with SPD rec points
- HLT sends values to DCS
- DCS takes care of communication with LHC

- **Status**

- HLT has implemented DIM Server to be run in on-line reconstruction chain
- HLT has primary vertex reconstruction

- **DCS**

- DIM client implemented by Antonio

- **Next Steps**

- Define exact parameters / C++ struct
- Define DIM related parameters (Server, Service Names, etc ...)
- Matthias is coming on Monday → Discussion with him on site

- **Goal**
 - HLT provides rate normalization
 - HLT provides histogram in on-line display
 - HLT sends values to DCS
 - DCS takes care of communication with LHC
- **Parameters**
 - Count # events with ($p_t > 0.5 \text{ GeV}$, $|\eta| < 0.8$)
- **Needed**
 - CTP Trigger dead-time
- **Status**
 - All done, if dead time is provided
- **Next Steps**
 - Investigation for trigger dead-time via DCS
 - HLT is afraid of latency
 - HLT would prefer via data stream