

Current status of LHC information processed by the SHUTTLE (GRP)

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Offline Week, 15-19 March 2010

GRP Preprocessor

- Retrieving the **LHCData** file stored run by run in the DCS FXS
- The LHC information are used to fill:
 - Some fields of the **/GRP/GRP/Data** object → needed for reconstruction
 - The **/GRP/GRP/LHCData** object → needed for analysis (*see Ruben's talk*)
- Causing the GRP **to fail** when:
 - The file is not there
 - The file is there but not readable
- **Not** causing the GRP **to fail** when:
 - The LHC Data object cannot be properly created from the file
 - The LHC Data object cannot be stored in the OCDB



At present, the LHC Data processing is skipped!

/GRP/GRP/Data Object

- DIP entries used (in “ ” names used at present as found at the end of February, actual name follows):
 - **Energy:**
 - "lhcMon_LHCBeam.Energy" → LHC/Beam/Energy
 - Keeping only the first value found (should not change...)
 - Check if the data are between SOR and EOR → Should we not have it?
 - Stored in GeV
 - **Machine Mode:**
 - "lhcMon_LHCMachineMode.value" → LHC/RunControl/MachineMode
 - No check on the timestamp → Should we have any, like for the Energy?
 - If no values found, setting to UNKNOWN
 - If ≥ 1 values found, setting to the first value found
 - If > 1 values found keeping track of the time when the first change occurred (timeMachineMode)

/GRP/GRP/Data Object – II

– Beam Mode:

- "lhMon_LHCBeamMode.value" → LHC/RunCpntrol/BeamMode
- No check on the timestamp → Should we have any, like for the Energy?
- If no values found, setting to UNKNOWN
- If ≥ 1 values found, setting to the first value found
 - If > 1 values found keeping track of the time when the first change occurred (timeBeamMode)



The minimum between timeMachineMode and timeBeamMode is stored → should reconstruction check this?

– Beam Type 1:

- "dip/acc/LHC/RunControl/BeamType/Beam1.payload" → LHC/RunControl/PARTICLE_TYPE
- Brand New

– Beam Type 2:

- "dip/acc/LHC/RunControl/BeamType/Beam2.payload" → LHC/RunControl/PARTICLE_TYPE
- Brand New

Open Issues

- Final definition of the **aliases** for the LHC DIP data
- BeamType1 /2 brand new – Apparently we'll have a string..
- Should we check the timestamps against SOR/EOR?