

MuID QA for pp data

ppDST production meeting June 7th 2002

- Histograms booked and filled
- First progress on status word

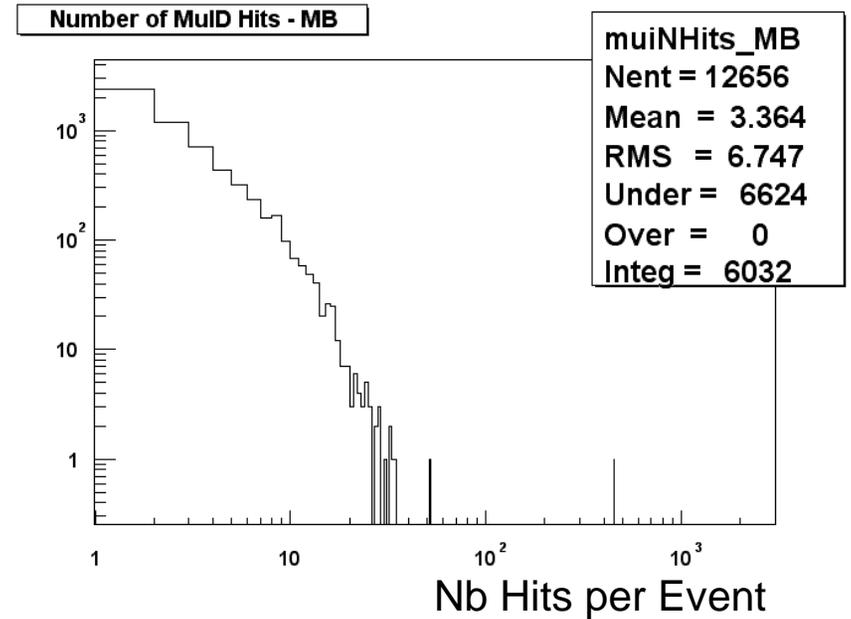
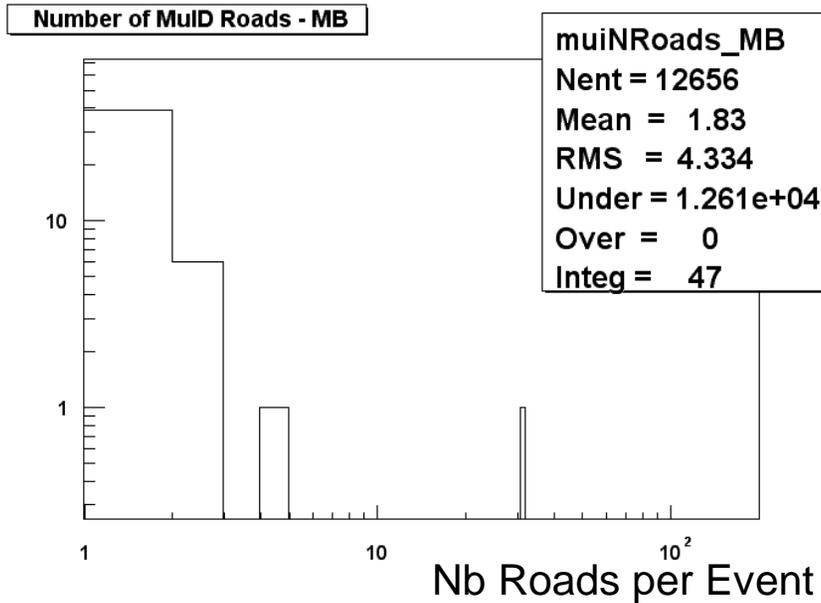
Booked/Filled Histograms

- 3 histograms with trigger bits:
 - Scaled Triggers
 - Live Triggers
 - Scaled Triggers + Live Triggers with scale down=0
- For pp data, 3 sets of histograms corresponding to:
 - Minimum Bias Triggers (BBCLL1||NTCw)
 - MUID1D*(BBCLL1||NTCw)
 - MUID1S*(BBCLL1||NTCw)
- For each trigger:
14 booked/filled 1D histograms and 3 2D histograms

Some histograms: Nb Roads & Nb Hits

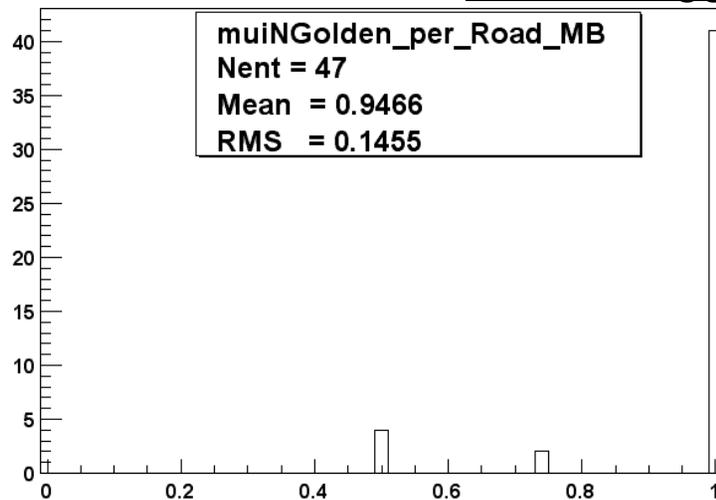
Number of Roads per MB Trigger Event

Number of Hits in MuID per MB Trigger Event



Number Golden Roads/ Number Roads

Number of Golden Roads per Road - MB for MB Trigger Events:

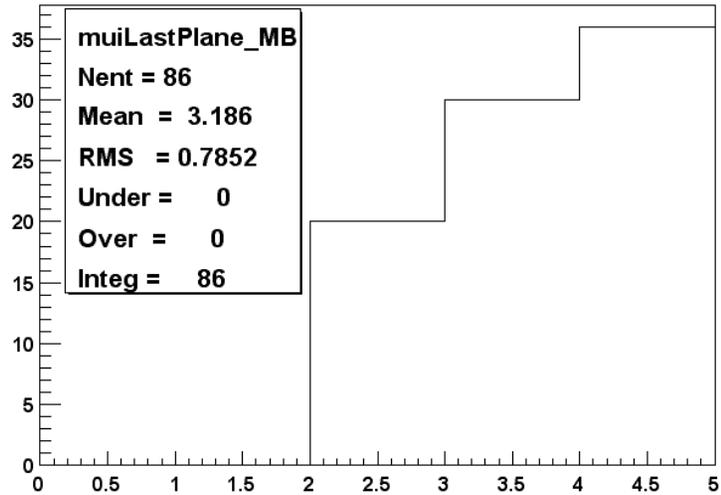


(same histos for 1D and 1S triggers)

Some histograms: Last Plane

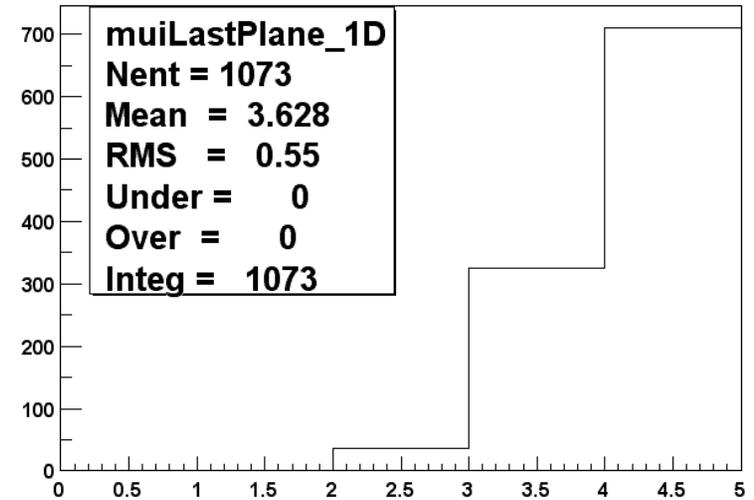
Last Plane of MB Trigger Roads

Depth of Road in the MUID - MB



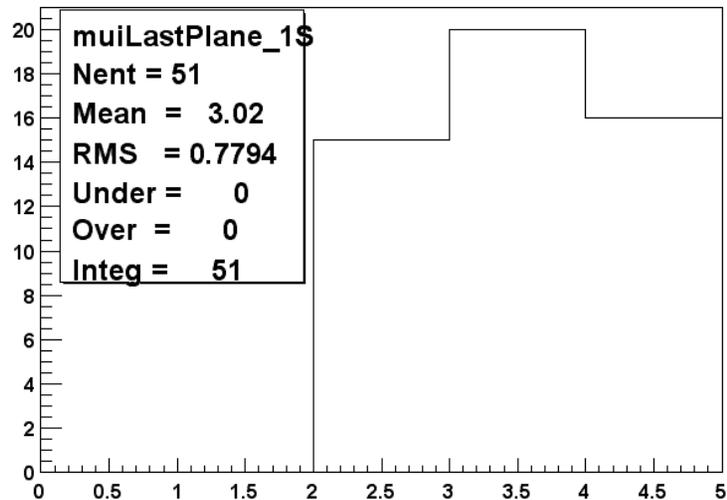
Last Plane of 1D Trigger Roads

Depth of Road in the MUID - Trigger 1D



Last Plane of 1S Trigger Roads

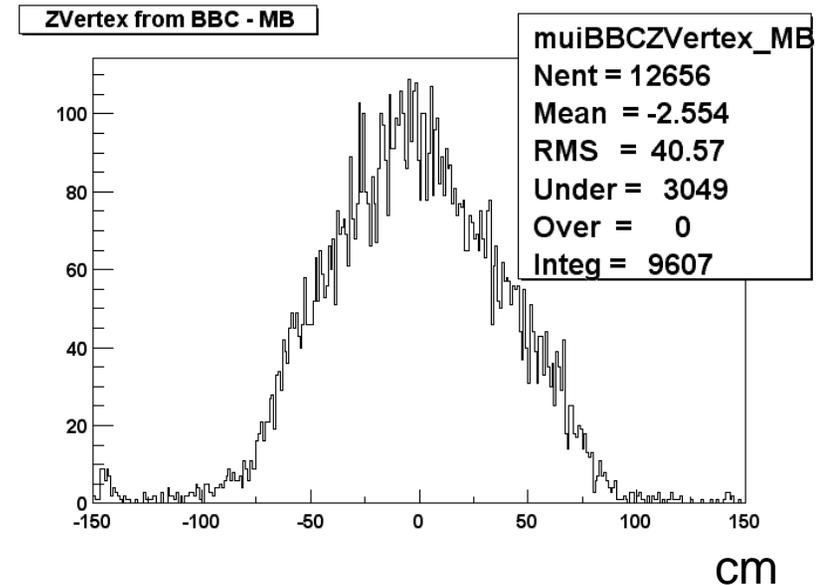
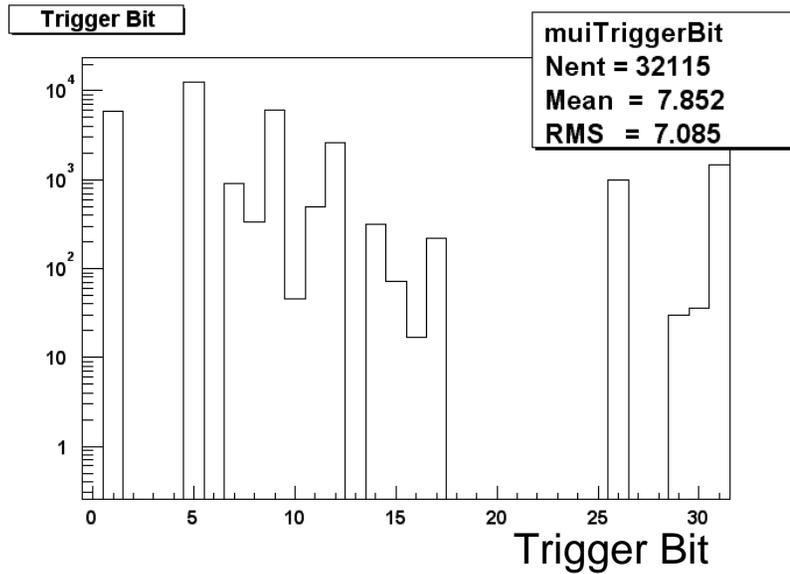
Depth of Road in the MUID - Trigger 1S



Histograms requested by Hiroki

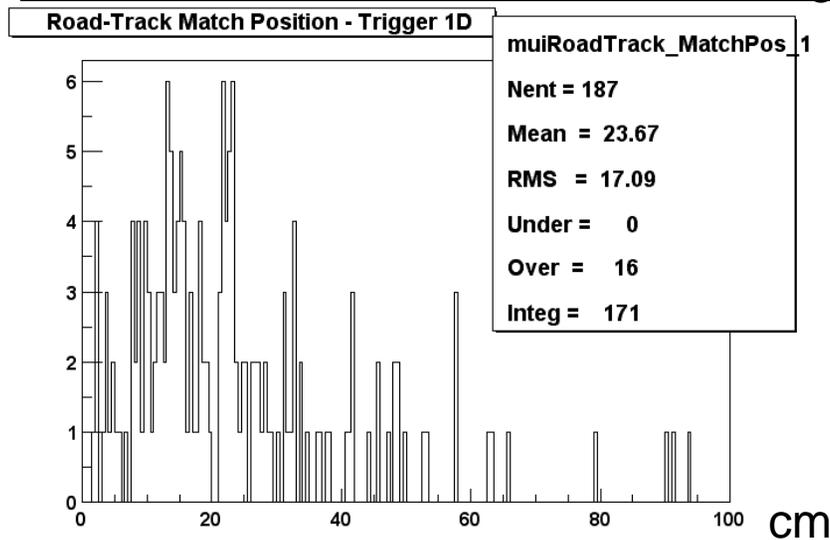
Trigger Bit of scaled triggers + live triggers w/ scale down = 0 :

BBC ZVertex Distribution for MB Trigger Evt



(same histos for 1D and 1S Triggers)

Road-Track Match Position for 1D Trigger Roads:



(same histos for MB and 1S Triggers)

List of the histograms

muiTriggerBit Trigger Bit of Scaled Triggers and Live Triggers With Scale Down = 0
muiTriggerBit_scaled Trigger Bit of the Scaled Triggers
muiTriggerBit_live Trigger Bit of the Live Triggers

For of the 3 triggers the following set of histograms: (_X=MB or 1D or 1S)

muiTriggerBit_X Trigger Bit of Scaled Triggers and Live Triggers With scale down = 0
muiTriggerBit_scaled_X Trigger Bit of the Scaled Triggers
muiTriggerBit_live_X Trigger Bit of the Live Triggers
muiNHits_X Number of Hits in MuID for each event.
muiNRoads_X Number of Roads for each event.
muiNRoads_Golden_X Number of Roads for each event.
muiNGolden_per_Road_X Number of Golden Roads/ Number of Roads
muiNRoads_NoGhost_X Number of No Ghost Roads for each event.
muiLastPlane_X Depth (Last Plane) of the Roads.
muiFitQuality_X Fit Quality of the Roads.
muiBBCZVertex_X BBC ZVertex of the Events.
muiRoadTrack_MatchPos_X Road-Track Match Position (in cm).
muiMaxHits_X Maximum Number of Hits in a gap of the Roads.
muiChainHits_X Number of Hits in HV Chains.

muiRoadGap0_X (2D) Intersection of the Roads with the First Gap.
muiRoadRefPos_X (2D) Intersection of the Roads with the Vertex Plane.
muiP_Depth_X (2D) Momentum Versus Depth.

First progress on the status word

Bit.....	Meaning
1	(1).....General indicator 0=GOOD, 1=BAD.
2	(2).....Questionable data (not yet implemented)
3	(4).....No road for any of the triggers
4	(8).....Ratio #Events With roads/#Events too small
5	(16).....Number of Roads Per Event With Roads too small/too big
6	(32).....Percentage of 1D Trigger Roads With Last Plane = 2 too high - OR - Percentage of 1S Triggers With Last Plane = 2 too small
7	(64).....Percentage of MB Trigger Events With BBC ZVertex <75 cm too small - OR – RMS BBC ZVertex of MB Trigger Events too big
8	(128).....Ratio #Events With Golden Roads/#Events With Roads < 1
10	(512).....Cut on Road Fit Quality Distributions
11	(1024).....Cut on Mean Road-Track Match Position for 1D Trigger Events Distribution
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Summary

- Code booking and filling histograms is ready (we checked we put the histograms we need for QA)
- Refining and adding limits on histograms to determine the status of the run and its status word