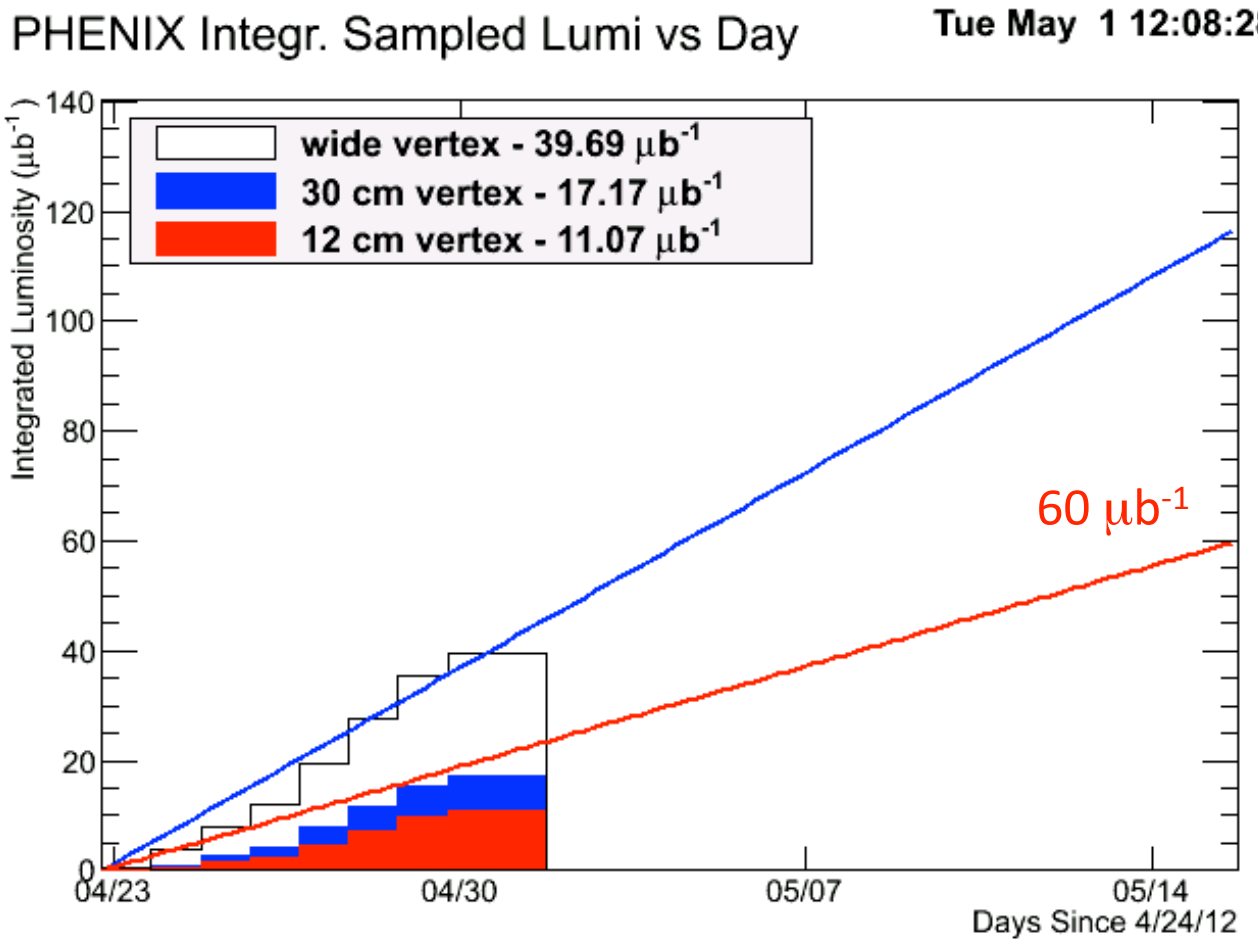
PHENIX U+U Run Status Report (5/8)

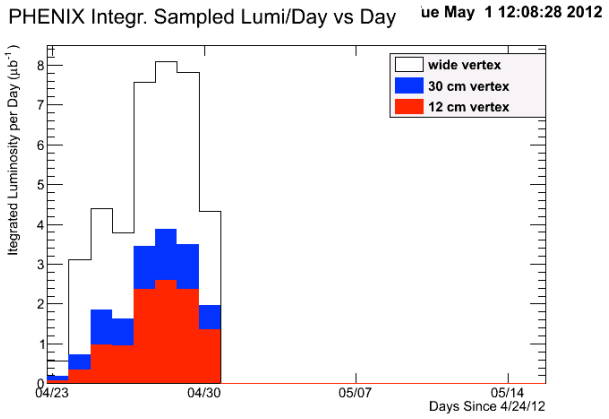
Xiaochun He

- PHENIX is smoothly sailing on taking U+U data, especially over the past a few days! We are expecting to be able to reach our goals.
- New challenge is to process the data with many tracks in events before the local data buffers are filled up. We are only able to process about 10% of the recorded data in the counting house before sending the data to RCF.
- A few comments about collision vertex distributions seen in PHENIX.

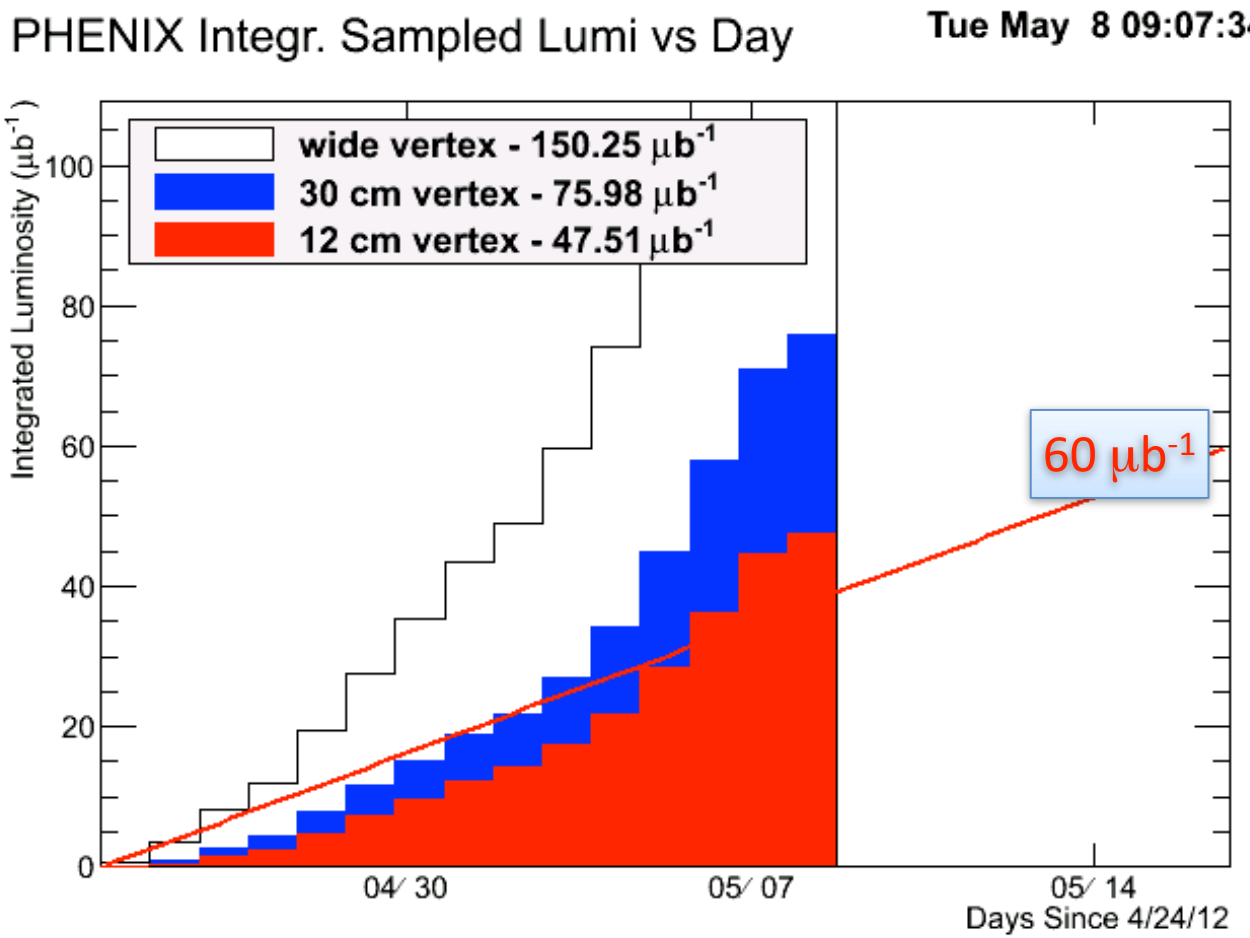
Sampled Integrated Luminosity (One week ago)



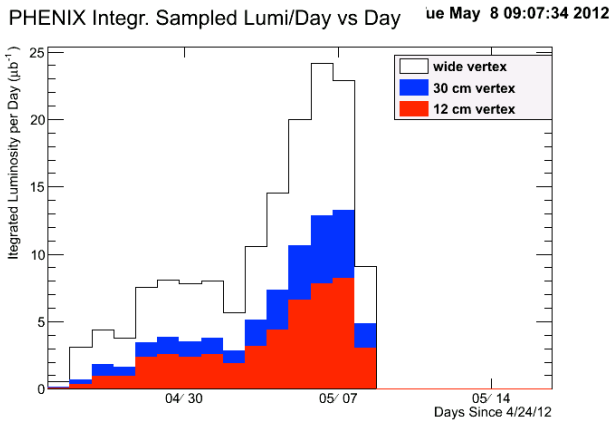
Daily Sample



Sampled Integrated Luminosity



Daily Sample

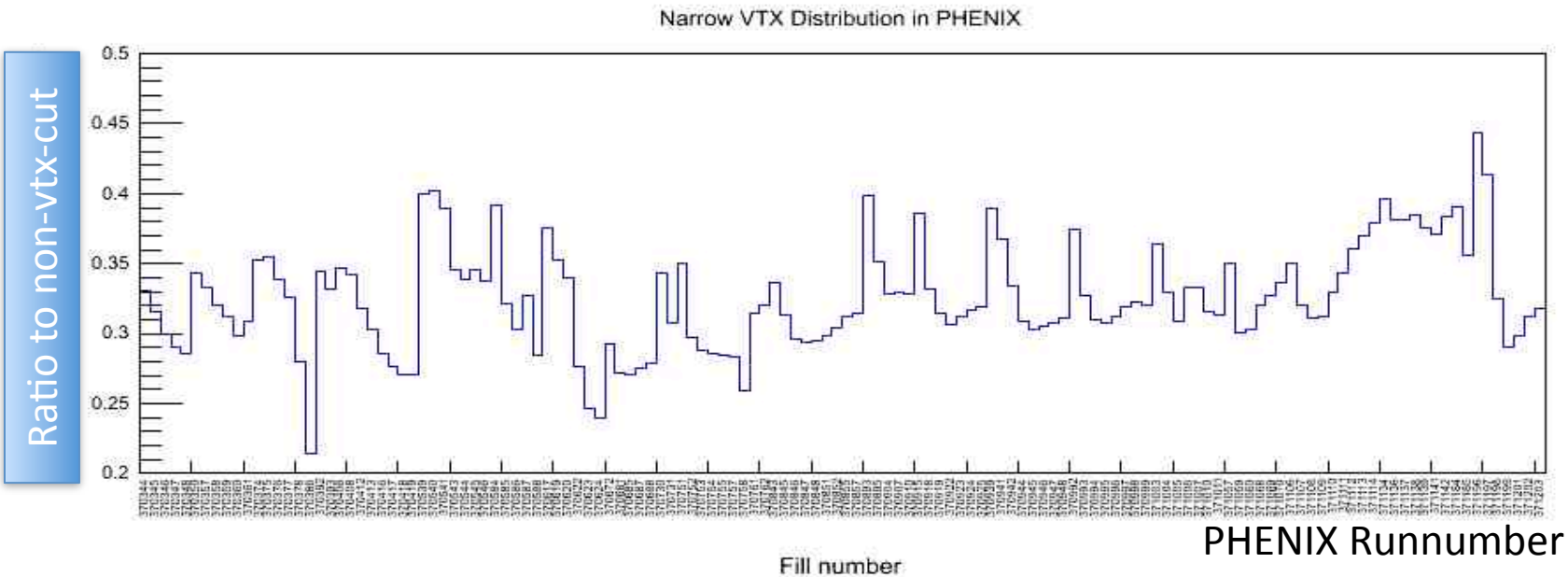


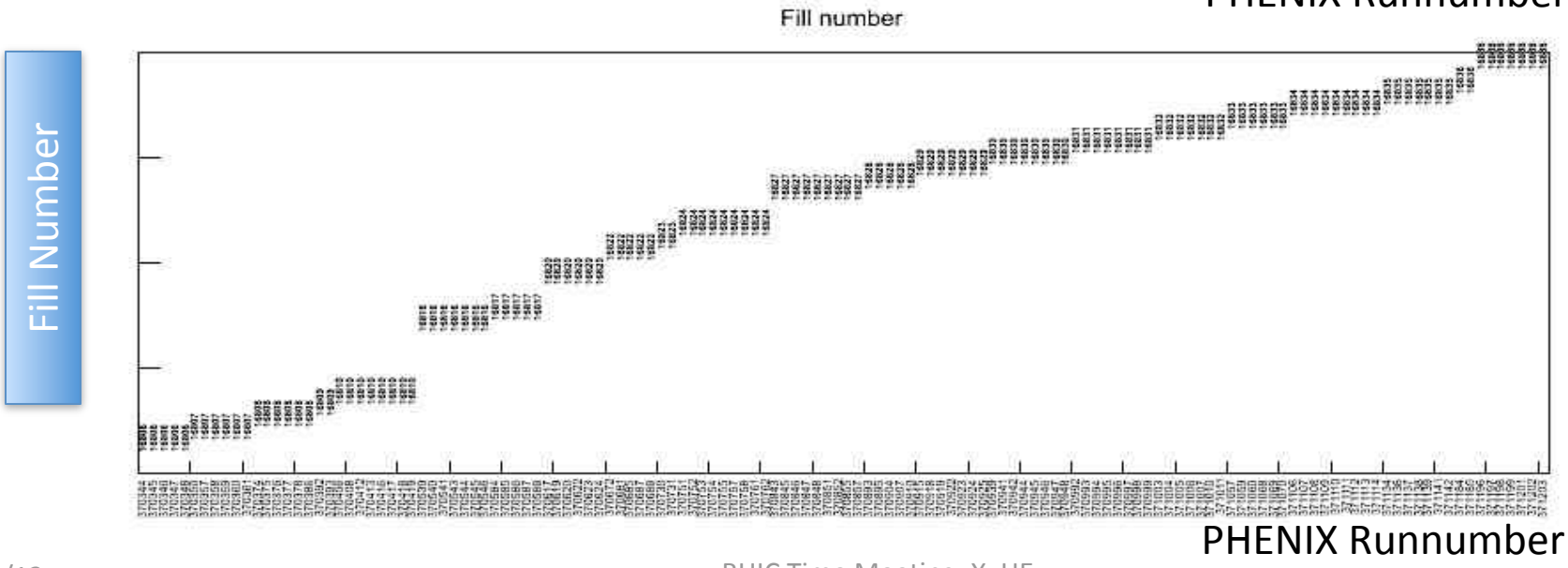
We had a great week!!!

It is harder to make acceptance corrections for certain physics analysis with very wide vertex distributions.

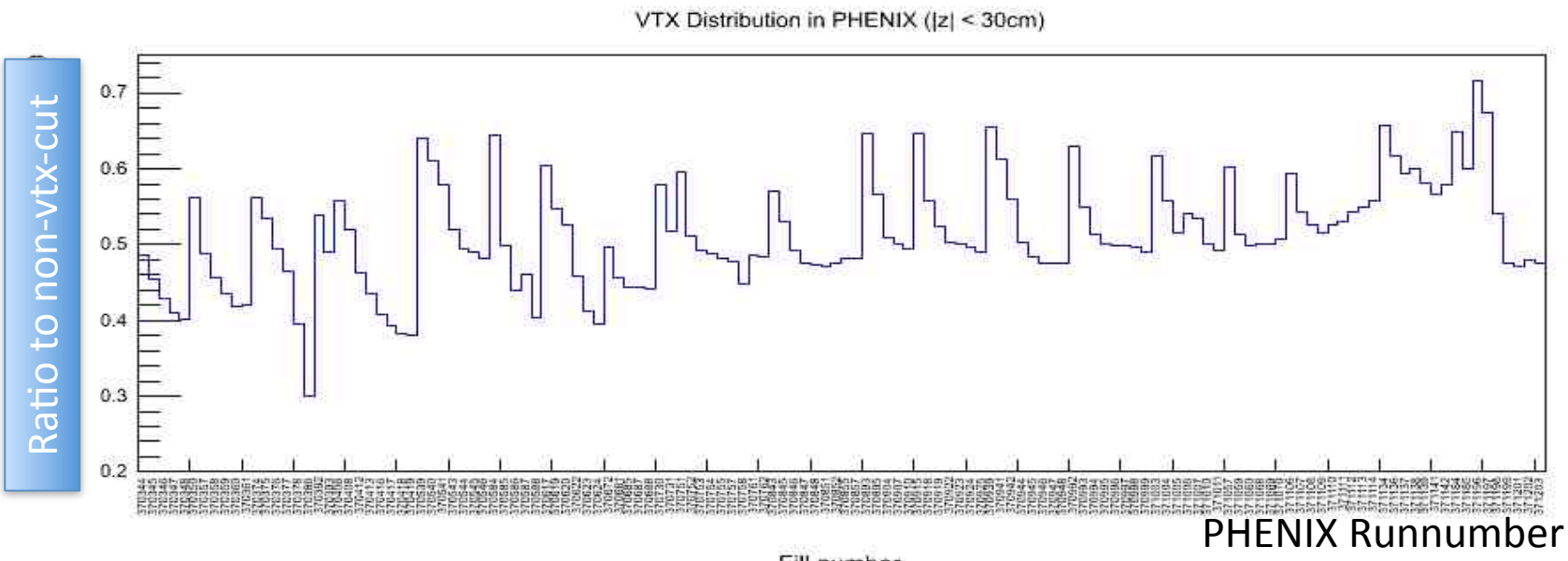
COLLISION VERTEX DISTRIBUTIONS SEEN IN PHENIX

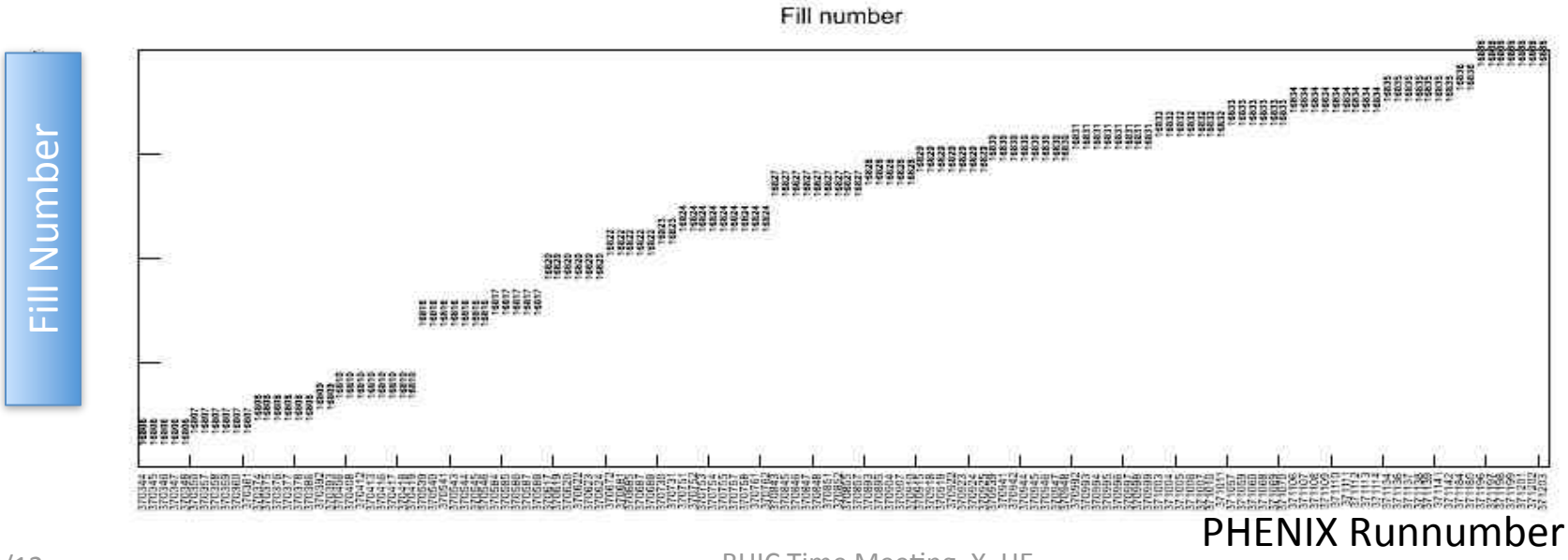
Vertex Distribution (|z|<12 cm)





Vertex Distribution (|z|<30 cm)

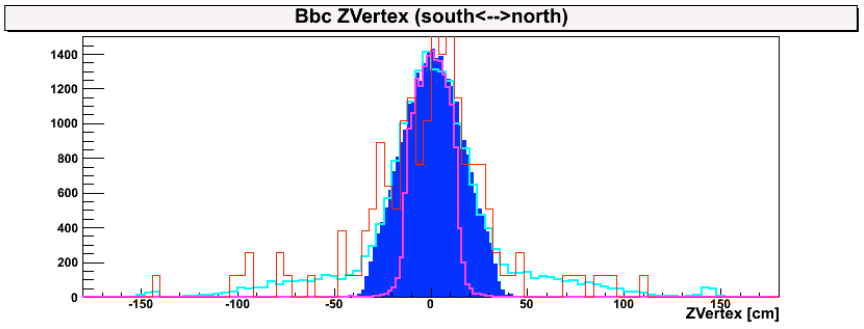




Collision Vertex Distributions

BBC ONLINE MONITOR

Run #371196 Events: 32503 Date:Tue May 8 03:23:34 2012

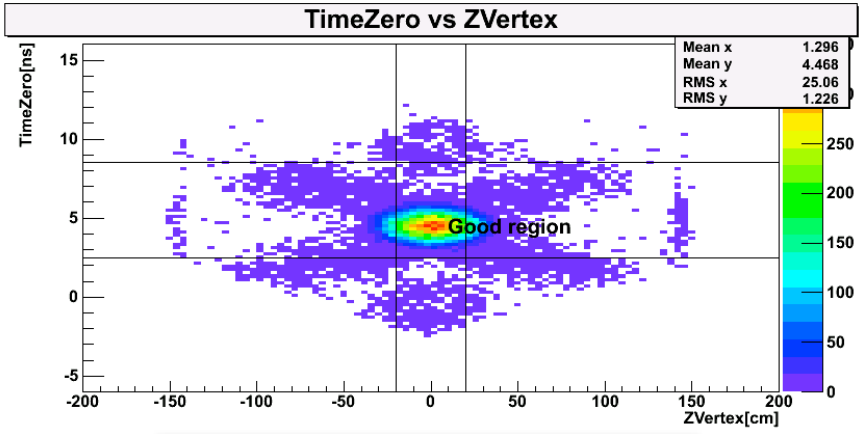


$Z^{Fit}_{BBLL1\ w/o\ Vtx}$ = 0.9 cm (σ = 19 cm) ... OK

Z [Trigger]	Zbbc [BBLL1]	Zzdc [ZDCLL1wide]	Zbbc [BBCLL1(noVtx)]	Zbbc [BBCLL1(narrowVtx)]
(Scale Fac.) #Evt.	(1) 28731	(501) 148	(3) 13210	(1) 17670
Vertex Mean (RMS)	1cm (15.2 cm)	-1.1cm (35.3 cm)	1.4cm (35.3 cm)	0.6cm (8.5 cm)

< All histograms are scaled by scaled factor>

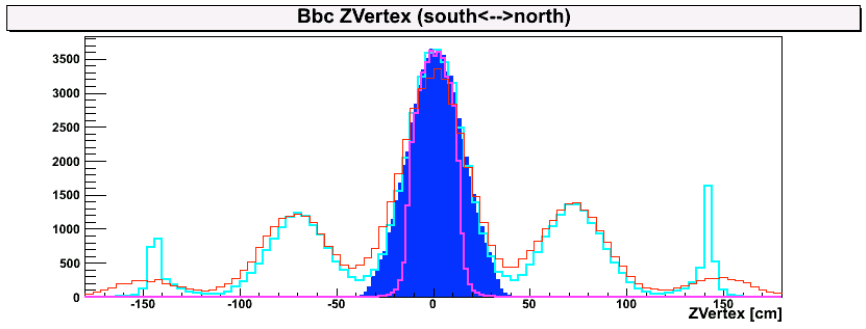
σ_{ZDC} = 0.581 ϵ_{BBC} = 1.144 $^{\text{beam in acceptance}}_{\text{ZDC}}$ = 0.305 $^{\text{beam in acceptance}}_{\text{BBC}}$ = 1.607



At the beginning of a store

BBC ONLINE MONITOR

Run #371203 Events: 205990 Date:Tue May 8 09:44:14 2012

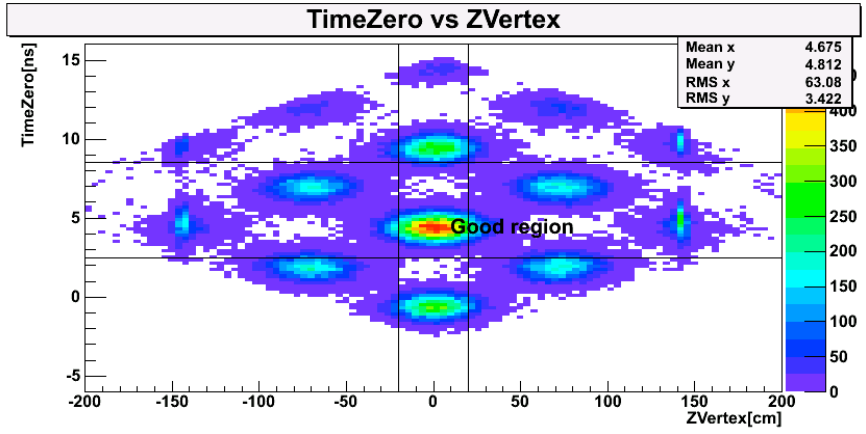


$Z^{Fit}_{BBLL1\ w/o\ Vtx}$ = 1 cm (σ = 19 cm) ... OK

Z [Trigger]	Zbbc [BBLL1]	Zzdc [ZDCLL1wide]	Zbbc [BBCLL1(noVtx)]	Zbbc [BBCLL1(narrowVtx)]
(Scale Fac.) #Evt.	(1) 67820	(2) 127644	(1) 141939	(1) 45690
Vertex Mean (RMS)	1.3cm (14.3 cm)	2.2cm (64.1 cm)	4.3cm (62.6 cm)	0.7cm (8.6 cm)

< All histograms are scaled by scaled factor>

σ_{ZDC} = 0.475 ϵ_{BBC} = 0.955 $^{\text{beam in acceptance}}_{\text{ZDC}}$ = 0.191 $^{\text{beam in acceptance}}_{\text{BBC}}$ = 1.127

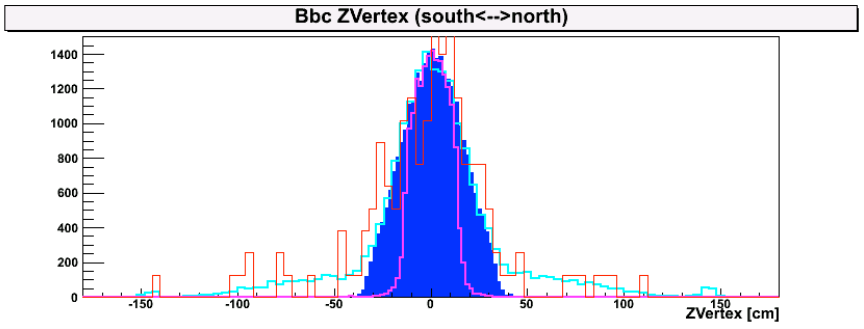


At the end of a store

Collision Vertex Distributions

BBC ONLINE MONITOR

Run #371196 Events: 32503 Date:Tue May 8 03:23:34 2012



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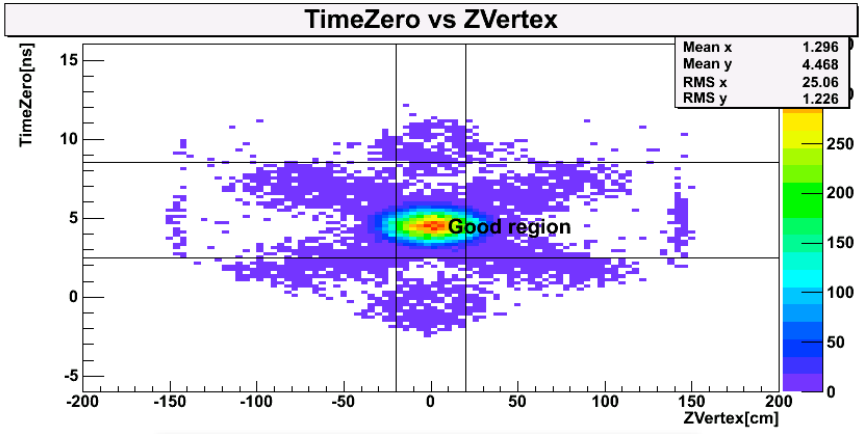

At the beginning of a store

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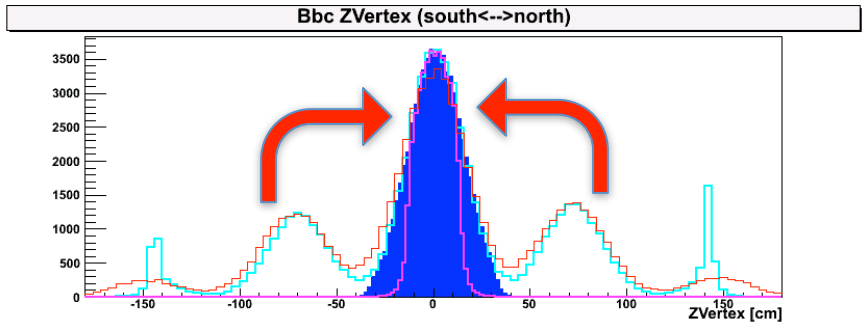

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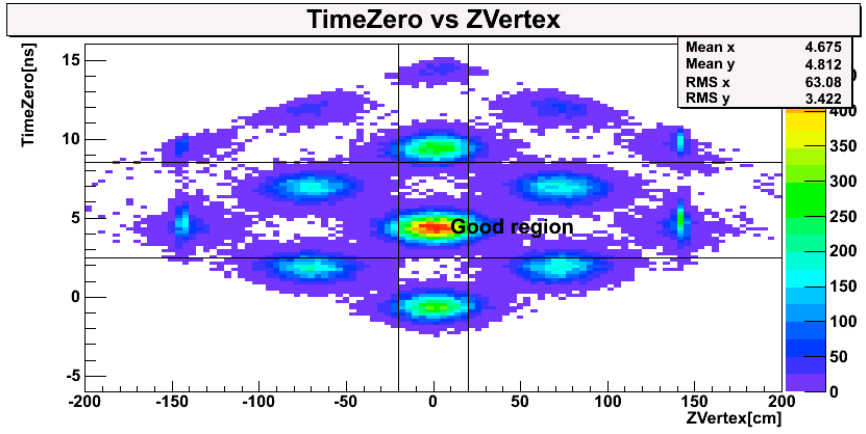

At the end of a store