## **DQM**

- -Update in release04-00 (will be used for Autumn run):
  - -TRG DQM is run before HLT filtering
  - -GRL is added
  - -NN is added (?)
- -Followings are still missed:
  - -HadronB and Dimuon skim? (asked to Karim but no news on JIRA..)
  - -2D, TSF in lower half of CDC
  - -TOP, KLM
- -Monitor to optimize injection veto parameter is needed -need to monitor event vetoed by injection veto.. how ?

## Online data quality

-TRG expert need to check good run flag based on DQM. Check all runs in your shift.

## 0 - Not included in DAQ

- 1 Data are flawed and unrecoverable
- . 2 Data have problems but can be recovered
- 3 Data are OK

## Note

- To see the DQM plots for the previous runs, read the instruction at Data Quality Monitoring during operation
- If the luminosity value is -99 at the Elog, calculate the luminosity by using the "Integrated\_luminosity" command. To use this command, you need to login the KEKCC computer with your account. Type in your account as
- /group/belle2/group/detector/ECL/integrated\_luminosity start\_run# end\_run#
- "Num events" of -99 means that the run was not finished properly because of some accident in the end run process. But the data itself can be used later for the physics analysis in many cases. So those runs should also be listed in the table below
- Runs with other category such as "DAQ study" is not needed to be listed in the DQF table below.

Run information											CR Shifter Flag								System Expert Flag								
Category	Exp num ber	Run number	Num events	Run time	Sole noid	Sub detectors	Lumi [10^33]	Acc Had	Acc Bhabha	P X D	S V D	C D C		R	C L	K T L R M G		P X D	v	C D C	A R I	O P	E C L	K L M		Comments	
														, ,							1			117	,,		
Luminosity Run	8	2173	4210419	0:21:04	ON	PXD   SVD   CDC   TOP   ARICH   ECL   KLM   TRG	6090.40163376447	21568	147436	2	2	2		2		2 2	PXD DQM plot is red	2	3		3		3	2	3		
Luminosity Run	8	2170	2872877	0:15:12	ON	PXD   SVD   CDC   TOP   ARICH   ECL   KLM   TRG	4589.89108236896	11452	76738	2	2	2	2	2 4  <b>&gt;</b>		2 2		2	3		3		3	2 <b>∢</b>  ▶	3		
Luminosity Run	8	2169	5800477	0:31:46	ON	PXD   SVD   CDC   TOP   ARICH   ECL   KLM   TRG	9182.23281143635	40043	271390	2	2	2	2	2 4  <b>&gt;</b>		2 2		2	3		3		3	2 <b>∢</b>  ≱	3		
Luminosity Run	8	2168	171360	0:04:41	ON	PXD   SVD   CDC   TOP   ARICH   ECL   KLM   TRG	334.27501701838	306	2157	2	2	2	2	2 4  <b>&gt;</b>		2 2		2	3		3		3	3 4 ▶	3		
Luminosity Run	8	2165	4466953	0:42:27	ON	PXD   SVD   CDC   TOP   ARICH   ECL   KLM   TRG	9148.4343	45458	321174	2	2	2	2	2		2 2		2	3		3		3	2 <b>∢</b>  )	3		
Luminosity Run	8	2163	2264041	0:13:20	ON	PXD   SVD   CDC   TOP   ARICH   ECL   KLM   TRG	3532.2668	8169	56220	2	2	2	2	2		2 2		2	3		3		3	2 <b>∢</b>  )	3	ARI: hot ch in 5_7	
Luminosity Run	8	2158	179326	0:03:15	ON	PXD SVD CDC TOP  ARICH ECL KLM TRG	362.3893	204	1615	2	2	2	2	2	2	2 2		2	3		3	3	3	2		KLM scintillator peaks are shifted. The shift is about 40 ns which should be consistent with the test version of software for SCROD control.	
														4	4	(					4  <b>&gt;</b>			∢ Þ		ARI: hot ch in 5_7	
Luminosity Run	8	2153	11094024	1:02:11	ON	PXD   SVD   CDC   TOP   ARICH   ECL   KLM   TRG	17921.817563											2	3		3	2	3	2	3	KLM scintillator peaks are shifted.	
																					<b>∢</b>  ▶			∢þ		ARI: hot ch in 5_7	

- -I do not think DQM ensure data quality perfectly
  - -We need additional criteria of offline data quality (based on trigger efficiency and trigger rate ?)