

Run24 Quality Assurance

RIKEN/RBRC

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List of INTT QA items

1. BCO peak position (Jaein/Takahiro)
2. INTT hit rates (Jaein/Takahiro, normalized by the raw collision rate)
3. Cluster ϕ -size (Ryota/Takahiro)
4. Run length (Jaein/Takahiro)
5. Acceptance (Jaein/Takahiro, percentage of active strips)

6. Noise hit rates (to be estimated from the abort gap) and/or signal to noise ratio. Hit map of the noise also is to be monitored. (Akitomo/Nao)
7. MIP position (Genki/Yui)
8. Stream readout : trigger match

Item 1~5 are to be completed by the end of 2024, item 6&7 has longer time span (several months).

Strategy

- Focus on only trigger mode runs only for now.
- INTT own QA table -> pSQLDB (Expert, binary -> See next page). Consult with Joe before creating INTT-QA database (**Akitomo**).
- Eventually fill up the central QA page: <https://sphenix-intra.sdcc.bnl.gov/WWW/scripts/triage/home.py>
- Criteria for the Golden/Questionable/Bad can be discussed after the INTT QA binary table is completed.
- Each QA module is to be plugged into Run25 offline QA.

INTT QA Table Sample Format

Expert Version

Run#	Duration	BCO Peak	Hit rates [Hz]	...		Hit rates		
		55	1.1k					
		55	1.5k					
						

Binary Version

Run#	Duration	BCO Peak	Hit rates	...		Hit rates		
		1	0					
		0	1					