

Pass 6

HPS-JAVA Release: [3.8-fix](#)

DST-Maker Release: [0.10](#)

Run Spreadsheet: [Google Docs](#)

Detector: [HPS-EngRun2015-Nominal-v4-4-fieldmap](#)

Batch Farm Scripts:

- `/u/group/hps/production/data/EngRun2015/pass6`
- [github](#)

Outputs:

- **Disk:** `/work/hallb/hps/data/engrun2015/pass6`
 - All DQ(M) and logs
 - v0 skims (the *0 files only)
 - v0pulser skim
- **Tape:** `/mss/hallb/hps/engrun2015/pass6`
 - Everything
- **Skims:** FEE, Moller, Pulser, V0, S0, P0

Changes Relative to Pass-4 (pass5 was aborted and does not exist):

- Full 100% pass.
- ECAL halves shifted asymmetrically in y based only on tracking.
- ...

Steering Files:

Recon	<code>/org/hps/steering/recon/EngineeringRun2015FullRecon.lcsim</code>
DQ	<code>/org/hps/steering/production/DataQuality.lcsim</code>
DQM	<code>/org/hps/steering/production/DataQualityRecon.lcsim</code>
Pulser	<code>/org/hps/steering/production/PulserTriggerFilter.lcsim</code>
Moller	<code>/org/hps/steering/production/MollerCandidateFilter.lcsim</code>
FEE	<code>/org/hps/steering/production/FEEFilter.lcsim</code>
V0	<code>/org/hps/steering/production/V0CandidateFilter.lcsim</code>
S0	<code>/org/hps/steering/production/Single0TriggerFilter.lcsim</code>
P0	<code>/org/hps/steering/production/Pair0TriggerFilter.lcsim</code>

Output Directory Structure:

```
|-- data_quality
|   |-- dq
|   |-- recon
|-- dst
|-- logs
|-- recon
|-- ski
|   |-- dst
|   |   |-- fee
|   |   |-- moller
|   |   |-- p0
|   |   |-- pulser
|   |   |-- s0
|   |   |-- v0
|   |-- fee
|   |-- moller
|   |-- p0
|   |-- pulser
|   |-- s0
|   |-- v0
```

Skim Cuts:

Moller	V0	FEE	S0,P0,Pulser
$p_1, p_2 < 0.85 \text{ GeV}$	GBL Only	$e > 0.6 \text{ GeV}$	TI Trigger Bit
$0.85 < p_1 + p_2 < 1.3 \text{ GeV}$	$\chi^2_{\text{vertex}} < 10$	$s > 0.4 \text{ GeV}$	
$ t_1 - t_2 < 2.5 \text{ ns}$	$\chi^2_{\text{track}} < 20$		
$40 < t_1, t_2 < 48 \text{ ns}$	$p_1, p_2 > 0.9 \text{ GeV}$		
$-175 < x_1 + x_2 < -145 \text{ mm}$	$p_1 + p_2 < 1.4 \text{ GeV}$		
$ x_1 - x_2 < 80 \text{ mm}$			
$0.85 < e_1 + e_2 < 1.1 \text{ GeV}$			
$ e_1 - e_2 < 0.3 \text{ GeV}$			

===== Status of finished jobs =====

===== Summary of Missing files =====	
Number of Missing Recons	30
Number of Missing DSTs	0
Number of Missing DQMs	751
Number of Missing pulsers	5
Number of Missing pulser DSTs	0
Number of Missing s0s	2
Number of Missing s0 DSTs	0
Number of Missing p0s	3
Number of Missing p0 DSTs	0
Number of Missing fees	1
Number of Missing fee DSTs	3
Number of Missing Mollers	9503
Number of Missing Moller DSTs	9504
Number of Missing V0s	9502
Number of Missing V0 DSTs	9503
=====	

Following are recon jobs that were failed.

Most of them are timed out, however there are some that, that are crashed at the beginnig

Run	file number	Failure reason
5783	105	timeout
5775	74	timeout
5754	4	Exception_1
5741	161	timeout
5694	186	timeout
5610	148	timeout
5579	103	timeout
5578	435	timeout
5568	8	Exception_1
5566	18	Exception_1
5546	32	Exception_1
5541	3	Exception_1
5410	201	timeout, Tons of Exception2 (probably every event)
5405	98	timeout
5381	127	timeout
5348	47	timeout
5345	0	timeout
5313	100	timeout
5288	11	timeout
5267	33	timeout
5256	44	timeout
	46	
	50	
5257	13	timeout
	17	
	32	
	34	
	36	
	39	
5254	18	timeout

Exception_1

```
2016-05-18 13:28:38 [INFO] org.hps.evio.LCSimEngRunEventBuilder setTiTimeOffsetForRun :: TI time
offset set to 1431298043480321136 for run 5568 from database
```

```
2016-05-18 13:28:38 [INFO] org.hps.conditions.database.DatabaseConditionsManager initialize ::
conditions system initialized successfully
```

2016-05-18 13:28:38 [CONFIG] org.hps.conditions.database.DatabaseConditionsManager freeze :: conditions system is frozen

2016-05-18 13:28:38 [INFO] org.hps.evio.EvioToLcio run :: Opening EVIO file in.evio

Exception in thread "main" java.lang.NegativeArraySizeException

at org.jlab.coda.jevio.EventParser.parseStructure(EventParser.java:126)

at org.jlab.coda.jevio.EventParser.parseEvent(EventParser.java:62)

at org.jlab.coda.jevio.EvioReader.parseEvent(EvioReader.java:1449)

at org.hps.evio.EvioToLcio.bufferEvents(EvioToLcio.java:186)

at org.hps.evio.EvioToLcio.run(EvioToLcio.java:501)

at org.hps.evio.EvioToLcio.main(EvioToLcio.java:98)

Exception_2

org.hps.evio.AugmentedSvtEvioReader processSvtHeaders :: Caught 11 SvtEvioHeaderExceptions for event 53391095 of 3 types: SvtEvioHeaderApvBufferAddressException SvtEvioHeaderApvFrameCountException SvtEvioHeaderSyncErrorException