

Data monitoring

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for CLAS collaboration
03.06.2018

Data sources compared by IMPORTANCE.

JEFFERSON LAB ELECTRONIC LOGBOOK

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Crew Chief Announcements

- Paul Vasilauskis Crew Chief On-Call

HBLOG

Filter Form

Ongoing Downtime Events

- Accelerator: Accelerator site power outage [13 hours 24 minutes]

SWING Monday (05-Mar-2018)

Lognumber	Date	Author	Title
3543240	17:35	markov	Shifts are canceled for the next 24 hours
3543216	16:51	clastrun	Offline: run 3518
3543192	16:00	vpk	BTA: Experimenter Hall B: 2018-03-05 Day
3543175	15:03	gotra	SVT leakage current history. R1588

DAY Monday (05-Mar-2018)

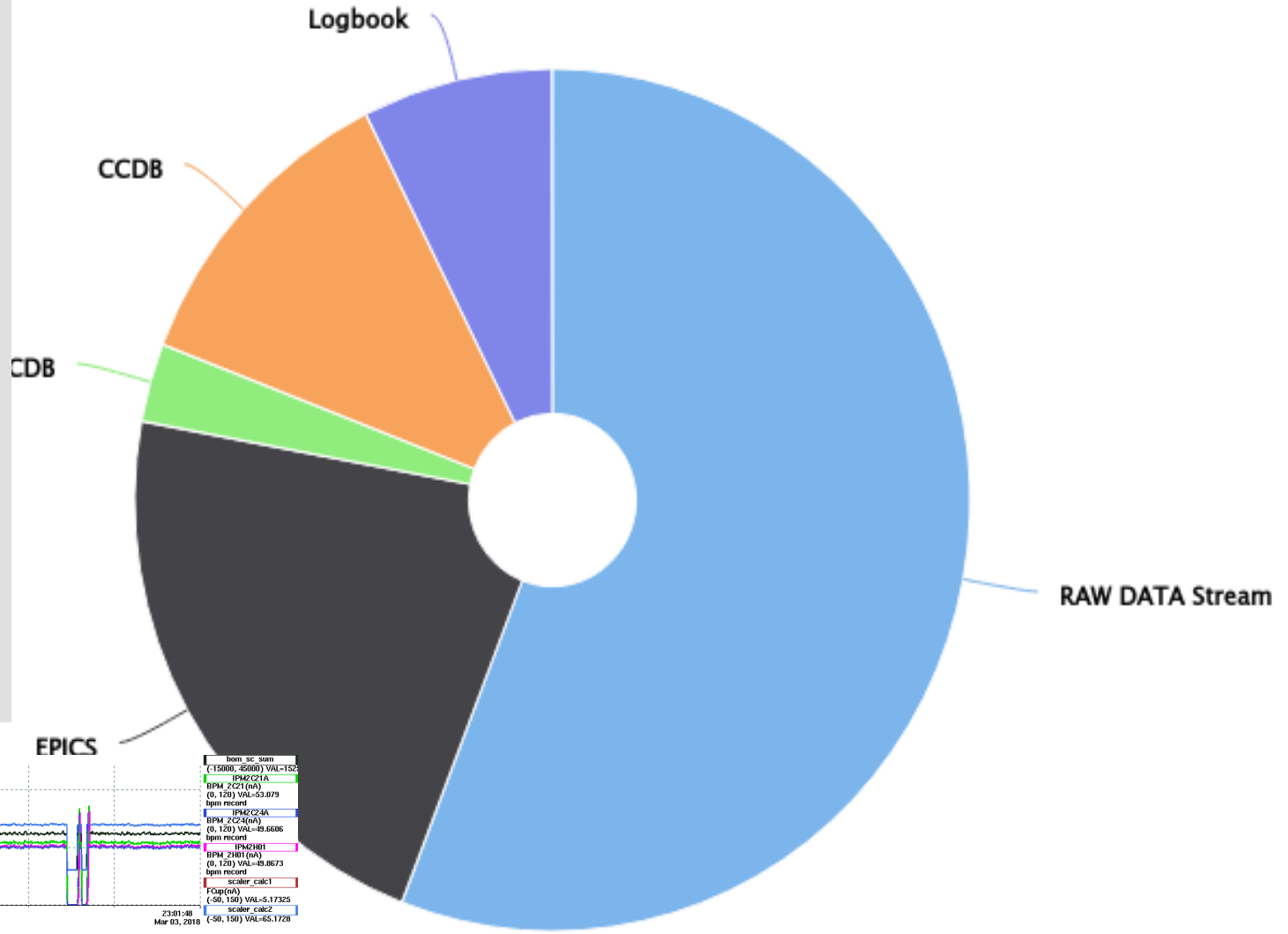
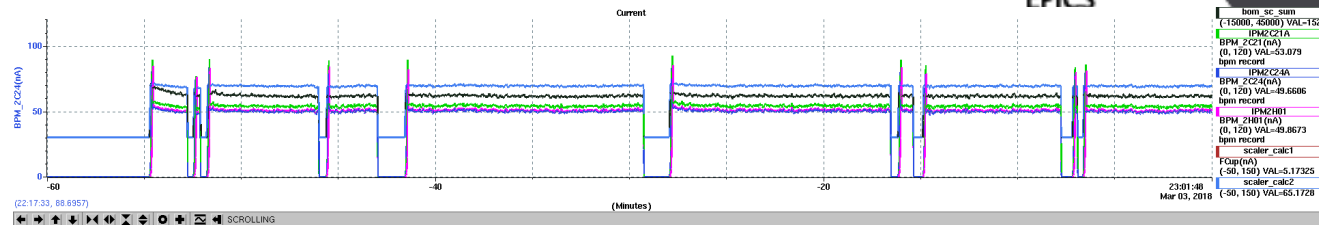
Tables Variations

- test
- calibration
 - cnd
 - rtof
 - ctof
 - ec
 - drift_chamber
 - help
 - htcc
 - dc
 - ltcc
 - svt
 - ft
 - eb
 - mvt
- geometry
 - bst
 - cnd
 - dc
 - ec
 - ft
 - rtof
 - pcal
 - cvt
 - fnt
 - ctof
 - target
- daq
 - radc
 - tt
 - ttclasdev
 - config

Home

Last 25 runs

Number	Start time	Length	Events	Run config	Run type	Comment
3551	2018-03-05 07:45:55	1:18:05	9664111	/usr/det12/detbase/1.3.2/params/trigger/trigger_9.uf	PROD	production
3550	2018-03-05 06:56:49	0:22:35	4738557	/usr/det12/detbase/1.3.2/params/trigger/trigger_9.uf	PROD	production
3549	2018-03-04 23:01:36	7:40:39	40450528	/usr/det12/detbase/1.3.2/params/trigger/trigger_9.uf	PROD	
3548	2018-03-04 19:18:56	2:58:18	68770050	/usr/det12/detbase/1.3.2/params/trigger/trigger_9.uf	PROD	ok



importance - an arbitrary value defined by author to justify pie diagram

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SWING Monday (05-Mar-2018)

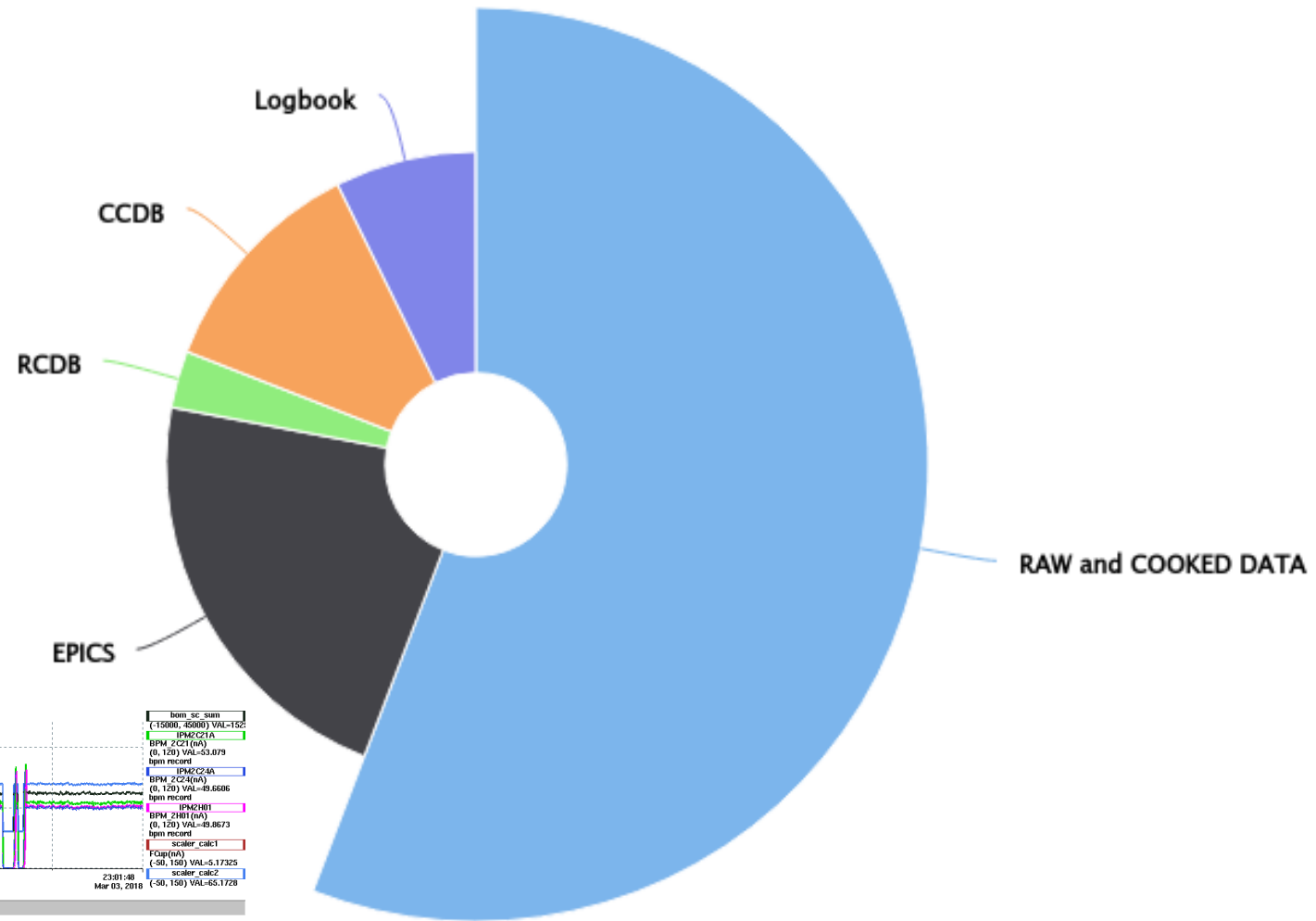
Lognumber	Date	Author	Title
3543240	17:35	markov	Shifts are canceled for the next 24 hours
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3543175	15:03	gotra	SVT leakage current history. R158B

DAY Monday (05-Mar-2018)

Tables Variations

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 - pcal
 - cvt
 - fnt
 - ctof
 - target
- daq
 - radc
 - tt
 - ttclasdev
 - config

Data sources compared by IMPORTANCE.



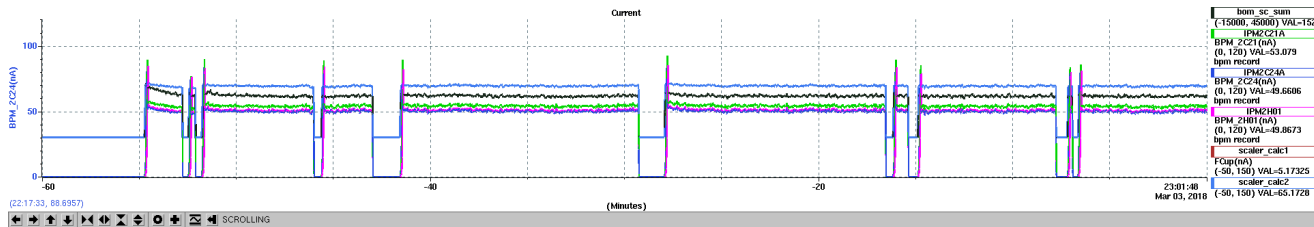
RCDB Home

Run info Run meta Search query

Home

Last 25 runs

Number	Start time	Length	Events	Run config	Run type	Comment
3551	2018-03-05 07:45:55	1:18:05	9664111	/nerdml2/ndevco/1.3.2/params/trigger/trigger_9.uf	PROD	production
3550	2018-03-05 06:56:49	0:22:35	4738557	/nerdml2/ndevco/1.3.2/params/trigger/trigger_9.uf	PROD	production
3549	2018-03-04 23:01:36	7:40:39	40450528	/nerdml2/ndevco/1.3.2/params/trigger/trigger_9.uf	PROD	
3548	2018-03-04 19:18:56	2:58:18	68770050	/nerdml2/ndevco/1.3.2/params/trigger/trigger_9.uf	PROD	ok



importance - an arbitrary value defined by author to justify pie diagram

Run-based monitoring

Forward Reconstruction:

- N. Electrons / trigger / sector
- N. Positive tracks / trigger / sector
- N. Negative tracks / trigger / sector
- N. Identified protons, pi+, pi- , k+, k- / trigger
- N. Neutrals / sector

Central Reconstruction:

- N. Positive tracks / trigger
- N. Negative tracks / trigger
- N. Identified protons, pi+, pi- , k+, k- / trigger

Tracking:

Forward:

- VZ centroid for positives and negatives / sector
- Mean chi2 / electrons, positives and negatives / sector

Central:

- VZ centroid for positives and negatives
- Mean chi2 / electrons, positives and negatives

RF:

- RF time for electrons / pions / sector
- RF1 - RF2

FTOF:

- (StartTime - RF) mean and sigma / sector

Preliminary list of variables compiled by detector experts

DC:

- Residual mean and sigma / sector
- Residual mean and sigma / sector / superlayer

CTOF:

- (StartTime - CTOF Time) mean and sigma / positives and negatives

CND:

- (StartTime - CTOF Time) mean and sigma / positives and negatives / layer

EC:

- Sampling Fraction / Sector
- Pi0 mass / sigma
- (StartTime - Pion Time) mean and sigma

HTCC:

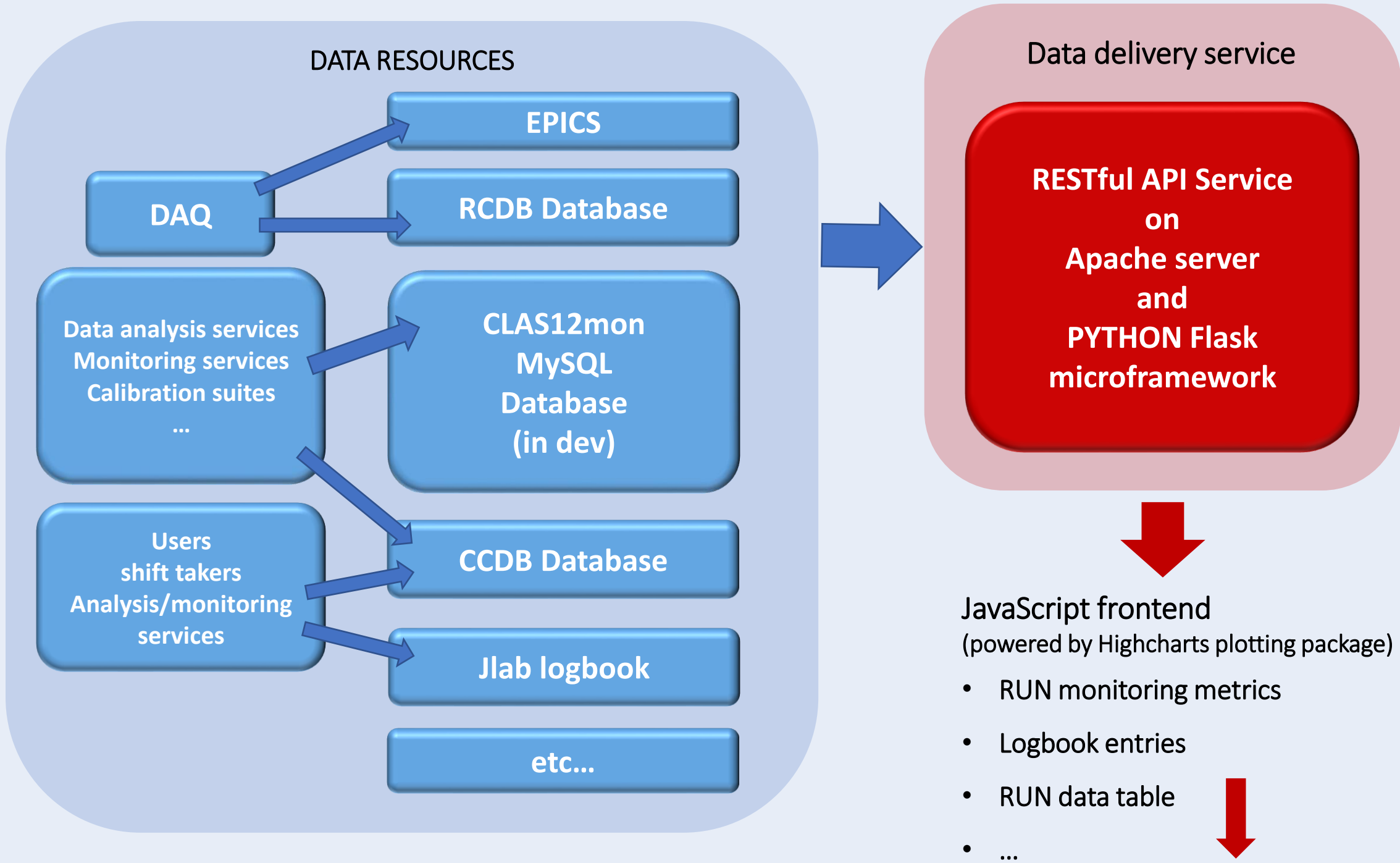
- nphe / ring / sector

LTCC:

- nphe sector

FT:

- FTH MIPS energy / layer
- FTH (MIPS time - starttime) mean / sigma
- FTC pi0 mass mean and sigma
- FTC (time - starttime) mean / sigma



Let's start interactive session

<https://clas12mon.jlab.org/guide>

RUN DATA TABLE (pull information from RCDB database)

3500 inf RRR aka Request Run Range

Enable Filter ROW

Search for run number[s]: 3000,3005

Click to choose specific configuration. Use [Ctrl+MouseClick] for multiple selection

click to reset filtering

run	run start time	run end time	beam energy	beam current request	run type	event count	events rate	evio files count	target	solenoid scale	torus scale	run config	half wave plate	status	operators	is valid run end	user comment
3551	2018-03-05 07:43:55	2018-03-05 09:02:00	10594	150nA	PROD	9664111	697.01	144	empty	-1	-1	trigger_v9.cnf	IN	0	RF,VG	1	production
3550	2018-03-05 06:56:49	2018-03-05 07:19:24	10594	150nA	PROD	4738557	1076.58	72	empty	-1	-1	trigger_v9.cnf	IN	0	RF,DL	1	production
3549	2018-03-04 23:01:36	2018-03-05 06:42:15	10594	150nA	PROD	40450528	37.22	600/3.3%/3.3%	empty	-1	-1	trigger_v9.cnf	IN	0	LG,DL	0	
3548	2018-03-04 19:18:56	2018-03-04 22:17:14	10594	50nA	PROD65	68770050	128.49	1557	LH2	-1	-1	trigger_v9.cnf	IN	0	LG,JAT	1	
3547	2018-03-04 15:02:38	2018-03-04 19:15:27	10594	50nA	PROD65	100210786	1411.26	2287	LH2	-1	-1	trigger_v9.cnf	IN	0	VK,JAT	0	production
3546	2018-03-04 14:54:14	2018-03-04 14:56:50	10594	50 nA	PROD65	86	0.00	1	LH2	-1	-1	trigger_v9.cnf	IN	0	VK,VG	0	Production
3545	2018-03-04 11:46:53	2018-03-04 14:52:37	10594	50nA	PROD65	100035152	364.13	2288	LH2	-1	-1	trigger_v9.cnf	IN	0	VK,VG	1	production
3544	2018-03-04 08:26:23	2018-03-04 11:38:58	10594	50 nA	PROD	101856302	11.69	2325	LH2	-1	-1	trigger_v9.cnf	IN	0	VK,VG	0	Production
3543	2018-03-04 08:17:39	2018-03-04 08:22:17	10594	50 nA	PROD	154	0.00	1	LH2	-1	-1	trigger_v9.cnf	IN	0	VK,VG	0	Production
3542	2018-03-04 07:24:48	2018-03-04 08:10:29	10594	50 nA	PROD	26482283	201.87	605	LH2	-1	-1	trigger_v9.cnf	IN	0	RF,VG	1	production run
3541	2018-03-04 07:11:11	2018-03-04 07:14:55	10594	50 nA	PROD	126	0.00	1	LH2	-1	-1	trigger_v9.cnf	IN	0	RF,VG	0	production run
3540	2018-03-04 04:00:11	2018-03-04 07:08:29	10594	50nA	PROD	100072911	1521.12	2286	LH2	-1	-1	trigger_v9.cnf	IN	0	RF,JAT	1	production
3539	2018-03-04 03:28:25	2018-03-04 03:38:56	10594	50 nA	PROD	5563845	396.61	128	LH2	-1	-1	trigger_v9.cnf	IN	0	RF,JAT	1	production run
3538	2018-03-04 00:40:21	2018-03-04 03:25:29	10594	50 nA	PROD	100175499	1645.11	2292	LH2	-1	-1	trigger_v9.cnf	IN	0	RF,JAT	1	production run
3537	2018-03-04 00:14:38	2018-03-04 00:22:06	10594	50nA	PROD	2563872	2224.78	59	LH2	-1	-1	trigger_v9.cnf	IN	0	RF,JAT	1	production
3536	2018-03-03 23:51:19	2018-03-04 00:03:12	10594	50nA	PROD65	5844883	10842.20	134	LH2	-1	-1	trigger_v9.cnf	IN	0	BM,JAT	0	production
3535	2018-03-03 20:37:18	2018-03-03 23:48:39	10594	50nA	PROD65	100000621	1258.12	2289	LH2	-1	-1	trigger_v9.cnf	IN	0	BM,FB	1	production
3534	2018-03-03 17:29:06	2018-03-03 20:35:15	10594	50nA	PROD65	100011635	229.07	2295	LH2	-1	-1	trigger_v9.cnf	IN	0	BM,FB	1	production
3533	2018-03-03 14:29:20	2018-03-03 17:23:52	10594	50nA	PROD	100000601	2377.65	2296	LH2	-1	-1	trigger_v9.cnf	IN	0	BM,FB	1	Production
3532	2018-03-03 11:13:42	2018-03-03 14:23:17	10594	50nA	PROD	99972955	804.13	2292	LH2	-1	-1	trigger_v9.cnf	IN	0	ZA,DG	1	Production
3531	2018-03-03 08:26:57	2018-03-03 11:08:57	10594	50nA	PROD	77535742	572.85	1770	LH2	-1	-1	trigger_v9.cnf	IN	0	ZA,DG	0	Production
3530	2018-03-03 05:23:32	2018-03-03 08:22:10	10594	50	PROD	99586645	2438.69	2275	LH2	-1	-1	trigger_v9.cnf	IN	0	LZ,JAT	1	production
3529	2018-03-03 00:58:13	2018-03-03 05:19:29	10594	50	PROD	100540279	596.14	2305	LH2	-1	-1	trigger_v9.cnf	IN	0	LZ,JAT	1	production
3528	2018-03-02 21:41:56	2018-03-03 00:51:54	10594	50nA	PROD65	79722511	132.21	1780/2.8%/2.8%	LH2	-1	-1	trigger_v9.cnf	IN	0	BM,FB	1	production

Example: RAW scalers monitoring (data analysis + EPICS history archive)

