

SVT bias ranges for eng run

Bias and position ranges, per-run beam charge

Input files (in `/java/sandbox/biascrawling/crawler`)

CSV file of run stats - `parsed.csv` (generated by `./parse_crawler.awk crawleroutput.txt`; `crawleroutput.txt` is from running `"java -jar hps-distribution-bin.jar org.hps.evio.BasicEvioFileReader -qcst <evio files>"` on first and last files of all runs)

MYA files - `biasdump`, `motordump`, `fcupdump` (SVN has `.gz` files; gunzip before using), these were generated using the shell scripts (`bias_dump.sh`, etc.)

Look at ranges (display plots of run ranges, calculate run efficiencies)

```
java -cp hps-distribution-3.4.0-SNAPSHOT-bin.jar org.hps.conditions.svt.SvtBiasConditionsLoader -tc parsed.csv -dm biasdump -p motordump -b fcupdump -s
```

Load to DB

Development DB

```
java -Dorg.hps.conditions.connection.file=dev.prop -cp hps-distribution-3.4.0-SNAPSHOT-bin.jar org.hps.conditions.svt.SvtBiasConditionsLoader -tc parsed.csv -dm biasdump -p motordump -g
```

where `dev.prop` is a text file containing:

```
hostname = hpsdb.jlab.org
user = pelle
password = "ask jeremy"
database = hps_conditions_dev
```

Validation

Simple validation

This will run over a `evio` file, read run ranges from `cdv` and `MYA` files (settable paths), the conditions DB and also the `epics` bank inside the data stream.

```
java -cp hps-distribution-3.3.3-SNAPSHOT-bin.jar org.hps.evio.EvioToLcio -x steering-files/src/main/resources/org/hps/steering/production/SampleZeroMonitoring.lcsim -DoutputFile=whatever hps_005796.evio.0 -d HPS-EngRun2015-Nominal-v1
```

Per-file beam charge

```
java -cp hps-distribution-bin.jar org.hps.users.meeg.SvtChargeIntegrator filecrawleroutput.txt fcupdump
```

This uses the conditions DB for bias and SVT position time ranges, and the run DB for TI time offsets.

`filecrawleroutput.txt` is generated by running `BasicEvioFileReader` on each file, then `parse_filecrawler.sh` on the output.