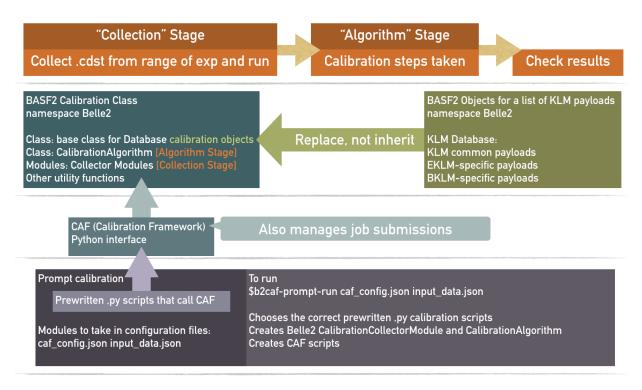
# **KLM calibration meeting March24 notes**

#### Overview

1. [Note: these .cdst already produced by others, we only work on calibration]



- 2. Also to develop basf2 myself:
  - /cvmfs/belle.cern.ch/tools/b2setup; which creates /development dir locally
  - Documentation (separated from precompiled releases) https://b2-master.belle2.org/software/development/sphinx/build/tools\_doc/index-01-tools.html on the master branch
  - ^^ The above documents the project development in progress, will only update to the regular documentation page when it's frozen release

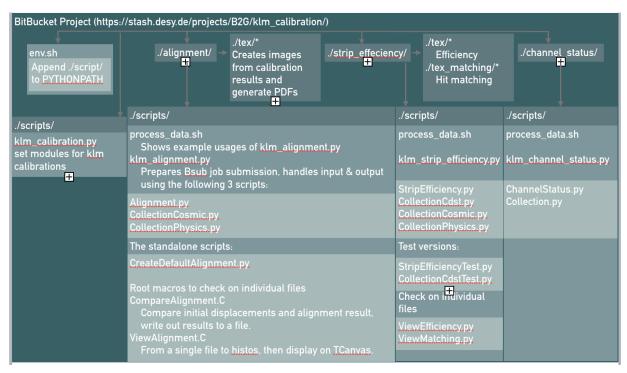
### Analysis note klm\_calibration:

- 1. https://stash.desy.de/projects/B2D/repos/belle2-note-te-2020-010/browse
- 2. Explaining the offline calibration in the /B2G/klm\_calibration project and also prompt calibration
- 3. Serves to explain both for users of basf2 klm calibration as well as people who will develop, as the populations mostly overlap
- 4. Will make PR to connect the edits that I have written

## Seperate klm\_calibration project:

1. https://stash.desy.de/projects/B2G/repos/klm\_calibration/browse

- 2. This is the offline calibration that already worked and also had already been used for calibration
- 3. Mostly on offline calibration, eventual goal is to integrate this into automated calibration of basf2
- 4. Some example usage in the project:
  - ./klm\_channel\_status.py --experiment=8 --first\_run=0 --last\_run=3480 -global\_tag=data\_reprocessing\_prompt --use\_physics --use\_beam -use\_cosmic
  - ./klm\_channel\_status.py --run\_algorithm -collection\_results=e8r0r3480\_physics\_beam\_cosmic
- 5. Below shows the overall structure, this also includes the macro to generate plots to check the calibration results



## Ongoing development on feature branches to basf2

- 1. To catch up with KLM related issues, check related JIRA tickets on agira.desy.de, which are generally linked to feature branches.
- 2. This include many aspects of feature patches, basically anything related to KLM calibration, and not limited to just prompt.
- 3. Developing scripts to include in calibration/scripts/prompt/calibrations so that people can run b2caf-prompt-run, so far strip efficiency and alignment implemented.
  - https://stash.desy.de/projects/B2/repos/software/pull-requests/5682/ overview
  - <a href="https://stash.desy.de/projects/B2/repos/software/pull-requests/5799/">https://stash.desy.de/projects/B2/repos/software/pull-requests/5799/</a>
    overview
- 4. Giacomo's answer to my questions can be found on: <a href="https://stash.desy.de/">https://stash.desy.de/</a>

<u>projects/B2/repos/software/pull-requests/5818/overview</u>, which lists a few projects

- This includes explaining standard cDST(a lot of data objects) and raw+tracking\_dataobjects versions
- The standard cDST will always be there for the previous processings
- Every new processing including all the data we have so far, and will have raw cDST standing proc11
- Phase II data (Experiment 3) discarded due to detectors not in good shape etc
- Phase I cosmic, Phase 2 beam line, Phase 3 physics runs

#### Other information

- No need for Confluence page, instead use sphinx documentation <a href="https://stash.desy.de/projects/B2/repos/software/browse/klm/doc/index.rst">https://stash.desy.de/projects/B2/repos/software/browse/klm/doc/index.rst</a> [Doxygen: C++, sphinx: Python]
- 2. AirFlow: Used by prompt to for automated calibration.
- 3. Bamboo is a build system, branches on PRs (plan, job, task related branches) linked on PR pages, no direct interactions needed.
- 4. Development directories to check on
  - klm/data/BKLM.xml
  - klm/bklm/geometry
  - Klm/bklm/dbobjects/