

LibEnvDB Integration in PandaROOT

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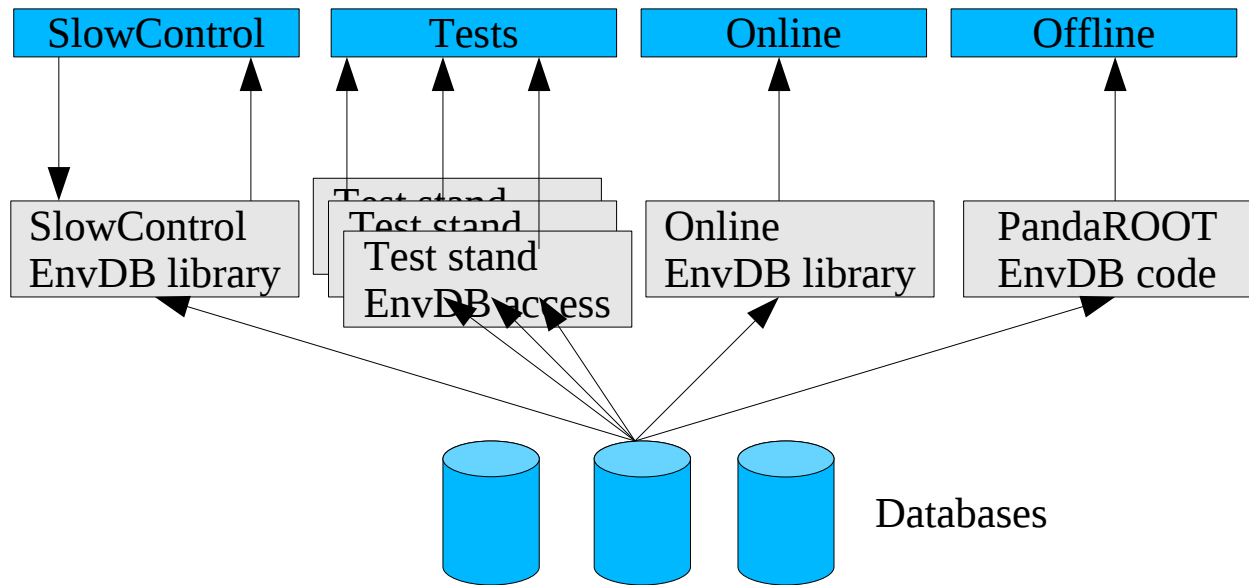
Status

- PANDA SlowControl makes progress
- EMC endcap makes progress
- EMC endcap is the guinea pig for the SlowControl development
- **EMC endcap people use the SlowControl for beam- and cosmics tests today**

- For the offline analysis of all kind of detector tests, access to the archived environmental data is needed
- ➔ We made a libEnvDB, offering a clear, easy to use interface to access the archived environmental data
 - libEnvDB is in use today in the analysis of beam-, cosmics-, and cooling tests
 - libEnvDB has minimal dependencies and is therefore usable in many kinds of applications

PandaROOT and libEnvDB

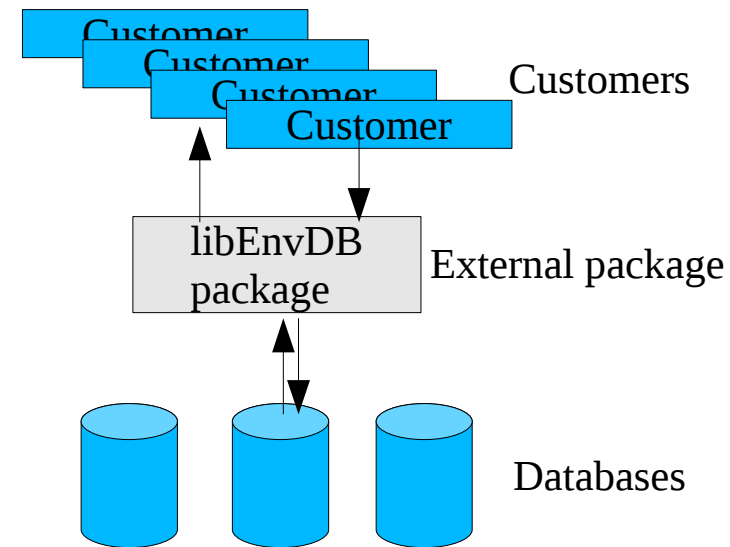
- In calibration, reconstruction and MC production access to environmental data is needed



Customers

Interface

Software packages



- Avoid double work
- ➔ Make packages re-usable
- ➔ Adapt “external” packages to frameworks

PandaROOT and libEnvDB

- ➔ Adapt libEnvDB to PandaROOT
 - Specify the functionality needed by calibration, reconstruction, and MC production
 - Define the interface on the PandaROOT side (this interface is about temperatures, pressures, sensor coordinates, etc., **not** about databases)
 - Use a wrapper or an adapter to make use of libEnvDB
- ➔ Benefits of this ansatz:
 - Minimal amount of work to make the functionality of an external package usable
 - If the interface of the external package changes significantly, PandaROOT has to be changed in just one place (the adapter)
 - Just one class (the adapter) has to be tested for such a migration