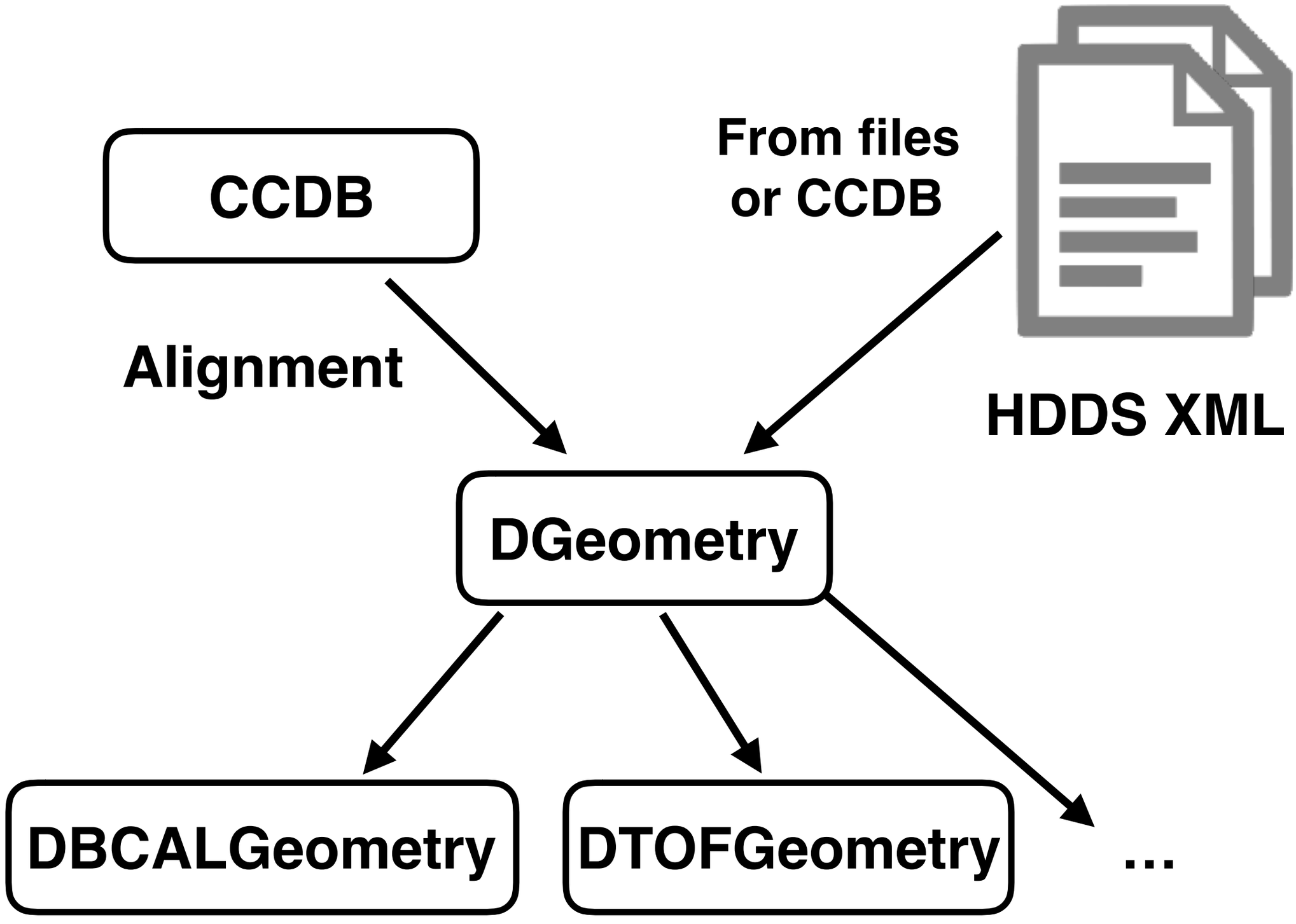
Detector Geometry

- Current scheme in sim-recon needs to be rationalized to support alignment work & support future detector changes.
  A modest proposal follows.
- Make DGeometry the canonical source of geometry information, synthesizing two sources:
  - Nominal geometry comes from HDDS XML files.
    A version should be frozen and only updated with major changes (e.g. we add in the DIRC)
  - Deltas to the nominal geometry (“alignment parameters”) are stored in the CCDB
- Detector specific geometry classes provide information in the parameterization most convenient for the reconstruction
  - These classes must also be refactored to have a proper interface, i.e. accessing data via functions and not the data members directly


CCDB
Alignment
From files
or CCDB
HDDS XML
DGeometry
DBCALGeometry
DTOFGeometry
…

Detector Geometry

- Working on GlueX note to define geometry parameters
- What about simulation?
  - Need to coordinate with Richard
  - Idea: Don't apply alignment shifts to individual detector elements, try to calibrate these effects out in data. Do allow translations/rotations of whole subdetectors.
  - First step: Write tool that creates a modified HDDS XML output from the canonical DGeometry source.
    - This could be eventually be done completely in memory