Babar Calibration Status

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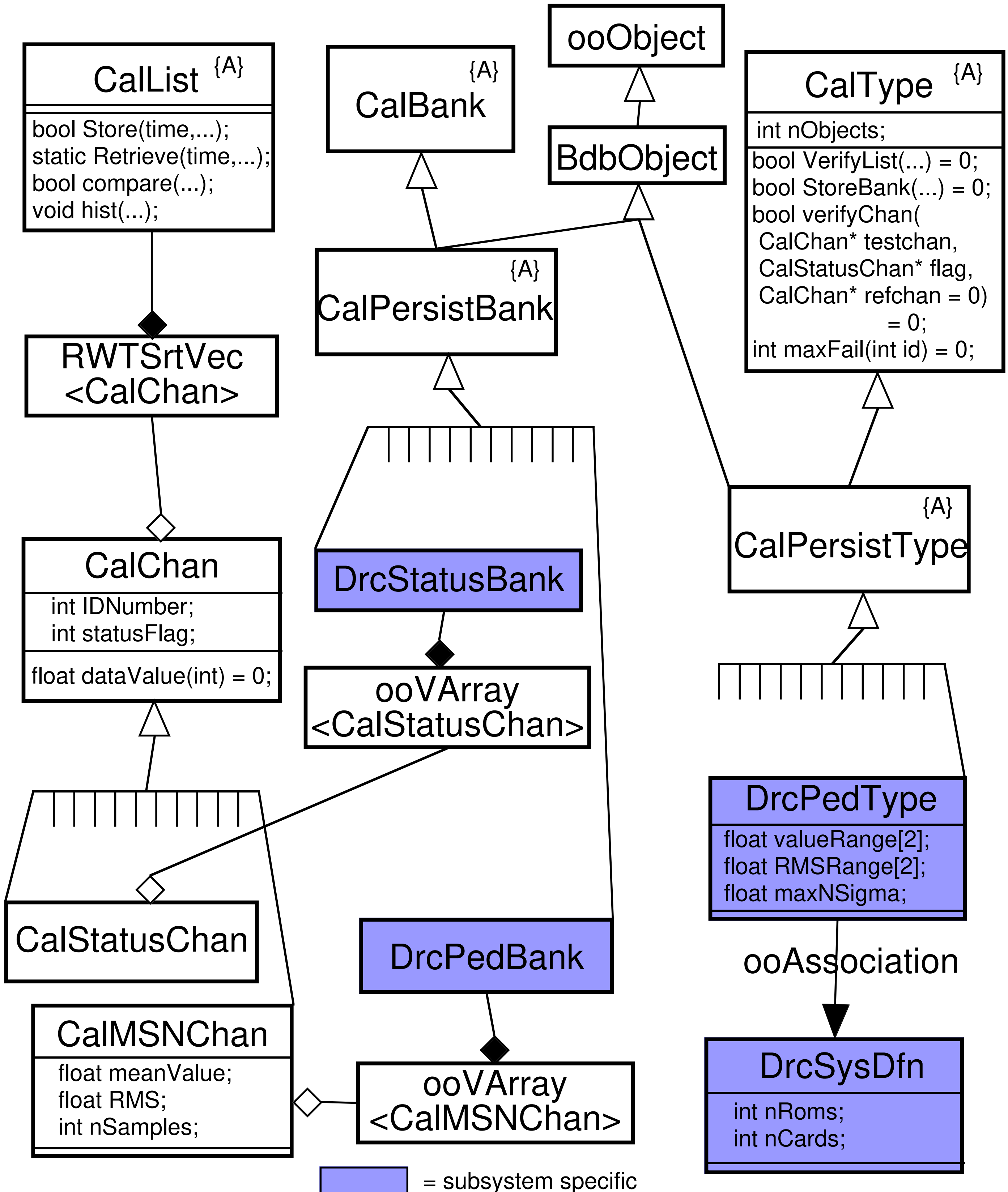
Calibration Packages

	Online	Neutral	Offline
General	CalOnline	Objectivity ProxyDict BdbUtil BdbCond BbrCalib	AbsEnv
Subsystem	DrcOnline ⋮ XXXOnline	DrcCond ⋮ XXXCond	DrcEnv ⋮ XXXEnv

- BbrCalib
  - Base and generic persistant classes (CalChan,...)
  - Verification and validation classes
- CalOnline
  - Base classes and generic classes (dfCalChan,...)
- XXXCond
  - Subsystem specific persistant classes
- XXXEnv
  - Offline-specific persistant classes (geometry, ...)
- XXXOnline
  - Subsystem specific online classes/code

Class Diagram



Calibration Classes

- CalList
  - User interface for verification, validation, insepction, storage, retrieval, and manipulation of calibrataion data.
  - Purely transient copy of calibration data from either dataflow or the database.
- CalBank
  - Base class for persistant calibration storage
  - 1 class for every uniquely determined set of constants
    - Different measuerements of the same thing are separate classes
    - Redundant data can inherit from a common base
- CalType
  - 1<->1 correspondance between CalType, CalBank subclasses.
  - Gatekeeper for storage of calibration data
    - Validates structure of input data, no exceptions allowed
      - channel ids
      - data type
    - Validates contents according to user-defined algorithm, channel masking and some failures are allowed.
- CalChan
  - Base class for storage of single channel data
- dfCalChan
  - Base class for computation of single channel data

Current Status

- Most of the Objectivity interface has been implemented
  - 1 fully-functional example of CalBank, CalType for the DIRC
  - Some useful generics implemented
  - User access offline through Proxies
- A fraction of the Validation/Verification interface has been implemented
  - store and retrieve
  - content listing
- Calibration Browser restarting from scratch
  - Java -> Motif
- Calibration download design/implementation
  - promising early ideas (Roly Martin, IC)
- Some subsystems getting an early peek
  - DRC (Gautier), EMC (Don Fujino)
  - working on Implementations of XXXSysDfn, XXXZZZBank, Type, Chan

Release Schedule

- Calibration will make a private 'release' of code at the end of July
  - Tags for all necessary packages
  - Perscriptions and scripts for building and running (Makefiles and setup are currently very rough!!)
  - Will work on OSF, AIX
  - Only persistant and Verification/Validation classes (no dataflow)
  - Simple examples in DIRC
  - Primitive Browser
  - Updated documentation
- Prototype code for calibration download will be ready near the end of August
  - suitable only for teststands
- Prototype 'dataflow' classes will be available near the end of August
  - Not really dataflow!
  - Suitable for development and testing of subsystem-specific calibration algorithms
- 2nd official online release will include a fully-functional calibration system

Conclusions

- Calibration has made a lot of progress in the last months
  - Objectivity under control
  - Basic class design refined and validated
- Subsystems can start contributing very soon
  - Persistant class design -> end of July
  - ‘dataflow’ class design -> end of August
- Thanks to many contributors
  - Tod Stavish, Alex Romosan, Roly Martin, Don Fujino