Status of GAUDI

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Preparation of Release 3

- Developing new functionality in the GAUDI
  - See next slides
- Changes in development environment
  - Deployment of CMT in NT
  - Bug tracking tool
    - » We cannot wait any longer. An open source solution is being deployed.
- Documentation
  - User's guide needs many corrections and improvements.
  - Architecture document needs to be updated.

Framework

- Support for shareable libraries (*M. Frank & P. Mato)*
  - The goal is simplification of usage of GAUDI
  - Dynamic loading of libraries. The concrete services, algorithms and converters will be selected at run time (typically using the JobOptions file)
  - The main program should become trivial.

  ☛ Status: Basically, it works but need some polishing and testing in Unix
- Histograms based on HTL (*P. Binko)*
  - The histogram service has been re-implemented using the recently released HTL (Histogram Template Library) from LHC++.
  - The old functionality unchanged.
  - New type of histograms.

  ☛ Status: It is ready.

Framework (2)

- Improved version of JobOptions text format (*S. Probst*)
  - More user friendly
  - Application Configuration
  - ☛ Status: Almost ready

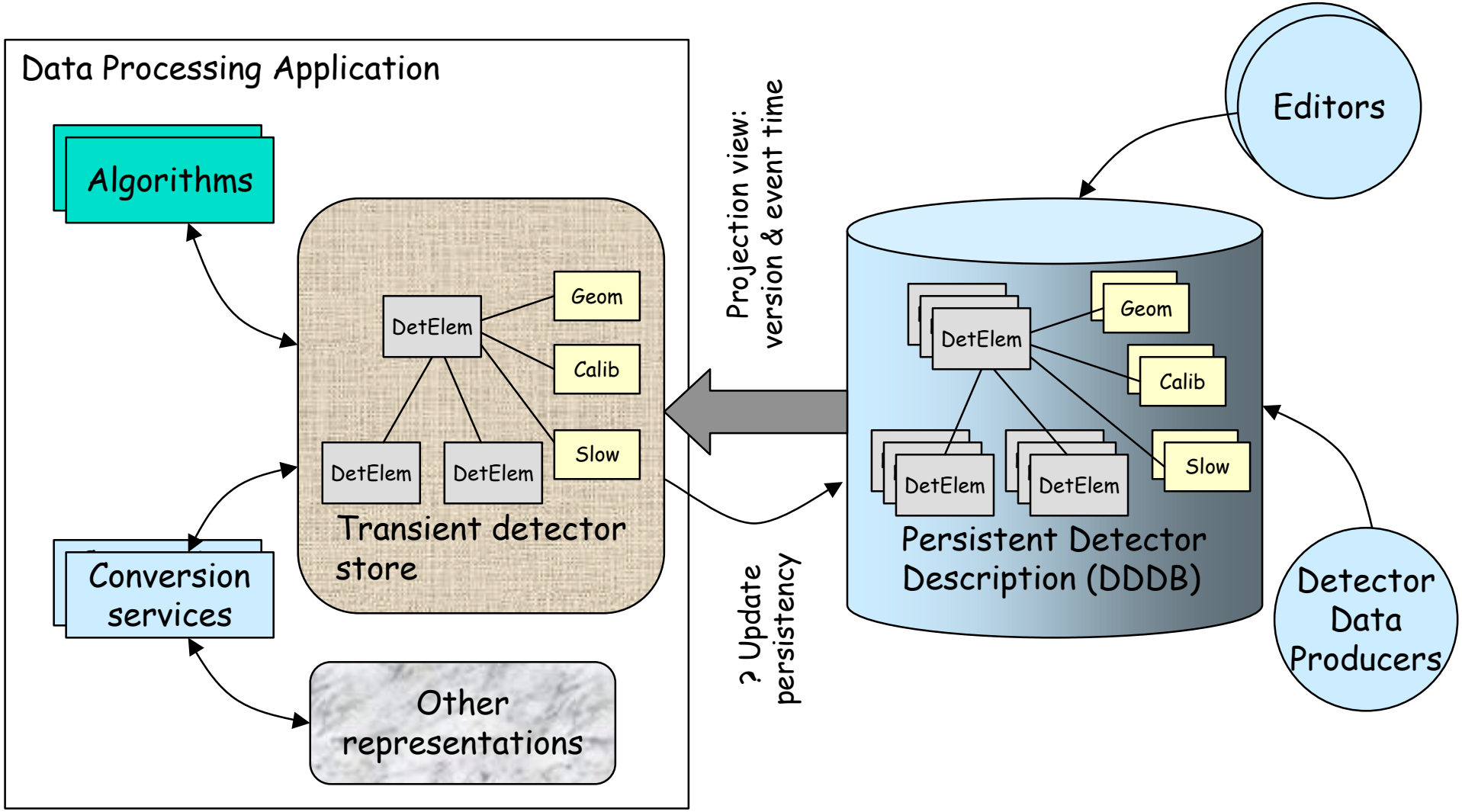
Event Model and I/O

- Strategy for resolving event data links to support loading on demand (*M. Frank)*
  - The strategy is to use “smart pointers”
  - When de-referenced the corresponding pointed object is loaded if not in the transient data store.
  - ☛ Status: It is ready.
- The event model has been updated using “smart pointers” (*P. Binko)*
  - ☛ Status: It is almost finished.
- Added new classes for VELO clusters (*M. Boulianov)*
  - ☛ Status: Being added to the repository.
- No yet decided interface and implementation of n-tuples
- Need to try new version of ROOT instead of RIO

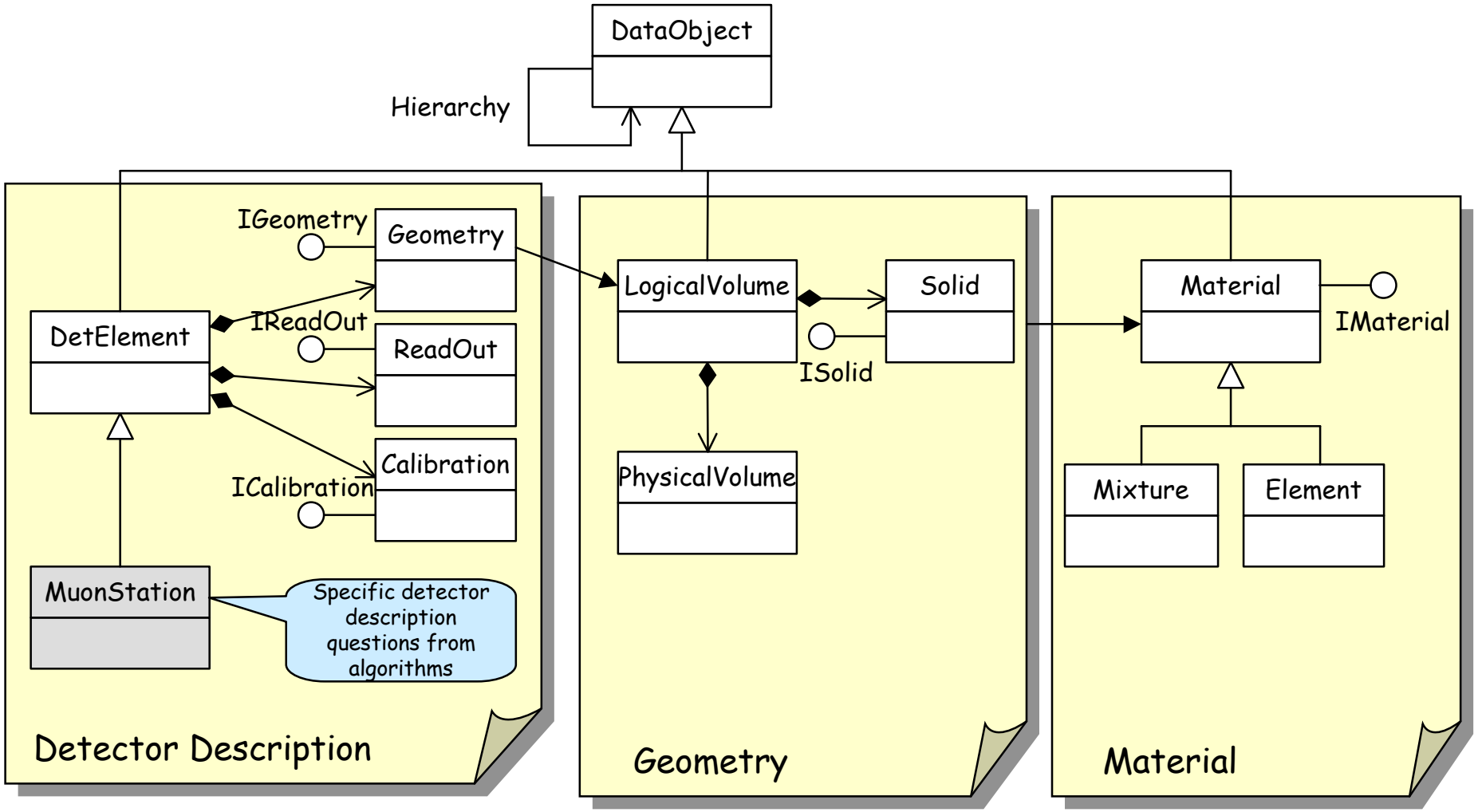
Detector Description

- Description of materials (*R. Chytracek)*
  - Elements, Isotopes and Mixtures
  - ☛ Status: Ready
- Description of geometry (*I. Belyaev*)
  - Generic geometry model. Logical and physical volumes, solids, shapes...
  - Location of 3D points, transformations, ...
  - ☛ Status: Few more days of work
- Persistency representation (*R. Chytracek)*
  - Based in XML. Development of a document type definition (DTD).
  - Converters using a XML parser. Generic and specific converters.
  - Status: We know how to do it

Geometry Description Model



Transient Geometry Model



Visualization

- Integration of OPACS (Open Scientist) (*P. Maley)*
  - Simple event display based on OPACS
  - Implemented as a Display service, an Conversion service and a number of Converters.

  ☛ Status: Proof of concept. More work is needed to be usable.

Summary

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