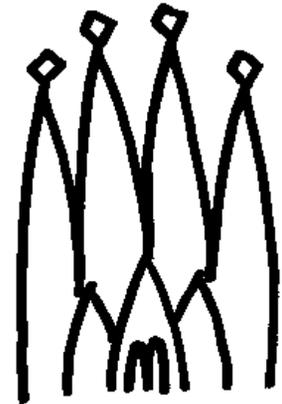


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# Planning next release of GAUDI

LHCb Software Week  
5-7 April 2000  
P. Mato / CERN



# Data Access

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- ◆ Support for native ROOT files
  - Be able to read ROOT files with test beam data in Gaudi.
  - Try new version of ROOT for I/O
- ◆ Data Sets and Event Collections
  - Creation and access to event collections, interface to the event bookkeeping database, etc.
  - Pre-staging list of Tapes
- ◆ Consolidation of the new Persistency
  - Investigation with Objty & Oracle

# Event Model

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- ◆ Inventory of Sicb banks
  - Provide a list of banks and their conversion status
- ◆ Containers with multi-access patterns
  - Be able to access contained objects following different schemas (by station number, type of particle, sequentially, random access, ...)
- ◆ Consolidation of Event pipe-up

# Detector Description

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## ◆ XML editor

- Provide a “user friendly” XML editor aware of the detector description model. Java?

## ◆ XML to G4 converters

- Produce a G4 geometry description from the information in the XML files.

## ◆ Alignment and Calibration model

- Design the model for Alignment and calibration. Adapt to the conditions DB provided by CERN/I T.

# UI & Visualization

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- ◆ Interactive Service for GAUDI
  - OpenScientist based?
- ◆ Geometry and Event display
  - OpenScientist based?

# Analysis Tools

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- ◆ Formalization of “Tools”, “Associators”
  - Tools are used by Algorithms and they encapsulate some part of highly repetitive operations.
- ◆ Minimization library
  - Define new interface in collaboration with LHC++
- ◆ Revisit Histograms
  - 3D histograms, over/underflow distributions, etc.

# Framework

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- ◆ Merge with ATLAS changes
  - Incorporate useful changes done by ATLAS to the framework
- ◆ Properties, Algorithm and Service browsing
  - Provide facilities for browsing all the Algorithms and Service available in the application. Useful for interactive services and troubleshooting.
- ◆ Re-structure “ApplicationMgr”
  - The FrameworkMgr initializes the framework and the ControlMgr executes the event loop.

# Framework (2)

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- ◆ Incident signaling to Algorithms and Services
  - We need to inform subscribed clients when some incident has happen.
- ◆ Error code management
  - Improve the current poor implementation of the error codes. Add the capability of declaring predefined error messages to the message service.
- ◆ Deployment of a bug tracking tool

# Proposed Task List

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	<b>Task</b>	<b>Prio</b>
Data Access	Support for native ROOT files	high
	Event Collections	med.
	Consolidation new persistency converters	high
	Pre-staging list of tapes	high
Event Model	Inventory of SICb banks	high
	Containers with multi-access patterns	high
	Pile-up consolidation	high
Det. desc.	XML editor (Java?)	med.
	XML to G4 converters	med.
	Alignment and calibration model	med.
Analysis	Formalization of “Associators”	high
	Formalization of “Tools”	high
	Minimization library (service)	med.
	Revisit Histograms (3D, over/under distr.)	med.

# Proposed Task list

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	<b>Task</b>	<b>prio</b>
V .-	OpenScientist integration	med
Framework	Merge with ATLAS changes	med
	Error code management	med
	Property, Algorithm and Service browser	med.
	Re-structure ApplicationMgr	high
	Incident signaling to Algorithms & Services	high
	Deployment bug tracking tool	high