Event Display
status & plans

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Outline

- Responsibilities

- Goals of refactoring

- Status

- Schedule

Responsibilities

Current developer **Mihai Niculescu** will end his work on Event Display in September.

Warsaw University of Technology takes responsibility for Event Display.

Jeremi Niedziela does his PhD studies in CERN and will work on Event Display under supervision of **Barthelemy von Haller** and with the support of Warsaw group.

Goals of refactoring

Previously, reconstruction and event display were done in single process.
HLT Event Display was a different process.

Offline Reconstruction **+** **Offline Event Display**	**HLT Event Display**
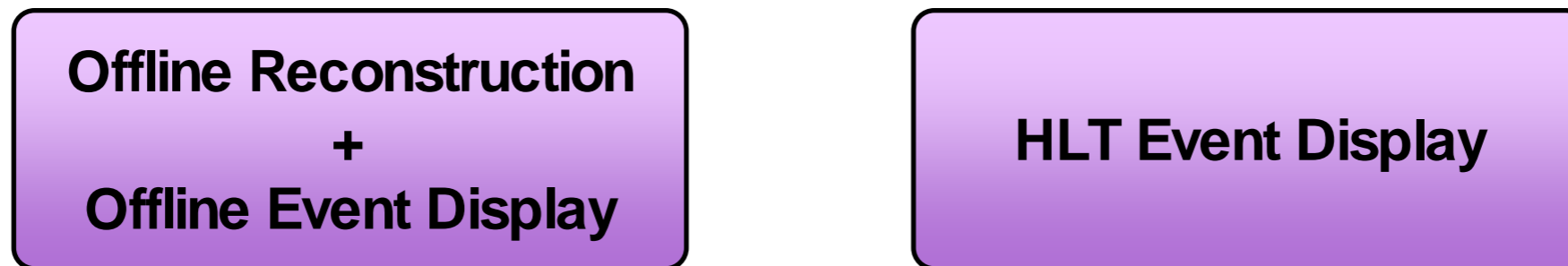
Goals for Run 2:

- **separate** reconstruction from Event Display,

- create one Event Display **switching** between different sources of events (i.a. Offline and HLT),

- provide possibility of **bookmarking** particular, visualy interesting events.
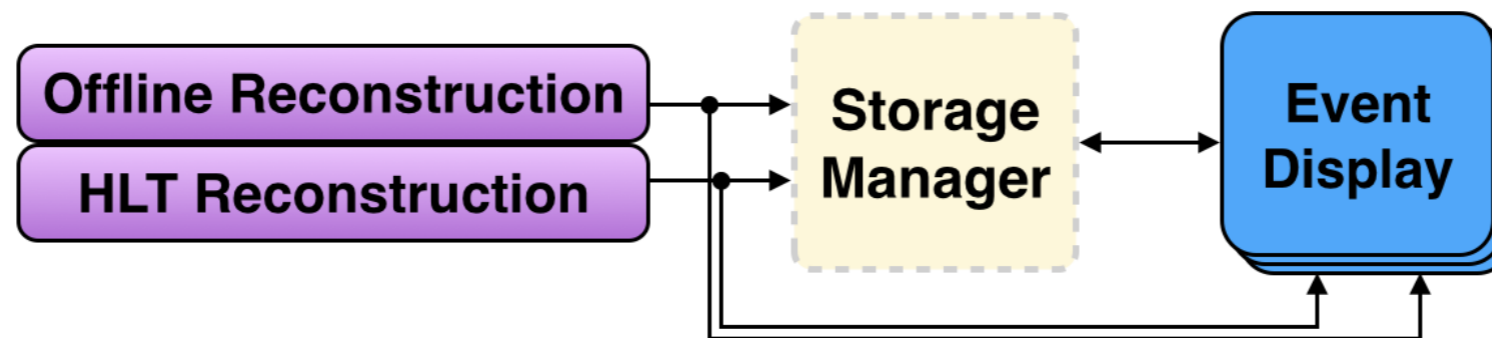
Status

Sending events between different processes is done using **ZeroMQ**.

Mihai Niculescu proposed to create **API** hiding ZeroMQ.

This API is still under development, it requires further work and reviewing.

When it will be ready, decide whether to use it or not.

Status

Storage Manager already works and it provides following functionalities:

- sending events:

    - by run and event numbers,

    - event next to given one,

    - last event,

- listing events already stored on disk matching some query,

- marking event as interesting (and saving it on permanent storage),

- controlling and setting parameters of Storage Manager with GUI Admin Panel.

Status

Event Display for now works in the same way as before, so it uses macros to load events. Macro receiving events from ZeroMQ sockets was prepared and it allows to use old Event Display with the new architecture.

Splitting Event Display from reconstruction was done using ZeroMQ but it needs further work, especially on eventual API.
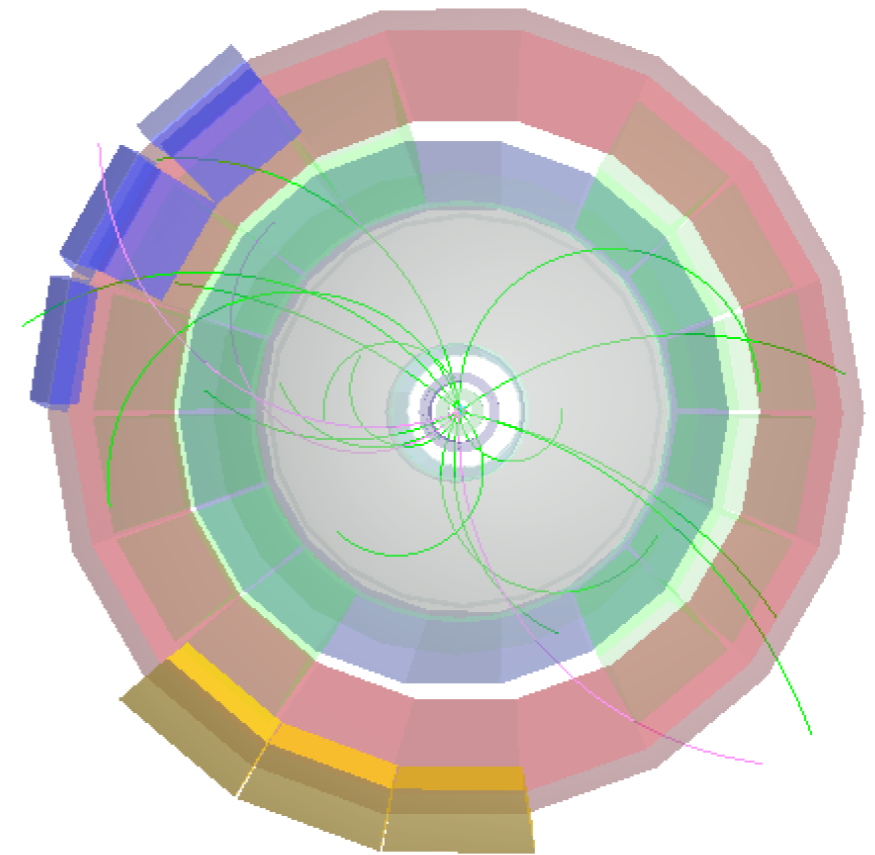
Schedule

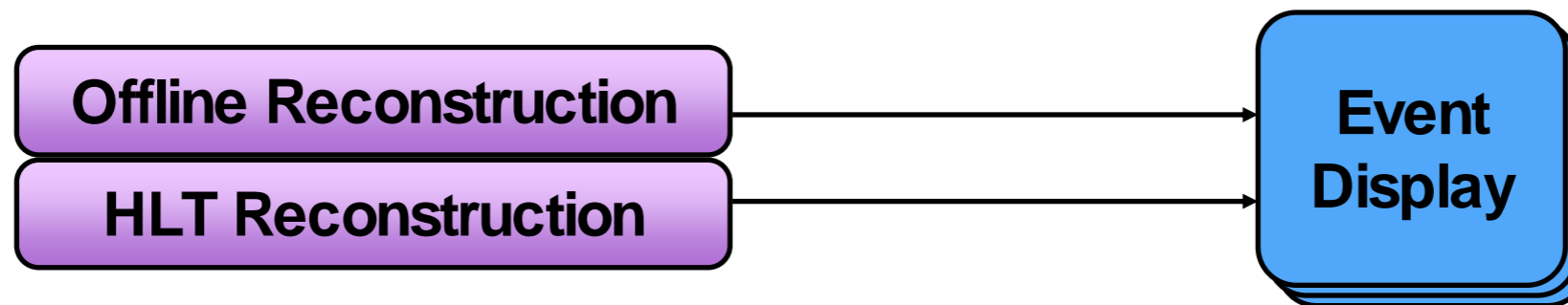|	
June	Further works on splitting and API.
July	HLT as a data source -> provide needed information and code to HLT (Timo) GUI elements to switch between offline and HLT reco
August	Full integration of Storage Manager into Event Display. Tests.
September	Commissioning.

Conclusions

- Warsaw University of Technology takes responsibility for further development and maintenance of Event Display,

- Splitting of ED and reco using ZeroMQ works,

- API hiding ZeroMQ is under development and might be used in the future,

- Bookmarks prototype works,

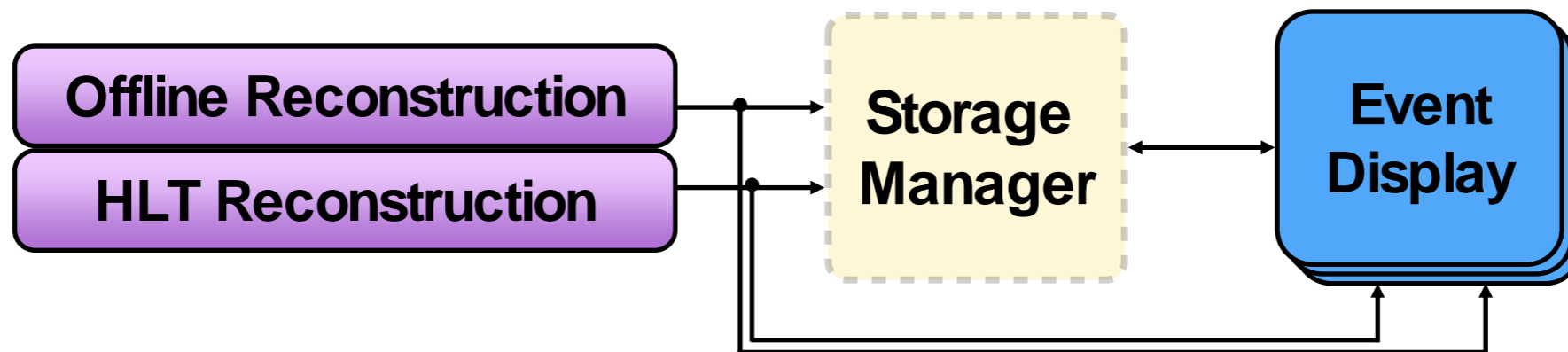- Roadmap to have Event Display working by the end of summer is proposed.
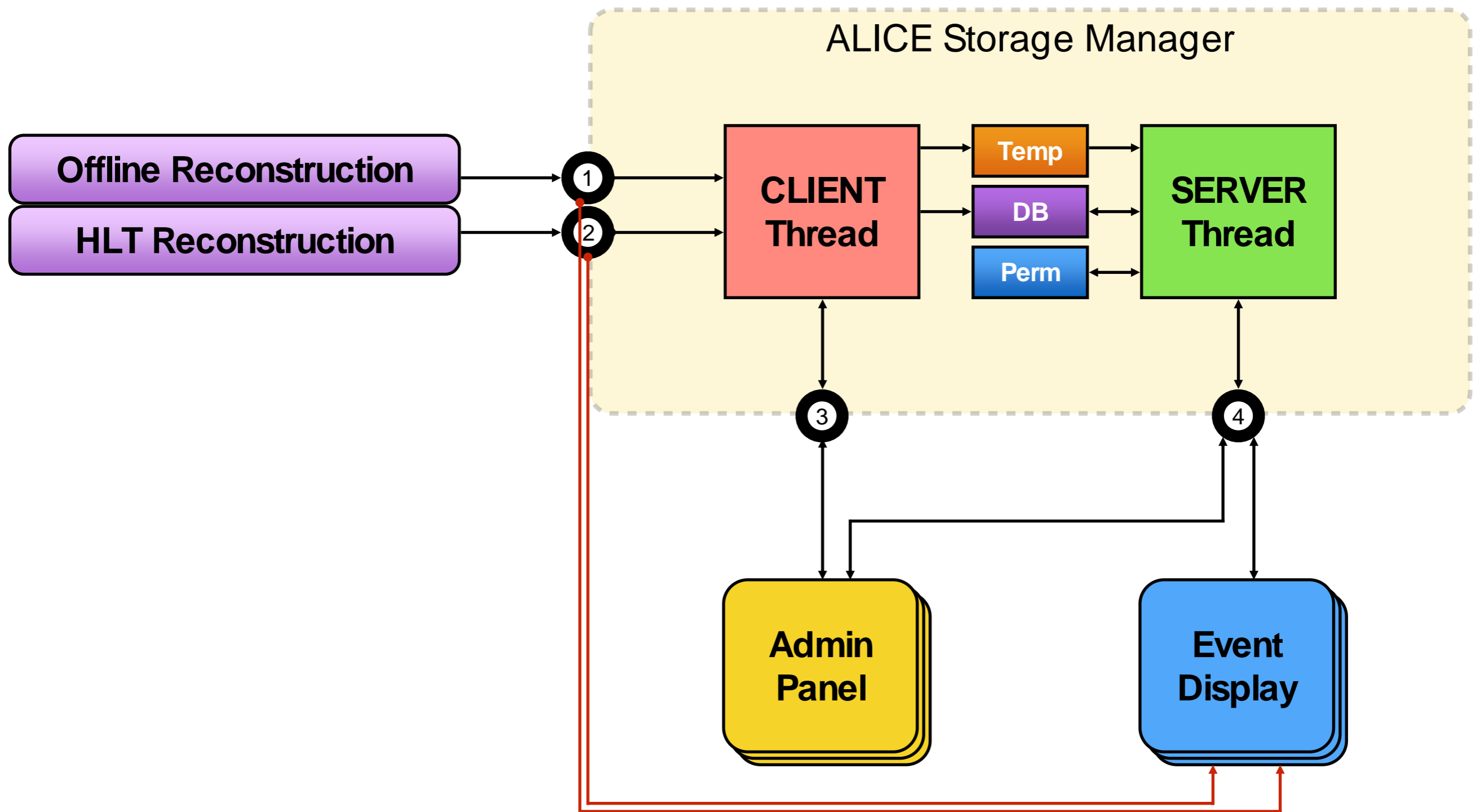
Backup

Goals of refactoring

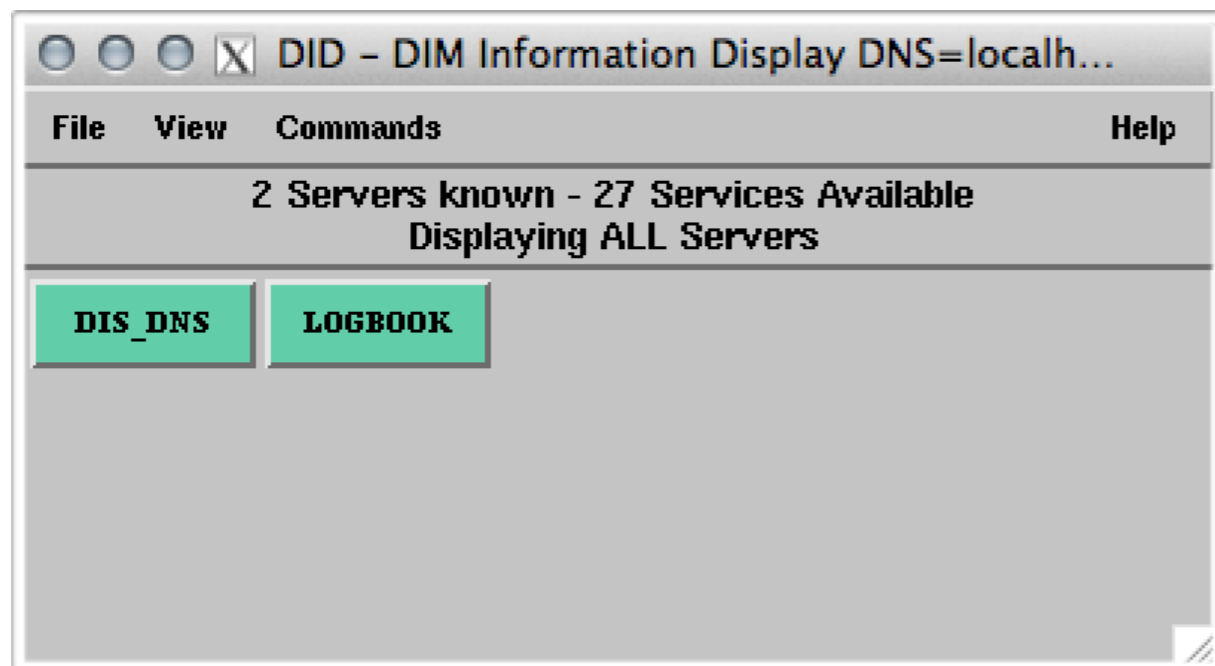Separation of reconstruction and Event Display + switching between different sources:

Goals of refactoring

New feature - events' bookmarks - by adding Storage Manager:

ALICE Storage Manager

Offline Reconstruction

HLT Reconstruction

① ②

CLIENT Thread

Temp
DB
Perm

SERVER Thread

③

④

Admin Panel

Event Display

DID – DIM Information Display DNS=localh...

File   View   Commands   Help

2 Servers known - 27 Services Available
Displaying ALL Servers

DIS_DNS   LOGBOOK

ALICE Event Server

197669   -- RUNNING

Detector geometry in Java 3D

Jakub Abelski, **Adam Felis** and **Jakub Sala** prepared the visualisation of the simplified detector geometry. They wrote a Java 3D applet reading vertices from the XML file.
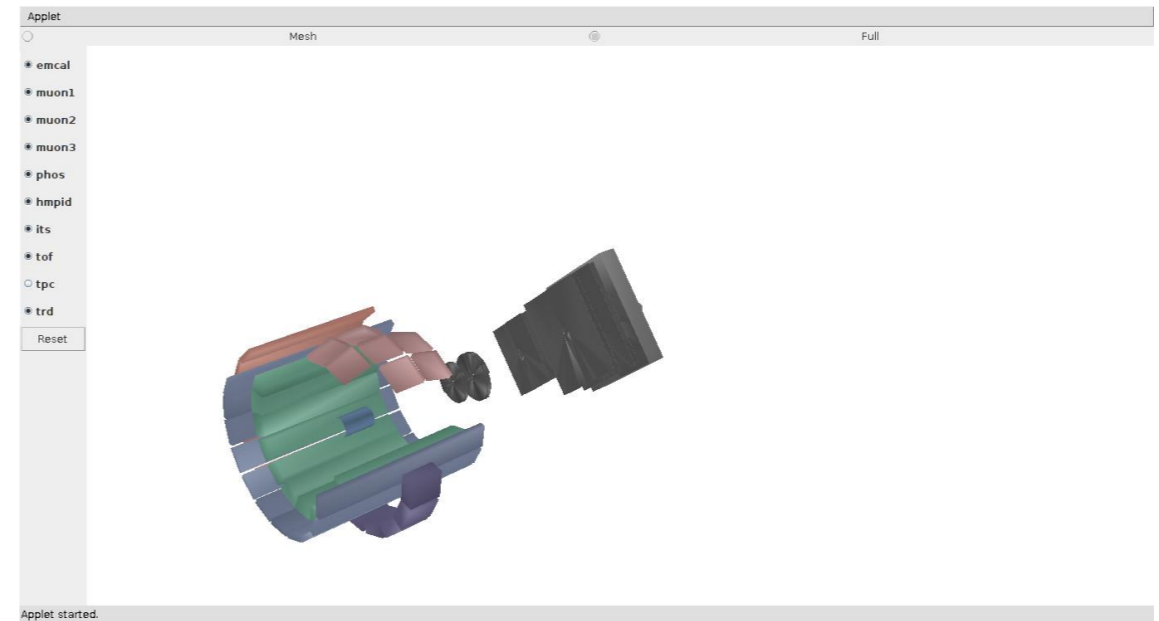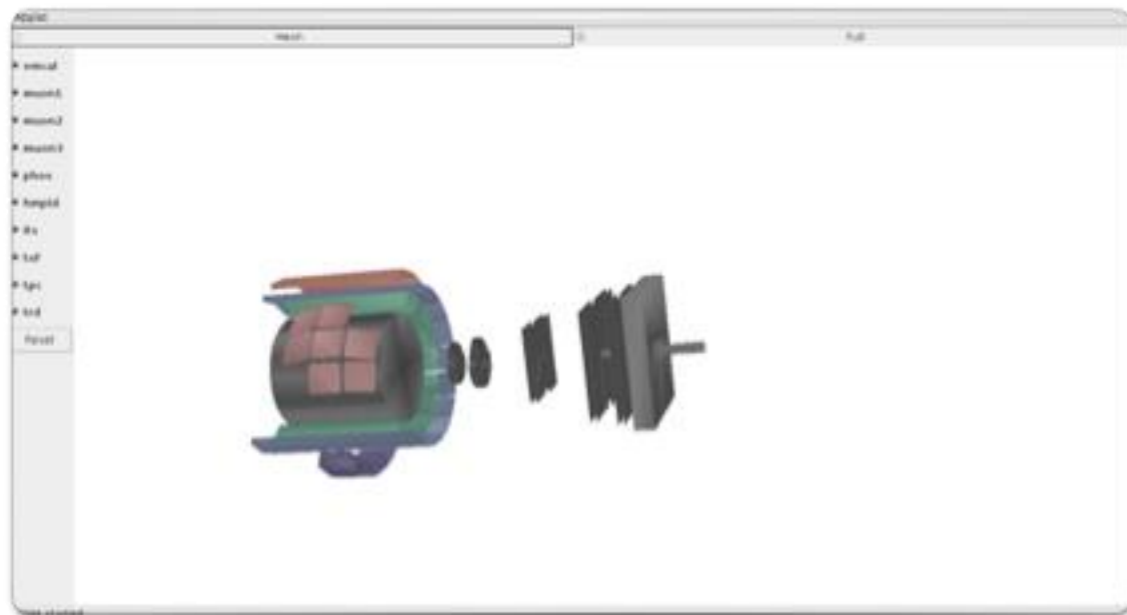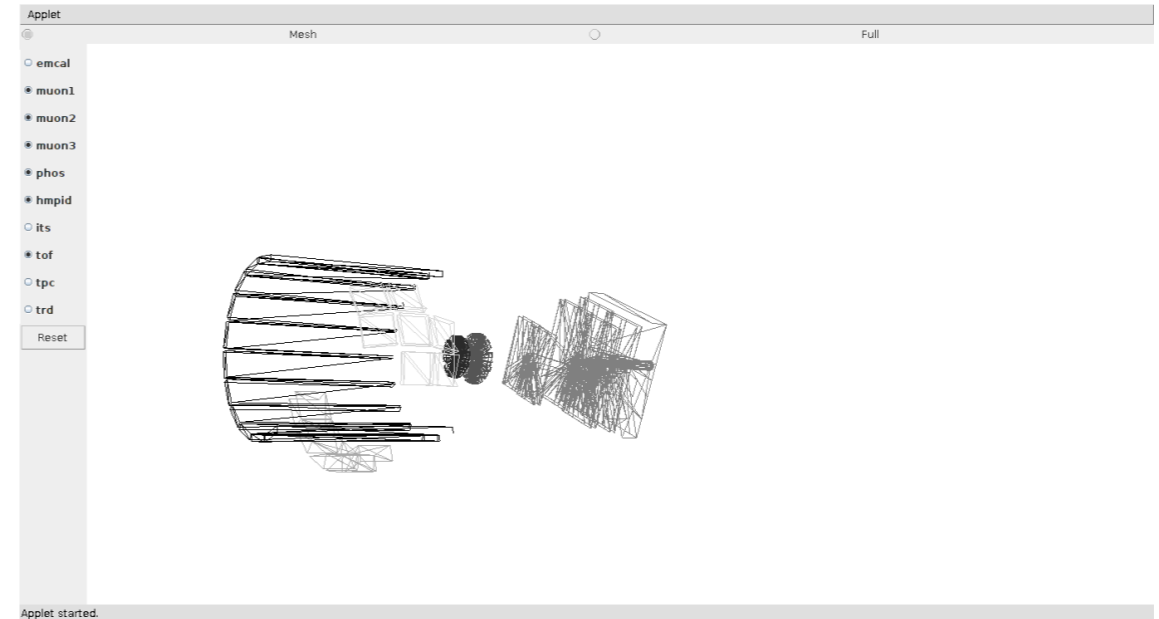
Visualisation from MasterClass

Patryk Marcinkowski and **Rafał Sarnecki** prepared Alice MasterClass in java. They wrote simplified geometry geometry using Java3D and tracks from Pb-Pb event at energy 2.76 TeV. They prepared also some tools which can be useful in creating visualizations.

QT application reading ROOT's files

Maciej Grochowicz prepared a program reading .root files with GUI written in QT. It allows to:

- load .root files from the dialog window,

- choose a histogram, graph or canvas from the list built in the GUI,

- divide two histograms - objects are chosen in the separate dialog window and the resultant one is drawn in the main window,

- edit histograms' styles,

- save drawn objects in different formats which includes *.png, *.eps, *.root.