



# DOOCS DAQ software for the EUDET prototype

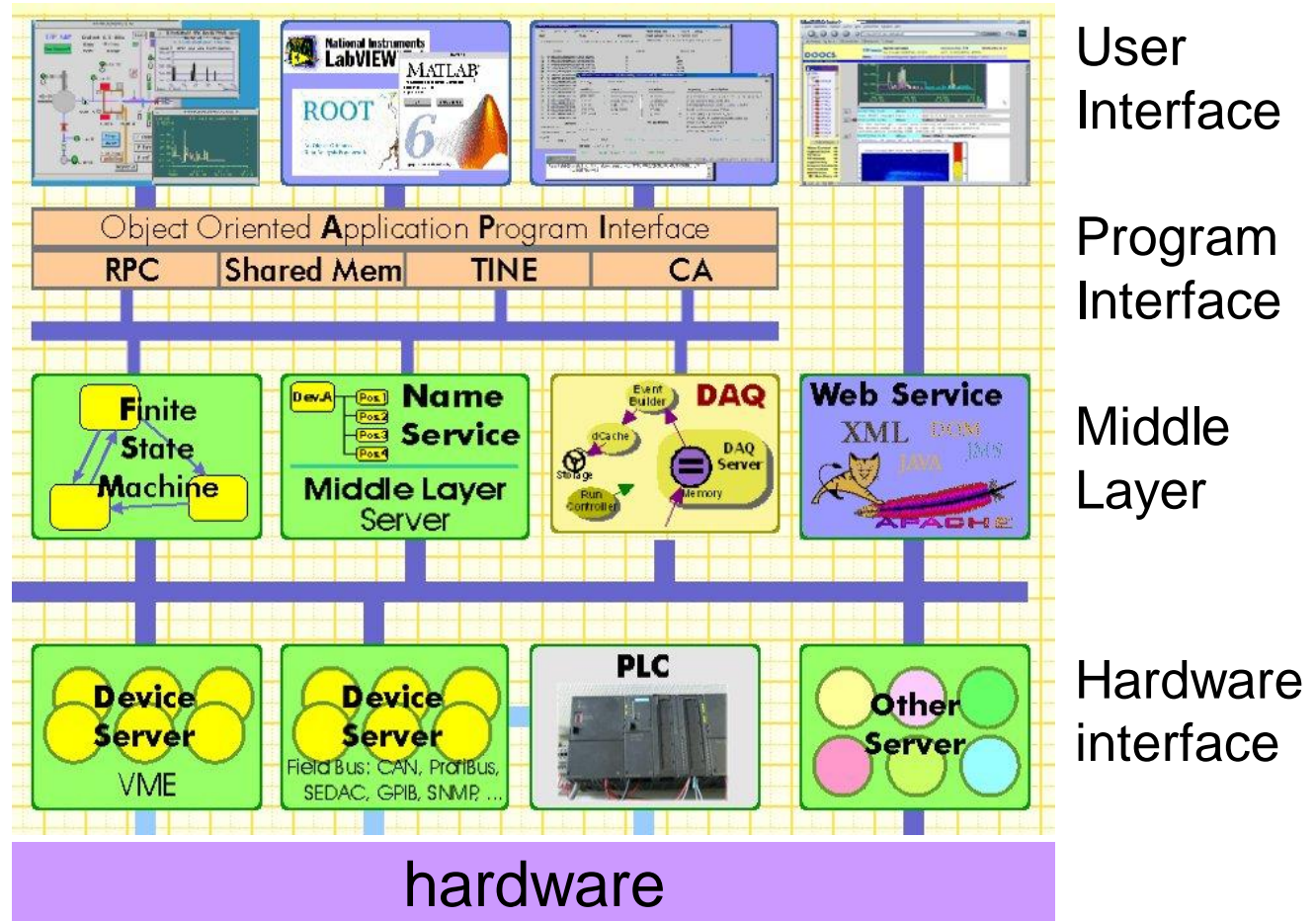
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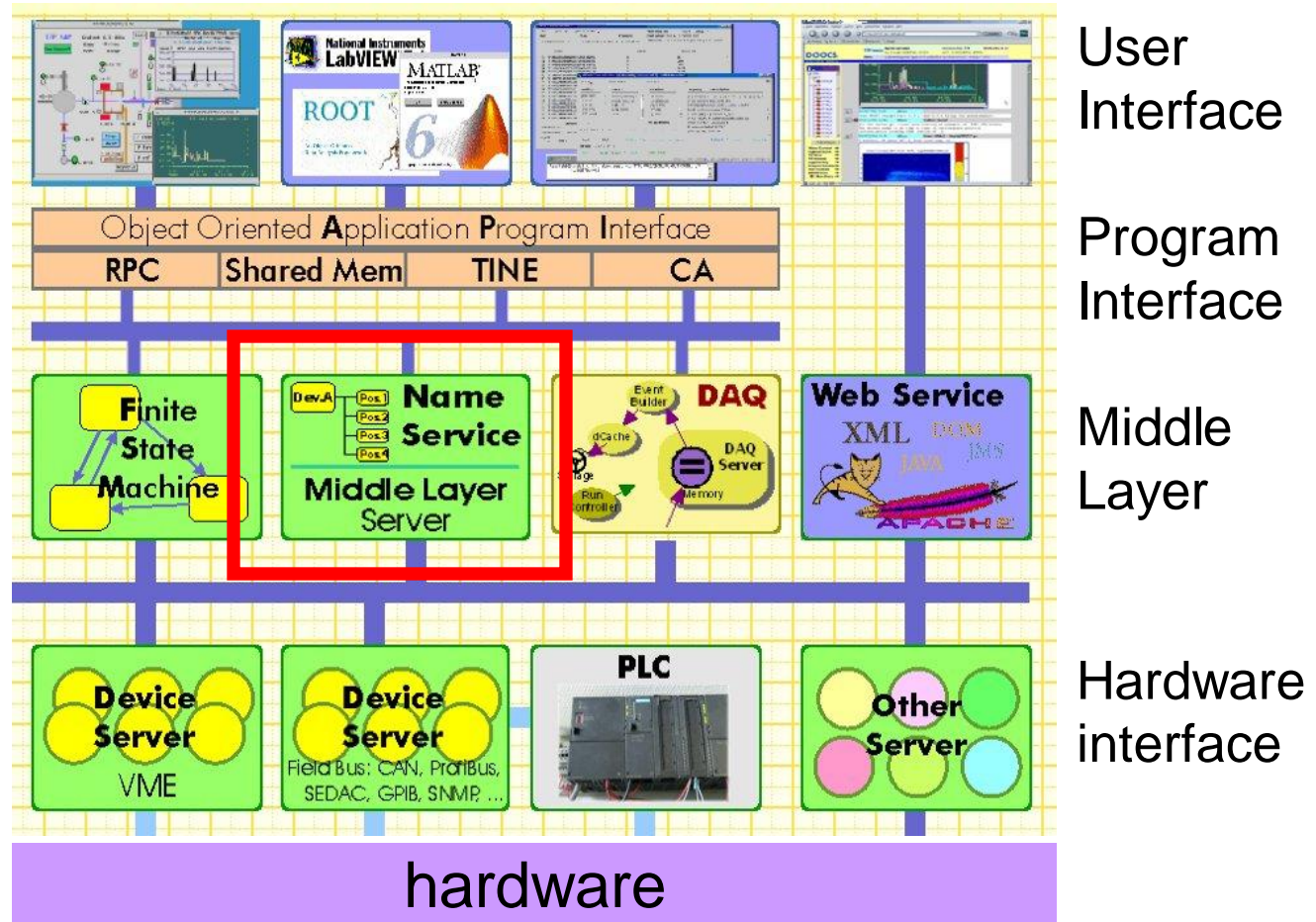
# Overview over the task - DOOCS software -

<http://tesla.desy.de/doocs/doocs.html>



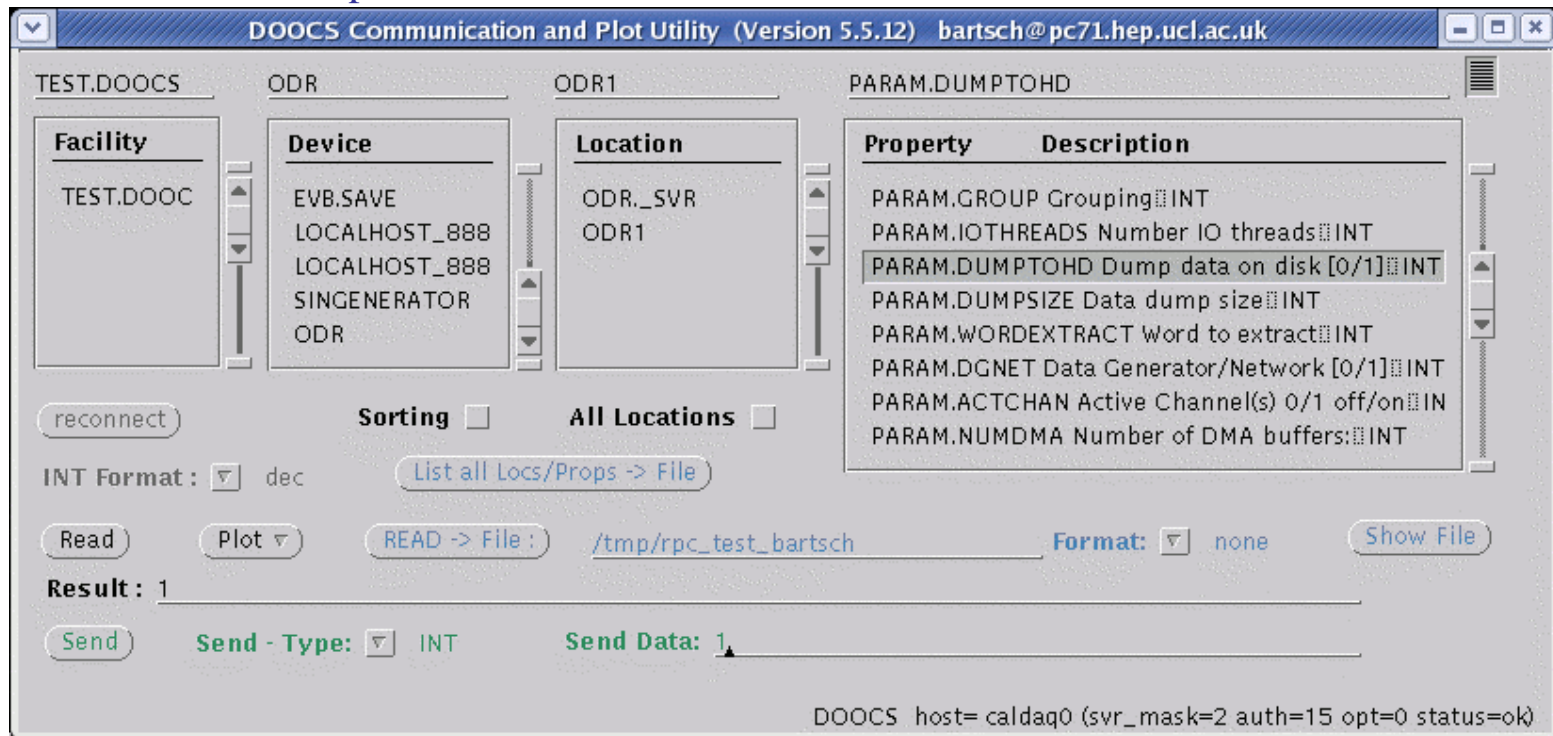
# Overview over the task - ENS naming service -

provided by  
DOOCS and  
already in use  
for RPC  
communication  
between client  
and server



# ENS Naming Service

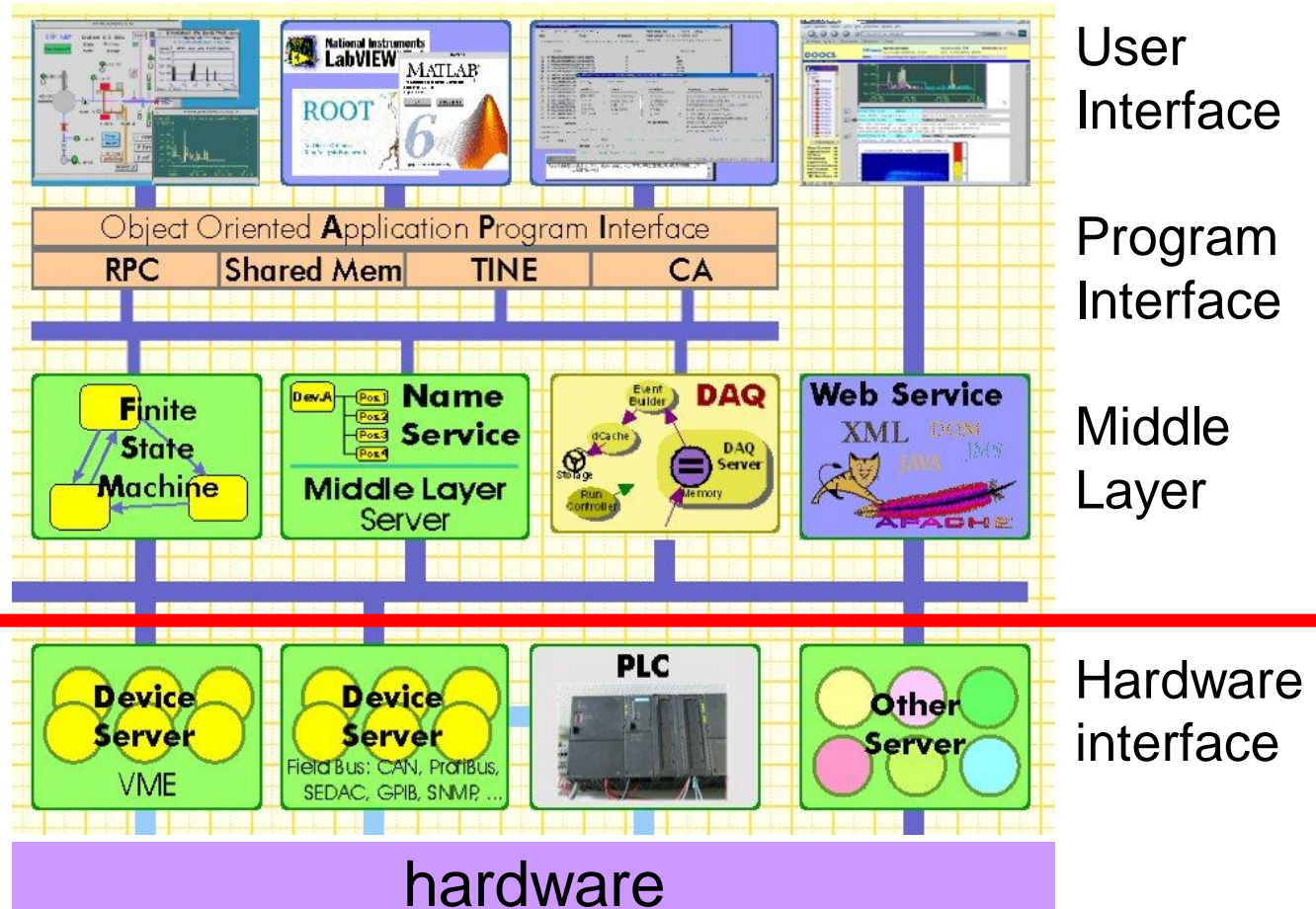
Screenshot of the rpc\_util GUI



- Naming convention is already specified (similar for LDA, DIF and ASICS)
- Properties need input from hardware programmers



# Overview over the task



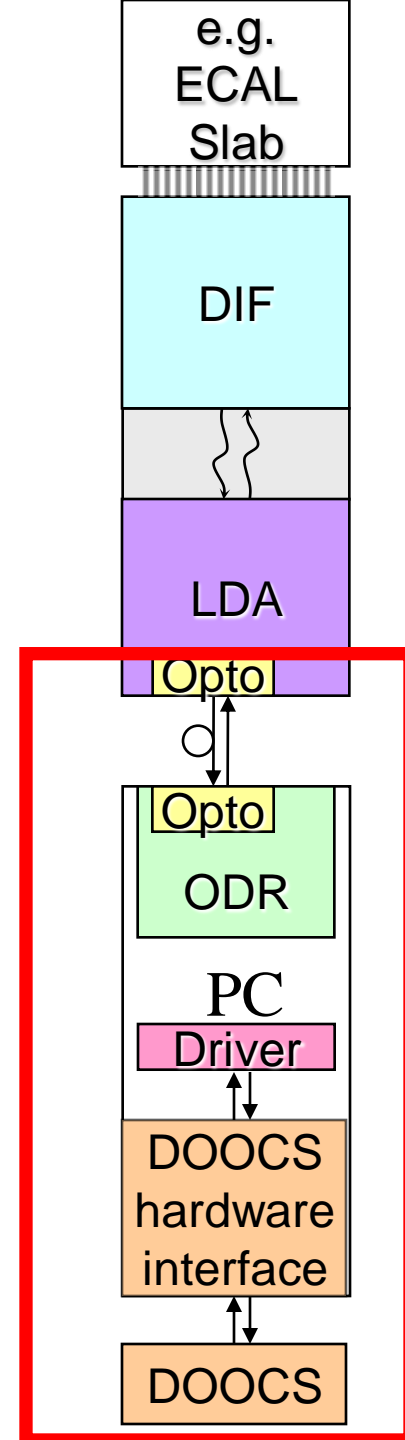
# Hardware interface

Concentrating on the ODR interface:

- because it is the first hardware layer to talk to
- the device is close to be ready
- easy communication with colleagues at UCL and RHUL

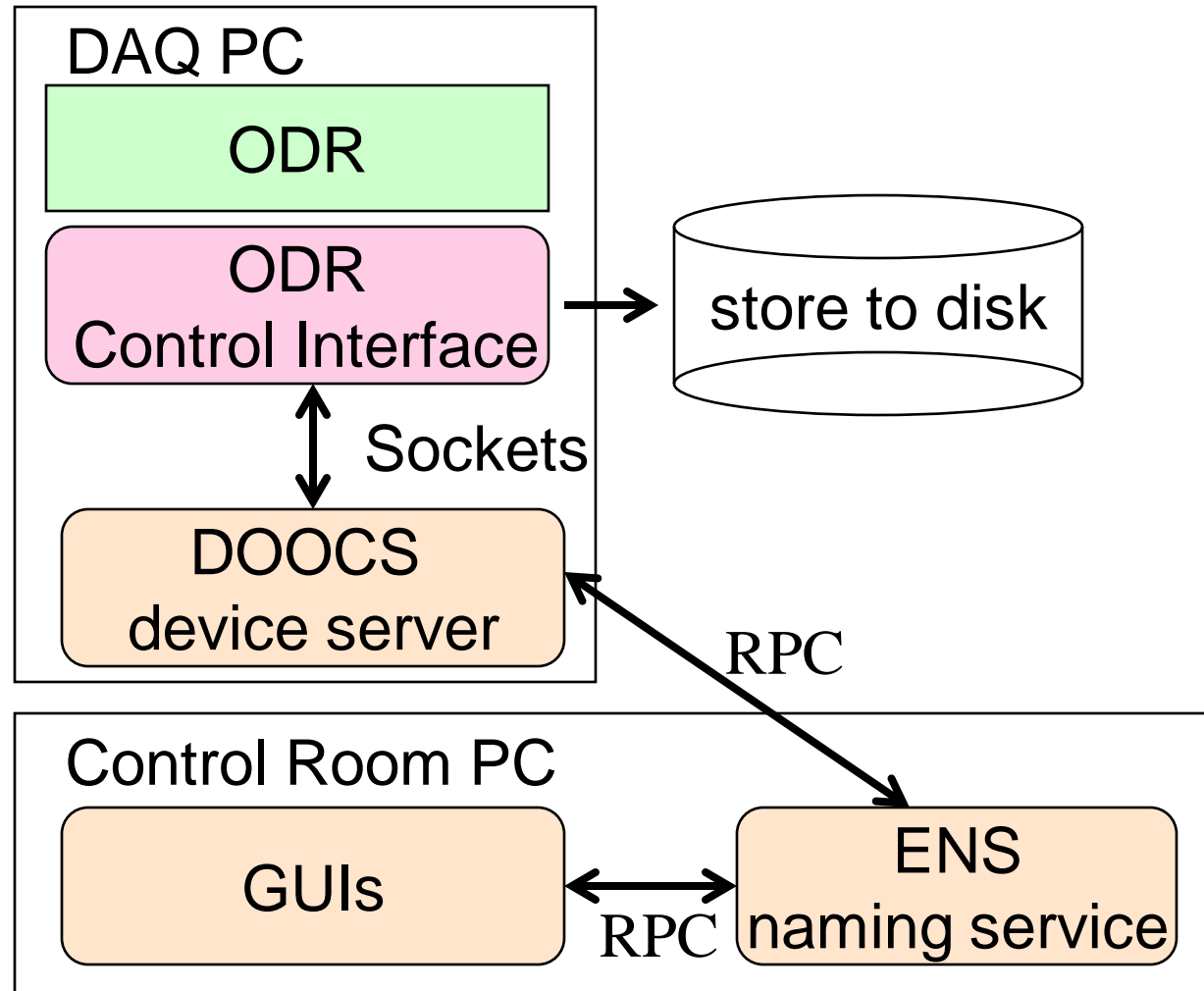
Plan:

- start with the LDA and DIF in September
- have the interfaces ready about end of the year



# Overview over the ODR interface

- communication between different parts of DOOCS by RPCs
- configuration files used to find different parts of the system

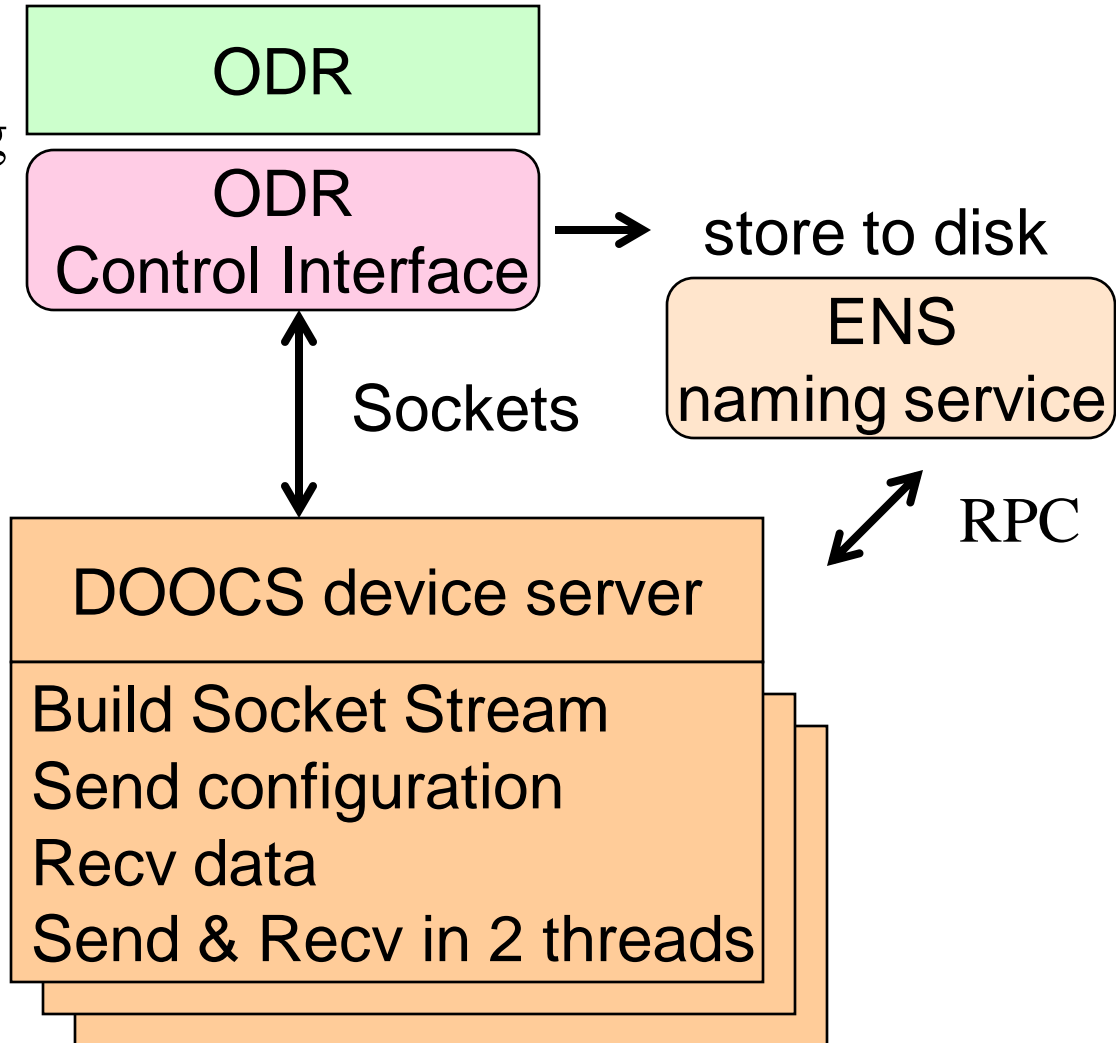


# Overview over the ODR interface

- one device server can have many instance all connecting to different ports and hostnames

- using 2 threads: one for receiving, one for sending on the socket

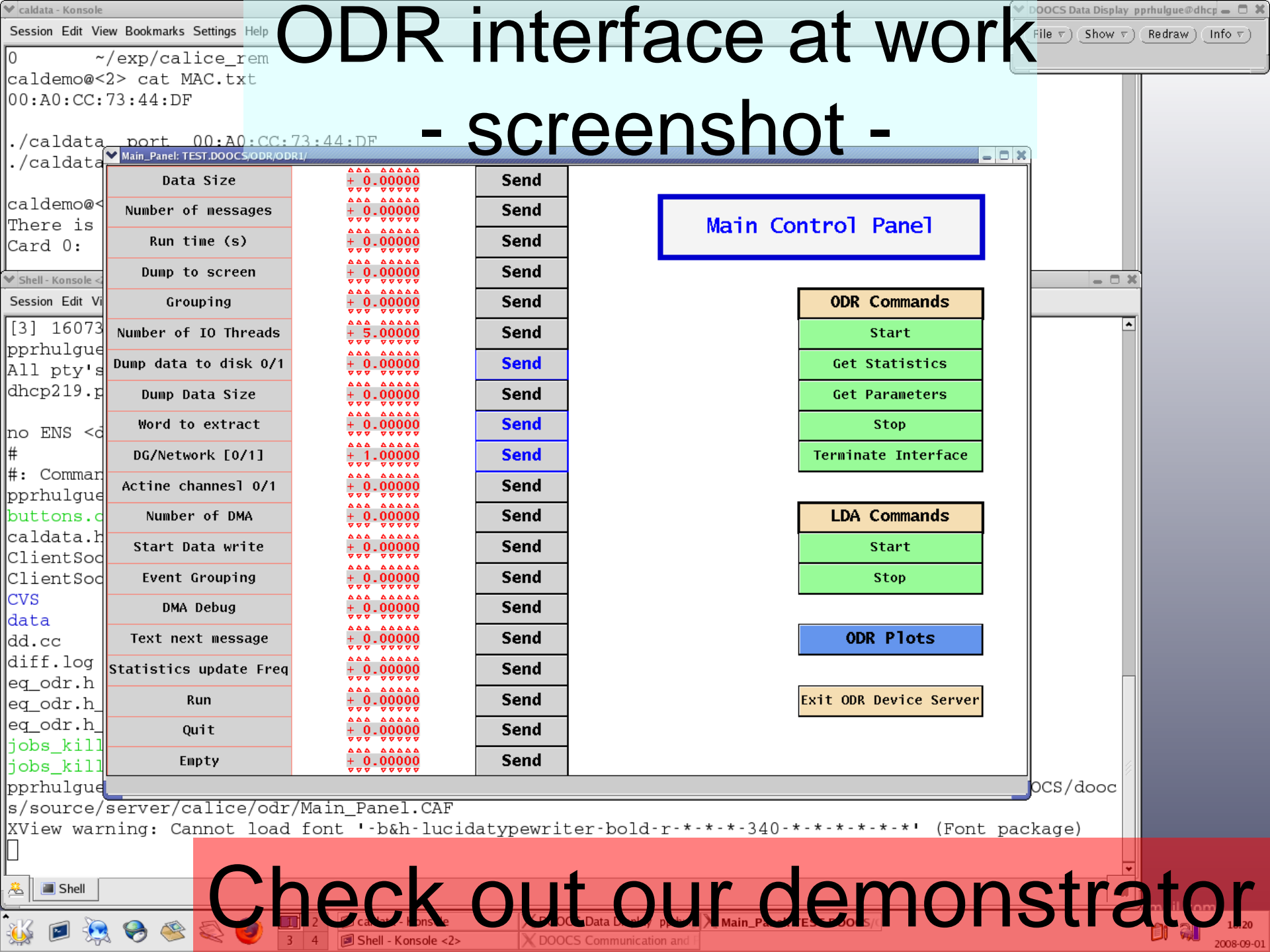
- sockets format chosen to build an interface to the ODR and the LDA





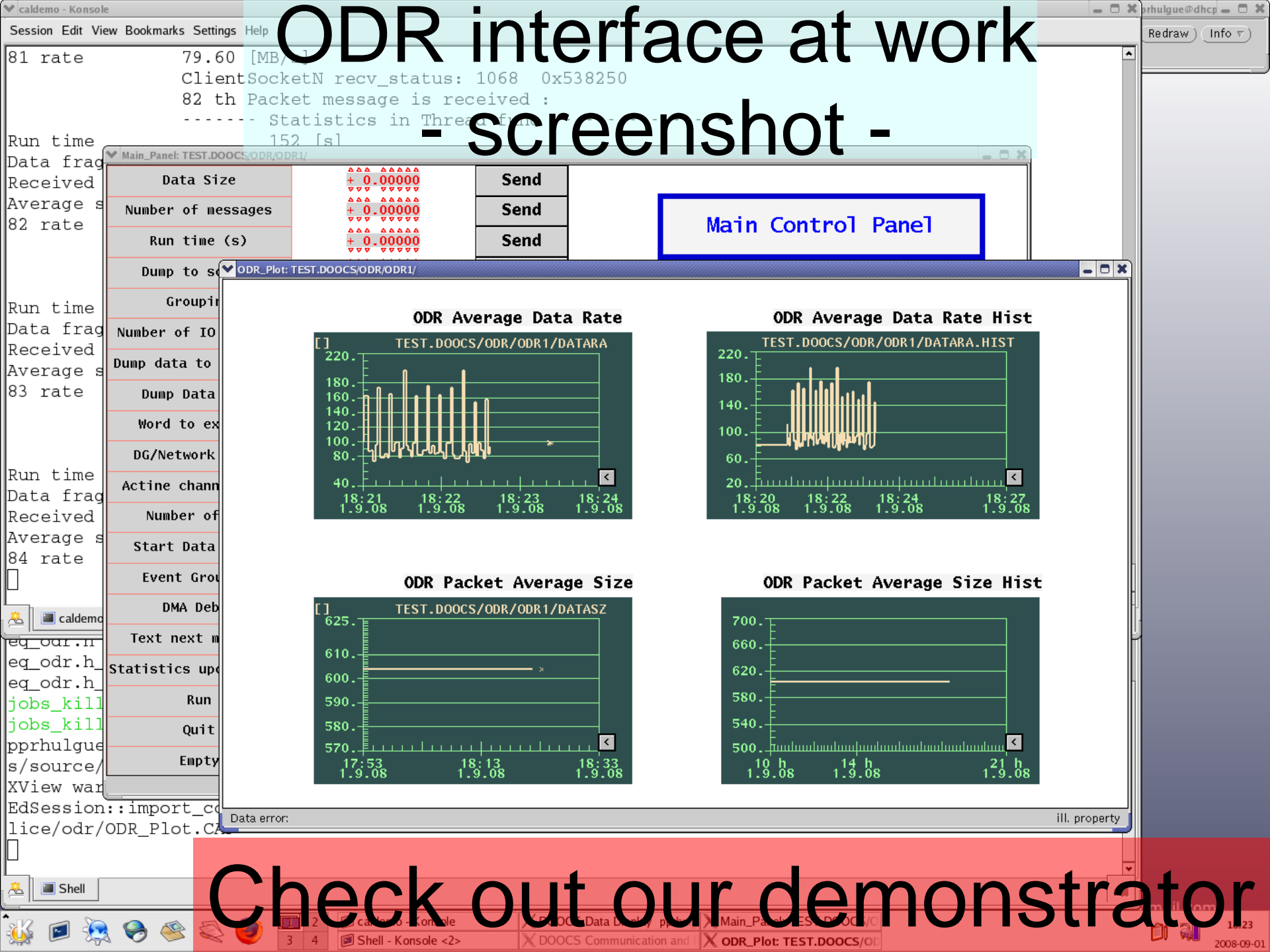
# ODR interface at work

## - screenshot -



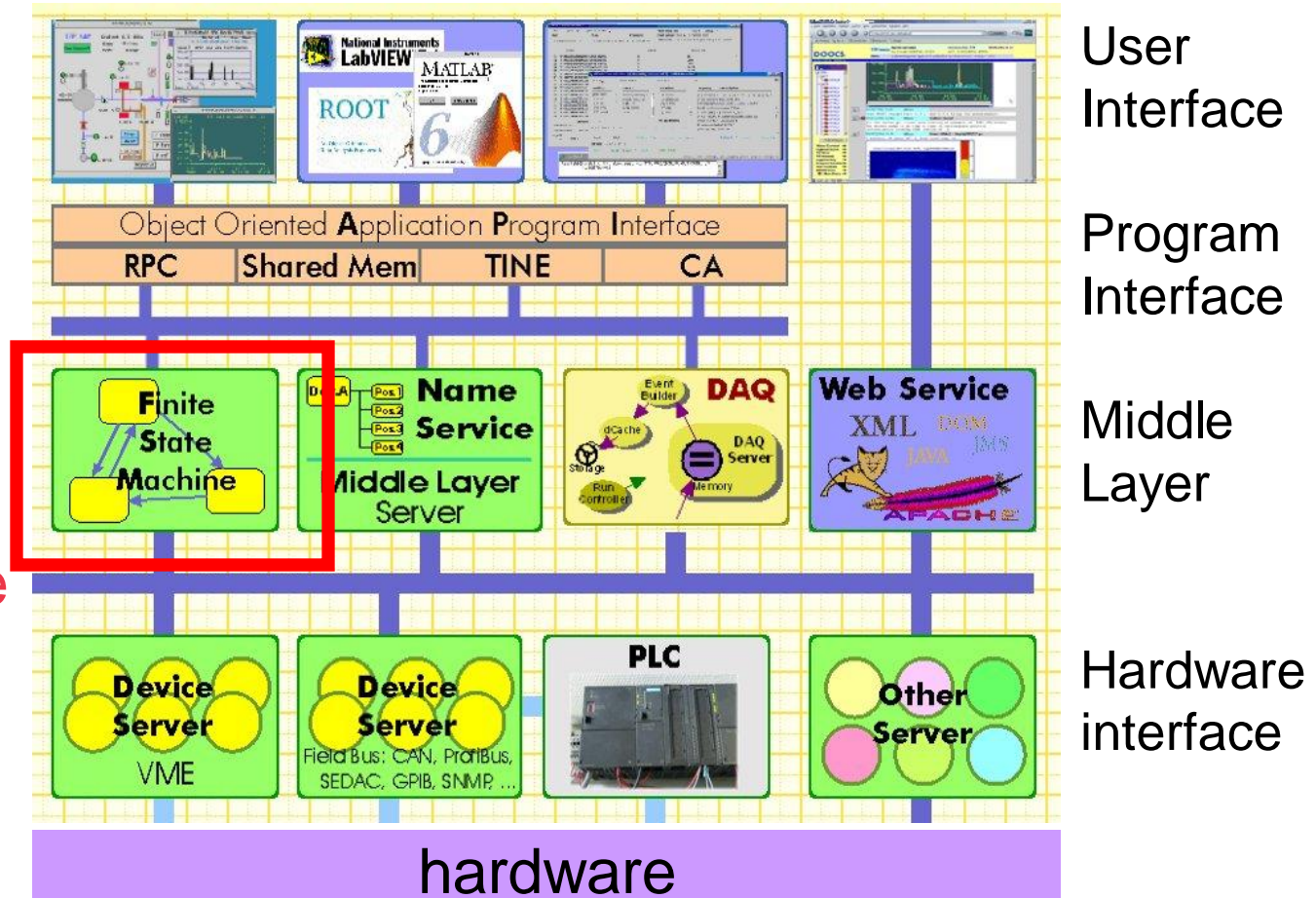
Check out our demonstrator

# ODR interface at work - screenshot -



Check out our demonstrator

# Overview over the task



- important
  - ramps the whole DAQ system up and down
  - will be started after the hardware interfaces are ready
- (Jan-Mar 2009)

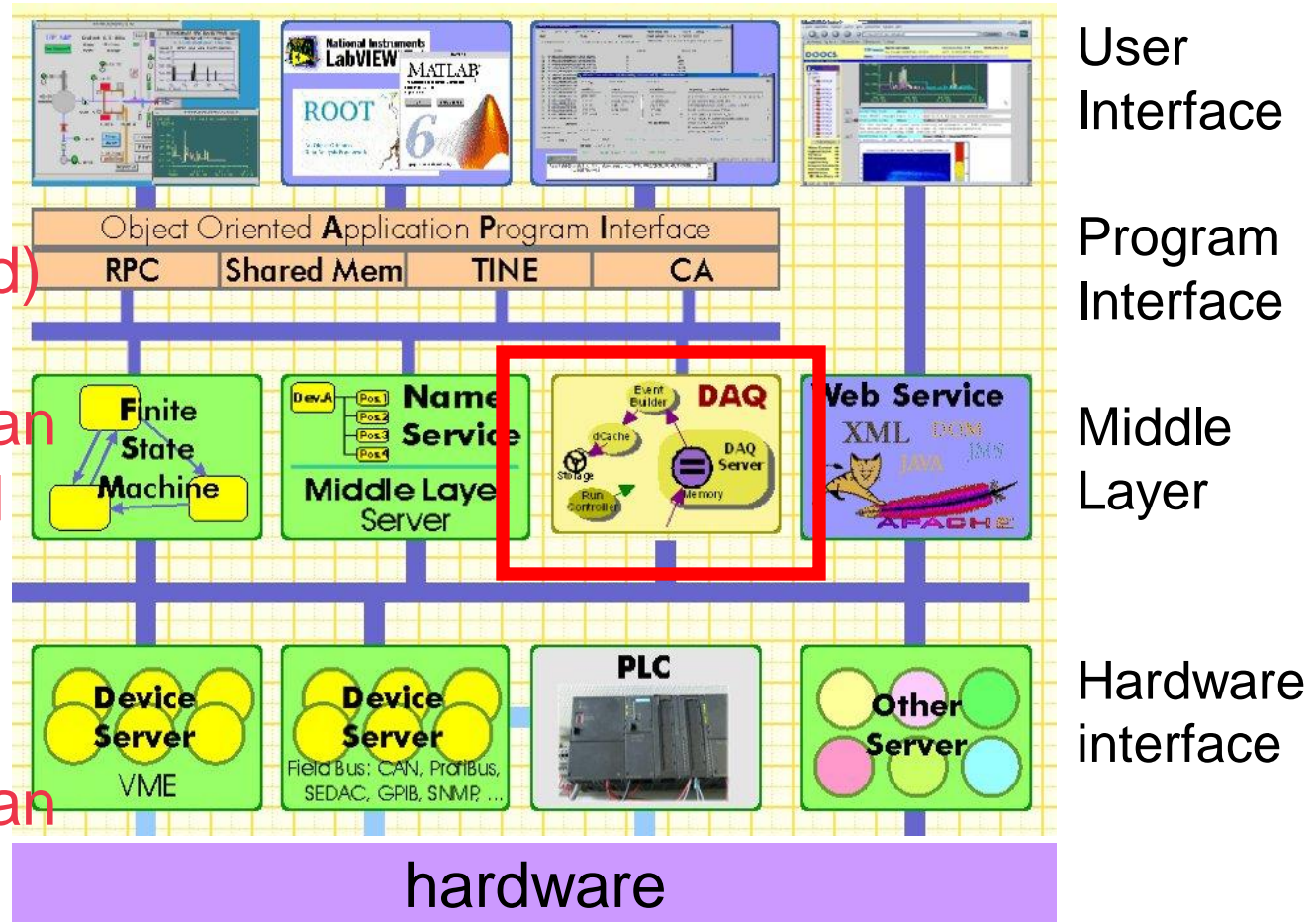
# Overview over the task

DAQ:

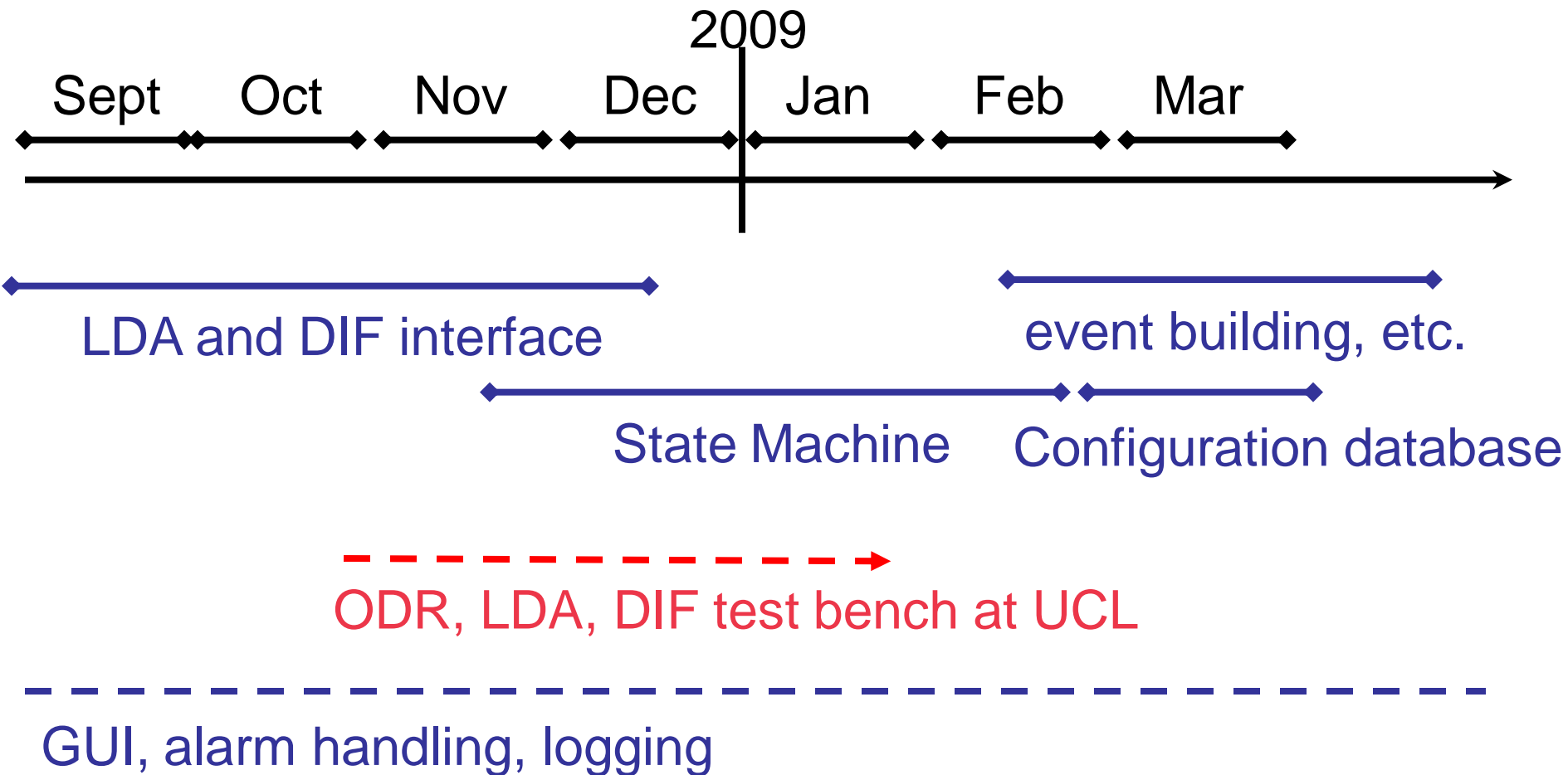
- Event collection
- Event building
- LCIO conversion (to be implemented)

Importance: low, can be done at the end of the software project;

Alternatively this can be done offline



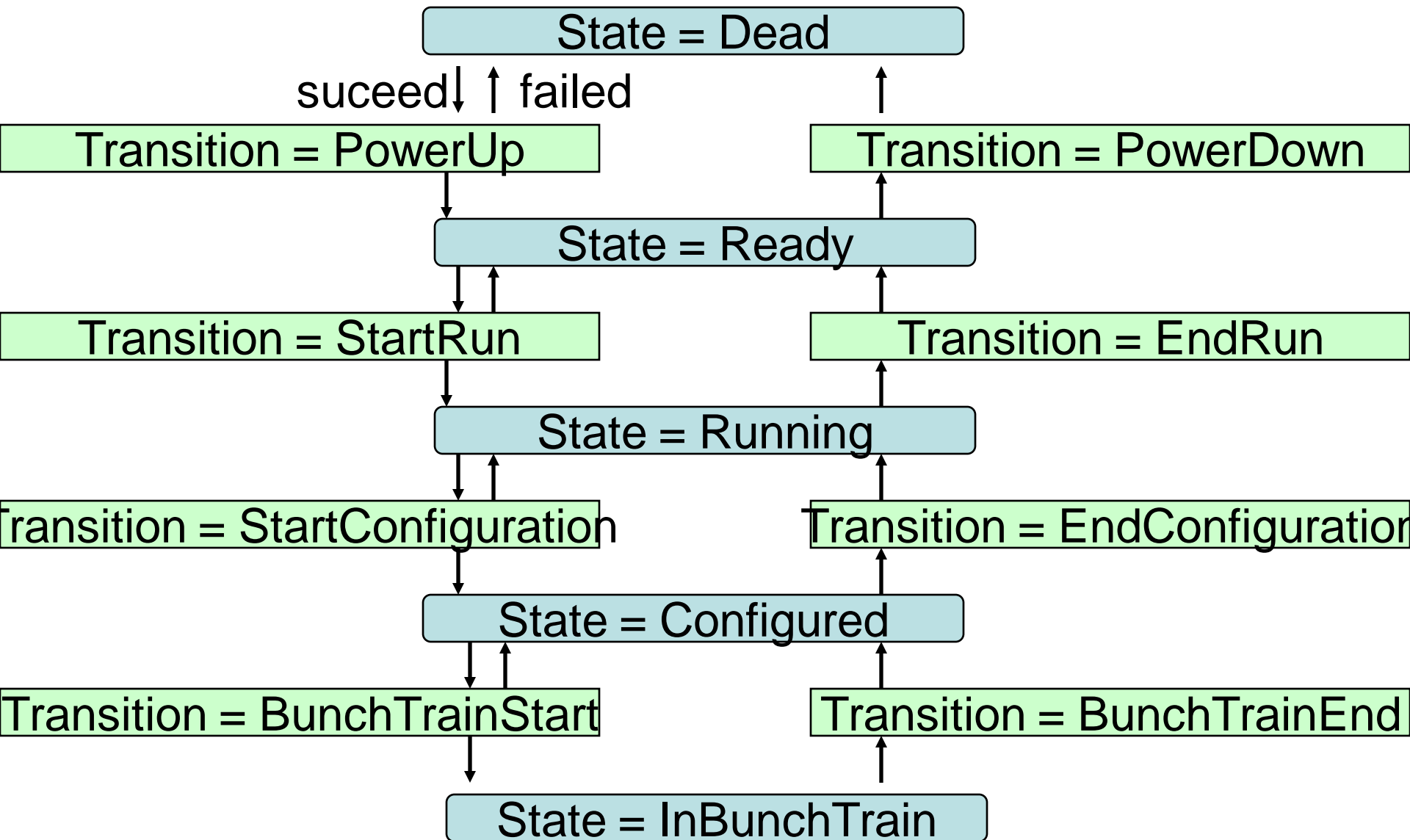
# suggested timeline



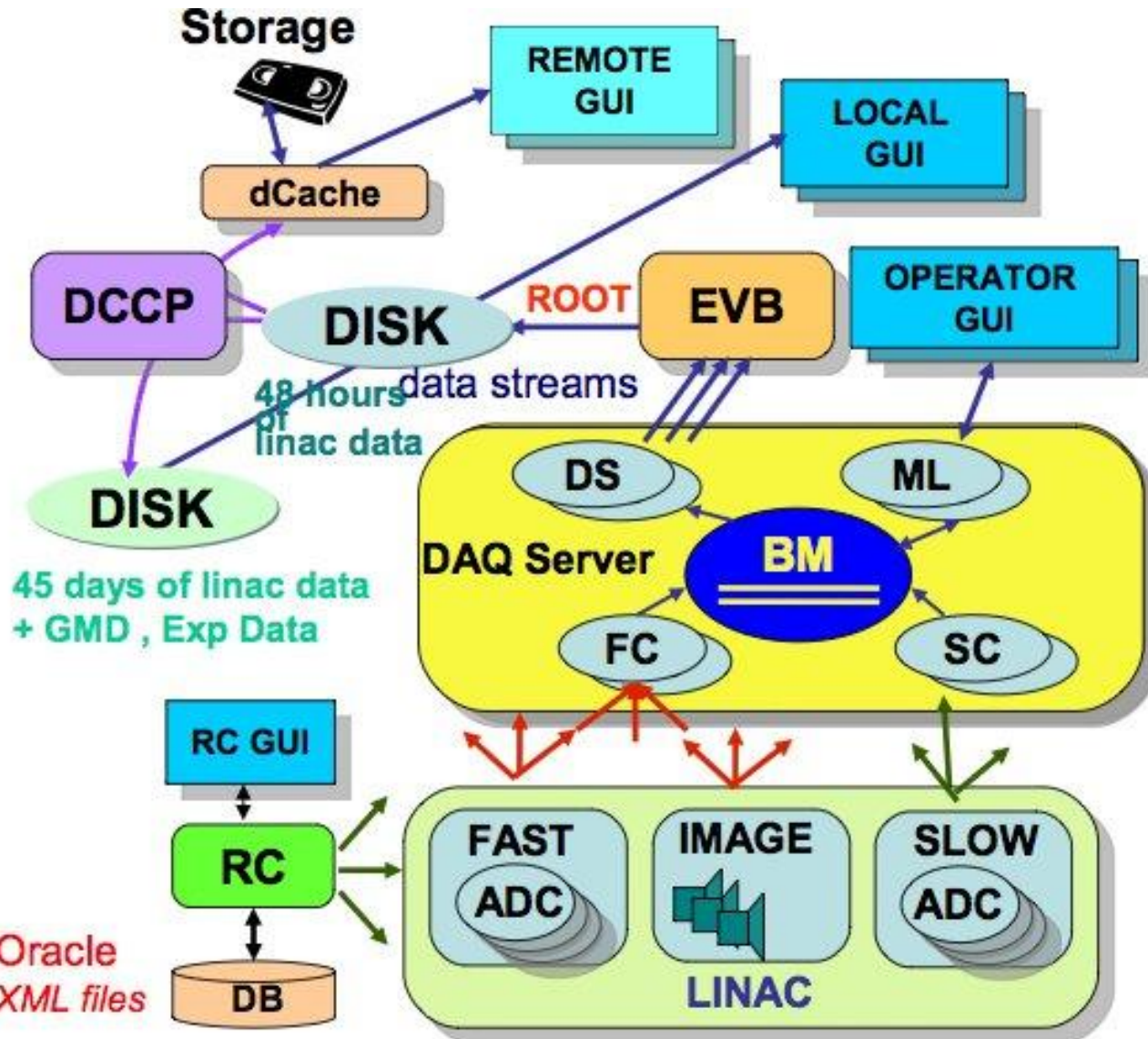


backup slides

# State Analysis



# DAQ system



FC/SC:  
Fast/Slow  
Collector

BM:  
Buffer Manager

EVB:  
Event Builder

Example with  
dummy data has  
been  
successfully  
tested

# Alarm handling

## XML based Alarm and Info Server Architecture

