



DOOCS DAQ software for the EUDET prototype

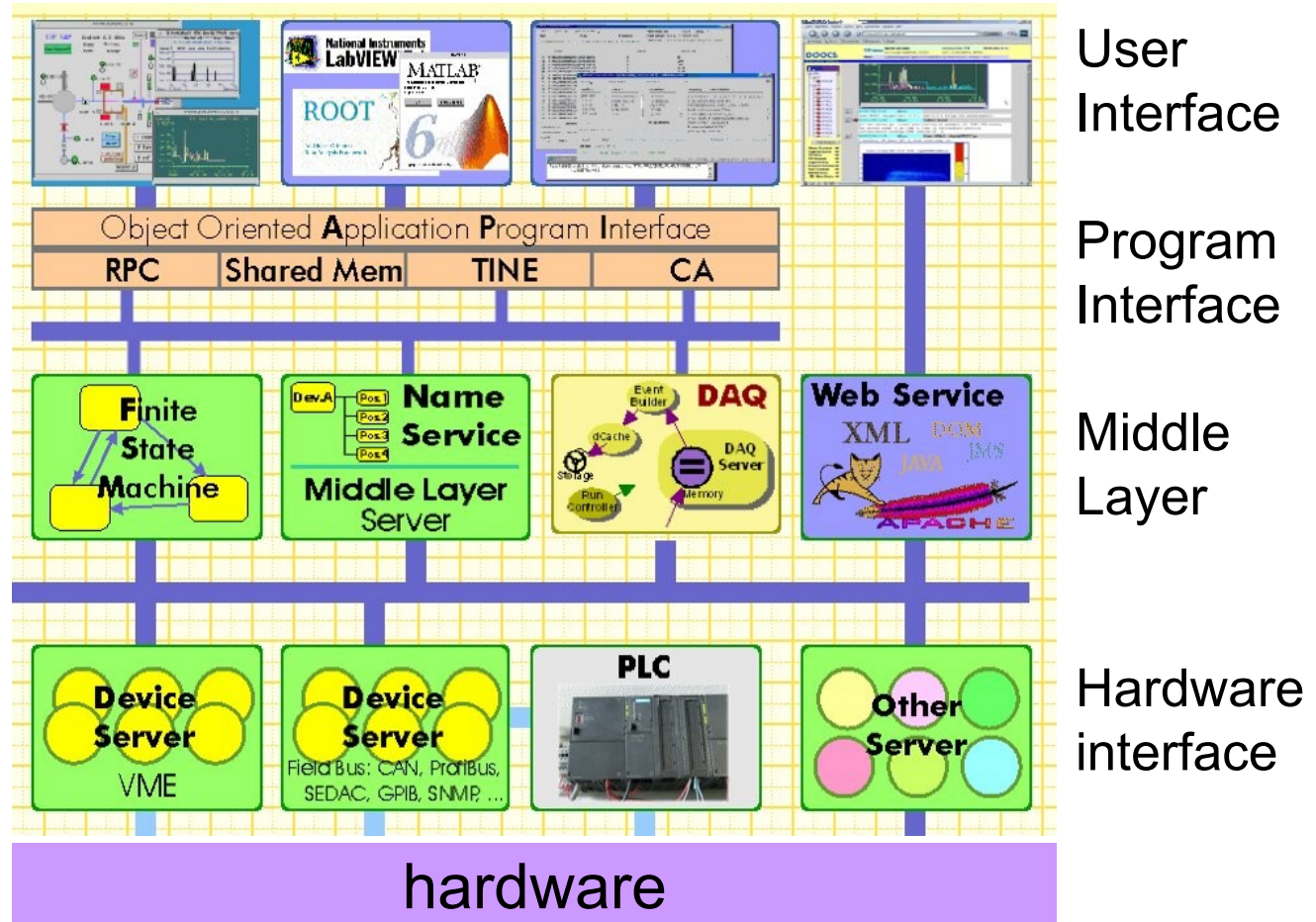
Valeria **B**artsch (UCL)

Andrzej **M**isiejuk (RHUL)

Tao **W**u (RHUL)

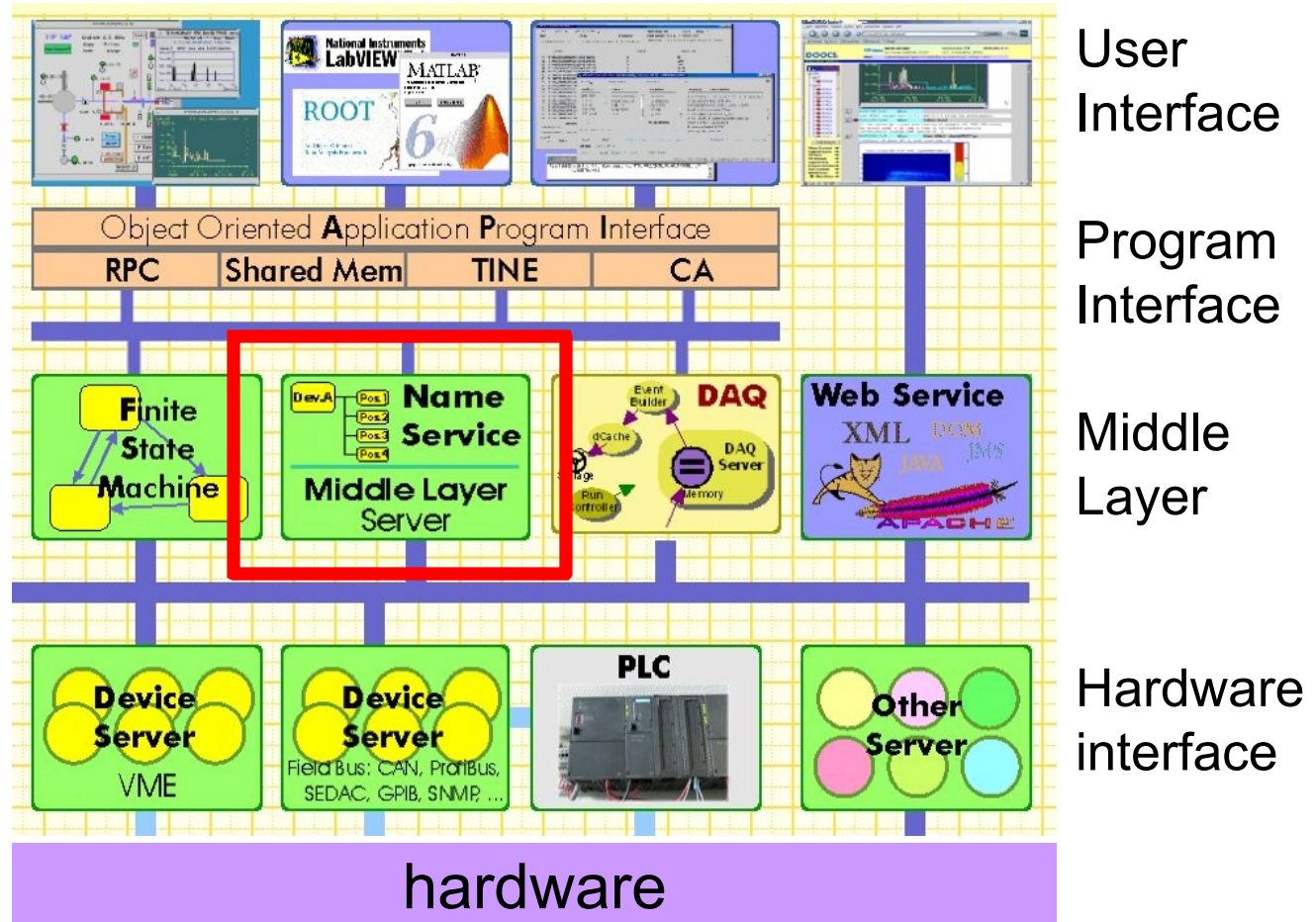
Overview over the task - DOOCS software -

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



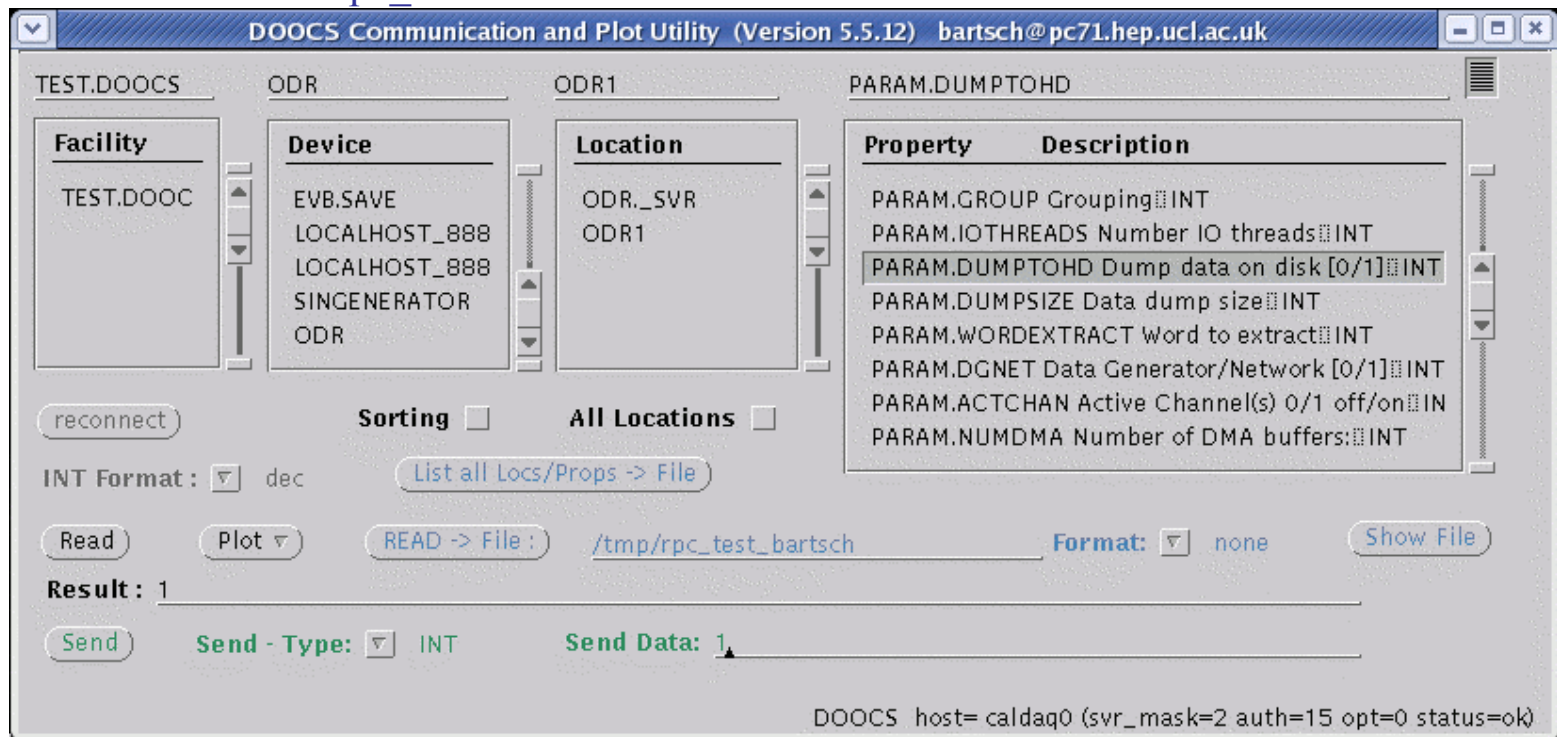
Overview over the task - ENS naming service -

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



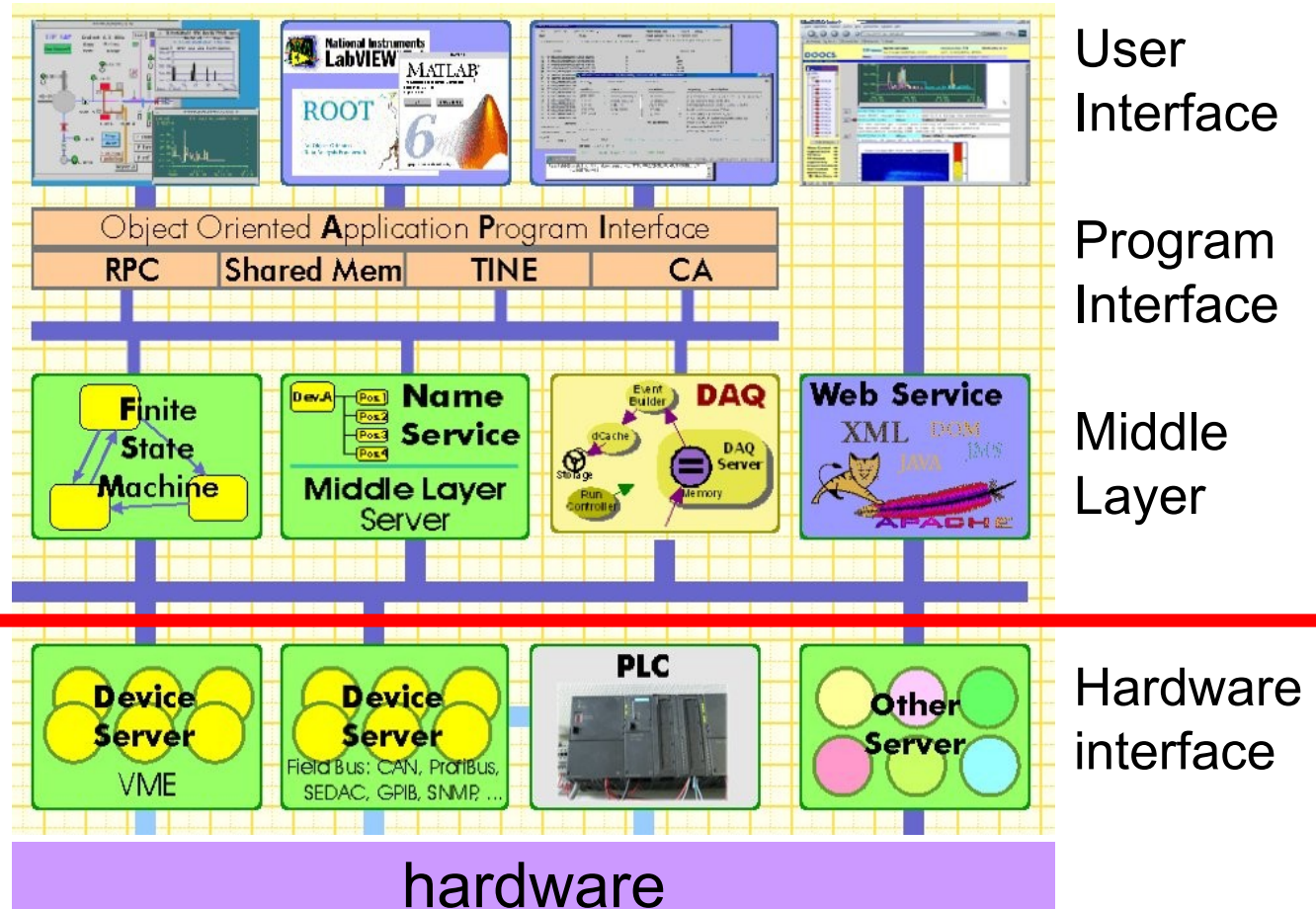
ENS Naming Service

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 most important at this stage

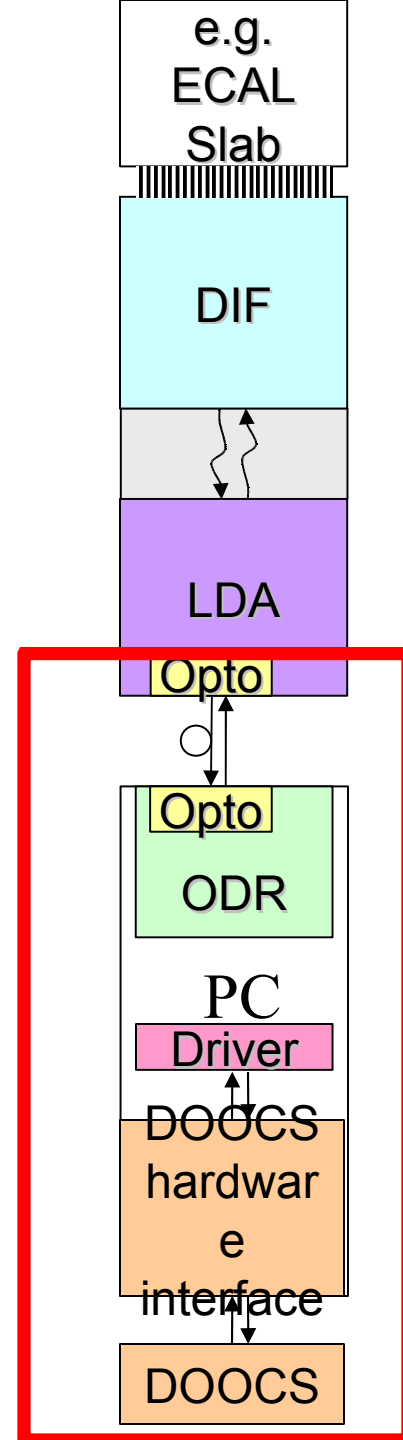
Hardware interface

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

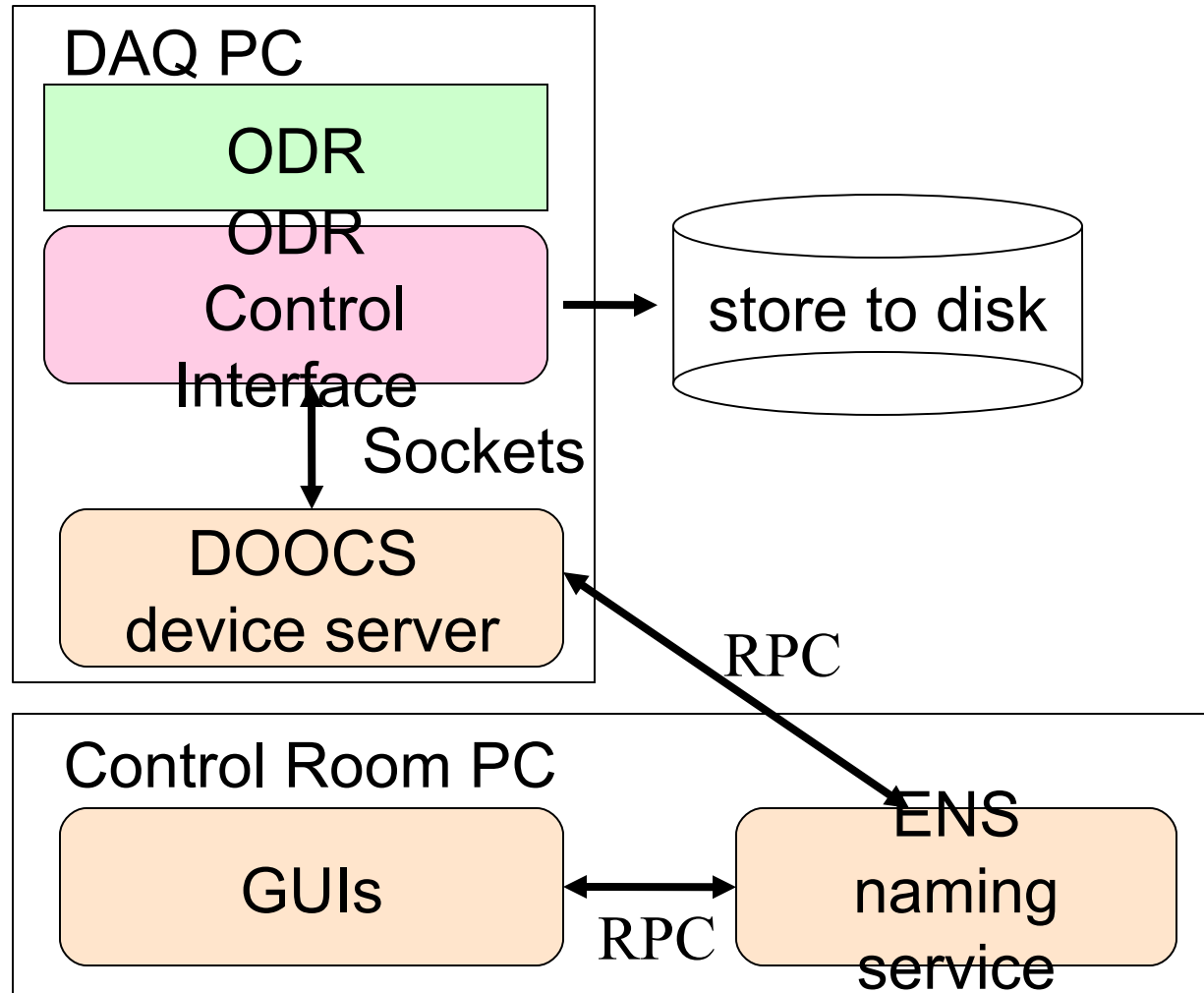
Plan:

- 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

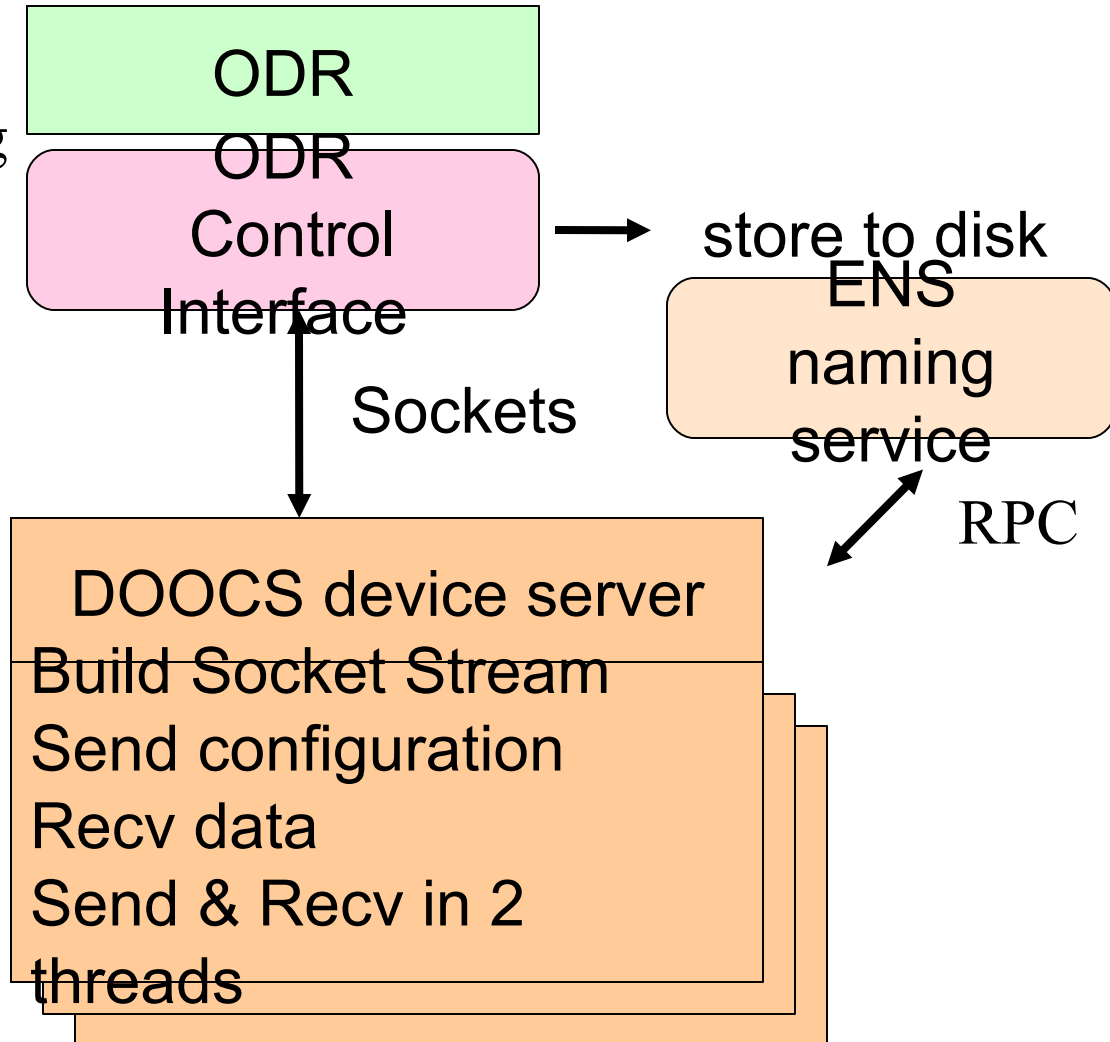


Overview over the ODR interface

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

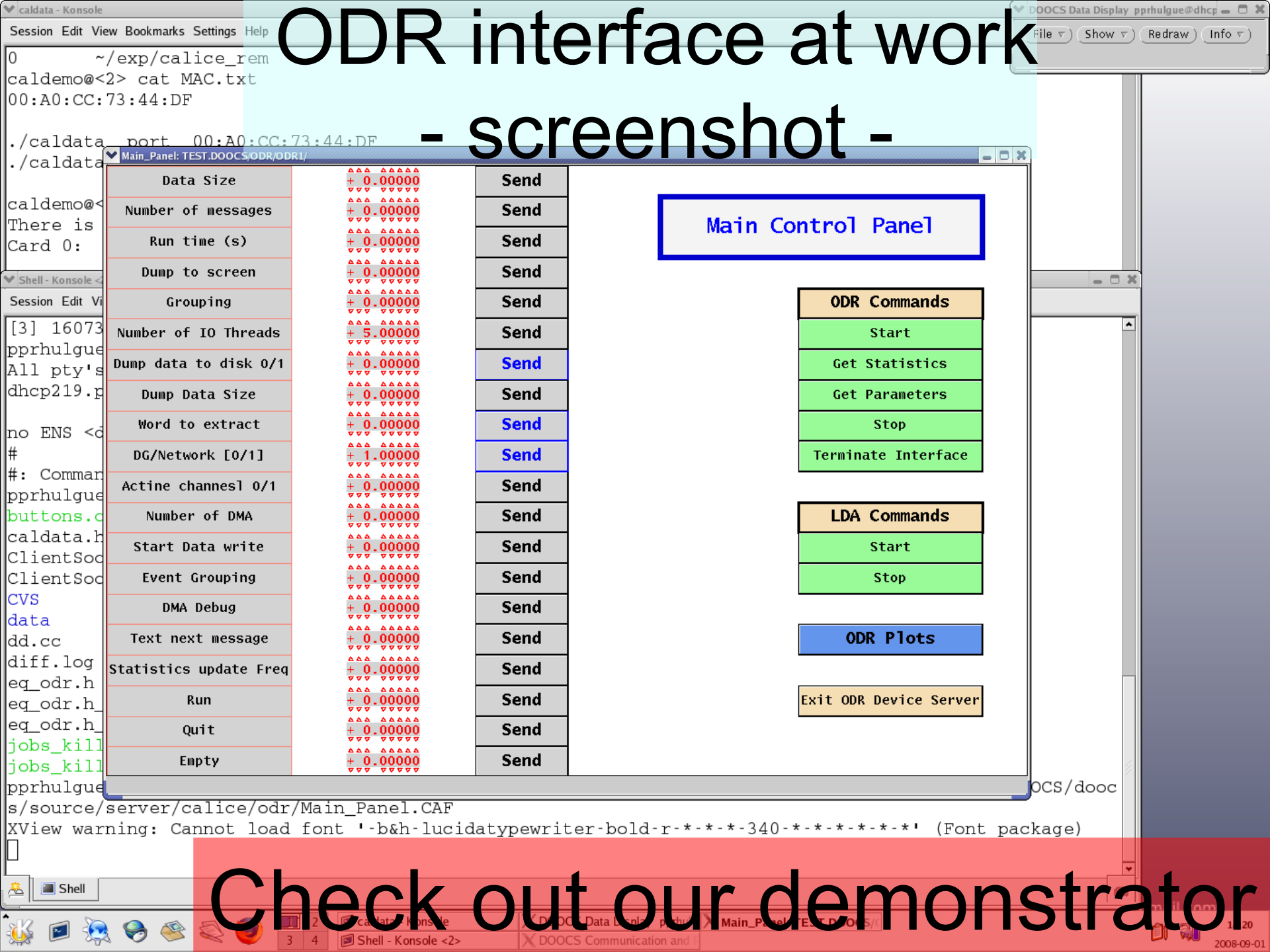
- using 2 threads: one for receiving, one for sending on the socket

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



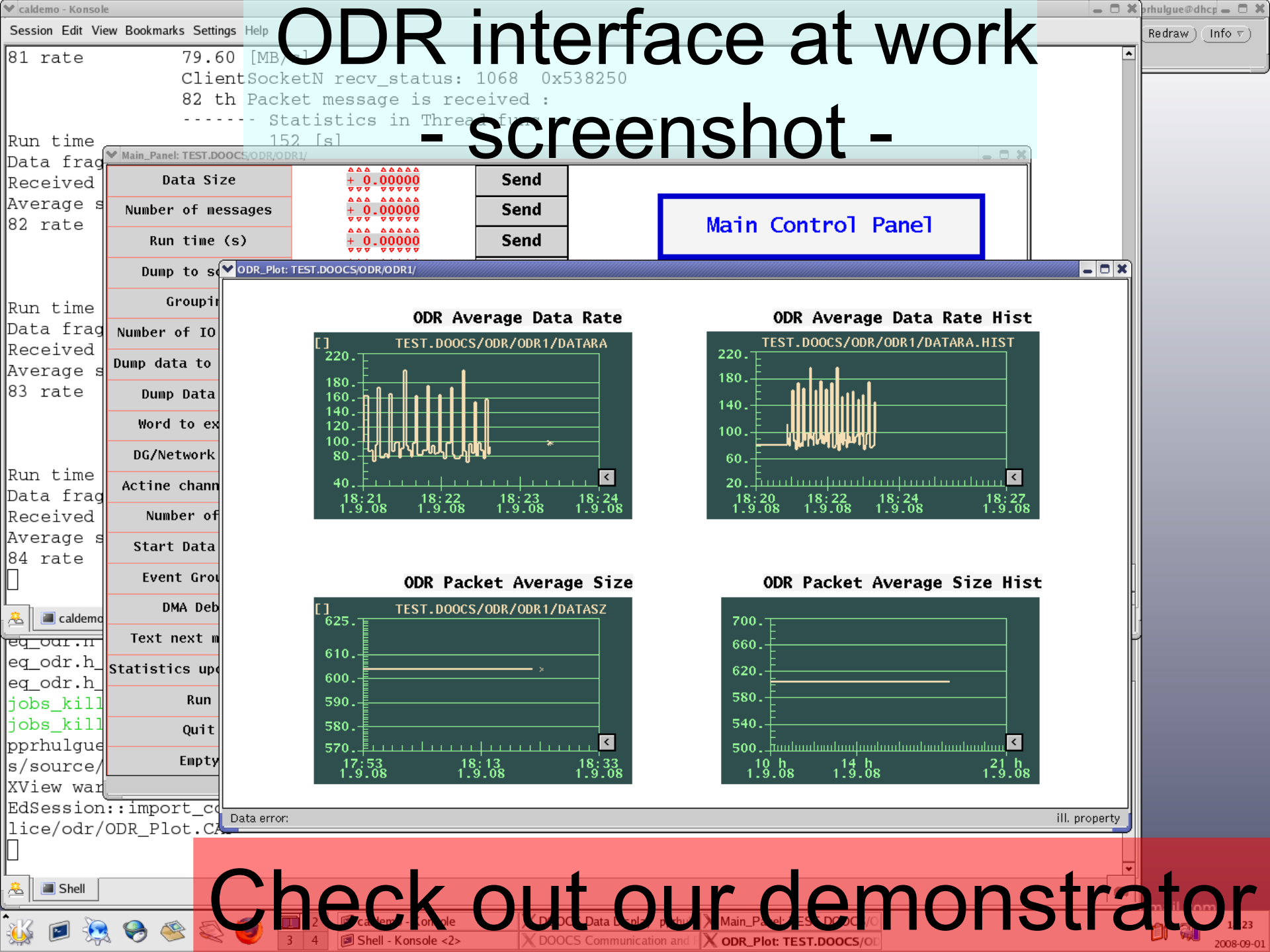
ODR interface at work

- screenshot -



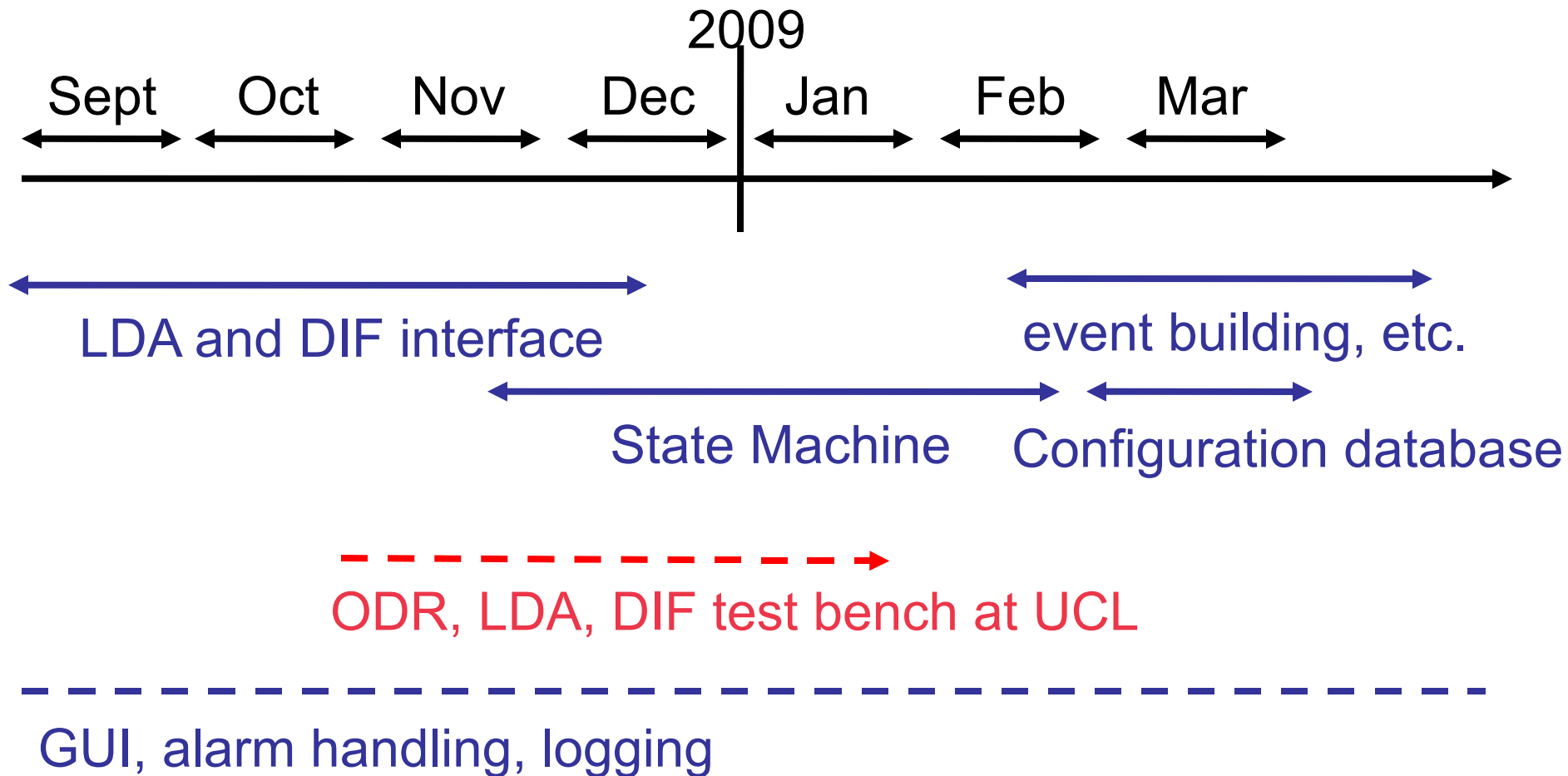
Check out our demonstrator

ODR interface at work - screenshot -



Check out our demonstrator

suggested timeline



lessons from the prototype

- when can ODR actually read new configurations?
- does it actually accept configurations?
- how shall we communicate with the LDA? (with a socket stream to the ODR or on a separate communication path?)

- any other things?