Recent developments of communication between DOOCS & ODR

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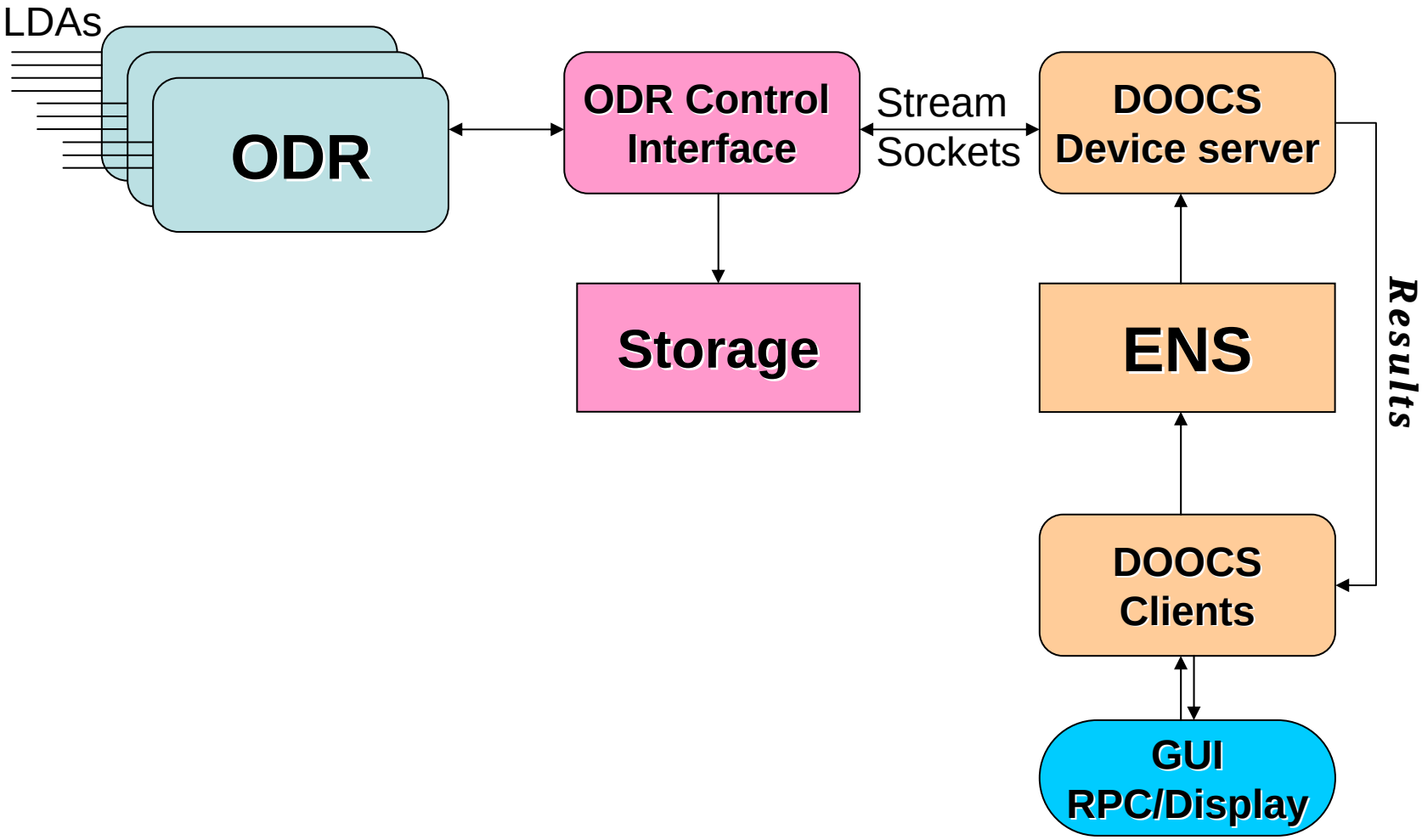
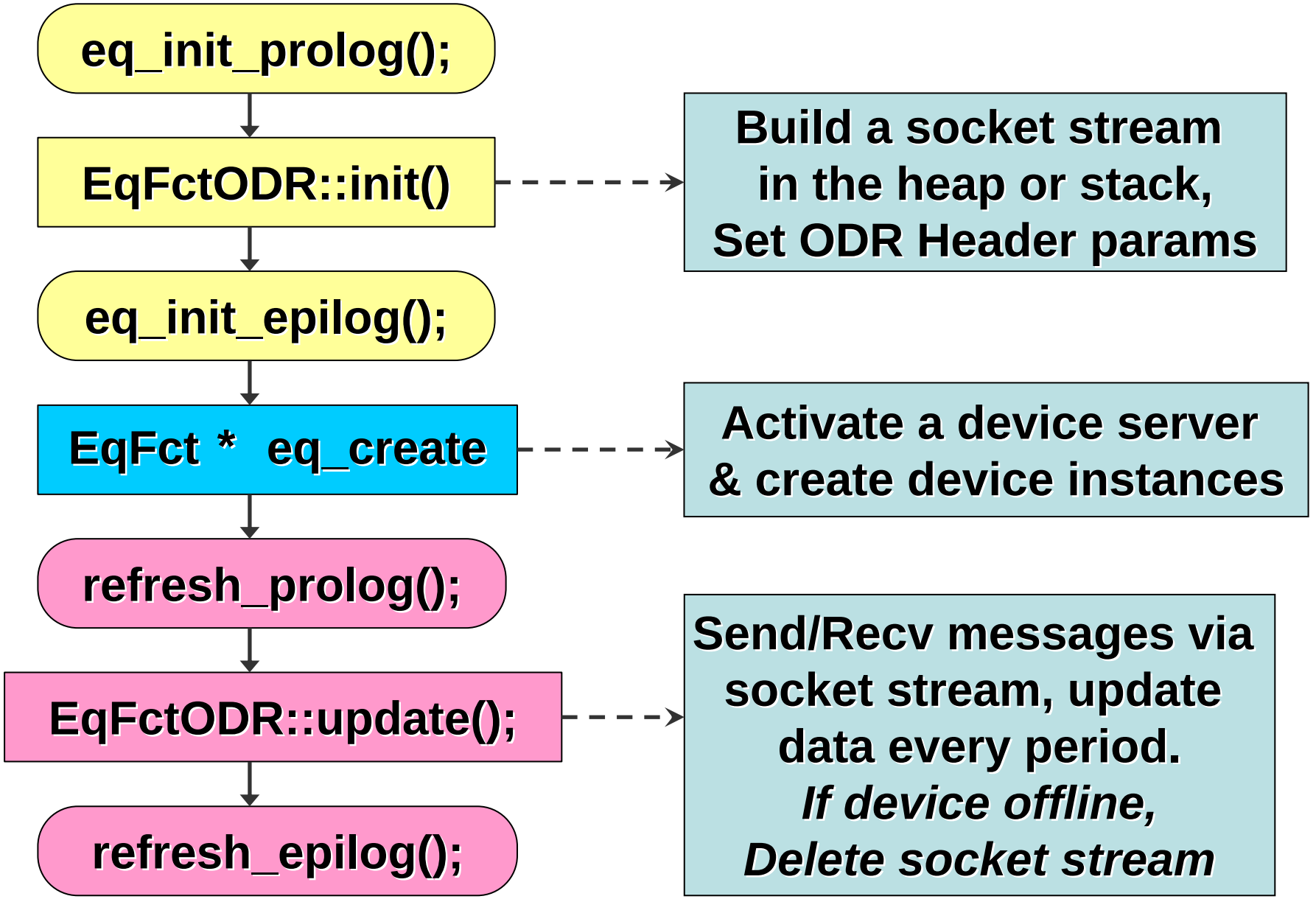
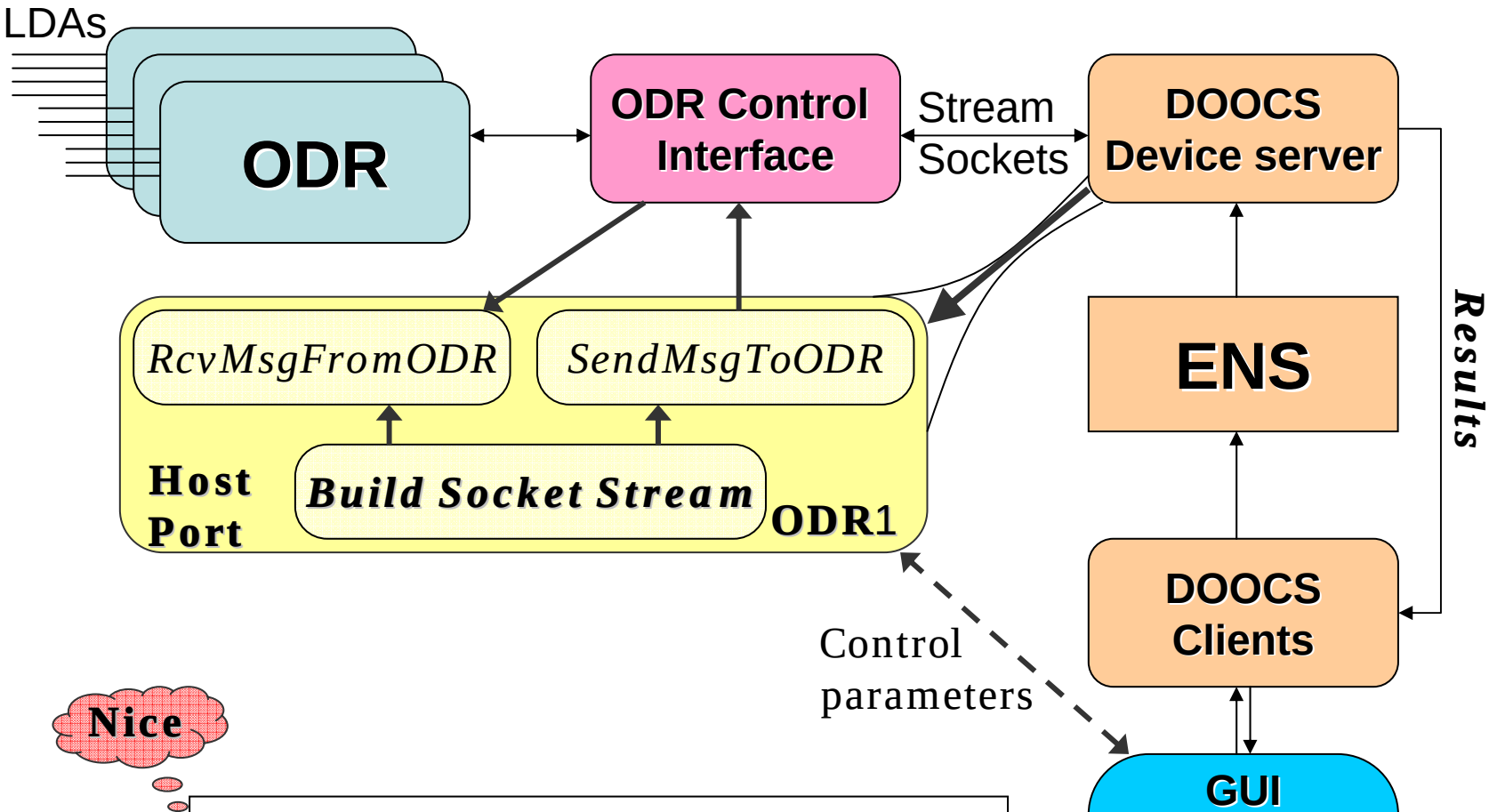
How to communicate?



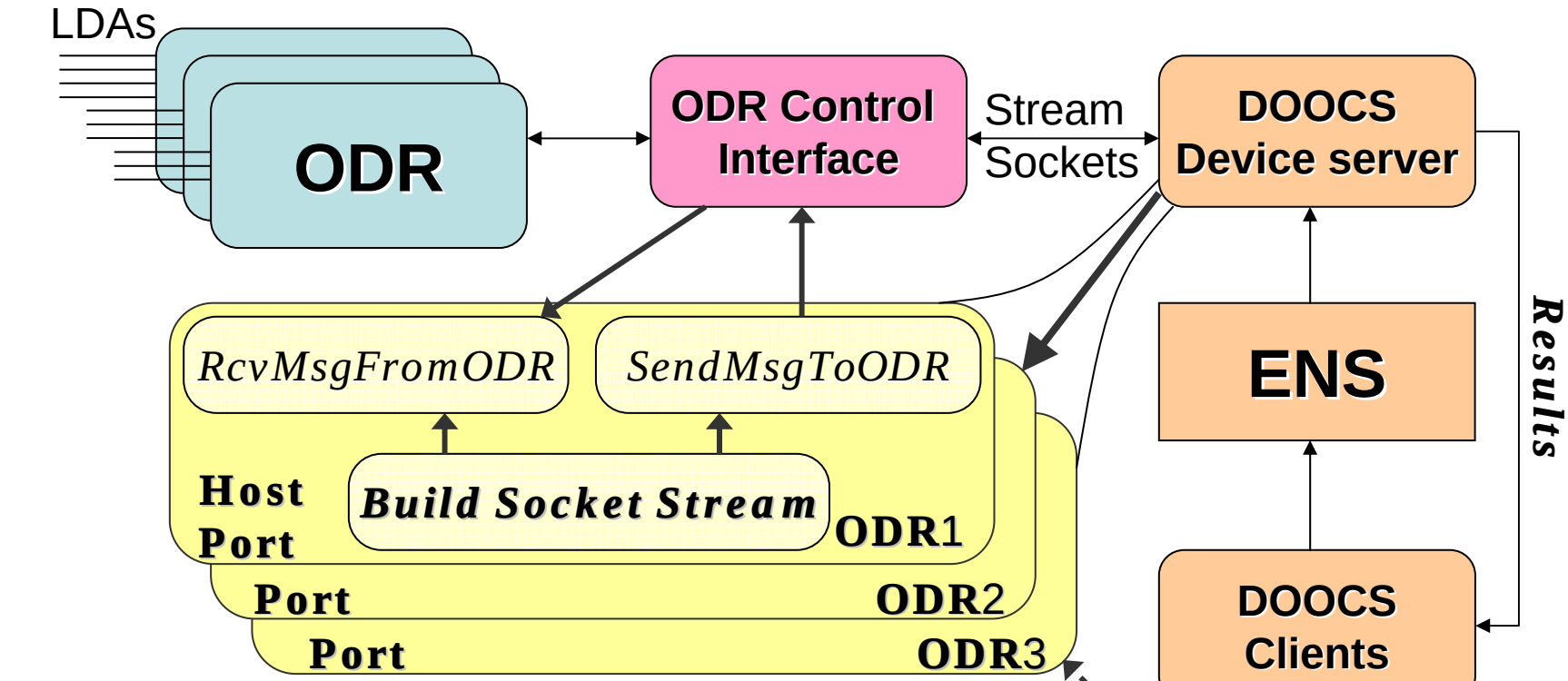
Mockup version of device server



Talk to ODR Control Interface



One server, many instances

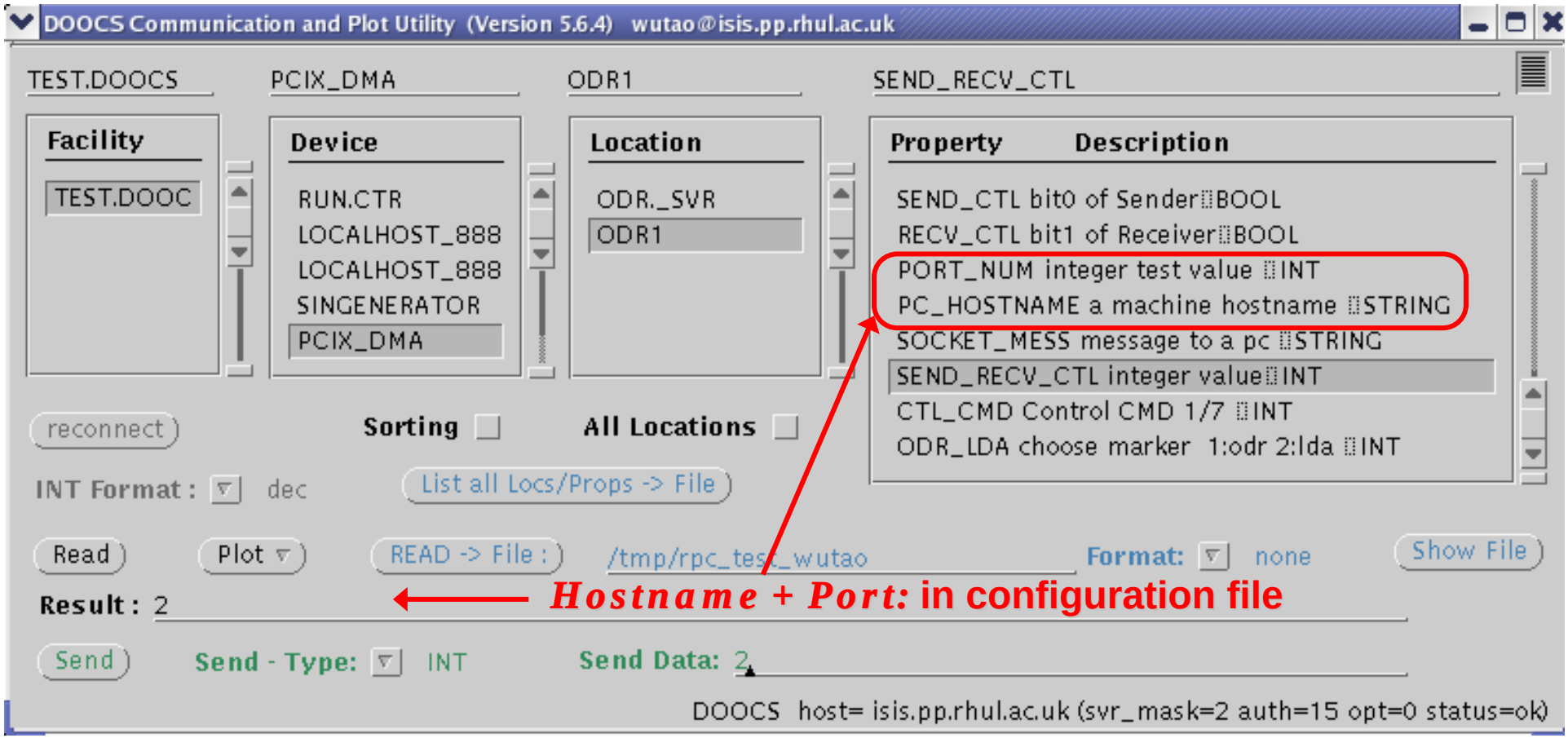


Host+Port number can be same or different.

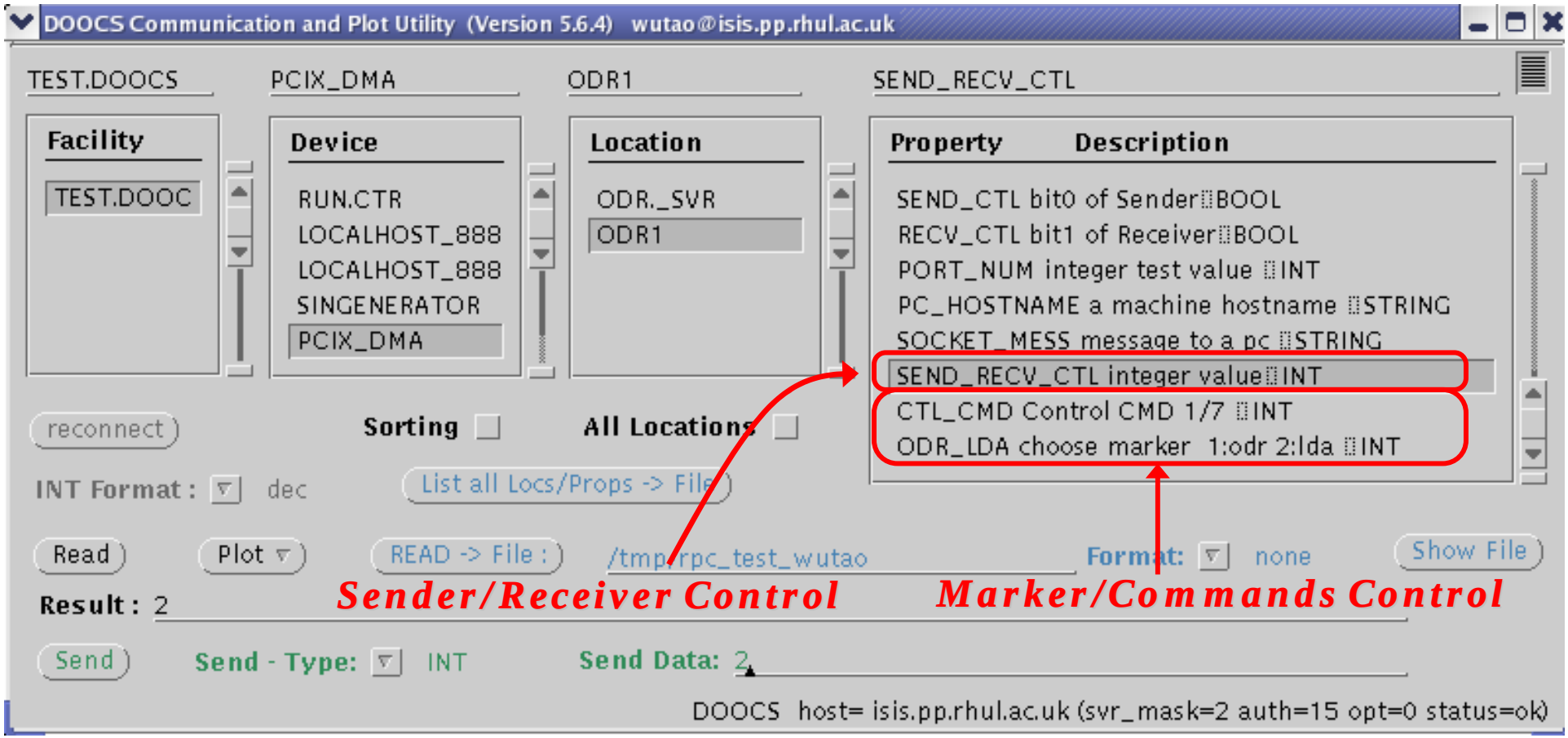
Nice

One-to-many relationship:
One device server can serve many instances, i.e. many ODR cards armed in different DAQ PC.

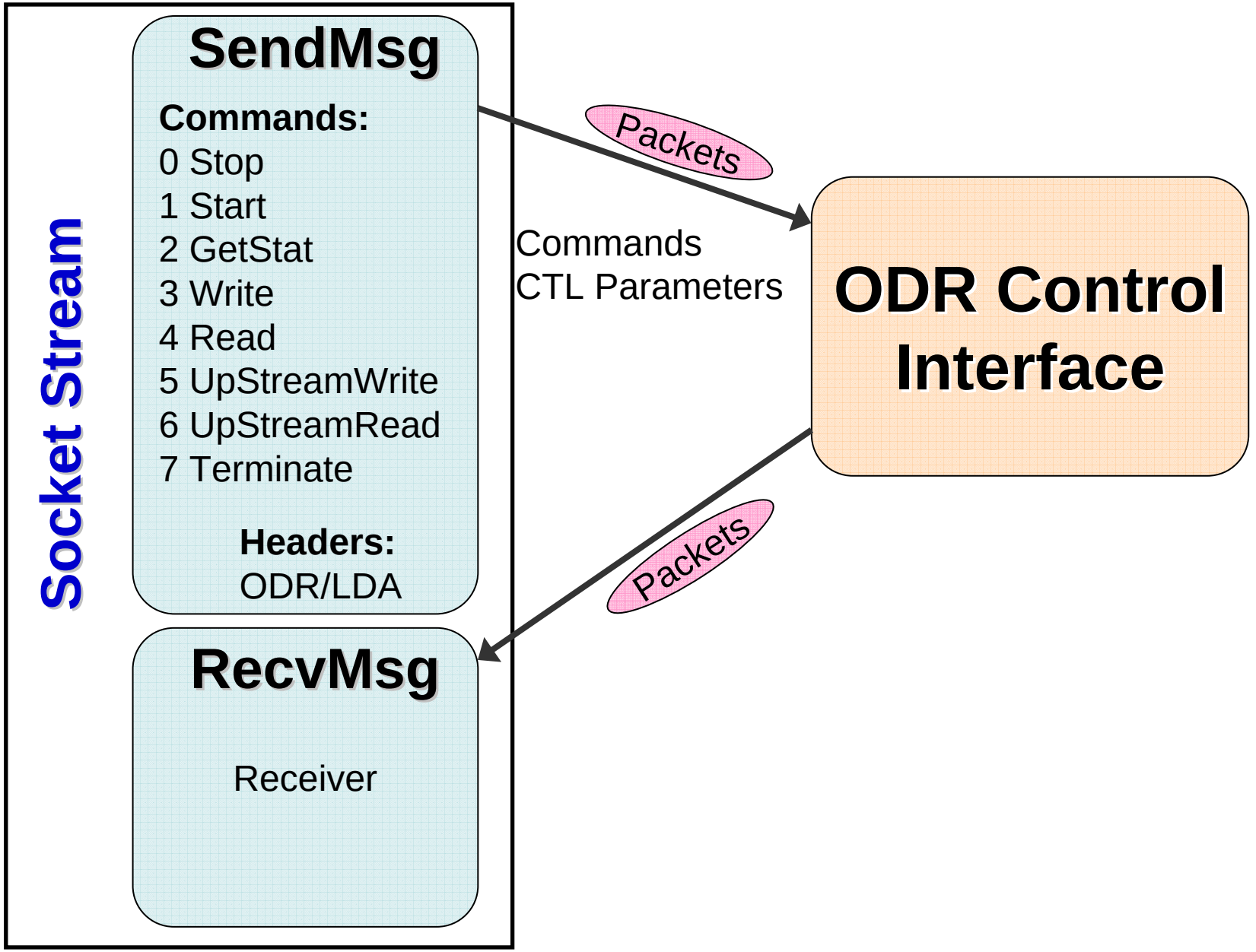
Hostname & Port number



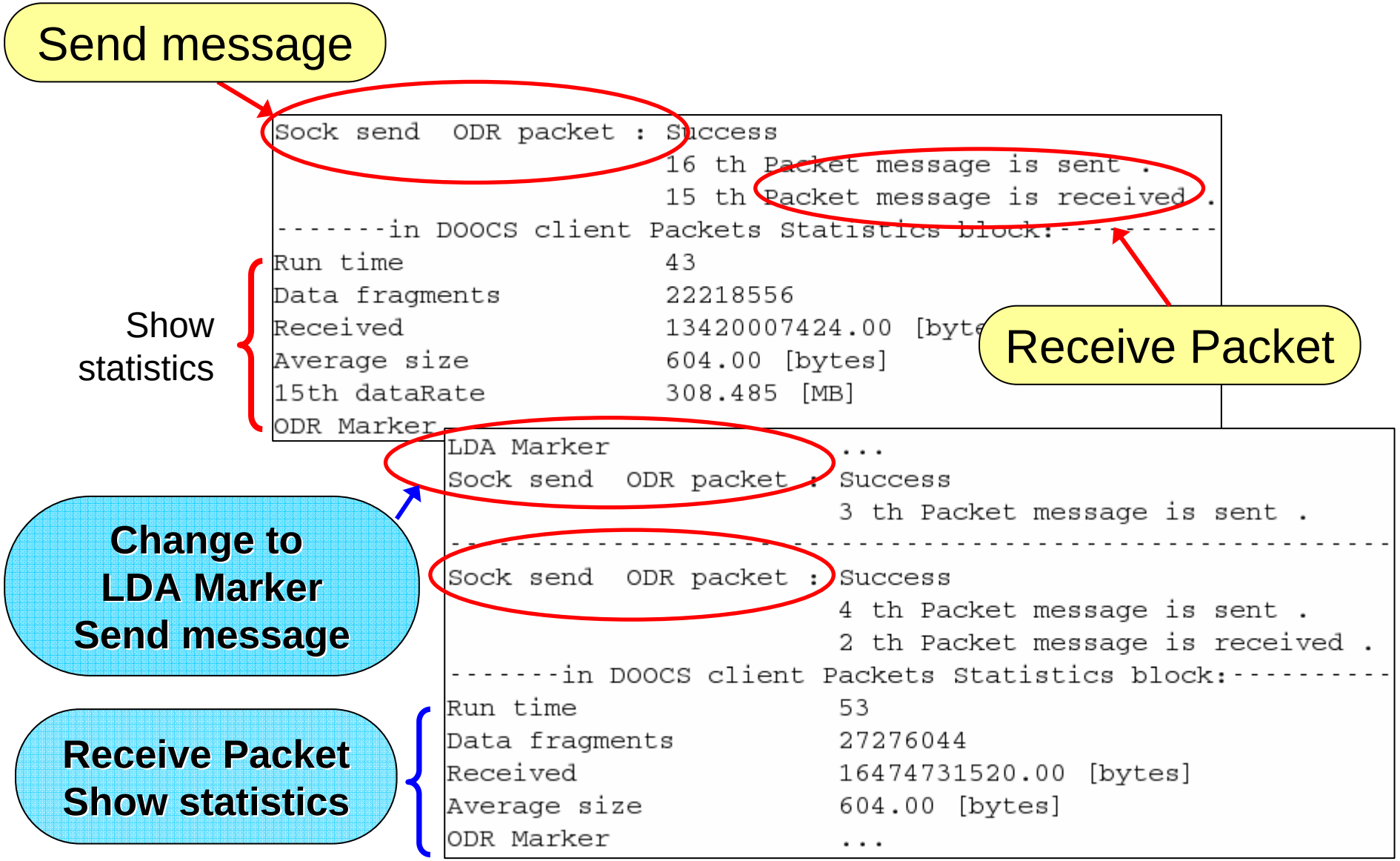
Socket Stream Communication test



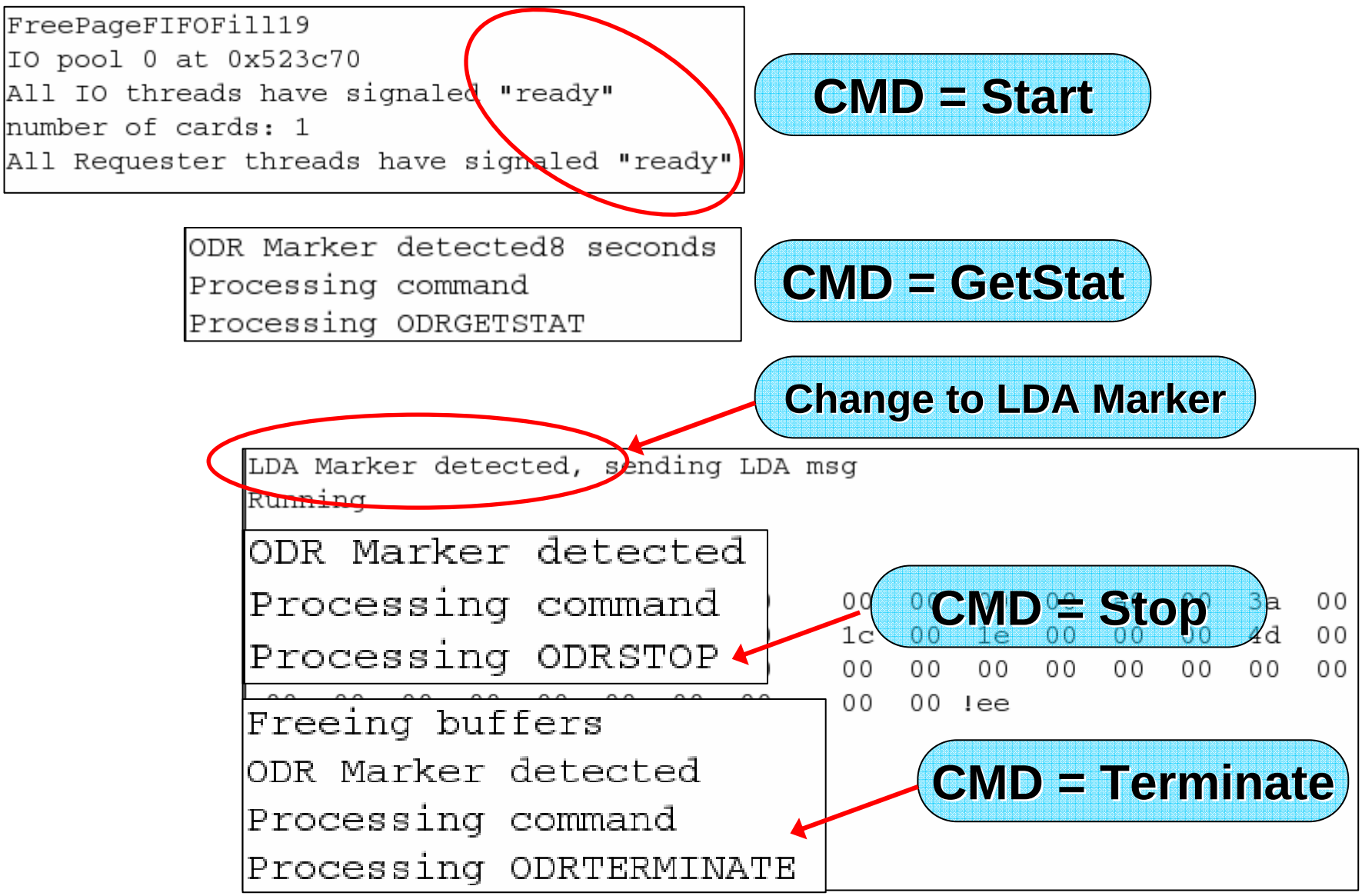
DOOCS ⟷ ODR Control Interface



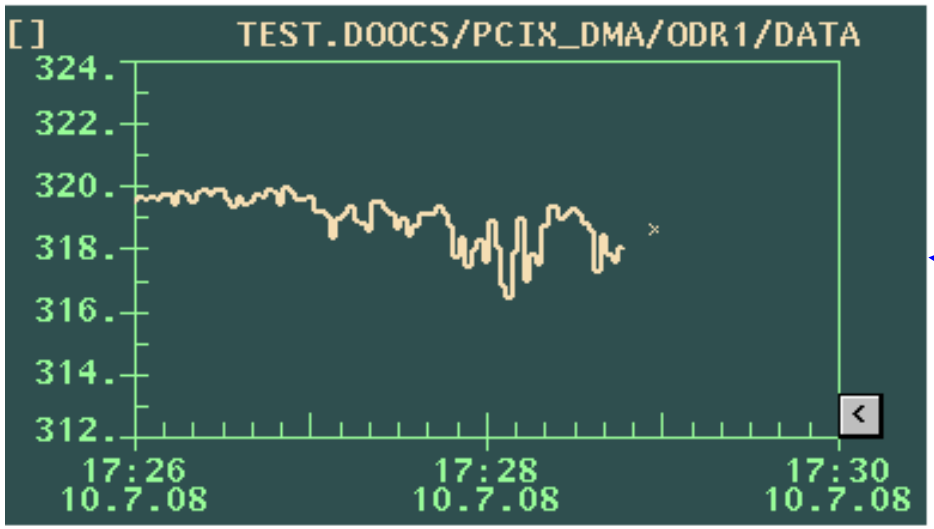
DOOCS: Send & Receive



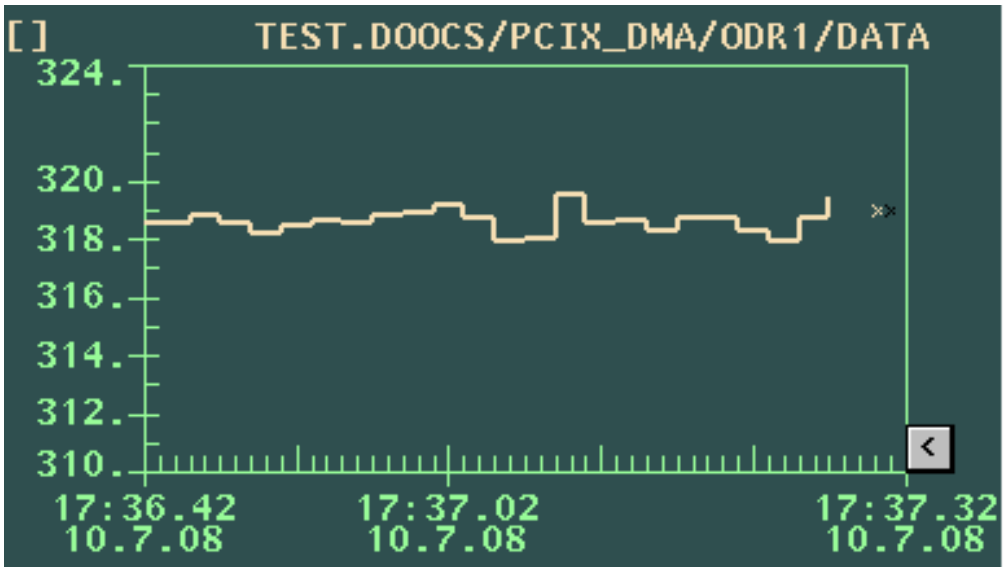
ODR Control Interface



Data Rate



~320 MB/s



Summary

- The communication between DOOCS device server and ODR Control Interface via socket streams has been successfully built and tested;
- A GUI control/display has been correctly configured for client server, one device server can serve many ODRs armed in PC(s);
- Use CVS to maintain the codes at DESY DOOCS *source/server/calice/pcix_dma*;
- Some GUI control buttons need to be customized for a purpose of convenience.
- To plot more histograms in order to monitor the statistics during sending and receiving packets.

Summary

- The sending and receiving methods can be improved;
- Need to use threads to manage the sender and receiver;