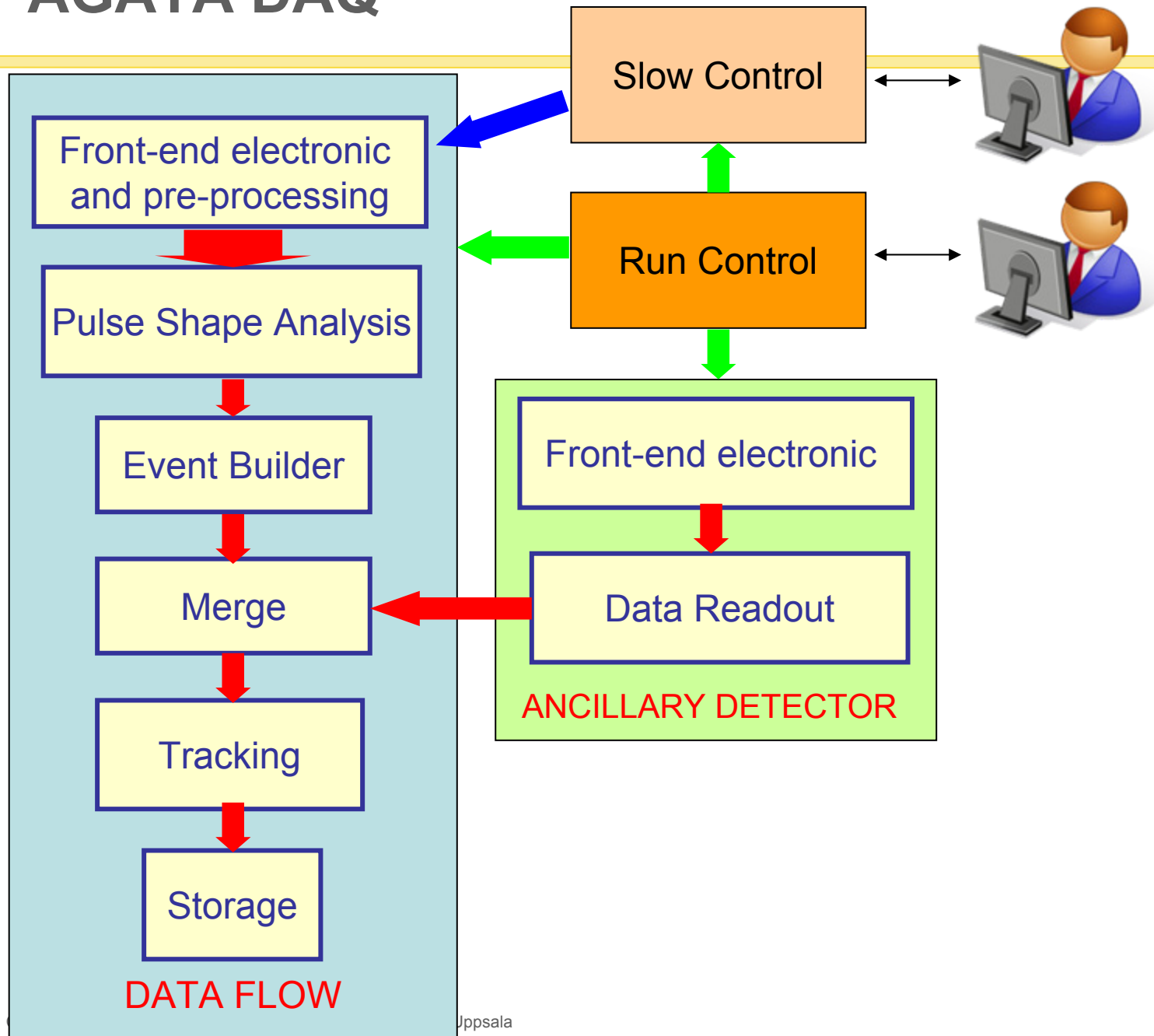




AGATA DAQ Summary

Ch. T for the DAQ WG
christophe.theisen@cea.fr

AGATA DAQ



Agenda

Session 9

- ***Agenda (Ch. T) (5 min)***
- ***AGATA DAQ box presentation and demos (85 min)***
 - ***Introduction (Xavier Grave, Orsay)***
 - ***Wiki + Zabbix demo (Xavier Grave, Orsay)***
 - ***RC demo + Data movement + Prisma integration (Pietro Molini, Legnaro)***
 - ***GUI (Jurek Grebosz)***
 - ***Analysis of Legnaro data using the current NARVAL implementation (Daniele Mengoni, Padova)***



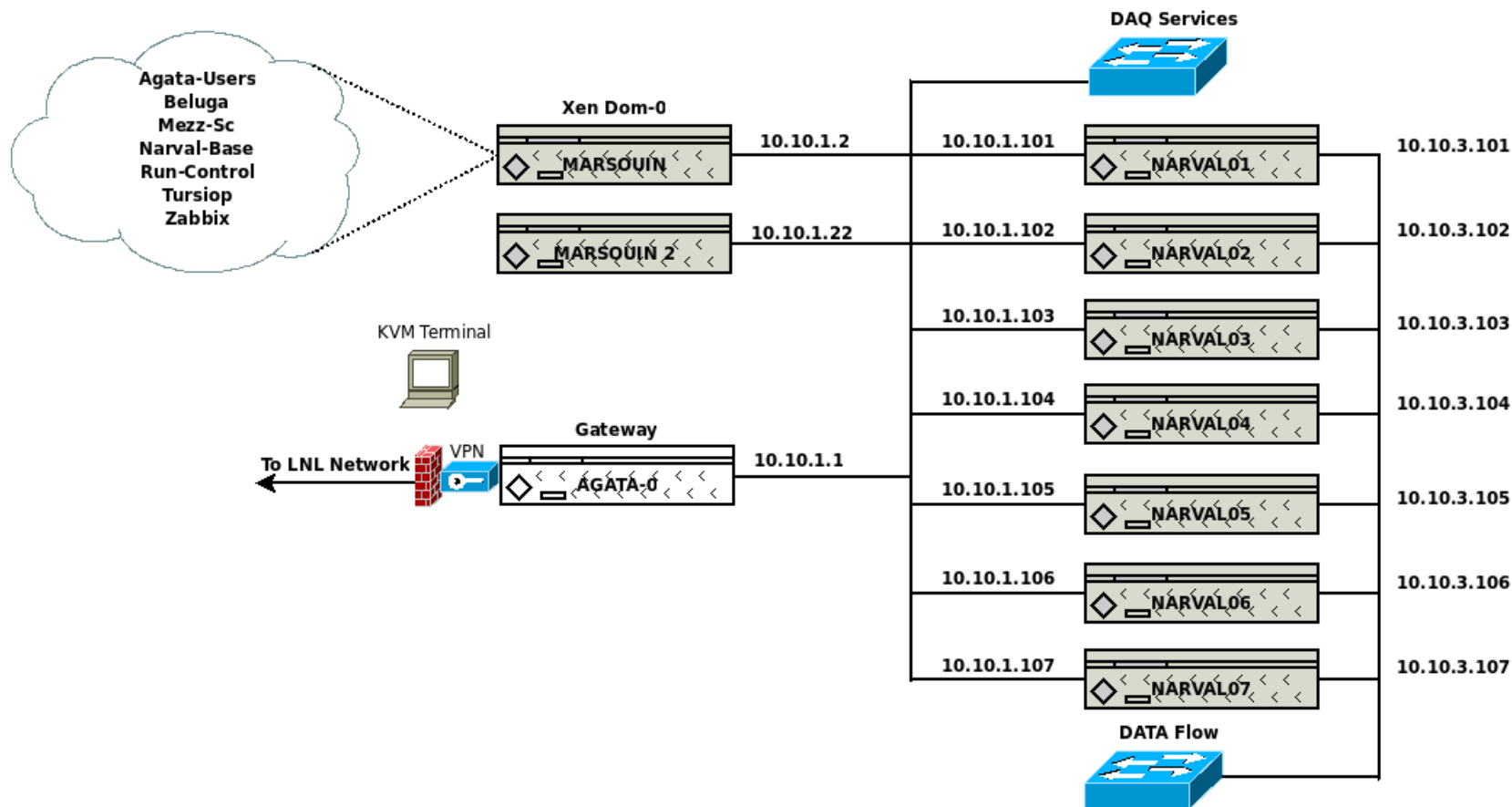
Agenda

Session 11

- ***Slow Control (20 min)***
 - ***Overview (Frédéric Saillant, Ganil)***
 - ***Digitizer SC demo (Vic Pucknell, Daresbury)***
- ***ADF status (Olivier Stézowski, IPN Lyon) (10min)***
- ***DAQ rules, organization, manpower, etc. (Ch. T) (20 min)***
- ***Discussion (40 min)***



The DAQ BOX



The DAQ box at Legnaro



DAQ Box Demo

NARVAL + RC + GUI + Spec. Server + PSA

Xavier + Pietro + Jurek + Daniele

Real demo using Legnaro DAQ BOX

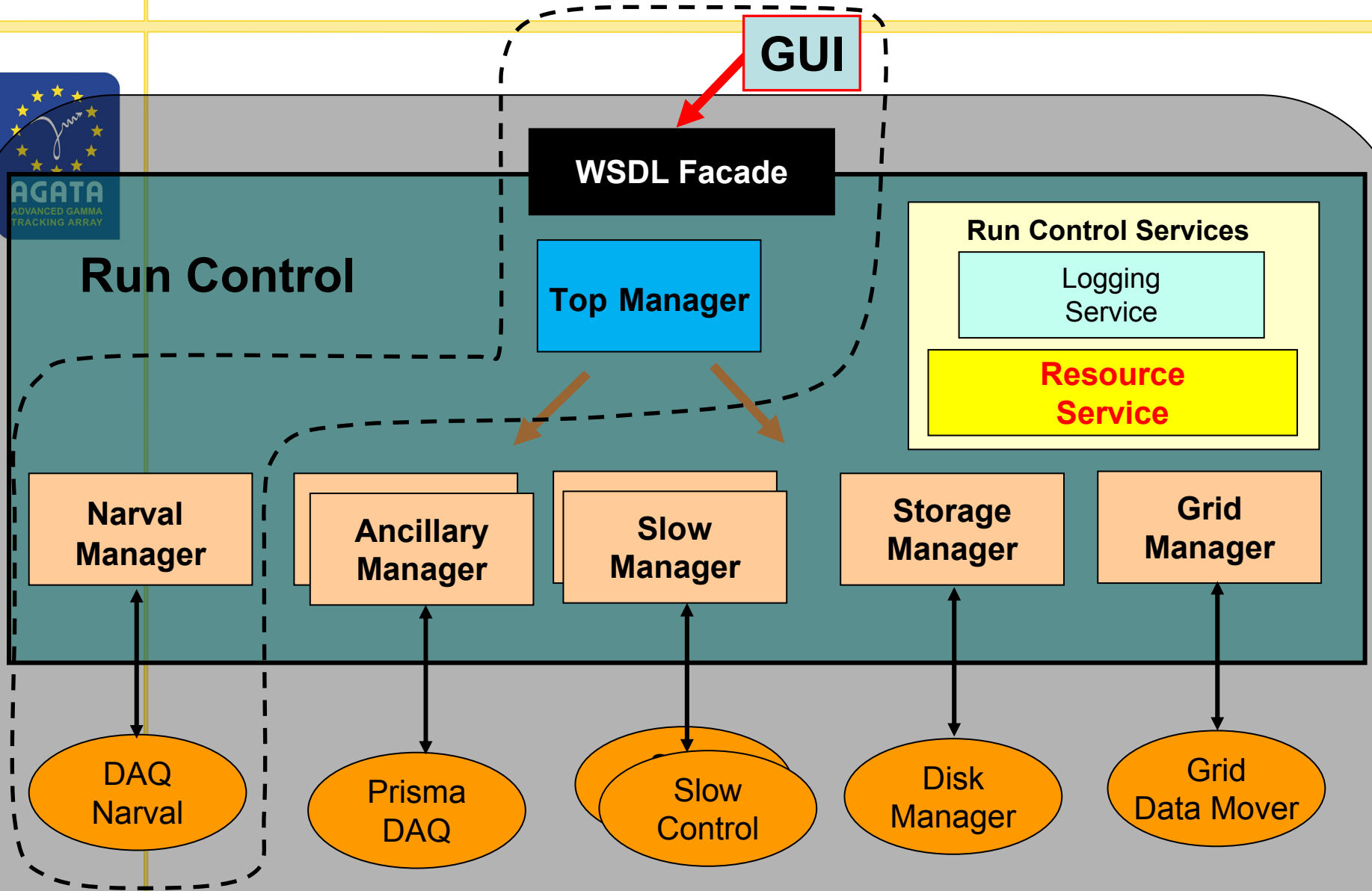


Monitoring / Documentation



- Wiki (Daq box + Orsay mirror)
<http://csngwinfo.in2p3.fr/>
- Zabbix

Run Control Structure



Log Book



Welcome to Agata Elog

Logbook	Entries	Last submission
General		
Shift	12	Mon Apr 7 17:24:00 2008 by Michele Gulmini, mailto:Michele.Gulmini@lnl.infn.it
Technical Incidents	0	-
Subsystems		
DAQ	0	-
Run Control	0	-
Prisma	0	-
Slow Control	0	-
Test		
Test	9	Tue Jul 1 10:57:49 2008 by Michele Gulmini, mailto:Michele.Gulmini@lnl.infn.it
Comments and suggestions to improve Agata elog	1	Thu Jul 3 12:57:31 2008 by Michele Gulmini, mailto:Michele.Gulmini@lnl.infn.it

Tasks of GUI of DAQ



Load (unload) the configuration of actors (may be different)
(ask DAQ Narval to „create itself”)

Start / Stop / Pause / Resume – of the measurement

Reset / Recover from an error state

Define the filename to store the data

But also:

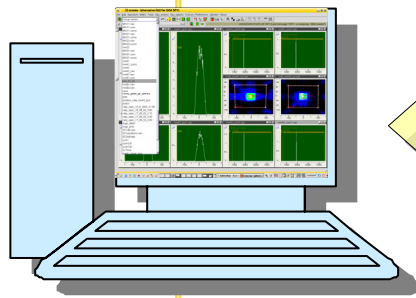
Give the information about the system itself – to monitor its work

- monitoring data flow („ratios”)
- monitoring quality of data (spectra)

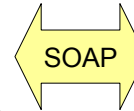
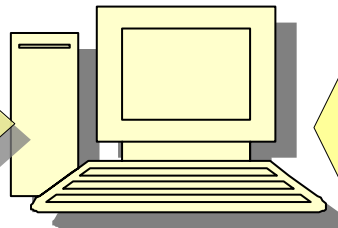
Monitoring spectra



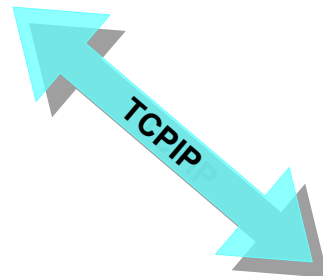
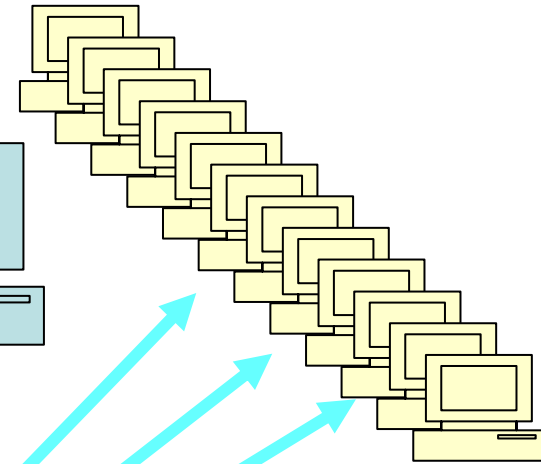
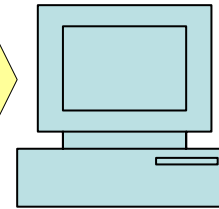
GUI



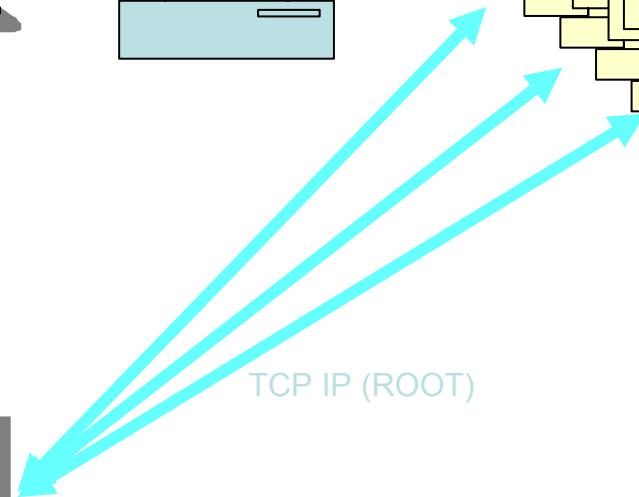
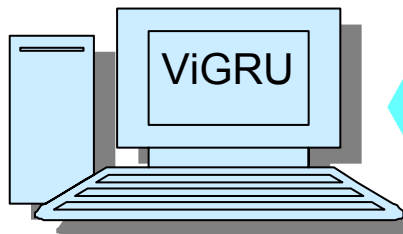
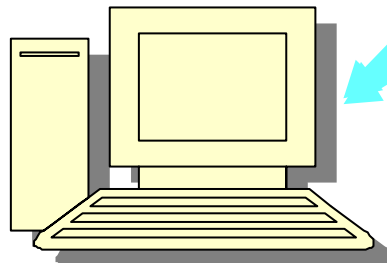
Instrument
Manager



Maestro

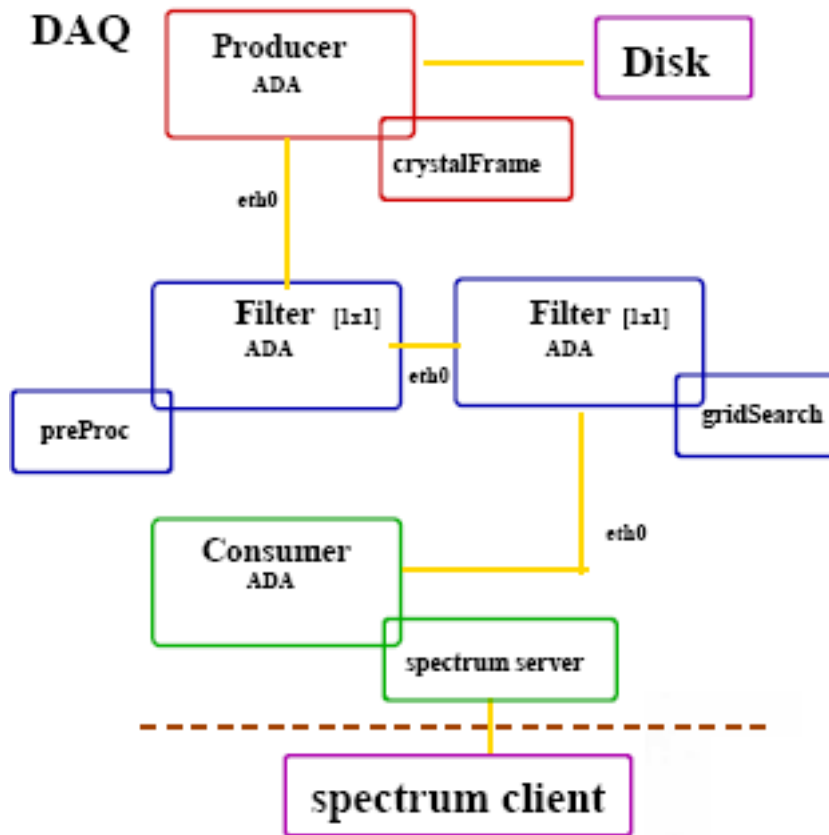


GRU
(server)



TCP IP (ROOT)

^{137}Cs - ^{60}Co OFFLINE data analysis using present AGATA-DAQ system at LNL



Slow Control + GUI

Padova meeting in June

- Digitizer almost finished
- Basic SC for carrier + Mezzanine + Trigger; still a lot to do
- No manpower for carrier + Mezzanine + Trigger GUI
- Parameter save/restore: agreement
- WSDL: agreement



Digitizer SC

Vic's demo



AGATA Digitizer: Diagnostics








Digitizer: 0 FPGA Segment: Virtex for Segment ADC card 1 Address Modifier: A16

Address/Command: 0x807

Set Data: 0x0000

Read Block Length: 1

Write Block Data: 0x0000

Offset Ch1:  30947	Offset Ch3:  4854	Offset Ch5:  6675
Offset Ch2:  49151	Offset Ch4:  29127	Offset Ch6:  16384
		Offset Ch7:  27306

```
Digitizer= 0
Read PROM
Prom Read back into RAM
This is a Segment ADC board
Serial number : 0037
Revision      : B
Mod state     : 03
Test Complete .....
```

command:

Last Updated: June 05, 2008 11:59:53

[Home](#) [Service Definition](#)



- Development phase I: tag soon
- Next : phase II
 - configuration frame / meta data
 - How do algo speak together / share information ?
 - Algo form to be filled

Rules, Organization, Policies

See document on the DAQ Web

- WG Organization : 2 teams, 6 tasks
- Maintenance and support
- Disk policy
- Backup
- Moving data



Data movement

- Moving data to Bologna Tier 1 : test soon



TODO 1



- To be added to Data Flow and tested :
 - Event Builder
 - Tracking
 - Storage actor (GANIL/LPC based one)
- To be developed :
 - Prisma merger
- Disk servers
 - 60 TB to be physically installed (in Tier 2 room)
 - need for formatting and GPFS installation
- Spy (watcher)

TODO 2



- PRISMA Xdaq
 - Integration in Data Flow
- LogBook integration
 - How often automatic logs are sent from RC?
 - Define group and user policy
- SRM for Data Movement
 - StoRM installation and configuration
 - V.O. and Grid security issues
 - Tests between LNL and CNAF
- Slow Control
 - Tests with digitizers' WSDL made by Vic Pucknell
- All-in-one configuration tool:
 - Global Configuration Key
 - Subsystems' configuration (narval, prisma...) in the Resource Service DB
 - Narval topology handler
 - Xdaq configurations

TODO 3



- Mac and IP address assignment and policy
- Slow Control Carrier/Mezzanine/GTS
- GUI Control Carrier/Mezzanine/GTS
- SC WSDL
- SC Save/Restore DataBase
- Log Book Soap interface
- Data Quality Monitor
- LuT detector – digitizer – FEE – DAQ ... connections with Lyon DB

TODO 4

- Purchase remaining hardware



Conclusion

Lot has been done since last Agata week

DAQ box demo

DAQ will run in October with 1 TC

Some part may be not very user-friendly and stable

Manpower needed for DQM & GUI

Feedback needed

Training when DAQ stable

