

## Data Flow session menu

DAQ infrastructure at GSI and related issues

Y. Aubert (IPN Orsay)

Software Status for the DAQ and the GEC

E. Legay (CSNSM Orsay)

Data path coupling of Narval/Agata and MBS/FRS

N. Kurz (GSI)

Status of the data storage on GRID

Y. Aubert (IPN Orsay)

General discussion

A. Korichi for the DAQ Working Group

12<sup>th</sup> Agata week 11 -13<sup>th</sup> of June 2012- GSI Darmstadt



# ADVANCED GAMMA TRACKING ARRAY

**But before the Data Flow menu**

An introduction with reminders and new features for the DAQ

You have already seen the new DAQ organisation scheme (last Agata Week)

DAQ Teams Actors : France, Germany, Italy, Poland, UK

Software : X. Grave (IPN Orsay- France)

Data Flow, Services and GRID Storage

Hardware : H. Schaffner (GSI- Germany)

NSA (Network, Service and Administration) and Local infrastructure

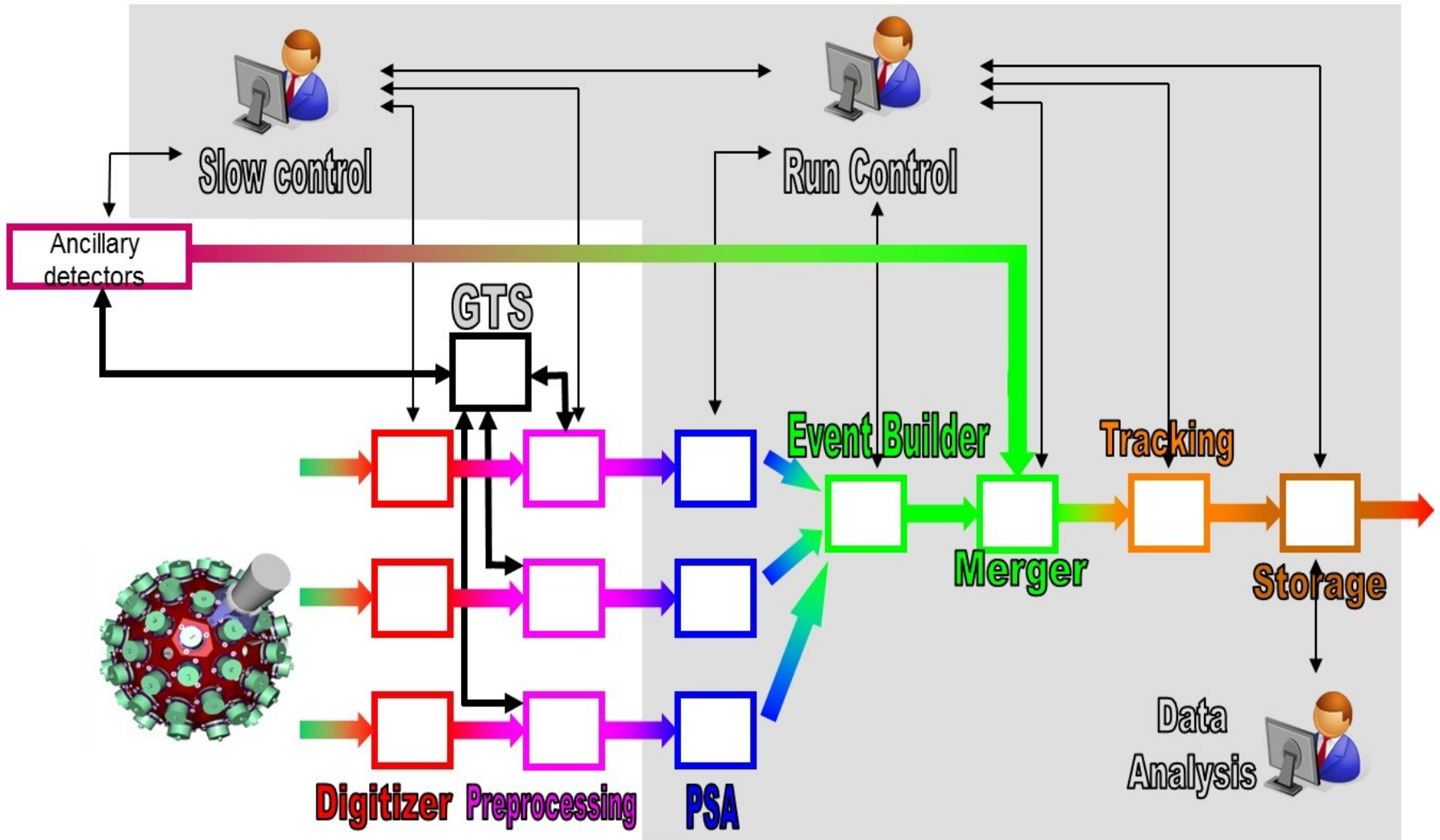
GEC (Global Electronics Control) : E. Legay (CSNSM- France)

Information Center from low level electronic control

(set-up, Display, Reset, ...)

DAQ Tasks are complexe : in Synergy with  
FE Electronics, Data Analysis, PSA, Tracking, Ancillaries  
and Infrastructure groups

# Data Flow structure : as it was @LNL





# The GSI Adventure for the AGATA-DAQ started before :

DAQ Installation started in December 2011

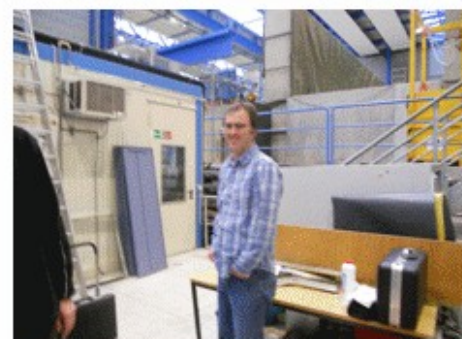
New material has been purchased for the DAQ :

Delivery of 29 HP machines, KVM and HP switch @GSI (IN2P3)	2011
Delivery of 6 new HP servers (Köln, Germany)	2012
25 machines for the crystals (Anodexx)	

December : Temporary installation of the DAQ  
Setting up the machines, switches and KVM at GSI

**Main actors for the installation : :**

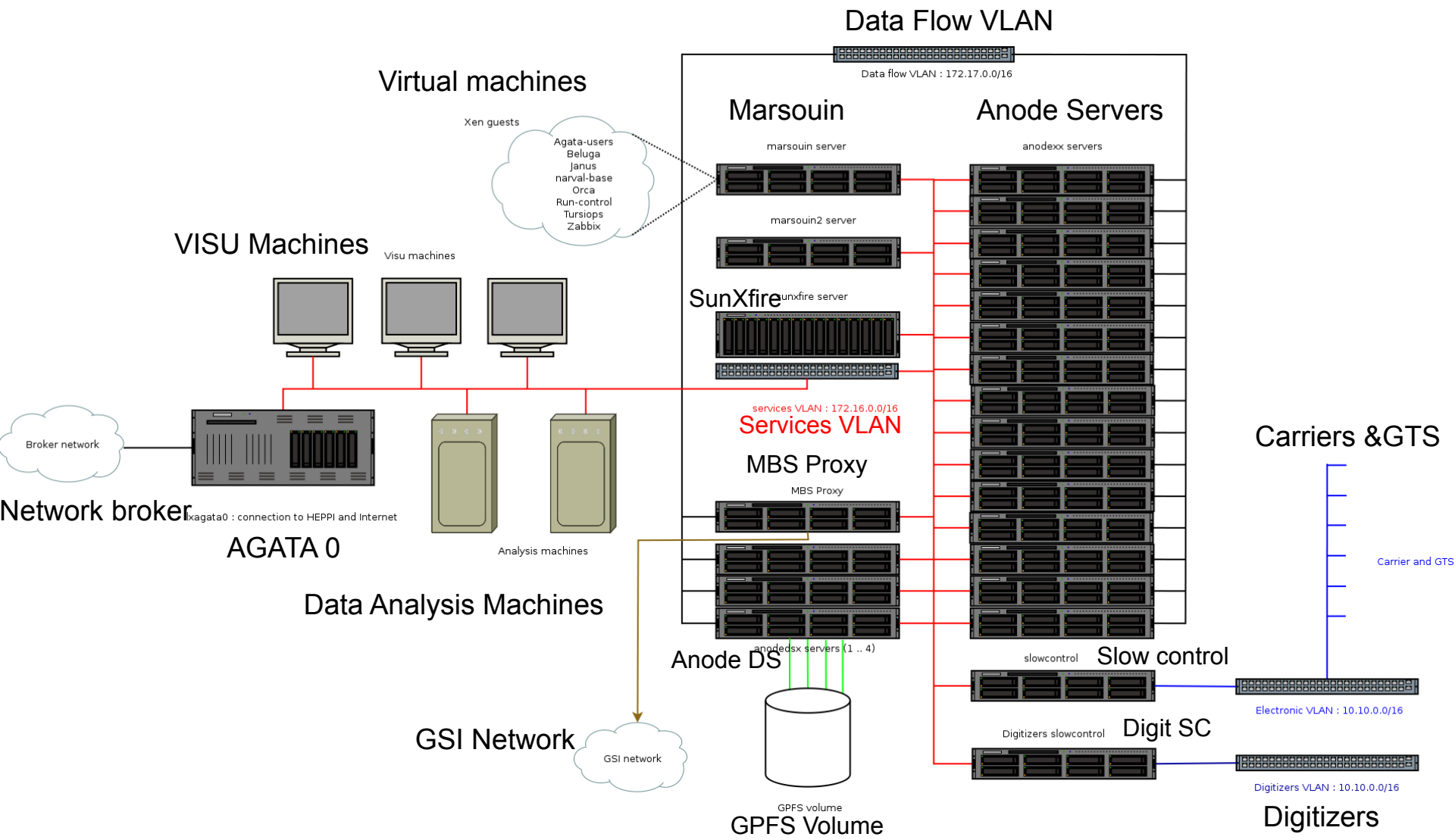
**Y. Aubert, N. Dosme, X. Grave and E. Legay -Orsay**  
**S. Pietri and H. Schaffner, F. Ameil and D. Ralet -GSI**





# Final container in the Meshute for the entire Hardware





## AGATA Network Diagram

DAQ rules in terms of access to the users from outside : New

New rules :

The final document will be available on the DAQ Web site

<http://csngwinfo.in2p3.fr/>

## AGATA DAQ Network at GSI : External Network Connections and rules

Internet access for AGATA-DAQ at GSI :

Restricted VPN access

SSH access : request

DAQ-AGATA to Internet :

Subversion access

Monotone access

Smtplib access

Data transfer

DAQ services

MBS-NARVAL bridge proxy

Personal devices : No personal device will be authorized on

AGATA network : EUDUROAM is available at GSI

# New NARVAL version has been implemented

The chain with 2 crystals : tested and working (Narval side) in March

– Tested at 30 kHz and 100 Hz

Wed Mar 28, 3:15 PM

carrier LSC GUI (on visu1)

Global Status & Control

● going [Progress Bar] 2.6 k [5k/s]

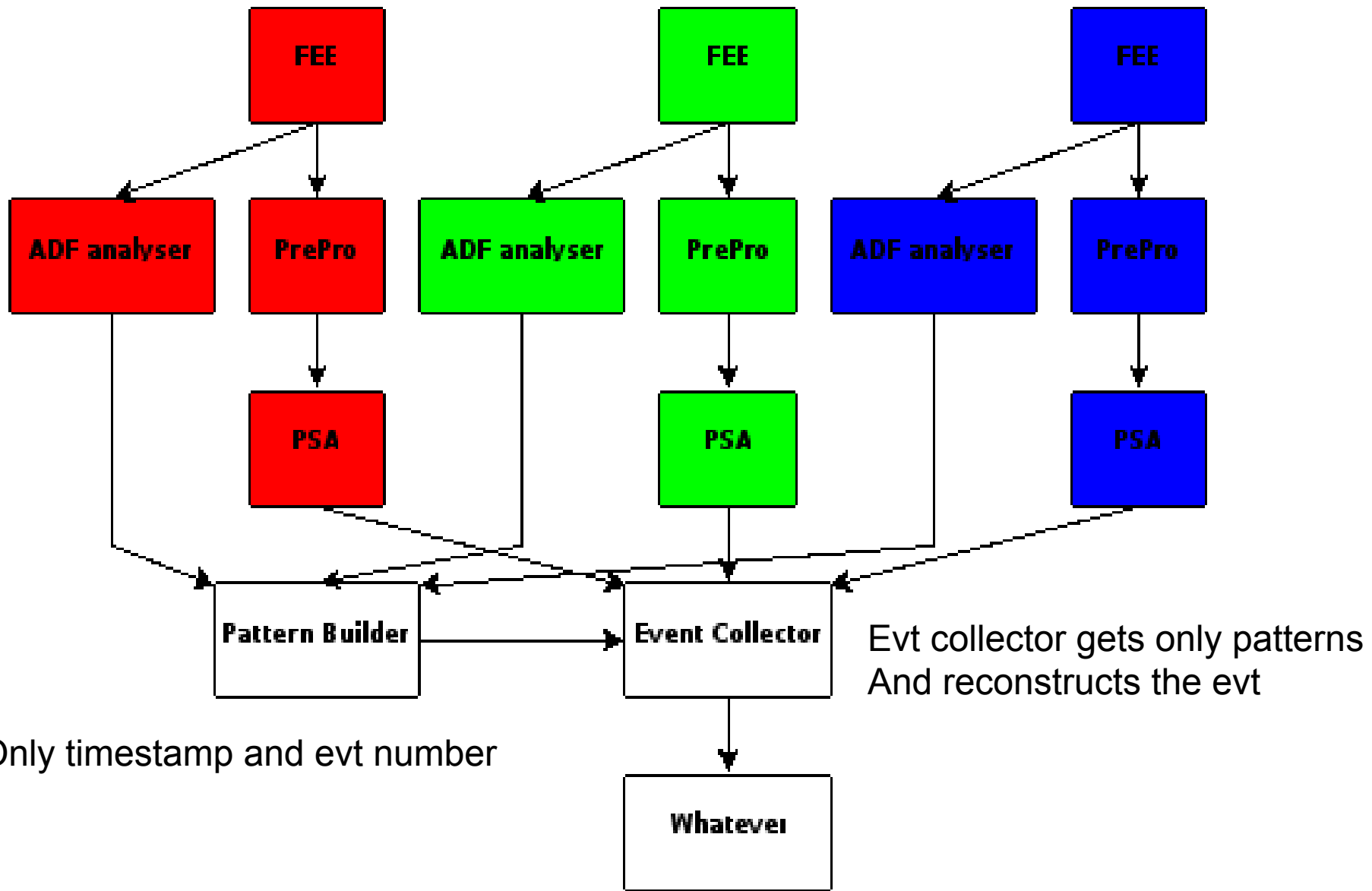
Crystals Status & Control Options Long Traces Expert Control View

▶ Go ■ Stop  Drain Load Conf SetUp Reset

Per Crystal Status & Control

1R	●	going	[Progress Bar]	2.8 k	5k/s	...
1G	●	going	[Progress Bar]	2.5 k	5k/s	...

A new topology is underway and consists in the development of a pattern builder based on the timestamp and event number : Improve the Data Flow Merger.





# Status of Krak (GUI)

J. Gerbocz tells us that Krak is the name of the king of Cracow  
The GUI has been installed with new features

The screenshot displays the Krak GUI interface. On the left, a data flow diagram shows components: Ch\_dO, data\_1R, data\_1G, prepro\_1R, prepro\_1G, psa\_1R, psa\_1G, event\_builder, and data\_sink. On the right, the 'event\_builder' details panel shows configuration parameters such as 'event\_builder', 'data\_sink', 'host\_name', 'rank', and 'state'. Below this is a table of parameters to be modified.

Parameter	Value
actif	TRUE
auxiliary_message_type_to_select	4294967295
composite_message_type	4294967295
entry_time_counter	0
current_directory	/home/prototype/
log_level	OFF
max_number_of_try	100
message_type_to_select	4134389794
output_message_type	4134389795
port	7080
remove_input_key	FALSE
ring_timeout	1.00000E+01
ring_window_width	200
watchdog_ms	1000

On the right side of the GUI, the 'Narval control' window is visible, showing a 'Reset' button, 'Configure' and 'Unconfigure' buttons, and 'Start' and 'Stop' buttons. The 'Start' button is highlighted in red. Below these buttons, the 'Current state' is shown as 'Running'. A terminal window on the far right displays performance statistics for various components, including 'Pre-ProcessingFilter', 'CrystalProducer', and 'PSAFilter', with columns for events, total time, and time per second (tss).



## Status of Storage and Data transfer to the GRID

Lyon-CC-IN2P3 connected to the HEPPI (only acronym) Network  
Following several investigations and discussions with the CC-IN2P3  
HEPPI is now known by the CC-IN2P3  
Data can be transferred via this pipe

Bologna not connected to the HEPPI  
Data can be sent via Ethernet connection

LNL phase P. Molini in charge of this task

GSI phase : S. Pietri in charge of the GRID data transfer

