



AgaSpy: A new online data monitoring tool

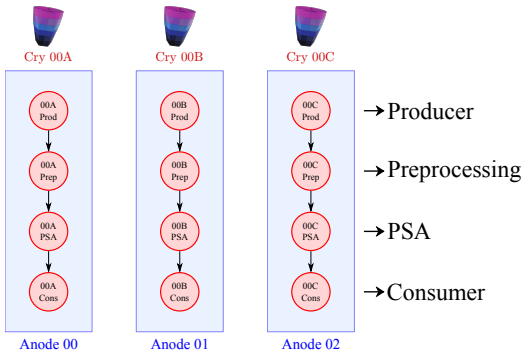
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Centre de Sciences Nucléaires et de Sciences de la Matière

AGATA Week 2018: 10-14 September 2018, IPHC, Strasbourg

How the online spy was done in the past

Local level processing



Data spy using GammaWare:

GammaWare send a request
to a narval actor



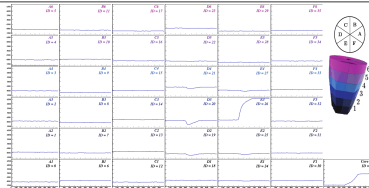
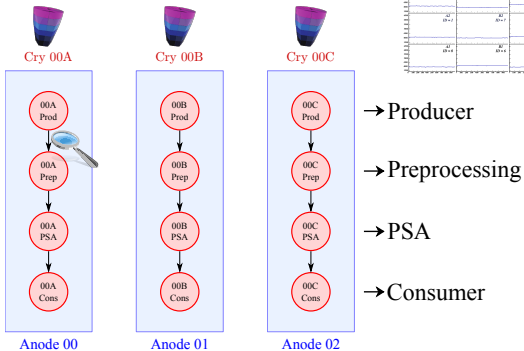
If possible, the actor returns
a buffer copy



The buffer is read by GammaWare,
and the spectra are filled

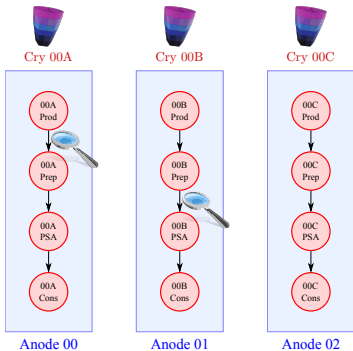
How the online spy was done in the past

Local level processing



How the online spy was done in the past

Local level processing

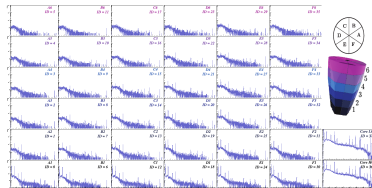
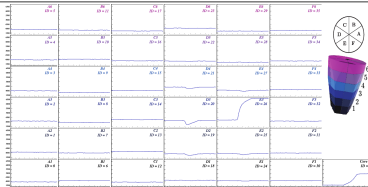


→ Producer

→ Preprocessing

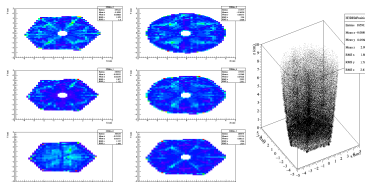
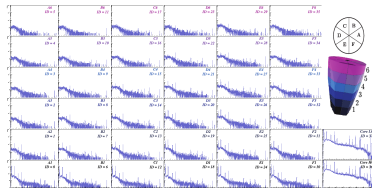
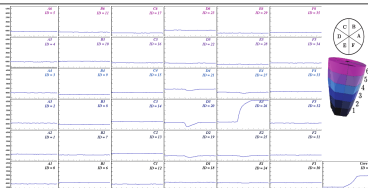
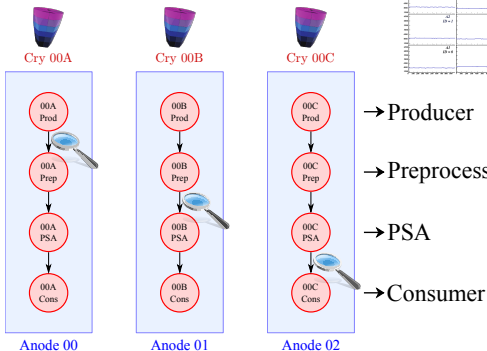
→ PSA

→ Consumer



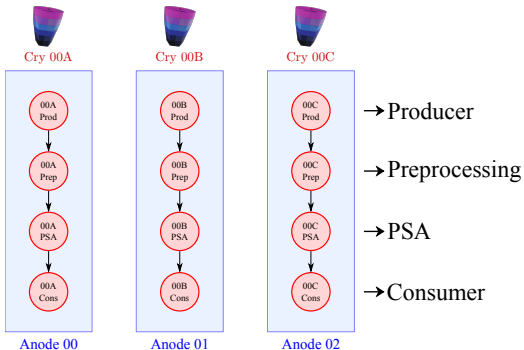
How the online spy was done in the past

Local level processing



How the online spy was done in the past

Local level processing



But no more used:

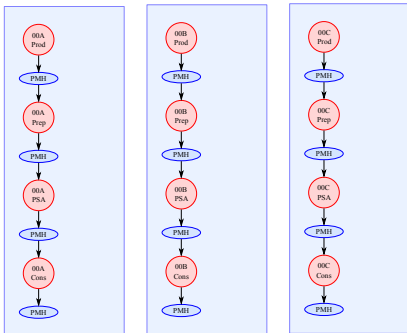
OK for 10 detectors, KO for >20

We only see a fraction of the dataflow,
data losses cannot be estimated

Not DCOD compatible

The new topology using DCOD

Local level processing

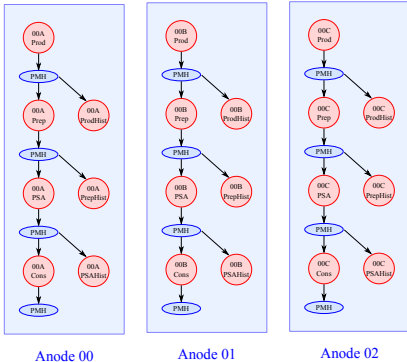


DCOD is in da house:

Actors are communicating together via Posix Memory Handler (PMH)

The new topology using DCOD

Local level processing



DCOD is in da house:

Actors are communicating together via Posix Memory Handler (PMH)

The idea is to use new "Consumer-type" actors dedicated to histograms building



Shared Memory Zone (SMZ)
 Histo1 Histo2 Histo3
 Histo4 Histo5 ...

DCOD will synchronize all the SMZs on a dedicated computer

The new topology using DCOD

Local level processing



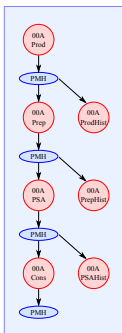
Cry 00A



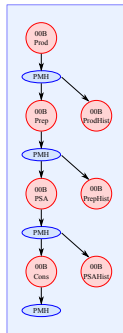
Cry 00B



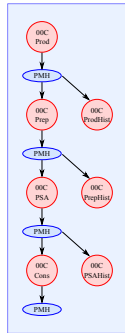
Cry 00C



Anode 00



Anode 01

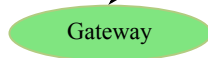


Anode 02

DCOD is in da house:

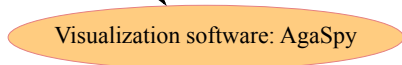
Anode 1 SMZ1 Anode 2 SMZ2 Anode N SMZN

permanent synchronization of the SMZs (DCOD)



Dedicated computer
SMZ1 SMZ2
..... SMZN

Spectra shared on the AGATA network (GRU)



From any computer on the network

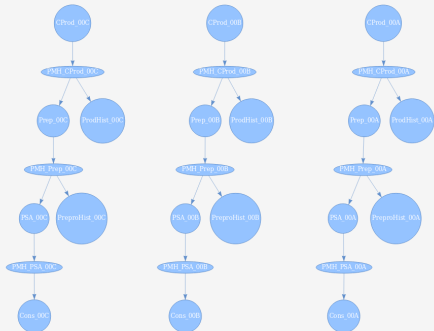
CONTROLLER - AgaSpy

Home Libraries Resources Files Actor Parameters Log Level - Delete 0

Overview

Controls

Log



Unconfigure

Clean

Start

AgaSpy

```

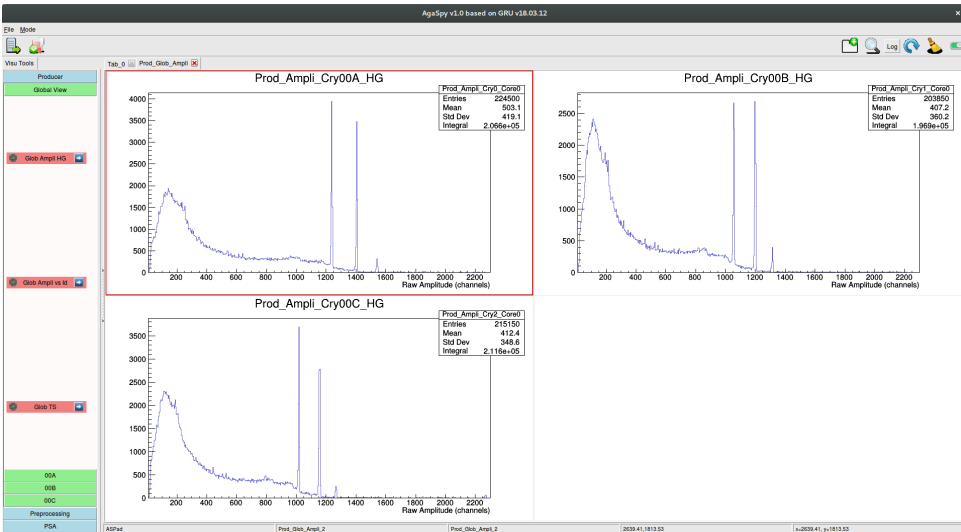
dudouet@dudouet-testdcod-client: ~/Softs/gammaSoftware_dcod
Fichier  Édition  Affichage  Rechercher  Terminal  Onglets  Aide
dudouet@dudouet-testdcod-actors: ~/Softs/TopoBuilder  x  dudouet@dudouet-testdcod-client: ~/Softs/gammaSoftware_d...  x  +  v
dudouet@dudouet-testdcod-client:~/Softs/gammaSoftware_dcod$ AgaGateway
AgaGateway IP : 134.158.199.6
AgaGateway Port: 56789
Refresh time of the SMZs: 2 seconds
List of actors :
ProdHist
PreproHist

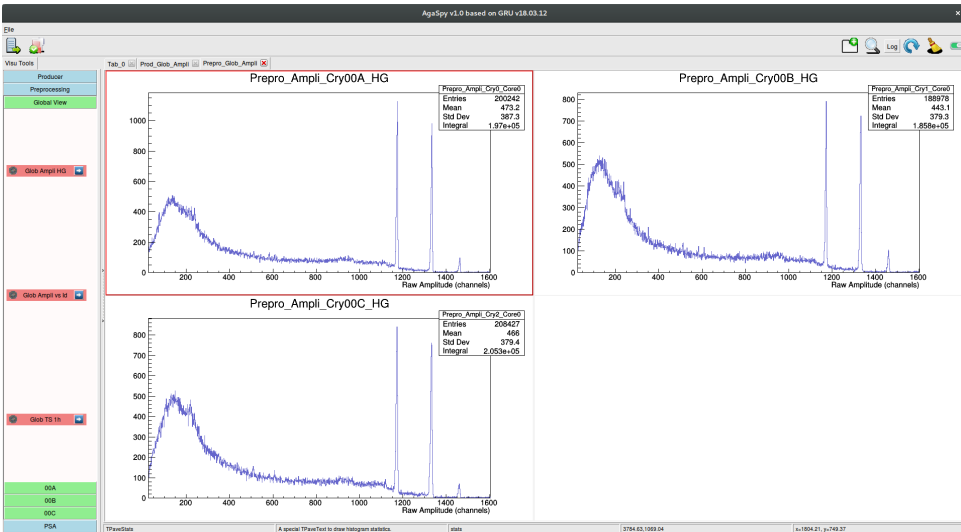
List of crystals :
Name  Id      Host           Ports:
00A   0       134.158.199.61 10000;11000;
00B   1       134.158.199.61 10001;11001;
00C   2       134.158.199.61 10002;11002;

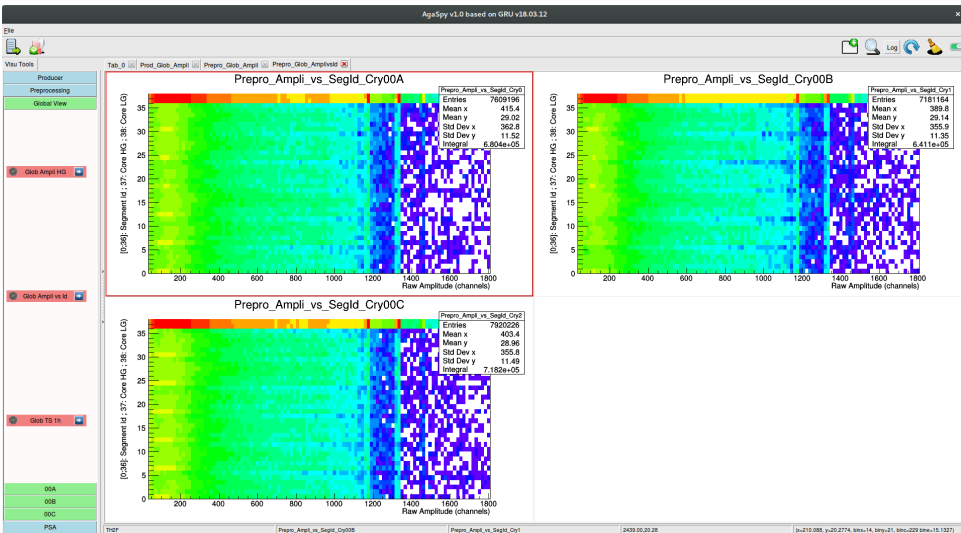
--> Info : Histogram data base created
--> Info : Spectra Server is running on port 56789
Link SMZ: ProdHist_000_clone
ProdHist_000_clone loaded : ==> 79 TH1 histograms
                        ==> 1 TH2 histograms
Link SMZ: ProdHist_001_clone
ProdHist_001_clone loaded : ==> 79 TH1 histograms
                        ==> 1 TH2 histograms
Link SMZ: ProdHist_002_clone
ProdHist_002_clone loaded : ==> 79 TH1 histograms
                        ==> 1 TH2 histograms
Link SMZ: PreproHist_000_clone
PreproHist_000_clone loaded : ==> 79 TH1 histograms
                        ==> 1 TH2 histograms
Link SMZ: PreproHist_001_clone
PreproHist_001_clone loaded : ==> 79 TH1 histograms
                        ==> 1 TH2 histograms
Link SMZ: PreproHist_002_clone
PreproHist_002_clone loaded : ==> 79 TH1 histograms
                        ==> 1 TH2 histograms

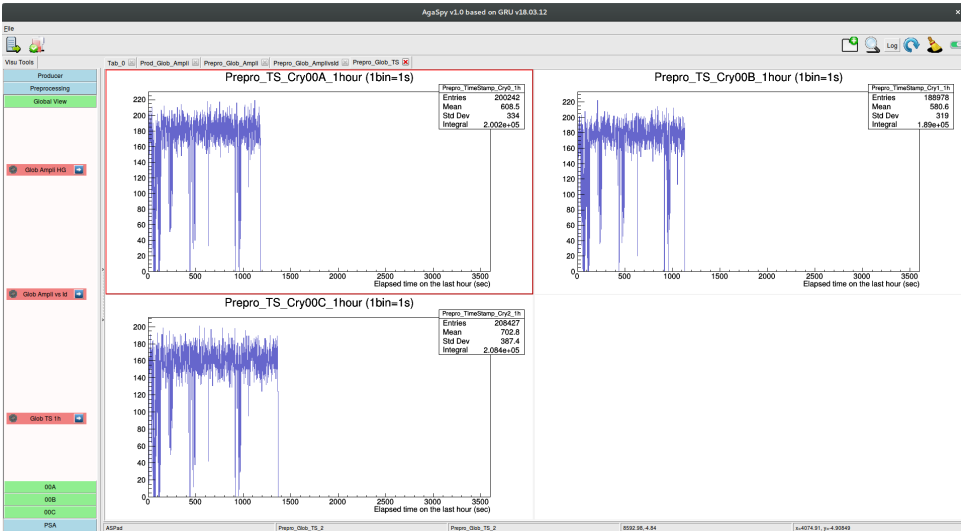
```

AgaSpy

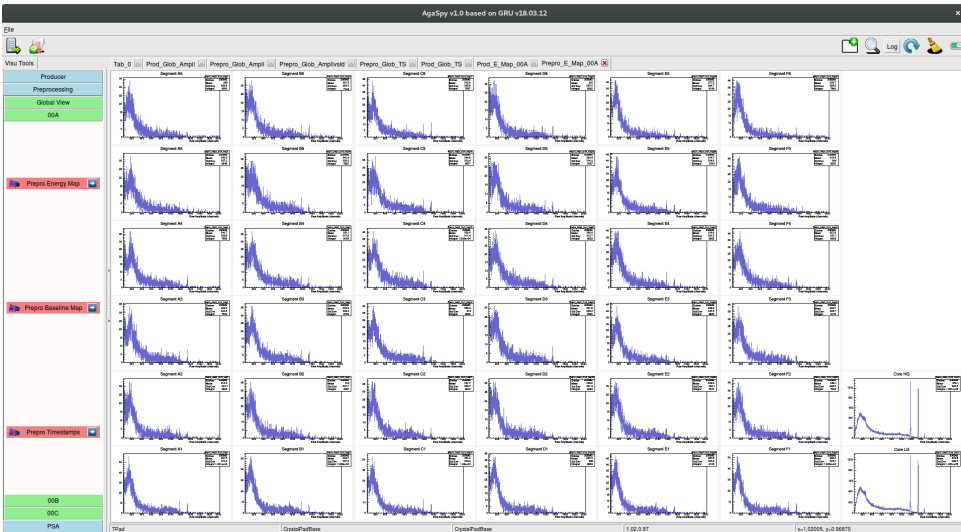


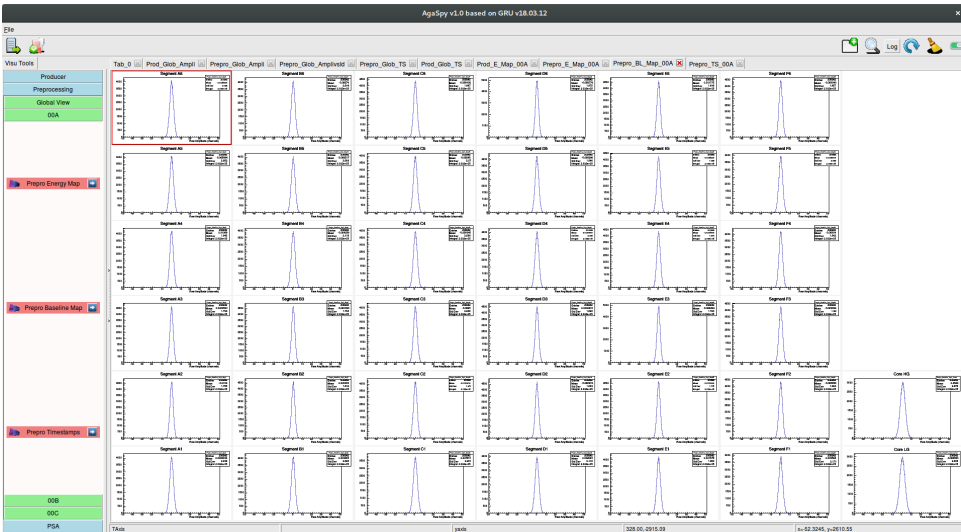




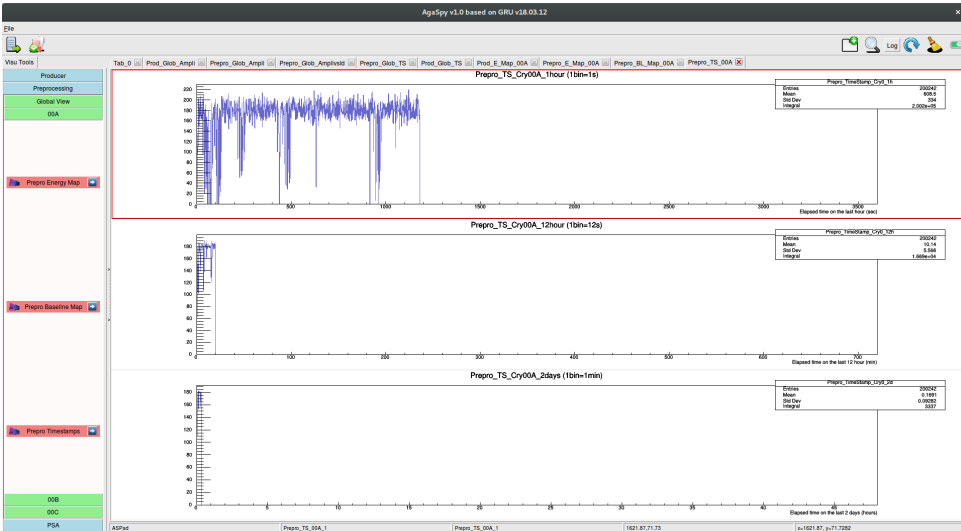


AgaSpy





AgaSpy



AgaSpy v1.0 based on GRU v18.03.12

Conclusions

- Tested and operational using 3 different computers on a network 🙌
- Tests on the GANIL site in real conditions at the end of October 🙌
- We can start thinking to the most relevant histograms that needs to be included !
 - ↳ but carefully selected to not overload the network 🖋️
- Thank you for your attention ! 👍

