

## *Archiving Workshop Conclusion*

- ❑ Archiving: Control System data stored/extracted in/from a Database
  
- ❑ Participants
  - ALBA
    - David Fernandez, Sergi Rubio, Tiago Coutinho, Ramon Suñe
  - ELETTRA
    - Claudio Scafuri, Gesner Passos
  - MAXLAB
    - Yury Gaponov, Piotr Goryl, Andreas Persson
  - SOLEIL
    - Majid Ounsy, Jérémy Guyot, Sandra Pierre-Joseph
  
- ❑ Summary of the planned Agenda
  - Archiving Status in each institute
  - Archiving systems presentation done by Users in the Machine Control Room (Thanks to L. Nadolski and X. Deletoille)
  - Non shared developments presentation
  - Collaborative work proposal
  - *Road-Map Definition*

## *Status per Institute*

	ALBA	ELETTRA	MAXLAB	SOLEIL
<b>HDB</b>	<ul style="list-style-type: none"> <li>- Used successfully during the Linac and Booster commissioning</li> <li>- About <b>3700</b> attributes are archived for the Booster, Linac and Storage Ring</li> <li>- <b>Requirements</b> : near <b>9000</b> for November 2010</li> </ul>	<ul style="list-style-type: none"> <li>- HdbArchiver are in events mode</li> <li>- Number of archiver attributes is about <b>1300</b> for Elettra and <b>450</b> for Fermi (increasing)</li> <li>- Storage policy : hold <b>on-line</b> only the last <b>2 runs</b></li> </ul>	<ul style="list-style-type: none"> <li>- Has been deployed on one beamline one year ago</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Machine</i> :</li> <li>- <b>8900</b> attributes</li> <li>- <b>5 years</b> of online data</li> </ul>
<b>TDB</b>	<ul style="list-style-type: none"> <li>- Has been <b>tested</b> with <b>4000</b> attributes archived at <b>1s</b></li> <li>- Not fully deployed : more difficult to manage due to the temporary files management</li> </ul>		<ul style="list-style-type: none"> <li>- Is under testing and setting-up for the BPM data collection</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Machine</i> :</li> <li>- <b>6500</b> attributes</li> <li>- Data are available <b>30 days</b></li> <li>- <i>Beamlines</i> :</li> <li>- Available since a long time</li> <li>- Data are available <b>20 days</b> (easily configurable per beamline)</li> <li>- Minimal archiving period equals to 1 s</li> </ul>
<b>SNAP</b>	<ul style="list-style-type: none"> <li>- 23 contexts</li> <li>- But some performance problems have been encountered and have to be analysed</li> </ul>		<ul style="list-style-type: none"> <li>- will be tested</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Machine</i> :</li> <li>- oracle engine has been updated</li> <li>- operators using it, finally</li> <li>- <i>Beamlines</i> :</li> <li>- available since a long time</li> </ul>
<b>ADB</b>				<ul style="list-style-type: none"> <li>- <i>Machine</i> :</li> <li>- deployed</li> <li>- GUI consolidation is ongoing and strongly awaiting by the operators</li> </ul>
	Full Mysql	Full Mysql	<ul style="list-style-type: none"> <li>- Full Mysql</li> <li>- HDB/TDB will be used for beamlines and storage ring</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Machine</i> : ORACLE</li> <li>- <i>Beamlines</i> :</li> <li>- MySql</li> <li>- Oracle infrastructure deployment is ongoing for HDB</li> </ul>

### ❑ ALBA

- PyTangoArchiving and CSV files are used for the archiving configuration
- E-Giga, Tau widgets and Mambo are used for the data visualization

### ❑ ELETTRA

- Configuration, Start and Start are done via Mambo
- Data visualization with E-Giga

### ❑ MAXLAB

- The archiving administration is done via Mambo
- Mambo and E-Giga is used for the extraction but problems have been encountered with both

### ❑ SOLEIL

- Mambo, MamboWeb and Bensikin are used

***Non Shared developments***

- ❑ ALBA: PyTangoArchiving Api communicates with Manager and Archiver devices
  - has been implemented for several reasons
    - can be easily accessed by the existing PyQt GUI's
    - allows to perform automated configuration of thousands attributs
    - some functionalities do not exist into the Archiving devices
    - due to slowness in Extractor devices (HDB/TDB/SNAP), it access directly to the MySql DB
  - PyTangoArchiving Api is already stored in CVS beside the GUI tools
  - The missing functionalities should be specified
  - The extraction mechanism can be improved

- ❑ ELETTRA: qHDB is a Historical Database Archiver device based on Qtango, C++
  - It is an experiment device used to test some ideas and features
  - It helps them to have a better understanding of the DB or Tango connections problems
  
- ❑ MAXLAB : AMonitor, C++ GUI
  - collects data from attributes and stores them in a file
  - allows to observe online last collected data and to browse previously collected data at the same time
  - ➔ planned to be connected to the Tango Archiving System
  
- ❑ SOLEIL : Alarm Archiving (ADB)
  - is stored in the Soleil local CVS and not in the tango CVS

# *Collaboration Work*

## □ What ?

- HDB / TDB / SNAP / ADB
- SERVERS / GUI / API
- Oracle / MySql DB / Other as PostgreSQL?

## □ Who ?

- One project manager : first at Soleil and a shift can be made every n years ?
- One software developer or one contact per institute
- Advisory group to take part in global decisions

## □ Which technical environment ?

- UML usage for conception part
- Java development with Eclipse
  - linked with maven (via a plugin) / Linked with CVS and SVN (via plugin)
  - common and shared coding rules (via .xml files) / include quality tools as Find bugs
  - Branch creation easily
- Continuous integration thanks to Maven and Hudson
- An external access to Soleil repository is available

## □ Which organization?

- Request and Bug tracking usage for project collaborators and external users (with SourceForge, Mantis ?)
- Rules for features specification with pre-defined request level :
  - Simple bug / Evolution (→ can impact the current architecture) / new feature
- Road Map to take the main decisions with the new features
- How to organize the development follow-up ?
  - tele-conferencing, archiving workshops one day before each Tango Meeting

*Finally*

- ❑ One day meeting wasn't enough we haven't hold our planning !
- ❑ The collaboration concerns at least the Devices servers and so automatically the Java API
- ❑ It should be interesting to have the same level of functionalities between PyApi and Java API
- ❑ The PyTangoArchiving configuration module could take part of the archiving delivery
- ❑ Commands descriptions document is missing
- ❑ The communication between the institutes has to be improved
- ❑ Features are missing (Milliseconds management with the MySQL DB, Automatic refresh in Mambo ...)
- ❑ Archiving Releases have to be provided more often → **Ongoing**
- ❑ A draft document based on the collaboration proposal must be initialized by Soleil and updated by all → **Real Action Point**
- ❑ Co-development with Alba have to be started **ASAP** → **Soleil Organization Proposal**

→ **Many thanks to the collaboration people to make live the archiving system so well**