



Archiving Status

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Some figures

- **Accelerator (ORACLE DB):**
 - **HDB:** 16379 attributes, ~4.6 TB (+28% since 2013)
 - **TDB:** 8896 attributes, ~1.3 TB (+5%)
 - **SNAP:** 28220 snapshots (+63%)
 - Critical for Accelerator operation
- **Beamlines:**
 - **HDB (ORACLE):** 10 up to 450 attributes / beamline, used on all beamlines
 - **SNAP (MYSQL):**
 - Seldom use on most lines
 - Critical for PX1/PX2

Accelerator Running Devices

flowers (Archiving HDB - RG11) Control

Start New Start All Stop All Display All

59 Controlled Servers on flowers

- Level 1
 - HdbArchiver/01
 - HdbArchiver/02
 - HdbArchiver/03
 - HdbArchiver/04
 - HdbArchiver/05
 - HdbArchiver/06
 - HdbArchiver/07
 - HdbArchiver/08
 - HdbArchiver/09
 - HdbArchiver/10
 - HdbArchiver/11
 - ds_CompactPCICrate/flowers
- Level 2
 - HdbArchiver/12
 - HdbArchiver/13
 - HdbArchiver/14
 - HdbArchiver/15
 - HdbArchiver/16
 - HdbArchiver/17
 - HdbArchiver/18
 - HdbArchiver/19
 - HdbArchiver/20
 - HdbArchiver/21
 - HdbArchiver/22
 - HdbArchiver/23
 - HdbArchiver/24
 - HdbArchiver/25
- Level 3
 - HdbArchiver/26
 - HdbArchiver/27
 - HdbArchiver/28
 - HdbArchiver/29
 - HdbArchiver/30
 - HdbArchiver/31
 - HdbArchiver/32
 - HdbArchiver/33
 - HdbArchiver/34
 - HdbArchiver/35
 - HdbArchiver/36
 - HdbArchiver/37
 - HdbArchiver/38
 - HdbArchiver/39
- Level 4
 - HdbArchiver/40
 - HdbArchiver/41
 - HdbArchiver/42
 - HdbArchiver/43
 - HdbArchiver/44
 - HdbArchiver/45
 - HdbArchiver/46
 - HdbArchiver/47
 - HdbArchiver/48
 - HdbArchiver/49
 - HdbArchiver/50
 - HdbArchiver/51
- Level 5
 - HDBTDBArchivingWatcher/HDB
 - HdbArchiver/CIG1
 - HdbArchiver/CIG2
 - HdbArchiver/MON1
 - HdbExtractor/1
 - HdbExtractor/2
 - HdbExtractor/SFS

Dismiss

270 HDBArchiver
devices

ds-tdb-srv2 (Archiving TDB (archiver 21-40)) Control

Start New Start All Stop All Display All

21 Controlled Servers on ds-tdb-srv2

- Level 1
 - ds_CompactPCICrate/ds-tdb-srv2
- Level 2
 - TdbArchiver/021
 - TdbArchiver/022
 - TdbArchiver/023
 - TdbArchiver/024
 - TdbArchiver/025
 - TdbArchiver/026
 - TdbArchiver/027
 - TdbArchiver/028
 - TdbArchiver/029
 - TdbArchiver/030
- Level 3
 - TdbArchiver/031
 - TdbArchiver/032
 - TdbArchiver/033
 - TdbArchiver/034
 - TdbArchiver/035
 - TdbArchiver/036
 - TdbArchiver/037
 - TdbArchiver/038
 - TdbArchiver/039
 - TdbArchiver/040

Dismiss

300 TDBArchiver
devices

ds-tdb-srv1 (Archiving TDB (archiver 1-20)) Control

Start New Start All Stop All Display All

21 Controlled Servers on ds-tdb-srv1

- Level 1
 - ds_CompactPCICrate/ds-tdb-srv1
- Level 2
 - TdbArchiver/001
 - TdbArchiver/002
 - TdbArchiver/003
 - TdbArchiver/004
 - TdbArchiver/005
 - TdbArchiver/006
 - TdbArchiver/007
 - TdbArchiver/008
 - TdbArchiver/009
 - TdbArchiver/010
- Level 3
 - TdbArchiver/011
 - TdbArchiver/012
 - TdbArchiver/013
 - TdbArchiver/014
 - TdbArchiver/015
 - TdbArchiver/016
 - TdbArchiver/017
 - TdbArchiver/018
 - TdbArchiver/019
 - TdbArchiver/020

Dismiss

ds-tdb-srv3 (Archiving TDB (archiver 41-60)) Control

Start New Start All Stop All Display All

21 Controlled Servers on ds-tdb-srv3

- Level 1
 - ds_CompactPCICrate/ds-tdb-srv3
- Level 2
 - TdbArchiver/041
 - TdbArchiver/042
 - TdbArchiver/043
 - TdbArchiver/044
 - TdbArchiver/045
 - TdbArchiver/046
 - TdbArchiver/047
 - TdbArchiver/048
 - TdbArchiver/049
 - TdbArchiver/050
- Level 3
 - TdbArchiver/051
 - TdbArchiver/052
 - TdbArchiver/053
 - TdbArchiver/054
 - TdbArchiver/055
 - TdbArchiver/056
 - TdbArchiver/057
 - TdbArchiver/058
 - TdbArchiver/059
 - TdbArchiver/060

Dismiss

Beamlines Running devices

Jive 4.28 (Read Only) [tangodb:20001,tangodb:20002]

File Edit Tools Filter

Read only mode (No write access to database allowed)

Server	Device	Class	Alias	Att. Alias	Property
	ds_TurboPump				
	ds_VacuumInterlockViewer				
	ds_VacuumThermocouple				
	ds_VacuumValve				
	ds_WaterFlowMeter				
	ds_XbpmBeamLine				
	ds_XPAD				
	EnumeratedAttribute				
	EnumeratedCommand				
	HdbArchiver				
	01				
	HdbArchiver				
	archiving/hdb/hdbarchiver.01_01				
	archiving/hdb/hdbarchiver.01_02				
	archiving/hdb/hdbarchiver.01_03				
	archiving/hdb/hdbarchiver.01_04				
	archiving/hdb/hdbarchiver.01_05				
	HdbArchivingWatcher				
	HdbExtractor				
	MicrodiffDS				
	Publisher				
	PX1CollectServer				
	PX1LoggingServer				
	SnapArchiver				

5 HDBArchiver devices per beamline

Refresh

Last Evolutions

- New archiving system monitoring device:

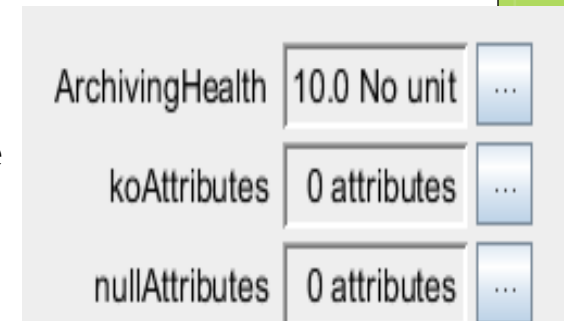
HDBTDBArchivingWatcher

- Reasons:

- Not enough information in the former one
- Code refactoring

- How does it work ?

- Searches for the attributes that do not respect their archiving period, or which have null values inserted in database
- Checks these attributes and their devices in tango (Do they exist? Are they alive? Is their interface still the same?...)
- Queries archivers about eventual known problems



ArchivingHealth	10.0 No unit	...
koAttributes	0 attributes	...
nullAttributes	0 attributes	...

Last Evolutions

- This new watcher is fully operational at SOLEIL

AtkPanel 4.8 : archiving/hdbarchivingwatcher/1

File View Preferences Help

archiving/hdbarchivingwatcher/1

All it's ok.
Cycle start : Thu Dec 05 09:52:56 CET 2013 - duration : 19 minute(s)
Checked attributes / total of attributes : 14967 / 14967 - KO : 193
Notification service : OFF

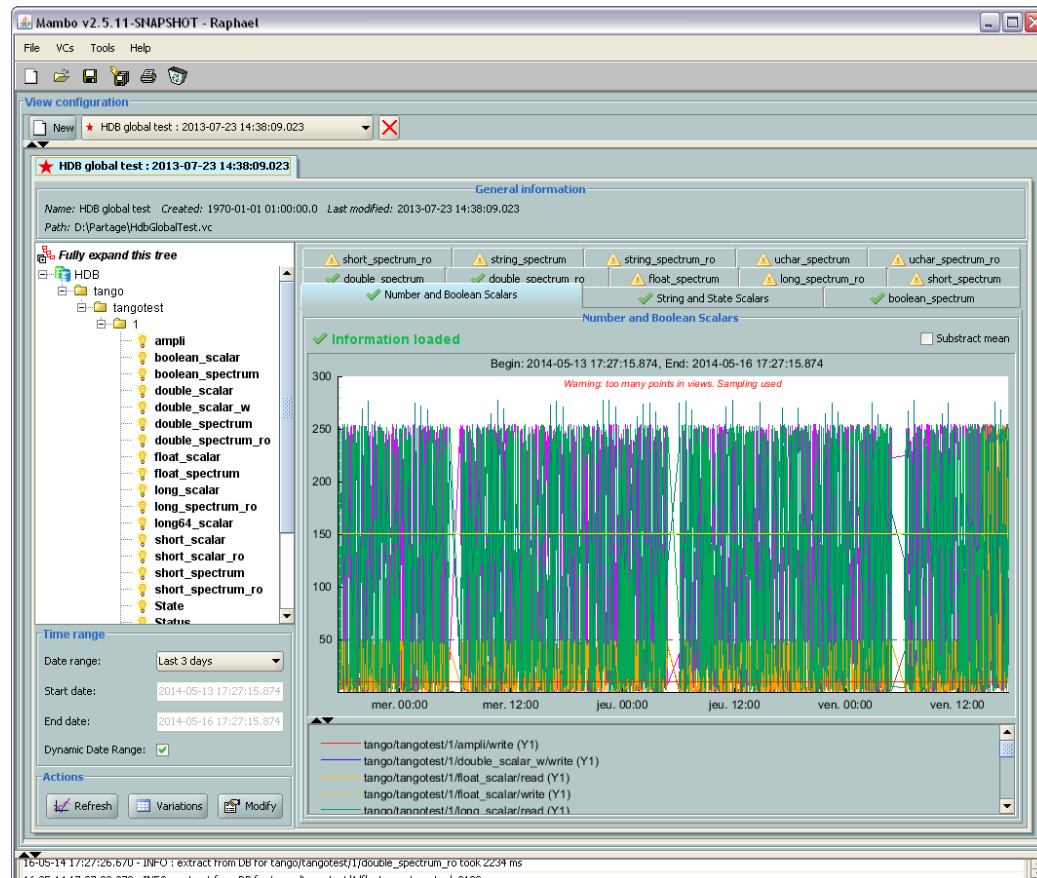
62
63 Read failed. Error Level 0: - desc: device is not properly initialized - origin: Libera::read_attr_hardware - reason: SOFTWARE_FAILURE - severity: ERRORError Level 1: - desc: Cannot re
64 Read failed. Error Level 0: - desc: device is not properly initialized - origin: Libera::read_attr_hardware - reason: SOFTWARE_FAILURE - severity: ERRORError Level 1: - desc: Cannot re
65 Read failed. Error Level 0: - desc: device is not properly initialized - origin: Libera::read_attr_hardware - reason: SOFTWARE_FAILURE - severity: ERRORError Level 1: - desc: Cannot re
66 Read failed. Error Level 0: - desc: device is not properly initialized - origin: Libera::read_attr_hardware - reason: SOFTWARE_FAILURE - severity: ERRORError Level 1: - desc: Cannot re
67 Read failed. Error Level 0: - desc: device is not properly initialized - origin: Libera::read_attr_hardware - reason: SOFTWARE_FAILURE - severity: ERRORError Level 1: - desc: Cannot re
68 Archiver error during archived attribute. No HdbCollector found for attribute 'ANS-C07/EI/M-HU65.2/encoder2Position' - Reason: ARCHIVING ERROR : Failed adding 'ANS-C07/EI/M-H
69 Archiver error during archived attribute. No HdbCollector found for attribute 'ANS-C07/EI/M-HU65.2/encoder3Position' - Reason: ARCHIVING ERROR : Failed adding 'ANS-C07/EI/M-H
70 Archiver error during archived attribute. No HdbCollector found for attribute 'ANS-C07/EI/M-HU65.2/fansOn' - Reason: ARCHIVING ERROR : Failed adding 'ANS-C07/EI/M-HU65.2/far
71 Unknown error. ANS-C07/VI/PLC.1-MSG/activeInterlocksLast insert is NULL
72 Unknown error. ANS-C07/VI/PLC.1-MSG/disappearedInterlocksLast insert is NULL
73 Unknown error. ANS-C07/VI/PLC.1-MSG/activeInterlocksLast insert is NULL
74

Scalar watchAttributes archivedAttributes

archiversStates report perDomainReport perAttributeReport perArchiverReport perFamilyReport diffReport log

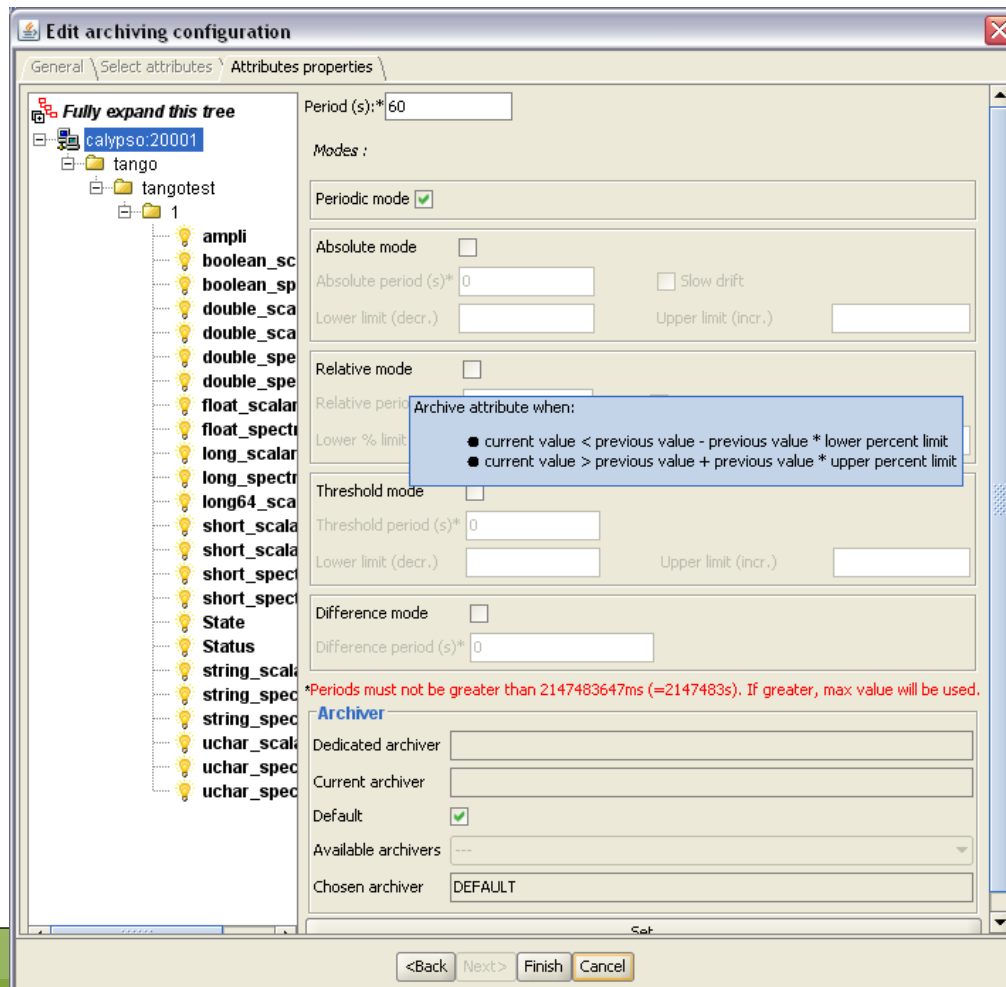
Last Evolutions

- Users better see data extraction state in mambo



Last Evolutions

- Mambo: Archiving modes description added in tooltips



Last Evolutions

- Bensikin: best comparison with current machine state
- Mambo and Bensikin: some optimizations in performances, and various bugs corrections

Side Developments

- DataBaseConnection: a tool to test the connection to your database

The screenshot shows a Java application window titled "DataBaseConnectionTester" with the following fields:

- Database type: Oracle
- Host: [Empty]
- Database name: [Empty]
- User: [Empty]
- Password: [Empty]
- Database schema: [Empty]
- Rac:
- ONS Configuration: [Empty]
- TNS Name: [Empty]

A "Connect.." button is located below the fields. At the bottom of the window are "Clear", "Save", and "Save as" buttons.

In the background, a terminal window shows a successful SSH connection to a remote host. Another window titled "Jive 4.33 (Read Only) [tangodb:20001 ,tangodb:20002]" is also visible.

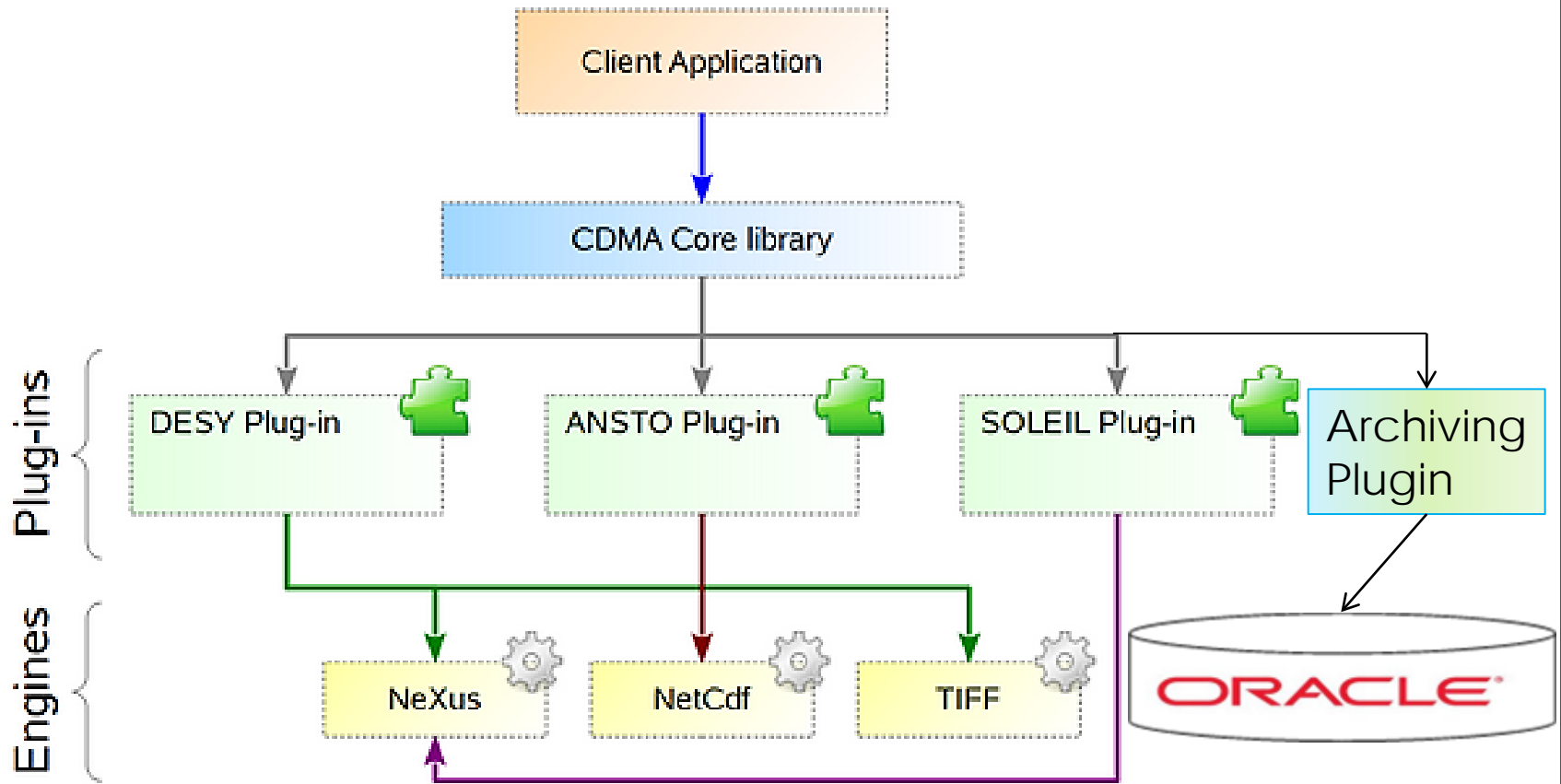
The "Class properties [HdbArchiver]" table is displayed on the right side of the application window:

Property name	Value
CommitCounter	100
CommitPeriod	60
DbCnxInactivityTimeout	1800
DbHost	172.17.30.4
DbMaxPoolSize	10
DbMinPoolSize	2
DBNAME	hdb
DbONSConf	thalie:6200,euterpe:6200,calliope:6200
DbSchema	swing
DbTnsNames	(DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST = 172.17.30.4)) (CONNECT_DATA = (SERVICE_NAME = hdb)))
Description	Device of Archiving system
Facility	false
isDegradMode	false
isRac	true
ProjectTitle	Tango Device Server
RacConnection	true

Buttons at the bottom of the table: Refresh, Apply, New property, Copy, Delete.

Side Developments

Archiving plugin for CDMA (CommonDataModelAccess)
Used by DataBrowser (more information later)



Upcoming developments

- Even more performances optimization for data visualization
- Mambo enhancements:
 - New data visualization modes
- Automation of equipment reconfiguration after a power outage thanks to Snapshots and HDB data, through Passerelle
- Integration of AlarmTool in ArchivingRoot (more information tomorrow)
- Better integration of Archiving package in green site

Conclusion

- SOLEIL contact
 - raphael.girardot@synchrotron-soleil.fr
- Reminder : Last Archiving packages are available on SOLEIL external MAVEN repository:
<http://www-controle.synchrotron-soleil.fr:8001/maven2/soleil/fr/soleil/packaging/ArchivingRoot/>
(last release = 14.3.1)
- Features requests or bug tracking
 - Please use the SourceForge tracker
- Questions ?