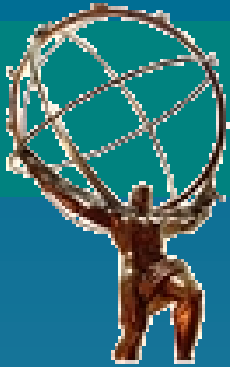


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New Global Tag Browser R10

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<http://www.cadcam.ge>



Global Tag Browser R10

- Technical Requirements were announced on ATLAS SW in March, 2012
- Almost ready but still in development folder:

<https://atlas-coolbrowser.web.cern.ch/atlas-coolbrowser/R10.1/#>

Technical Requirements

R10.0

```
graph TD; R10.0 --- Integration; R10.0 --- Functionality; R10.0 --- Interface;
```

Integration:

1. COMA tables
2. AMI data

Functionality:

1. Navigation in both platforms
CherryPy and COMA
2. Add tag Creation time, user details
3. Show number of IOV's for given
leaf tag
4. Select IOV's and displaying the
payload values for each of IOV
5. Plotting the payload values across
the range of IOV's

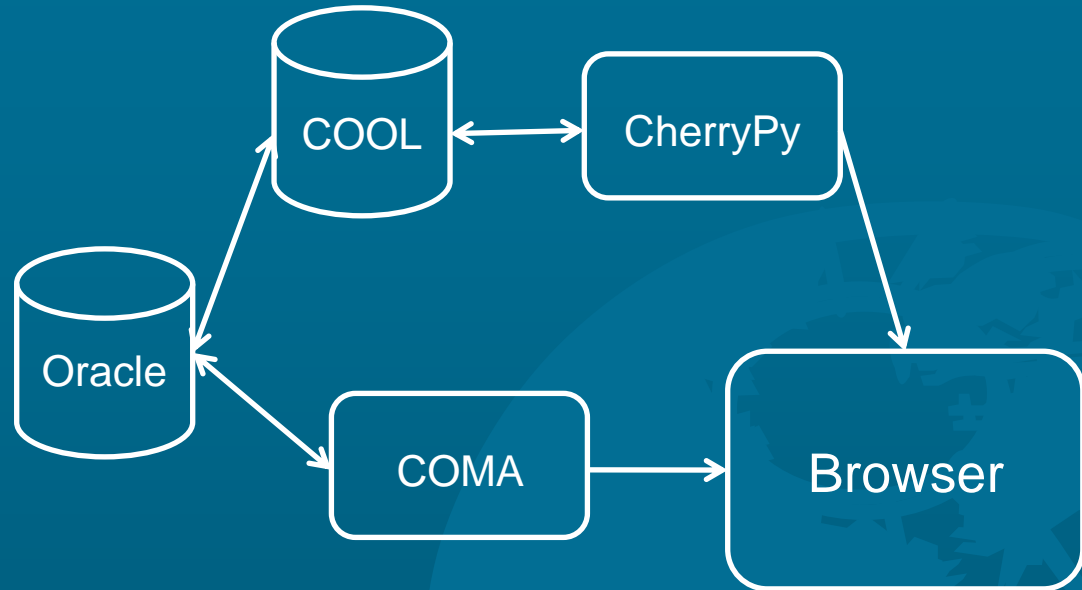
Interface:

1. Adding string box for entering the
global tag name, so to display
then list of all tags for all schema
2. Display tag which is used for
Bulk (Express stream) production
3. Add Labels
4. Display Query execution time
5. Bookmark the navigation
scenario in URL



COOL / COMA Integration

~~Which way is better?~~



Advantages

COMA:

1. Integration with other DB's
2. Performance

COOL:

1. Getting Payload data
2. Updated data

- In most of cases same navigation paths
- Synchronization of results is key issue



COOL / COMA Integration

Switcher

The screenshot displays the Tag Browser R10.0 interface. At the top, a 'Switcher' section contains two buttons for 'COMA' and 'COOL', with an arrow pointing to the 'COOL' button. To the right of the switcher are navigation icons: Diff, Trace, B.Trace, Bookmark, Home, Contact, and About. The main interface is divided into three panels: 'SCHEMA / DB', 'TAG', and 'DETAILS'. The 'SCHEMA / DB' panel shows a tree view of the database structure, with 'COMP200' expanded to show 'CALO' and its sub-objects. The 'TAG' panel shows a search bar and a list of tags, including 'CALOOfJetCalib-01-01-01' and 'CALOOfJetCalib-01-09'. The 'DETAILS' panel shows the hierarchy of the selected tag, including 'CALO/OfJetCalib/CALOOfJetCalib-01-01-01' and its sub-objects. At the bottom, there is a status bar with the text '3247.00 ms 1111.00 ms' and a list of current and next tags: 'Current : COMCOND-BLKPA-006-05', 'CurrentES : COMCOND-ES1PA-006-04', 'Next : COMCOND-BLKPA-006-06', and 'NextES : COMCOND-ES1PA-006-05'.

Tag BROWSER R10.0

ATLAS_COOLPROD ATLAS_COOLOFL_CALO COMP200 /CALO/OfJetCalib

SCHEMA / DB TAG Search DETAILS

OFFLINE CALO

COMP200

- /CALO
- /CALO/Of
- /CALO/Of/HadCalibration2
- /CALO/Of/HadCalibration2
- /CALO/Of/JetEnergyScale
- /CALO/Of/JetCalib
- /CALO/Of/JetCalib/EtaMassEnergyCorr
- /CALO/Of/JetCalib
- /JetPropertyInvertResponseTool
- /CALO/Of/JetCalib
- /MCNumInversionResponse
- /CALO/Of/JetCalib/OffsetCorrection
- /CALO/Of/JetCalib
- /TrackAngularCorrection
- /CALO/Of/JetCalib
- /TrackBasedResponseCorrection
- /CALO/Of/Noise
- /CALO/Of/Noise/CellNoise
- /CALO/Of/Noise/PileUpNoiseLumi
- /CALO/Of/Pedestal
- /CALO/Of/Pedestal/CellPedestal

OFPL200

3247.00 ms 1111.00 ms

Current : COMCOND-BLKPA-006-05
CurrentES : COMCOND-ES1PA-006-04
Next : COMCOND-BLKPA-006-06
NextES : COMCOND-ES1PA-006-05

- Switching buttons have cash for keeping navigation paths



Add tag Creation time, User details

New .py module in CherryPy

Tag BROWSER R10.0

SCHEMA / DB TAG DETAILS

OFFLINE CALO

COMP200

- /CALO
- /CALO/Ofi
- /CALO/Ofi/HadCalibration2
- /CALO/Ofi/HadCalibration2
- /CaloJetEnergyScale
- /CALO/Ofi/JetCalib
- /CALO/Ofi/JetCalib/EtaMassEnergyCorr
- /CALO/Ofi/JetCalib
- /JetPropertyInvertResponseTool
- /CALO/Ofi/JetCalib
- /MCNumInversionResponse
- /CALO/Ofi/JetCalib/OffsetCorrection
- /CALO/Ofi/JetCalib/TrackAngularCorrection
- /CALO/Ofi/JetCalib
- /TrackBasedResponseCorrection
- /CALO/Ofi/Noise
- /CALO/Ofi/Noise/CellNoise
- /CALO/Ofi/Noise/PileUpNoiseLumi
- /CALO/Ofi/Pedestal
- /CALO/Ofi/Pedestal/CellPedestal

OFI200

3247.00 ms 1111.00 ms

Current : COMCOND-BLKPA-006-05
CurrentES : COMCOND-ES1PA-006-04
Next : COMCOND-BLKPA-006-06
NextES : COMCOND-ES1PA-006-05

CreationTime: 2010-04-08_16:44:12.382490000 GMT

CreationTime: 2010-04-09_10:03:45.317172000 GMT

CreationTime: 2010-04-09_10:03:48.881521000 GMT

CreationTime: 2010-04-09_10:03:52.513458000 GMT

CreationTime: 2010-04-09_10:04:06.670385000 GMT

CreationTime: 2010-04-09_10:04:09.670385000 GMT

Hierarchy:

- /CALO/Ofi/CaloOff-repc-00
- /CALO/Ofi/HadCalibration2/CALOOffHadCalibration2-00
- /CALO/Ofi/HadCalibration2/CaloJetEnergyScale/CALOOffHadCalibration2CaloJetEnergyScale-GE008-QGSP-B
- /CALO/Ofi/Noise/CaloOffNoise-repc-00
- /CALO/Ofi/Noise/CellNoise/CaloOffNoiseCellNoise-REPC-00
- /CALO/Ofi/Noise/PileUpNoiseLumi/CALOOffNoisePileUpNoiseLumi-mu8
- /CALO/Ofi/Pedestal/CALOOffPedestal-02
- /CALO/Ofi/Pedestal/CellPedestal/CALOOffPedestalCellPedestal-UPD1-00

- Thanks to Misha Borodin



Add Search Functionality

String box for Search

The screenshot displays the Tag BROWSER R10.0 application. The main window shows a tree view of database schemas and a details pane for the selected tag 'CALO001-00'. A search result window is overlaid on the main interface, displaying a table of search results for the parameter 'CALO'. The search result window has a title bar 'Search Result' and a close button. The table contains the following data:

Parameter	Database	Schema	Instance	Folder	Tag Name
COOLONL	CALO	COMP200	/CALO/Identifier	/CaloTTONOffIdMapAtlas	CALOIdentifierCaloTTONOffIdMapAtlas-0000
COOLONL	CALO	COMP200	/CALO/JetCalib	/NumInvAntiKt4Topo	CALOJetCalibNumInvAntiKt4Topo-01-000
COOLONL	CALO	COMP200	/CALO/JetCalib	/NumInvAntiKt4Tower	CALOJetCalibNumInvAntiKt4Tower-01-000
COOLONL	CALO	COMP200	/CALO/JetCalib	/NumInvAntiKt6H1Topo	CALOJetCalibNumInvAntiKt6H1Topo-01-000
COOLONL	CALO	COMP200	/CALO/JetCalib	/NumInvAntiKt6H1Tower	CALOJetCalibNumInvAntiKt6H1Tower-01-000
COOLONL	CALO	COMP200	/CALO/JetCalib/NumInvKt6Topo		CALOJetCalibNumInvKt6Topo-01-000
COOLONL	CALO	OFLP200	/CALO/JetCalib	/NumInvCone4H1Topo	CALOJetCalibNumInvCone4H1Topo-01-000
COOLONL	CALO	OFLP200	/CALO/JetCalib	/NumInvCone4Topo	CALOJetCalibNumInvCone4Topo-01-000
COOLONL	CALO	OFLP200	/CALO/JetCalib	/NumInvKt4H1Tower	CALOJetCalibNumInvKt4H1Tower-01-000
COOLONL	CALO	OFLP200	/CALO/JetCalib/NumInvKt4Tower		CALOJetCalibNumInvKt4Tower-01-000
COOLONL	CALO	COMP200	/CALO/Noise/PileUpNoiseLumi		CALONoisePileUpNoiseLumi-mu8
COOLONL	CALO	COMP200	/CALO/Noise/PileUpNoiseLumi		CALONoisePileUpNoiseLumi-mu0
COOLONL	CALO	COMP200	/CALO/Noise/PileUpNoiseLumi		CALONoisePileUpNoiseLumi-LRD1-00

Search Result Window

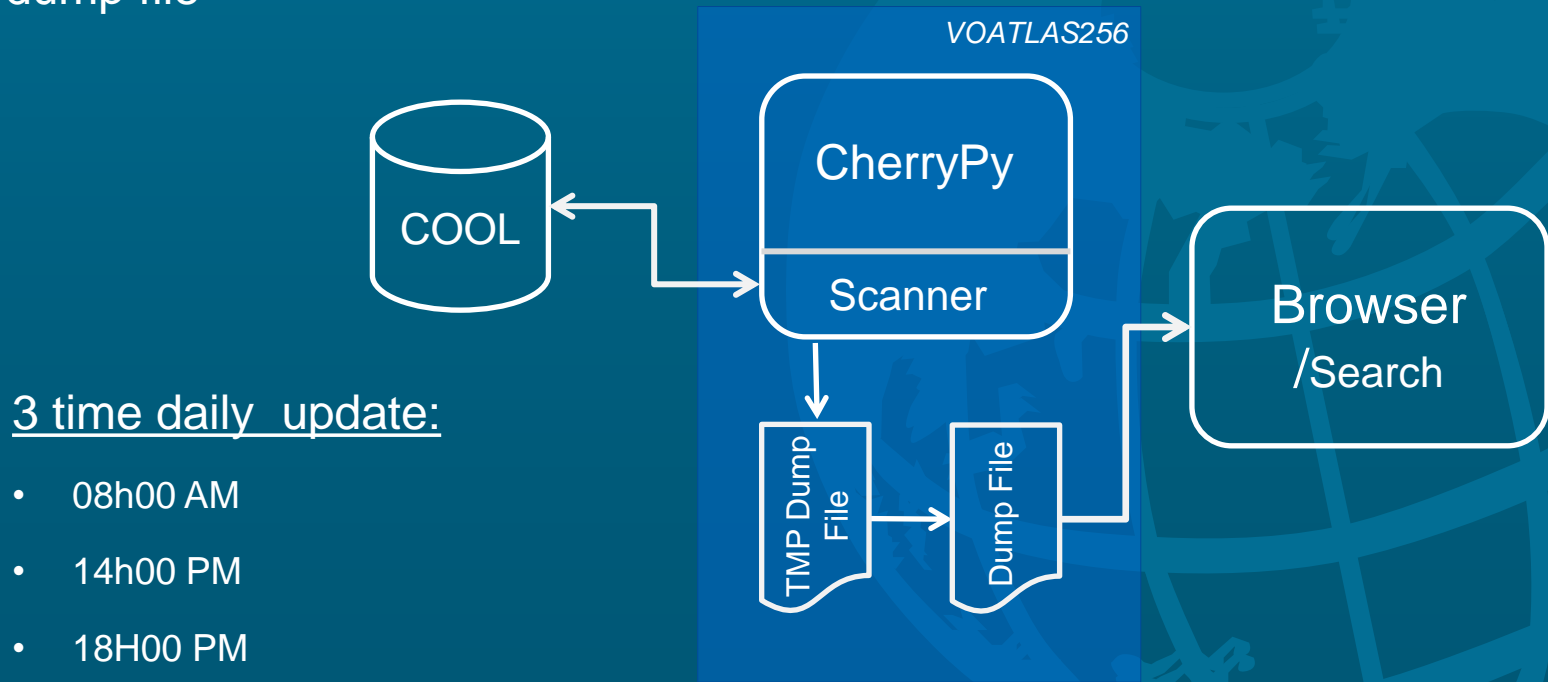


Add Search Functionality

We have tried different ways for search:

- Searching directly in Browser: Takes ~5min
- Searching by CherryPy on voatlas server: Takes ~4min

Finally we decide to create Scanner in CherryPy and search in dump file



Add Bulk Production Tags

The screenshot shows the 'Tag BROWSER R10.0' interface. At the top, there are navigation icons for COMA, COOL, Diff, Trace, B.Trace, Bookmark, Home, Contact, and About. The main area is divided into three sections: 'SCHEMA / DB', 'TAG', and 'DETAILS'. The 'SCHEMA / DB' section shows a tree view of the database structure, with 'COMP200' expanded to show various sub-folders like '/CALO' and '/CALO/Off'. The 'TAG' section has a search bar and a list of tags, including 'CALOOffJetCalib-01-01-01' and 'CALOOffJetCalib-01-09'. The 'DETAILS' section shows a hierarchy of tags, including 'CALO/Off/JetCalib/CALOOffJetCalib-01-01-01' and 'CALO/Off/JetCalib/EtaMassEnergyCorr/CALOOffJetCalibEtaMassEnergyCorr-1-1-1'. At the bottom, there is a status bar with the following information: '3247.00 ms 1111.00 ms', 'Current : COMCOND-BLKPA-006-05', 'CurrentES : COMCOND-ES1PA-006-04', 'Next : COMCOND-BLKPA-006-06', and 'NextES : COMCOND-ES1PA-006-05'. A red arrow points to the 'Current' and 'CurrentES' values.

- Tags names are reading from AFS folder [/afs.cern.ch/atlas/conditions/poolcond/buffer/BestKnowledge](http://afs.cern.ch/atlas/conditions/poolcond/buffer/BestKnowledge)



Display Query Execution Time

The screenshot displays the ATLAS COOLPROD database browser interface. The top navigation bar includes icons for COMA, COOL, Diff, Trace, B.Trace, Bookmark, Home, Contact, and About, along with the text 'Tag BROWSER R10.0'. The main interface is divided into three panels: 'SCHEMA / DB', 'TAG', and 'DETAILS'. The 'SCHEMA / DB' panel shows a tree view of the database structure, with 'COMP200' expanded to show 'CALO'. A red arrow points to the execution time '3247.00 ms 1111.00 ms' at the bottom of the schema view. The 'TAG' panel shows a search bar and a list of tags, including 'CALOOffJetCalib-01-01-01' and 'CALOOffJetCalib-01-09'. The 'DETAILS' panel shows a hierarchy of objects, including 'CALO/Off/JetCalib/CALOOffJetCalib-01-01-01' and 'CALO/Off/JetCalib/TrackBasedResponseCorrection'.

3247.00 ms 1111.00 ms

Current : COMCOND-BLKPA-006-05
CurrentES : COMCOND-ES1PA-006-04
Next : COMCOND-BLKPA-006-06
NextES : COMCOND-ES1PA-006-05

- Keeping previous execution time (ms) for comparison



Bookmark Navigation Path

The screenshot displays the ATLAS COOL browser interface. The top navigation bar includes icons for COMA, COOL, Diff, Trace, B.Trace, Bookmark, Home, Contact, and About. The main interface is divided into three panels: SCHEMA / DB, TAG, and DETAILS. The SCHEMA / DB panel shows a tree view of the database structure, with the path /CALO/Ofi selected. The TAG panel shows a list of tags, with the tag CaloOff-repc-02 selected. The DETAILS panel shows the hierarchy of the selected tag. A 'Copy to URL:' dialog box is open, showing the URL <https://atlas-coolbrowser.web.cern.ch>. A red arrow points from the 'Bookmark' icon in the top navigation bar to the 'Copy to URL:' dialog box. A green arrow points from the 'Bookmark Window' label to the dialog box. The status bar at the bottom shows the current and next schema and event stream (ES) information.

Tag BROWSER R10.0

SCHEMA / DB TAG Search DETAILS

OFFLINE CALO

COMP200

CALO

CALO/Ofi

CALO/Ofi/HadCalibration2

CALO/Ofi/HadCalibration2/CaloJetEnergyScale

CALO/Ofi/JetCalib

CALO/Ofi/JetCalib/EtaMassEnergyCorr

CALO/Ofi/JetCalib

/JetPropertyInvertResponseTool

CALO/Ofi/JetCalib

/MCNumInversionResponse

CALO/Ofi/JetCalib/OffsetCorrection

CALO/Ofi/JetCalib/TrackAngularCorrection

CALO/Ofi/JetCalib

/TrackBasedResponseCorrection

CALO/Ofi/Noise

CALO/Ofi/Noise/CellNoise

CALO/Ofi/Noise/PileUpNoiseLumi

CALO/Ofi/Pedestal

CALO/Ofi/Pedestal/CellPedestal

OFLP200

CALOOff-00

InsertionTime: Thu, 08 Apr 2010 16:44:12 GMT

CreationTime: 2010-04-08_16:44:12.382490000 GMT

CaloOff-repc-00

InsertionTime: Fri, 09 Apr 2010 10:03:45 GMT

CreationTime: 2010-04-09_10:03:45.317172000 GMT

CaloOff-repc-01

InsertionTime: Fri, 09 Apr 2010 10:03:48 GMT

CreationTime: 2010-04-09_10:03:48.881521000 GMT

CaloOff-repc-02

InsertionTime: Fri, 09 Apr 2010 10:03:52 GMT

CreationTime: 2010-04-09_10:03:52.513458000 GMT

CaloOff-repp-00

InsertionTime: Fri, 09 Apr 2010 10:04:09 GMT

CreationTime: 2010-04-09_10:04:06.670385000 GMT

CaloOff-repp-01

InsertionTime: Fri, 09 Apr 2010 10:04:09 GMT

CreationTime: 2010-04-09_10:04:06.670385000 GMT

Hierarchy:

CALO/Ofi/CaloOff-repc-00

CALO/Ofi/HadCalibration2/CALOOffHadCalibration2-00

CALO/Ofi/HadCalibration2/CaloJetEnergyScale/CALOOffHadCalibration2CaloJetEnergyScale-GEO08-QGSP-B

CALO/Ofi/Noise/CaloOffNoise-repc-00

CALO/Ofi/Noise/CellNoise/CaloOffNoiseCellNoise-REPC-00

CALO/Ofi/Noise/PileUpNoiseLumi/CALOOffNoisePileUpNoiseLumi-mu8

CALO/Ofi/Pedestal/CALOOffPedestal-02

CALO/Ofi/Pedestal/CellPedestal/CALOOffPedestalCellPedestal-UPD1-00

Copy to URL:

<https://atlas-coolbrowser.web.cern.ch>

OK Cancel

Bookmark Window

3247.00 ms 1111.00 ms

Current : COMCOND-BLKPA-006-05

CurrentES : COMCOND-ES1PA-006-04

Next : COMCOND-BLKPA-006-06

NextES : COMCOND-ES1PA-006-05

- https://atlas-coolbrowser.web.cern.ch/atlas-coolbrowser/R10.1/index.php?surlpath=ATLAS_COOLOFL_CALO/COMP200/CALO/Ofi&surltag=&surlres=payload

Next Steps

- Fix bugs which are now enough annoying
- Put Browser in Production folder under R10.0 release
- Add missing IOV staff – items #3, 4, 5 in technical requirements and modify release to R10.1. Looking forward to .py modules from Andrea
- Establish AMI connection and modify release to R10.2

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- Shaun Roe – for voatlas256 installations
- Misha Borodin – for .py modules
- Andrea Formica – for support and fresh ideas

Thanks for your Attention !