CTB R12 Development Status

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CTB Current Status

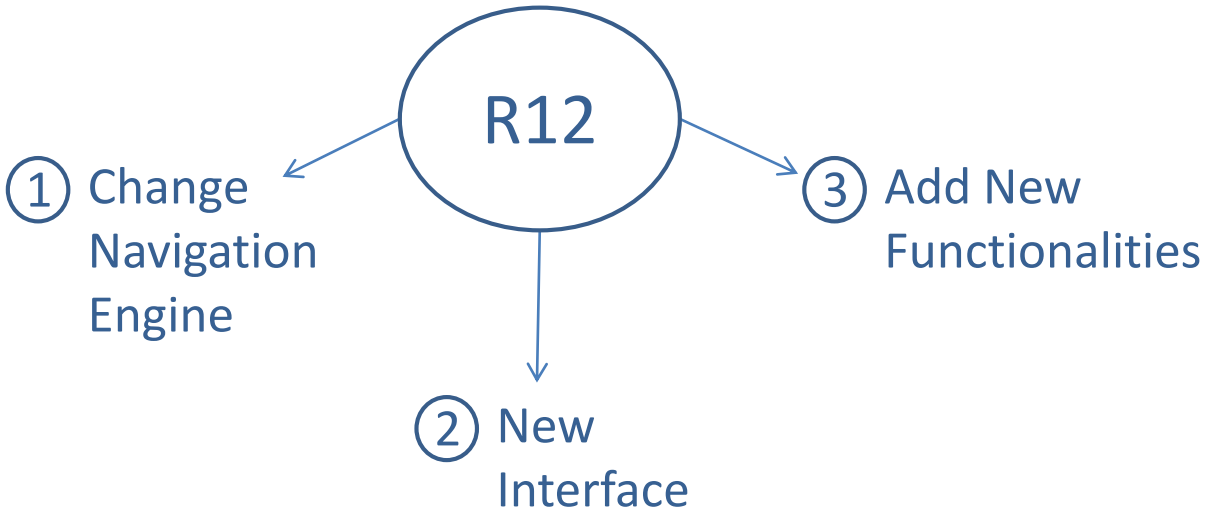
- R11 is in Production folder since December, 2014
  https://atlas-coolbrowser.web.cern.ch/atlas-coolbrowser/
- However people are still using R10 which is in auxiliary folder https://atlas-coolbrowser.web.cern.ch/atlas-coolbrowser/R10/
- Reason is that some functionalities of R10 are not available in R11 because of usage of different engines for navigation
- We have some unresolved bugs in R11 received from users

CTB Current Status

- Also we have some wishes from users for modifications not yet done
- Reason is that we start considering R11 as a intermediate step of development of new R12 release of CTB
- So we have put all our resources in development of R12

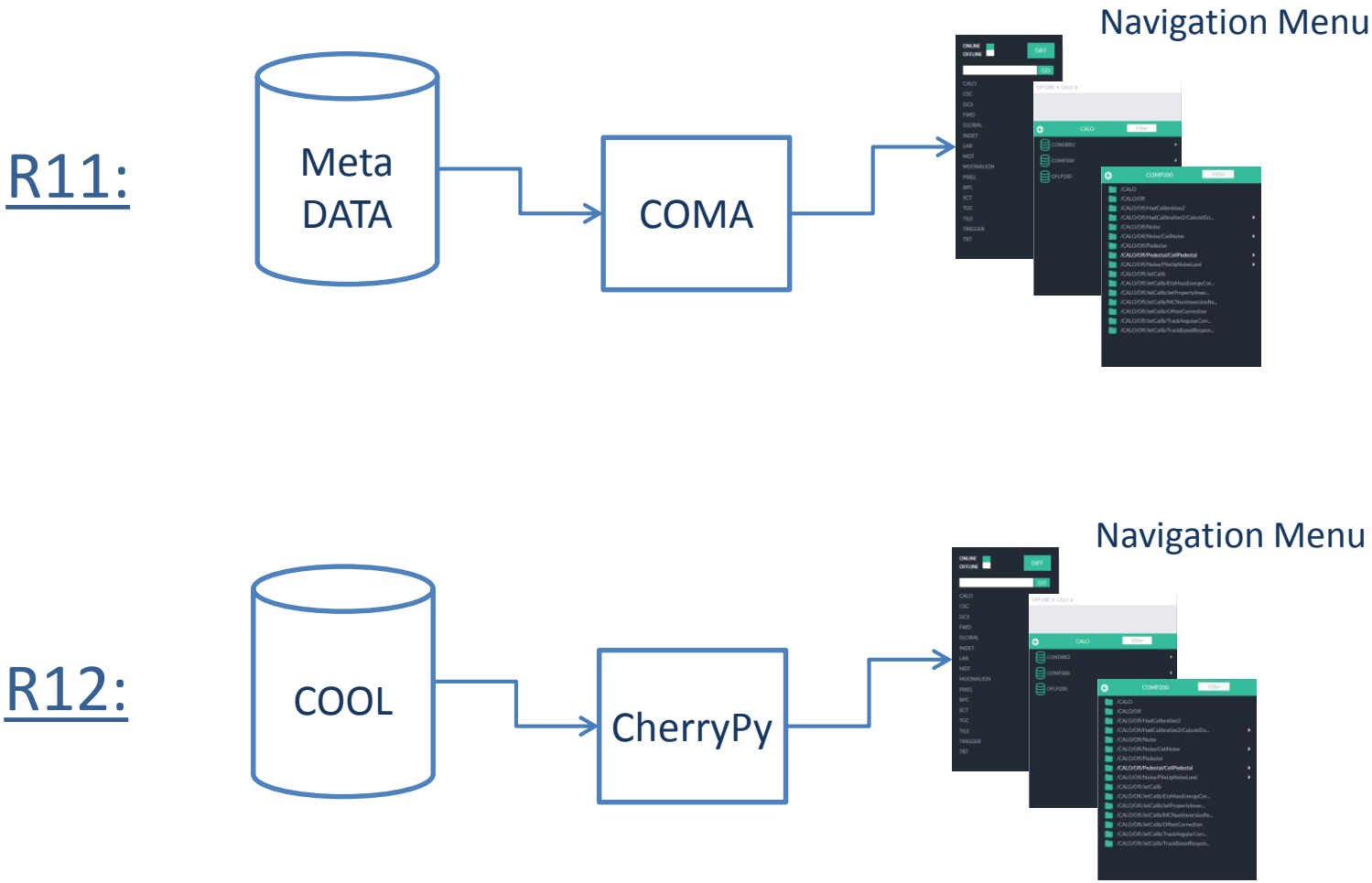
ATLAS Geometry Study

- We have 3 main steams of R12 development



- For the moment we are doing 1 and 2

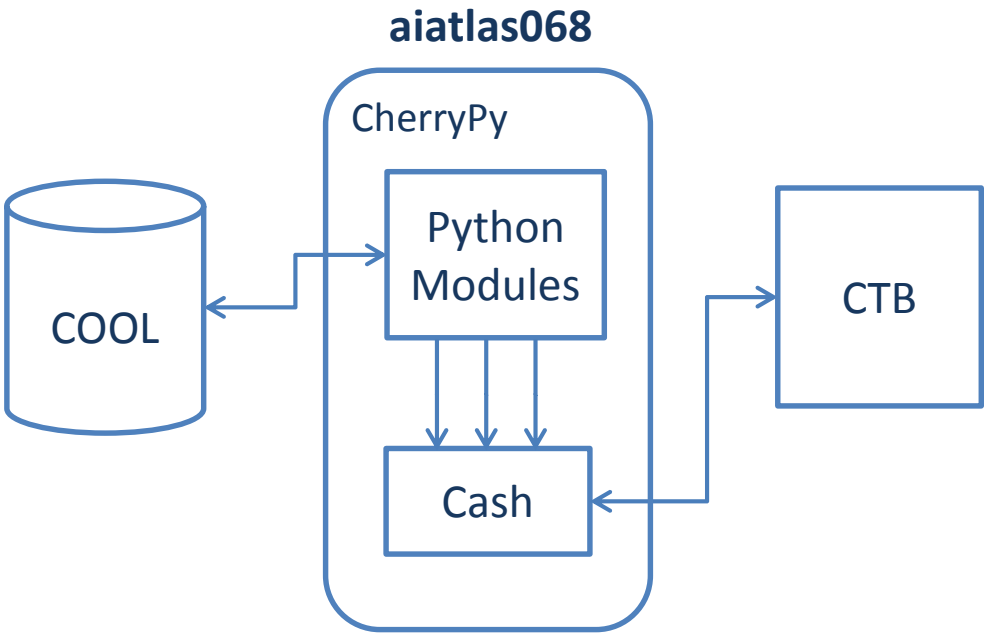
Change Navigation Engine



Change Navigation Engine

- We can not use CherryPy as a navigation engine because its low performance
- So it cause necessity to make modifications of CherrePy
- We built CherryPy development server **aiatlas068.cern.ch** which is hard copy of CherryPy production server **aiatlas067.cern.ch** (Many Thanks to Shaun Roe)
- We start development Cash memory for CherrePy on **aiatlas068** server

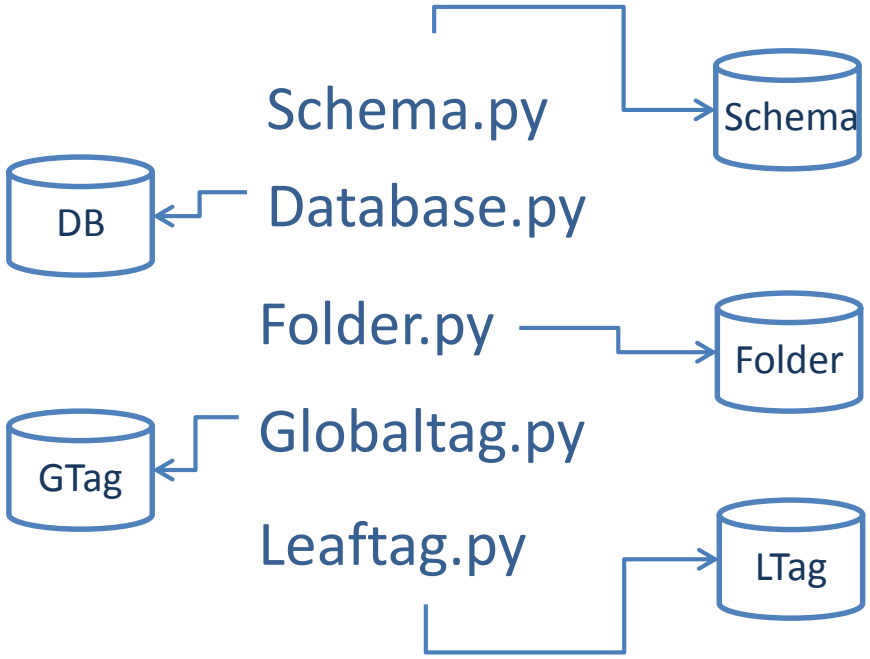
Change Navigation Engine



- So idea is that CTB R12 will get data not from COOL but from CherryPy Cash, which will solve problem related with performance

Change Navigation Engine

- We have developed 5 python modules



- Each .py module updates corresponding local database on **aiatlas068** according to request coming from the Php

Change Navigation Engine

- Main question: What will be a Cash update concept ?
- We have different options:
  - **Option #01**: Make daily updates automatically
  - **Option #02**: Let CTB users to make updates whenever they wants
  - **Option #03**: **#01** + **#02**

Change Navigation Engine

- We have advantages and disadvantages:
  - For **Option #01** we will avoid long standstills of users during the Cash updates, however will have 1 day old data in CTB
  - For **Option #02** we will let users know how old is CTB – time since last Cash update and then user will decide make update or not

Change Navigation Engine

- We did cash update time measurements and have values as follow:
  - Schema update: 1 sec
  - Database update: 16 sec
  - Folder update: 35 sec
  - GlobalTag update: 18 min
  - LeafTag update: 102 min
- So we have 2 heavy elements – GlobalTag update and LeafTag update

Change Navigation Engine

- Now about concept:
- We can provide ONE special button in CTB which allow users to make update all 5 local databases. However it will takes up to 2 hours
- Another option is to provide users in CTB 5 buttons for separate updates of corresponding databases. It will gives more flexibility to choose what to update however cause another problem of cash synchronization
- In addition for this option we can provide “age” of each local database. Then user will decide what are priorities and how much time he is ready to sacrifice to update procedure

New User Interface

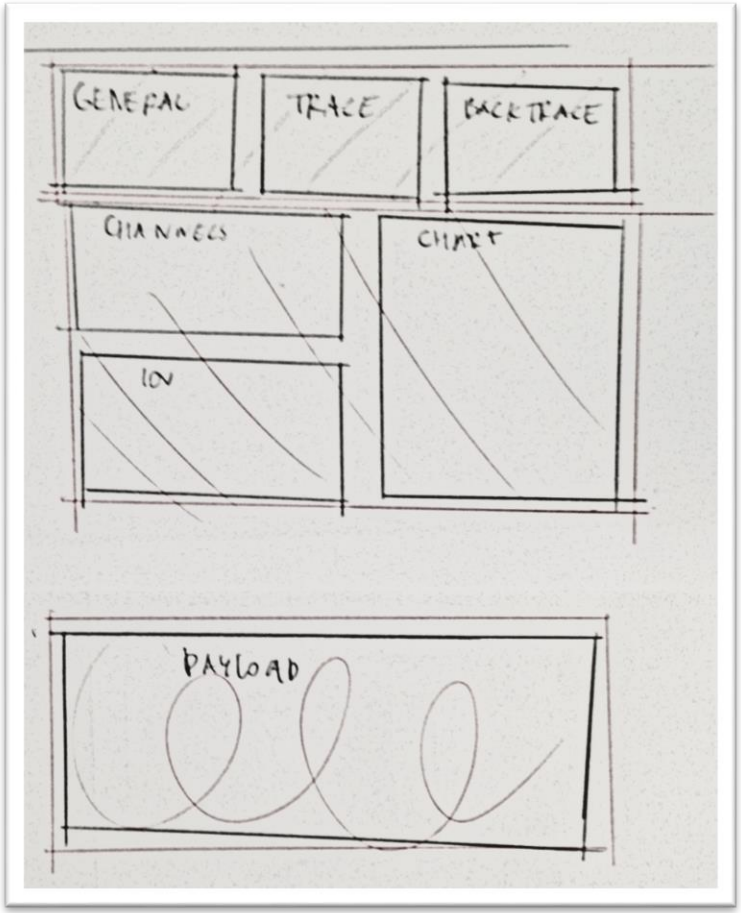
- We decide to built completely new environment for users copy some elements from R11
- We provide 7 separate fields for data output:
  1. GENERAL – descriptive information about selected tag
  2. TRACE
  3. BACKTRACE
  4. CHANNELS – list of channels for selected tag
  5. IOV – list of IOV blocks for selected channel
  6. CHART – IOV holes chart
  7. PAYLOD – Payload data for selected IOV block

New User Interface

- User can activate or deactivate any field and decide how to organize CTB screen
- However we add some limitations:
  - Can not activate IOV field if CHANNELS field is not activated
  - Can not activate PAYLOAD if CHANNELS And IOV fields are not activated
  - GENERAL, TRACE, BACKTRACE and CHANNELS fields have no limitations

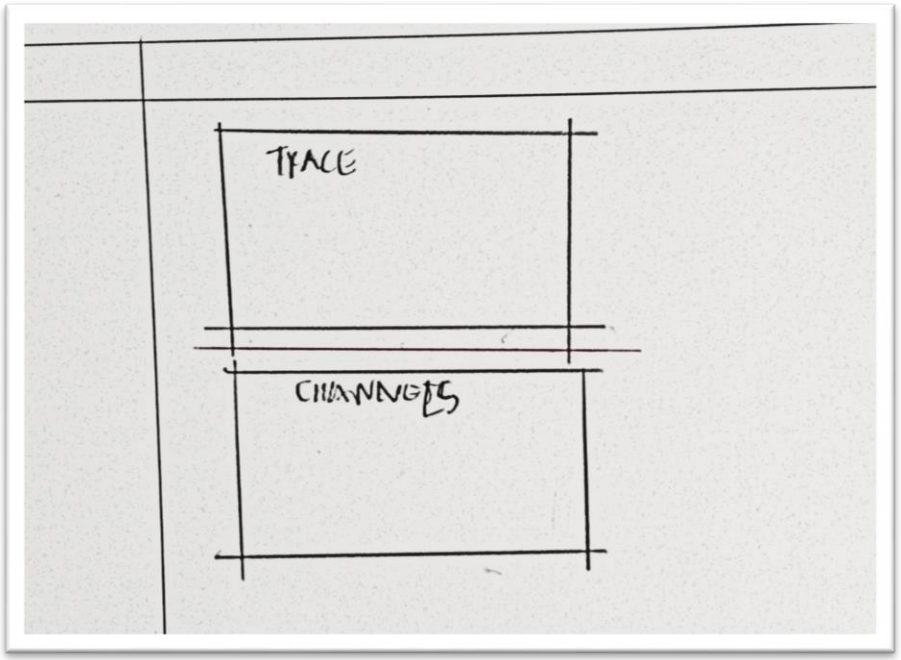
New User Interface

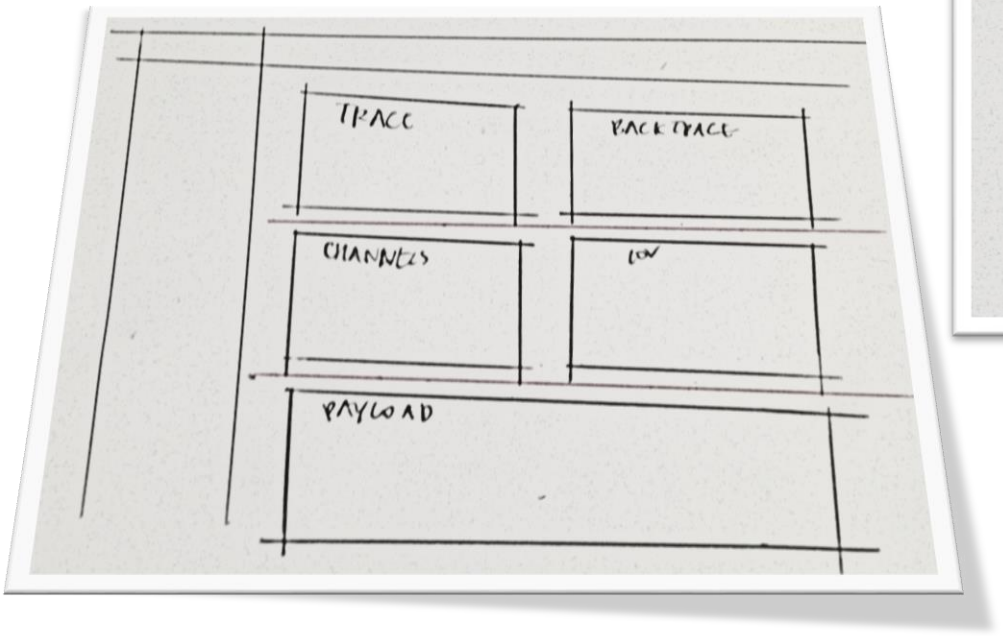
- We grouped fields into 3 groups and make them freely movable and resizable inside the group



New User Interface

- Different possibilities of screen organization

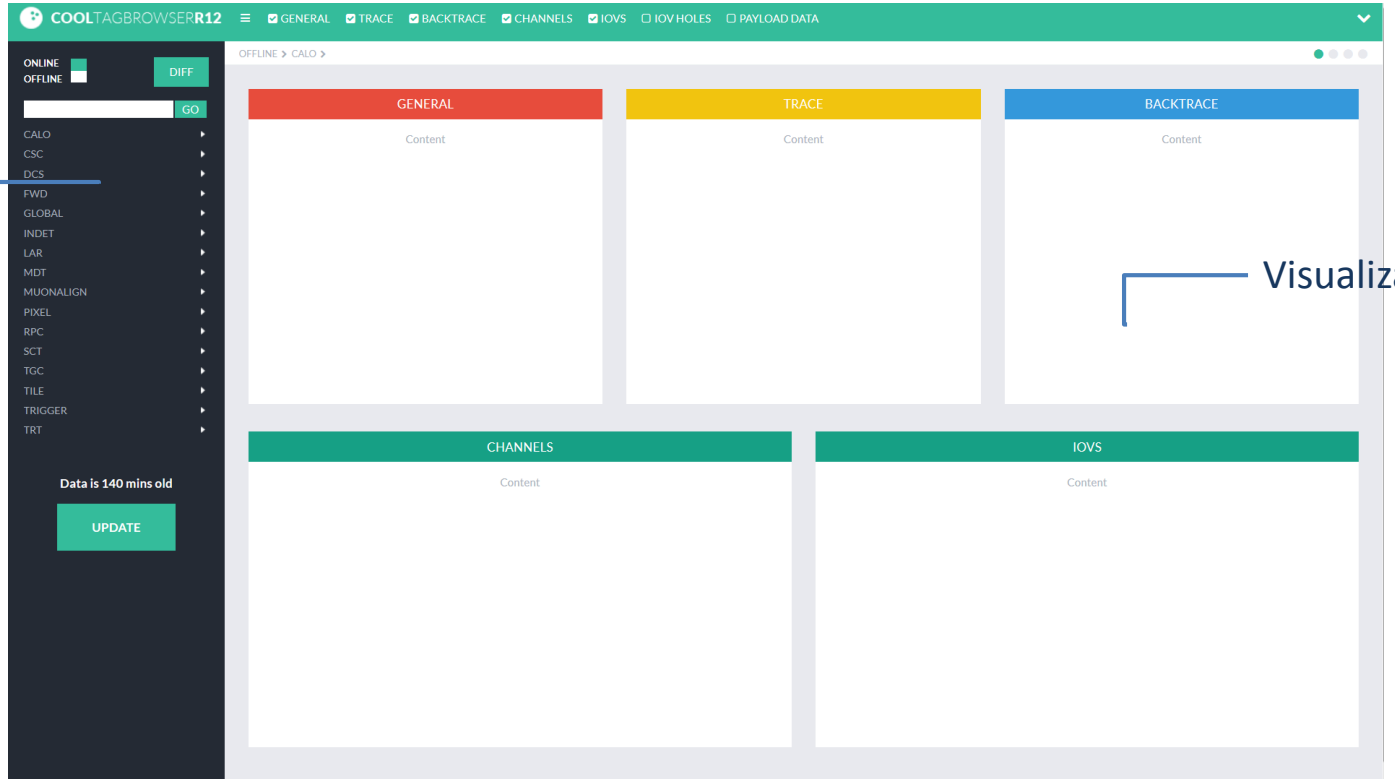




New User Interface

- There are 2 main activities in CTB:
  - Navigation in COOL folders by dynamical menu
  - Data visualisation into selected fields

Navigation menu



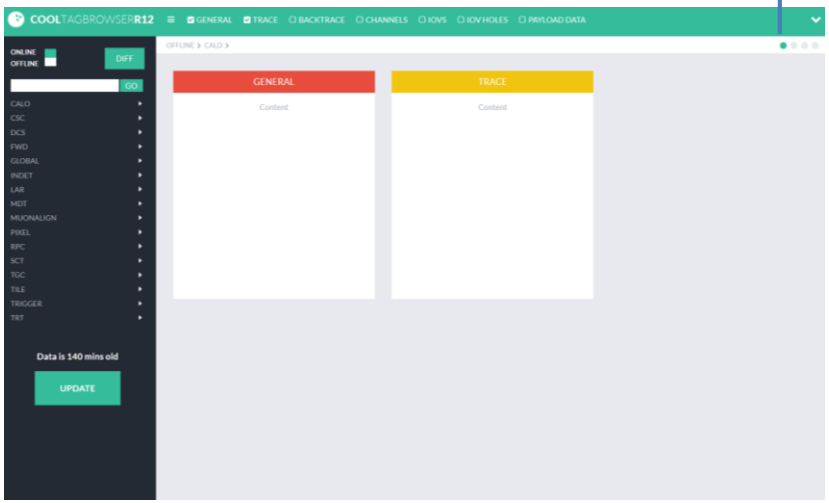
Visualization fields

New User Interface

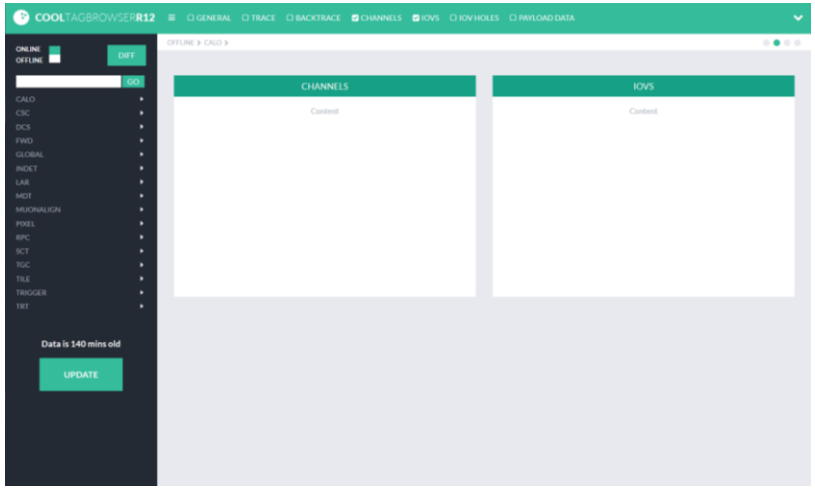
- We add Layers.

Active layer

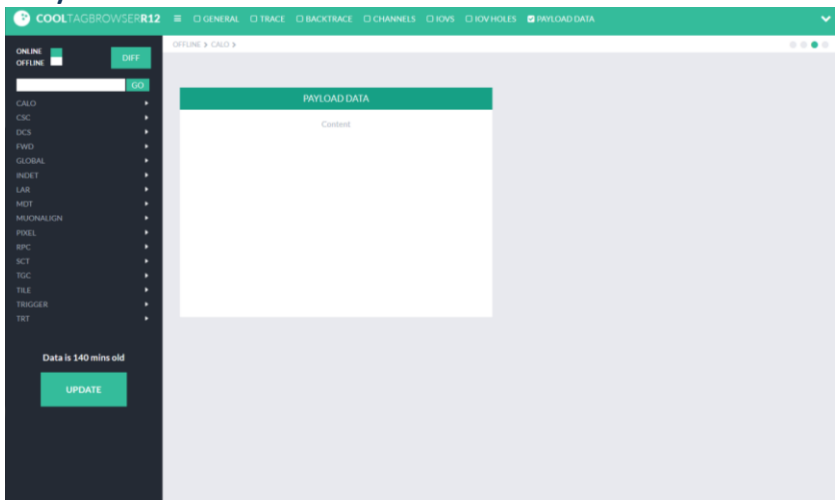
Layer#01



Layer#02



Layer#03



New User Interface

- CTB R12 is in development folder

  https://atlas-coolbrowser.web.cern.ch/atlas-coolbrowser/_dev/Intern/R12v1/#

- For the moment navigation menu still working on COMA base.

  CherryPy with cash not yet added.

Thanks!