

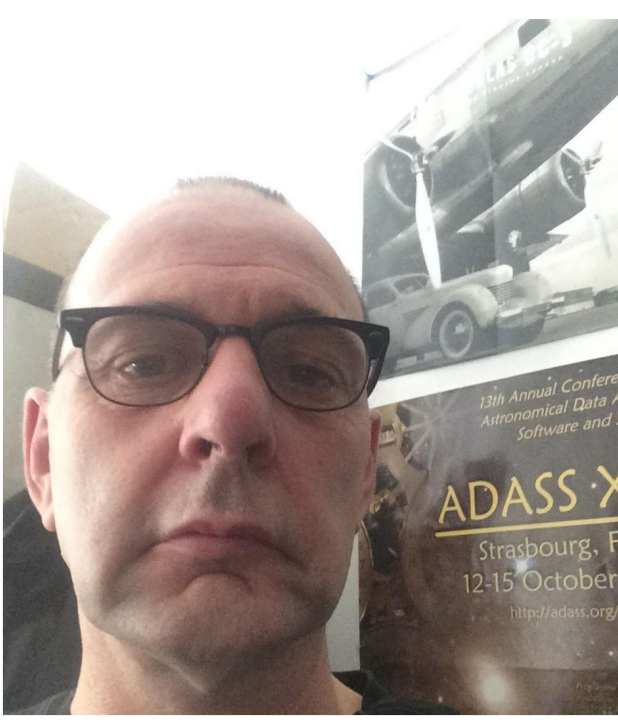
AliX a Flexible Catalog Portal Based on Aladin Lite

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https://www.nasa.gov/mission_pages/chandra/where-alice-in-wonderland-meets-albert-einstein.html

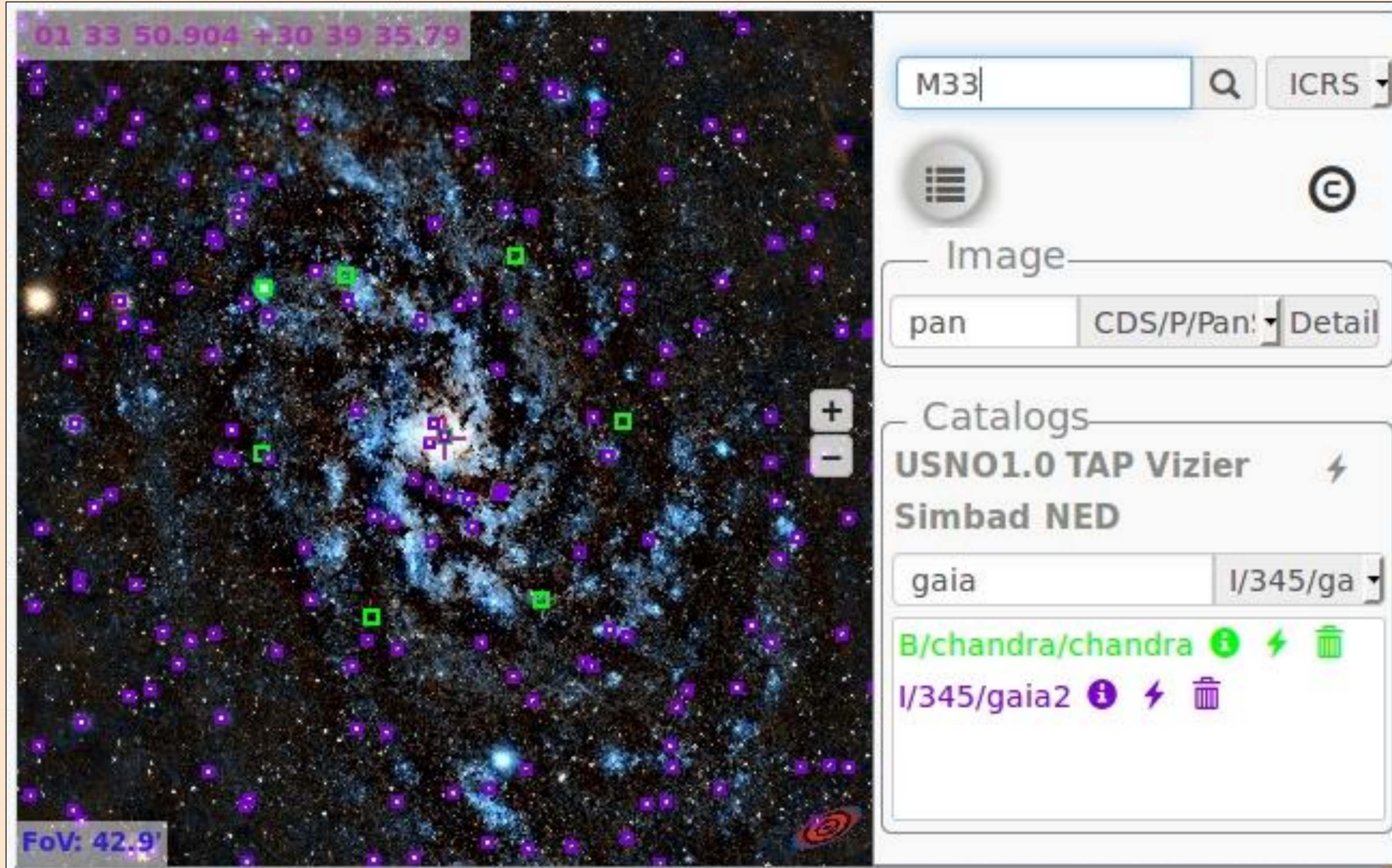


<http://saada.unistra.fr/alix/>

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AliX is a flexible catalog portal based on Aladin Lite. It is designed to use an interactive sky view as a primary selection tool. The AliX view is constantly updated with data queried in the host database. It offers advanced functionalities allowing to mix local data with VO data. Users can plot by hand areas of interest and manage an historic of the views. AliX has no dependency with any specific data source; it can be integrated

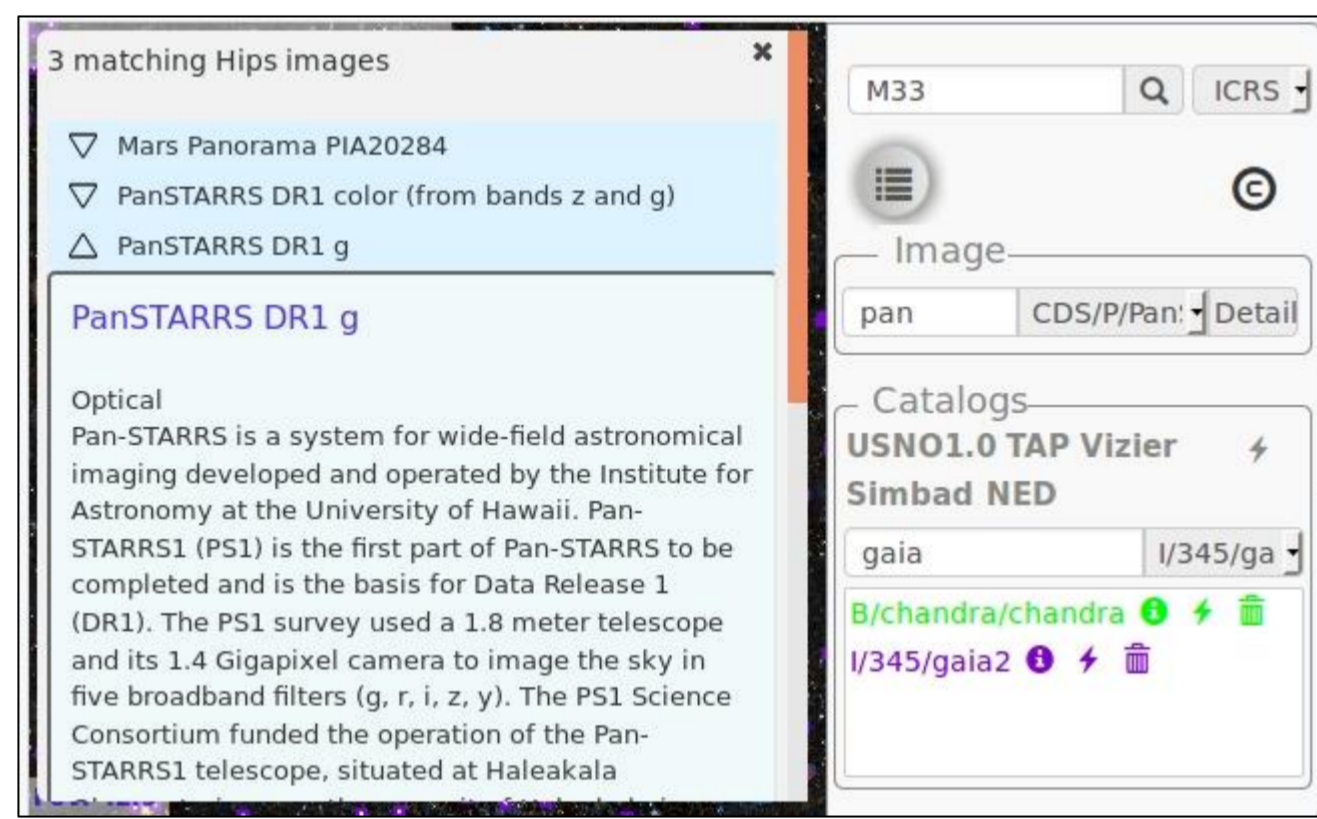
Overview



- **AN EMBEDDABLE WIDGET**
 - Built on the top of Aladin Lite, AliX can easily be embedded in a Web portal.
 - The whole sky can be explored but the tool stores a reference position helping the user to come back home at any time.
 - The reference position, set by the configuration, can be changed by the API.
- **HIPS RESOURCE ACCESS**
 - The main feature is an easy access to a lot of VO resources, mainly the HiPS images and the Vizier Catalogues.
 - There is a permanent access to the 2 main identification catalogues: *NED* and *Simbad*.
 - The catalogue display is updated as long as the field of view changes.
 - The search radius covers the whole field of view for progressive catalogues, it is limited otherwise.
- **CONNECTION TO THE LOCAL DATABASE (namely the MASTER RESOURCE)**
 - AliX can be used as such or it can be connected with a local database.
 - The connection is done through a templated URL.
 - The master resource, set by the configuration, can be changed by a programmatic way.
 - The underlying database is queried each time the field of view changes.
- **DATA DISPLAY**
 - The image survey can be overlaid with Vizier catalogues and with the master resource.
 - The display of catalogues can be deactivated and reactivated on demand.
 - User can make catalogue sources blink to facilitate their location by naked eye.

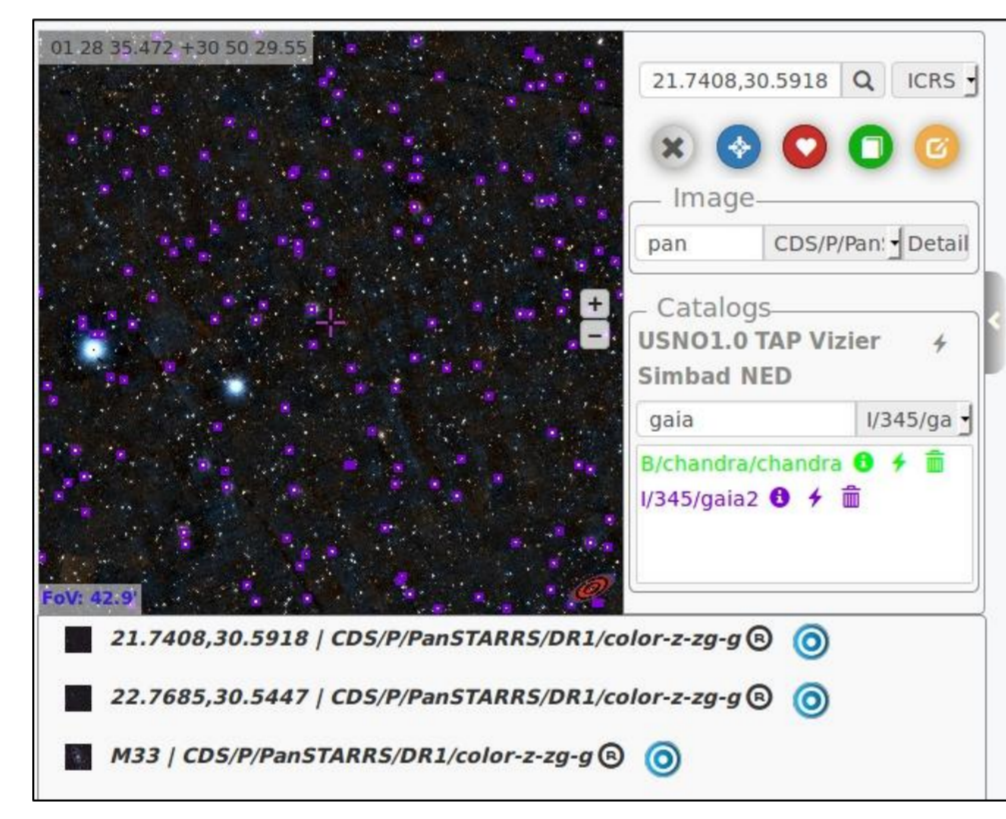
Features

FULL TEXT SEARCH



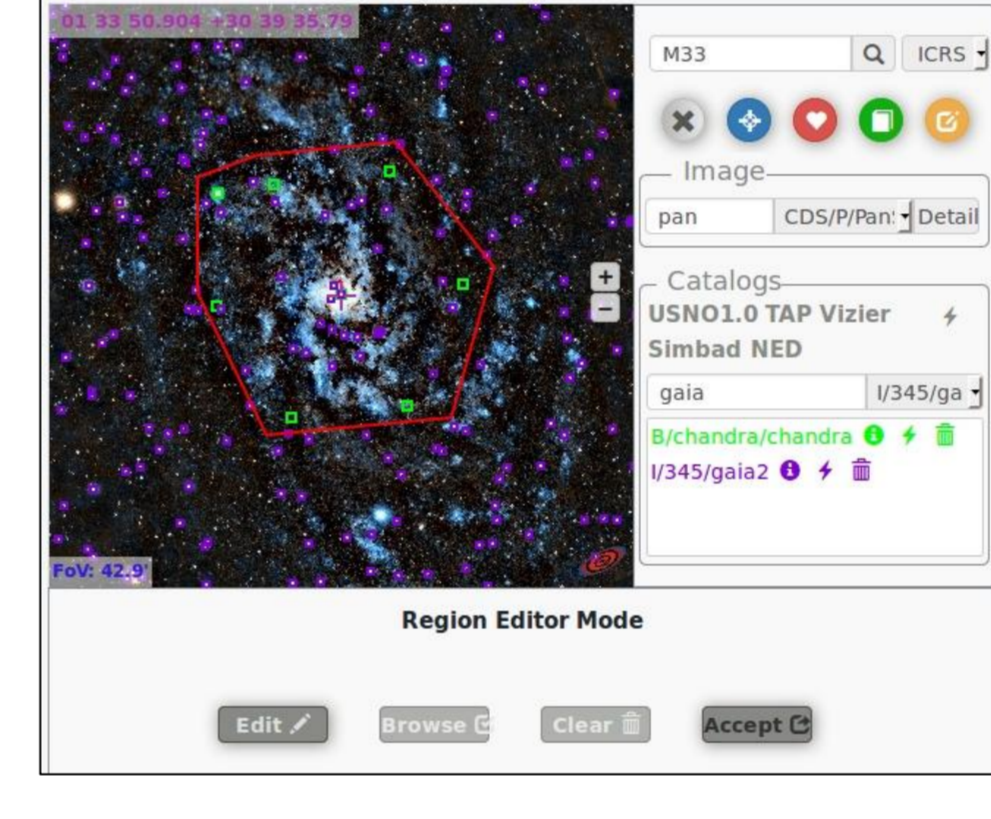
- HiPS Surveys and Catalogues are selected by querying the MOC server.
 - Full text on HiPS meta-data
 - Only the resources covering the actual field of view are proposed

BOOKMARKS



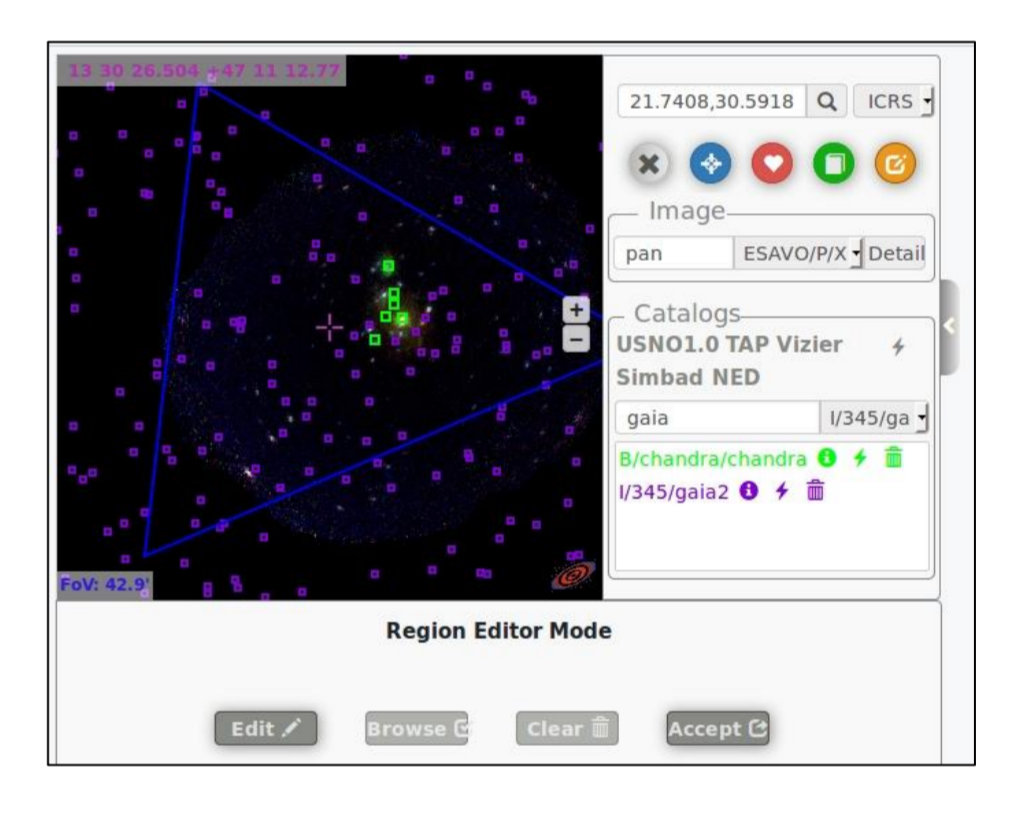
- Bookmarks of views of interest
 - Can be annotated
 - Can be restored at any time
 - Can be downloaded as a PNG

REGION EDITOR



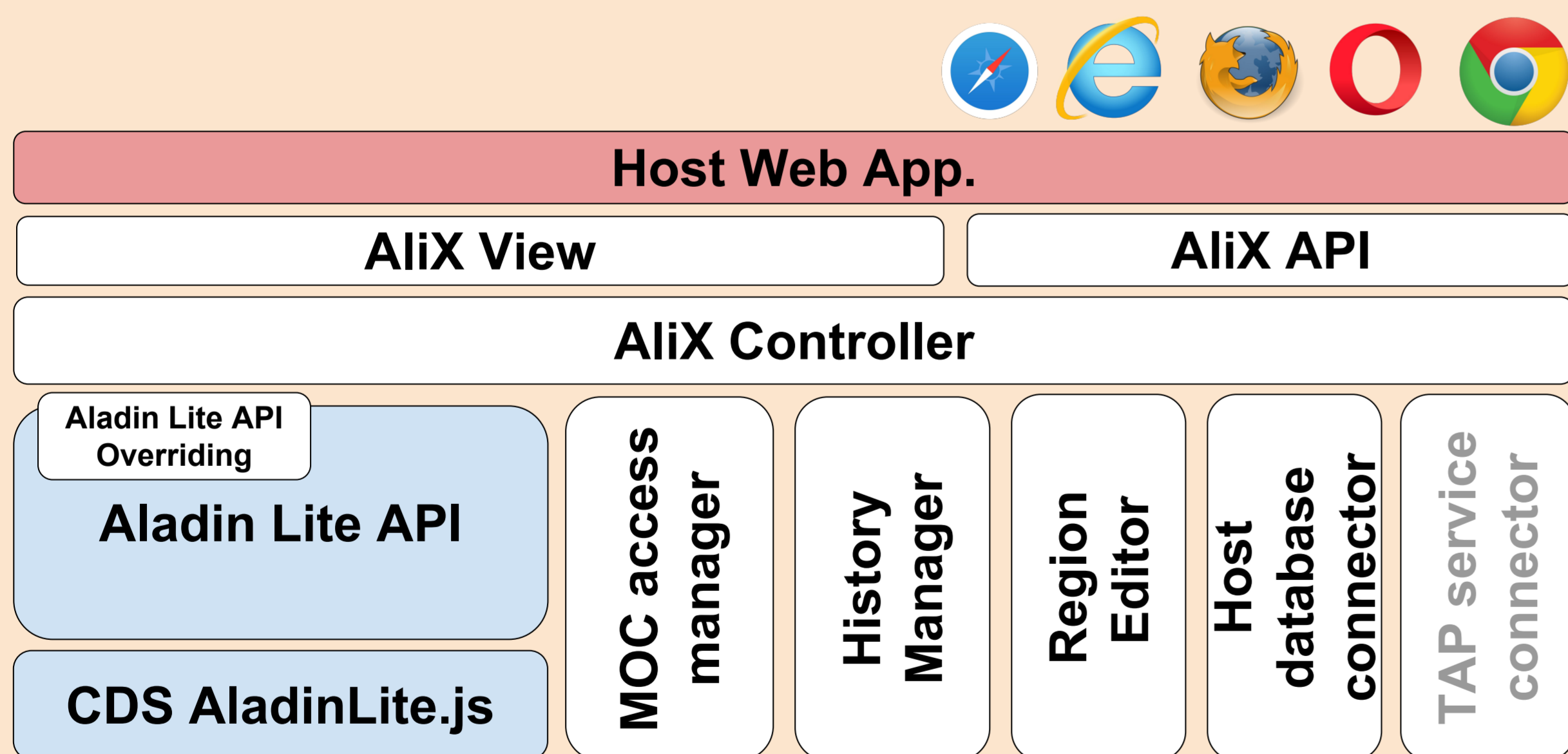
- User can draw polygonal regions
- A user handler is invoked when the drawing is complete.
 - Search by region
 - Cutout setup

FOOTPRINTS



- The API allows to plot a fixed frame over the view
- The main purpose is to show image footprints for cutout services.

Architecture



- **JQUERY**
 - AliX is developed in Javascript/JQuery
 - Some JQuery-ui widgets are also used
- **A LAYER OVER ALADIN LITE**
 - The Aladin Lite (AL) code is embedded in AliX
 - A controller layer acts as interface between AL and AliX.
 - Some AL API endpoints have been overridden to support all AliX requirements. This creates a tied coupling between AliX and a given AL release. For this reason, AliX hosts its own version of AL.
- **PUBLIC API**
 - AliX can be operated as an instance of the view. The setup is given by a JSON object (master resources, reference position, handlers...)
 - The AliX API allows the host application to adapt the initial setup to a particular context, such as displaying footprints or changing the reference position
- **CONNECTORS**
 - Each main feature is managed by a specific connector
 - The connectors can be enabled/disabled at starting time

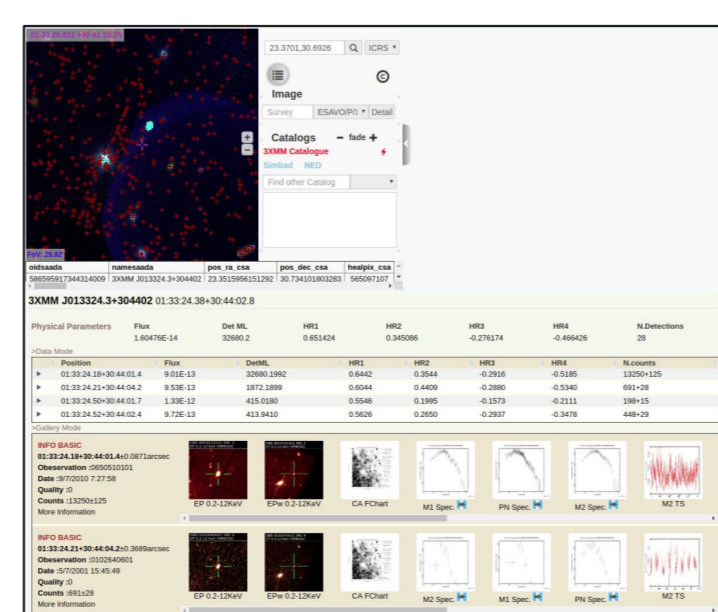
Status and Prospects

GUI FINALIZATION

- We are currently refining the graphical user interface

XCatDB IMPLEMENTATION

- A prototype of an XMM Source explorer is tested
- It allows to select sources of interest with AliX and to access to lots of associated Data and science products



GITHUB PUBLISHING

- Once AliX will be stable enough, the project will be pushed on GitHub with an appropriate documentation
- An announcement will be sent at this time
- End of 2018 hopefully

TAP CONNECTION

- We are going the experiment the usage of AliX to explore TAP resources
- The TAP_SCHEMA exploration allows to automatically identify the tables which can be browsed with AliX