

# An Archive in the VOSphere

## Experimenting with VOVIEW and SAMP

*Data Providers mind User Experience*

A.Micol/ESO, 2011-10-20, Pune

# VOVIEW

ESO Archive: still using the WDB (1994) query engine which allows html, ascii, and (2006) votable output

How to improve user experience on result page?

VOVIEW greatly improves the user experience:

- Client-side moving, hiding, selecting, sorting columns
- Client-side pagination
- Client-side filtering (via XSLT)

VOVIEW: proved very easy to integrate with WDB

# VOVIEW (2)

- Typical VOVIEW criticisms:
  - Entire votable downloaded first
  - Not good to support millions of records
  - Better to paginate on the server side
- Answers:
  - Browsing archival data (not catalogs) is a different thing.
  - Nobody wants to browse/visualise/sort/etc. 100,000+ product records (no scientific analysis involved)
  - Browsing up to ~10-20,000 records seems reasonable
  - Archive requirement is to handle max 50,000 records
  - VOVIEW handles up to 50/100,000 records very efficiently

# SAMP

- Extremely easy to plug in and use
  - once you have the VOTable required by voview
- Astronomers benefit interoperability:
  - Improved **visualisation, interactivity**
    - E.g., display of footprints onto all-sky surveys (Aladin), overlay other catalogs, etc.
  - **Selection** of data products in VO apps (TOPCAT, Aladin, VOPlot, etc) result into records marked for **data retrieval** in the VOVIEW web browser.

# A nice archive paradigm

- Clear and clean separation on what the archive developers should do, and what they shouldn't
- **Archive focuses on providing** the necessary **metadata** in the usual way (browsers)
  - Votable: observation metadata, preview images, footprints
- **High level functionalities are left to SAMP-aware tools**
  - Table manipulation (voview), visualisation, overlay, inspection, cross-matching, etc. (topcat, aladin, voplot, etc).
- **Astronomers can choose** the tools they like the most
- **Improved user experience**

# A little experiment

I used:

- JSAMP ([M.Taylor](#)) with web profile activated
- Some javascript ([T.Boch](#)) for SAMP callback functions
- VOVIEW ([D.Hinshaw](#)), installation and smart hints provided by [F.Stoehr](#).
- JQuery to visualise/mark for retrieval records in VOVIEW
- In no time, I was up and running ([thanks to all](#)).



# Sub-optimal user experience

- Astronomers have to launch JSAMP
  - Should I use WebSampConnector instead?
- Same UI action in different apps results into different SAMP messages:
  - confusing to astronomers
  - complex for archive developers

User action	TOPCAT	ALADIN
Mouse hovering	None	Table.highlight.row
Click	Table.highlight.row	Table.select.rowList
Drag-a-box, create-a-subset	Table.select.rowList	Table.select.rowList

IVOA Interop Pune, A.Micol/ESO



# Conclusions

## VOVIEW

- There is definitely room for VOVIEW in the VO world
- Easy to integrate with custom archive solutions
- Improved archive user experience
- Suggestion: integration with SAMP would be quite useful
- Plea: please do not drop VOVIEW development!

## SAMP

It would seem useful if:

- All VO apps by default activate a web-profile hub
- Same UI actions in different applications could send same messages