

Datalink and TAP in Aladin (*the updates*)

ASTERICS DADI Technology Forum 4



Contents

SI/V2/SODA/Datalink updates in Aladin

- 1.SODA async
- 2.Conclusions

Aladin's TAP client updates

- 3.Join feature
- 4.Template tap client
- 5.ObSCORE tap client
- 6.Conclusions

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SIAV2/SODA/Datalink in Aladin

The screenshot shows the Aladin software interface. At the top, there are menu items: File, Edit, Image, Catalog, Overlay, Coverage, Tool, View, Interop, Help. Below the menu, the command line shows coordinates: `23:30:13.64 +15:45:39.5`. The frame is set to `ICRS` and the projection to `Aitoff`. The main window displays a `DSS2 color` image with a central reticle. A scale bar indicates `15"` and the image size is `1.804' x 55.19"`. On the left, a sidebar lists available data sources like X-ray, UV, ROSATWFC, GALEX, Swift, HST, Skymapper, SDSS, CFHTLS, and UVOT. On the right, there is a toolbar with various tools (select, pan, dist, phot, draw, tag, moc, spect, filter, cross, x-y, rgb, assoc, crop) and a welcome message: "Welcome to Aladin, your professional sky atlas." Below the toolbar, there are sliders for epoch, size, dens., opac., and zoom. At the bottom, a table lists data products:

access url	dataprodu	dataprodu	calib level	obs collection	obs id
http://...	cube		3	CALIFA	califa/datadr3,
http://...			3	CALIFA	califa/datadr3,
http://...			3	CALIFA	califa/datadr3,
http://...			3	CALIFA	califa/datadr3,

A tooltip is visible over the first row of the table, containing the following text:

- This cube, larger coverage lower resolution
- This cube, smaller coverage higher resolution
- An interactive service on this dataset.
- An interactive service on this dataset.
- The full dataset. (size 145575360 byte)
- A preview for the dataset.

At the bottom left, there is a copyright notice: "(c) 2018 Université de Strasbourg/CNRS - d". At the bottom right, it shows "4 sel / 7 src 406Mb".

SIAV2/SODA/Datalink in Aladin

Aladin v10.0 *** PROTOTYPE VERSION (based on v10.076) ***

File Edit Image Catalog Overlay Coverage Tool View Interop Help

Available data → 21208 / 2121 Command [] Frame ICRS Projection Aitoff

in view out view DSS PanSTARRS SDSS 2MASS GALEX Gaia Simbad NED +

Service dc.zah.uni-heidelberg.de

• Cutout prototype for SODA server ?

Fill in all these fields and press the SUBMIT button

Target (ICRS, name)

Radius

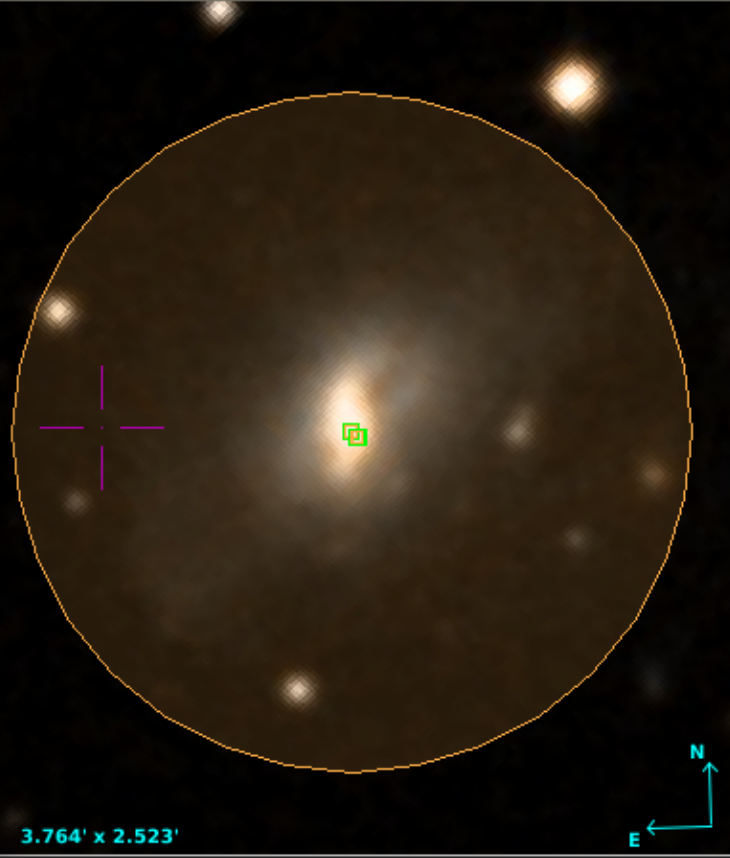
Time

Band

Pol

ID

Reset Clear Submit Close



3.764' x 2.523'

Adjust the visible area (click&drag + mouse wheel)

Search []

select	access url	dataprodu	dataprodu	calib level	obs collection	obs id
	http://dc.zah.uni-heidelberg.de	cube		3	CALIFA	califa/datadr3/
	http://dc.zah.uni-heidelberg.de	cube		3	CALIFA	califa/datadr3/

05 26 13.74513

+90
-90

SIAV2/SODA/Datalink in Aladin

The screenshot displays the Aladin v10.0 interface, a professional sky atlas. The title bar indicates it is a prototype version based on v10.076. The main window shows a DSS2 color image of a star field. A large orange circle highlights a region, and a smaller inset shows a zoomed-in view of a star with a crosshair. The interface includes a menu bar (File, Edit, Image, Catalog, Overlay, Coverage, Tool, View, Interop, Help), a toolbar with various icons, and a sidebar with a tree view of collections and a search bar. The search bar contains the coordinates 23:30:20.85 +15:45:30.7. The main window also displays the command line, frame (ICRS), and projection (Aitoff). The sidebar includes a welcome message and a list of data sources, including SODA, Gaia, and DSS2. The bottom of the interface features a search bar and a small map showing the current location on the sky.

Aladin v10.0 *** PROTOTYPE VERSION (based on v10.076) ***

File Edit Image Catalog Overlay Coverage Tool View Interop Help

Available data → 21208 / 2121
● in view ● out view

Command 23:30:20.85 +15:45:30.7 Frame ICRS Projection Aitoff

DSS PanSTARRS SDSS 2MASS GALEX Gaia Simbad NED +

DSS2 color

1' 4.517' x 3.102'

Search

23 30 15.31866 +15 45

Welcome to Aladin, your professional sky atlas.

- Discover all astronomical data available over the net!
- Compare them with your own data.
- Prepare your observation missions.

To start, type any object name, such as M1, and press ENTER...

[SODA] dc.zah.uni-hei
org.gavo.dc-tap~2.xi
CDS/P/DSS2/color

epoch -
size -
dens. -
opac. -
zoom -

SIAV2/SODA/Datalink in Aladin

Aladin v10.0 *** PROTOTYPE VERSION (based on v10.076) ***

File Edit Image Catalog Overlay Coverage Tool View Interop Help

Available data → 21208 / 2121 Command [x] Frame ICRS Projection Aitoff

in view out view DSS PanSTARRS SDSS 2MASS GALEX Gaia Simbad NED +

Service dc.zah.uni-heidelberg.de

○ Cutout prototype for SODA server ?

Fill in all these fields and press the SUBMIT button

Target (ICRS, name) 23 30 11.97044 +15 45 29.3300

Radius 21.68"

Time

Band 0.0 1.0E-6

Pol I Q U

ID :adr3/COMB/UGC12633.COMB.rscube.fits

ASYNC SYNC ASYNC

Reset Close

This cube, larger coverage lower resolution
This cube, smaller coverage higher resolution
An interactive service on this dataset.
An interactive service on this dataset.
The full dataset. (size 145575360 byte)
A preview for the dataset.

select pan dist phot draw tag moc spect filter epoch size cross dens. opac. zoom rgb assoc crop cont pixel

Welcome to Aladin your professional sky atlas.

- Discover all astronomical data available over the network.
- Compare them with your own data.
- Prepare your observation mission.

org.gavo.dc-t...
CDS/P/DSS2

05 26 13.74513

access url	dataprodu	t...	datapr
http://dc.zah.uni-heidelberg.de/adr3/COMB/UGC12633.COMB.rscube.fits	cube		
http://dc.zah.uni-heidelberg.de/adr3/COMB/UGC12633.COMB.rscube.fits	cube		

select from all collections

3 CALIFA califa/datadr3/

SIAV2/SODA/Datalink in Aladin

Aladin v10.0 *** PROTOTYPE VERSION (based on v10.076) ***

File Edit Image Catalog Overlay Coverage Tool View Interop Help

Available data → 21208 / 2121 Command [] Frame ICRS Projection Aitoff

in view out view DSS PanSTARRS SDSS 2MASS GALEX Gaia Simbad NED +

Service dc.zah.uni-heidelberg.de

• Cutout prototype for SODA server ?

Fill in all these fields and press the SUBMIT button

Target (ICRS, name) 23 30 15.31866 +15 45 25.4362

Radius 18.65"

Time

Band 0.0 1.0E-6

Pol I Q U

ID :adr3/COMB/UGC12633.COMB.rscube.fits

ASYNC

Reset Clear Submit Close

Sync/Async of same service?

This cube, larger coverage lower resolution

This cube, smaller coverage higher resolution

An interactive service on this dataset.

An interactive service on this dataset.

The full dataset. (size 145575360 byte)

A preview for the dataset.

select pan dist phot draw tag moc spect filter cross zoom epoch size dens. opac. rgb assoc crop cont pixel

Welcome to Aladin your professional sky atlas.

- Discover all astronomical data available over the network.
- Compare them with your own data.
- Prepare your observation mission.

org.gavo.dc-t

CDS/P/DSS2

05 26 13.74513

access url	dataprodu	t...	datapr
http://dc.zah.uni-heidelberg.de	cube		
http://dc.zah.uni-heidelberg.de	cube		

3| CALIFA califa/datadr3/

Conclusions

1. Need to resolve issues with Aladin and implement handling of more usecases
2. Better description of services
3. Distinctive way to identify a datalink
 - Logic in progress with IVOA DAL WG..
 - Datalink identified at stream: (based on the presence of 4 column names: ID, access_url, service_def and semantics)

Conclusions

1. Need to resolve issues with Aladin and implement handling of more usecases
2. Better description of services
3. Distinctive way to identify a datalink
 - Logic in progress with IVOA DAL WG..
 - Datalink identified at stream: (based on the presence of 4 column names: ID, access_url, service_def and semantics)

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Join feature

- With server table or upload table
- Position, foreign-key relation, free

Join feature

The screenshot displays a web-based query builder interface. The main window is titled "Server selector" and shows a table selection process. The table "basic" is selected, and the columns "oid", "main_id", "nbref", "otype_txt", and "otype" are visible. The "Join" button is highlighted. A dialog box titled "Create simple join constraints" is open, showing options to join tables. The "With server tables" option is selected, and the table "otypes" is chosen. The "Join for this column" option is selected, and the condition "oid = oidref" is entered. The "Write this join query" button is visible.

Server selector

Others File FoV... Tools...

Image servers

Aladin images

SkyView

Sloan

DSS...

VLA...

Archives...

Proto...

Others...

CDS/Simbad ? Mode: Generic

Construct your query, verify and execute.

Table: basic Set ra, dec Join

Select: All Constraints: Add new Max rows: 9999

oid
main_id
nbref
otype_txt
otype

Target

Radius CIRCLE Add

Refresh query Check.. SYNC Async jobs>> Upload

`SELECT TOP 9999 * FROM basic`

Reset Clear SUBMIT Close ?

Create simple join constraints

Add join constraints by selecting the tables and conditions.

With server tables: otypes

With uploaded tabl... (org.gavo.dc-tap~2.xml) TAP_U...

Choose constraint for joining the tables

Join for this column: oid = oidref

If located close within the radius of:

Join for this colu... oid = oidref

Write this join query

SAO70467 #30

Join feature

The screenshot displays a web-based interface for creating and executing astronomical queries. The main window is titled "Server selector" and shows the "CDS/Simbad" server selected. The "Table:" field is set to "basic". The "Constraints:" section shows a join operation with "otypes" as the target table. The "Radius" is set to 4, and the "Max rows:" is set to 9999. The "Write this join query" field contains the following SQL query:

```
SELECT TOP 9999 * FROM basic JOIN otypes AS otypes ON basic.oid = otypes.oidref  
WHERE CONTAINS(POINT('ICRS', basic.ra, basic.dec), CIRCLE('ICRS', 10.68470,  
41.26875, 0.06666)) = 1
```

The "Create simple join constraints" dialog box is open, showing the "With server tables:" option selected. The "Join for this column:" field is set to "oid = oidref". The "Write this join query" field contains the query: "otypes (basic.oid = otypes.oidref)".

Aladin's TAP new features

The screenshot displays the Aladin web interface. The main window shows a DSS2 color image of a star field with overlaid data points. A search bar at the bottom right contains the text "SAO70467". Below the search bar is a table of results with columns: bibcode, sp, sp type, update date, h, vlsr, oidref, and otype. The table contains five rows of data. A yellow box highlights the last three rows of the table. The interface also includes a left sidebar with navigation links, a top right sidebar with a welcome message and search instructions, and a bottom right sidebar with a map and various tool icons.

DSS2 color

collections → 21208
Image → 341
Data base → 4
[SIMBAD Astronomical Database](#)
Sky Body Tracker
The NASA/IPAC Extragalactic Database
[The Legacy Aladin server](#)
Catalog → 19565
Cube → 8
Solar system → 47
Ancillary → 7
Outreach → 44
Others → 1180
Problematic → 4
Unsupervised → 8

Welcome to Aladin,
your professional sky atlas.

- Discover all astronomical data available over the net!
- Compare them with your own data.
- Prepare your observation missions.

To start, type any object name, such as M1, and press ENTER...

Or easier, clic in the main frame and enjoy the sky...

[CDS / Simbad](#)
[org.gavo.dc-tap~2.xi](#)
 [CDS / P / DSS2 / color](#)

epoch -
size -
dens. -
opac. -
zoom -

SAO70467

bibcode	sp	sp type	update date	h	vlsr	oidref	otype
			2015-12-18			7818971	1610612736
			2015-12-18			7818971	1610612736
			2015-12-18			7818971	-849674240
			2016-04-25			10060418	-849674240

select
from -- all collections --

grid study wink north hdr multiview match

Search

Join feature

Create simple join constraints

Add join constraints by selecting the tables and conditions.

With server tables: otypes

With uploaded tables: (CDS/Simbad) TAP_UPLOAD.AladinTable27

Choose constraint for joining the tables

Join for this column:

If located close within the radius of: 2

Join for this column: oid = coo_err_angle

Write this join query

otypes (basic.oid = otypes.oidref)

AladinTable20 (1=CONTAINS (POINT('ICRS', basic.ra, basic.dec), CIRCLE('ICRS', AladinT

```
SELECT TOP 9999 * FROM basic JOIN otypes AS otypes ON basic.oid = otypes.oidref JOIN TAP_UPLOAD.AladinTable20 AS AladinTable20 ON 1=CONTAINS (POINT('ICRS', basic.ra, basic.dec), CIRCLE('ICRS', AladinTable20.ra, AladinTable20.dec, 2/3600.))
```

Reset Clear SUBMIT Close ?

terop Help

Frame ICRS Projection Aitoff

ALADIN

Welcome to Aladin, your professional sky atlas.

- Discover all astronomical data available over the net!
- Compare them with your own data.
- Prepare your observation missions.

CDS / Simbad
mySources.xrn
CDS / P / DSS

epoch -
size -
dens. -
opac. -
zoom -

dec

47.13 47.28

coo	bibcode	coo err angle	coo err maj	coo err maj pr...	coo err min	coo err min pr...	k cd	coord	k cd
2008AJ...	135.1...	32767		65535		65535	D	POSITION 202.40	07
2004ApJ...	602...	32767		65535		65535	D	POSITION 202.40	X1
2008AJ...	135.1...	32767		65535		65535	D	POSITION 202.40	07
2008AJ...	135.1...	32767		65535		65535	D	POSITION 202.40	01
2003yCat.	2246...	90	60.0	0	60.0	0	B	POSITION 202.36	I
2003yCat.	2246...	90	60.0	0	60.0	0	B	POSITION 202.36	I
2000ApJ	530	32768		32768		32768	D	POSITION 202.35	5

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Template tap client

Others File FoV... Tools...

Image servers

Aladin images

SkyView

Sloan

DSS...

VLA...

Archives..

Proto...

Others...

CDS/Simbad ? Mode: Templ...

Choose an example query to execute.

Table: basic

Join: (CDS/Simbad) TAP_UPLOAD.AladinTable22

Select all

Select top 1000

Get the number of rows

Cone search query

Get parallax and radial velocity

Check.. SYNC Async jobs>>

These are service provided examples!

Select TOP 9999 * from basic where 1=CONTAINS(POINT('ICRS', ra, dec), CIRCLE('ICRS', 163.55402, -60.45921, 0.16667))

Reset Clear SUBMIT Close ?

Catalog servers

All VizieR

SIMBAD

NED

TAP

SkyBot

VO

Others..

Template tap client

Others File FoV... Tools...

Image servers

Aladin images
SkyView
Sloan
DSS...
VLA...
Archive...
Proto...
Others...

CDS/Simbad ? Mode: Templ...

Choose an example query to execute.

Table: basic

Join: (CDS/Simbad) TAP_UPLOAD.AladinTable22

Generated templates

- Select all
- Select top 1000
- Get the number of rows
- Cone search query**
- Get parallax and radial velocity

These are service provided examples!

All basic data from an object name
All identifiers of an object
Objects in a cone
All bibcodes talking about an object
All basic data on objects

Check.. SYNC Async jobs>>

Select TOP 9999 * from basic where 1=CONTAINS(POINT('ICRS', ra, dec), CIRCLE('ICRS', 163.55402, -60.45921, 0.16667))

Reset Clear SUBMIT Close ?

Catalog servers

All VizieR
SIMBAD
NED
TAP
SkyBot
VO
Others..

Template tap client

Others File FoV... Tools...

Image servers: Aladin images, SkyView, Sloan, DSS..., VLA..., Archives..., Proto..., Others...

Catalog servers: All VizieR, SIMBAD, NEA, TAP, SkyBo, VO, Others..

CDS/Simbad ? Mode: Templ...

Choose an example query to execute.

Table: basic

Join: (CDS/Simbad) TAP_UPLOAD.AladinTable22

Select all
Select top 1000
Get the number of rows
Cone search query
Get parallax and radial velocity

All basic data from an object name
All identifiers of an object
Objects in a cone
All bibcodes talking about an object
All basic data on objects

These are service provided examples

Dali-examples /examples

Check.. SYNC Async jobs>>

Select TOP 9999 * from basic where 1=CONTAINS(POINT('ICRS', ra, dec), CIRCLE('ICRS', 163.55402, -60.45921, 0.16667))

Reset Clear SUBMIT Close ?

Template tap client

Others File FoV... Tools...

Image servers

Aladin images

SkyView

Sloan

DSS...

VLA...

archives...

Proto...

others...

CDS/Simbad ? Mode: Templ...

Choose an example query to execute.

Table: basic

Join: (CDS/Simbad) TAP_UPLOAD.AladinTable22

Select all

Select top 1000

Get the number of rows

Cone search query

Get parallax and

All basic data from an object name

All identifiers of an object

Objects in a cone search

All bibcodes talking about an object

Hint: Configure a different target by using the Grab button

Check.. SYNC Async jobs>>

Select TOP 9999 * from basic where 1=CONTAINS(POINT('ICRS', ra, dec), CIRCLE('ICRS', 163.55402, -60.45921, 0.16667))

Reset Clear SUBMIT Close ?

Catalog servers

All VizieR

SIMBAD

NED

TAP

Gaia

SkyBot

VO

others..

Template tap client

Others File FoV... Tools...

Image servers

Aladin images

SkyView

Sloan

DSS..

VLA..

Archive..

Photo..

Others...

CDS/Simbad ? Mode: Templ...

Choose an example query to execute.

Table: basic

Join: (CDS/Simbad) TAP_UPLOAD.AladinTable22

Get parallax and radial velocity

Get parallax and radial velocity

Position and proper motion

Position and proper motion plus conese...

Proper motion

ucds..

plx_value in mas, rvz_radvel in km.s-1

All basic data from an object name

Objects in a cone search

All bibcodes talking about an object

All basic data on objects

Check.. SYNC Async jobs>>

Select TOP 9999 * from basic where 1=CONTAINS(POINT('ICRS', ra, dec), CIRCLE('ICRS', 163.55402, -60.45921, 0.16667))

Reset Clear SUBMIT Close ?

Catalog servers

All VizieR

SIMBAD

NED

Gaia

SkyBot

VO

Others..

Template tap client

The image shows a screenshot of the Aladin web interface. On the left, a 'Server selector' dialog box is open, allowing users to choose a query template to execute. The dialog includes a 'Table' dropdown set to 'basic', a 'Join' dropdown set to '(CDS/Simbad) TAP_UPLOAD.AladinTable1', and a list of query templates. The selected template is 'Proper motion limits', which is highlighted in orange. Below the list, there are buttons for 'Check..', 'SYNC', and 'Async jobs>>'. At the bottom of the dialog are 'Reset', 'Clear', 'SUBMIT', and 'Close' buttons.

The main interface displays a star field visualization in the center, with a coordinate system showing North (N) and East (E) directions. The 'Frame' is set to 'ICRS' and the 'Projection' is 'Aitoff'. On the right side, there is a 'Welcome to Aladin' message and a list of features: 'Discover all astronomical data available over the net!', 'Compare them with your own data', and 'Prepare your observation missions'. Below this, there is a search bar and a list of data sources: 'CDS / Simbad' and 'CDS / P / DSS2'. At the bottom, there is a table of query results with columns for 'main id', 'ra', 'dec', 'pmra', 'pmdec', and 'pm'.

main id	ra	dec	pmra	pmdec	pm
UCAC2 33429...	269.990821	4.598942	-14.7	-14.1	20.369094
TYC 994-1499...	266.809109	8.844841	-1.799	-39.197	39.238262
TYC 994-240-1	266.814408	8.847582	-5.633	-43.158	43.524058
2MASS J1812556	273.231908	11.602548	-25.3	24.1	34.941379
2MASS J1846107	281.544764	10.551941	-16.4	-27.4	31.933055
2MASS J1846209	281.587148	10.503709	-19.4	-33.1	38.366261
2MASS J1846460	281.691769	11.09897	-21.2	-16.8	27.049584
UGCS J174207.6	265.531882	5.172271	9.85	-38.68	39.91447
UGCS J174348.2	265.951045	5.703929	-19.43	-8.57	21.23605
UGCS J174349.1	265.954572	4.876473	-2.0	-22.0	22.090722
UGCS J174355.1	265.979948	4.743094	-12.24	-26.21	28.927179
UGCS J174433.3	266.13878	6.001072	-20.22	-51.9	55.699716
UGCS J174519.0	266.329346	5.335037	-11.53	-26.56	28.954697

Aladin's TAP clients updates

Others File FOV... Tools...

Image servers

- Aladin images
- SkyView
- Sloan
- DSS...
- VLA...
- Archives...
- Proto...
- Others...

Catalog servers

- All VizieR
- Simbad
- NED
- TAP
- Gaia
- SkyBot
- VO
- Others..

Gaia via TAP VizieR ?

Target (ICRS, name)

Radius

Table

Parallax [mas] (ex: ...

Parallax uncertaint...

Gmag (ex: 10..11)

Total proper motio...

Max records

Output columns

Check.. SYNC Async jobs>>

```
SELECT TOP 1000 ra, dec, pmra, pmdec,
SQRT(POWER(pmRA,2)+POWER(pmdec,2)) as pm
FROM "/337/gaia"
WHERE SQRT(POWER(pmRA,2)+POWER(pmdec,2))>50
```

Reset Clear **SUBMIT** Close ?

Template tap client

The screenshot shows the 'Template tap client' interface. At the top, there are navigation buttons: 'Others', 'File', 'FoV...', and 'Tools...'. The main window is titled 'CDS/Simbad' and has a 'Mode: Templ...' dropdown. Below the title, it says 'Choose an example query to execute.' The 'Table:' field contains 'mesposa'. The 'Join:' field contains '(CDS/Simbad) TAP_UPLOAD.AladinTable1'. A dropdown menu is open, showing a list of query templates. The 'Cross match' option is highlighted in orange. Below the dropdown, there are buttons for 'Check..', 'SYNC', and 'Async jobs>>'. At the bottom of the window, there is a text area containing a SQL query:

```
Select TOP 9999 * from mesposa,TAP_UPLOAD.AladinTable1 WHERE 1=CONTAINS(POINT('ICRS', mesposa.ra, mesposa.dec), CIRCLE('ICRS', 313.25097844474084,31.1768737946931,0.16667)) AND 1 =CONTAINS (POINT('ICRS', mesposa.ra, mesposa.dec), CIRCLE('ICRS', TAP_UPLOAD.AladinTable1.ra, TAP_UPLOAD.AladinTable1.dec, 0.0001))
```

 At the bottom of the interface, there are buttons for 'Reset', 'Clear', 'SUBMIT', 'Close', and a help icon (?). The background shows a sidebar with 'Image servers' (Aladin images, SkyView, Sloan, DSS..., VLA..., Archives., Proto..., Others...) and 'Catalog servers' (All VizieR, NED, TAP, Gaia, SkyBot, VO, Others..).

Template tap client

Choose an example query to execute.

Table:

Join:

Select main_id, ra, dec, rvz_redshift

Select main_id, ra, dec, rvz_redshi...

Cross match

No match without target

No match at selected target

All basic data from an object name

All identifiers of an object

Objects in a cone search

All bibcodes talking about an objec


Check.. SYNC Async jobs>>

```
Select TOP 9999 * from basic,TAP_UPLOAD.AladinTable20 WHERE 1=CONTAINS(POINT('ICRS', basic.ra, basic.dec), CIRCLE('ICRS', 265.99407,5.16457,0.5435)) AND 1 =CONTAINS (POINT('ICRS', basic.ra, basic.dec), CIRCLE('ICRS', TAP_UPLOAD.AladinTable20.ra, TAP_UPLOAD.AladinTable20.dec, 0.0001))
```

Reset Clear **SUBMIT** Close ?

Interop Help

Frame Projection



Welcome to Aladin,
your professional sky atlas.

- Discover all astronomical data available over the net!
- Compare them with your own data.
- Prepare your observation missions.

select

pan

dist

phot

draw

tag

spec

filter

cross

epoch

size

dens.

opac.

zoom

crop

cont

CDS/Simbad~

CDS/Simbad

CDS/P/DSS2

Search

23:58:33.60 +00

coo	bibcode	coo err angle	coo err maj	coo err maj pr..	coo err min	coo err min pr..	cd	coord	cd	d
<input checked="" type="checkbox"/>	2003yCat.2246..	90	60.0	0	60.0	0	B	POSITION 265.53: N	5	5
<input checked="" type="checkbox"/>	2003yCat.2246..	0	80.0	0	60.0	0	B	POSITION 265.95: N	4	5
<input checked="" type="checkbox"/>	2003yCat.2246..	90	60.0	0	60.0	0	B	POSITION 265.95: N	7	4
<input checked="" type="checkbox"/>	2003yCat.2246..	90	60.0	0	60.0	0	B	POSITION 265.97: N	4	4
<input checked="" type="checkbox"/>	2003yCat.2246..	172	70.0	0	70.0	0	B	POSITION 266.32: N	4	5

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Obscore tap client

The screenshot shows the 'Obscore tap client' interface. At the top, there are navigation buttons: 'Others', 'File', 'FOV...', and 'Tools...'. The main window is titled 'org.gavo.dc/tap' and has a 'Mode: Obsc...' dropdown. Below the title, it says 'Add any obscure criteria and execute query.' and contains the text 'Is apropos to Aladin (→ for images) Obscore ← image sources'. The interface includes several input fields and buttons:

- Table:** A dropdown menu set to 'ivoa.obscore'.
- Select:** A dropdown menu set to '*'.
- Max rows:** A dropdown menu set to '9999'.
- Dataproduct type:** A dropdown menu set to 'image', followed by an 'AND' dropdown and an 'Add' button.
- Target:** An empty text input field with a '+' icon.
- Radius:** An empty text input field, followed by a 'CIRCLE' dropdown and an 'Add' button.
- ra:** A dropdown menu, followed by an empty text input field, an 'AND' dropdown, and an 'Add' button.
- em_min:** A dropdown menu, followed by an empty text input field, an 'AND' dropdown, and an 'Add' button.
- Exposure time:** A dropdown menu, followed by an empty text input field, an 'AND' dropdown, and an 'Add' button.
- dataproduct_type:** A dropdown menu, followed by an empty text input field, an 'AND' dropdown, and an 'Add' button.

At the bottom of the main window, there are buttons for 'Check..', 'SYNC', 'Async jobs>>', and 'Upload'. Below these buttons is a text area containing the SQL query: `SELECT TOP 9999 * FROM ivoa.obscore`. At the very bottom of the interface, there are buttons for 'Reset', 'Clear', 'SUBMIT', 'Close', and a help icon.

Obscore tap client

The screenshot displays the Obscore tap client interface. At the top, there are navigation buttons for 'Others', 'File', 'FOV...', and 'Tools...'. The main window title is 'org.gavo.dc/tap' with a 'Mode: Obsc...' dropdown. Below the title, there is a text prompt: 'Add any obscure criteria and execute query.'

The interface is divided into several sections:

- Image servers:** A vertical list on the left includes Aladin images, SkyView, Sloan, DSS..., VLA..., Archives..., Proto..., and Others...
- Catalog servers:** A vertical list on the right includes All VizieR, SIMBAD, NED, TAP, Gaia, SkyBot, VO, and Others...
- Query Configuration:** A central panel with various input fields and buttons:
 - Table:** A dropdown menu set to 'ivoa.obscure'.
 - Select:** A dropdown menu set to '*'.
 - Max rows:** A dropdown menu set to '9999'.
 - Dataproduct type:** A dropdown menu set to 'image'. A list of options is shown in a pop-up: 'image', 'cube' (highlighted in orange), 'spectrum', 'sed', 'timeseries', 'visibility', 'event', and 'measurements'.
 - Target:** An empty text input field.
 - Radius:** An empty text input field.
 - ra:** A dropdown menu set to 'ra'.
 - em_min:** A dropdown menu set to 'em_min'.
 - Exposure time:** A dropdown menu.
 - dataproduct_type:** A dropdown menu.
 - Buttons:** A series of 'AND' buttons followed by 'Add' buttons, used to build the query.
 - Check..** and **SYNC** buttons.
 - Asy** button.
- Query Text:** A text area at the bottom containing the SQL query: `SELECT TOP 9999 * FROM ivoa.obscure`.
- Bottom Controls:** Buttons for 'Reset', 'Clear', 'SUBMIT', 'Close', and a help icon.

Obscore tap client

Others File FoV... Tools...

Image servers

- Aladin images
- SkyView
- Sloan
- DSS...
- VLA...
- Archives...
- proto...
- Others...

org.gavo.dc/tap ? Mode: Obsc...

Add any obscure criteria and execute query.

Table:

Select: Max rows:

Dataproduct type: AND Add

Target

Radius Add

AND Add

AND Add

AND Add

AND Add

Async jobs>> Upload

Reset Clear **SUBMIT** Close ?

Catalog servers

- All VizieR
- SIMBAD
- NED
- TAP
- Gaia
- SkyBot
- VO
- Others..

Exposure time

- t_min
- t_max
- Temporal resolution
- Time range

Obscore tap client

The screenshot shows the Obscore tap client interface. At the top, there is a header bar with a logo, a refresh icon, the URL 'org.gavo.dc/tap', a help icon, and a mode dropdown set to 'Obsc...'. Below the header is a light blue area with the text 'Add any obscure criteria and execute query.' The main form contains several sections: 'Table' (set to 'ivoa.obscore'), 'Select' (set to '*') and 'Max rows' (set to '9999'), 'Dataproduct type' (set to 'timeseries') with an 'Add' button, 'Target' (set to '18 50 04.79525 +33 21 45.6100') with a location icon, 'Radius' (set to '14') and 'CIRCLE' with an 'Add' button, and several rows of criteria: 'ra', 'em_min', 'Time range' (set to '01-jan-2000, 02-jan-2016'), and 'dataproduct_type'. Each criteria row has an 'Add' button. At the bottom of the form are buttons for 'Check..', 'SYNC', 'Async jobs>>', and 'Upload'. A text area at the bottom displays the generated SQL query:

```
SELECT TOP 9999 * FROM ivoa.obscore WHERE dataproduct_type = 'timeseries' AND t_min >= 51544.04166666651 AND 57389.04166666651 <= t_max
```

1. Select a dataproduct type and click on "Add"

2.1. Select time range

2.2. Provide time input and click "Add"

Obscore tap client

1°

10.84° x 4.452°

grid study wink north hdr multiview match

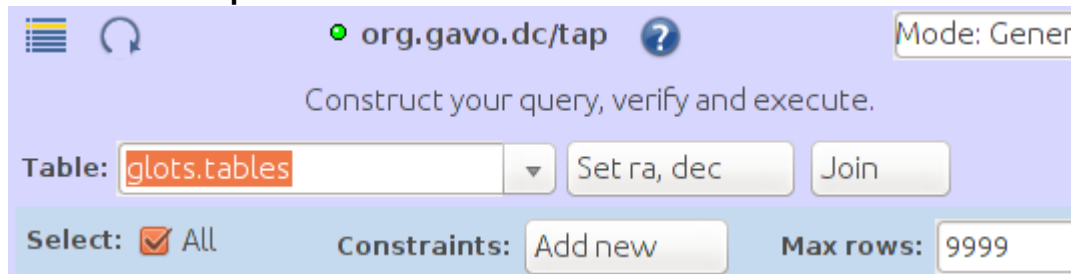
ObsCore

Search

access url	dataproduct t...	dataproduct su.	calib level	obs collection	obs id	obs title	obs pu
http://dc.zah.ur	timeseries		3	K2C9 VST	k2c9vst/data/MC, K2C9 VST MOA-2	ivo://or	
http://dc.zah.ur	timeseries		3	K2C9 VST	k2c9vst/data/MC, K2C9 VST MOA-2	ivo://or	
http://dc.zah.ur	timeseries		3	K2C9 VST	k2c9vst/data/MC, K2C9 VST MOA-2	ivo://or	
http://dc.zah.ur	timeseries		3	K2C9 VST	k2c9vst/data/MC, K2C9 VST MOA-2	ivo://or	
http://dc.zah.ur	timeseries		3	K2C9 VST	k2c9vst/data/MC, K2C9 VST MOA-2	ivo://or	
http://dc.zah.ur	timeseries		3	K2C9 VST	k2c9vst/data/MC, K2C9 VST MOA-2	ivo://or	

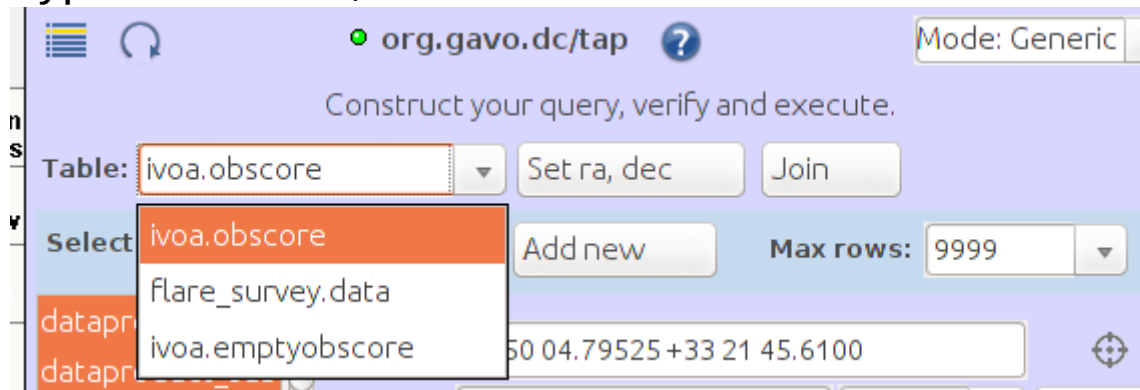
Obscure tap client

Generic tap client for Gavo:



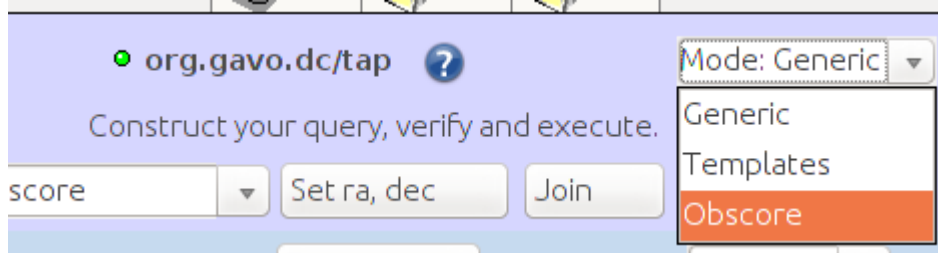
need to manually find obscure table to enable obscure client...
(for large servers...)

Type in obscure, choose and load the table:



Find obscure by
schema name = ivoa
table name = obscure
?

Now obscure mode is available.



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Conclusions

- Fix issues
- Improve usability
 - More verbose, descriptive...
 - Changes as per feedback
- Server join in examples mode, MultiTAP

Data access

Location

Frame

Projection



★DSS ★SDSS ★2MASS ★WISE ★GALEX ★PLANCK ★AKARI ★XMM ★Fermi ★Gaia ★Simbad ★NED +

- ▼ Collections → 19454
 - ▶ Image → 300
 - ▶ Data base → 2
 - ▶ Catalog → 17110
 - ▶ Cube → 6
 - ▶ Outreach → 1
 - ▶ Unsupervised → 2035



- select
- pan
- zoom
- dist
- phot

Imagine your eye looking through a stack of planes.

Each plane contains its own data set: image, catalog, graphical overlays...

You see the combination of them.

Use File->Open for covering all other data, public & drag your own files.

Aladin v9.6 *** PROTOTYPE VERSION (based on v9.620) ***

File Edit Image Catalog Overlay Coverage Tool View Interop Help

Data access → 51 / 19589

- ▼ Collections → 51 / 19589
 - ▼ Catalog → 28 / 17184
 - ▼ II-Photometric Data → 8 / 308
 - ▼ UKIDSS-DR9 LAS, GCS and DXS Surveys (Lawrence+ 2012) → 3
 - UKIDSS-DR9 Deep Extragalactic Survey (on a total of 3,003,190 sources)
 - UKIDSS-DR9 Galactic Clusters Survey (on a total of 54,467,123 sources)
 - UKIDSS-DR9 Large Area Survey (on a total of 1,000,000 sources)
 - ▼ UKIDSS-DR8 LAS, GCS and DXS Surveys (Lawrence+ 2011) → 3
 - UKIDSS-DR8 Deep Extragalactic Survey (on a total of 3,003,190 sources)
 - UKIDSS-DR8 Galactic Clusters Survey (on a total of 54,467,123 sources)
 - UKIDSS-DR8 Large Area Survey (total of 1,000,000 sources)
 - UKIDSS-DR6 Galactic Plane Survey (Lucas+ 2008)
 - UKIDSS-DR7 Large Area Survey (Lawrence+ 2011)
 - ▼ Journal table → 20 / 15697
 - ▼ A+A → 1 / 4144
 - Stellar clusters from UKIDSS Galactic Plane Survey (Solin+, 2012) (clusters)

Location

★DSS ★SDSS ★2MASS ★WISE ★GALEX ★PLANCK ★AKARI ★XMM ★Fermi ★Gaia ★Simbad ★NED +

CDS/P/DSS2/color

3 data sets selected

Multiple cone search + multi MOCs MOC union MOC intersect

CDS/II/314/dxs8, CDS/II/314/gcs8, CDS/II/314/las8

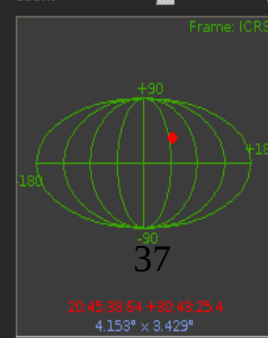
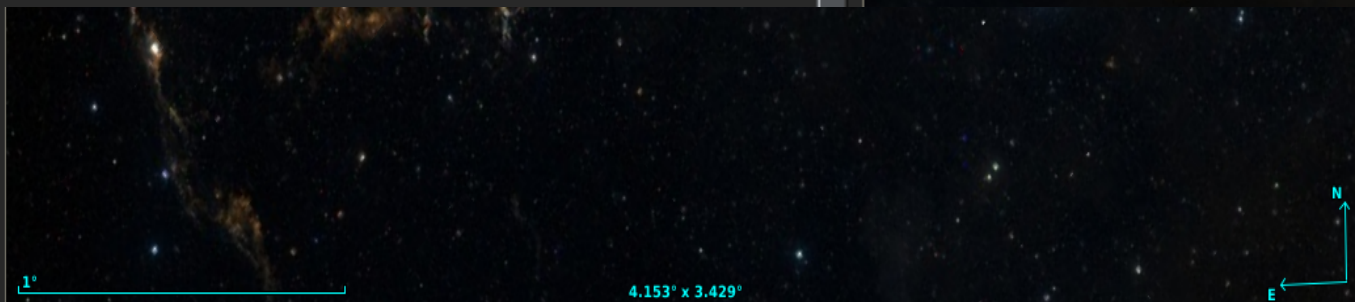
Load

Close

DSS colored

- +
- +
- +
- +
- +
- +

zoom



select
from

- filter
- exp
- inside
- scan
- grid
- study
- wink
- north
- hdr
- multiview
- match

Thank you!