Saada Key-points

- **Saada builds databases from data files**

  No Code to write

  Storage of heterogeneous dataset

  Can host multiple data collections

  Meta-data tagging (ucd, units…) « by hand »

  Acces by Web interface or VO protocols

- **A Java layer on the top of an RDBMS**

  PostgresQL, MySQL or SQLite

1.6.0 News

- SQLite

  Embedded database (simple file)

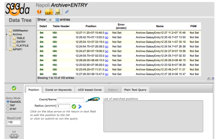
  Data storage in one simple file

  No client/server infrastructure to deploy

  But real limitations (tables < 1e6 rows)

- IVOA TAP access

  Asynchronous TAP queries

- 

  Napoli Archive>ENTRY

  Show 10 entries

Detail	Table Header	Position	Error (arcsec)	Name	PGM
Set	HDU	12:27:11.20+07:15:48.0 (s)	Not Set	Archive-GalaxyEntry12 27 11.2+07 15 48	Not Set
Set	HDU	12:25:42.70+07:13:00.0 (s)	Not Set	Archive-GalaxyEntry12 25 42.7+07 13 00	Not Set
Set	HDU	12:25:54.10+07:33:19.0 (s)	Not Set	Archive-GalaxyEntry12 25 54.1+07 33 19	Not Set
Set	HDU	12:24:54.70+07:26:38.0 (s)	Not Set	Archive-GalaxyEntry12 24 54.7+07 26 38	Not Set
Set	HDU	12:24:27.90+07:19:06.0 (s)	Not Set	Archive-GalaxyEntry12 24 27.9+07 19 06	Not Set
Set	HDU	12:24:05.70+07:02:33.0 (s)	Not Set	Archive-GalaxyEntry12 24 05.7+07 02 33	Not Set
Set	HDU	12:29:29.00+06:46:15.0 (s)	Not Set	Archive-GalaxyEntry12 29 29.0+06 46 15	Not Set
Set	HDU	12:23:52.60+07:06:29.0 (s)	Not Set	Archive-GalaxyEntry12 23 52.6+07 06 29	Not Set
Set	HDU	12:23:49.20+07:11:21.0 (s)	Not Set	Archive-GalaxyEntry12 23 49.2+07 11 21	Not Set
Set	HDU	12:27:26.50+06:15:47.0 (s)	Not Set	Archive-GalaxyEntry12 27 26.5+06 15 47	Not Set

  Showing 1 to 10 of 100 entries

  Query Mode ● SaadaQL ○ TAP ○ S*AP

  Result Limit 100

  Coord/Name

  Radius (arcmin) 1

  Click on the blue arrow or hit return in text field to add the position to the list or click on submit to run the query

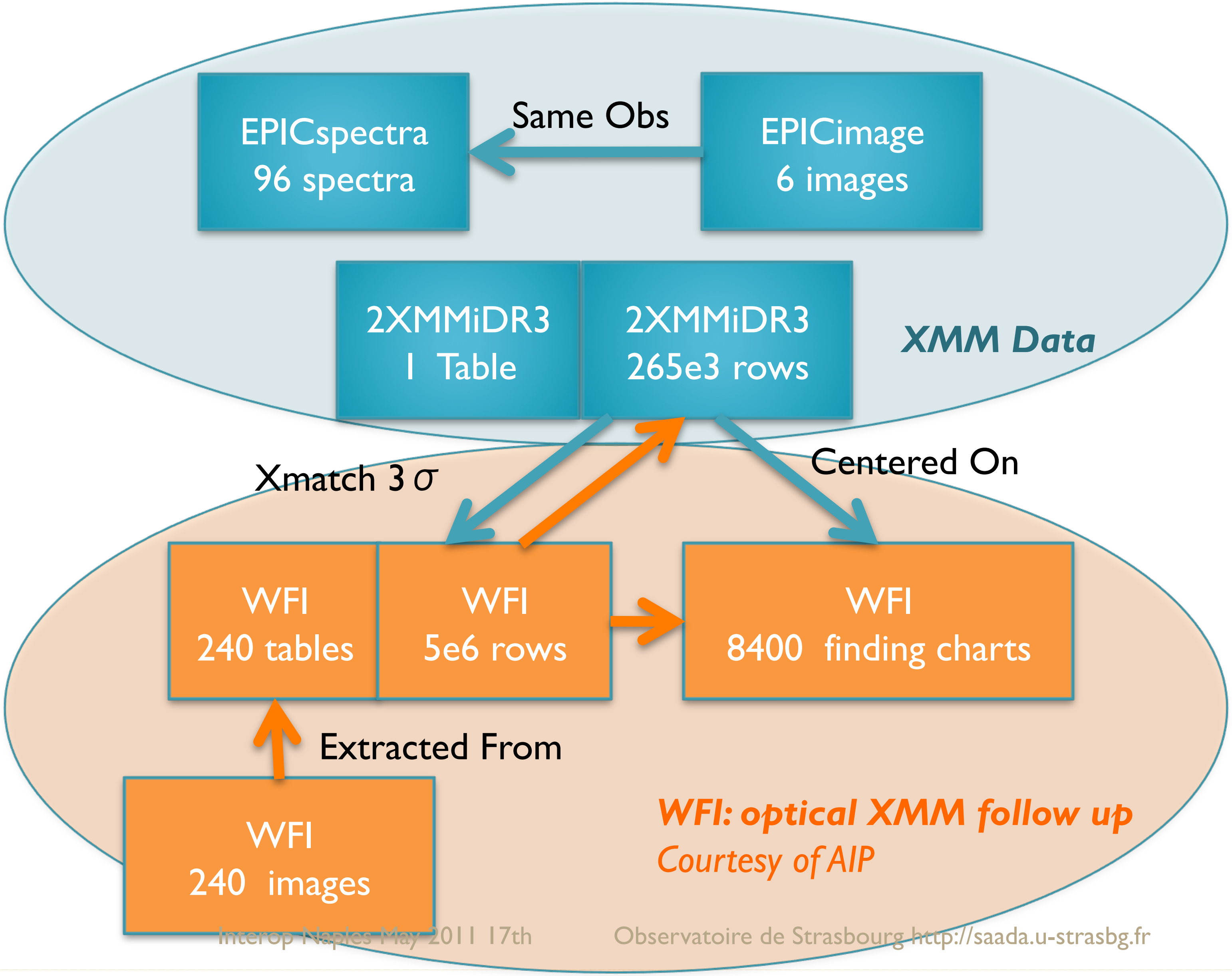
  List of searched positions

  New Web interface

  Ajax based

  Samp (WebSampConnector OBSPM)

2 Collections of Linked Data



EPICspectra
96 spectra

Same Obs

EPICimage
6 images

2XMMiDR3
1 Table

2XMMiDR3
265e3 rows

XMM Data

Xmatch 3 σ

Centered On

WFI
240 tables

WFI
5e6 rows

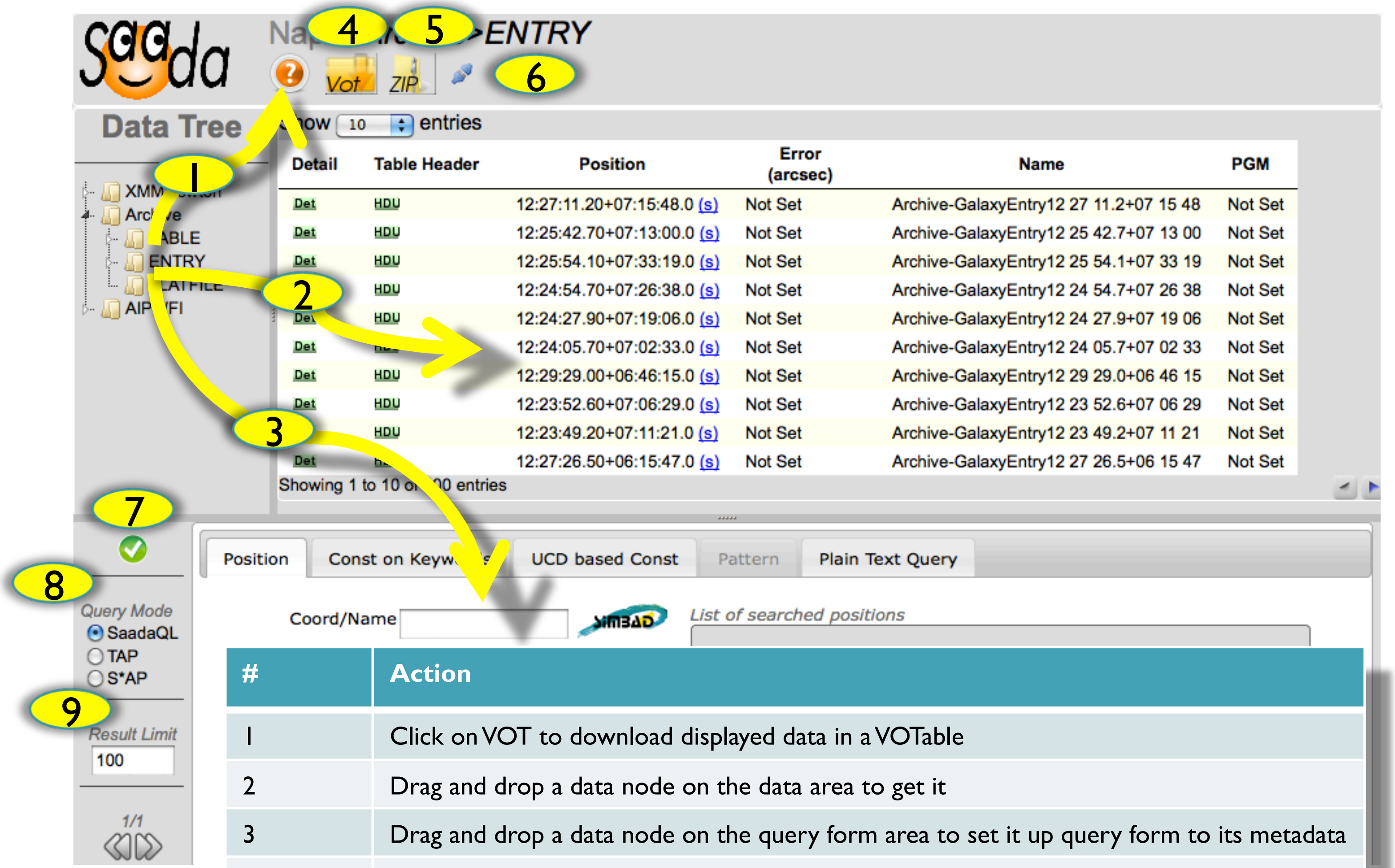
WFI
8400 finding charts

Extracted From

WFI
240 images

WFI: optical XMM follow up

Courtesy of AIP



Show 10 entries

Detail	Table Header	Position	Error (arcsec)	Name	PGM
Det	HDU	12:27:11.20+07:15:48.0 (s)	Not Set	Archive-GalaxyEntry12 27 11.2+07 15 48	Not Set
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Showing 1 to 10 of 100 entries

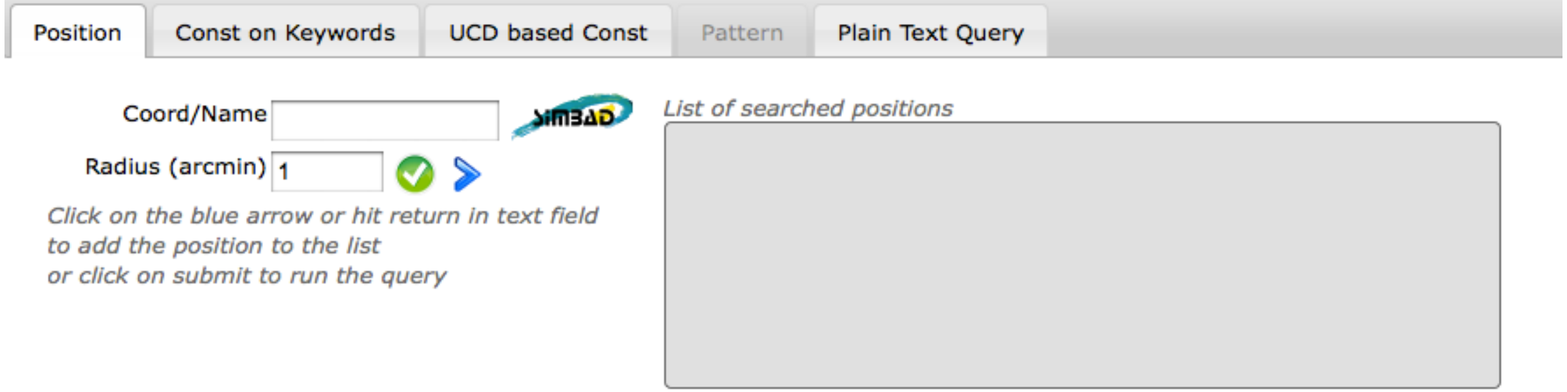
Coord/Name

Query Mode
● SaadaQL
○ TAP
○ S*AP

Result Limit
100

#	Action
1	Click on VOT to download displayed data in a VOTable
2	Drag and drop a data node on the data area to get it
3	Drag and drop a data node on the query form area to set it up query form to its metadata
4	Click on VOT to download displayed data in a VOTable
5	Click on ZIP to download displayed data in a ZIP ball including associated data
6	Samp connector.: Click on the IVOA icon to broadcast displayed data
7	Submit the current query
8	Query mode selector
9	Result limit setup

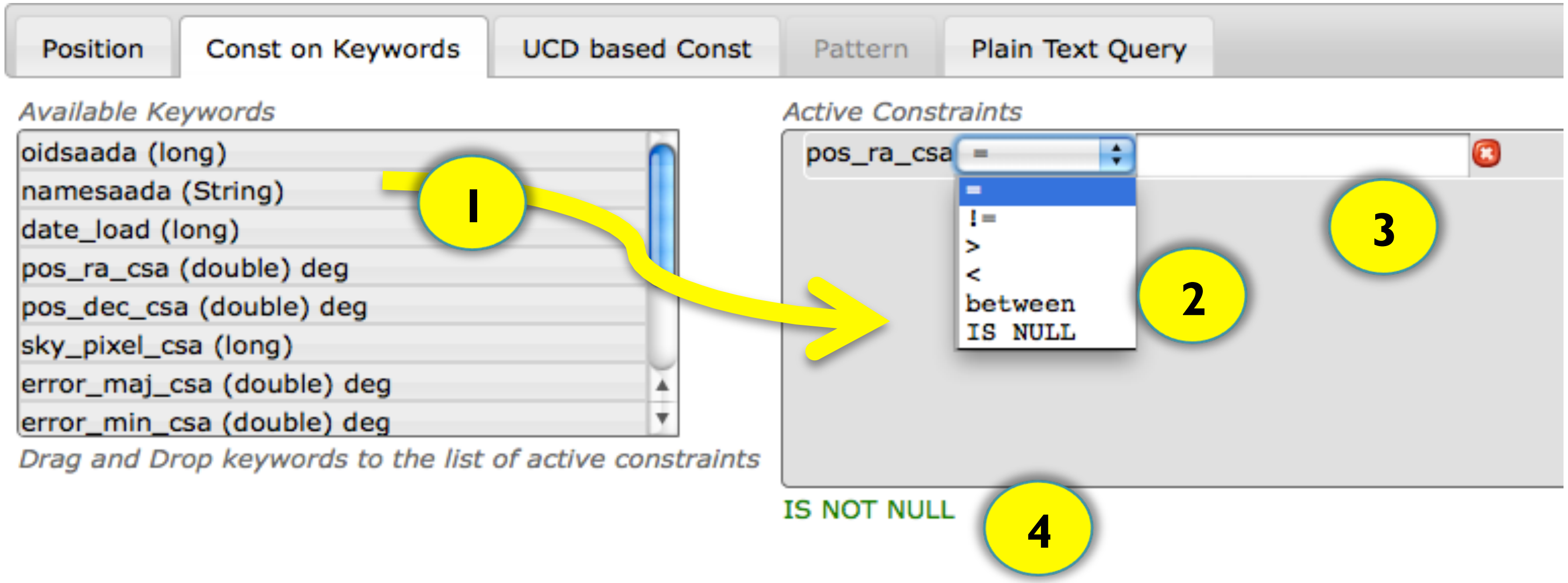
SaadaQL editor



Click on the blue arrow or hit return in text field to add the position to the list or click on submit to run the query

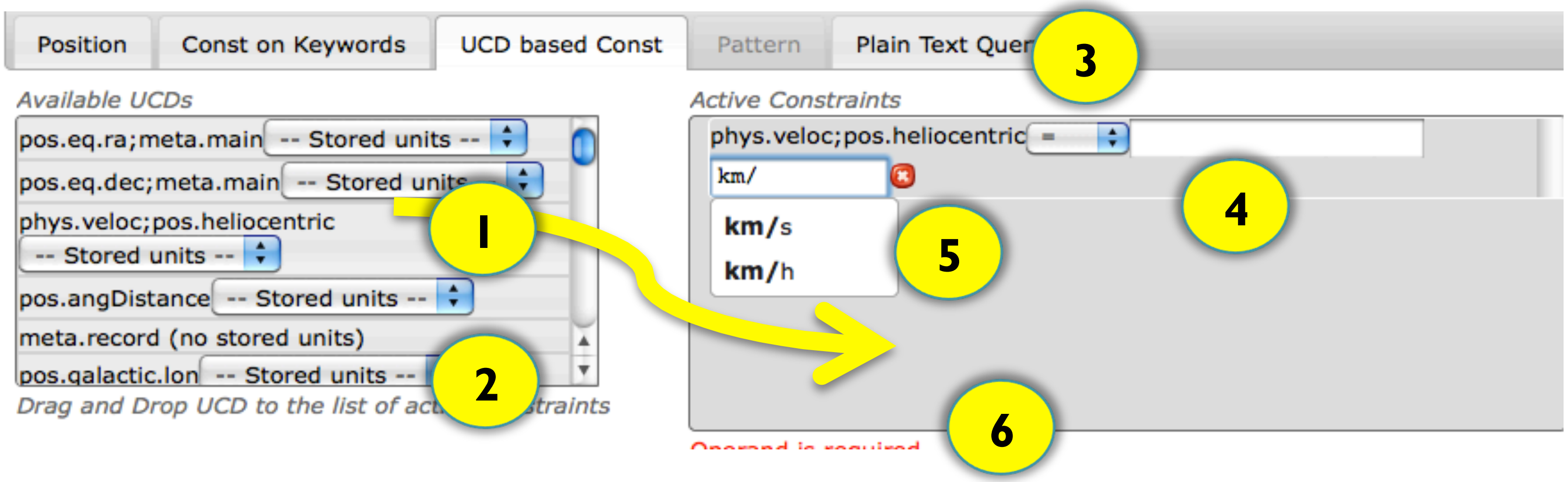
Tab	Action
General	Only tabs relevant for the considered data node are active (no position for queries on table header e.g.)
Position	Positional constraint editor: Position can be given either by name or values. Names can be resolved by Sesame (Simbad button). SaadaQL queries support multi-target queries.
Const on Keyword	Edition of logical conditions on keywords of the considered data node
UCD based Const	Editor for constraints expressed with UCDs available (queriable) in data node metadata
Pattern	MatchPattern editor: Constraint on associated data
PlainText Query	SaadaQL query text

SaadaQL KW editor



#	Action
1	Drag and Drop a keyword on the constraint list
2	Select an operator
3	Type operands. String quotes are automatically set
4	Constraints are checked on the fly

SaadaQL: UCD Based Constraint Editor

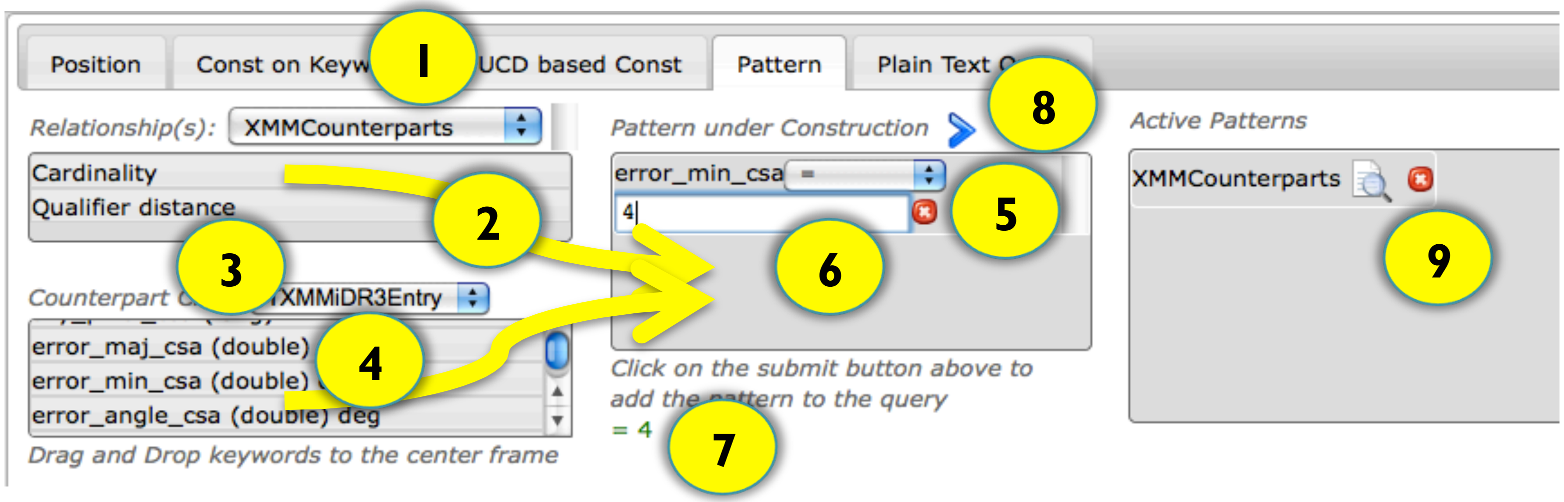


Drag and Drop UCD to the list of act... straints

Operand is required

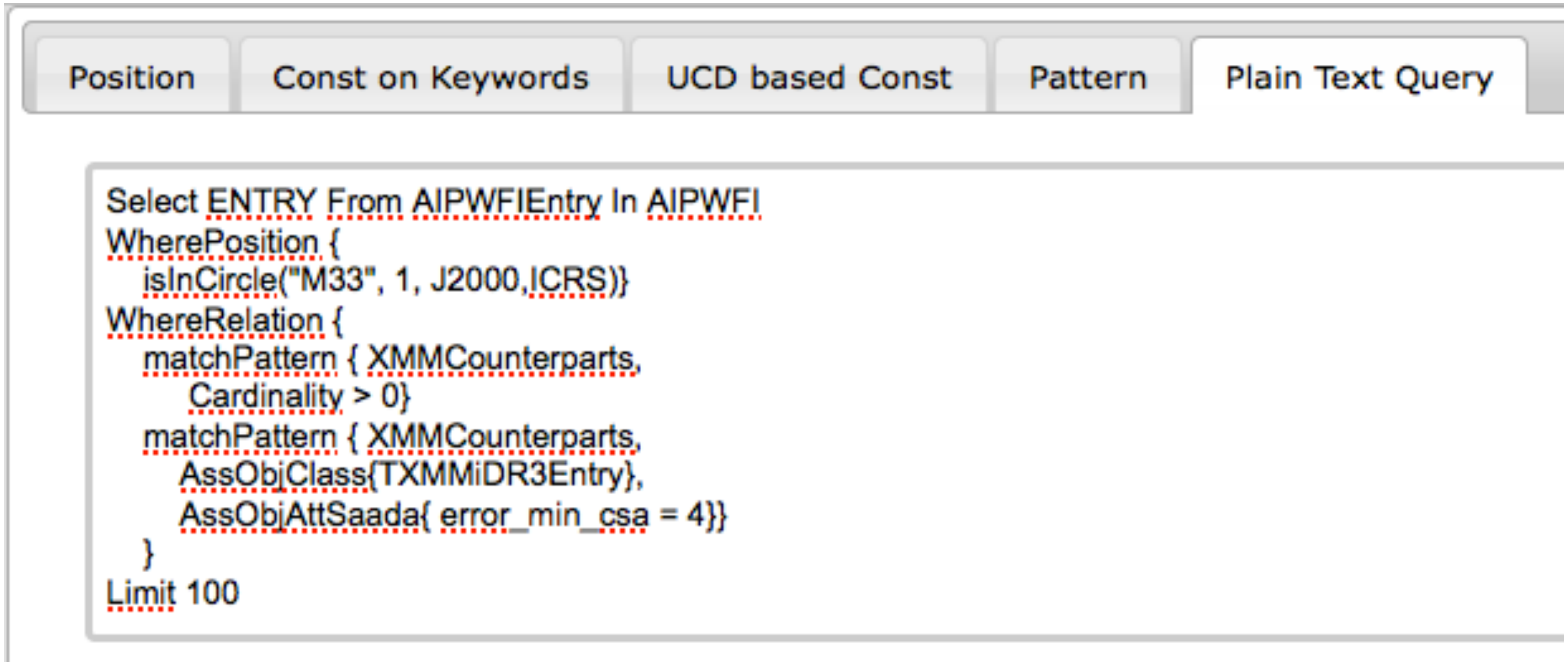
#	Action
1	Drag and Drop a UCD on the constraint list
2	Units currently used for that UCDs in the database
3	Operator selector
4	Operand text field
5	Unit suggest box
6	Constraints are checked on the fly

SaadaQL: matchPattern Editor



#	Action
1	Relationship selector
2	Drag and drop relationship parameters to the constraint list
3	Select the counterpart class (counterpart scope)
4	Drag and drop counterpart keyword on the constraint list
5	Operator selector
6	Operand editor
7	Constraints are checked on the fly
8	Builds a pattern with the constraint list and add it to the pattern list
9	List of query matchPatterns: can be previewed or removed

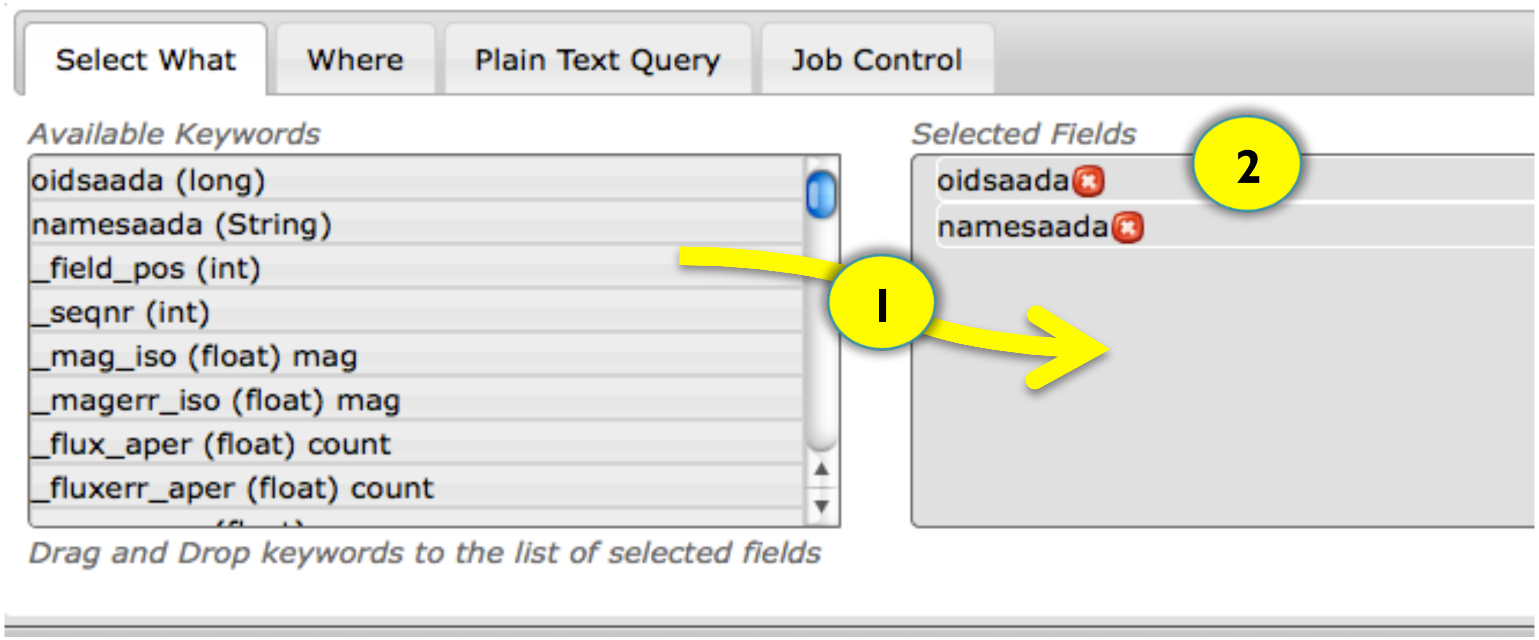
SaadaQL: Plain Text Editor



```
Select ENTRY From AIPWFIEntry In AIPWFI
WherePosition {
   isInCircle("M33", 1, J2000,ICRS)}
WhereRelation {
   matchPattern { XMMCounterparts,
       Cardinality > 0}
   matchPattern { XMMCounterparts,
      AssObjClass{TXMMiDR3Entry},
      AssObjAttSaada{ error_min_csa = 4}}
   }
Limit 100
```

Tab	Action
General	Updated after any action on any other tab
Position	Can be modified by hand: No syntax checking
Const on Keyword	Hand-made modification overridden by any action on a widget .

ADQL/Tap: Select Clause Editor



Available Keywords

oidsaada (long)
namesaada (String)
_field_pos (int)
_seqnr (int)
_mag_iso (float) mag
_magerr_iso (float) mag
_flux_aper (float) count
_fluxerr_aper (float) count

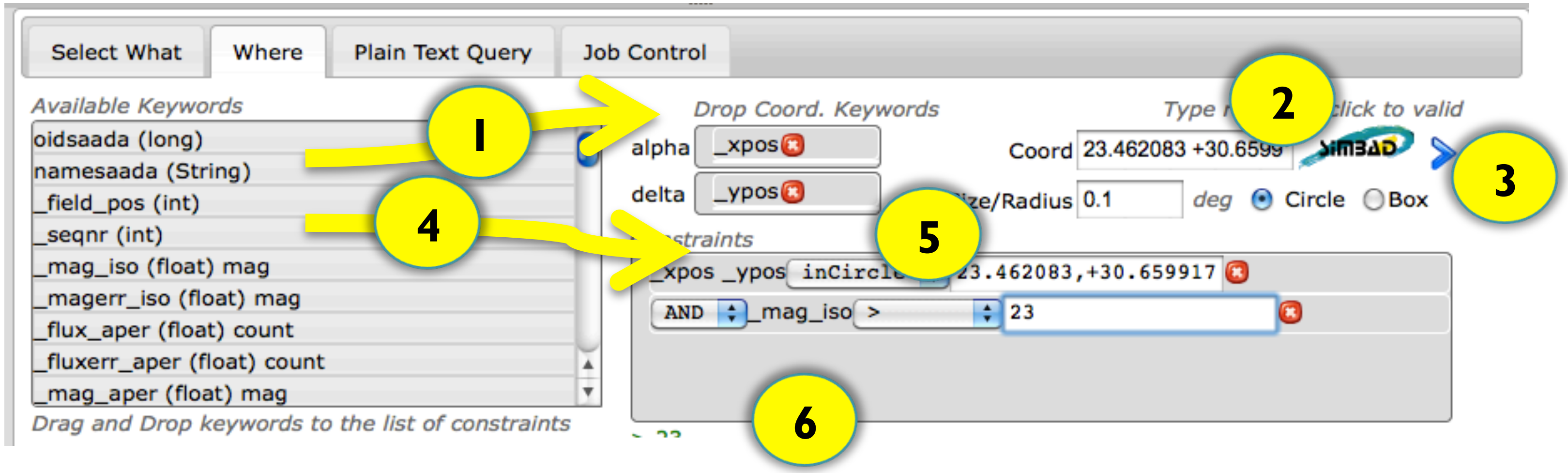
Selected Fields

oidsaada
namesaada

Drag and Drop keywords to the list of selected fields

#	Action
1	Drag and Drop column names of the queried table to the field list
2	List of selected fields

ADQL/Tap: Where Clause Editor



- oidsaada (long)
- namesaada (String)
- _field_pos (int)
- _seqnr (int)
- _mag_iso (float) mag
- _magerr_iso (float) mag
- _flux_aper (float) count
- _fluxerr_aper (float) count
- _mag_aper (float) mag

Drag and Drop keywords to the list of constraints

alpha _xpos

delta _ypos

Coord 23.462083 +30.6599

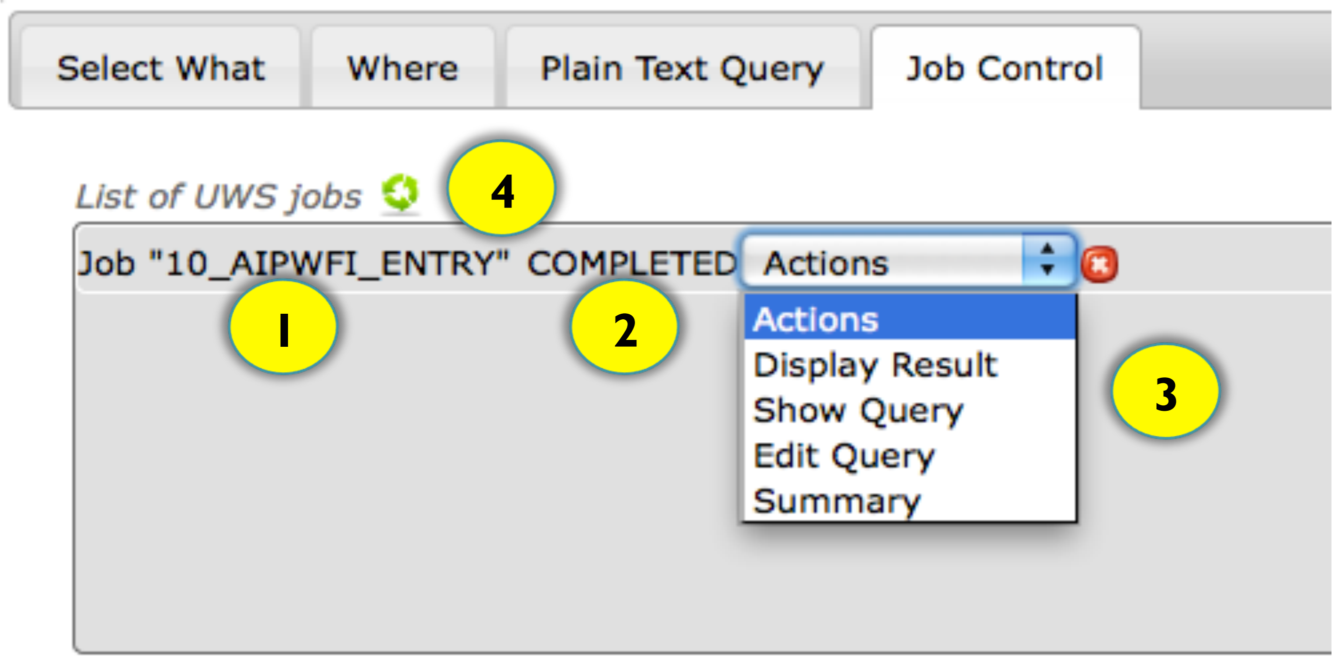
ize/Radius 0.1 deg ● Circle ○ Box

_xpos _ypos inCircle 23.462083,+30.659917

AND _mag_iso > 23

#	Action
1	Drag and drop position keywords to the positional constraint editor
2	Positional parameters editor: Position must be given in decimal
3	Add the positional constraint to the current query
4	Drag and drop keywords to the constraint list
5	Constraint operands are edited by hand
6	Constraints are checked on the fly

TAP Job Control



#	Action
1	Job name: generated by Saada and more or less relevant from the current data node.
2	Job status
3	Popup list of possible action
4	Refresh the current job list (both jobs and status)

Prospects

- **DM View Mapper (ObsTap)**

  Scheduled for next Interop

- **Web Interface Continuing**

  Student work in progress

- **General implementation of asynchronous processing**

  Large dataset download