# Level-1 release

VAMDC PM1
April 2010


# Purpose of release

- Internal use:
  - “practice” infrastructure tech
  - Limited user feedback
- External review in Month 10 (July 2010)

# Goals

- Access “all” data from common UI. “All” =
  - DBs with existing web interface
    - Sample DBs with tables interface
    - Sample DBs with XSAMS interface
  - Discover data / interfaces to data from registry

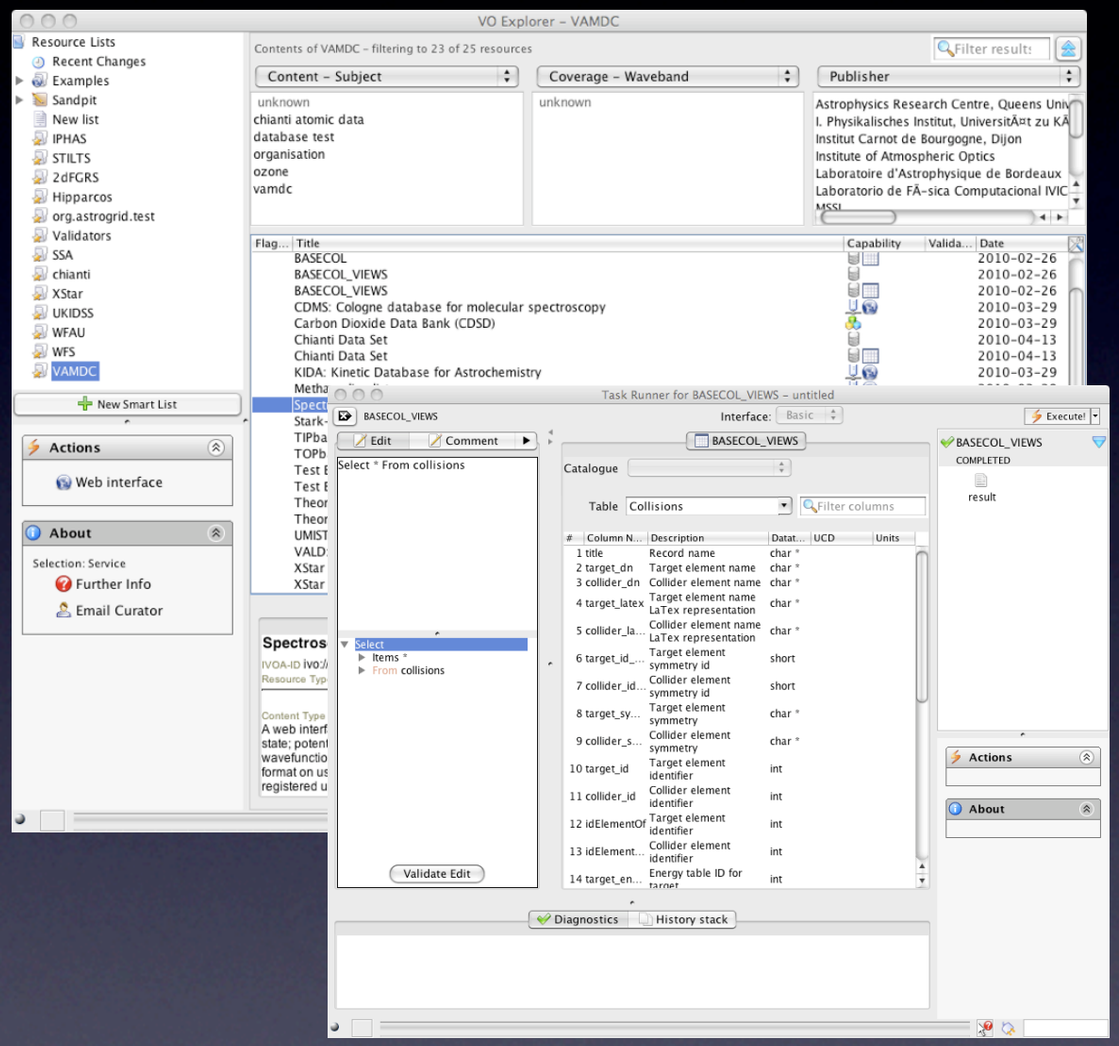
# Deferred goals (to Year 2)

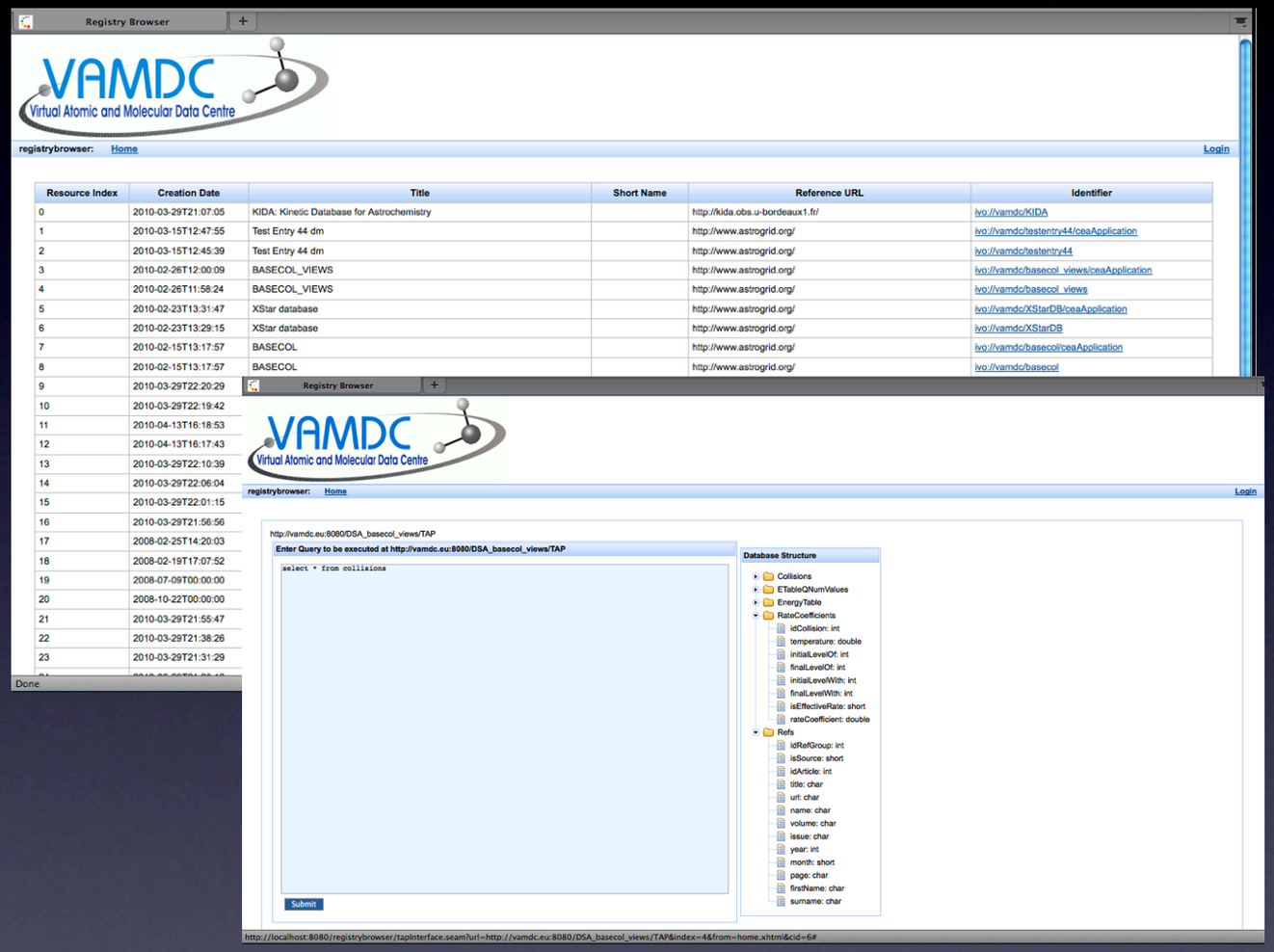
- Uniform format for all query results
- Send same query to many DB as one operation
- Execution of codes as services (may be dropped)
- Workflows with significant processing of data

# Components

- Registry
- Basic portal
- VODesktop
- Few TAP services on data
- Few XSAMS services on data
- Legacy web-sites

# Two UIs



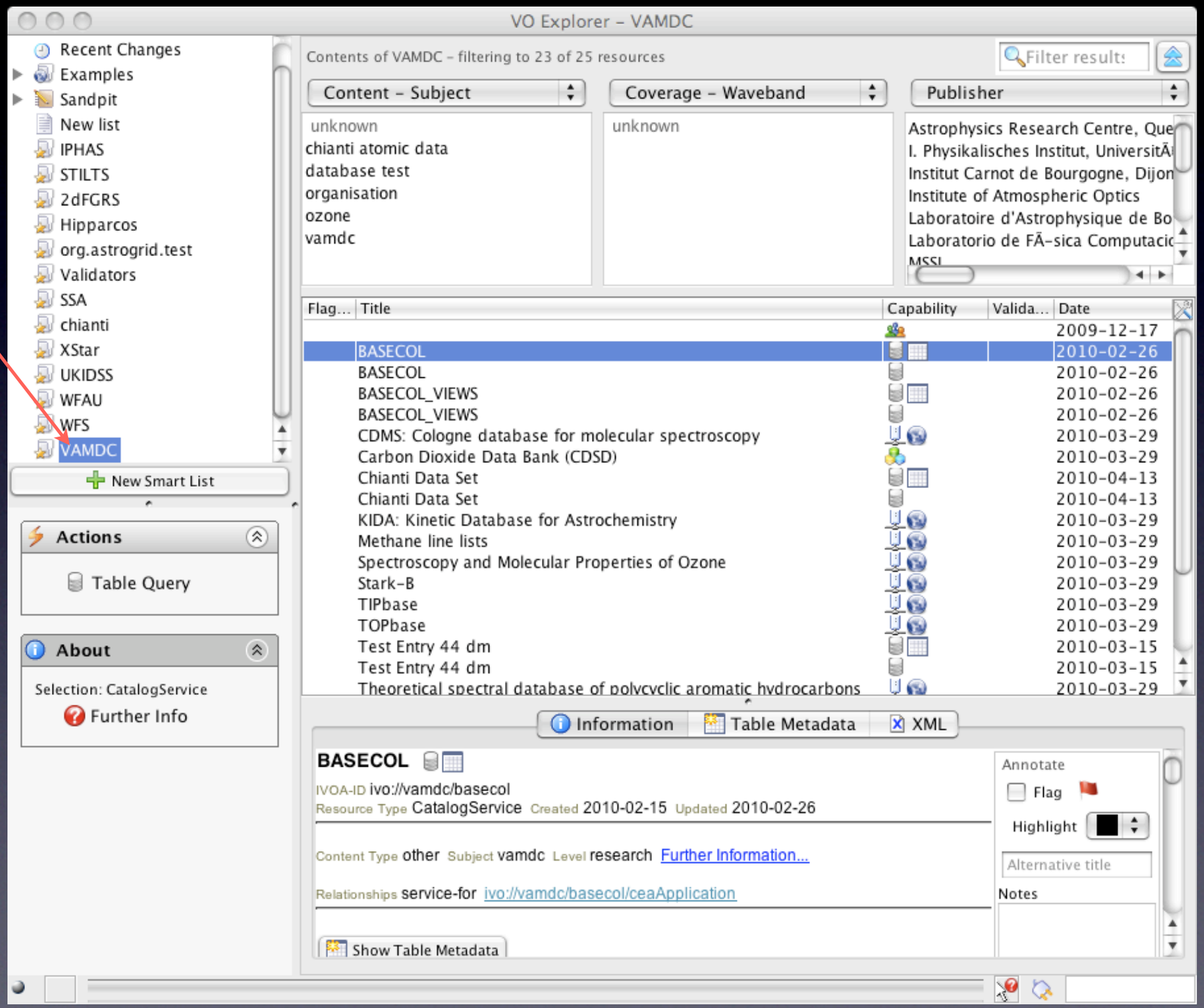

VODesktop

VAMDC web-portal

They have/will have the same basic features

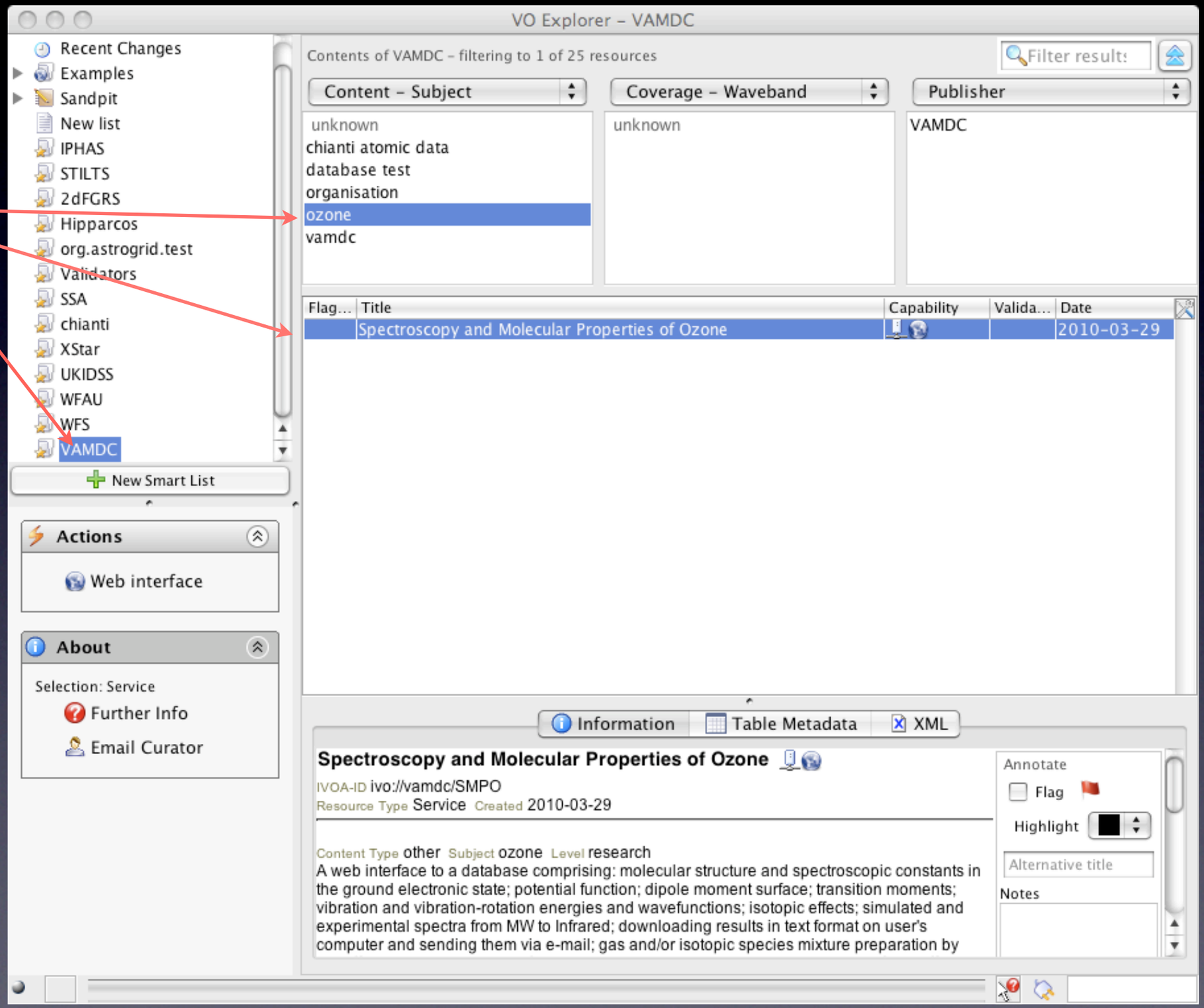
# Using a legacy web UI

1. Choose data



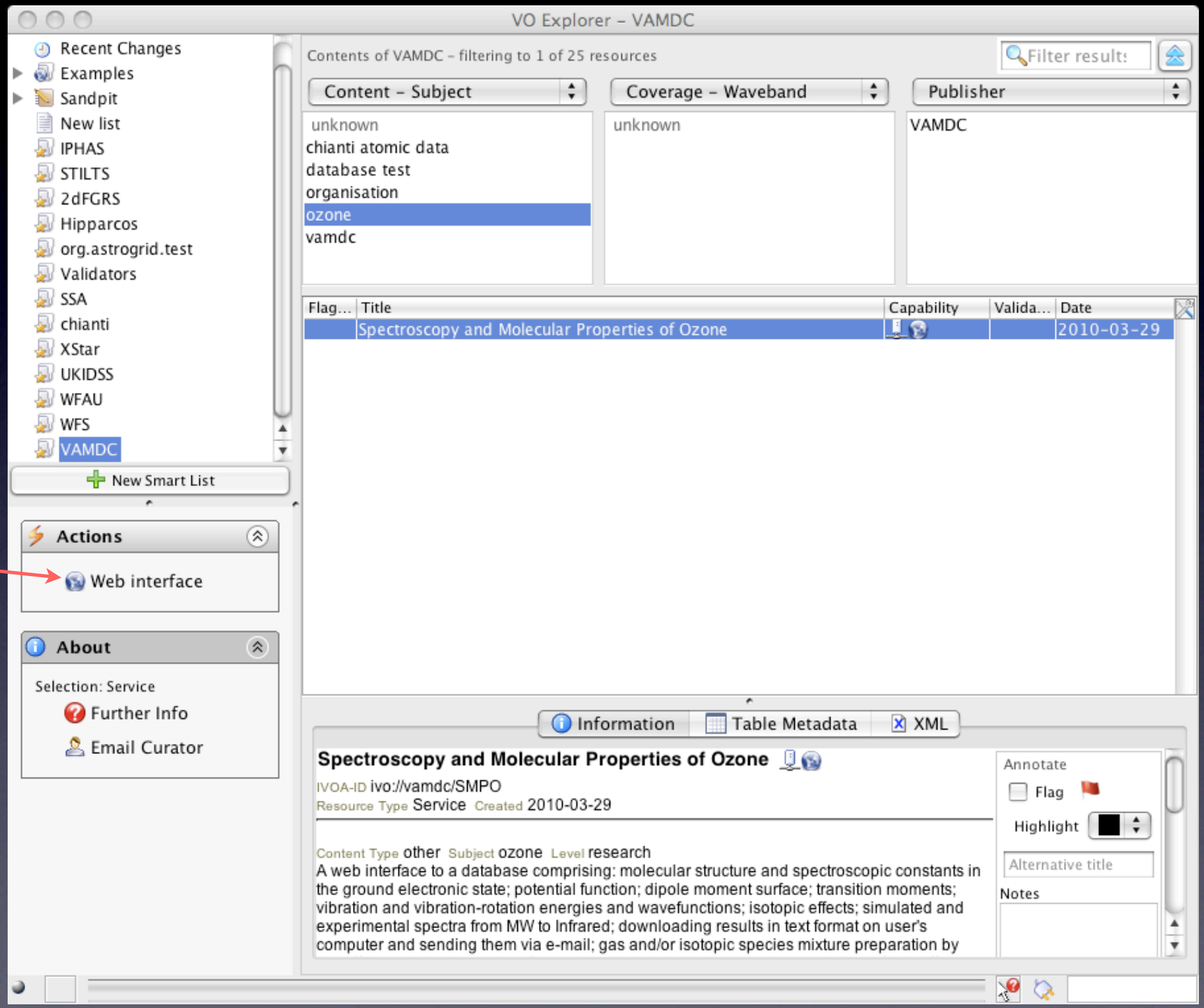
# Using a legacy web UI

1. Choose data

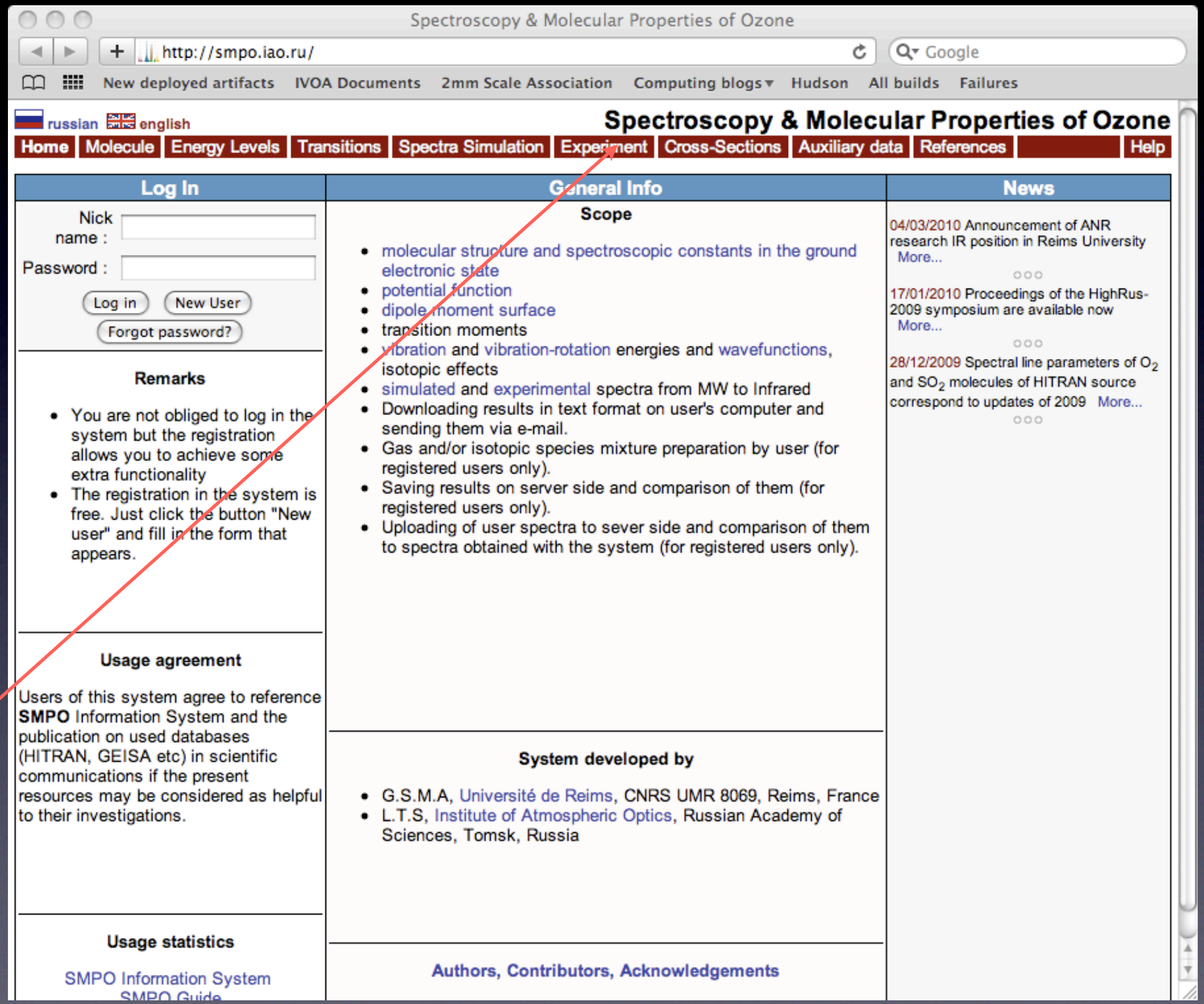


# Using a legacy web UI

2. Follow link to legacy web-site



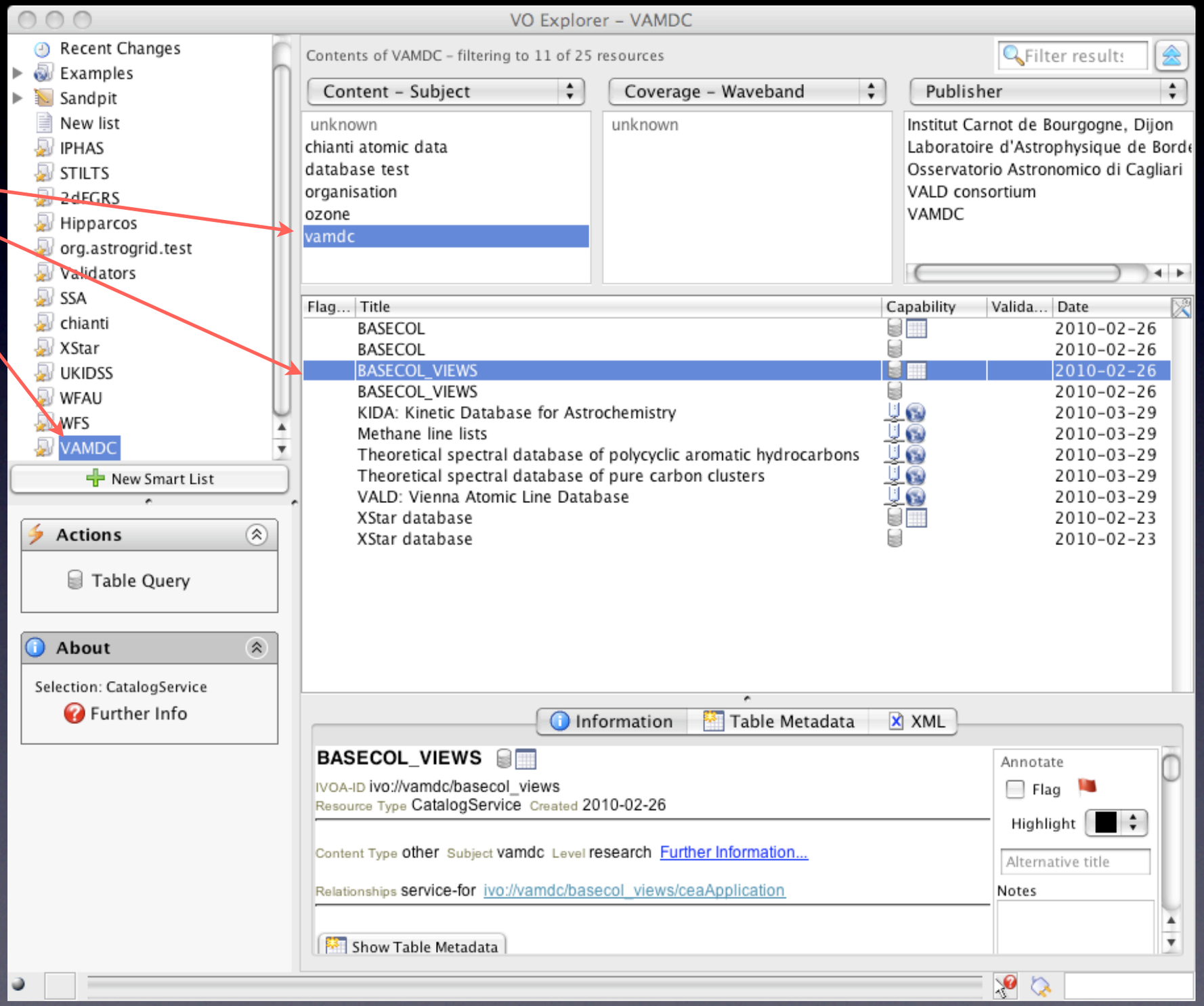
# Using a legacy web UI




3. Use web-site as normal

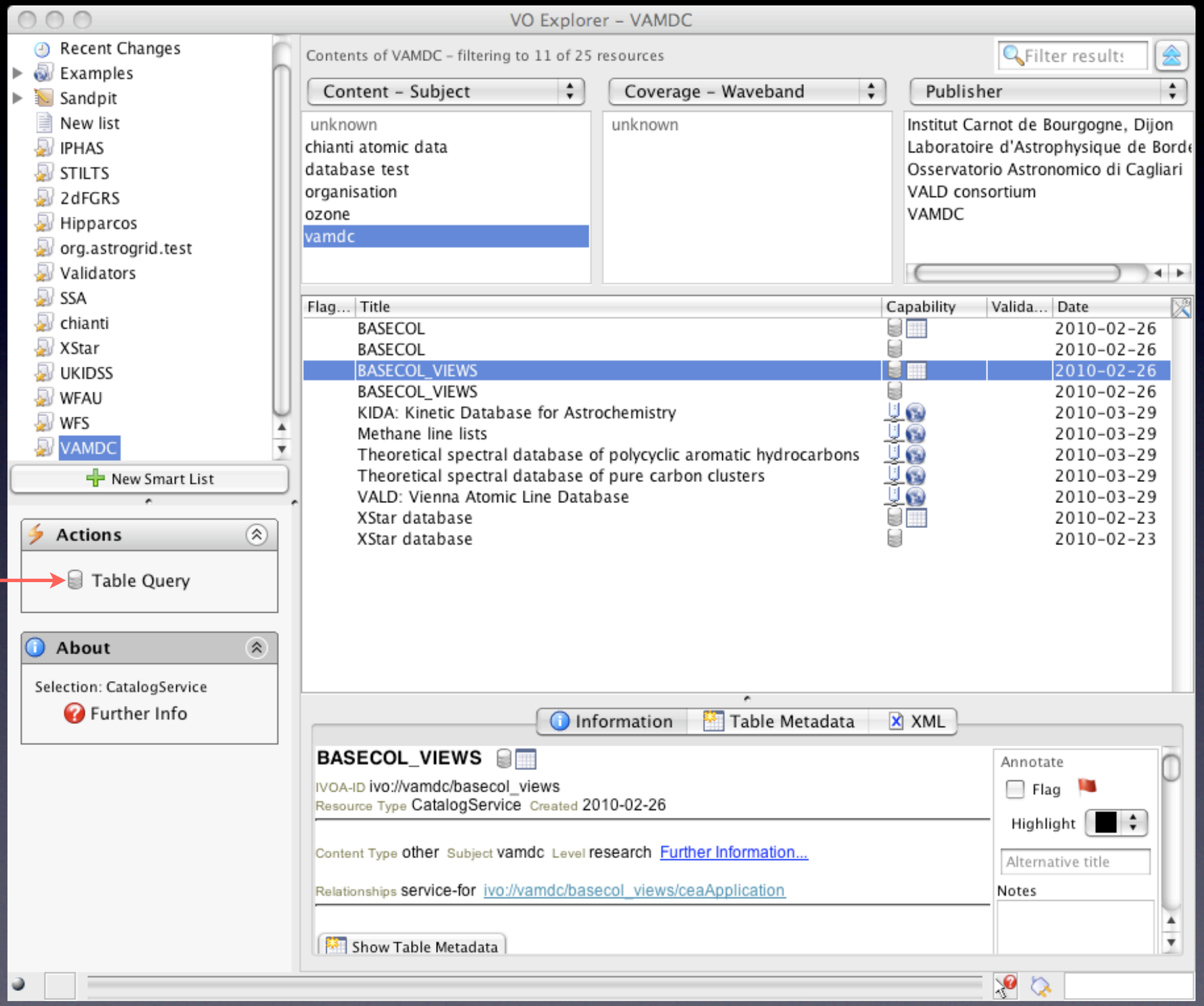
# Using TAP

1. Choose data



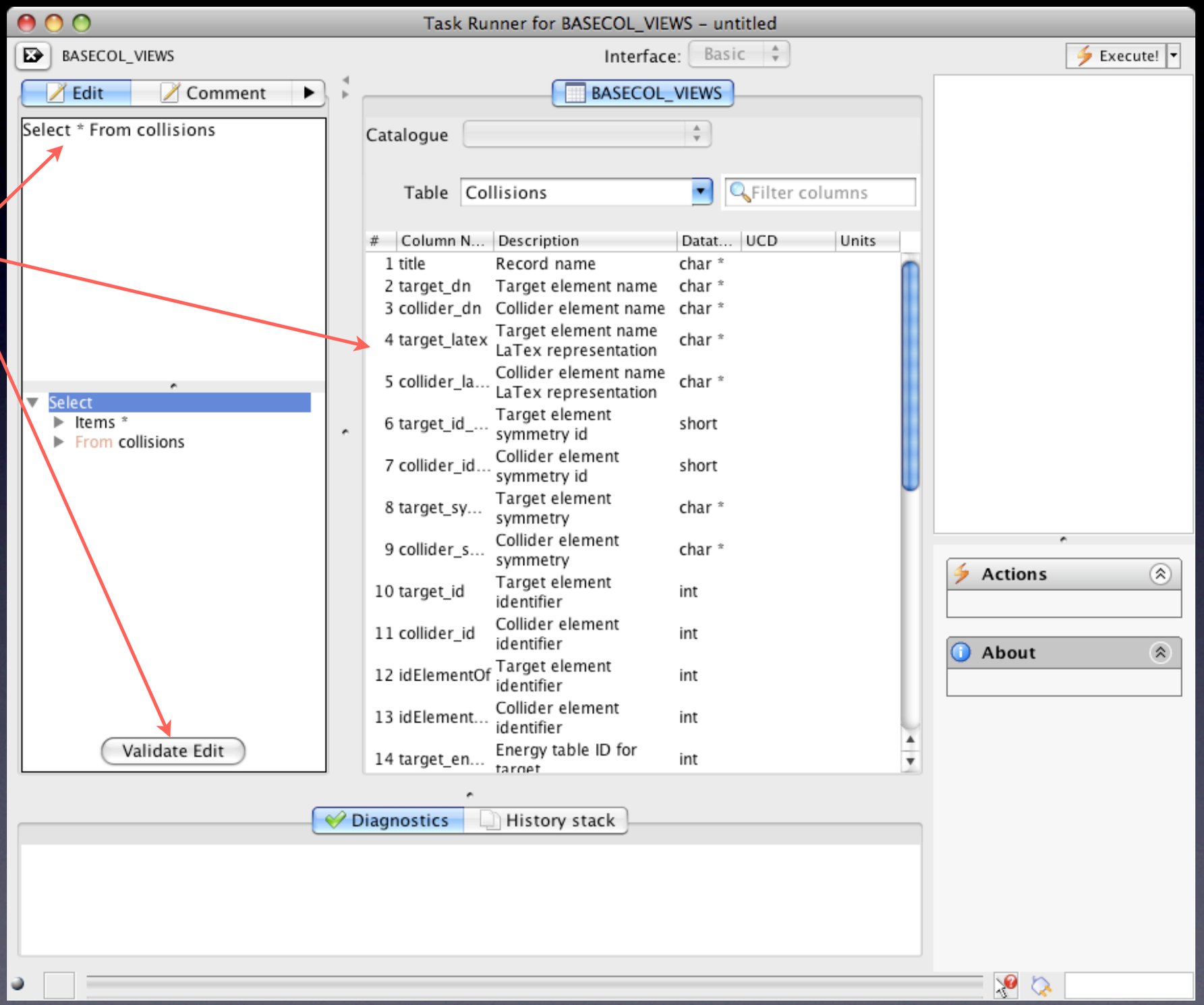
# Using TAP

2. Choose action



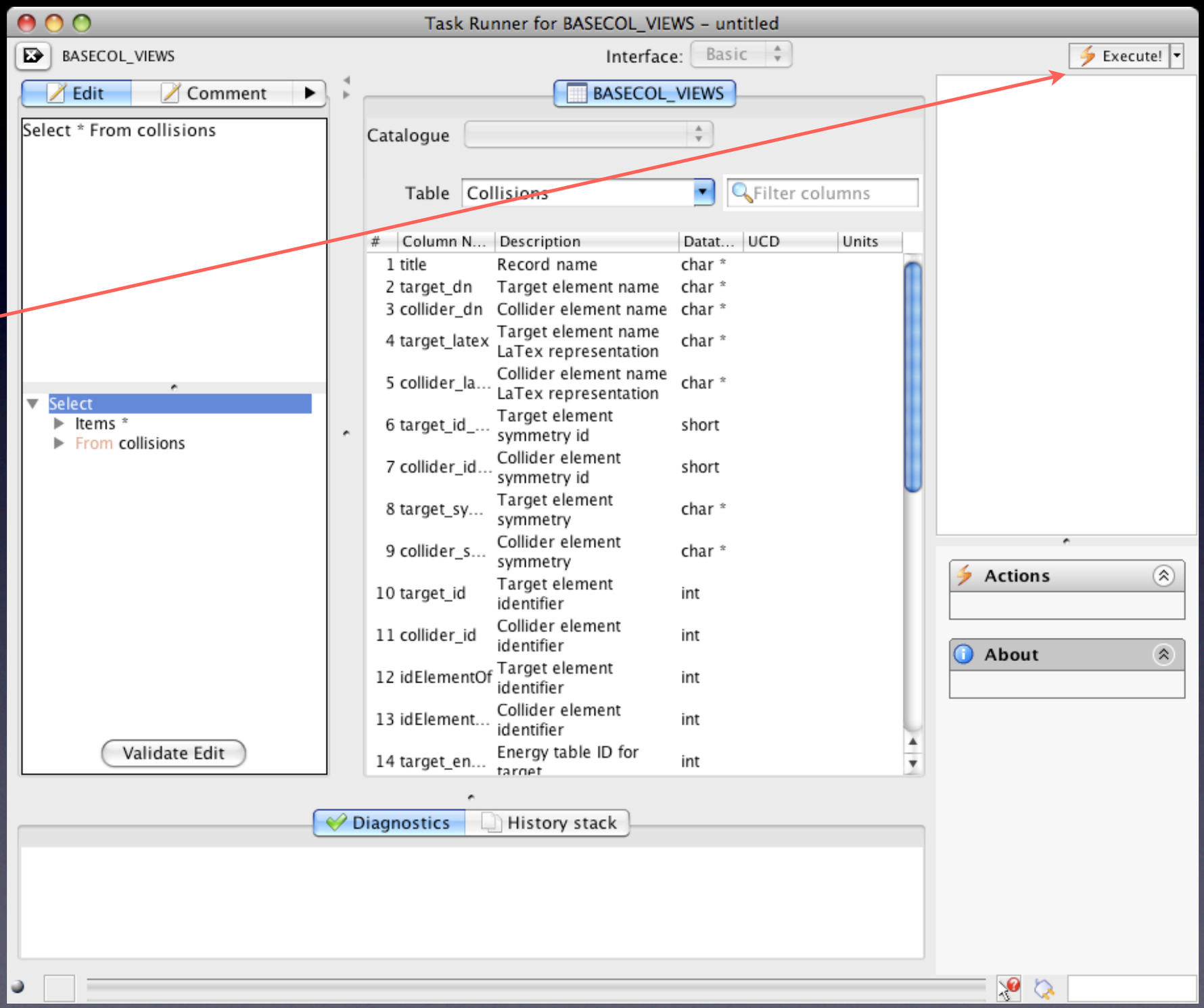
# Using TAP

3. Enter query



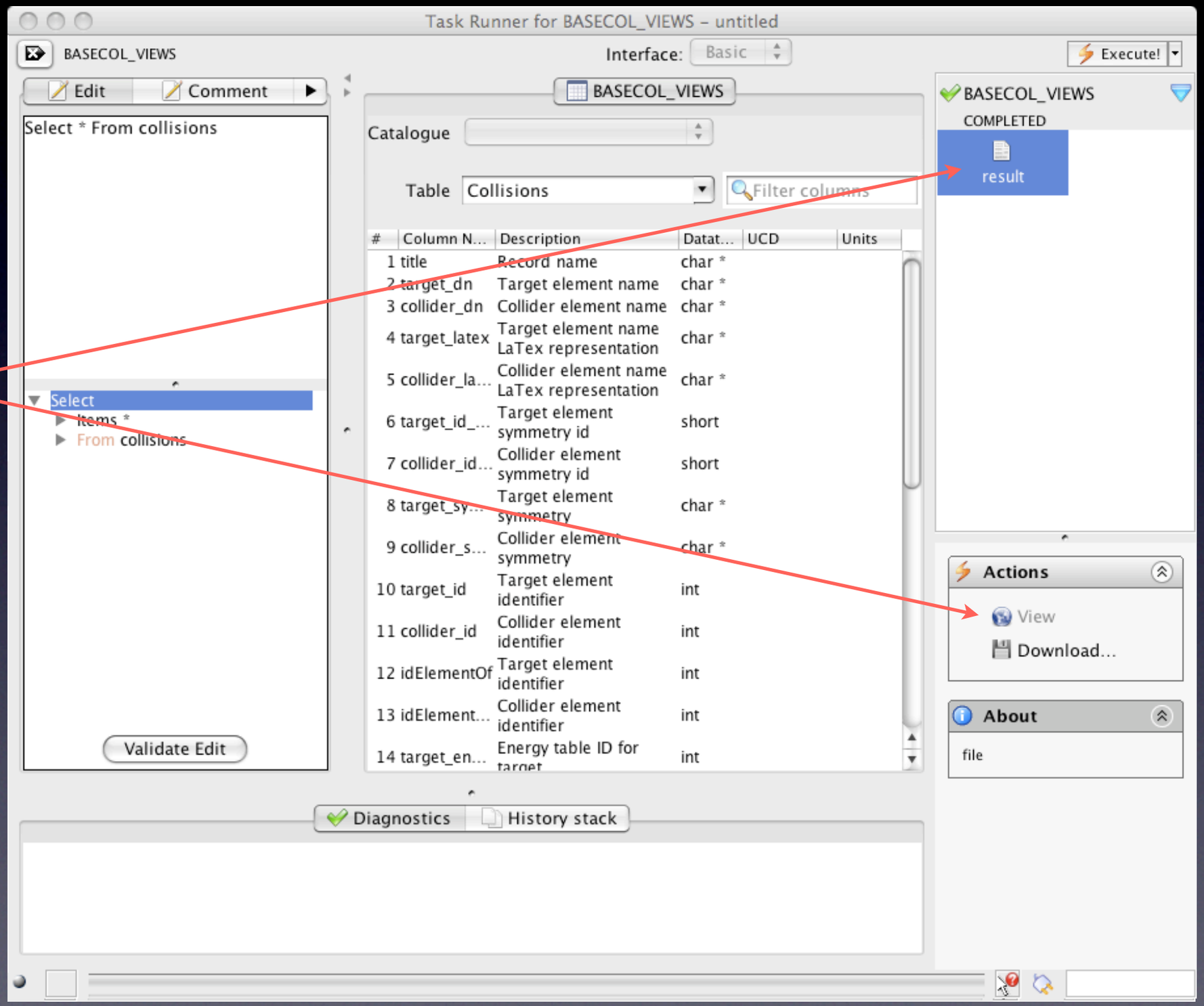
# Using TAP

4. Submit query



# Using TAP

5. Request results



# Using TAP

6. View results in TopCat

TOPCAT(1): Table Browser

Table Browser for 1: result

| | title | target_dn | collider... | target_latex | collider... | target_i... | collider... | targe |
|---|---|---|---|---|---|---|---|---|
| 1 | Rotational excitation of ortho-H$_2$O by He (Gre... | H2O | He | H$_2$O | He | 4 | 0 | ortho |
| 2 | Rotational excitation of CS by para-H$_2$, 20K... | CS | H2 | CS | H$_2$ | 0 | 5 | none |
| 3 | Rotational excitation of HCO$^+$ by para-H$_2... | HCO+ | H2 | $HCO^+$ | H$_2$ | 0 | 5 | none |
| 4 | Rotational excitation of OCS by He (Flower, 2001) | OCS | He | OCS | He | 0 | 0 | none |
| 5 | Rotational excitation of HCl by He (Neufeld & al.,... | HCl | He | HCl | He | 0 | 0 | none |
| 6 | Excitation of the hyperfine levels of HCl by He (Ne... | HCl | He | HCl | He | 0 | 0 | none |
| 7 | Rotational excitation of SiO by collisions with para... | SiO | H2 | SiO | H$_2$ | 0 | 5 | none |
| 8 | Rotational de-excitation of CO by para-H$_2$ (j... | CO | H2 | CO | H$_2$ | 0 | 5 | none |
| 9 | Rotational excitation of HF(v=0) by He (Reese et... | HF | He | HF | He | 0 | 0 | none |
| 10 | Rotational Excitation of para-H$_2$CO by He (Gr... | H2CO | He | H$_2$CO | He | 5 | 0 | para |
| 11 | Rotational Excitation of ortho-H$_2$CO by He (Gr... | H2CO | He | H$_2$CO | He | 4 | 0 | ortho |
| 12 | Rotational Excitation of HCS$^+$ by He (Monteiro... | HCS+ | He | $HCS^+$ | He | 0 | 0 | none |
| 13 | Rotational excitation of SO$_2$ by He (Green 199... | SO2 | He | $SO_2$ | He | 0 | 0 | none |
| 14 | Rotational excitation of HDO by He (Green 1989) | HDO | He | HDO | He | 0 | 0 | none |
| 15 | Rotational excitation of para-H$_2$O by He (Gre... | H2O | He | H$_2$O | He | 5 | 0 | para |
| 16 | Rotational excitation of SiO by para-H$_2$, 20K... | SiO | H2 | SiO | H$_2$ | 0 | 5 | none |
| 17 | Ro-vibrational excitation of ortho-H$_2$ by He (F... | H2 | He | H$_2$ | He | 4 | 0 | ortho |
| 18 | Ro-vibrational excitation of para-H$_2$ by He (F... | H2 | He | H$_2$ | He | 5 | 0 | para |
| 19 | Ro-vibrational excitation of ortho-H$_2$ by H (Fl... | H2 | H | H$_2$ | H | 4 | 0 | ortho |
| 20 | Ro-vibrational excitation of para-H$_2$ by H (Flo... | H2 | H | H$_2$ | H | 5 | 0 | para |
| 21 | Ro-vibrational excitation of ortho-H$_2$ by ortho... | H2 | H2 | H$_2$ | H$_2$ | 4 | 4 | ortho |
| 22 | Ro-vibrational excitation of ortho-H$_2$ by para... | H2 | H2 | H$_2$ | H$_2$ | 4 | 5 | ortho |
| 23 | Ro-vibrational excitation of para-H$_2$ by ortho... | H2 | H2 | H$_2$ | H$_2$ | 5 | 4 | para |
| 24 | Ro-vibrational excitation of para-H$_2$ by para-... | H2 | H2 | H$_2$ | H$_2$ | 5 | 5 | para |
| 25 | Excitation of the fine structure of SO by para-H$_... | SO | H2 | SO | H$_2$ | 0 | 5 | none |
| 26 | Rotational excitation of CO by ortho-H$_2$ (Flow... | CO | H2 | CO | H$_2$ | 0 | 4 | none |
| 27 | Rotational excitation of CO by para H$_2$ (Flower... | CO | H2 | CO | H$_2$ | 0 | 5 | none |
| 28 | Rotational excitation of OCS by para-H$_2$ (Gree... | OCS | H2 | OCS | H$_2$ | 0 | 5 | none |
| 29 | Rotational excitation of HC$_3$N by He (Green &... | HC3N | He | $HC_3N$ | He | 0 | 0 | none |
| 30 | Vibrational de-excitation of SiO by para-H$_2$,... | SiO | H2 | SiO | H$_2$ | 0 | 5 | none |
| 31 | Rotational excitation of A-methanol in its ground t... | CH3OH | He | CH$_3$OH | He | 1 | 0 | A |
| 32 | Rotational excitation of E-methanol in its ground... | CH3OH | He | CH$_3$OH | He | 2 | 0 | E |
| 33 | Rotational excitation of ortho-H$_2$O by ortho-H... | H2O | H2 | H$_2$O | H$_2$ | 4 | 4 | ortho |
| 34 | Rotational excitation of ortho-H$_2$O by para-H... | H2O | H2 | H$_2$O | H$_2$ | 4 | 5 | ortho |
| 35 | Rotational excitation of para-H$_2$O by ortho-H... | H2O | H2 | H$_2$O | H$_2$ | 5 | 4 | para |
| 36 | Rotational collisional de-excitation rate coefficient... | N2H+ | He | $N_2H^+$ | He | 0 | 0 | none |
| 37 | Rotational excitation of para-H$_2$O by para-H... | H2O | H2 | H$_2$O | H$_2$ | 5 | 5 | para |
| 38 | Rotational excitation of SiC$_2$ by He (Chandra... | SiC2 | He | $SiC_2$ | He | 4 | 0 | ortho |

# Access with XSAMS

- Like TAP, but the results are more uniform
- Different query language: details not fixed yet

# Registered web UIs

- CDMS
- CDSD
- KIDA
- Dijon methane line-lists
- S&MPO
- Stark-B
- TIPBase
- TOPBase
- OAC PAH
- OAC carbon-clusters
- UDfA
- VALD

# Registered codes

- None so far (not a cycle-1/level-1 task)
- Should we register the legacy web-UIs for codes?

# Data-sets with TAP

- BASECOL
- XStarDB
- CHIANTI

# XSAMS services

- None so far.
- Hope to get a few prototypes into L1 system
- Candidates:
  - BASECOL
  - VALD
  - Others? Suggestions? Volunteers?

# Is that all?

Probably.

Fancier use-cases need tech we haven't finished yet

e.g.

*richer metadata*

*uniform query interfaces*

*common format for results*

Make it *work* before making it *rich*.

# *Pimp my VAMDC*

- Making it more attractive in year 1
  - Worked examples of queries
  - Implement sample science-cases (from WP2)
  - Work with early users to design custom queries
  - Write some useful workflow apps that use the services