VAMDC Portal

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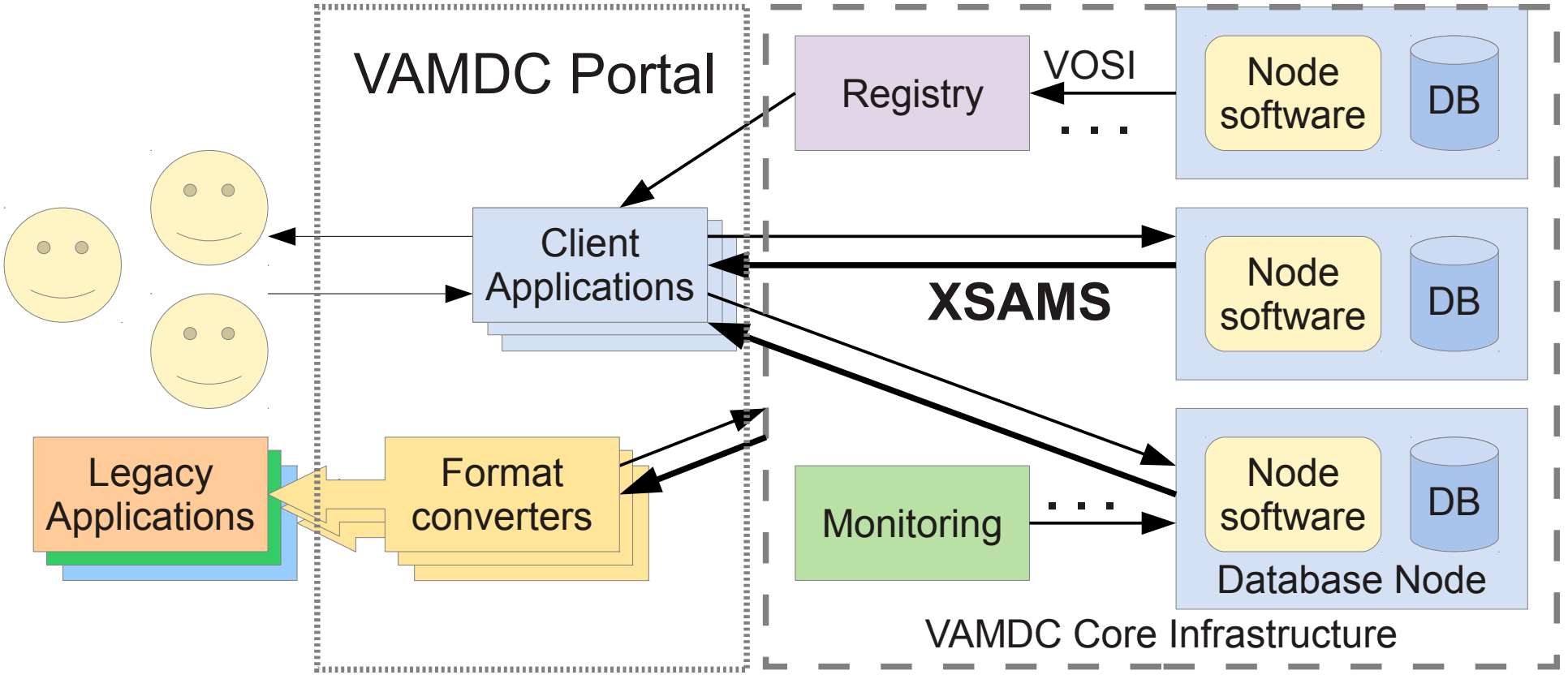
VAMDC portal

- Entry point for new-coming user to VAMDC
- Should:
  - Be easy and straight-forward to use
  - Give a view on the complete functionality of VAMDC
  - Allow to query all kinds of member databases
- Portal is:
  - A query interface
  - A list of VAMDC databases
  - Access point to XSAMS Processors

VAMDC infrastructure



Development History

- First concepts during P1 and P2
- Redesign in the beginning of P3
  - Revised user interface
  - Concept of preview
  - Concept of modular XSAMS processor webservices
- New in 12.07 version
  - Node and registry mirrors support
  - Updated species database for molecules form
  - Data extract last modification date

User interface design

Think and design first, write code later:

http://bit.ly/xzzOMH

VAMDC Portal

Home | Query builder | Saved queries

Modify query | Stop waiting | Save query

Select All where Blah >0 and foo ='Some'

User notes

Status: waiting, response from 4 nodes, 2 with data, 10 seconds left

Consumers

- (•) XSAMS display
- ( ) XSAMS merge tool
- ( ) SLAP broker
- ( ) FITS converter

Process

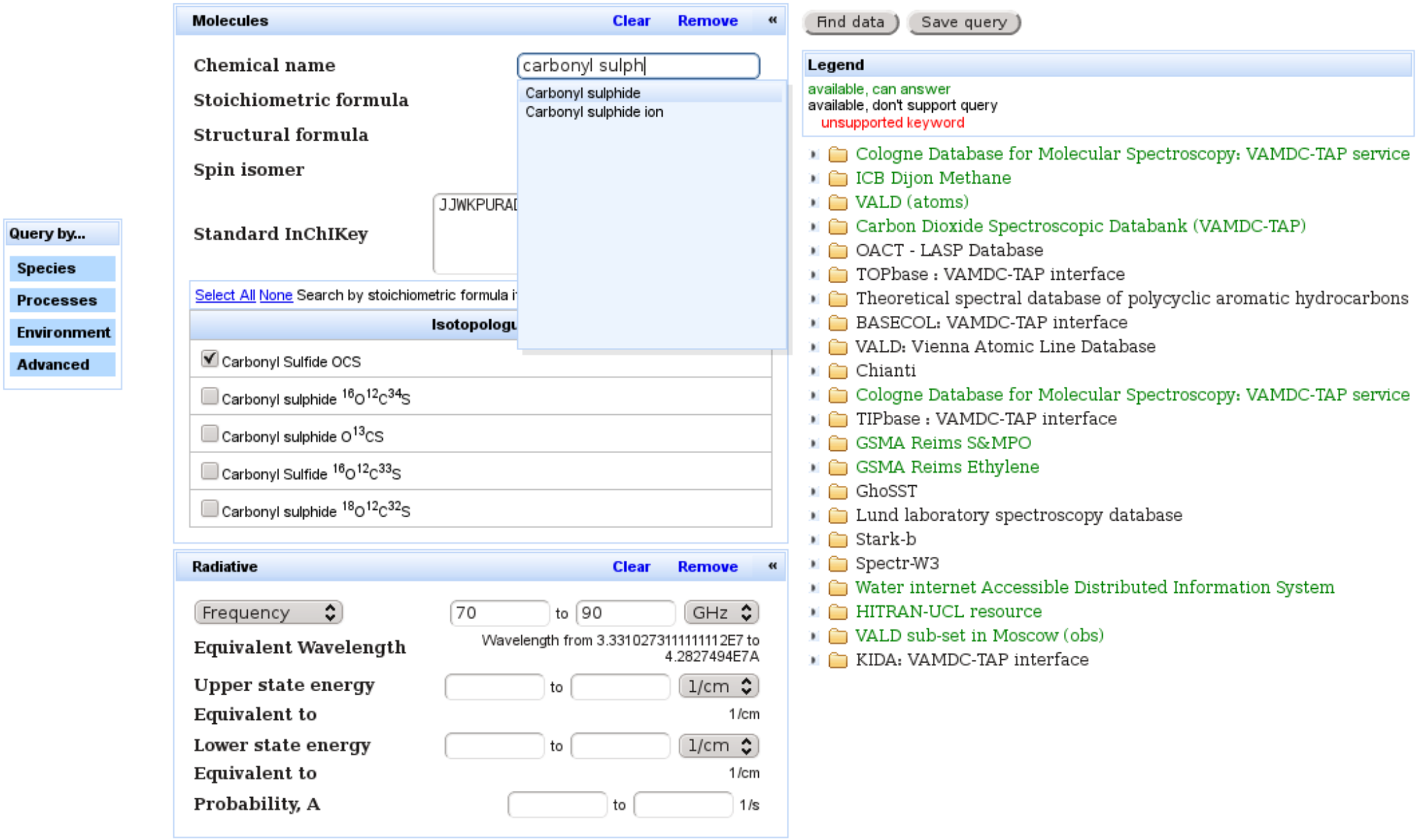
Node	Response	Download	Species	States	Processes	Radiative	Collisions	Non Radiative
V BASECOL	OK	_XSAMS_	10	200	1	0	1	0
V VALD	OK	_XSAMS_	5	1000	900	900	0	0
X EMPTY	NONE		0	0	0	0	0	0
X FAULTY	FAIL		0	0	0	0	0	0

'Refine' button returns to the query builder,
'Stop waiting' button allows to select and query without waiting for all nodes to respond

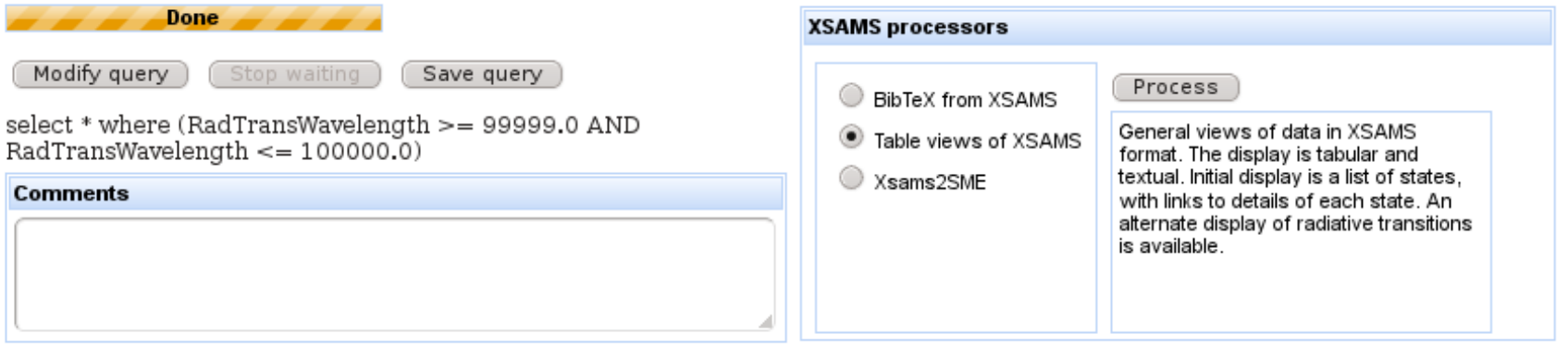
'Query' becomes active after all nodes responded or 'Stop waiting' was pressed.

Pressing the query button sends the query to the checked nodes, opens QueryLog page

Query generator

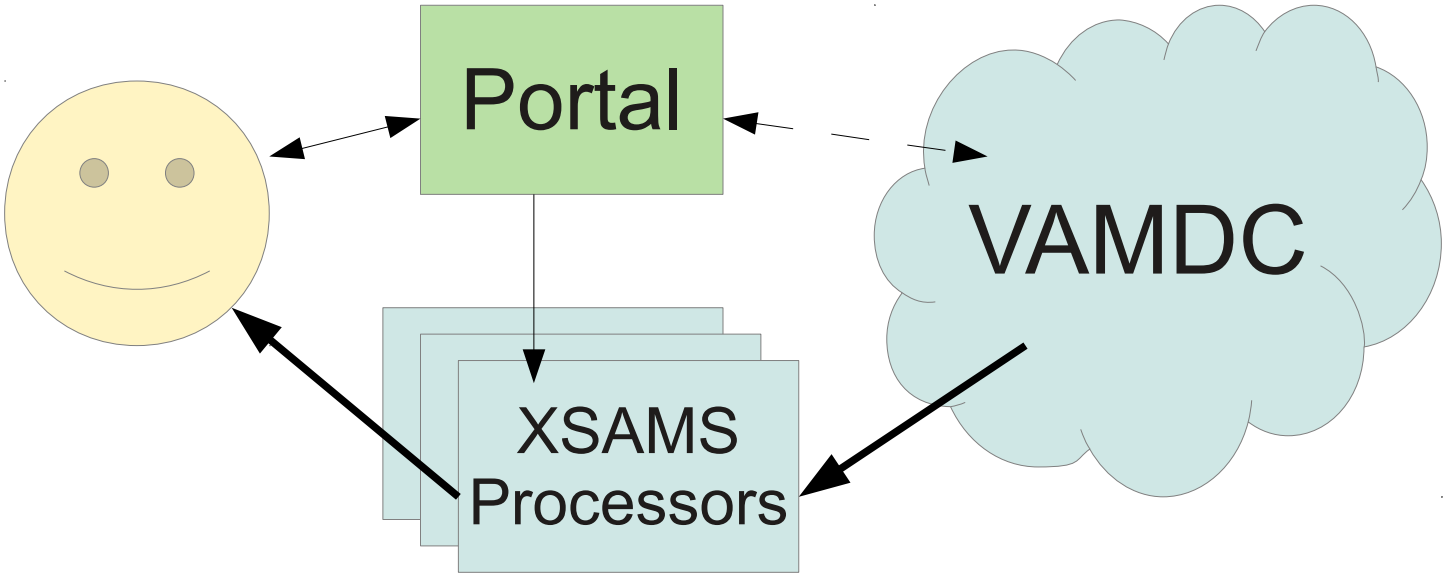


Query preview



Name	Response	Download	Species	States	Processes	Radiative	Collisions	Non Radiative
HITRAN-UCL resource	OK	XSAMS	5	3	8	8	0	0
Carbon Dioxide Spectroscopic Databank - 1000K	OK	XSAMS	3	12	6	6	0	0
Chianti	OK	XSAMS	4	10	5	5	0	0
GSMA Reims S&MPO	OK	XSAMS	2	8	4	4	0	0
Lund laboratory spectroscopy database	OK	XSAMS	0	0	0	0	0	0
Water internet Accessible Distributed Information System	OK	XSAMS	0	0	0	0	0	0
Cologne Database for Molecular Spectroscopy: VAMDC-TAP service	EMPTY		0	0	0	0	0	0
TOPbase : VAMDC-TAP interface	EMPTY		0	0	0	0	0	0

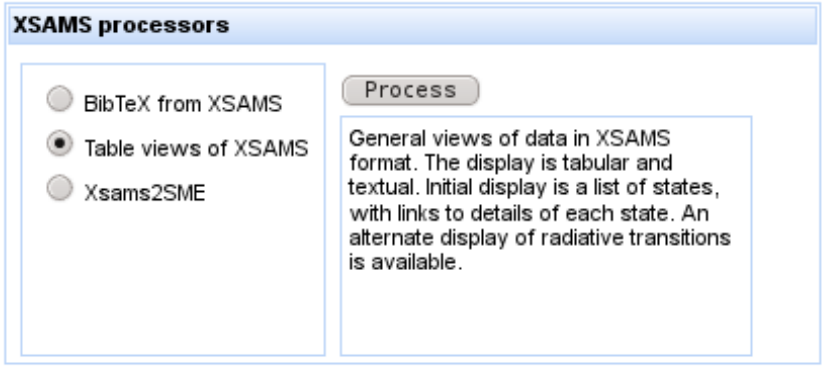
XSAMS processors



- Stand-alone web-service
- Can be used on its own using scriptable interface or web GUI
- Multiple processors can be quickly implemented using XSLT stylesheets

Query history

- Permanent history for registered users
- Edit/clone queries
- Process results



Query	Comments	Date	Database	Results	Download
Edit / Clone / Delete — select * where (RadTransWavelength >= 5007.0 AND RadTransWavelength <= 5008.0) AND ((AtomSymbol = 'Fe' AND IonCharge >= 1 AND IonCharge <= 4))	iron ionized	Apr 18, 2012	☐ VALD (atoms)	Sp: 4 -st:1497 - Pr:885	XSAMS
			☐ TOPbase : VAMDC-TAP interface	Sp: 3 -st:43 - Pr:22	XSAMS
			☐ VALD sub-set in Moscow (obs)	Sp: 2 -st:23 - Pr:12	XSAMS
Edit / Clone / Delete — select * where (RadTransWavelength >= 1.9986163866666667E7 AND RadTransWavelength <= 2.99792458E7) AND ((InchiKey = 'JJWKPURADFRFRB-UHFFFAOYSA-N'))	OCS query	Nov 13, 2012	☑ Cologne Database for Molecular Spectroscopy: VAMDC-TAP service	Sp: 2 -st:15 - Pr:12	XSAMS
			☐ Water internet Accessible Distributed Information System	Sp: 1 -st:5 - Pr:8	XSAMS
			☐ HITRAN-UCL resource	Sp: 1 -st:1 - Pr:4	XSAMS

Technologies

- Written in Java (JBOSS Seam)
- Re-use of VAMDC Java libraries
- Use of apache maven for dependency management
- Source code on GitHub, automatic builds of development version

Future

- Code base is stable, design seems to work fine
- Further development:
  - More XSAMS Processors (Developers, welcome!)
  - User interface and user experience improvements, based on feedback
  - Implementation of new versions of standards

    (12.07 version is ready)
- Standards are open, don't hesitate to implement other application-specific clients

Welcome!

http://portal.vamdc.org/