

JVO Publishing/Searchable Registry Implementation Experience

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JVO

JVO

IVOA Interoperability Meeting @ Kyoto



Publishing Registry of JVO

- AccessURL:
 - <http://jvo.nao.ac.jp/publishingRegistry/>
- NVO software is used for making publishing registry.
 - <http://nvo.ncsa.uiuc.edu/VO/software/VORegistry-In-A-Box.html>
- At the time of installation (2005 Jan), this software was not compatible with VOResource version 0.10.
- We modified it so that resource metadata is stored in v0.10.
- Currently 9 Resources are emitted from this registry
 - Organization (1), Authority (1), Registry(1)
 - SkyNode (4), SIA (1)

Mozilla Firefox
 ファイル(F) 編集(E) 表示(V) 移動(G)

Registry URLs

- OAI-PMH
 - [ListSets](#)
 - [ListMetadataFormats](#)
 - [ListIdentifiers](#)
 - [ListRecords](#)
- [Data directory](#)
- [Registry Editor \(Internal Only\)](#)

VO Resource Editor - Mozilla Firefox
 ファイル(F) 編集(E) 表示(V) 移動(G) ブックマーク(B) ツール(T) ヘルプ(H)

http://gridp.dc.nao.ac.jp:2000/regedit

VO Resource Editor

Select Resource and Edit/Delete/Publish

	Resource Type	Resource Name	Short Name	Identifier
<input type="radio"/>	OpenSkyNodeJ	Subaru/XMM-Newton Deep Survey 01	SubaruSXDS	ivo://jvo/skynodej/sxds
<input type="radio"/>	Organisation	JVO	jvo	ivo://jvo/jvo
<input type="radio"/>	OpenSkyNode	the Subaru/XMM-Newton Deep Survey (SXDS) SkyNode Service	SubaruSXDS	ivo://jvo/skynode/sxds
<input type="radio"/>	SimpleImageAccess	the Subaru/XMM-Newton Deep Survey (SXDS) SIA Service	SubaruSXDS	ivo://jvo/siap/sxds
<input type="radio"/>	Registry	JVO Publishing Registry	jvo_publishingregistry	ivo://jvo/publishingregistry
<input type="radio"/>	Authority	JVO Authority	jvo_auth	ivo://jvo
<input type="radio"/>	OpenSkyNodeJ	SDSS Object Catalog	SDSS	ivo://jvo/sdss
<input type="radio"/>	OpenSkyNodeJ	JVO Catalog Data Service	JVO-MISC	ivo://jvo/misc
<input type="radio"/>	OpenSkyNodeJ	SMOKA data service	SMOKA	ivo://jvo/smoka
<input type="radio"/>	Resource	Create a blank resource		

edit create delete publish

Resource
 Authority
 Organization
 DataCollection
 Service
 Registry
 SkyService
 TabularSkyService
 ConeSearch
 SimpleImageAccess
 OpenSkyNode
 OpenSkyNodeJ

Edit Resource Form

Req. Required Rec. Recommended Opt. Optional

Resource Type: OpenSkyNode

Identity metadata:

Req. Title:

Req. Short Name:

A short name that can be used to identify this resource in a compact display of many resources

Req. Identifier:

Unambiguous reference to the resource conforming to the IVOA standard for identifiers

Curation Information:

Publisher Resource Information:

Req. Publisher Title:

Entity (e.g. person or organisation) responsible for making the resource available

Opt. Publisher ivo-id

Req. AccessURL: use:

Req. Interface Type:

Req. Options for ParamHTTP: The type of HTTP request:

Facility Information:

Opt. Facility:

Select the previously registered facility, or fill in the Facility's Name below

Name:

ID:

Opt. Instrument:

Select the previously registered instrument, or fill in the Instrument's Name below

Name:

ID:

Data Coverage:

Spatial Information

Opt. Spatial Coverage:

Select one of the options for Spatial Coverage and fill in relevant fields.

Coordinate Frame:

All Sky

Coverage is the entire sky.

Circle Region

A central position and angular radius.

Longitude: Latitude:

Radius (degrees):

Coordinate Range

A range of longitude and latitude (in degrees).

Longitude: Min: Max:

Latitude: Min: Max:

JVO Searchable Registry (1)

- Currently internal use only.
- No OAI-PMH interface → not a publishing registry
- Register resource metadata and also table & column metadata from SkyNodes.
- Only the resources of which xsi:type is "OpenSkyNode", "SimpleImageAccess" or "Registry" are registered.
- Native XML DB (Karearea SEC)
- SOAP interface with Tomcat + AXIS

JVO Searchable Registry (2)

- Harvesting from the following publishing registry

- <http://jvo.nao.ac.jp/cgi-bin/publishingRegistry/oai.pl>
- <http://nvo.stsci.edu/voregistry/oai.asp>
- <http://nvo.ncsa.uiuc.edu/cgi-bin/nvo/oai.pl>
- http://hydra.star.le.ac.uk:8080/astrogrid-registry/OAIHandlerv0_10

- Interface

- Resource[] search(ADQL) (not implemented)
- Resource[] keywordSearch(keyword, orValue) } VO Standard
- Resource[] getResources() ← returns all the resource metadata
- Resource getResources(identifier) ← metadata of a specified service
- Resource getResourcesByTableName(authority, catalogName, tableName)
- Table[] getTables(serviceIdentifier) ← For SkyNode Portal
- Column[] getColumns(serviceIdentifier, tableName) ← For SkyNode Portal
- ...

Registered Services - Mozilla Firefox

ファイル(E) 編集(E) 表示(V) 移動(G) ブックマーク(B) ツール(T) ヘルプ(H)

http://ivo.nao.ac.jp/portal/search.do

72	<input type="radio"/>	More Info	HyperLeda FITS Archive Simple Spectrum Data Access	SIAP	URL	
73	<input type="radio"/>	More Info	Sloan Digital Sky Survey DR3- Filter z	SIAP	URL	
74	<input type="radio"/>	More Info	Sloan Digital Sky Survey DR3- Filter g	SIAP	URL	
75	<input type="radio"/>	More Info	Sloan Digital Sky Survey DR3- Filter r	SIAP	URL	
76	<input type="radio"/>	More Info	2MASS All-Sky Quicklook Image Service	SIAP	URL	
77	<input type="radio"/>	More Info	INES: The IVE Newly Extracted Spectra	SIAP	URL	
78	<input type="radio"/>	More Info	APCA/SIA Service	SIAP	URL	
79	<input type="radio"/>	More Info	MAAT Image Grabber	SIAP	URL	
80	<input type="radio"/>	More Info	JVO Publishing Registry	Registry	URL	
81	<input type="radio"/>	More Info	NCSA Radio Astronomy Imaging Registry	Registry	URL	
82	<input type="radio"/>	More Info	Minnesota Automated Plate Scanner	Registry	URL	
83	<input type="radio"/>	More Info	Chandra Registry	Registry	URL	
84	<input type="radio"/>	More Info	Astrogrid Full Registry	Registry	URL	
85	<input type="radio"/>	More Info	CASU publishing registry	Registry	URL	
86	<input type="radio"/>	More Info	Source-Extractor	Analysis	URL	
87	<input type="radio"/>	More Info	HyperZ	Analysis	URL	

select Select the checked service and go to the search page.

87 resources are registered

- SkyNode (19)
- SIA & SSA (60)
- Registry (6)
- Analysis (2)

Main usage

- User access through the JVO Portal.
 - Browsing, queried by the SQL editor
- Data service resolver for JVO SkyNode Portal.
 - Resolve Data Service Type (SkyNode or SIAP)
 - xsi:type of "Resource" is used
 - Resolve access interface (WebService or ParamHTTP) → xsi:type of "Resource/inteface"

Problem encountered in metadata exchange

- There were many "invalid-XML" in NVO registry as of 2005-Jan.
 - e.g. "NOT-DEFINED" string value at the attribute whose type is defined as "identifierURI"
- Non-standard resource type.
 - e.g. `xsi:type="cea:CeaApplicationType"`
 - currently these are ignored.

Summary

- Publishing Registry was constructed using NVO toolkit.
 - Stable implementation, working well.
- Searchable Registry was constructed using native XML DB.
 - Internal use only
 - We have implemented getKeyword.
 - search by ADQL is not implemented yet
 - native interfaces are defined and are used by the JVO Portal.