

Japanese Virtual Observatory Implementation Experience

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JVO collaborators

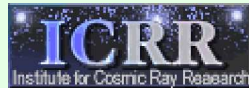
Project Scientists

NAOJ



- Mizumoto
- Ohishi
- Shirasaki
- Tanaka
- Honda
- Kawanomoto
- Oe

ICRR



- Yasuda

Ochanomizu U.



お茶の水女子大学
Ochanomizu University

- Masunaga

System Engineers

Fujitsu Ltd.



- Monzen
- Kawarai
- Ishihara
- Yamazaki

SEC Ltd.



- Morita
- Nakamoto
- Kobayashi
- Yoshida

Core Developers
-- 7 persons --

Total 17 persons

Astronomical data are distributed all over the world.

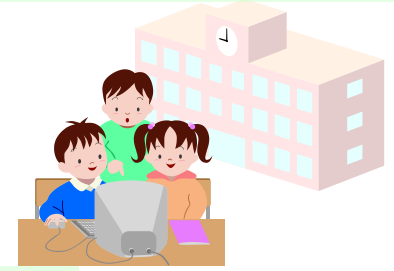
User must request those data at each data site with different interface

	Data Rate
Nobeyama Radio Telescope	~ 1TB/yr
Subaru Telescope	~ 20TB/yr
ALMA Telescope	~ 1PB/yr



VO enables the efficient data transfer. Astronomical study will be accelerated.

teaching material at a school.



Anytime, Anywhere



Virtual Observatory

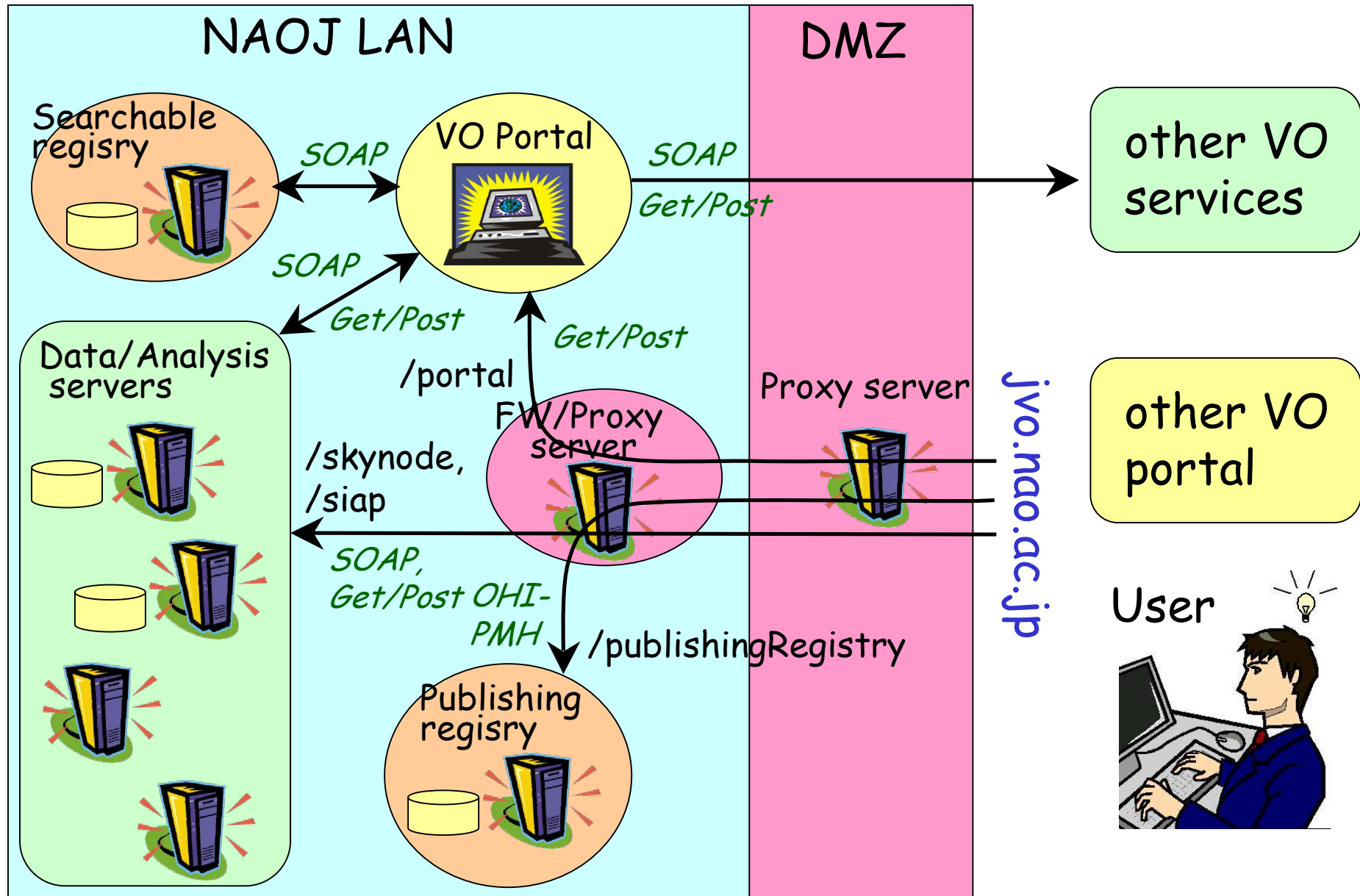
Current JVO activities

- Implementation of the **standard interface of VO**
 - development of a toolkit for making existing data services VO compliant (**JVO SkyNode toolkit**),
 - construction of **VO portal** which utilizes the other VOs' data service.
- contribution to the IVOA activity in designing the **VO query language** and SkyNode specification (VOQL WG)
- VO enabled **science** using the JVO system

Implementation in this FY

- JVO Portal Proto 3 (final prototype)
 - SOAP Web Service + Http Get → Tomcat + Axis
 - First implementation adapting the **IVO standard**
- Resource Metadata
 - Searchable registry → XML DB (Karearea) + WS
 - Publishing registry → NVO software
 - **IVO standard** metadata exchange
- Data Service
 - **SIAP** service → Servlet
 - **SkyNode** service → WS
 - Java JDBC + RDB (PostgreSQL, SQLServer ...)
- Analysis Service
 - **Sextracotr** --- Source Extraction Tool
 - **HyperZ** --- Photometric redshift calculation tool

JVO proto 3 system



Example of basic syntax

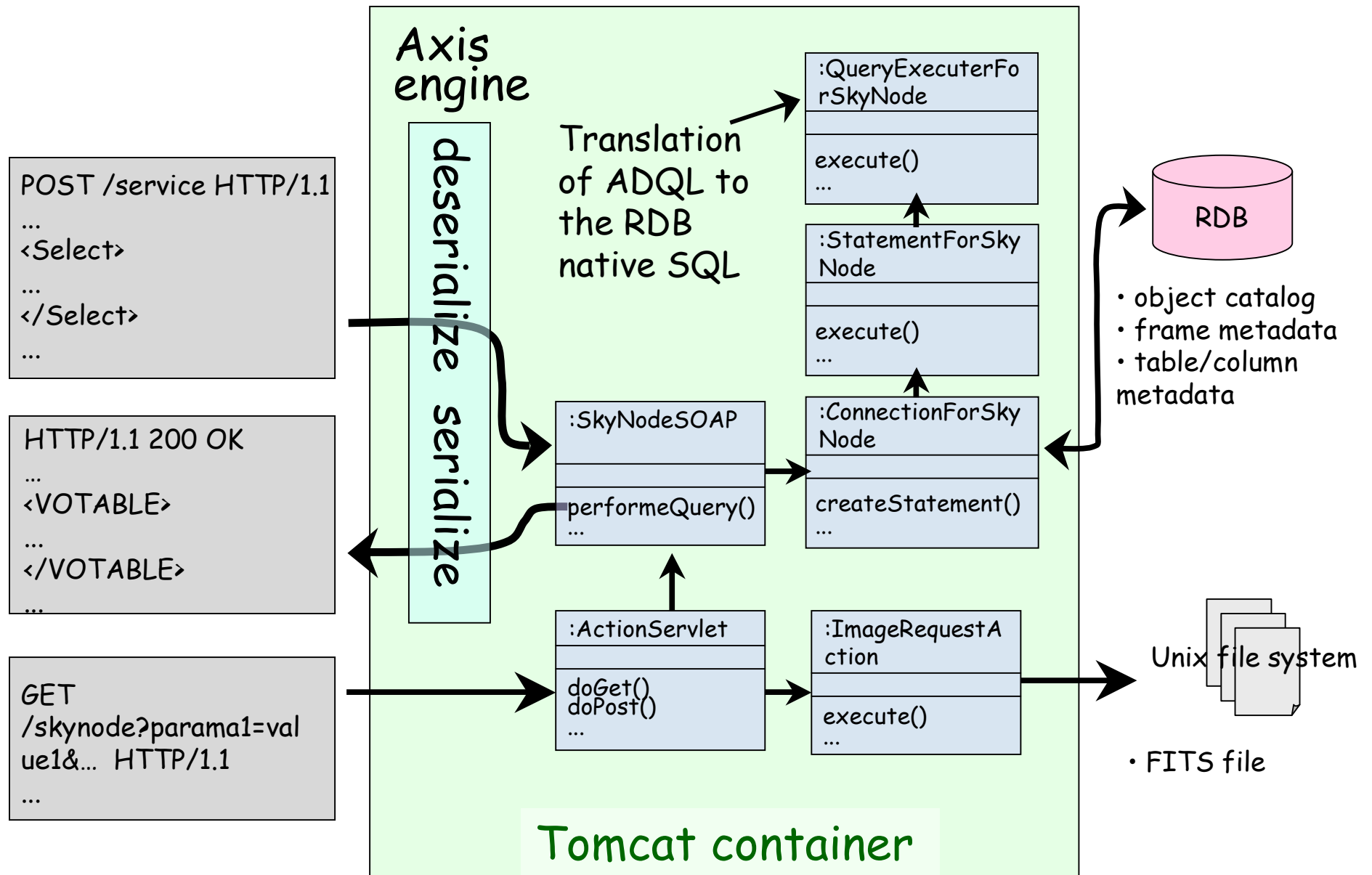
Catalog Query for the specified region

```
Select  ra, dec, mag_r
From    jvo:sdf.galaxy
Where   Point(ra, dec) within Circle((24.3, +5.0), 2.0))
        and mag_r < 24
```

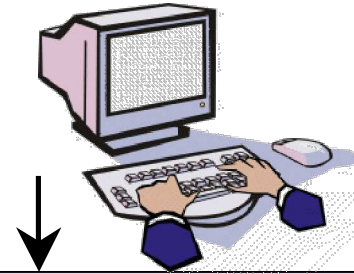
Image Query for the specified region.

```
Select  filter, image
From    jvo:sdf.imageData
Where   region overlaps Box((24.3, +5.0, 'FK5'), 2 [arcmin]))
```

SkyNode implementation on Axis



JVO Portal Architecture



JVO Portal

Java Servlet & JSP on Struts frame work

User Interface Layer

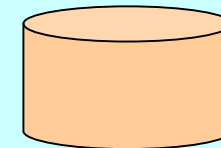
User authentication, **Data query** form, registry query form, query result viewer, Interface for analysis services, ...

Job Execution Control Layer

Controller WorkflowGenerator QLParser Executer



User Data Storage



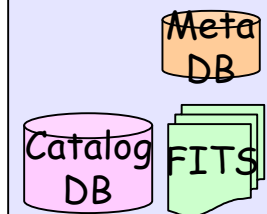
Registry Service



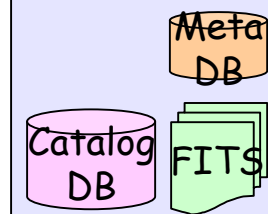
Analysis Service



Data Service



Data Service



Science Use Case 2
QSO/Galaxy
Clustering Study

What we can learn from the QSO/Galaxy clustering ?

- Origin of the large scale structure

- QSO is a tracer of high density regions in the universe ← hierarchical clustering model
- Comparison between the observation and theoretical prediction is required.

- Origin of the QSO activity

- Why is the QSO so powerful.
- Test of the galaxy merger model

Work flow for studying the QSO/Galaxy clustering

1. Select QSO coordinates from the QSO catalog → Query to the Skynode Catalog Database.
2. Search deep imaging data which covers the QSO regions → Query to the Skynode of Subaru Image Database
3. Create catalog from the imaging data → Invoke the SExtractor Web service.
4. Estimate the distance to the objects around the QSO → Invoke the HyperZ Web service
5. Try Clustering Analysis → Invoke the clustering analysis web service.

Interoperability
with the other
VO projects

7 JVO resources are seen from the NVO

Mozilla Firefox

Searchable Registry

Home Contents Search Publish Delete Help/Develop FAQ

National Virtual Observatory : NVO Registry

Enter words separated by spaces (e.g. "tool box")

Search JVO

AND OR Keywords

ResourceType(count) click to go to this subset - mouse over for more info



AUTHORITY(1) ORGANISATION(7) REGISTRY(2) SKYNODE(7)

7 resources. Showing 1 to 7.

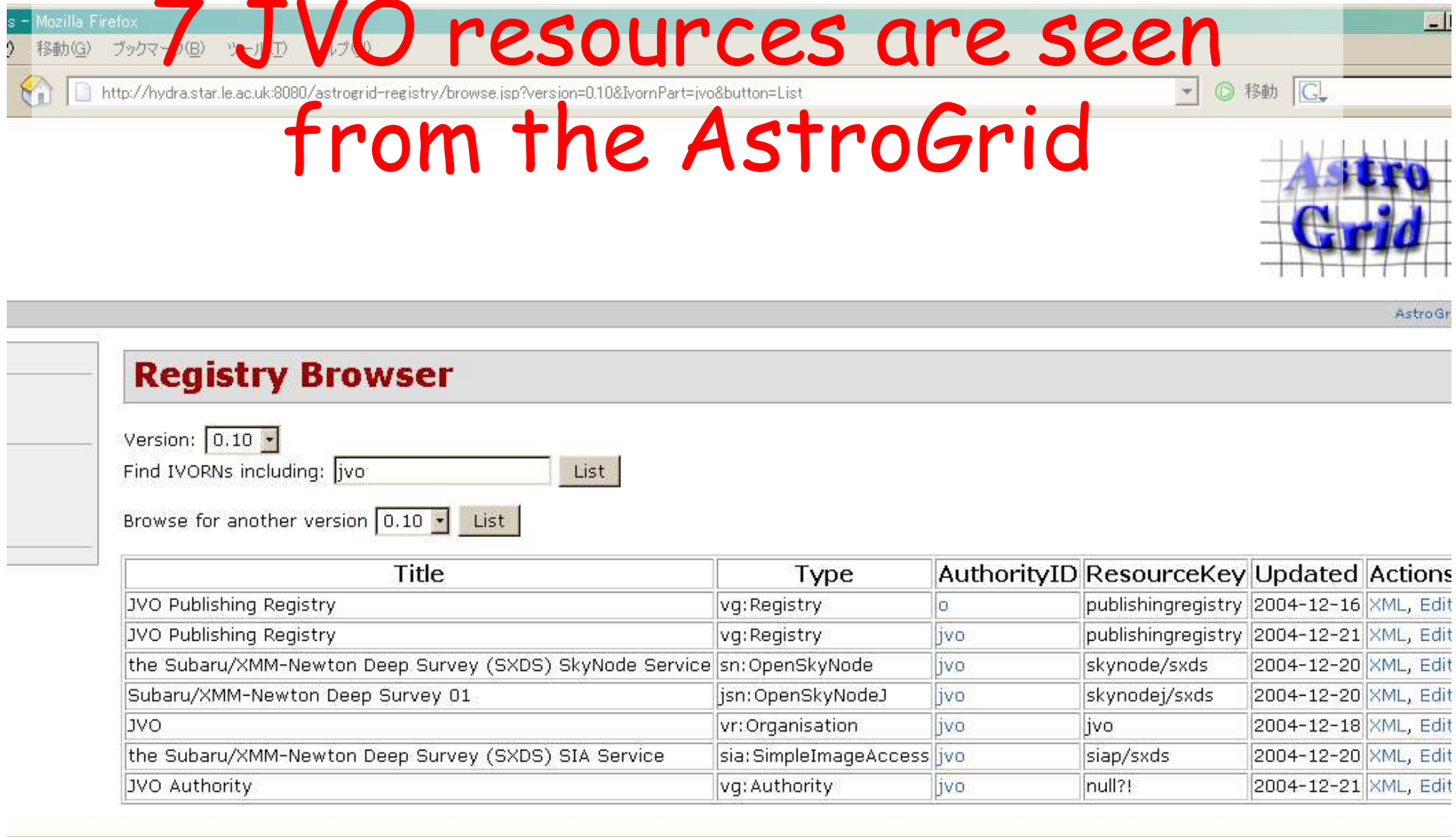
Actions	Title / Description	Subject	ResourceType
View XML Edit Copy	the Subaru/XMM-Newton Deep Survey (SXDS) SkyNode Service(sxds_skynode) The Subaru/XMM-Newton Deep Survey (SXDS) is a major new multi-wavelength survey of a ~1.3 square degree region of sky.		SKYNODE
View XML Edit Copy	JVO(jvo) Japanese Virtual Observatory		ORGANISATION
View XML Edit Copy Try It!	SIA Service for Subaru/XMM-Newton Deep Survey 01(sia-sxds)		SIAP
View XML Edit Copy	JVO Authority(jvo_auth) This authority ID will be used to identify generic resources related to the JVO		AUTHORITY
View XML Edit Copy	JVO Publishing Registry(jvo_publ_reg) JVO publishing registry for VOResource v0.10		REGISTRY
View XML Edit Copy Try It!	the Subaru/XMM-Newton Deep Survey (SXDS) SIA Service(sxds_sia) The Subaru/XMM-Newton Deep Survey (SXDS) is a major new multi-wavelength survey of a ~1.3 square degree region of sky.		SIAP
View XML Edit Copy	JVO Publishing Registry(JVO_Reg) JVO OAI publishing registry		REGISTRY

Found 7 resources. Showing 1 to 7.

Sponsored all or in part by the National Science Foundation under Cooperative Agreement ASTD122449 with The Johns Hopkins University.
Developed in collaboration with the International Virtual Observatory Alliance.
Contact the NVO Help Desk to report problems and suggestions.
Last Modified: Wednesday, January 05, 2005 at 9:50:06 AM \$Name: v1_S_1 \$



7 JVO resources are seen from the AstroGrid



Registry Browser

Version:

Find IVORNs including:

Browse for another version

Title	Type	AuthorityID	ResourceKey	Updated	Actions
JVO Publishing Registry	vg:Registry	o	publishingregistry	2004-12-16	XML , Edit
JVO Publishing Registry	vg:Registry	jvo	publishingregistry	2004-12-21	XML , Edit
the Subaru/XMM-Newton Deep Survey (SXDS) SkyNode Service	sn:OpenSkyNode	jvo	skynode/sxds	2004-12-20	XML , Edit
Subaru/XMM-Newton Deep Survey 01	jsn:OpenSkyNodeJ	jvo	skynodej/sxds	2004-12-20	XML , Edit
JVO	vr:Organisation	jvo	jvo	2004-12-18	XML , Edit
the Subaru/XMM-Newton Deep Survey (SXDS) SIA Service	sia:SimpleImageAccess	jvo	siap/sxds	2004-12-20	XML , Edit
JVO Authority	vg:Authority	jvo	null?!	2004-12-21	XML , Edit

DataScope data for 34.5, -5.0 - 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)

NVO DataScope Results for 34.5, -5.0
 New Query - DataScope Help - Feedback - Cache date: 2005-03-11 07:44 UTC
 National Virtual Observatory Hosted at NASA/HEASARC

Request Status: cancelling, 96 of 355 resources processed. Refreshing every 15 seconds. Stop refresh

Browse available resources by clicking on their names and make selections for further analysis.

Analysis options:
 Check resource *checkbox* to select resource for analysis
 Click on resource *name* to view that resource (and select data files within it)
 Click on ? to see resource metadata

Save locally as TAR file
 Analyze in Aladin
 Analyze in OASIS

When resources have multiple data files you need to specify which files you are interested in. Your selections are remembered similar to how commercial sites use shopping carts. Resources where you need to make selections show (*nselected/navailable*) after the name.

Major Multiwavelength Services

ADS(5) ? SkyView(0/4) ?

Images (Data in one or more FITS files)

Multi MAST-Scrapbook(0/16) ?

Optical DSS1(1) ? DSS1(1) ? DSS2(1) ? DSS2B(1) ? DSS2R(1) ?
 HST Previews(0/2) ? **sxds_sia(0/4) ?**

Infrared 2MASS QL(0/9) ? 2MASS(0/3) ? 2MASS(0/3) ? ISSA(0/16) ?

Lists of Observations (Data in one VOTable)

Multi HST(4) ? WFPC2(2) ?

Optical ACS(2) ?

Other GRO/EGRET(7) ?

Catalogs of Objects (Data in one VOTable)

Surveys FIRST(1) ? USNO-A2.0 CDS(1) ?

Other types/ unclassified BATSE GRB(7) ? BATSE/GUSBAD(5) ? Kommers GRB(1) ? Radio Catalogs(1:1) ?

Browse available resources by clicking on their names and make selections for further analysis.

Analysis options:
 Check resource *checkbox* to select resource for analysis
 Click on resource *name* to view that resource (and select data files within it)
 Click on ? to see resource metadata

When resources have multiple data files you need to specify which files you are interested in

JVO Data Service is seen from the NVO DataScope

JVO Data Service is seen from the NVO OpenSkyNode

The screenshot shows the Open SkyQuery web interface in a Mozilla Firefox browser window. The page title is "National Virtual Observatory" and the URL is "http://jvo.nao.ac.jp/skynode/services/Sk...". The interface is divided into several sections:

- Nodes:** A list of nodes on the left side, including Rosat, GALEX, DLS, RC3, SDSS, SDSSDR2, TwoDf, Twoqz, USNOB, GOODS, HGFH, HDFS, UDF, TWOMASS, IRAS, PSCz, ADIL, FIRST, NVSS, NDWFS, NVORegistry, and sxds_skynode (selected).
- the Subaru/XMM-Newton Deep Survey (SXDS) SkyNode Service (sxds_skynode):** A detailed view of the selected node, showing:
 - Publisher:** JVO
 - Compliance:**
 - Footprint:**
 - PrimaryTable:**
 - PrimaryKey:**
 - MaxRecords:**
 - URL:** <http://jvo.nao.ac.jp/skynode/services/Sk...>
 - Description:** The Subaru/XMM-Newton Deep Survey (SXDS) is a major new multi-wavelength survey of a ~1.3 square degree region of sky.
- Sample Queries:** A list of sample queries on the right side, including XMatch/Region, XMatch/Region 2, Three Node Match, Brown Dwarf Search, MyData XMatch (upload), Xmatch t.* (upload), ABELL Xmatch (upload), Single Node Query, and Single Node Join.
- Buttons:** A "Submit" button is located next to the node details. At the bottom, there are "Sigmas", "Region", and "Clear" buttons.
- Version:** v1_0_9 US-VO.org



Login

Login Name

Password

Open LDAP* authentication

- * open source implementation of the Lightweight Directory Access Protocol.

JVO Data Search - 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)

JVO Data Search

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

JVOQL

execute query jvoql Please select Obs. Name:

Search Region

Target: Coordinate:
Size: [deg]

Coordinates by VOTable:

Select a Service	Select a Table	Frequently Used Tables:
<input type="button" value="show services"/>	Service Name: <input type="text"/> <input type="button" value="show tables"/>	Please select <input type="text"/>

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaki	jvo	Fri Mar 11 01:06:42 JST 2005

Specify a database

Object name
resolver

Specify a search
region

JVO Data Search - 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)

JVO Data Search

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

JVOQL

```
SELECT cat.*, img.*
FROM jvo.misc.qso_veron_2003 cat,
     jvo.smoka.spcam_img img
WHERE POINT(cat._raj2000, cat._dej2000)
      WITHIN CIRCLE((189.20625, 62.216111), 0.05)
      AND img.format = 'image/fits'
      AND img.filter = 'W-C-RC'
      AND img.region
         OVERLAPS BOX((cat._raj2000, cat._dej2000), 0.1, 0.1)
```

Execute Query

execute query | jvoql | QSO/Galaxy Search (Catalog/Image Xmatch) | Obs. Name:

Search Region

Target: Coordinate:
 Size: [deg]

Coordinates by VOTable:

Select a Service	Select a Table	Frequently Used Tables:
<input type="button" value="show services"/>	Service Name: <input type="text"/> <input type="button" value="show tables"/>	Please select <input type="button" value="v"/>

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaki	jvo	Fri Mar 11 01:06:42 JST 2005

Search Status - Mozilla Firefox

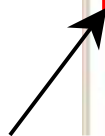
ファイル(E) 編集(E) 表示(V) 移動(G) ブックマーク(B) ツール(T) ヘルプ(H)

JVO Data Search Status

Status | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

Obs. Name	Process ID	Server	Flag	Elapased Time (sec)	Status
OBS_20050311010737	proc_0001	jvo.nao.ac.jp	●	--	Running <input type="button" value="Cancel"/>
OBS_20050311002720	proc_0002	hete.mtk.nao.ac.jp	●	7.87	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002654	proc_0001	www.darts.isas.ac.jp	●	1.61	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002630	proc_0001	openskyquery.net	🇺🇸	3.679	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002602	proc_0001	jvo.nao.ac.jp	●	7.548	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002527	proc_0001	archive.stsci.edu	🇺🇸	16.176	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002506	proc_0001	adil.ncsa.uiuc.edu	🇺🇸	8.353	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002446	proc_0001	irsa.ipac.caltech.edu	🇺🇸	3.306	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002202	proc_0001	mercury.cacr.caltech.edu	🇺🇸	9.958	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002128	proc_0001	cda.harvard.edu	🇺🇸	2.885	OK VOTable <input type="button" value="Show VOTable"/>
OBS_20050311002011	proc_0001	jvo.nao.ac.jp	●	43.365	OK VOTable <input type="button" value="Show VOTable"/>

Current Query



```
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)

この XML ファイルにはスタイル情報が関連づけられていないようです。以下にドキュメントツリーを表示します。

- <vt:VOTABLE>
  - <vt:RESOURCE type="results">
    <vt:INFO name="QUERY_STATUS" value="OK"/>
    - <vt:TABLE>
      - <vt:FIELD ID="cat.dej2000" arraysize="*" datatype="char" name="cat.dej2000">
        <vt:DESCRIPTION>Declination J2000</vt:DESCRIPTION>
      </vt:FIELD>
      - <vt:FIELD ID="cat._dej2000" arraysize="*" datatype="char" name="cat._dej2000"
        ucd="POS_EQ_DEC_MAIN">
        <vt:DESCRIPTION>Declination (FK5) Equinox=J2000.</vt:DESCRIPTION>
      </vt:FIELD>
      - <vt:FIELD ID="cat.id" datatype="int" name="cat.id" ucd="ID_MAIN">
        - <vt:DESCRIPTION>
          Record number within the original table (starting from 1)
        </vt:DESCRIPTION>
      </vt:FIELD>
      - <vt:FIELD ID="cat.l_z" arraysize="*" datatype="char" name="cat.l_z">
        <vt:DESCRIPTION>[*] limit or method flag on z</vt:DESCRIPTION>
      </vt:FIELD>
      - <vt:FIELD ID="cat.name" arraysize="*" datatype="char" name="cat.name">
        <vt:DESCRIPTION>Most common name of the object</vt:DESCRIPTION>
      </vt:FIELD>
      - <vt:FIELD ID="cat.not_radio" arraysize="*" datatype="char" name="cat.not_radio">
        <vt:DESCRIPTION>[*] if not detected in radio</vt:DESCRIPTION>
      </vt:FIELD>
      - <vt:FIELD ID="cat.n_rah" arraysize="*" datatype="char" name="cat.n_rah">
        <vt:DESCRIPTION>[AOR] Approximative/Optical/Radio position</vt:DESCRIPTION>
      </vt:FIELD>
      - <vt:FIELD ID="cat.n_rmag" arraysize="*" datatype="char" name="cat.n_rmag">
```


VOTable Viewer

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

Obs. Name : OBS_20050311002654

Proc. Name : proc_0001

Show Selected Images Reset

#	check	download	VOX Image Title	POS_EQ_RA_MAIN	POS_EQ_DEC_MAIN	VOX:
			Title	RA	DEC	url
0	<input type="checkbox"/>	Download	CRAB_NEBULA	83.67762	22.091148	http://www.darts.isas.jaxa.jp/develop
1	<input type="checkbox"/>	Download	CRAB 1	83.637535	22.000168	http://www.darts.isas.jaxa.jp/develop
2	<input type="checkbox"/>	Download	CRAB 2	83.600075	22.000168	http://www.darts.isas.jaxa.jp/develop
3	<input type="checkbox"/>	Download	CRAB 3	83.71183	21.939514	http://www.darts.isas.jaxa.jp/develop
4	<input type="checkbox"/>	Download	CRAB 7	83.596611	21.972383	http://www.darts.isas.jaxa.jp/develop
5	<input type="checkbox"/>	Download	CRAB 6	83.647535	21.921917	http://www.darts.isas.jaxa.jp/develop
6	<input type="checkbox"/>	Download	CRAB_II	83.638016	22.048285	http://www.darts.isas.jaxa.jp/develop
7	<input type="checkbox"/>	Download	CRAB_II_N2	83.605721	21.972567	http://www.darts.isas.jaxa.jp/develop
8	<input type="checkbox"/>	Download	CRAB_II_N3	83.601051	22.055157	http://www.darts.isas.jaxa.jp/develop
9	<input type="checkbox"/>	Download	CRAB_II_N4	83.307243	21.921917	http://www.darts.isas.jaxa.jp/develop
10	<input type="checkbox"/>	Download	CRAB_II_N5	83.883858	22.085003	http://www.darts.isas.jaxa.jp/develop

Download FITS file

Quick Look of the FITS image

URL to retrieve the FITS data →

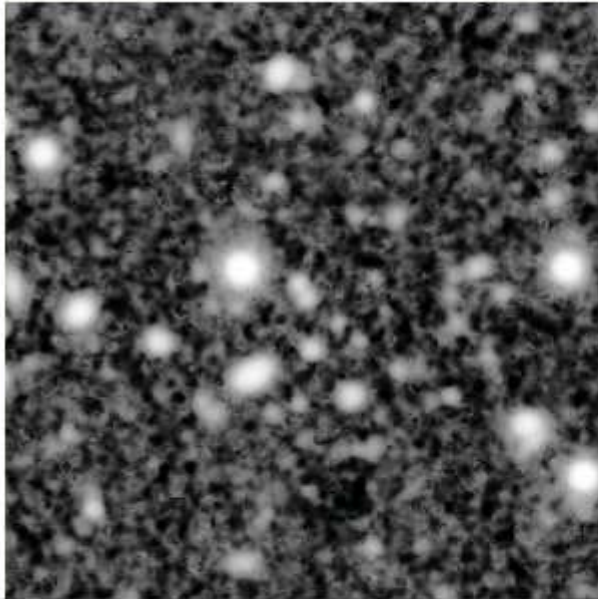
Simple Image Viewer - Mozilla Firefox

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)

Image Viewer

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

Name	Origin	Scale	Contrast
tmp0	http://hete.mtk.nac	hist	min = 0.0 max = 65535.0 auto = true



Scale :

Contrast :

min =

max =

Interactive image rendering on server side.

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaki	jvo	Fri Mar 11 01:06:42 JST 2005

Total memory = 77684kB Used momory = 54433kB (70%)

JVO
JAPANESE VIRTUAL OBSERVATORY

JVO SkyNode - 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)

JVO Searchable Registry

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

Search

AND

Registries **Data Services** **Harvest** **Register Metadata** **Remove Metadata**

Get Service Information by Identifier

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaki	jvo	Fri Mar 11 01:06:42 JST 2005

Total memory = 77684kB Used momory = 53733kB (69%)

JVO
JAPANESE VIRTUAL OBSERVATORY

Key word search

Get service metadata from the publishing registries

Get all the data services

Registered Services - 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)

Registered Services

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

Select the checked service and go to the search page.

No.	Check	ID	Title	Type	Access URL	Country
0	<input type="radio"/>	More Info	Galaxy Evolution Explorer	SkyNode	URL	
1	<input type="radio"/>	More Info	The Hubble Deep Field South	SkyNode	URL	
2	<input type="radio"/>	More Info	The Hubble Deep Field North	SkyNode	URL	
3	<input type="radio"/>	More Info	Deep Lens Survey	SkyNode	URL	
4	<input type="radio"/>	More Info	THIRD REFERENCE CATALOGUE OF BRIGHT GALAXIES	SkyNode	URL	
5	<input type="radio"/>	More Info	Two Micron All Sky Survey (2MASS)	SkyNode	URL	
6	<input type="radio"/>	More Info	Infrared Astronomical Satellite	SkyNode	URL	
7	<input type="radio"/>	More Info	IRAS PSCz Redshift Survey Catalog	SkyNode	URL	
8	<input type="radio"/>	More Info	Rosat	SkyNode	URL	
9	<input type="radio"/>	More Info	the Subaru/XMM-Newton Deep Survey (SXDS) SkyNode Service	SkyNode	URL	

Registered Services - 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)

70	<input type="radio"/>	Info	Filter i	SLAP	URL	
71	<input type="radio"/>	More Info	2MASS All-Sky Quicklook Image Service	SLAP	URL	
72	<input type="radio"/>	More Info	INES: The IUE Newly Extracted Spectra	SLAP	URL	
73	<input type="radio"/>	More Info	ASCA SIA Service	SLAP	URL	
74	<input type="radio"/>	More Info	JVO Publishing Registry	Registry	URL	
75	<input type="radio"/>	More Info	NCSA Radio Astronomy Imaging Registry	Registry	URL	
76	<input type="radio"/>	More Info	Minnesota Automated Plate Scanner	Registry	URL	unknown
77	<input type="radio"/>	More Info	CADC Registry	Registry	URL	unknown
78	<input type="radio"/>	More Info	CASU publishing registry	Registry	URL	unknown
79	<input type="radio"/>	More Info	Source-Extractor	Unknown	URL	unknown
80	<input type="radio"/>	More Info	HyperZ	Unknown	URL	unknown

Select the checked service and go to the search page.

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaka	jvo	Fri Mar 11 01:06:42 JST 2005

Total memory = 77684kB Used memory = 58603kB (75%)

JVO

80 VO resources are available on JVO portal

QSO-Galaxies Search - 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)

QSO-Galaxies Search

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)
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Data Search

Search

ID for your query

Observation Name

Region

RA: [deg]
 Dec: [deg]
 Radius: [deg]
 Image Size: [arcmin]

Brightness

V_mag between [mag] and [mag]

Redshift

z between [mag] and [mag]

QSO Catalog Search

Service For QSO
 Table For QSO

Image Data Service Search

Service For Image
 Table For Image

Search

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaki	jvo	Sat Mar 12 21:36:49 JST 2005

QSO-Galaxies Search

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⇒ [Query](#) | [Catalog](#) | [PhotoZ](#)

Source Extraction

Select Query Result

Obs. Name	Select	Remove
QSO_SEARCH_20050303163451	<input checked="" type="checkbox"/>	<input type="checkbox"/>
QSO_SEARCH_20050303164209	<input type="checkbox"/>	<input type="checkbox"/>
QSO_SEARCH_20050302224651	<input type="checkbox"/>	<input type="checkbox"/>
QSO_SEARCH_20050311011112	<input type="checkbox"/>	<input type="checkbox"/>

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaki	jvo	Fri Mar 11 01:06:42 JST 2005

Total memory = 77684kB Used momory = 59088kB (76%)



Source Extraction

Select Query Result

Select Remove

Obs. Name	Select	Remove
QSO_SEARCH_20050303163451	<input type="checkbox"/>	<input type="checkbox"/>
QSO_SEARCH_20050303164209	<input type="checkbox"/>	<input type="checkbox"/>
QSO_SEARCH_20050302224651	<input type="checkbox"/>	<input type="checkbox"/>
QSO_SEARCH_20050311011112	<input type="checkbox"/>	<input type="checkbox"/>

Select Remove

Object List for QSO_SEARCH_20050303163451

Create Show Register

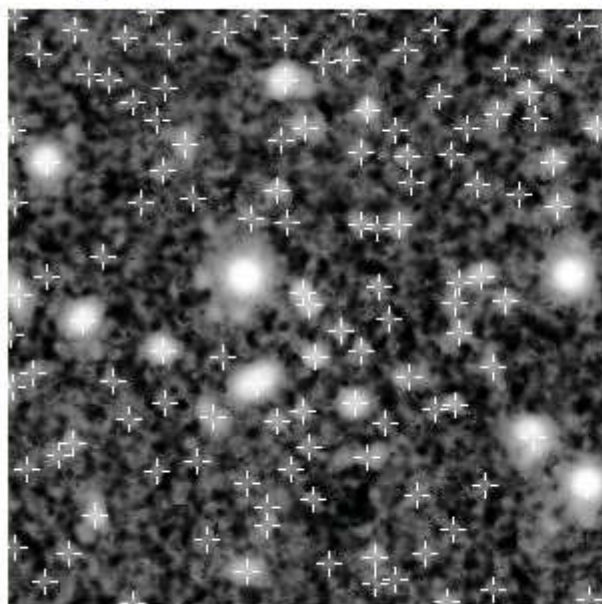
Object	RA	Dec	Band	Image	Create Catalog	Catalog	Show Catalog
B01.174	12 36 47.9	+62 09 40	W-C-IC	Image <input type="checkbox"/>	<input type="radio"/>	sextractor/1.cat <input type="checkbox"/>	
B01.174	12 36 47.9	+62 09 40	W-C-RC	Image <input type="checkbox"/>	<input type="radio"/>	sextractor/2.cat <input type="checkbox"/>	
B01.174	12 36 47.9	+62 09 40	W-J-B	Image <input type="checkbox"/>	<input type="radio"/>	sextractor/0.cat <input type="checkbox"/>	
B01.174	12 36 47.9	+62 09 40	W-J-V	Image <input type="checkbox"/>	<input type="radio"/>	sextractor/3.cat <input type="checkbox"/>	
B01.174	12 36 47.9	+62 09 40	W-S-Z+	Image <input type="checkbox"/>	<input type="radio"/>	sextractor/4.cat <input type="checkbox"/>	

Create Show

Image Viewer

[Status](#) | [Registry](#) | [Search](#) | [Result](#) | [Database](#) | [QSO Search](#) | [Image Viewer](#) | [Logout](#)

Name	Origin	Scale	Contrast
image1	http://hete.mtk.nac	hist	min = 0.0 max = 65535.0 auto = true



Scale :

Contrast :
min =
max =

VOTable :

User ID	User Name	Group	Last Login
yshirasa	Yuji Shirasaki	jvo	Fri Mar 11 01:06:42 JST 2005

Total memory = 77684kB Used momory = 62095kB (79%)