



# **Euro-VO v1.0 Registry**

## AIDA WP3

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<http://registry.euro-vo.org/>

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# Curation Tool(s)

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# Curate what ?

- The Registry Resource
  - Compliance with the XML schema
  - Minimal tags correctly filled out
  - Extra useful tags and information
  
- The Service Interface
  - Compliance with the IVOA specs
  - Minimal metadata and parameters
  - Extra optional features and metadata
  
- The Astronomical Data
  - Quality and quantity of metadata
  - Astronomical relevance or importance



# RofR Registry Validator

## International Virtual Observatory Alliance IVOA Registry of Registries

Registry Interfaces Spec.

OAI-PMH Spec.

VOResource Spec.

### Registering Your Registry Step 1: Validating the Harvesting Interface

*Note that for a large registry, validation can take several minutes.*

Enter the base URL for the OAI interface to your IVOA publishing registry:

*This should be the HTTP GET version of your OAI interface; not a SOAP version.*

Full registry validation completed.

OAI Validation

IVOA Profile Validation

VOResource Validation

#### IVOA Profile on OAI-PMH compliance

This series of queries tests compliance with the IVOA profile on the OAI-PMH standard as specified by the IVOA Registry Interfaces standard for harvesting.

##### Identify

**URL:** <http://registry.euro-vo.org/oai.jsp?verb=Identify>

**Description:** Tests for correct self-identification of Registry, including the inclusion of the Registry's own registry.

**Failed Tests:** *None found.*

**Warnings:** *None found.*

**Recommendations:** *None found.*

##### ListMetadataFormats

**URL:** <http://registry.euro-vo.org/oai.jsp?verb=ListMetadataFormats>

**Description:** Checks to be sure that the VOResource format (ivo-vor) has been defined.

**Failed Tests:** *None found.*

**Warnings:** *None found.*

**Recommendations:**



# RofR Registry Validator

- <http://rofr.ivoa.net/regvalidate/regvalidate.html>
- Validates the Harvest interface
- Checks compliancy of Resources
- Tests some error and border cases
  
- No choice of the tests running
- Support only one type of service
- Support only the Harvest interface
- No choice of the tests output format



# NVO SCS and SIAP Validator

□ <http://nvo.ncsa.uiuc.edu/dalvalidate/csvalidate.html>

## Cone Search Validation

To test a Cone Search Service, enter its base URL below along with a position and radius that you expect to  
Unless the "Results Format" is set to "VOTable", this service will actually send three queries to the service. In  
query are also sent. When the "VOTable" format is selected, only the VOTable response to the query below i

BASEURL:

RA:

DEC:

Search Radius (SR):

Results Format:

Include in the output:

Failures (Compliance Errors)  Warnings  Recommendations  Passed Tests



# NVO SCS and SIAP Validater

□ <http://nvo.ncsa.uiuc.edu/dalvalidate/siavalidate.html>

## Simple Image Access (SIA) Service Validation

To test an SIA Service, enter its base URL below along with a position and region size that you expect to return at  
Unless the "Results Format" is set to "VOTable", this service will actually send three queries to the service. In add  
an erroneous query are also sent. When the "VOTable" format is selected, only the VOTable response to the quer

BASEURL:

|                      | Right Ascension                    | Declination                       |
|----------------------|------------------------------------|-----------------------------------|
| Search Region Center | <input type="text" value="180.0"/> | <input type="text" value="60.0"/> |
| Search Region Size   | <input type="text" value="1.0"/>   | <input type="text" value="1.0"/>  |

Image Format Types:

*Select all types to search for or select "METADATA" for just the VOTable header.*

ALL  
GRAPHIC  
image/fits  
image/png  
image/jpeg  
text/html  
METADATA

Additional Parameters:

*Add additional parameters, one per line with matching image.*

Validation Results Format:

Include in the output:  Failures (Compliance Errors)  Warnings  
 Recommendations  Passed Tests

validate





# NVO SCS and SIAP Validater

- Tests user supplied query, error and metadata
- Links errors back to specs specific lines
  
- No choice of the tests running
- Support only two types of services
- Limited choice of the tests output format



## Curation Tool - Features

- ❑ Support for a maximum of IVOA specs
- ❑ Curation of all aspects of a service :
  - Resource Record information
  - Service compliance to specs
  - Astronomical Data quality
- ❑ Multiple output formats (Terminal, WebPage, Objects)
- ❑ Possibility to write your own tests
- ❑ Support for multiple platforms and OS
- ❑ Minimum programming knowledge required



# Curation Tool - Specifications

- ❑ Main programming language : Java 1.6
- ❑ Tests programming language : Groovy 1.6
- ❑ Utility Java Classes :
  - Call -> HTTPCall, SOAPCall, SIAPCall, TAPCall
  - Registry -> RegistryCall, Resource, Capability
  - XML -> XSDUtil, XSLUtil, XPathUtil, VOTableUtil
  - Output -> Terminal, WebPage, Objects
  - Misc -> Threads, Stress, Timer, ...
- ❑ Valider Groovy Scripts :
  - For each service types : SIAP, SSAP, TAP, ...
  - For specific data quality checks
  - For user own written tests



## Curation Tool – Example script

```
// testing SIAP service
```

```
resource = new Registry("http://registry.url/").getResource("ivo://esavo/test")  
assert new XSDUtil(resource).isValid()  
assert hasValue(resource.title)  
assert isEmail(resource.contact.email)
```

```
accessURL = resource.capability.find {it.@standardID = "SIAP"}.accessURL  
service = new HTTPCall(accessURL)  
result = new VOTable(service.call("POS=10,42&SIZE=0.1"))  
result.tr.each {assert hasValue(it.title)}
```

```
image = new FITSImage(call(result.tr[0].accessReference))  
assert image.hasCoords()
```



# Curation Tool - Conclusions

- ❑ Standard scripts for each IVOA services
- ❑ Easy alteration of scripts or writing of new ones
- ❑ No need to re-compile or know more than “scripting”
  
- ❑ Various other use cases :
  - Specific validation tests of own services
  - Stress tests or batch processing of services
  - Programmatic access to Registry and services
  - Using various utility Java libraries in other projects
  
- ❑ Question, suggestion, correction, Hack-a-thon ?