StandardsRegExt-1.1

Renaud Savalle
PADC, Observatoire de Paris, France
StandardsRegExt?

• An Extension of the VOResource XML schema (a “RegExt”) to register Standard Documents produced by the IVOA TCG

• Version 1.0 by Harrison et al., 2012. This talk is about updates for version 1.1

• Defines 3 VOResource types:
  - **Standard** = describes any IVOA standard
  - **ServiceStandard** = same but with an interface (without a capability!)
  - **StandardKeyEnumeration** = describes collection of standard keys

• **Standard** has several elements
  - standard VOResource (vr:resource) metadata (creators… )
  - location of standard document itself reference URL
  - current EndorsedVersion and status (rec, pr, wd)
  - location of schema files associated with the standard
  - etc.

• **ServiceStandard** inherits from Standards and also describes service parameters in a machine-readable way
Example of a Definition of Standard
ivoa.net resource for declaring the HiPS Standard with identifier
ivo://ivoa.net/std/hips

HiPS -- Hierarchical Progressive Survey

<Virtual observatory>

HiPS: a hierarchical scheme for the description, storage and access of sky survey data. The system is based on hierarchical tiling of sky regions at finer and finer spatial resolution which facilitates a progressive view of a survey, and supports multi-resolution zooming and panning. HiPS uses the HEALPix tessellation of the sky as the basis for the scheme and is implemented as a simple file structure with a direct indexing scheme that leads to practical implementations.

References:
- [http://ivoa.net/documents/HiPS](http://ivoa.net/documents/HiPS)

Components:
- hipslist-1.0
  - A service returning a list of HiPS identifiers and metadata for HiPS. This term is used to form a standardID, for instance for use in vr:Capability.
- hips-1.0
  - A single HiPS. This term is used to form a standardID, for instance for use in vr:Capability.

</Virtual observatory>
Example of the usage of a Standard
Ex: irsa.ipac resource which uses
ivo://ivoa.net/std/hips

<ri:Resource xmlns="" xmlns:ri="http://www.ivoa.net/xml/
RegistryInterface/v1.0" xmlns:vr="http://www.ivoa.net/xml/VOResource/
v1.0" xmlns:vs="http://www.ivoa.net/xml/VODataService/v1.0"
xmlns:cs="http://www.ivoa.net/xml/ConeSearch/v1.0" xmlns:tr="http://
www.ivoa.net/xml/TAPRegExt/v1.0" xmlns:xlink="http://www.w3.org/
1999/xlink" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="vr:Service">
<validationLevel validatedBy="ivo://archive.stsci.edu/nvoregistry">2</validationLevel>
<title>IRSA Hierarchical Progressive Survey (HiPS) Node</title>
<shortName>IRSA HiPS</shortName>
<identifier>ivo://irsa.ipac/HiPS</identifier>
<curation>
<publisher ibo-id="ivo://irsa.ipac/IRSA">NASA/IPAC Infrared
Science Archive</publisher>
<creator>
<name>IRSA</name>
</creator>
</curation>
<version>1</version>
<contact>
<name>IRSA Support Team</name>
<email>irsasupport@ipac.caltech.edu</email>
</contact>
<subject>Infrared Astronomy</subject>
<description>This is IRSA's Hierarchical Progressive Survey (HiPS)
node. HiPS is a hierarchical scheme for the description, storage, and
access of sky survey data. The system is based on hierarchical tiling of
sky regions at finer and finer spatial resolution which facilitates a
progressive view of a survey, and supports multi-resolution zooming and
panning.</description>
<referenceURL>http://www.ivoa.net/documents/HiPS</referenceURL>
<type>Other</type>
<contentLevel>Research</contentLevel>
<capability standardID="ivo://ivoa.net/std/hips#hipslist-1.0"
registration=">2</capability>
<interface xsi:type="vs:ParamHTTP" role="std">
<accessURL use="full">https://irsa.ipac.caltech.edu/data/hips/
list</accessURL>
</interface>
</ri:Resource>
Problems

- Problem 1: How To Register Endorsed Notes
- Problem 2: What [Standards] Do We Register?
- Problem 3: Who Writes [StandardsRegExt] records?
- Problem 4: Creating Keys
Problem 1: How To Register Endorsed Notes

- Solution 1: Add statuses `en` and `pen` to EndorsedVersion

- Why?
  - Register Endorsed Notes and Proposed Endorsed Notes alongside rec, pr, wd, iwd

- Use Case?
  - We will be able to define a standard identifiers and keys related to an Endorsed Note

### Endorsed Notes

<table>
<thead>
<tr>
<th>Group</th>
<th>Title</th>
<th>Most stable</th>
<th>In progress</th>
<th>Version history</th>
</tr>
</thead>
<tbody>
<tr>
<td>GWS</td>
<td>XML Schema Versioning Policies</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0 1.0</td>
</tr>
<tr>
<td>ReR</td>
<td>Discovering Data Collections Within Services</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1 1.1 1.1</td>
</tr>
<tr>
<td>DAL</td>
<td>Catalogue of ADQL User Defined Functions</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0 1.0 1.0</td>
</tr>
<tr>
<td>Semantics</td>
<td>Adopting the UAT as an IVOA vocabulary</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0 1.0 1.0</td>
</tr>
<tr>
<td>TGC</td>
<td>IVOA Architecture</td>
<td>2.0</td>
<td>2.0</td>
<td></td>
</tr>
</tbody>
</table>
Problem 2: What Standards Do We Register?

• Solution 2: Standards to Register are “Only IVOA standards that actually make use of identifiers to or into StandardsRegExt records MUST be accompanied with active records published by the ivoa.net registry. “

• to means usage of the identifier of the std

• into means usage of a key of that std - cf HiPS example above
Problem 3: Who Writes StandardsRegExt records?

• Solution 3: Editors of standards requiring an ivoa.net StandardsRegExt record SHOULD create one when they submit their first Working Draft in order to make valid standardids, even in prototyping phases.

• ivoatex (framework for publishing standards) contains a way to do that, which is described by ivoatex doc section 3.10
Problem 4a: What To Do With StandardKeyEnumeration ?

- Solution 4a: Deprecate StandardKeyEnumeration and use Controlled Vocabularies (CVs)

- Why ?
  - StandardKeyEnumeration has never been used
  - we now have a better way of creating (sets of) keys

- => Replace StandardKeyEnumeration type by CVs maintained by the Semantics WG

- These CVs will be, by design:
  - updatable using the Vocabulary Enhancement Procedure (VEP)
  - machine-readable by non-VO software…

- NB: for keys *within* standards records, we keep the current scheme which is being used
Problem 4b: Who Writes standard keys, And How?

• Section 4 - Operational Aspects:

• “Standards using standard keys must specify rules defining when and how standard keys are being added. In the simplest case, this would be “Keys in this standard’s StandardsRegExt record are defined in this text.” This will make sure that additions of keys receive the same review as the standard text itself.”

• “However, other, more flexible regulations are conceivable, as for instance “Keys in this standard’s StandardsRegExt record can be added by the chair of the managing Working Group after consultation on the WG’s mailing list”. However, complicated processes should be avoided here”...
StandardsRegExt-1.1 - Next Steps…

- Repository: https://github.com/ivoa-std/StandardsRegExt
- We plan to go for WD after this meeting
- Please read and contribute!