



CDS registry migration

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Thank: VO registry validator



□ CDS/VizieR publising registry



Created in 2007 (S.Derriere) - <ivo://CDS.VizieR/registry>

Content of records available at the start

→ VizieR catalogues ~6,000 catalogues including

- Catalogue description (keywords) and tables description
- Capabilities: conesearch / HTML access

Capabilities & Services added in CDS registry since 2007:

- In 2010: Simbad TAP
- In 2012: TAPVizieR:
service record + capability for each tables
- Footprint (MOC) for each catalogue records
- HIPS service
- VizieR spectra/images - SIA, SSA, ObsTAP

→ **Today ~20000 catalogues, ~22,000 conesearch**

□ CDS/VizieR publishing registry



Registry landscape

A large audience indirectly used through the Registries of Registries (RofR)

The consumers

- Registries of Registries (RofR)
- VO softwares and services
- EUDAT :
RofR publishes the IVOA registries in b2find (EUDAT)
<http://b2find.eudat.eu/>
- ADS harvesting :
information to populate ADS database with VizieR catalogues
- Other ?



□ The new version



New versions announced by S.Derriere (Interop oct. 2020)

<https://wiki.ivoa.net/internal/IVOA/InterOpNov2020Reg/UpgradingVizieRRegistry.pdf>

→ new architecture (Perl → Python, PyXB) developed by A.Guyot + S.Derriere (2020)

- Mirror capabilities included for ConeSearch, WebBrowser, ParamHTTP capabilities

```
-<mirrorURL title="VizieR at IUCAA: Pune, India">  
  https://vizier.iucaa.in/viz-bin/votable?-source=II/220
```

```
</mirrorURL>
```

```
-<mirrorURL title="VizieR at SAAO: SAAO, South Africa">  
  http://vizieridia.sao.ac.za/viz-bin/votable?-source=II/220
```

```
</mirrorURL>
```

- Related resources (VizieR catalogues, URL) cited in paper or added by CDS had been added when exist

```
-<relationship>
```

```
  <relationshipType>related-to</relationshipType>
```

```
-<relatedResource ivo-id="ivo://CDS.VizieR/II/246">
```

```
  II/246 : 2MASS All-Sky Catalog of Point Sources (Cutri+ 2003)
```

```
</relatedResource>
```

```
-<relatedResource ivo-id="ivo://CDS.VizieR/VII/28">
```

```
  VII/28 : Southern Groups and Clusters of Galaxies (Duus, Newell 1977)
```

```
</relatedResource>
```

- Use alternate Identifier to add VizieR DOI when exists

```
<identifier>ivo://CDS.VizieR/J/AJ/127/646</identifier>
```

```
<altIdentifier>doi:10.26093/cds/vizie.51270646</altIdentifier>
```

□ Trial period



Validation and curation of the beta version - oct. 2020 - feb. 2021

- Debugging, and tests validation using the VO registry validator <http://rofr.ivoa.net/regvalidate/>
- Suggestion of corrections and updates (M.Demleitner)

Beta version
was available
but curation
was required

Despite the usage of pyOAI + pyxb, the output required to be curated:

- OAI validation (exception management, token cursor)
- XSD management requiring mapping for xsi:schemaLocation
eg: VODataService-v1.2.xsd → <http://www.ivoa.net/xml/VODataService/v1.1>
- Management of VO schemas and namespaces
 - Requires to unbind the prefix xmlns=""
 - Namespace management for each resource: cs, sia, etc.
 - Authority management

Trial period to Clients - feb. 2021 - mar. 2021

- Feb : announcement of the beta version available with a limited list of catalogues for RofR validation
- March: full version including all Vizier catalogues and weekly updated

□ The new version



News from last IVOA (and now operational)

- **Spectral band** added for each catalogue having an entry in the VizieR photometry viewer

```
–<coverage>
  <spectral>1.1166583743361574e-19 4.851276835901009e-19</spectral>
  –<footprint ivo-id="ivo://mocivod">
    http://alaska.unistra.fr/footprints/cats/vizieR/I/345?product=MOC&nside=512
  </footprint>
  <waveband>Optical</waveband>
</coverage>
```
- Migration of ADC/CDS Keywords to the **UAT** (Unified Astronomical Thesaurus)
 - Interop Paris (2019) : the RofR provides records with UAT in EUDAT (mapping operated by Gavo Registry)
 - VizieR catalogues use its own mapping generated by CDS
- Summary of the schema versions used :
 - <http://www.ivoa.net/xml/RegistryInterface/v1.0>
 - <http://www.ivoa.net/xml/VOResource/v1.0> (VOResource-v1.1.xsd)
 - <http://www.ivoa.net/xml/VODataService/v1.1> (previously v1.0 , VODataService-v1.2.xsd)
 - <http://www.ivoa.net/xml/ConeSearch/v1.0>
 - <http://www.ivoa.net/xml/VORegistry/v1.0>
 - <http://www.ivoa.net/xml/TAPRegExt/v1.0>
 - <http://www.ivoa.net/xml/SSA/v1.1>
 - <http://www.ivoa.net/xml/SIA/v1.1>



The CDS Registry is ready for migration !

- Full harvest required for clients (RofR, ..) managed in CDS with the update time in CDS registry records.
- Migration planed to **June/July** (?) with a maintenance of the old registry until ... (?)
- Next ?
 - Include time limit for catalogues