



VIRTUAL ASTRONOMICAL OBSERVATORY

# Current status

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The VAO is operated by the VAO, LLC.



# Standards update

- **Universal Worker Service (UWS)**
  - IVOA Recommendation
- **WS Basic Profile**
  - TCG RFC: 10/25/2010 – 11/25/2010
  - Submitted to EXEC for approval 12/06/2010
- **VO Support Interface (VOSI)**
  - RFC: 04/09/2010 – 05/14/2010
    - Some clarification and restructuring required
  - New version: 12/06/2010
  - Start TCG RFC: 12/08/2010 – 01/07/2011
- **REST Basic Profile**
  - New version this week from Andre Schaaff
- **VOPipe**
  - Defining it (see Tamas' talk)



"Our standards are very high. We even have high double standards."



# VOSpace 2.0: changes

- New Working Draft 11/12/2010
- Changes since last version (discussions and agreements from Victoria):
  - VOSpace relation to IVOA architecture
  - Compliance matrix
  - Corrected XML Schema (TransferType)
  - Removed mention of WSDL/WADL
  - Node hierarchy diagram



# VOSpace 2.0: use of UWS - I

- Data transfers (move, copy, pushTo, pullTo, pushFrom, pullFrom) and searching
- How it was (03/23/10):
  - Post Job representation to initiate job
  - Use parameters list for details:
 

```
<uws:parameters>
  <uws:parameter id="target">vos://nvo.caltech!vospace/mydata1 </uws:parameter>
  <uws:parameter id="direction">pushToVoSpace </uws:parameter>
  <uws:parameter id="view">ivo://net.ivoa/vospace/core#fits </uws:parameter>
  <uws:parameter id="protocol">ivo://net.ivoa/vospace/core#httpput </uws:parameter>
</uws:parameters>
```
  - vos:group attribute to identify repeated groups, re.g., protocol/protocolEndpoint
- Latest version (11/12/10):
  - Post Job representation to initiate job
  - Use jobInfo for details:
 

```
<uws:jobInfo>
  <vos:transfer>
    <vos:target>vos://nvo.caltech!vospace/mydata1 </vos:target>
    <vos:direction>pushToVoSpace </vos:direction>
    <vos:view>ivo://net.ivoa/vospace/core#fits </vos:view>
    <vos:protocol uri="ivo://net.ivoa/vospace/core#httpput"/>
  </vos:transfer>
</uws:jobInfo>
```



# VOSpace 2.0: use of UWS - II

- New proposal:

- Use job description (transfer/search representation):

```
<vos:transfer>
```

```
  <vos:target>vos://nvo.caltech!vospace/mydata1 </vos:target>
```

```
  <vos:direction>pushToVoSpace</vos:direction>
```

```
  <vos:view>ivo://net.ivoa/vospace/core#fits</vos:view>
```

```
  <vos:protocol uri="ivo://net.ivoa/vospace/core#httpput"/>
```

```
</vos:transfer>
```

- Meet these patterns:

- curl -d @transfer.xml <http://foo.com/bar/transfers>
- curl -d " http://foo.com/bar/transfers  
curl -d @transfer.xml <http://foo.com/bar/transfers/123>
- curl -d " http://foo.com/bar/transfers  
curl -d @transfer.xml http://foo.com/bar/transfers/123/jobInfo



# What's next

- Address RFC comments on VOSI ✓
- VOSpace 2.0:
  - Registry extension schema for VOSpace
  - VOSpace + Provenance DM
  - VOSpace + SAMP
  - VOSpaceProxy
- REST Basic Profile
- VOPipe
- Workflows?