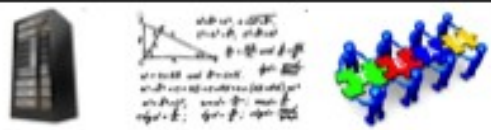
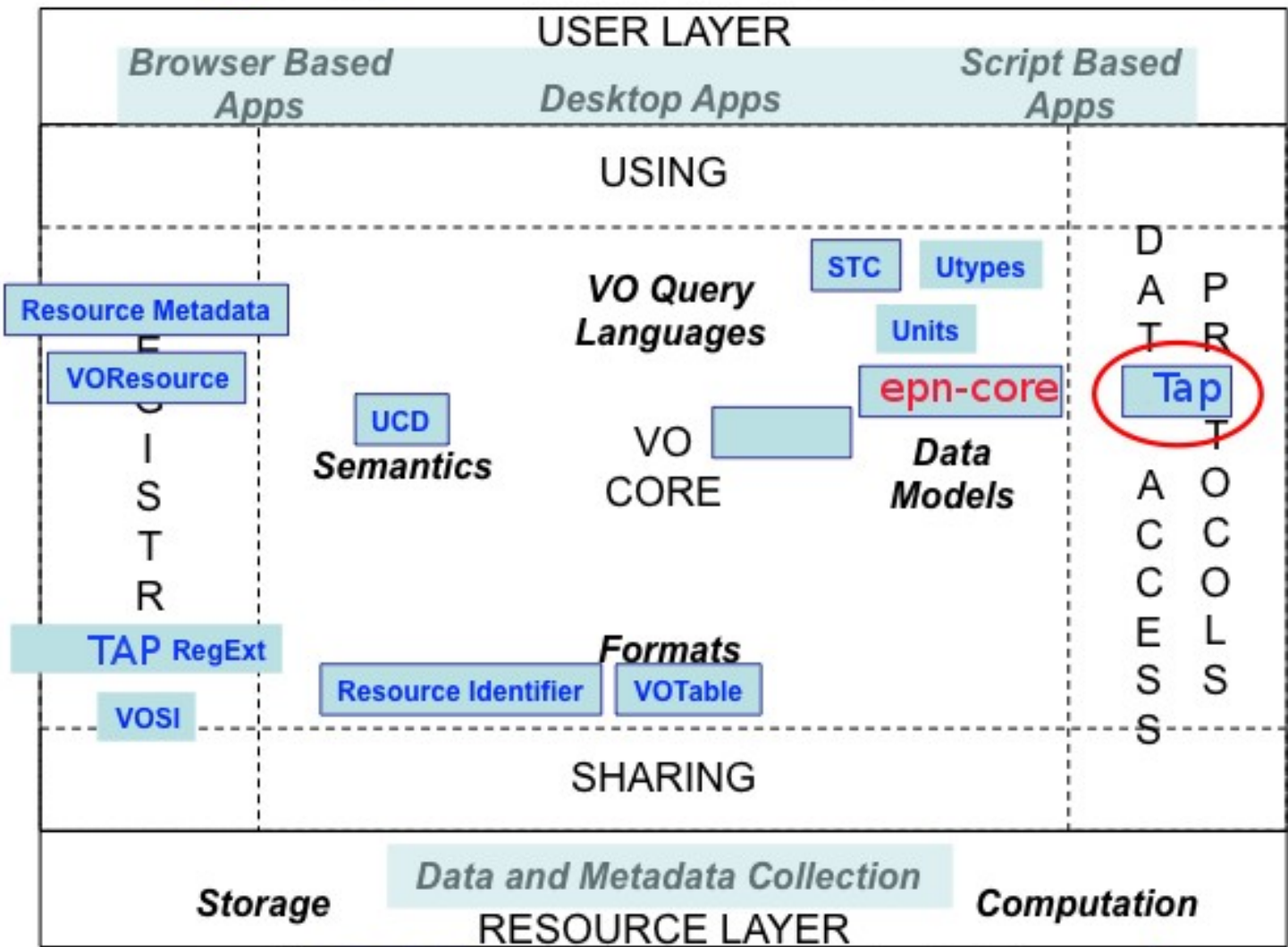


# The Europlanet VO environment

<http://voparis-europlanet.obspm.fr/>

Cyril Chauvin  
Ivan Zolotukhin  
Renaud Savalle  
Pierre Le Sidaner  
Jonathan Normand  
Observatoire de Paris



**DAL is based on TAP using DaCHS**

**DM Core is called epn-core**

**Close to obs-core with 19 mandatory parameters:**

- Resource Type
- Data Product Type
- Target Name
- Target Class
- Time min/max
- Time Sampling Step
- Exposure Time
- Spectral Range
- Spectral Sampling Step
- Spectral Resolution
- Spatial Coordinates (c1,c2,c3)
- Spatial Resolution
- Spatial Frame Type
- Incidence Angle
- Emergence Angle
- Phase Angle
- Instrument Host Name
- Instrument Name
- Measurement Type

# VO client

- Queries the VO registry (uses VO-Paris registry)

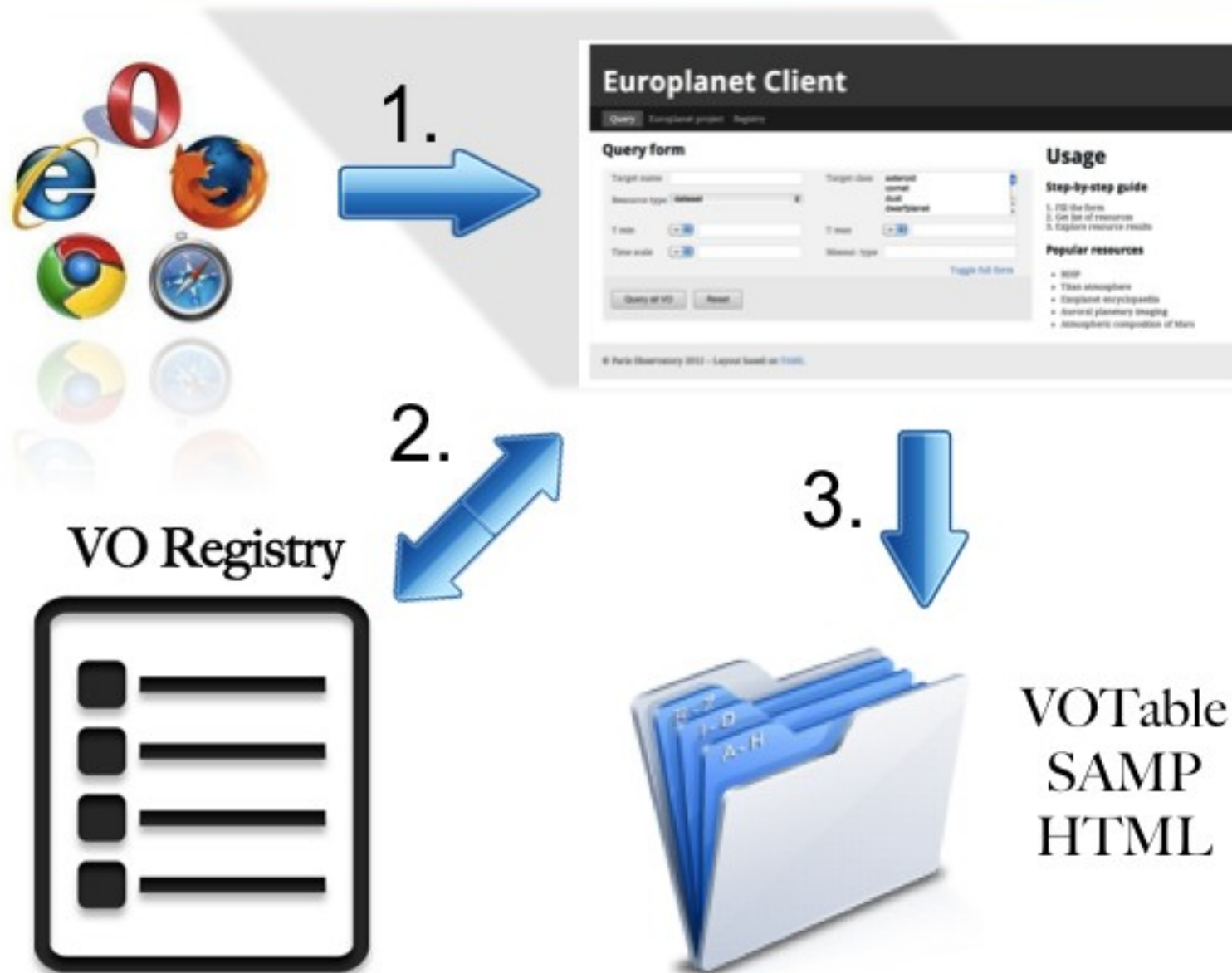
As TAP Regext is not yet implemented:

Select TAP service where id contain “epn\_%”

Find schema using shortname in VOResource

- Uses all EPN set of parameters to make standardized query
- Python application (Django)
- Parallel AJAX query to multiple resources (“Query all VO” button)
- Web SAMP Profile (samp.js)

# VO client



# Planetary file format

- ❑ **No standard such as astronomical FITS  
=> use of PDS + ASCII files**
- ❑ **Need converter to use VO client  
not easy to read PDS => use of IDL library**
- ❑ **Need to convert to OGC compatible  
format GEOTIFF**

# Use of UWS service/client

- ❑ **A way to use IDL/GDL from a separate program**
- ❑ **Use of interface done for UWS 1.0 and the associated infrastructure**
- ❑ **Use of generic client to access, submit job and send results to Aladin**

# Service description

Use of WADL Web Application Description Language

Describe method (always the same per UWS1.0)

Describe Input/Output parameters in a simple way

Example at <http://voparis-uws.obspm.fr/wadl-v1.0/>

For transforming PDS images to FITS with WCS

Entry parameters are defined like:

```
<param style="query" name="pds" type="xs:anyURI" required="true">  
<doc>PDS file (IMG extension)</doc>  
</param>  
<param style="query" name="geo" type="xs:anyURI" required="true">  
<doc>PDS file (GEO extension)</doc>  
</param>
```

Output parameters like:

```
<option value="0" mediaType="image/fits"/>
```



# UWS client by R. Haigron

## Configuration:

- Provide the WADL description of your services
- Provide your favourite VO SAMP-compatible application to display the data

WADL files list

Name	File
wcscheck	/home/lesidaner/outils_vo/uwste...
jonathan	/home/lesidaner/outils_vo/uwste...
asposfull	/home/lesidaner/outils_vo/aspos...
astrometry	/home/lesidaner/outils_vo/wadl/a...
astrocheck	/home/lesidaner/outils_vo/wadl/a...
aspos	/home/lesidaner/outils_vo/wadl/a...
europa	/home/lesidaner/outils_vo/wadl/p...

Image viewer:

Table viewer:

Spectrum viewer:

(\*) pds

(\*) geo

Configuration Services

Service	Job	Status
astrometry	5698c59b-8830-4cb4-eded-ce2ae282c224	<input type="button" value="ERROR"/>
euoplanet	9e944581-42fe-07a4-8136-f9c0a5378aa7	<input type="button" value="COMPLETED"/>
euoplanet	5158fa8a-787b-3994-7106-bb0a59d10416	<input type="button" value="COMPLETED"/>
euoplanet	e5e7d777-bb7e-d8d4-2da1-e169751de932	<input type="button" value="COMPLETED"/>
euoplanet	d81675d6-47fa-5414-19c8-ce6422036784	<input type="button" value="COMPLETED"/>

---

Service:   
 Id:   
 Phase:   
 Start time:   
 End time:   
 Duration time:

Parameters  
 pds  
 geo: <http://voparis-uws.obspm.fr/uws-v1.0/pdstoaladin/d81675d6-47fa-5414-19c8-ce6422036784/parameters/geo>

Aladin v7.5  
Fichier Edition Image Catalogue Graphique Outil Vue Interop Aide

Position [ ] Référentiel ICRS

Allsky opt Allsky IR DSS Simbad NED PPMX 2MASS

lunefull.png

Msc img

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prop  
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test7\_astrofits  
test6\_astrofits  
test5\_astrofits  
test4\_astrofits  
test3\_astrofits  
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zoom - +

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[Plane @11] - Msc img

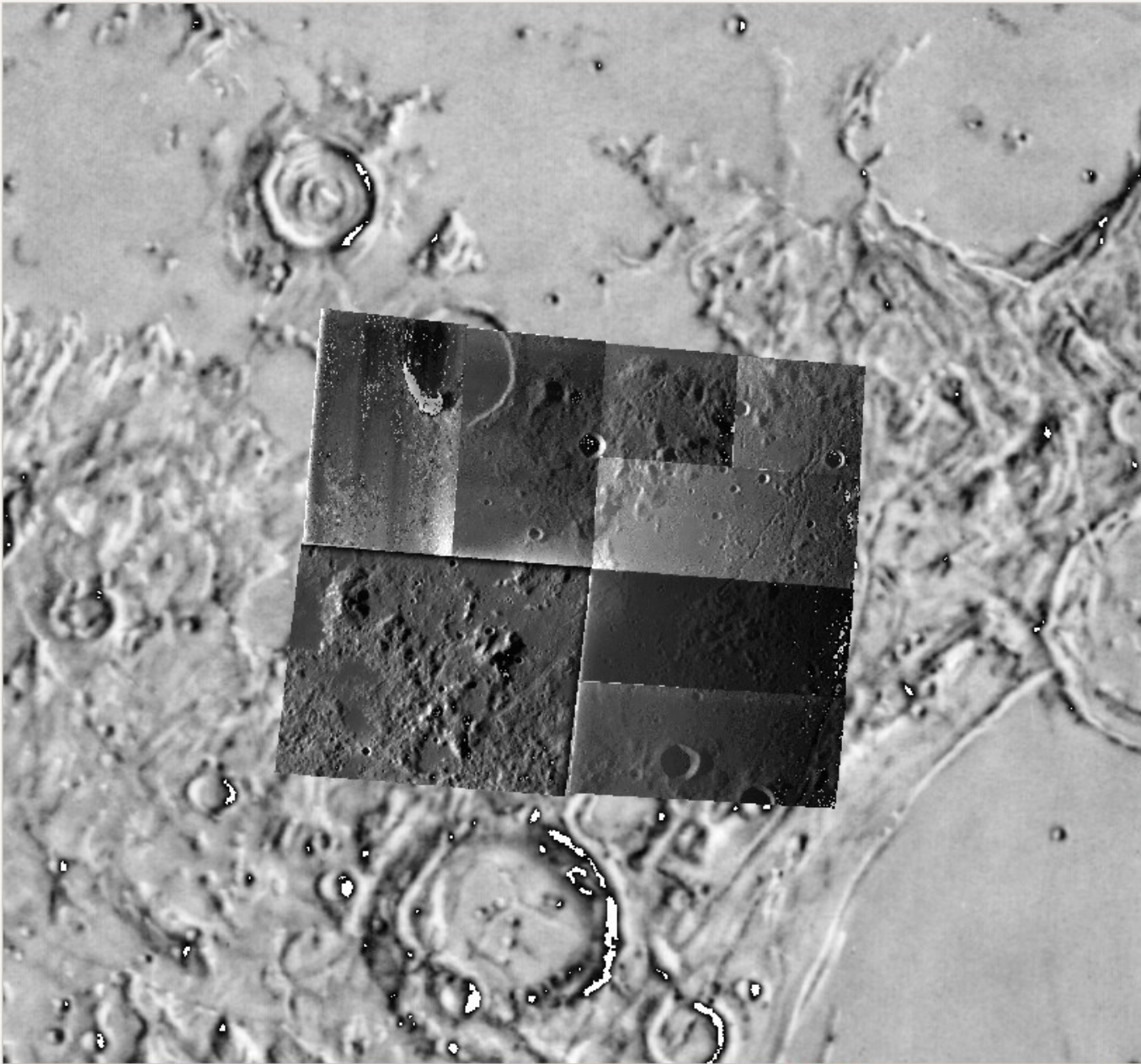
Chercher [ ]

0 sel / 0 src 53Mo



Couches

- lune8
- lune7
- lune6
- lune5
- lune4
- lune3
- lune2
- lune
- Lune\_map



Contrôle de l'ordre de rendu des couches

# Conclusion

- ◆ Parts of the VO environment can easily be reused for other disciplines
- ◆ Tools and services can also be reused
- ◆ Specific developments for planetology, plasma, solar physic and others project should also be of great interest for the IVOA.