

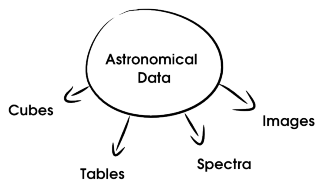
How to create your own customized VO data access service easily?

Grégory Mantelet

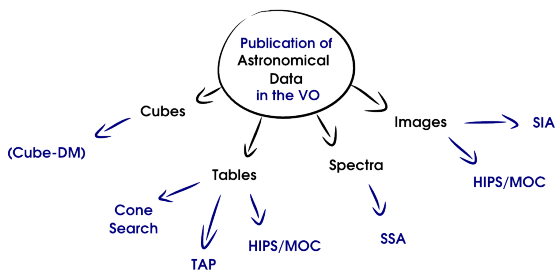
Astronomisches Rechen Institut (ARI)
Heidelberg, Germany

15th June 2016

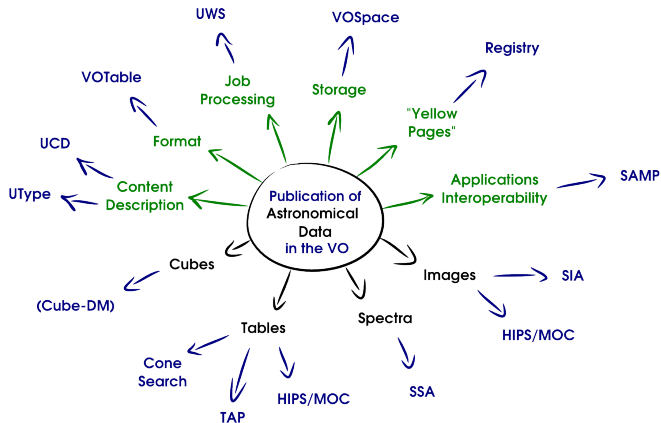
- 1 Publication of Astronomical Data in the VO
- 2 Example of the TAP protocol
- 3 Implementation "issues"
- 4 Final words...



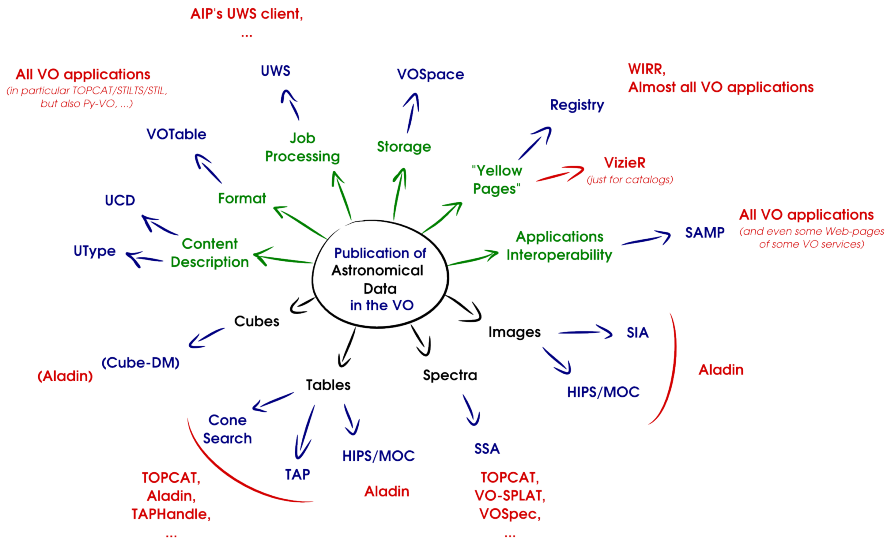
Publication of Astronomical Data in the VO



Publication of Astronomical Data in the VO



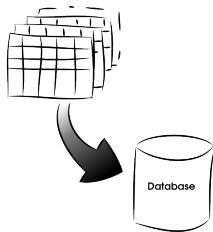
Publication of Astronomical Data in the VO



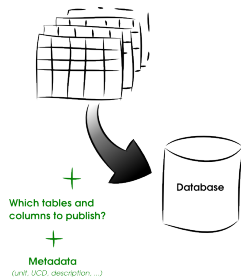
Example of the TAP protocol



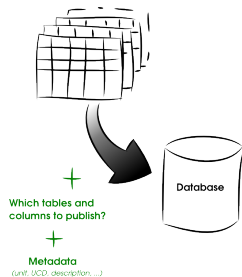
Example of the TAP protocol



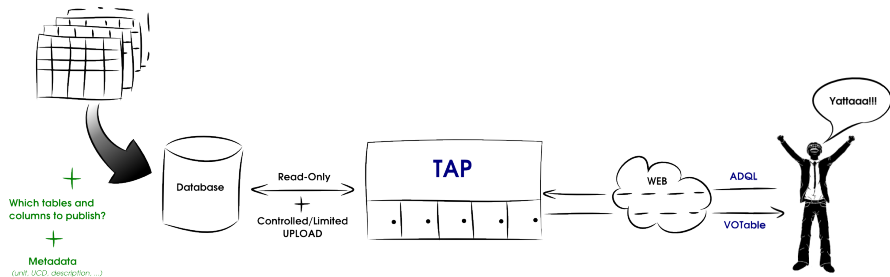
Example of the TAP protocol



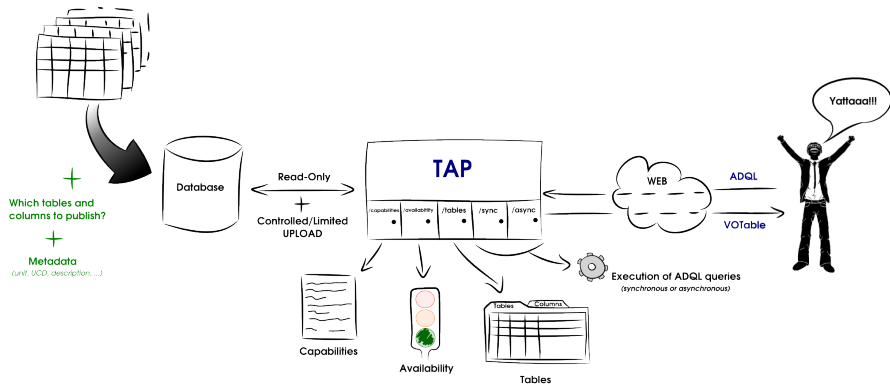
Example of the TAP protocol



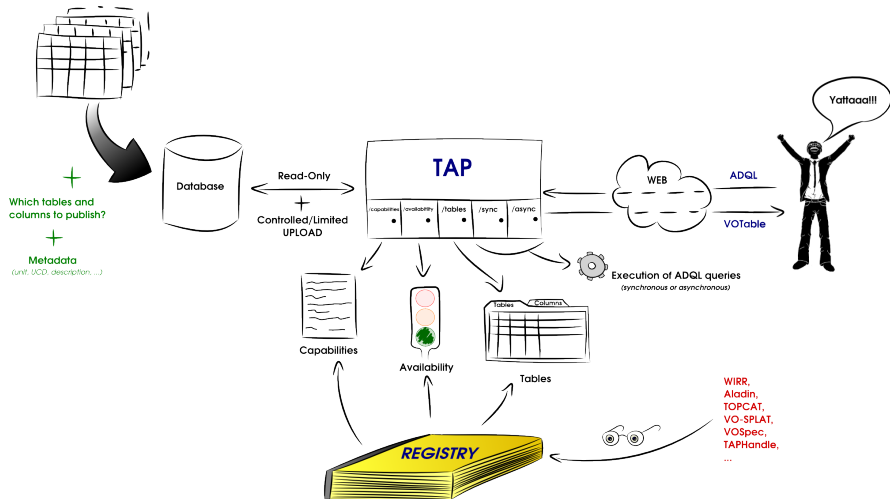
Example of the TAP protocol



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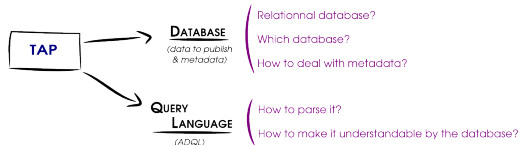
Implementation "issues"

TAP

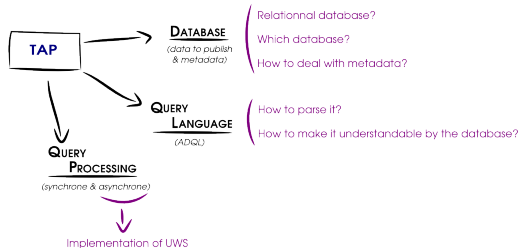
Implementation "issues"



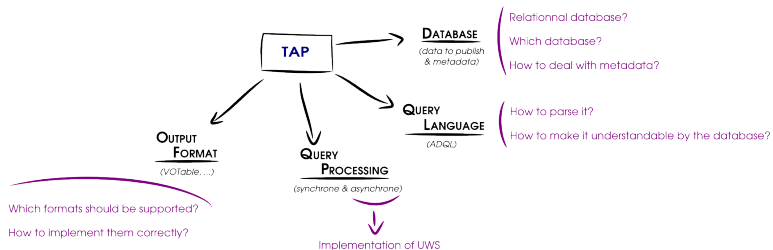
Implementation "issues"



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Implementation "issues"



Implementation "issues"

Local file system?

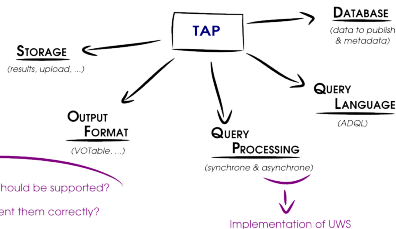
Remote file system? Which one?

VOspace?

Quota management?

Which formats should be supported?

How to implement them correctly?



Relational database?

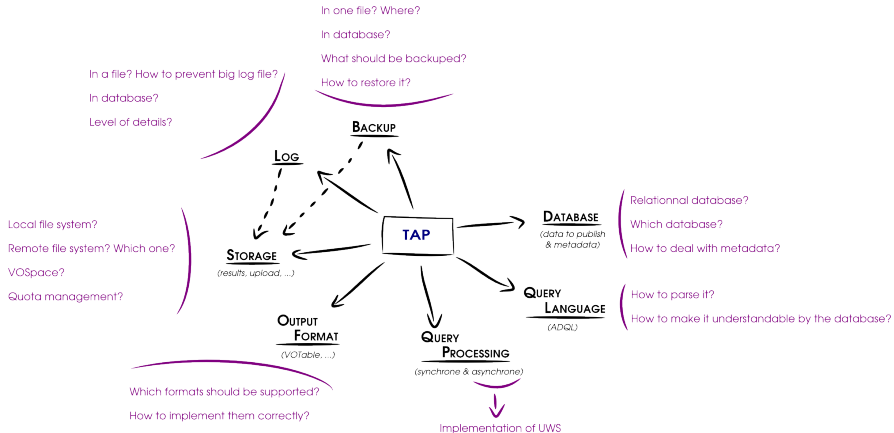
Which database?

How to deal with metadata?

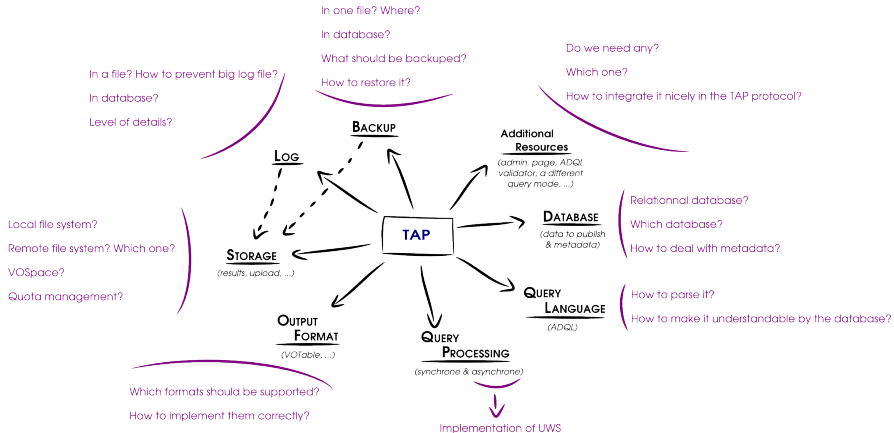
How to parse it?

How to make it understandable by the database?

Implementation "issues"



Implementation "issues"



- SVOCat
- CDS/ARI Libraries
- DACHS
- Saada
- ...

■ Protocols

- TAP: <http://www.ivoa.net/documents/TAP/20100327/>
- Simple Cone Search: <http://www.ivoa.net/documents/latest/ConeSearch.html>
- SIA: <http://www.ivoa.net/documents/SIA/20151223/>
- SSA: <http://www.ivoa.net/documents/SSA/20120210/index.html>

■ Standards

■ VOTable:

<http://www.ivoa.net/documents/VOTable/20130920/>

■ UCD:

<http://www.ivoa.net/documents/latest/UCD.html>,

<http://www.ivoa.net/documents/cover/>

[UCDlist-20070402.html](http://www.ivoa.net/documents/UCDlist-20070402.html)

■ ADQL:

<http://www.ivoa.net/documents/latest/ADQL.html>

■ UWS: [http:](http://www.ivoa.net/documents/UWS/20101010/index.html)

[//www.ivoa.net/documents/UWS/20101010/index.html](http://www.ivoa.net/documents/UWS/20101010/index.html)

■ VOSpace: [http://www.ivoa.net/documents/VOSpace/](http://www.ivoa.net/documents/VOSpace/20130329/index.html)

[20130329/index.html](http://www.ivoa.net/documents/VOSpace/20130329/index.html)

■ Registry: [http://www.ivoa.net/documents/](http://www.ivoa.net/documents/RegistryInterface/20091104/)

[RegistryInterface/20091104/](http://www.ivoa.net/documents/RegistryInterface/20091104/)

■ SAMP: [http:](http://www.ivoa.net/documents/SAMP/20120411/index.html)

[//www.ivoa.net/documents/SAMP/20120411/index.html](http://www.ivoa.net/documents/SAMP/20120411/index.html)

■ MOC: [http:](http://www.ivoa.net/documents/MOC/20140602/index.html)

[//www.ivoa.net/documents/MOC/20140602/index.html](http://www.ivoa.net/documents/MOC/20140602/index.html)