Once standards for data discovery and data dissemination are defined, standard software solutions on both the server and the client side become possible. This, in turn, facilitates rich data services accessible through a multitude of tools as part of a comprehensive data ecosystem with a very moderate effort on the publishers’ side (and zero effort on the users’ side). This poster illustrates this by drawing a cartoon of a publishing workflow using GAVO’s DaCHS, an integrated Virtual Observatory publishing solution implementing most of the Virtual Observatory’s protocols, starting from the data providers, going through the data center operators, and reaching its goal in the data exploitation with powerful, standards-based tools like TOPCAT, Aladin, SPLAT, VESPA’s data browser, or the astropy affiliated package pyVO.

Advantages of publishing to the Virtual Observatory with DaCHS as illustrated in the figure include:

- Software installation is as easy as setting up a Debian machine and apt-get installing.
- Proven components allow ingestion and service interfaces with no or very little custom code.
- Built-in service registration with negligible overhead.
- Rich ecosystem of client software giving users rich functionality at no implementation or support cost to data providers or service operators.

Further Reading

- DaCHS downloads and documentation: http://soft.g-vo.org/dachs
- RDS of services published in Heidelberg: http://svn.ari.uni-heidelberg.de/svn/gavo/hdinputs/.
- More on the VO protocols mentioned: http://ivoa.net/documents
- VO client programs: http://ivoa.net/astronomers/applications.html
- Programmatic access with pyVO: http://github.com/pyvotools
- VO tutorials and use cases: http://dc.g-vo.org/VOTT

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