

UTypes Current Status

DM 1

Tuesday May 26th a-m

Current status

- Utype simplification for the Characterisation DM
 - Short non-ambiguous names
 - Schema update at the same time
 - New models have issued their Utype list, e. g. SLAP
 - UTYPE Working draft issued May 24th
 - On the Wiki:
 - <http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/Utypes>
- Comments and suggestions are welcome on the DM list.

Reminder: What are Utypes for?

- A Utype is a tag ; it relates to a **name** used in a specific data model to represent a concept:

- Ex. 1: in a FITS spectrum file where is the *spectral resolution* along the wavelength axis for example

SPECTRES → **Spectrum.Char.SpectralAxis.Resolution** is the adequate Utype in SpectrumDM.

- Ex2: in the SSA protocol query response

Observation file name = <http://sdss.jhu.edu/images/sdss/10314.fits>

Utype → **ssa:Access.Reference**

- Utypes help to realise a flat serialisation of a data set according to a particular data model
 - (utype, value) lists
 - VOTable
 - Parfile

Utype WD outline (1)

- Syntax

- Single model:

`<model-name>:[<package-name>/]*<class-name>.<attribute-name>[.<attribute-name>]*`

is a unique pointer to an attribute in a data model.

Obs:Characterisation\spectralAxis.resolution.refVal

`<model-name>:[<package-name>/]*<class-name>.<reference-name>`

`<model-name>:[<package-name>/]*<class-name>.<collection-name>`

- Model re-use:

Containers/ IVOA types (identifiers, formats, coordinates)

`cha:characterisationAxis.Coverage.location ;`
`stc:AstroCoord.Position2D.Value2D.C1`

Parent model 's class(context) ; leaf model (object)

How are Utypes generated and published

- For each data model , a utype list can be derived .
 - Manually , SpectrumDM, Characterisation DM
 - Automaticly , cf Simulation DM

Modeler →uml→Export →xmi→XSLT→ utype list
maintenance : updates of the DM are directly reflected

 - to be adopted in DM WG for coming models, e.g. Observation/Provenance DM
- A **reference Utype list** is attached to each Datamodel version , as part of the standard
- To be developed : tools for **searching**, **assigning** utypes
 - like the UCD tools ?
 - other suggestion, using vocabularies?

How are Utypes used?

- By data provider to publish their metadata according to a data model view

Keyword mapping

FITS to dal interface or data model Utypes:

- **MEX** (ESO) dal interface
 - **Dal_toolkit, DM Mapper** (ESAC) dal interface, data base
 - **Interactive mapping tool** (CDS) Characterisation/all DMs
- By protocol developers/implementers to name fields within query response
 - SSA
 - SLAP
 - In data base queries
 - Prototype based on Saada, by Laurent Michel (Strasbourg)
 - Applications

Conclusion

- Welcome for comments on the draft
- As a cross-WG topic:
should be reviews by DAL, Votable WG too, at the same time
- Send your input/comments on the 3 lists