

EST data in the VO

Hackathon session April 13th 2021

Attendees :

Veronique Delouille(VD) , Markus Demleitner , François Bonnarel , Mireille Louys, Mark Allen, Aleberto Micol, Marco Molinaro, André Schaaff , ...

Notes taken by Mireille Louys / reprocessed by François Bonnarel

I) Feature catalogs in the VO

- TAP Prototype for ROB data (precursor for EST): question on DACHS capabilities
 - Active regions. time, intensity(flux), position on the sun
 - catalog of parameters for one active region measured for one day duration (sum) -
 - Our features catalogs are changing very often. How to feed DACHS in these conditions ?
 - Answer : depends on the actual frequency of upgrade
 - for example Space Weather observations in DACHS
 - distribute FITS file + catalog. Updated often
 - e-CALLISTO data have time, wavelength , radio intensity, etc...
 - Further discussions between Markus (GAVO) and Freek (ROB) to be organized
- KIS data looks very specific . Multidimensional ? Where do they fit ?
 - TimeFrequency map feature contour standard project by Baptiste Cecconi
 - EPN tap based services with some customs query strategies *
- Marco Molinaro :
 - other use case from Catania data collection : full disk image, with active regions , position , etc ..
 - Sun spots : identifiers , positions , time , etc .
 - Currently the sharing of data is on a request to the author , archive basis .
- US solar community has built an archive for
 - HEK : A Heliophysics Events Knowledgebase
<https://www.lmsal.com/heksearch/>
- TAP or EPN-TAP for such feature catalogs ?
 - if you would use EPN tap , you already get the description of some physical parameters that many data collections / archive have in common, position , waveleght band width , time frame , etc . For these EPN tap will provide you a standard description : name , ucd, utype , units , data types , etc ..
 - if you need more columns , then you can add extra columns, and also describe them in the TAP schema tables .

- The metadata are described in the EPNTAP Tap schema .
- What are the strategies, for a user to search such data ?

II) standardizing solar observations metadata and UCD

- Matching EPN-TAP attributes / FITS Keywords mapping exercise to complete this exercise would be interesting to sketch an ingestion profile in any TAP service and try to feed and comply an EPN-TAP service .

- FITS KEYWORDS ↔ Ucds . Seems to be straightforward. Use the standard UCD upgrade procedure.

- UCD for feature catalogs. Needs wider discussion. Can involve ROB, VESPA, MEDOC (IAS solar data center), SolarNet, SVO people. To be organized under an IVOA hat (semantics WG / solar system IG?) → action ML, BC

- Marco: what about using the IHDEA mailing list? (<https://ihdea.nett>) effort for solar physics and planets . They have a working group on solar system metadata ? Have to advertise the benefits of standards metadata and standard UCD / vocabulary

- Voc 2.0 VEP procedure has to be tuned to be fully adapted to UCDs

- ML: I think UCD evolution needs a process where people can discuss many terms at the same time and not shuffle the terms in the tree structure with many iterations.
- It needs a full picture on the vocabulary, because it is maintained with reasoners algorithms and properties of the terms with respect to each other.
- We cannot discuss inclusions on a term by term basis .