UCD Assignation tools & Good practices

Tips & tricks for the Semantics enthusiasts





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What is the problem?

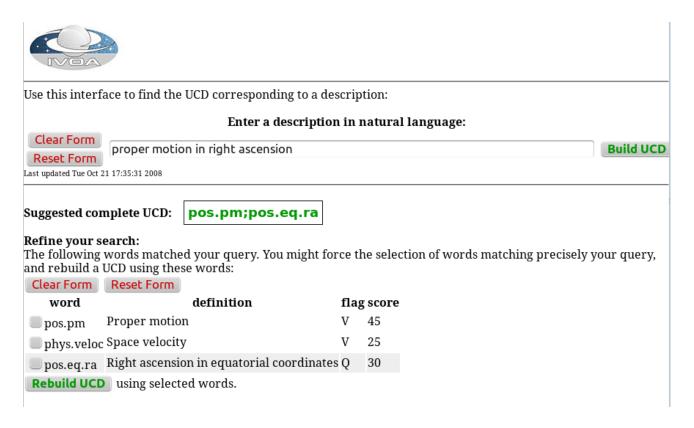
« Right ascension » → pos.eq.ra
pos.eq.ra;meta.main

« Radial velocity » → spect.dopplerVeloc.opt
or spect.dopplerVeloc.radio
but not phys.veloc

- It is not an easy task...
 - Extreme case of text mining: find relevant vocabulary words (and combinations) from (very) short definitions
 - The vocabulary is large (>500 words), with some subtleties
 - UCD have special syntactic rules to combine words: syntax codes PSQECV
 - Allowed: P, PS, QS, PQ, ES, PSS, CSS...
 - But NOT : S, SQ, QP, ...
- ... for expert humans or machines

- Several tools and studies...
 - Expert systems
 - Machine learning
 - ...
- ... for few users
 - Few data providers need to assign UCDs on a regular basis
 - → hard to keep knowledge

http://cdsweb.u-strasbg.fr/UCD/tools.htx



- How to deal with different vocabularies?
 - Official list of words
 - Test new list of words
 - Test assignation of new words
 - DO NOT BREAK the tool for previous words
 - Need reference examples (definition + UCD) for automated checks

GOOD PRACTICES

Provide practical examples on common cases

http://wiki.ivoa.net/twiki/bin/view/IVOA/UCDsUseCases

. A table containing several coordinate values for each tuple :

Column name	alpha1	delta1	alpha2	delta2	
Description	Raw right ascension	Raw declination	Adjusted right ascension	Adjusted declination	
UCD	pos.eq.ra	pos.eq.dec	pos.eq.ra;meta.main	pos.eq.dec;meta.main	

In this case, there are two right ascensions (and declinations), and so it can be useful to append; meta.main to **one** of the values: this will indicate that if a tool has to pick one right ascension value, the column described by pos.eq.ra; meta.main is to be preferred (alpha2 here). Therefore, one should avoid to attach identical UCDs containing meta.main to several column within a single table, as it would create ambiguities.

GOOD PRACTICES

- Related to new Ops IVOA WG?
 - Help data providers in practical implementation, does not require reading all standard documents
- Complete page with more examples
 - Inputs from individual projects with their feedback