DS5 – Intelligent Resource Discovery

CDS review on Stage01

Finalize UCD1+

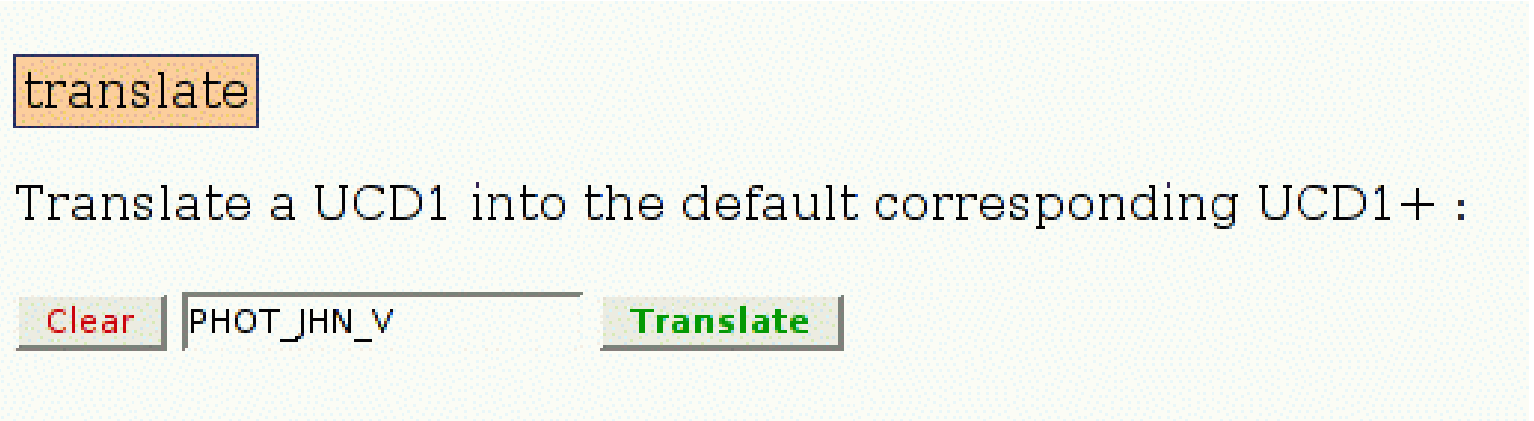
- Tools for UCD1+ available
  - presented at Kyoto IVOA interop meeting
  - WS access
- UCD1+ standard as IVOA Recommendation
- UCD1+ vocabulary currently PR

UCD1+ tools

- A set of tools has been developed:
  - Ease transition from UCD to UCD1+
  - Manipulate UCD1+
- Tools available as CGI scripts and Web Services
  - http://vizier.u-strasbg.fr/UCD/tools.htx
  - http://cdsweb.u-strasbg.fr/cdsws/ucdClient.gml

translate

- Translate a UCD1 into the default UCD1+
- For data providers who already use UCD1



validate

- Check if a UCD1+ is correctly written
- Possible actions depending on the return status

validate

Check if a UCD1+ is valid :

Clear | pos.pm;ivoa:pos.eq.ra | Validate

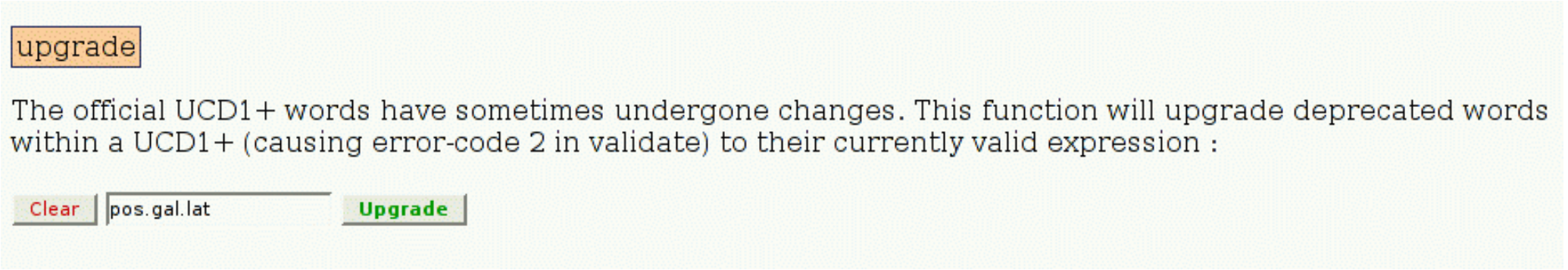
The first word of the result is an error code, possibly followed by an explanation of the error.
This function will return 0 if the UCD1+ is fully valid.
The error-code results from the combination (logical OR) of the following values:

- 1: warning indicating use of non-standard namespace (not ivoa:)
- 2: use of deprecated word
- 4: use of non-existing word
- 8: syntax error (extra space or unallowed character)

Example: an error-code value of 10 will indicate the use of a deprecated word and a syntax error.

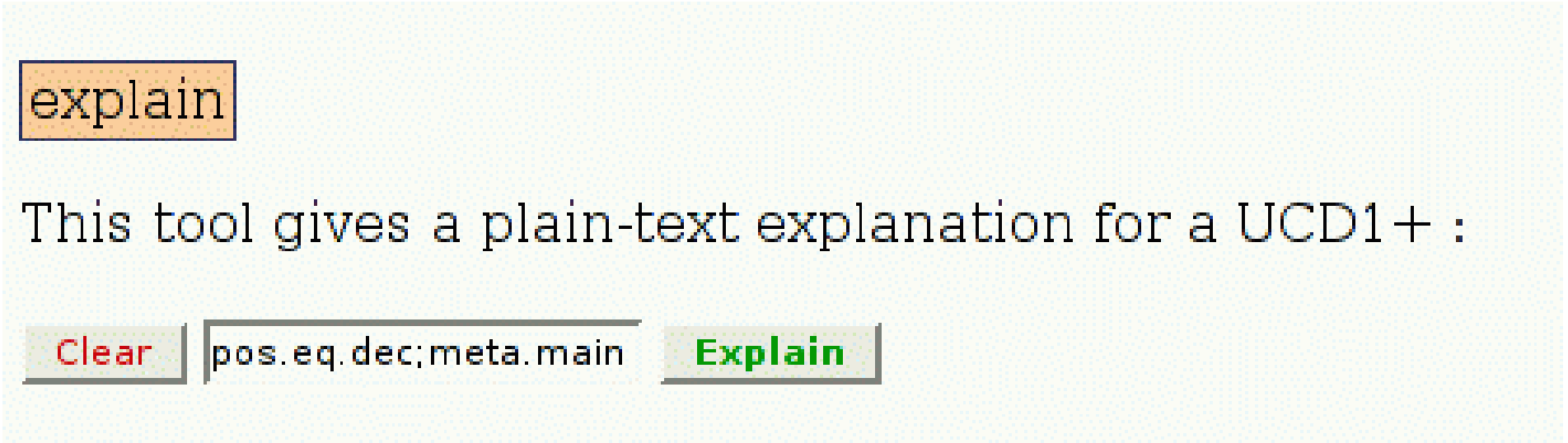
upgrade

- Convert deprecated UCD1+ to the new recommended expression
- Useful to take into account changes in vocabulary



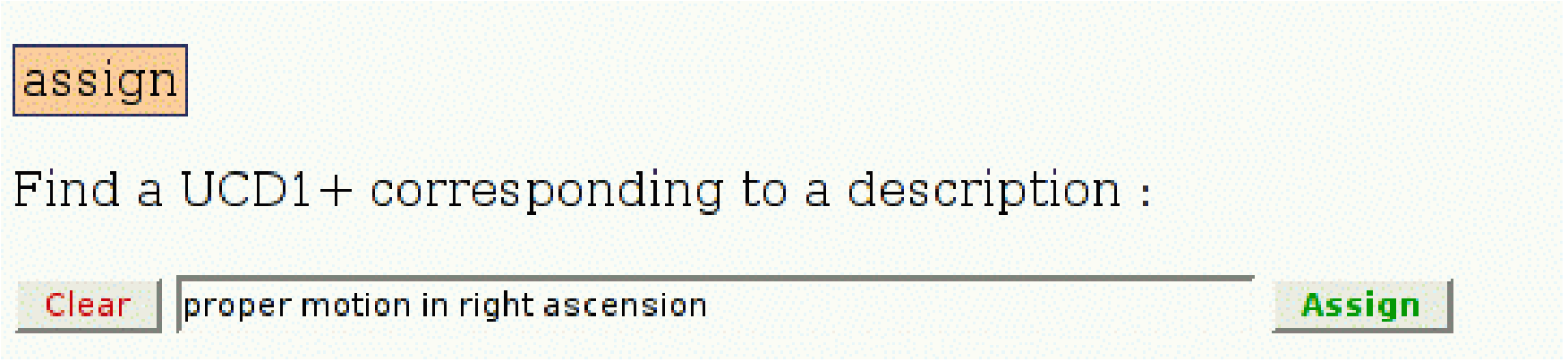
explain

- Returns explanation for a given UCD1+



assign

- Returns a UCD1+ corresponding to a plain text description (difficult job!)

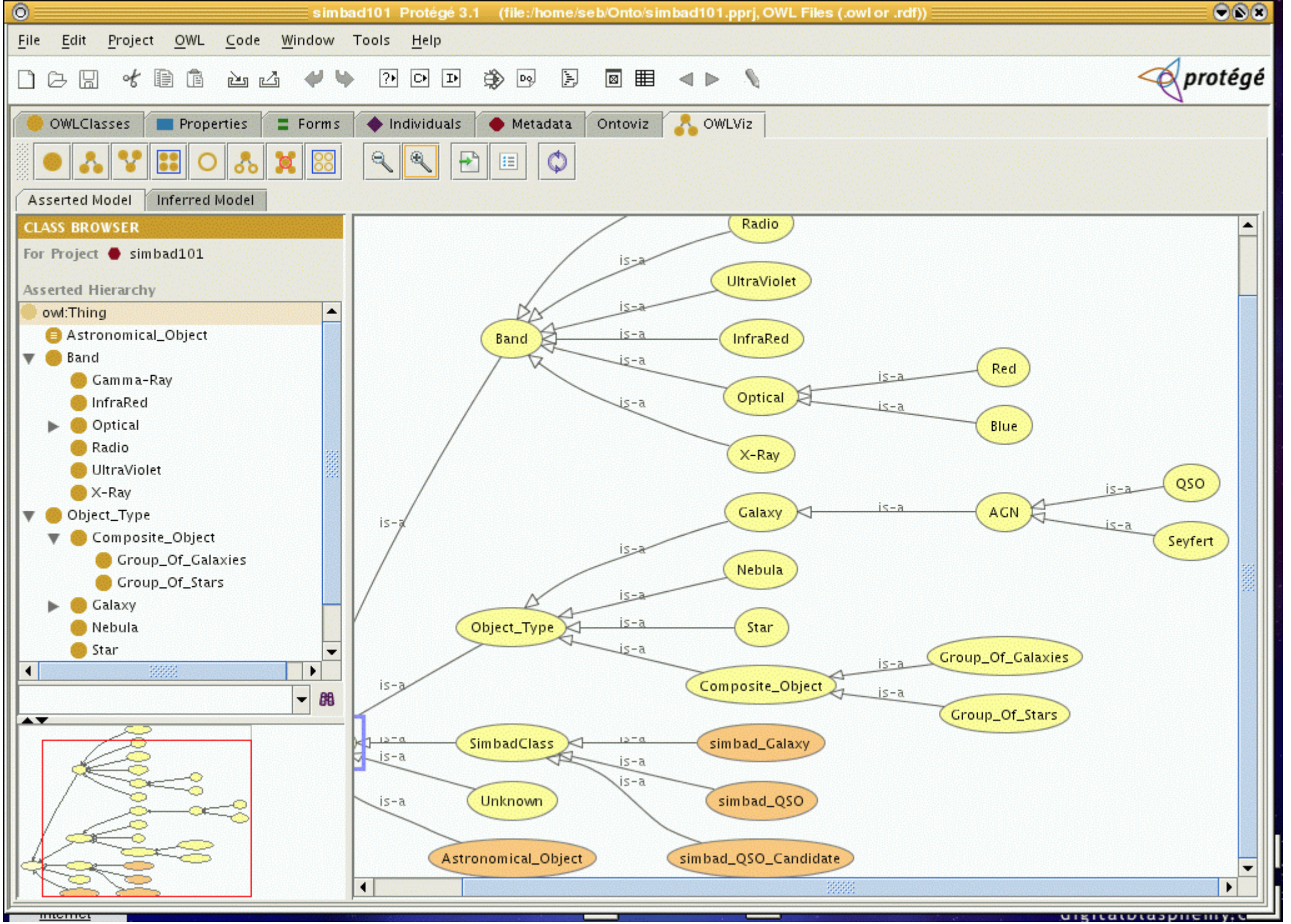


Ontology of object types

- CDS+INAF collaboration
- Lessons learned from Protege 2005 (july, Madrid) conference for good practice in ontology construction
  - open world assumption
  - ontology validation

Ontology of object types

- Relies on SIMBAD object types
  - improve object hierarchical structure description
  - link between object types and wl/frequency domain
- Obvious links with UCDs, IAU thesaurus
- Deliver OWL files before TAP meeting !


simbad101 Protégé 3.1 (file:/home/seb/Onto/simbad101.pprj, OWL Files (.owl or .rdf))
File Edit Project OWL Code Window Tools Help
protégé
OWLClasses Properties Forms Individuals Metadata Ontoviz OWLViz
Asserted Model Inferred Model
CLASS BROWSER
For Project simbad101
Asserted Hierarchy
owl:Thing
Astronomical_Object
Band
Gamma-Ray
InfraRed
Optical
Radio
UltraViolet
X-Ray
Object_Type
Composite_Object
Group_Of_Galaxies
Group_Of_Stars
Galaxy
Nebula
Star
Radio
UltraViolet
InfraRed
Band
Optical
Red
Blue
X-Ray
QSO
Galaxy
AGN
Seyfert
Nebula
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Star
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Composite_Object
Group_Of_Stars
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simbad_Galaxy
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simbad_QSO
Astronomical_Object
simbad_QSO_Candidate
is-a