

A Web-based Tool to Manage Multilingual Thesaurus: The Example of AGROVOC

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AGROVOC



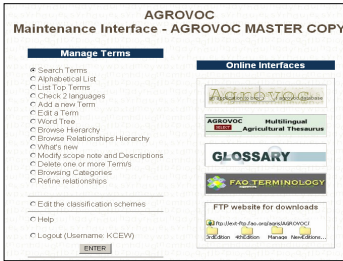
AGROVOC is a multilingual, structured and controlled vocabulary designed to cover the terminology of all subject fields in agriculture, forestry, fisheries, food and related domains (e.g. environment), and currently contains over 29 000 terms.

Browse the thesaurus at: <http://www.fao.org/agrovoc/>

Available on CD-ROM and online in 17 languages: Arabic, Chinese, Czech, English, Farsi, French, German, Hindi, Hungarian, Italian, Japanese, Lao, Polish, Portuguese, Slovak, Spanish, Thai.
Available formats (for downloading): MySQL, MS Access, SKOS, Postgres, TagText, ISO2709

The Maintenance Tool

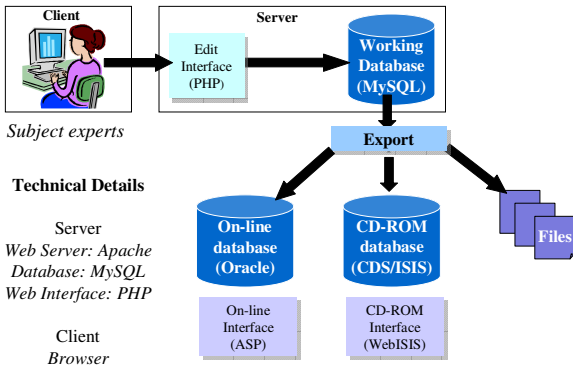
The AGROVOC Maintenance Interface is a web-based thesaurus management system developed by FAO to manage multilingual thesauri, i.e. to manage all the terms, their relations, and their scope notes inside the AGROVOC database. It is a PHP web-based application that uses a MySQL database.



The system can also be used for browsing only - AGROVOC Browsing Interface -, and it is available on CD-ROM.

Open Source software, freely available at: <http://sourceforge.net/projects/agrovoc/>

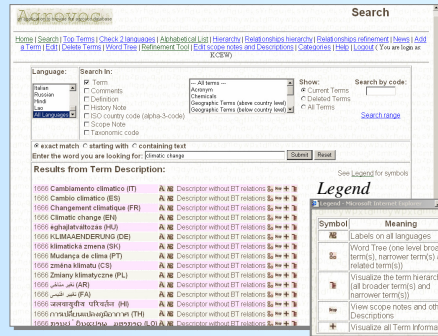
The Data Work Flow



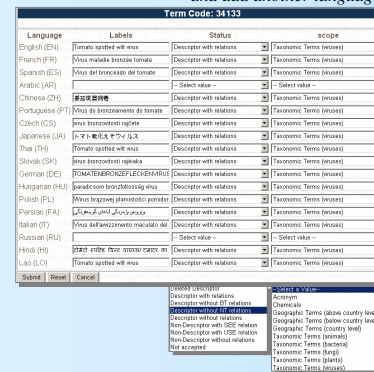
Key Functionalities

- Search
- Add new terms
- Edit terms
- Edit relationships between terms
- Modify descriptions (scope notes, definitions, etc.)
- Check differences in 2 languages
- Navigate Categorisation Schemes
- Delete terms

Search

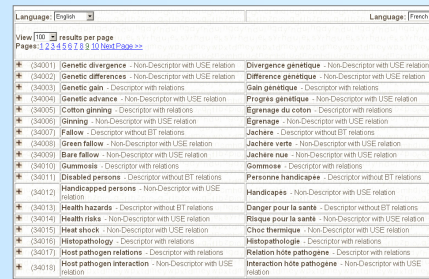


Edit Term



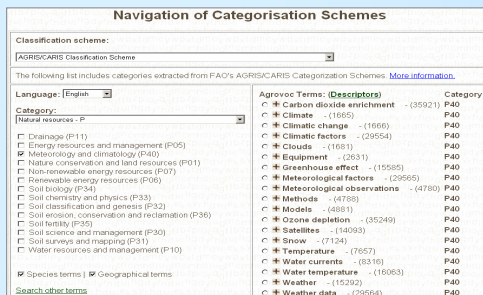
The user can edit the term label, term status, scope, and add another language

Check Differences in 2 Languages



Navigate Categories

Allows user to view the terms mapped to a selected category



Development of AGROVOC...

... from a 'traditional' thesaurus into the Agricultural Ontology Service (AOS):

- Restructuring AGROVOC from the current term-based system to a concept-based system by providing richer/refined relationships between concepts (see example below).
- Development of an Agricultural Ontology Service / Concept Server (AOS/CS) using AGROVOC as the starting point. The main objective of the AGROVOC Concept Server (CS) is to create a collaborative reference platform and a "one-stop" shop for a pool of commonly used concepts related to agriculture, containing terms, definitions and relationships between terms in multiple languages derived from various sources.

For further information see: <http://www.fao.org/aims/agrovoccs.jsp>

Hierarchical Tree for Refined Relationships

- 50 BT **Broader Term** (TH - Traditional thesaurus hierarchical Relationships) - Opposite = Narrower Term (60)
 - 100 subclassOf (CH - Hierarchical Relationships between ontology concepts) - Opposite = hasSubclass (101)
 - 102 **instanceOf** (CH - Hierarchical Relationships between ontology concepts) - Opposite = hasInstance (103)
- 60 NT **Narrower Term** (TH - Traditional thesaurus hierarchical Relationships) - Opposite = Broader Term (50)
 - 101 **hasSubclass** (CH - Hierarchical Relationships between ontology concepts) - Opposite = subclassOf (100)
 - 103 **hasInstance** (CH - Hierarchical Relationships between ontology concepts) - Opposite = instanceOf (102)
- 30 SEE **See** (TR - Traditional thesaurus Relationships) - Opposite = Seen For (40)
- 30 RT **Related Term** (TR - Traditional thesaurus Relationships) - Opposite = Related Term (30)
 - 105 **relatedConcept** (CR - Concepts-to-Concepts Relationships) - Opposite = hasRelatedConcept (105)
 - 131 **hasPart** (CR - Concepts-to-Concepts Relationships) - Opposite = hasPart (131)
 - 131 **hasPart** (CR - Concepts-to-Concepts Relationships) - Opposite = partOf (130)
 - 280 **hasSymptom** (CR - Concepts-to-Concepts Relationships) - Opposite = indicates (281)
 - 281 **indicates** (CR - Concepts-to-Concepts Relationships) - Opposite = hasSymptom (280)
 - 305 **hasTheme** (CR - Concepts-to-Concepts Relationships) - Opposite = isThemeOf (305)
 - 306 **isThemeOf** (CR - Concepts-to-Concepts Relationships) - Opposite = hasTheme (305)
 - 307 **hasRelatedType** (CR - Concepts-to-Concepts Relationships) - Opposite = isRelatedTypeOf (308)
 - 308 **isRelatedTypeOf** (CR - Concepts-to-Concepts Relationships) - Opposite = hasRelatedTypeOf (307)
 - 309 **hasProperty** (CR - Concepts-to-Concepts Relationships) - Opposite = isPropertyOf (310)
 - 310 **isPropertyOf** (CR - Concepts-to-Concepts Relationships) - Opposite = hasProperty (309)
 - 311 **hasSubjectActivity** (CR - Concepts-to-Concepts Relationships) - Opposite = isSubjectOfActivity (312)
 - 312 **isSubjectOfActivity** (CR - Concepts-to-Concepts Relationships) - Opposite = hasSubjectActivity (311)
 - 655 **temporalRelation** (CR - Concepts-to-Concepts Relationships) - Opposite = temporalRelation (655)
 - 551 **follows** (CR - Concepts-to-Concepts Relationships) - Opposite = precedes (552)
 - 552 **precedes** (CR - Concepts-to-Concepts Relationships) - Opposite = follows (551)
 - 553 **developsFrom** (CR - Concepts-to-Concepts Relationships) - Opposite = developsInto (554)
 - 554 **developsInto** (CR - Concepts-to-Concepts Relationships) - Opposite = developsFrom (553)
 - 667 **causativeRelationship** (CR - Concepts-to-Concepts Relationships) - Opposite = causativeRelationship (667)
 - 161 **isBeneficialFor** (CR - Concepts-to-Concepts Relationships) - Opposite = isBeneficialFor (161)
 - 211 **isCausedBy** (CR - Concepts-to-Concepts Relationships) - Opposite = causes (211)
 - 211 **causes** (CR - Concepts-to-Concepts Relationships) - Opposite = isCausedBy (210)
 - 250 **isAffectedBy** (CR - Concepts-to-Concepts Relationships) - Opposite = affects (251)
 - 150 **isAffectedBy** (CR - Concepts-to-Concepts Relationships) - Opposite = affects (151)

AGROVOC Tools Collaborative Project

FAO, the Joint Research Centre (JRC) of the European Commission, and the British Geological Survey (BGS) are currently working together to rebuild the AGROVOC tools and produce a more powerful and generic Multilingual and Multi-thesauri Management Tool. They are planning to produce a new structure, composed of a thesaurus database and a web-based system, which can help to manage multiple multilingual thesauri and mapping systems.

The new tool will incorporate

- concept and term management
- rich relationships
- mapping mechanisms between thesauri
- export functionalities.

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