

I2G

INTERGEO

I2GEO Annotator Manual

The INTERGEO Consortium

September 2008

Version: submitted version of October 17, 2008

Main Authors:

Santiago Egido (Maths For More, S.L.)

1 i2geo Annotators Manual

1.1 Introduction

I2geo is to operate in a multi-language environment, and therefore it's not possible to search for resources using keywords. This is the reason why correctly classifying resources is so absolutely crucial to i2geo's success.

Resources are described through several metadata tags; some of them are very clear and easy to understand, such as the language used by the resource, but others are a little bit more sophisticated, such as the set of competencies that the resource relates to.

In order to work as an annotator, you will need at account in i2geo, which you can get just by visiting <http://i2geo.net/>. You also have to read the Basic User Manual, available at http://i2geo.net/xwiki/bin/view/Coll_curriki/i2geoBasicUserManual.

Before you start metadata tagging the resources, it might be a good idea to take a look at the competencies ontology. •

Ednote: blah blah

This manual is divided in three parts:

- a description of the metadata of resources and traces
- instructions on how to edit the metadata of a trace
- instructions on how to edit the metadata of a resource
- instruction on how to use the browsing capabilities of the Competency Editor

The process required to create a resource is explained in the Basic User Manual, and so it will not be repeated here.

1.2 Metadata description

Each resource or trace has the following data:

- **Title.**
- **URL.**
- **Author**, which by default will be the i2geo user which uploads the resource, whether this is or not the actual author.
- **License**, which describes how this resource can be used. You can find more information on licenses in the appendix • or at <http://i2geo.net/xwiki/bin/view/Licenses/>. The license can be temporarily left blank, or “under development”; but a resource will not be public until it has been set a license; that is, other i2geo members will not be able to find it or do anything with it as long as it has not been specified how it can be used.
- **Country** •.
- **Description**, which will be displayed when the mouse hovers over a list of resources.
- **Main topic**. Information on available topics can be found at <http://i2geo.net/xwiki/bin/view/Topics/>.
- **Other Themes**, or other topics (besides the main topic).
- **Language.**
- **Educational level**, which is a list of the courses the resources is intended to.
- **Geometry system**, which indicates the software necessary to play the resource, if applicable. A list of the software systems recognized by i2geo can be found at <http://i2geo.net/xwiki/bin/view/Softwares/>.
- **Amount**, which indicates the number of distinct interactive geometry constructions on the back of the resource, if applicable.

Ednote: where?

Ednote: WHAT IS THE COUNTRY USED FOR?

1.3 edition of trace metadata

The traces directory is <http://i2geo.net/xwiki/bin/inline/Traces/>.

i2g Traces

This is a first-shot of gathering interactive geometry resources for the [intergeo project](#).

This space will contain *traces* of interactive geometry constructions which are simple links along with statements of authorships and license.

The information provided here will be the seed for the intergeo platform which will use a richer set of information and a common file format to exchange, find, and evaluate interactive geometry constructions.

CURRENT TRACES

This is the list of recently updated traces.
See [traces you contributed to](#).
Find the list of traces at each value-space: [topics](#), [licenses](#), and [softwares](#).
See [all traces](#).

Titre	Main topic:	#	License/Author
Visualisation des solutions d'une équation du 2d degré	2D coordinates	1	Jean Marc Ravier (as found on GFDL i2geo.net)
Vitesse instantanée et nombre dérivé	2D coordinates	1	Christian Buso (as found on i2geo.net)
Volume d'une pyramide	Solids	1	maurice ocquidant (as found on i2geo.net)
Archimède et le volume de la sphère	Geometry (other topics)	1	maurice ocquidant (as found on i2geo.net)

1.3 edition of trace metadata

In this page you can see a brief list of traces. You are given the options to see all the traces that you have tagged, to see all traces, and to see traces classified by topics, licenses, and software.

By clicking on a trace you can view its metadata.

i2geo Trace: Riemann Integral
This is a page reporting about interactive geometry constructions candidate to enter the intergeo sharing process.

Title: The Riemann Integral
 URL: http://mathsrv.ku-eichstaett.de/MGF/homes/grothmann/java/zirkel/doc_en/Data/Applications/Integration/Riemann%20Integral.html

Author: Rene Grothmann (as found on i2geo.net)
 License: [Creative Commons Attribution-Sharealike](#)
[more about licenses](#) Country:

Description: Approximation of an integral using Riemann sums.

Main topic: Calculus
[more about topics for first steps](#) Langue de la construction: en

Other themes: Areas

Educational level: Educational level:
 Geometry system: Z u L - C a R
[more about interactive geometry softwares](#)

Amount: [traces about Amount](#)

Back to [intergeo traces](#).

Duplicate this trace

Name:

Besides viewing the values of the metadata, you are given the options to return to the list of traces, edit the metadata, and duplicate the trace so that you can edit an modify a copy with a new name, leaving untouched the original trace. If you click on “edit”, you will go to a page where you can modify the metadata:

i2geo Trace: Riemann Integral
This is a page reporting about interactive geometry constructions candidate to enter the intergeo sharing process.

Title:
 URL:

Author:
 License:
[more about licenses](#) Country:

Description:

Main topic:
[more about topics for first steps](#) Langue de la construction:

Other themes:

Educational level:

Geometry system:
[more about interactive geometry softwares](#)

Amount: [traces about Amount](#)

Back to [intergeo traces](#).

Comment:

Ednote: is this correct?

Observe the “Comment” text box at the lower part of the page; you can use it to explain why you have modified any data. ●

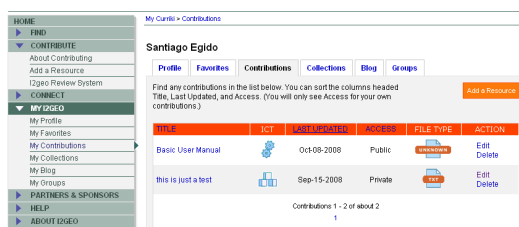
1 I2GEO ANNOTATORS MANUAL

When you have finished modifying the metadata, you can click on “Save and Preview” or on “Save and Continue” so save your changes. You can also go back to the traces page without saving your modifications.

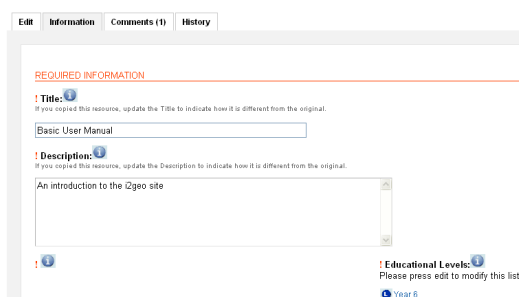
1.4 edition of resource metadata

In order to modify the metadata of an existing resource, you need permission to do so; this will depend on whether you are its author, on the resource license, on the resource accessibility (public or private), and on your membership to the group which is the owner of the resource, if applicable.

There are many ways to search for a resource; if you want to edit one of your own resources, the fastest way to find it is to click on the left menu on “MY I2GEO”, then on “My Contributions”, then on the “Edit” button next to the resource you want to modify.



You will go to a page with four tabs: “Edit”, “Information”, “Comments”, and “History”. Click on “Information”, and the page for edition of the resource metadata looks very similar to the forms that have to be filled in order to create a resource.



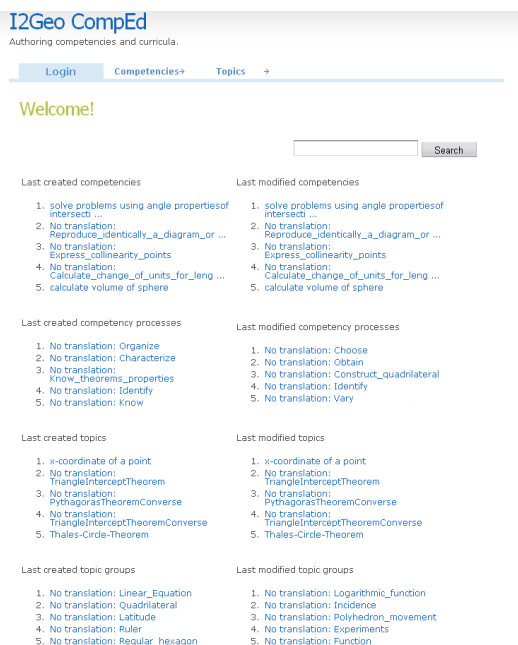
When you are done editing, click on the orange “Save” button at the lower right corner of the page (in case you couldn’t see a scrollbar, slide down by pressing the down cursor key).

1.5 The Competency Editor (CompEd)

1.5 The Competency Editor (CompEd)

The Competency Editor (CompEd) is used to navigate through the competencies, and to search and select particular competencies and topics. It is an editor because it could also be used to modify the competencies and competency ontology, although, by default, annotators do not have the permissions required to do this.

The Main Menu of CompEd is at <http://i2geo.net/comped/>.



Observe the login tab, which you would have to do if you intended to edit the competencies. This page contains a search box, two tabs for competencies and topics, and eight lists with the latest changes; namely, these lists indicate the competencies, competency processes, topics and topic groups which have been recently modified or created.

The competencies and topics are displayed in a tree; click on a square with a “-” to open up a branch, or on a “+” to close it.

The screenshot shows the I2Geo CompEd interface with a tree view of Competency Processes. The tree is organized as follows:

- Competency
 - GeometricCompetency
 - Construct
 - Construct_quadrilateral
 - Transfer
 - Construct_the_transformed_figure
 - construct_with_ruler_and_compass
 - Construct_triangle
 - Construct_net_of_solid
 - Manipulate_geometric_objects
 - Reproduce
 - ToMeasure
 - Decompose
 - FunctionsCompetency
 - Use_tools_for_functions
 - Plot
 - Sketch_graph
 - AlgebraicCompetency
 - Factor
 - Reduce
 - Replace
 - Set_up_an_equation
 - Evaluate
 - Expand
 - TransversalCompetency
 - Specify
 - Illustrate
 - Classify
 - Design
 - Verbalize
 - Manipulate_numbers_and_expressions
 - Solve
 - Solve_graphically
 - Solve_in_geometry

In order to search for a competency, just enter a word and click on “Search”.

The screenshot shows the I2Geo CompEd search interface. It features a search bar with the text "Fraction" entered and a "Search" button. Below the search bar, the results are listed under the heading "Competencies":

- evaluate a number as fraction or percentage of another
- subtract fractions
- substitute variables with fractions decimals and negative numbers in formulas
- enlarge shape by a fractional scale factor
- understand equivalence between fractions decimals percentages
- add fractions
- calculate division of fractions
- use rule of indices for negative and fractional values

At the bottom of the page, there is a footer with the text: "Version 1.0-SNAPSHOT | XHTML Valid | CSS Valid" and "© 2008 Intergo".

A list of competencies related to that word will be shown; click on any of them to see more details.

1.5 The Competency Editor (CompEd)

The screenshot shows the I2Geo CompEd interface. At the top, it says 'I2Geo CompEd Authoring competencies and curricula.' Below that are navigation links for 'Login', 'Competencies', and 'Topics'. The main section is titled 'Competency Information' and shows the following details:

- Created: 09/15/2008, Last modified: 09/15/2008
- subtract fractions
- Uri: http://www.inter2geo.eu/2008/ontology/ontology.owl#Calculate_subtraction_of_fractions
- Names [Add]
- Common names [More languages]
 - subtract fractions [Edit] [Delete] [translate]
 - Subtraktion von Brüchen berechnen [Edit] [Delete]
 - soustraire deux nombres décimaux en écriture fractionnaire dans le cas où les dénominateurs sont les mêmes et où le dénominateur de l'un est multiple du dénominateur de l'autre [Edit] [Delete]
 - calcular la resta de dos fracciones [Edit] [Delete]
 - calcular la diferencia de dos fracciones [Edit] [Delete]
- No uncommon names available
- No rare names available
- No false-friend names available
- Topics
 - Keine Übersetzung: Fraction
 - Keine Übersetzung: Subtraction
- Structural Information
 - No translation: Competency
 - No translation: TransversalCompetency
 - No translation: Calculate
 - No translation: Calculate_results_of_operations
 - subtract fractions
- No similar items

The details of a competency include:

- name
- date of creation and last modification
- URL, useful to link to the page of a competency
- translations
- names, which come in four groups:
 - common names, which are basically synonyms;
 - uncommon names, which are;
 - rare names, which are;
 - and false friends, which are misleading words that might seem related to the competency or topic but are not; this may be due to some word similarity, a common faulty translation, or any other reason.
- topics related to the competency
- a tree representation of where the competency is within the ontology
- and a list of similar items.

Ednote: ?

Ednote: ?

The details of a topic are very similar:

I2Geo CompEd
Authoring competencies and curricula.

[Main Menu](#) [Competencies>](#) [Topics](#) → [Edit Profile](#) [Logout](#)

Topic Information

Created: 09/15/2008, Last modified: 09/15/2008

Thales-Circle-Theorem

Uri: <http://www.inter2geo.eu/2008/ontology/ontology.owl#Thales-Circle-Theorem>

Names [\[Add\]](#)

Common names [\[More languages\]](#)

Thales-Circle-Theorem [\[Edit\]](#) [\[Delete\]](#)

le triangle rectangle est caractérisé par son inscription dans un demi-cercle [\[Edit\]](#) [\[Delete\]](#)

No uncommon names available

No rare names available

No false-friend names available

Structural Information

No translation: Topic

No translation: Theorem

Thales-Circle-Theorem

Creator: user [\[Edit\]](#)

You can click at any time on any competency or topic displayed anywhere, and in this way you can move from one general competency to another which is more particular, from a sub-topic such as “acute triangle” to a super-topic such as “triangle”, etc.