

## FIRST - Bug #3768

### find engineering vocabulary for assessment classification

01/22/2009 12:10 PM - Matt Jones

<b>Status:</b>	Resolved	<b>Start date:</b>	01/22/2009
<b>Priority:</b>	Immediate	<b>Due date:</b>	
<b>Assignee:</b>	Sandeep Namilikonda	<b>% Done:</b>	0%
<b>Category:</b>	client	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	client-prototype	<b>Spent time:</b>	0.00 hour
<b>Bugzilla-Id:</b>	3768		

#### Description

The FIRST metadata application uses one or more controlled vocabularies for classification of assessments and assessment items using domain-specific terms.

We need one or more controlled controlled vocabularies that cover the relevant engineering domains for our testbed. Multiple engineering vocabularies certainly exist, and these need to be assessed to determine if they have sufficient coverage and detail for our engineering testbed needs.

Once one or more have been identified, we need to make these available to the FIRST application. The application has an extensible interface that allows new domain-specific vocabularies to be included in the system. For simple vocabularies, this means providing the list of vocabulary terms in a standard XML format. For more complex vocabularies, such as the NBII Thesaurus, the system can be extended with adapter classes that know how to access remote vocabulary services, such as the NBII Thesaurus web service API.

TO close this RFE, we need to:

- 1) Identify candidate existing vocabularies and assess each for appropriateness
- 2) Choose one or more of those, and possibly supplement it with additional terms if deemed necessary
- 3) Expose the vocabulary to the FIRST application either through an XML serialization of the vocabulary (simpler, fast access) or via an adapter class that accesses the vocabulary remotely (more complex, potentially less reliable due to network issues)

#### History

##### #1 - 01/22/2009 12:38 PM - Matt Jones

I found a whole list of engineering thesaurii:

[http://www.taxonomywarehouse.com/resultsbycat\\_include.asp?vCatUID=52&catcode=081200](http://www.taxonomywarehouse.com/resultsbycat_include.asp?vCatUID=52&catcode=081200)

From these, several candidate thesaurii seem potentially good fits:

##### Engineering Thesaurus

One potentially relevant Engineering Thesaurus, from CSA, the same company that helped assemble the NBII thesaurus. This is used for indexing engineering literature, and is possibly available from CSA.

[http://www.taxonomywarehouse.com/vocabdetails\\_include.asp?vVocID=281](http://www.taxonomywarehouse.com/vocabdetails_include.asp?vVocID=281)

(The CSA web site is: <http://www.csa.com/>)

##### Gale Engineering Thesaurus

[http://www.taxonomywarehouse.com/vocabdetails\\_include.asp?vVocID=36](http://www.taxonomywarehouse.com/vocabdetails_include.asp?vVocID=36)

##### IEEE Web Thesaurus Keywords

IEEE Web Thesaurus Keywords contains vocabulary associated with electrical and electronic engineering. The terminology can be used to assist in indexing and retrieval of information.

[http://www.taxonomywarehouse.com/vocabdetails\\_include.asp?vVocID=88](http://www.taxonomywarehouse.com/vocabdetails_include.asp?vVocID=88)

<http://code.ucsd.edu/keywords.html>

##### Inspec Thesaurus

The Inspec thesaurus is used to index and provide access to scientific and technical literature in physics, electrical engineering, electronics, communications, control engineering, computers and computing, and information technology. As well as containing the controlled terms and lead-ins or cross-reference terms, the Thesaurus gives further help by showing the relationships between terms, the dates on which they were added and the terms in use before these dates.

[http://www.taxonomywarehouse.com/vocabdetails\\_include.asp?vVocID=86](http://www.taxonomywarehouse.com/vocabdetails_include.asp?vVocID=86)

##### NASA Thesaurus

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The scope of this controlled vocabulary includes not only aerospace engineering, but all supporting areas of engineering and physics, the natural space sciences (astronomy, astrophysics, planetary science), Earth sciences, and to some extent, the biological sciences. Need to check terms of usage, which seem very restrictive. The vocabulary can be viewed in PDF format here:

<http://www.sti.nasa.gov/98Thesaurus/vol1.pdf>

Probably costs between \$250 to \$500 to download a better electronic format, depending on format. More general info is here:

<http://www.sti.nasa.gov/thesfrm1.htm>

**#2 - 01/22/2009 01:24 PM - Matt Jones**

I downloaded the IEEE and NASA thesaurii and added a copy to the CVS server:

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first/docs/thesaurii/ieee-keywords.txt
first/docs/thesaurii/nasa-thesaurus-vol1.pdf
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If we can get other thesaurii we should put them there as well.

**#3 - 05/04/2009 09:56 AM - Sandeep Namilikonda**

Currently, we have identified a few potential thesauri/taxonomies of relevance.

But, we will not know if further resources would be necessary until we test client-prototype on exams from the Engineering courses. Hence, I set the status to REMIND and the target milestone to "client-prototype".

**#4 - 03/27/2013 02:24 PM - Redmine Admin**

Original Bugzilla ID was 3768