



VBE &  
APR

# ASPECT Vocabulary Bank for Education & Application Profile Registry

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## Disclaimer

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- The work presented here is partially supported by the European Community eContentplus programme - project ASPECT: Adopting Standards and Specifications for Educational Content (Grant agreement number ECP-2007-EDU-417008)
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# VBE Overview

- Repository/Bank functions:
  - management
  - dissemination
- Content:
  - vocabularies
  - thesauri
  - controlled lists
  - Etc.
- Scope
  - content relevant to the Aspect project




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# User Interface

**Vocabulary Tree View**

- LOM Semantic Density
- LOM Status
- LOM Technical Requirement Names
- LOM Technical Requirement Types
- LRE Credit-Based Access Currency Values
- LRE Educational Learning Context
- LRE ESA Lifecycle Contributor Role Values Mapping
- LRE ILOX Description Facet Values
- LRE ILOX Expression Description Facets
- LRE ILOX Expression Dimension Names
- LRE ILOX Item Description Facets
- LRE ILOX Manifestation Description Facets
- LRE ILOX Manifestation Name Parameter Landing Page Values
- LRE ILOX Manifestation Name Parameter Package In Values
- LRE ILOX Manifestation Names
- LRE ILOX Manifestation Name Web Feed Parameter Values
- LRE ILOX Work Description Facets
- LRE Image MIME Types
- LRE Intended End User Roles
- LRE Learning Principles**
  - activate prior knowledge
  - analogical reasoning
  - collaboration
  - expert guidance

**Details**

|            |  |
|------------|--|
| Name       | LRE Learning Principles                                    |
| Term Type  | PT   |
| Identifier | prior knowledge  |
| Name       | activate prior knowledge<br>Activeren van verworven kennis |
|            | Dutch  |
|            | activate prior knowledge<br>aktivieren von vorwissen       |
|            | English (United Kingdom)                                   |
|            | aktivieren tiedon  |
|            | Finnish  |
|            | aktivieren   |
|            | connaissances requises                                     |
|            | French   |
|            | preconoscenza  |
|            | Italian  |
| Authority  | LRE  |

This term has no relations.

This term does not occur in any other vocabularies currently in the system.






## VBE Features

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- Allows different organisations (authorities) to **manage** only their own data but to **re-use** and/or **map** to any other data
- **Alerts** interested parties and systems about changes to data
- Manages the **lifecycle** and history of vocabularies
- Provides **multi-format, multi-lingual** versions of vocabularies



## Interfaces

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- RESTful APIs
  - designed to allow remote systems and users to quickly and easily interact with the repository
  - search function accessed via a SOLR search API
- RSS alerts to most recent changes
- upload vocabularies directly via the user interface
- download vocabularies via the user interface or API





## URL Structure (data)

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- <base>/linkeddata
- <base>/linkeddata.<format>
- <base>/linkeddata/<authority>
- <base>/linkeddata/<authority>/<identifier>
- <base>/linkeddata/<authority>/<identifier>/header
- <base>/linkeddata/<authority>/<identifier>/term/<identifier>

*Examples:*

<http://aspect.vocman.com/vbe/linkeddata.vdex>

<http://aspect.vocman.com/vbe/linkeddata/EUN/EUN.generalYesNoValues.skos>

<http://aspect.vocman.com/vbe/linkeddata/NSDL/NSDL.resourceTypeValues/term/Answer%20Key/reason/BT>



## URL Structure (management)

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- <base>/linkeddata/<authority>/<identifier>/revisions
- <base>/linkeddata/<authority>/<identifier>/current
- <base>/linkeddata/<authority>/<identifier>/delta/<fr>/<to>
- <base>/linkeddata/repository/revision

*Examples:*

<http://aspect.vocman.com/vbe/linkeddata/repository/revision>

<http://aspect.vocman.com/vbe/linkeddata/EUN/EUN.generalYesNoValues/current>





## Using the API

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- Two main scenarios:
  - Live in real time for each request
    - **Advantage:** Always retrieve the latest version and no management overhead on local system
    - **Disadvantage:** batch processing speeds, latencies and performance issues related to reliance on real time link
  - Create local copy and synchronise
    - **Advantage:** Always a local copy so no external dependency
    - **Disadvantage:** Need to manage the local copy and updates



## Real time access

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- Access the vocabulary 'header'
- Access top terms/concepts
- Access individual terms
- **Reason** call for all broader terms

Note: All calls available for **any** historical revision





## Synchronised local copy

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- Check the whole repository to see if any changes
- Check individual vocabularies
- Get differences
- Download whole revision (or differences) in particular format

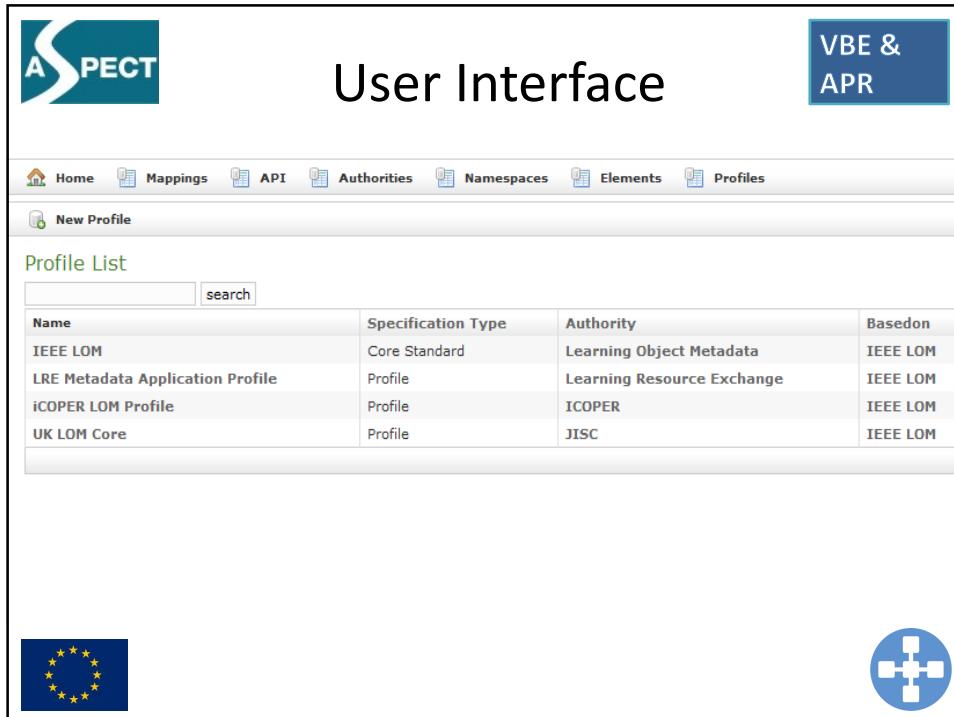


## APR Overview

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- Registry functions:
  - describe profiles
  - Compare profiles
  - link to definitive source (e.g. data model, schema)
- Content:
  - core standards (e.g. LOM)
  - profiles of core standards
- Scope
  - profiles relevant to the Aspect project

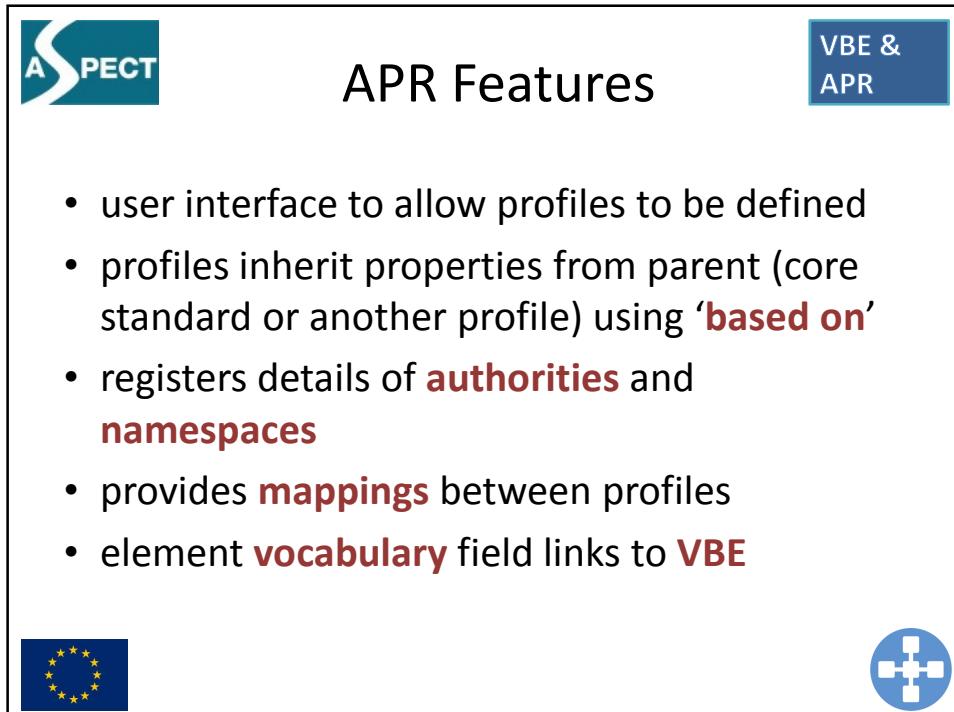




The screenshot shows the ASPECT User Interface with the title "User Interface" at the top right. A blue header bar on the right contains the text "VBE & APR". The main content area displays a "Profile List" table with the following data:

| Name                             | Specification Type | Authority                  | Based on |
|----------------------------------|--------------------|----------------------------|----------|
| IEEE LOM                         | Core Standard      | Learning Object Metadata   | IEEE LOM |
| LRE Metadata Application Profile | Profile            | Learning Resource Exchange | IEEE LOM |
| iCOPER LOM Profile               | Profile            | iCOPER                     | IEEE LOM |
| UK LOM Core                      | Profile            | JISC                       | IEEE LOM |

Below the table are two small icons: the European Union flag on the left and a blue circular logo with a white cross-like pattern on the right.



The screenshot shows the ASPECT User Interface with the title "APR Features" at the top right. A blue header bar on the right contains the text "VBE & APR". The main content area lists the following features:

- user interface to allow profiles to be defined
- profiles inherit properties from parent (core standard or another profile) using '**based on**'
- registers details of **authorities** and **namespaces**
- provides **mappings** between profiles
- element **vocabulary** field links to **VBE**

Below the list are two small icons: the European Union flag on the left and a blue circular logo with a white cross-like pattern on the right.



## API Overview

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- [`<base>/authority/list.json`](#)  
get a list of authorities using JSON
- [`<base>/authority/{id}/show.json`](#)  
get an authority definition using JSON
- [`<base>/element/list.json?max=X&offset=Y`](#)  
get a list of upto X elements using JSON starting with the Yth element
- [`<base>/element/{id}/show.json`](#)  
get an element definition using JSON
- [`<base>/mapping/generateMapping.json?sourceProfile={X}&targetProfile={Y}& action\_Generate+Mapping=Generate+Mapping`](#)  
get a mapping definition from profile X to profile Y using JSON
- [`<base>/profile/list.json`](#)  
get a list of profiles using JSON
- [`<base>/profile/{id}/show.json`](#)  
get a profile definition using JSON
- [`<base>/namespace/list.json`](#)  
get a list of the namespaces using JSON
- [`<base>/namespace/{id}/show.json`](#)  
get a namespace definition using JSON



## API Examples

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- <http://apr.vocman.com/profile/list.json>  
a list of profiles
- <http://apr.vocman.com/profile/4/show.json>  
definition of UK LOM Core
- [http://apr.vocman.com/mapping/generateMapping.json?sourceProfile=2&targetProfile=23&action\\_Generate+Mapping=Generate+Mapping](http://apr.vocman.com/mapping/generateMapping.json?sourceProfile=2&targetProfile=23&action_Generate+Mapping=Generate+Mapping)  
generate mapping between the LRE and iCOPER profiles

