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V 0.1	2015-11-23	C. Roche	UniSav	1st Draft
V 1.0	2015-11-27	L. Damas	UniSa	Final version

Statement of originality

This deliverable contains original unpublished work except where clearly indicated otherwise.
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1 EXECUTIVE SUMMARY

This deliverable titled “Update of D4.5 - Upload functionality” describes the update of the upload functionality of the second version of the TMP (TMP²).

2 INTRODUCTION

The TMP² is a software environment dedicated to the definition and the management of thesauri in accordance with the ISO 25964 Standard on thesaurus. The TMP² is an ontology-oriented and SKOS-independant software. The core of the TMP² relies on OTe (for OntoTerminology engine) a software for ontoterminology management (an ontoterminology is a terminology whose conceptual system is an ontology). Such an approach allows to focus on concept rather than on a dedicated language (SKOS is an interchange format not a modelling language).

Thesauri can be exported in four formats:

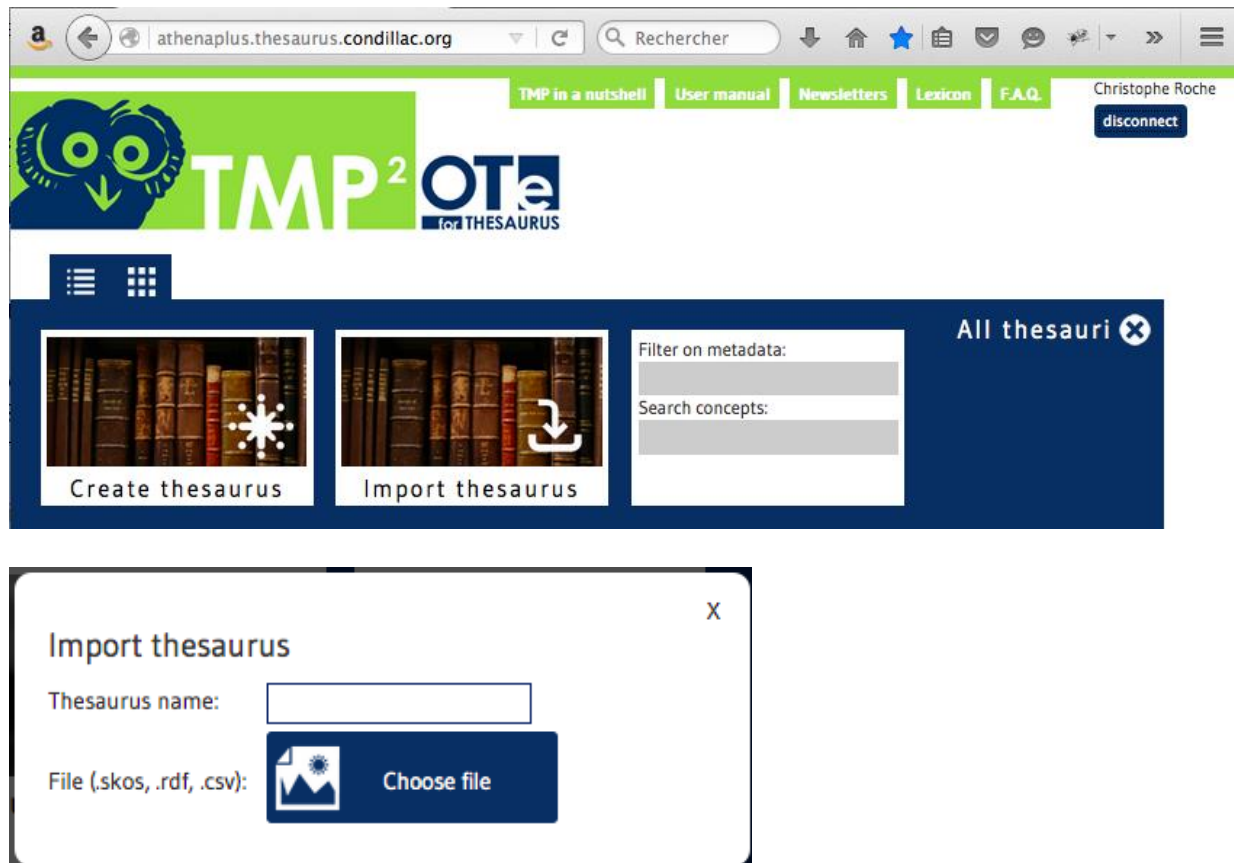
- SKOS : The generated file is SKOS compliant but loses some TMP² specificities, such as the different kinds of relations between concepts as they are specified in the ISO 25964 standards (e.g. BTG, BTP, BTI as well as proper names). Metadata are exported in DC vocabulary.
- JSON : The generated file contains all information in the TMP² model, including specifications. It is structured as a concept list with related terms, relations, mapping and notes.
- CSV : The CSV file matches the SKOS file and uses the same format than the imported file.
- OTe Ad-hoc : OTe Ad-hoc is the internal RDF format used in the TMP², with the OTe semantic engine. This format contains all information and allows to verify logical properties of the conceptual model.

This deliverable is an update of the upload functionality of the TMP².

The TMP² is accessible on: <http://athenaplus.thesaurus.condillac.org>

3 IMPORTING FUNCTIONALITIES

The import function is accessible at the main page for logged users:



There are two import functionalities based on SKOS and CSV

SKOS

The Simple Knowledge Organization System (SKOS) is a common data model standard for sharing and linking knowledge organization systems via the Semantic Web. It was developed by the world wide web consortium to support the use of knowledge organization systems, such as thesauri, classification schemes, subject heading systems and taxonomies within the framework of the Semantic Web. SKOS is an application of RDF (Resource Description Framework). It is an interchange format, not a modelling language : no difference between the generic relationship and the part-of relationship, no verification of logical properties.

The TMP² SKOS upload function runs in 2 phases. First, the RDF/SKOS importer parses the file and imports each element into the TMP². Then, the TMP² verifies each information, such as relation validity or URI existence.

Imports are performed in batch mode for two important reasons:

- Long time for semantic verification: several minutes of processing;
- Available SKOS files are often different: RDFS fields, Literal as resource, relations inline or referenced... and the parser have to be adapted to manage all this expressiveness.

The TMP² model includes different kind of relation : BTG, BTP, BTI, ... SKOS does not include theses specificities and all hierarchical relations between concepts are BT or NT.

The figures below illustrates the SKOS file importing function with an example:

The SKOS file to be uploaded: "http_www.culture-terminology.org_thesaurus_dctest.rdf"

```
- <skos:Concept rdf:about="http://www.culture-terminology.org/thesaurus/dctest/dc00013">
  <skos:altLabel xml:lang="nl">geplisseerd</skos:altLabel>
  <skos:altLabel xml:lang="en">pleated</skos:altLabel>
  <skos:prefLabel xml:lang="en">pleating</skos:prefLabel>
  <skos:altLabel xml:lang="fr">plissage</skos:altLabel>
  <skos:altLabel xml:lang="fr">plissé</skos:altLabel>
  <skos:prefLabel xml:lang="fr">plisser</skos:prefLabel>
  <skos:prefLabel xml:lang="nl">plisseren</skos:prefLabel>
  <skos:broader rdf:resource="http://www.culture-terminology.org/thesaurus/dctest/dc00656"/>
  <iso-thes:superordinateArray rdf:resource="http://www.culture-terminology.org/thesaurus/dctest/dc00008"/>
  <iso-thes:broaderGeneric rdf:resource="http://www.culture-terminology.org/thesaurus/dctest/dc00008"/>
- <skos:scopeNote xml:lang="nl">
  Het op vastgestelde, regelmatige afstanden dubbelvouwen van stof, waarna de plooien worden geperst en
  eventueel vastgenaaid.
</skos:scopeNote>
- <skos:scopeNote xml:lang="en">
  Double folding a definite, even width of fabric and fixing it in place by sewing or pressing or both.
</skos:scopeNote>
- <skos:scopeNote xml:lang="fr">
  Le plissage en double d'une étoffe à des distances régulières déterminées. Les plis ainsi créés sont ensuite pressés
  et, éventuellement, cousus.
</skos:scopeNote>
- <xe:superordinateSimple>
  http://www.culture-terminology.org/thesaurus/dctest/dc00008
</xe:superordinateSimple>
</skos:Concept>
```

AthenaPlus D4.5 Update - Upload functionality

After uploading, the user can edit the metadata:



as well as the uploaded thesaurus :

Culture-Terminology

uri: [/thesaurus/CultureTerminology_1445417283019](#)

Author: Christophe Roche

Description:

Created: 2015-10-03

Stats: 794 concepts, undefined terms

Acronym:

Subject:

Publisher:

MainLanguage:

Languages:

Coverage:

Rights:

Public: No

BaseUri:

edit

en

+

+

+

-

ajour fabric

▶ backing (textile)

▶ banana-fiber cloth

▶ bark cloth

▶ basketweave

▶ batiste

▼ batting

NT fiberfill

▼ bed coverings

NT bedcovers

NT bed rugs

▼ NT bedspreads

NT candlewick spreads

NT cathedral windows

NT yo-yo spreads

NT catalognes

▶ NT comforters

▶ NT coverlets

▶ NT quilts

en

Concept

Name: < candlewick spreads >

Uri: [/thesaurusconcept/candlewickspreads_1445417368428](#)

Broaders

BT < bedspreads >

Narrowers

Related

Mapping

modify

Term

Preferred term

candlewick spreads

Non-preferred terms

candlewick spread

Notes

No notes for this concept.

CSV

CSV is a simple and very permissive data format for spreadsheet. It is an export format for well known software (excel, libreoffice...).

The CVS importer parses a well-defined CSV file, batched for the same reasons as previously. The column of the CSV must be right named (SKOS vocabulary: altLabel@en, scopeNode@en, ...) and all intern references are verified by TMP semantic engine.

TMP data expressed in CSV must fulfill a set of rules:

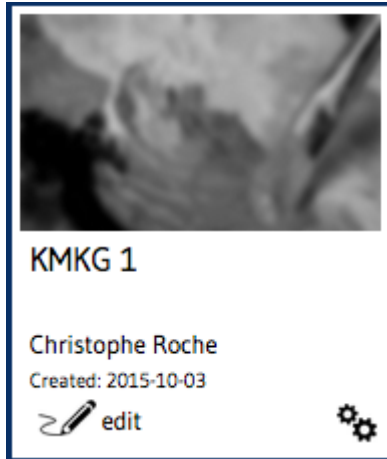
- First line is reserved for title or other meta information, not parsed
- Second line is used to name fields in the SKOS formalism: prefLabel@en, scopeNode@en, ... These names are case sensitive
- All other lines represent data : on line per concept
- Each line contains an id
- Reference between concept are listed in specific columns such broader, narrower or related. The cell content is the id of the referred concept.

The figures below illustrates the uploading of a CSV file with an example:

The SKOS file to be uploaded: "kmgk.small.csv"

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	CONCEPTSCHEME: KMGK-MRAH OBJECT NAME THESAURUS,,,,,,,,,,,,,														
2	ID,BROADER,RELATED,TYPE,prefLabel@fr,altLabel@fr,scopeNode@fr,prefLabel@nl,altLabel@nl,altLabel@nl,altLabel@nl,scopeNode@nl,prefLabel@en,altLabel@en,altLabel@en,scopeNode@en														
3	KMGK2014ObjectName,BT,RT,Concept scheme,,,,,,,,,,,,,														
4	300263552,KMGK2014ObjectName,Hierarchie-Micro thesaurus,Architecture,,,"Construction ou partie d��t��t une construction faite par homme. En g��n��ral, le terme r��f��re uniquement �� d��t��t														
5	300004790,300263552,,Concept,Construction,,,"D��t��t nomination g��n��rale pour toutes sortes de b��timents, en cours de construction ou finis.",Bouwwerk,,,"Algemene benaming voor alle soo														
6	300006101,300004790,,Concept,Barrage (r��t��tenteur),D��t��t nomination pour des digues transversales construites dans des voies d��t��t eau pour r��guler le niveau de l��t��t eau ou pour mesurer o��														
7	300006102,300006101,,Concept,D��t��t versoir,Digues ou remparts construits pour d��t��t vier le courant d��t��t eau exc��t��t dentaire,,Overlaat,Verlaat,,,"Wastewei,,,"Walls or dams to divert the flow of r														
8	KMGK201400001,300006101,,Concept,Pompe �� eau,,Waterpomp,,,"Water pump,,,"														
9	300006191,300006101,,Concept,R��t��t seroir,,Terme utilis��t pour r��t��t r��t��t des endroits ou des citernes pour collecter et tenir des substances liquides,,Reservoir,,,"Wordt gebruikt voor plaat														
10	300133704,300004790,,Node label,Composant de b��timent,,,"Deel van een gebouw,,,"Building division,,,"														
11	300002588,300133704,,Concept,Balcon,,,"Plateforme avec grillage qui se trouve �� l��t��t ext��t rieur d��t��t un b��timent. N��t��t utilisez pour des constructions pareilles �� l��t��t int��t rieur d��t��t un b��t														
12	300076641,300133704,,Concept,Portail (espace ext��t rieur),Utilis��t pour d��t��t signer l��t��t espace monumental limitrophe �� un b��timent par lequel on peut p��t��t n��t��t trer,,Portaal (buitenruimte														
13	300083076,300133704,,Concept,Portail (espace int��t rieur),Utilis��t pour d��t��t signer des vestibules situ��t s imm��t s diatement avant ou apr��t s l��t��t entr��t s d��t��t un b��timent,,Portaal (binnen														
14	300005866,300004790,,Concept,Construction fun��t raire,,Ancien tombeau ��gyptien en forme de pyramide fortement tronqu��t e avec une base allong��t e,,Funerair bouwwerk,,,"Gebouwen ve														
15	300005933,300005866,,Concept,Mastaba (tombe fun��t raire),Ancien tombeau ��gyptien en forme de pyramide fortement tronqu��t e avec une base allong��t e,,Mastaba (graftombe),,,,"Oud Eg														
16	300006958,300004790,,Concept,Monument,,,"Monument,,,"Monument,,,"														
17	900032304,KMGK201400002,,Concept,��t��t pitaphe,,,"Utilis��t pour d��t��t signer des ��t��t pitaphes ou pierres tombales qui sont install��t s comme monument comm��t s moralif sur un mur ou une co														
18	300005923,KMGK201400002,,Concept,Pierre tombale,,,"Pierre dress��t e ou couch��t e sur une tombe ou dans un cimet��t re, portant les noms de ceux qui sont enterr��t s dans la tombe.",Grafste														
19	300005926,3 for simple interments in the earth, use ""graves.""														
20	300007023,KMGK201400002,,Concept,St��t le,,,"Utilis��t pour d��t��t signer une pierre tombale dress��t e, en souvenir ou en hommage aux morts.",St��t le,,,"Rechtopstaande stenen platen, effen of														
21	300000885,300263552,,Concept,��t��t ��t ment d'architecture,,,"Architecturaal element,,,"Structurele of decoratieve vormen die oorspronkelijk of hoofdzakelijk ontstonden als architectonische cor														
22	300002217,300000885,,Concept,Ant��t fixe,,,"Ornement de toit qui termine ou cache l��t��t extr��t mit��t s ouverte d��t��t une rang��t e de tuiles pour, entre autre, emp��t s cher que la pluie puisse s��t														
23	300052242,300000885,,Node label,Arc et composant d'arc,,,"Boog en boogonderdeel,,,"Arch and arch component,,,"														
24	300000994,3 also, structural elements or freestanding structures that resemble arches or act structurally like arches."														
25	300003604,3 sometimes more decorative than functional."														
26	300075330,300003604,,Concept,Console,,,"Utilis��t pour d��t��t signer des corbeaux de soutien ou purement d��t��t coratifs, souvent en forme de volutes ou de S.",Console,,,"Wordt gebruikt voor onc														
27	300187669,300000885,,Node label,Chemin��t e et composant de chemin��t e,,,"Haard en haardonderdelen,,,"Hearth and hearth component,,,"														
28	300052347,300187669,,Concept,Manteau de chemin��t e,,,"Utilis��t pour d��t��t signer l��t��t encadrement d��t��t coratif des chemin��t s, notamment la couverture, l��t��t encadrement et les jambages														
29	300052248,300000885,,Node label,Colonne et composant de colonne,,,"Zuil en zuilonderdeel,,,"Column and column component,,,"														
30	300001662,300052248,,Concept,Chapiteau,,,"Couronnement sculpt��t s d��t��t un pilier, d��t��t une colonne ou d��t��t un pilastre. Le chapiteau est la pi��t ce interm��t s diaire entre le f��t t du pilier et l��t														

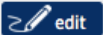
After uploading, the user can edit the metadata:




as well as the uploaded thesaurus :





The screenshot displays the AthenaPlus interface for managing thesauri. At the top, the 'KMKG 1' thesaurus is shown with its thumbnail, author (Christophe Roche), creation date (2015-10-03), and an 'edit' button. Below this, a 'modify' button is visible. The main area is divided into two panels. The left panel shows a hierarchical tree of concepts under the 'Architectural element' category, with 'Arch and arch component' selected. The right panel provides details for the selected concept, including its name, URI, and a list of broader, narrower, and related terms. The 'Preferred term' is 'Arch and arch component', and there are no non-preferred terms. The 'Notes' section is currently empty.

KMKG 1 

uri: [/thesaurus KMKG1 1445417105961](#)
Author: Christophe Roche
Description:
Created: 2015-10-03
Stats: 39 concepts, undefined terms
Acronym:
Subject:
Publisher:
MainLanguage:
Languages:
Coverage:
Rights:
Public: No
BaseUri:





en  



Architectural element



- NT Antefix
- NT **Arch and arch component**
 - NT Arch
- NT Bracket (structural element)
- NT Column and column component
 - NT Capital (column component)
 - NT Column (architectural element)
- NT Corbel
- NT Entablature and entablature component
 - NT Frieze (entablature component)
- NT Hearth and hearth component
- NT Stairs
- NT Surface element and surface element component


Epitaphe
Funerary cone
Single built work
Stela
Tombstone (sepulchral monument)


Concept

Name: < Arch and arch component > 
Uri: [/thesaurusconcept 300052242 1445417108090](#) 


Broaders 
BT < Architectural element > 


Narrowers 
NT < Arch > 


Related 

Mapping 

Term

Preferred term
Arch and arch component 

Non-preferred terms
No non-preferred term (en). 

Notes 
No notes for this concept.

End of the Document