Daguerreobase

Collective cataloging tool for daguerreotypes and daguerreotype literature

cip competitiveness and innovation framework programme 2007–2013

DELIVERABLE

Project Acronym:
Daguerreobase

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D5.5 - Linking Europeana Collection

Version 2.0 (work in progress)

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Dissemination Level		
P	**Public**	**PU**
RE	**Restricted to a group defined by the consortium and the Commission Services**	
C	**Confidential, only for members of the consortium and the Commission Services**	

REVISION HISTORY AND STATEMENT OF ORIGINALITY

Revision History

Revision	Date	Author	Organisation	Description
First Draft	18/05/2013	Herman Maes	NFM	
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Table of Content

1. INTRODUCTION

As Daguerreobase will act as an (project) aggregator of content for Europeana, the realization of the objectives of the Daguerreobase project are strongly dependent on good metadata communication and connectivity between the Daguerreobase aggregator and the Europeana portal.

To make the Daguerreobase into a valuable source of information that will contribute to and benefit from Europeana, several methods will be used.

The Linked Open Data protocol was an integral part used in the development of the new Daguerreobase. An API is developed to prepare the necessary mappings for the metadata conversions to the renewed Daguerreobase structure and to handle the alignment of the digital content with Europeana but also with other aggregators and providers.

A DAM (Digital Asset Management system) and data entry tool will be used to provide the metadata and derivatives to the Daguerreobase aggregator.

More detailed descriptions of these methods and tools are described in separate documents and deliverables as part of the WP5 tasks.

- Collection management set up (D5.2);
- API (D5.3);
- Linked Open Data (D5.4);
- Linking Europeana Collection (D5.5);
- Data Import (D5.6).

This document will describe the Linking Europeana Collection.

2. DEFINITIONS[1]

API: Application Programming Interface.

Content: Digital (digitised or digital born) information about objects. In this project, content is restricted to digital images and metadata descriptions of daguerreotype objects.

Content Aggregator: An aggregator in the context of Europeana is an organization that collects metadata from a group of data providers and transmits it to Europeana. Aggregators also support the data providers with administration, operations and training.

Project aggregator: Project aggregators are organizations that have joined a project consortium with a specific aim and purpose. Project aggregators aim to aggregate within a specific theme or by domain (single or cross).

Daguerreobase: project/thematic content aggregator on daguerreotypes. EU-CIP, ICT-PSP funded project #297250.

Daguerreobase API: technical interface for the purpose of searching and retrieving Daguerreotype Metadata.

Europeana portal: Stichting Europeana, the Foundation providing the Europeana API.

Linked Data: In computing, **linked data** (often capitalized as Linked Data) describes a method of publishing structured data so that it can be interlinked and become more useful. It builds upon standard Web technologies such as http, rdf and URI's, but rather than using them to serve web pages for human readers, it extends them to share information in a way that can be read automatically by computers. This enables data from different sources to be connected and queried. [2]

Linked *Open* Data: Linked *Open* Data (LOD) is Linked Data which is released under an open licence, which does not impede its reuse for free. Creative Commons CC-BY is an example open licence, as is the UK's Open Government Licence. Linked Data does not of course in general have to be open -- there is a lot of important use of linked data internally, and for personal and group-wide data. You can have 5-star Linked Data without it being open. However, if it claims to be Linked Open Data then it does have to be open, to get any star at all.[3]

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[1] According to Europeana definitions. Europeana Aggregators'Handbook Edition 1 May 2010.
[2] Bizer, Christian; Heath, Tom; Berners-Lee, Tim (2009). "Linked Data, The Story so far". *International Journal on Semantic Web and Information Systems* **5** (3): 1–22. doi:10.4018/jswis.2009081901. ISSN 15526283. Retrieved 2010-12-18. Solving Semantic Interoperability Conflicts in Cross–Border E–Government Services.
[3] http://www.w3.org/DesignIssues/LinkedData.html

EDM: The EDM Definition is the formal specification of the classes and properties that could be used in Europeana.[4]

Metadata: metadata is information about Content, describing its characteristics to aid in its identification, discovery, interpretation and management.

Preview: general term including smaller and/or lower resolution version of still image Content or shorter and/or lower resolution extract of audio or moving image Content.

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[4] http://pro.europeana.eu/edm-documentation

3. Europeana data model (EDM)

WP5 is responsible for the actual ingestion of data from the renewed Daguerreobase that will serve as an aggregator for containing a critical mass of historical relevant, multilingual and high quality content of mainly historical and European style daguerreotype objects and literature. The current consortium partners, new institutional partners and private collectors or owners will deliver the main part of the actual content.

Addressing Europeana, Daguerreobase developed an API, which can be used for aggregating data by Europeana, and also by other aggregators, described in D5.3 and D5.4. In D3 we described the metadata model of the daguerreobase, which contains a very large amount of fields describing images and also physical details of the daguerreotype object. The daguerreobase is also a relational database where daguerreotypes are related to creators, collections and institutions but also plates, backings, assessments, etcetera. The EDM is more suitable for this relational database then ESE. The consortium decided to use EDM and make a mapping directly from the data model of the Daguerreobase to EDM.

The consortium did research[5] on case studies in Europeana projects that were comparable with the Daguerreobase. Most of them did aggregate a rather small amount of fields and most of them were focussed on image descriptions only or objects only, not on the complete package of image, object and relations to creators, institutions and collections, which the Daguerreobase is. The simple form used in the collection management system Memorix Maior is the base of the constructed mapping. Each of these fields were tried to map with EDM tags that also were used by other projects. The obligatory set of fields and the recommended set were mapped and added by fields containing specific elements of a daguerreotype that also could be interesting for other (aggregation) projects and comparing different type of photographical of historical objects. The fields that were too specific for a daguerreotype are not implemented in the mapping.

3.1. Mapping Daguerreobase to EDM

EDM tags	Daguerreobase field (labels)
edm:ProvidedCHO	
dc:description	image description; general remarks;
dc:identifier	identification; ID
dc:title	title
dc:type	"Daguerreotype"
dc:type	style type
edm:type	"IMAGE"
dc:language	language

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[5] http://www.europeana-photography.eu/index.php?en/115/deliverables (D5) and also http://pro.europeana.eu/case-studies-edm

dc:subject	subject name; tag
dc:creator	creator
dc:contributor	institution/collector
dcterms:extent	window size
dc:date	date
dcterms:spatial	subject location
/edm:ProvidedCHO	
edm:WebResource rdf:about	uri image
edm:rights	authorisation on image
/edm:WebResource	
ore:Aggregation	
edm:aggregatedCHO	ID
edm:dataProvider	Collection
edm:isShownAt	uri object
edm:isShownBy	uri image object
edm:provider	"Daguerreobase"
edm:rights	Collector/institution
edm:hasView	uri image object
/ore:Aggregation	
edm:Agent	
dc:identifier	uri creator
foaf:name	name
skos:altLabel	name other
skos:altLabel	name standard
skos:altLabel	name parallel
skos:prefLabel	name
edm:start	date_exists_start
edm:end	date_exists_end
skos:note	notes
/edm:Agent	
edm:Timespan	
edm:begin	date start

edm:end	date end
/edm:Timespan	
edm:Place	
skos:prefLabel	subject location
/edm:Place	

3.2. Aggregating the daguerreobase

A full OAI-PMH implementation is available and tested for aggregating data. The base url of this api is:
http://api.memorix-maior.nl/collectiebeheer/oai-pmh/key/de1cc7ec-a2dc-11e3-a54d-3860770fff49/tenant/dag
The service uses oai_dc as metadata prefix which results in the following location for all records.

The following link will list all records of the Daguerreobase described using the EDM tags.
http://api.memorix-maior.nl/collectiebeheer/oai-pmh/key/de1cc7ec-a2dc-11e3-a54d-3860770fff49/tenant/dag?verb=ListRecords&metadataPrefix=oai_dc

Resumption tokens used in the OAI don't expire. The resumption tag always contains an completeListSize attribute showing the accurate number of records.

Both the ListRecords and GetRecord pages show the same information which uses the same making of the fields from the daguerreobase fields to Dublin Core as in the opensearch API.

```
▼<OAI-PMH xmlns="http://www.openarchives.org/OAI/2.0/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:dc="http://dublincore.org/documents/dcmi-namespace/" xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/
  http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
   <responseDate>2014-04-30T13:55:16Z</responseDate>
 ▼<request verb="ListSets">
    http://api.memorix-maior.nl/collectiebeheer/oai-pmh/key/de1cc7ec-a2dc-11e3-a54d-3860770fff49/tenant/dag
   </request>
 ▼<ListSets>
  ▼<set>
     <setSpec>daguerreobase</setSpec>
     <setName>Daguerreobase</setName>
   ▼<setDescription>
     ▼<oai_dc:dc xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/"
       xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/oai_dc/
       http://www.openarchives.org/OAI/2.0/oai_dc.xsd">
      ▼<dc:title>
         <![CDATA[ Daguerreobase ]]>
       </dc:title>
      ▼<dc:description>
         <![CDATA[ Daguerreobase ]]>
       </dc:description>
      </oai_dc:dc>
     </setDescription>
   </set>
  </ListSets>
 </OAI-PMH>
```

Listing a specific set of records will result in a list as below:

```
− <OAI-PMH xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
    <responseDate>2014-05-16T11:13:43Z</responseDate>
  − <request verb="ListRecords" metadataPrefix="oai_dc">
      http://api.memorix-maior.nl/collectiebeheer/oai-pmh/key/de1cc7ec-a2dc-11e3-a54d-3860770fff49/tenant/dag
    </request>
  − <ListRecords>
    − <record>
        − <header>
          − <identifier>
              57f8e2da-c9fc-11e3-9221-432519f2dbd2:57f8e2da-c9fc-11e3-9221-432519f2dbd2
            </identifier>
          </header>
        − <metadata>
          − <oai_dc:dc xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/oai_dc/ http://www.openarchives.org/OAI/2.0/oai_dc.xsd">
              + <edm:Timespan default:about="#5375673902754"></edm:Timespan>
              + <edm:ProvidedCHO></edm:ProvidedCHO>
              + <edm:Agent rdf:about="#agent_63a4ac22-c9fc-11e3-abc4-b3beaef03542"></edm:Agent>
              + <edm:Agent rdf:about="#agent_6455e758-c9fc-11e3-8bf9-f7b98bd58009"></edm:Agent>
              + <ore:Aggregation rdf:about="http://daguerreobase.org/type/57f8e2da-c9fc-11e3-9221-432519f2dbd2"></ore:Aggregation>
              + <edm:WebResource rdf:about="http://images.memorix.nl/dag/thumb/250x250/bf9a0e6f-8e8c-5979-e583-c98c0ebb6cf4.jpg">
                </edm:WebResource>
              + <edm:WebResource rdf:about="http://images.memorix.nl/dag/thumb/250x250/d7dc9b4e-d8b0-3920-2b22-f0277b59db75.jpg">
                </edm:WebResource>
            </oai_dc:dc>
          </metadata>
          <about> </about>
        </record>
      + <record></record>
      + <record></record>
      + <record></record>
```

An example of one daguerreotype listed:

```xml
– <rdf>
  – <edm:Timespan default:about="#5375673902754">
      <edm:begin>1855</edm:begin>
      <edm:end>1855</edm:end>
    </edm:Timespan>
  – <edm:ProvidedCHO>
      <dc:date rdf:resource="#5375673902754"/>
    – <dc:description>
        Pendant of CRE2; J.W. Blom and S.W.V. Kiebert married in 1956; [referencenumber acquisition:] AWI-2007-4;
      </dc:description>
    – <dc:description>
        Framed daguerreotype. Portrait of J.W. Blom in 1855.
      </dc:description>
      <dc:title>Justina Wilhelmina Blom (1832-1916)</dc:title>
      <dc:subject>portrait;woman</dc:subject>
      <dc:subject>Blom, Justina Wilhelmina</dc:subject>
      <dc:subject>person</dc:subject>
      <dc:subject>Annotation</dc:subject>
      <dc:identifier>57f8e2da-c9fc-11e3-9221-432519f2dbd2</dc:identifier>
      <dc:identifier>NFM-CRE1</dc:identifier>
      <edm:type>IMAGE</edm:type>
      <dc:type>daguerreotype</dc:type>
      <dc:language>English</dc:language>
      <dc:creator rdf:resource="#agent_63a4ac22-c9fc-11e3-abc4-b3beaef03542"/>
      <dc:creator rdf:resource="#agent_6455e758-c9fc-11e3-8bf9-f7b98bd58009"/>
    </edm:ProvidedCHO>
  – <edm:Agent rdf:about="#agent_63a4ac22-c9fc-11e3-abc4-b3beaef03542">
      <skos:prefLabel>Dr. Schneider</skos:prefLabel>
      <foaf:name>Dr. Schneider</foaf:name>
      <skos:note>Dr. Schneider Linkstr. 9 Berlin</skos:note>
    </edm:Agent>
  + <edm:Agent rdf:about="#agent_6455e758-c9fc-11e3-8bf9-f7b98bd58009"></edm:Agent>
  – <ore:Aggregation rdf:about="http://daguerreobase.org/type/57f8e2da-c9fc-11e3-9221-432519f2dbd2">
      <edm:isShownAt>http://images.memorix.nl/dag/thumb/250x250/</edm:isShownAt>
    – <edm:isShownBy>
        http://daguerreobase.org/type/57f8e2da-c9fc-11e3-9221-432519f2dbd2
      </edm:isShownBy>
      <edm:provider>Daguerreobase</edm:provider>
      <edm:dataProvider>Daguerreobase</edm:dataProvider>
      <edm:rights rdf:resource="http://creativecommons.org/licenses/by/4.0/">Creative Commons – Attribution – (BY)</edm:rights>
      <edm:hasView rdf:resource="http://images.memorix.nl/dag/thumb/250x250/bf9a0e6f-8e8c-5979-e583-c98c0ebb6cf4.jpg"/>
      <edm:hasView rdf:resource="http://images.memorix.nl/dag/thumb/250x250/d7dc9b4e-d8b0-3920-2b22-f0277b59db75.jpg"/>
    </ore:Aggregation>
  + <edm:WebResource rdf:about="http://images.memorix.nl/dag/thumb/250x250/bf9a0e6f-8e8c-5979-e583-c98c0ebb6cf4.jpg"></edm:WebResource>
  + <edm:WebResource rdf:about="http://images.memorix.nl/dag/thumb/250x250/d7dc9b4e-d8b0-3920-2b22-f0277b59db75.jpg"></edm:WebResource>
  </rdf>
```

3.3. Public access to specific records in the Daguerreobase

When browsing through the daguerreobase website visitors will find a public link to the RDF-schema of the current Daguerreotype, located on the right of the deeplink to the record. Also for this schema the EDM mapping is used being a general standard for many European projects.

Daguerreobase

collective cataloging tool for daguerreotypes

Home **Browse** Add News Journal About Daguerreobase

Keywords Search

⊙ Back to searchresult

Daguerreotype: GBB-57575

Collection: GBB **Language:** Norwegian **Type:** European
Deeplink: http://www.daguerreobase.org/en/type/0006fabd-e421-385d-4c6d-83b17f4c7520 RDF

Summary

Object

Object

Housing

Identification GBB-57575
Number of plates 1