

ExpeER

Distributed Infrastructure for EXPERIMENTATION in Ecosystem Research

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SEVENTH FRAMEWORK PROGRAMME

CAPACITIES

INTEGRATING ACTIVITIES: NETWORKS OF RESEARCH INFRASTRUCTURES (RIs)

THEME: ENVIRONMENT AND EARTH SCIENCES

DELIVERABLE D3.6

Deliverable title: ISO19115/INSPIRE to EML Transformation XSLT Script

Abstract: The XSLT script for transformation INSPIRE XML files (ISO19115/ISO19139) to EML files was created by SYKE

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Organisation name of lead contractor: SYKE

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Dissemination level:

PU Public (must be available on the website) (Report is public, xslt-script restricted to EXPEER DEIMS development group)	<input checked="" type="checkbox"/>
PP Restricted to other programme participants (including the Commission Services)	<input type="checkbox"/>
RE Restricted to a group specified by the consortium (including the Commission Services) (Report is public, xslt-script restricted to EXPEER DEIMS development group)	<input checked="" type="checkbox"/>
CO Confidential, only for members of the consortium (including the Commission Services)	<input type="checkbox"/>



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Glossary

DEIMS	Drupal Ecological Information Management System
EML	Ecological Metadata Language
INSPIRE	Infrastructure for Spatial Information in the European Community
ISO/TS	International Organization for Standardization/Technical Specification
XSLT	Extensible Stylesheet Language Transformations
XML	Extensible Markup Language



1. Executive summary

The official EXPEER metadata portal was built on Drupal content management platform (DEIMS) and it utilizes EML (Ecological Metadata Language) metadata profile, which is a standard developed by the ecology discipline and for the ecology discipline.

INSPIRE is "an EU initiative to establish an infrastructure for spatial information in Europe that is geared to help to make spatial or geographical information more accessible and interoperable for a wide range of purposes supporting sustainable development". INSPIRE Metadata Implementing Rules and Technical Guidelines are based on EN ISO 19115 and EN ISO 19119. The INSPIRE metafiles are XML files encoded according to ISO/TS 19139.

The primary case for adding new metadata to the DEIMS is to use metadata editor of the system. But if metadata which is already stored according to the INSPIRE specification, is to be import to the system, it must be transformed to EML profile's XML structure. The XSLT for this transformation was created as a deliverable D3.7.

2. ISO19115/INSPIRE to EML Transformation XSLT file

2.1. Mapping the metadata elements

EML and INSPIRE metadata profiles are developed in different purposes. Therefore both them have metadata elements, which do not have corresponding element in the other profile. For example INSPIRE profile do not contain all mandatory metadata elements of EML. So complete EML files are impossible to get from INSPIRE metadata files.

The first step to create XSLT file for transformation from ISO19115/INSPIRE to EML was to map corresponding elements between schema files (.xsd) of these metadata profiles by using Altova MapForce software. Mapping of elements was not straight forward. Several condition sentences and functions were necessary. For example mandatory standard values for corresponding metadata elements are different between these metadata profiles. Another typical example is that in INSPIRE the individual name is stored in one element, but in EML there is separate elements for a given name and surname. EML elements which do not exist in INSPIRE were given constant value "undefined", since the aim was to get valid EML files as results.

2.2. Creating ISO19115/INSPIRE to EML Transformation XSLT file

After the schema mapping between ISO19115/INSPIRE and EML was completed the XSLT 2.0 file was created by using Altova MapForce software. A XSLT processor is needed to exploit XSLT file. There are several commercial and open software XSLT processor that can be used.

XLST-script developed in this task has been disseminated to a group involved with EXPEER DEIMS development.



3. Next steps

3.1. Implementation

The condition for exploiting the ISO19115/INSPIRE to EML XSLT file for DEIMS is that a processing chain must be implemented. That processing chain should take INSPIRE metadata files as inputs, perform the transformation by using the XSLT processor and the XSLT file and finally store the data to the DEIMS.