

# METADATA TRANSFORMATION AND INGESTION

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The MINT mapping tool follows a typical web-based architecture offering an expanding set of services for metadata aggregation. It addresses the ingestion of metadata from multiple sources, the mapping of the imported records to the intermediate metadata schema of the project and the transformation and storage of the metadata in a repository.

The main role of the MINT mapping tool that has been set up for EuropeanaPhotography

<http://mint-projects.image.ntua.gr/photography/>

is to enable users to

- Provide metadata records in a range of source formats
- Convert metadata to the project's intermediate standard
- Map local terminologies to the adopted reference terminologies
- Submit the records to Europeana

while its key functionalities include:

- Organization and user level access rights and role assignment
- Collection and record management (XML serialization)
- Direct import and validation through registered schemas (XSD)
- OAI-PMH based harvesting and publishing
- Visual mapping editor for XSLT
- Transformation and preview (XML and HTML)
- Repository deployment

MINT allows providers to perform mappings from their own schemas to the intermediate schema of EuropeanaPhotography through a very user-friendly interface (see Figure 1).

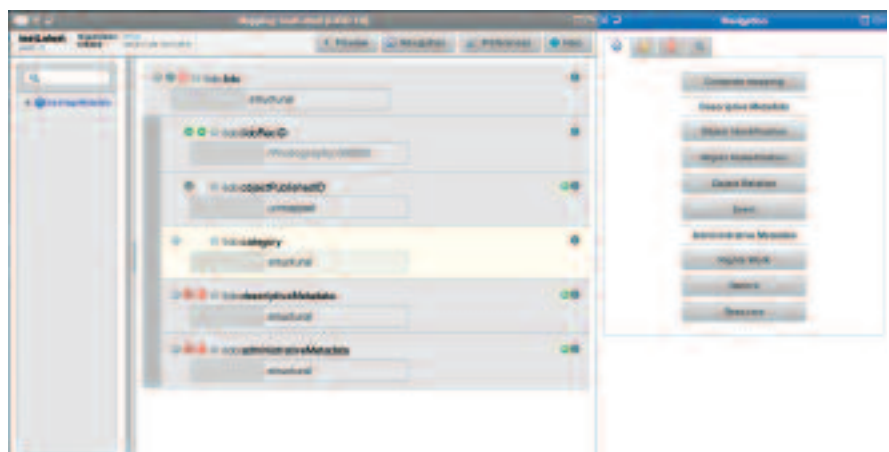
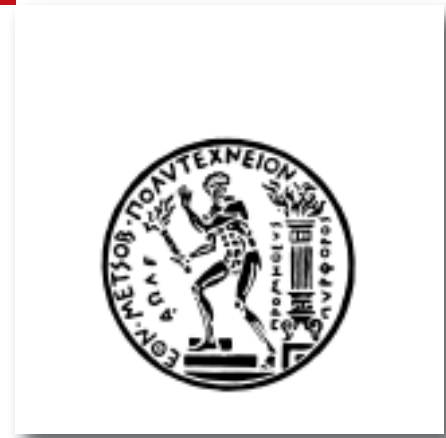


Figure 1: MINT's mapping editor



The structure that corresponds to a user's specific import is visualized in the mapping interface as an interactive tree that appears on the left hand side of the editor. The tree represents a snapshot of the XML schema that is used as input for the mapping process. The user is able to navigate through and access element statistics and to search the tree by using the text field at the top. On the right hand side, buttons corresponding to high-level elements of the target schema provide access to corresponding sub-elements. These are visualized in the middle part of the screen as a tree structure of embedded boxes, representing the internal structure of the complex element. The user can interact with this structure by clicking to collapse and expand every embedded box that represents an element, along with all relevant information (attributes, annotations) defined in the XML schema document. To perform an actual (one-to-one) mapping between the input and the target schema, a user simply has to drag a source element from the left and drop it on the respective target in the middle. The resulting repository offers an OAI-PMH interface exposing the records in the Europeana Data Model (EDM) according to the project's requirements. After the creation of a valid mapping, content providers can transform their metadata to the intermediate schema. This action is followed by the publication to NTUA's OAI-PMH server during which metadata are transformed to EDM. Finally, publication to Europeana is accomplished by informing Europeana's Ingestion office to harvest metadata from NTUA's server. The overall workflow to be followed by a provider in order to publish his metadata to Europeana is shown in the figure below:



Figure 2: Overall workflow

The MINT mapping tool has been used in many European projects aggregating content for Europeana, but customizations have been made to meet the special needs of EuropeanaPhotography. More specifically, taking into account the experience gathered from the usage of MINT in other projects and the feedback from content providers, a new module for processing the XML imports has been implemented. This new metadata-processing module is responsible for the itemization of the imported metadata: a functionality that dramatically improves the overall scalability. Another major development in the MINT version for EuropeanaPhotography is its new user interface. Our main objective was to redesign the interface in such a way that the use of the tool and the understanding of the overall workflow towards Europeana would improve. Finally, new mapping functionalities have been developed allowing providers to perform mappings using SKOS vocabularies and to strengthen control of the metadata mappings based on their values.

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[www.europeana-photography.eu](http://www.europeana-photography.eu)  
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