Project Acronym: Europeana Cloud
Grant Agreement number: 325091
Project Title: Europeana Cloud: Unlocking Europe’s Research via The Cloud

Deliverable D2.1 – Development Environment

Revision: Final

Authors:
Yorgos Mamakis (Europeana Foundation)
Pavel Kats (Europeana Foundation)

Project co-funded by the European Commission within the ICT Policy Support Programme

<table>
<thead>
<tr>
<th>Dissemination Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP</td>
</tr>
<tr>
<td>Restricted to other programme participants</td>
</tr>
</tbody>
</table>
## Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Author</th>
<th>Organisation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>26.04.13</td>
<td>Yorgos Mamakis</td>
<td>EF</td>
<td>Initial Draft</td>
</tr>
<tr>
<td>2</td>
<td>01.05.13</td>
<td>Marcin Werla</td>
<td>PSNC</td>
<td>Comments</td>
</tr>
<tr>
<td>3</td>
<td>02.05.13</td>
<td>Pavel Kats</td>
<td>EF</td>
<td>Comments</td>
</tr>
<tr>
<td>4</td>
<td>02.05.13</td>
<td>Markus Muhr</td>
<td>TEL</td>
<td>Review</td>
</tr>
</tbody>
</table>

## Statement of originality:

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.
Europeana Cloud D2.1

This deliverable describes the development environment that will be used to develop Europeana Cloud software. The specification lists standard approaches and tools that are commonly used by the open-source community and represents the commitment of the project to the open-source approach and agile development methodology,
Introduction

The objective of the task 2.1.3 and the current deliverable was to specify and set up the development environment for the Europeana Cloud project. This specification should concern both software development methodology aspects and practical solutions that will support this methodology. The partners drew upon their collective experience of developing software for cultural heritage institutions and came up with the specification outlined in the following section.

The choice reflects the commitment of the Europeana Network and the Europeana Cloud project to the principles and philosophy of the open source movement. The tools that are suggested are extensively used by open source projects and their workflows enforce adherence to open source principles by the users. Hence, this is a conscious choice to create an internal and external expectation that the project will take Europeana closer to the open source community.

Another concern that guided our choice was the commitment to agile development methodology. Being aware of the complexity of the project and its distribution across different partners we believe that it is necessary that our development methodology is flexible and sensitive to changing requirements and needs. Transparency of resource allocation that is required to this end will be achieved using principles of agile development that are being actively employed in the industry in the recent years.
Environment

1. Development methodology

   Europeana Cloud development process will adopt a SCRUM/Agile methodology. For ongoing management of the development process, the project will use a JIRA/Greenhopper agile management tool hosted by DPLF.

2. Version Management System

   For the revision and source code management tool the project will use Git and it will use GitHub for hosting the project online for easy collaboration.

   **Git version: 1.8.2.1**
   **Europeana Cloud GitHub page:** [https://github.com/europeana-cloud/eCloud.git](https://github.com/europeana-cloud/eCloud.git)

3. Programming environment

   Europeana Cloud software deliverables will be developed in Java programming language.
   **Java version:** 1.7.21

4. Build Automation Tool

   Europeana Cloud deliverables will be built using Apache Maven build automation manager.
   Project's parent POM configuration file: [https://github.com/europeana-cloud/eCloud/blob/master/pom.xml](https://github.com/europeana-cloud/eCloud/blob/master/pom.xml)

5. Developer IDE

   The choice of the IDE will be done by each partner but Eclipse open source IDE is recommended. It is a very standard choice, is already used by EF and has plugins to all the other tools used in the development process.

6. Continuous Integration Platform and Artefacts Manager

   For the continuous integration platform and build artefacts repository management Hudson (or its open-source counterpart Jenkins) and Artifactory will be used as the team members have already accumulated significant experience with these environments.