



D1.1.1 Project Collaboration & Communication Infrastructure

DURAARK

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Executive Summary

This deliverable presents an outline of DURAARK's web-based Project Collaboration & Communication Infrastructure that is already in place to support the project. We outline: (i) the deployed wiki system, (ii) the electronic mailing lists already set up, (iii) the video conference infrastructure dedicated to our regular virtual meetings, and (iv) the project's software versioning and revision control system.

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1 Introduction

An effective collaboration and communication infrastructure is fundamental for the content and activities that are being developed during the course of the project. The Knowledge created during the project is distributed within the consortium and, where adequate, also beyond the consortium to enable a targeted and coordinated development towards the project goals. This also requires active knowledge exchange between the project partners and the Work Packages (WPs).

In addition to creating an open, creative, and flexible project environment built on mutual trust and respect, knowledge exchange is being fostered by meetings, teleconferences, mutual technology demonstrations and the publication of information on the project web page.

As an entry point to project related knowledge, we have deployed a *wiki* system. DURAARK's wiki allows consortium members to add, modify, or edit content via a web browser using a simplified markup language and a rich-text editor.

All intermediate results (i.e., milestones and WP progress reports) are being documented in this area. All meeting preparation, administrative and technical management, discussion groups and deliverables drafts are also stored and accessed through the restricted area of DURAARK's wiki.

Besides DURAARK's wiki, we have set up one general and several WP specific mailing lists to ease the communication exchange over email. For virtual meetings and teleconferencing, we have set up the necessary accounts to use Flash Meeting infrastructure as well as Adobe Connect, in addition to the individual Skype accounts.

In the rest of the report, we present an outline of DURAARK's web-based Project Collaboration & Communication Infrastructure that is already up and running and that is being used on a daily basis to support the project activities.

2 Collaboration & Communication Infrastructure

In this section we describe DURAARK's Collaboration & Communication Infrastructure. We first outline the wiki system, then we document the electronic mailing list already set up, and finally, we present the video conference infrastructure dedicated to our regular virtual meetings.

2.1 Wiki System

DURAARK's wiki is an entry point to project related knowledge and it allows consortium members to add, modify, or edit content via a web browser using a simplified markup language and a rich-text editor. Figure 1 shows a screenshot of DURAARK's wiki entry point.

The screenshot shows a wiki page for 'DURAARK: Durable Architectural Knowledge'. The page layout includes a left sidebar with navigation links, a main content area with an abstract and project details, and a right sidebar with a table of contents. The main content area features a title, project metadata, an abstract, keywords, and sections for People, Work Packages, Deliverables, Meetings, and Ideas Exchange, each with an 'Edit' link.

DURAARK: Durable Architectural Knowledge

- Project Number: 600908
- Starting date: 2013-02-01
- Duration in months: 36
- Call (part) identifier: FP7-ICT-2011-9
- Activity code(s) most relevant to your topic: ICT-2011.4.3: Digital Preservation

Abstract

Along with the paradigm shift that changed the way of architectural drafting from 2D analog plans and scale models over 2D digital plans to complex digital 3D models, the importance for libraries, museums, and archives for long-term preservation of architectural digital 3D models was recognized some years ago. To this end, research projects trying to set up a process to capture, describe, manage, preserve, and make available digital CAD models created by architects during building projects were established in the United States as well as in Europe. Despite the shift from analog to digital representations, the access mechanisms of current long-term archiving systems in the architectural domain are still based on simple metadata schemes inherited from the analog world and therefore limited in the same way as searching with a card index in the analog age. The potential inherent in a full digital representation is not exploited so far as detailed semantic information in the digital documents is either not available or simply not used for retrieval. In the DuraArk project we will develop a long-term preservation system for architectural content that will overcome these shortcomings. It will allow searching and accessing data on different semantic levels going far beyond the possibilities of currently used metadata schemes. At the same time, it will provide secure and future-proof data storage by tackling the problems arising from digital decay.

Keywords: construction model preservation, semantic web, long-term preservation, 3D models, digital archiving, linked data

People [Edit](#)

- Contact Info
- WP Leaders
- Advisory Board

Work Packages [Edit](#)

- WP1 Project Management
- WP2 System Specification and Integration
- WP3 Semantic Metadata Management and Enrichment
- WP4 Documenting the changing State of built Architecture
- WP5 Recognition of Architecturally Meaningful structures and Shapes
- WP6 Long-term Preservation
- WP7 Data acquisition, Evaluation and Test
- WP8 Dissemination and Exploitation

Deliverables [Edit](#)

- deliverables

Meetings [Edit](#)

- Kickoff, March 2013
- 2013-March 5 DURAARK Telco (Flashmeeting)
- 2013-February 5 DuraArk Telco (Flashmeeting)
- 2013-January DuraArk Telco (Skype)
- 2012-11-29 DuraArk Telco (Skype)

Ideas Exchange [Edit](#)

Figure 1: DURAARK's wiki

The project's wiki is based on the *DokuWiki* [3] Open Source software under the GNU Public License (GPL) [6]. DokuWiki is a powerful and versatile solution with built-in access controls and authentication connectors, which make it especially useful for DURAARK's purposes.

This kind of software includes a Content Management System (CMS) that facilitates the upload and download of internal documents and is ideal as an *intranet* server, document publishing system, portal server, and groupware tool for collaboration between remote partners.

Security has been enabled and we have created the necessary credentials to restrict the area for trusted exchange of knowledge and documents between DURAARK's partners. We have set up multiple access protection levels to allow appropriate access to researchers, WP leaders, committees, and consortium members.

All intermediate results (i.e., milestones and WP progress reports) are being documented in this area. All meeting preparation, administrative and technical management, discussion groups and deliverables drafts are also stored and accessed through the restricted area of DURAARK's wiki.

2.2 Electronic Mailing Lists

In order to ease the email communication exchange, we have set up a general electronic mailing list and also WP specific ones. We are using the GNU mailing list manager software *Mailman* to this end. The mailing lists are listed in Table 1.

#	WP	Mailing list address
1	All	duraark-mgmt@l3s.de
2	WP2	duraark-wp2@L3S.de
3	WP3	duraark-wp3@L3S.de
4	WP4	duraark-wp4@L3S.de
5	WP5	duraark-wp5@L3S.de
6	WP6	duraark-wp6@L3S.de
7	WP7	duraark-wp7@L3S.de
8	WP8	duraark-wp8@L3S.de

Table 1: **DURAARK** electronic mailing lists.

Each WP leader is managing his/her WP's electronic mailing list. Key personnel to the WP's success have been added to the corresponding lists so as to foster focused discussion

and communication. The general mailing list is managed by LUH and is dedicated to items concerning the whole consortium.

2.3 Virtual Teleconferences

Within DURAARK project, we rely on virtual meetings to host general meetings among all partners of the consortium, as well as WP specific ones to facilitate the development of the technical tasks.

We have already scheduled a general consortium teleconference, which is held monthly. All WP leaders participate and we keep track of all open action items of the project. We also use the general teleconference to reach to common agreement on inter-WP items, and also facilitate planning and awareness on intra-WP activities.

WP leaders manage their own agenda, and technical teleconferences or Skype/phone calls are being organized weekly, fortnightly, or on demand, depending on the load of each task being developed.

Quarterly face-to-face meetings are also a part of DURAARK's schedule according to the plan in the DoW. We aim at reducing traveling costs by using as much virtual teleconferencing as possible, without sacrificing the project's objectives. Therefore, we have set up the special accounts for DURAARK using the following virtual conference infrastructure:

1. **FlashMeeting.** As the primary teleconference platform we are using FlashMeeting (FM), which includes an application based on the Adobe Flash 'plug in' and Flash Media Server [4]. Running in a standard web browser window, it allows a dispersed group of people to meet from anywhere in the world with an Internet connection.
In particular, we are using the FM technologies provided to members of the European Association of Technology Enhanced Learning, of which LUH is a member.
2. **Adobe Connect.** The Adobe Connect [1] is a web conferencing platform for web meetings, eLearning, and webinars. We have setup an account with the German National Research and Education Network (DFN) [5], which grants us access to the Adobe's connect infrastructure that they host and manage. We use this platform as a backup of FM.

For small meetings we also rely on Skype (<http://www.skype.com/>) for free calls over the Internet.

2.4 Software Versioning and Revision Control System

We have set up a software versioning and revision control system in order to help DURAARK's developers maintain current and historical versions of files such as source code, web pages, and documentation. We chose Apache Subversion (often abbreviated SVN) as platform [2]. SVN is also distributed under an open source license.

DURAARK's SVN repository will be used to manage the source code of the prototypes to be developed as well as manuscripts of joint publications, reports, or deliverables that require concurrent access and edition from different partners.

2.5 Data Storage

Given the large-scale of the architectural 3D data collections, we require a central repository to efficiently store the datasets to be used within DURAARK, which will be shared across the partners. Within *WP6 Long-term Preservation* efforts, we have set up an initial infrastructure to this end. In particular, an FTP server of large capacity is available to store the initial datasets collected, and we plan to scale this infrastructure to support the project's demands, as they evolve.

3 Conclusion

We have successfully deployed the collaboration and communication infrastructure for the DURAARK project, which is being used to empower the productivity among the consortium's partners.

The infrastructure comprises a web based portal and CMS based on a wiki system, a set of electronic mailing lists, a web conferencing platform for virtual meetings, a versioning and revision control system, and an FTP server. All these components are supporting the necessary interaction and collaboration required to achieve our goals within the project.

References

- [1] Adobe Connect. <http://www.adobe.com/products/adobeconnect.html>, 2013.
- [2] Apache Subversion. <http://subversion.apache.org/>, 2013.
- [3] DokuWiki. <http://www.dokuwiki.org>, 2013.
- [4] FlashMeeting. <http://flashmeeting.open.ac.uk/>, 2013.
- [5] German National Research and Education Network. <http://www.dfn.de/en/>, 2013.
- [6] GNU General Public License. <http://www.gnu.org/licenses/gpl.html>, 2013.