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Set up of WWW facilities

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Authors: Moritz Tenorth (TUM)
                          Michael Beetz (TUM)

Contents

Summary

This document describes the web-based infrastructure set up for internal and external communication of the RoboHow project. This infrastructure includes a public web site for presenting the project to the scientific community, the general public, and to the press. It further consists of an internal section of the web site with a private wiki, a web-based project management and issue tracking software, a videoconferencing server, and several mailing lists for facilitating communication with and among the project members.

Chapter 1

Public and internal web pages

The web pages are intended to serve as the main contact point with the RoboHow project. Therefore, they should provide visitors with comprehensive and up-to-date information about the project's objectives, approach, and accomplished results. The RoboHow web site can be reached via *http://www.robohow.eu*.

1.1 Structure of the website

- **Home:** Blog with current achievements, events, and other project-related news. This blog is intended to serve as entry point for visitors and quickly give an overview of what is happening in the project.

- **Project overview:** This section contains a short description of the whole project and more specific documents on the problem domain, the approach taken in RoboHow, and the results that are expected from the project.

- **Consortium:** Short descriptions of all participants, including links to the respective institutions, research groups, and key personnel.

- **Publications:** Listing of RoboHow publications, which will be split into conference and journal papers and public deliverables.

- **Videos:** Videos by the project partners that are related to RoboHow are listed here. Later, this page will also present videos of the integrated experiments and specific research achievement of the project.

- **Contact:** Contact information of the project coordinators.

- **Internal pages:** These pages are password-protected and only accessible to project members. They serve as internal communication platform that can be edited by everyone in the project to quickly set up a wiki page. The following sub-categories currently exist:

  - **Partner contact information:** Contact information including email, phone, skype id, and mail address for all project members
  - **Project infrastructure:** Description of the IT infrastructure in RoboHow, including the web-based communication tools described in this document.
  - **Workshops & meetings:** Information for participants, including agenda, hotel information, local information, meeting minutes etc.

– **Web site documentation:** Documentation and how-tos for editing and updating the web site.

– **Overview of control strategies:** Comparison of the different control engineering approaches used in RoboHow, intended as a living document that can be used by new members to get an overview of their respective properties, strengths and limitations.

1.2   Design of the web pages

Figure 1.1 shows the design template created for the RoboHow web page. The layout was designed to create a light, technical and professional appearance. The central picture in the upper part will highlight different robotic scenarios or other visually attractive project results. The main navigation can be found on the left, the content in the center/right area.
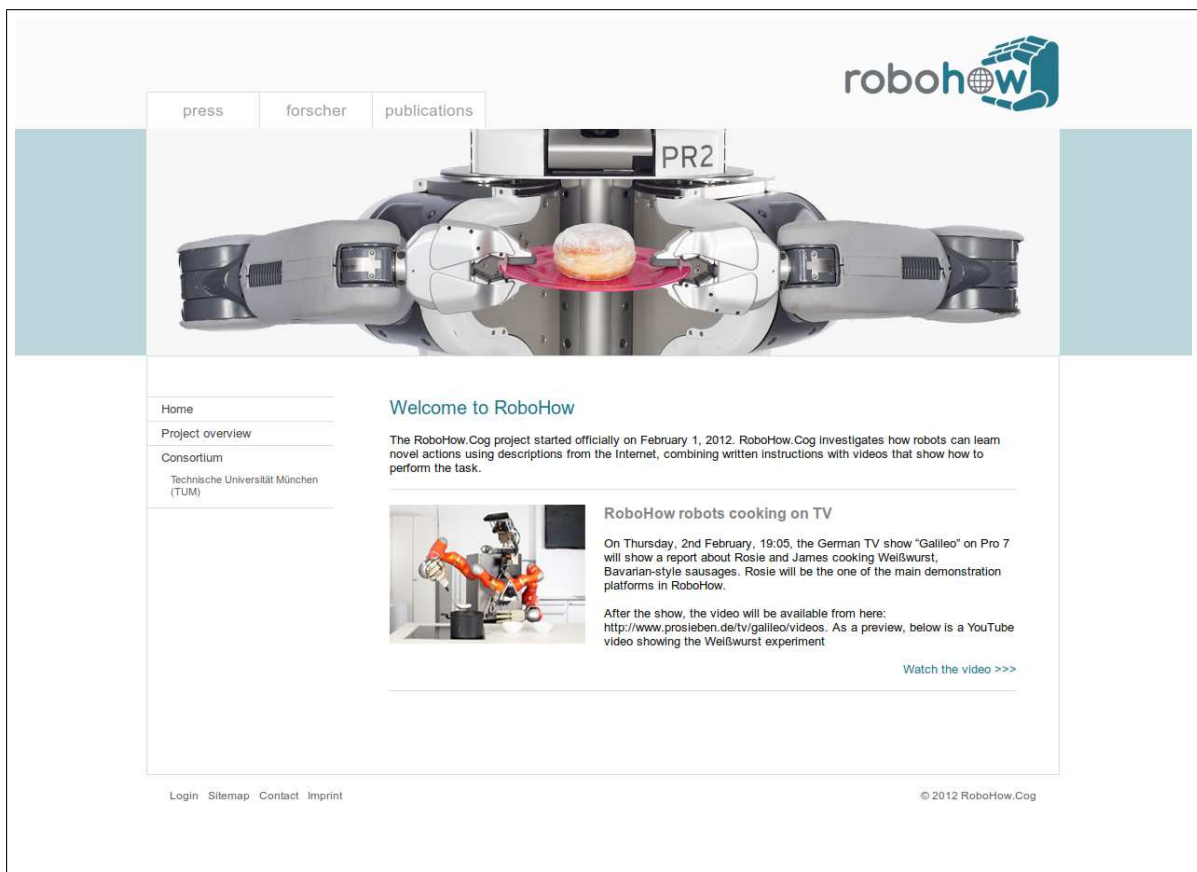

Figure 1.1: Example web page on *http://www.robohow.eu*

1.3   Content management system

A Content Management System (CMS) based on the open-source *dokuwiki*[1] has been chosen, which is also successfully used for the web pages of the IAS group at TUM. While the overall page layout as well as the format for headlines, links and other elements are defined in the style template, the content can be edited by everyone in the project using the simple *dokuwiki* syntax. All project members are thus able to (and encouraged to) contribute to the web site in order to make it a useful up-to-date resource providing extensive information about the project.

The CMS extends the *dokuwiki* program, as a well-established and well-documented system, with features especially needed for research groups and projects, such as an easy-to-use blog feature and functions for the automatic generation of publication listings from BibTEX files.

To support the project members with creating and updating web pages, the syntax and required procedures for common tasks are explained in detail in the internal help section that can be found at *http://robohow.eu/intern/website*.

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[1] www.dokuwiki.org/

Chapter 2

Issue tracking system

RoboHow is a comparatively large project that requires professional tools for project management. We have set up the *redmine* software[1] for managing the overall project, i.e. for keeping track of tasks, milestones and deliverables, as well as software development in RoboHow, i.e. for tracking bugs and feature requests, which can be accessed at *http://www.robohow.eu/redmine*.

The work breakdown structure as specified in the RoboHow Description of Work (DoW) has been represented in *redmine*, including all tasks and deliverables. Progress can be assessed easily by automatically generated Gantt charts (Figure 2.1); the system also supports managing source code repositories (Figure 2.2) as well as events and calendars (Figure 2.3).

The system will thus be used for deliverable management, technical discussions, tracking bugs and feature requests, and for preparing integration workshops and demonstrators. Using it for focused discussions about technical aspects entails writing a ticket and discussing it rather than having private email discussions. This has several advantages: Everyone who is concerned can take part in the discussions. Discussions tend to be more focused on one topic at a time, as opposed to emails that often address several issues. Open issues (i.e. bugs or features) assigned to a person are listed as TODO list.
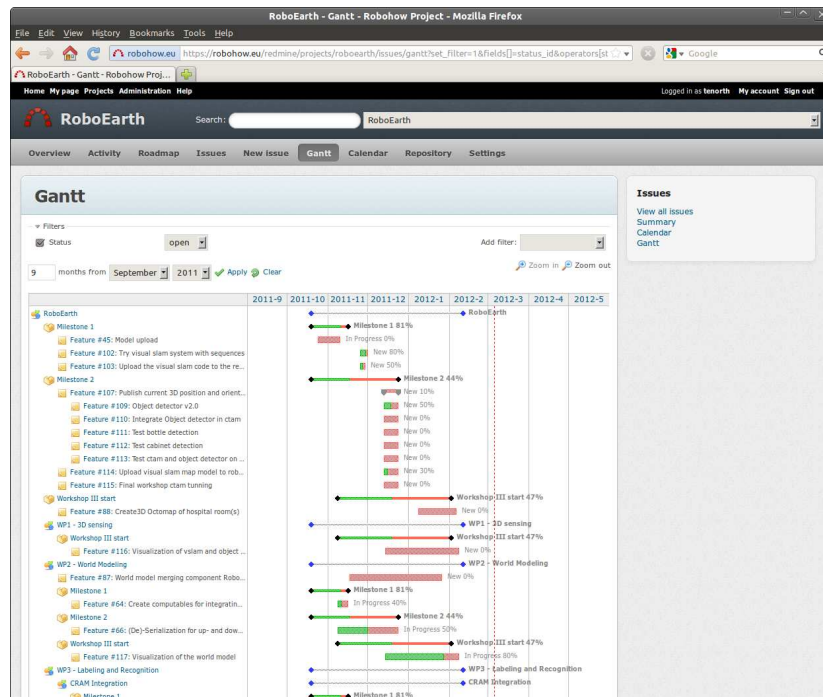
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[1] http://www.redmine.org/

Figure 2.1: Example gantt chart, generated by the Redmine project management tool based on the project's work breakdown structure. Start and due dates of tasks, milestones and the amount of work completed are visualized conveniently.
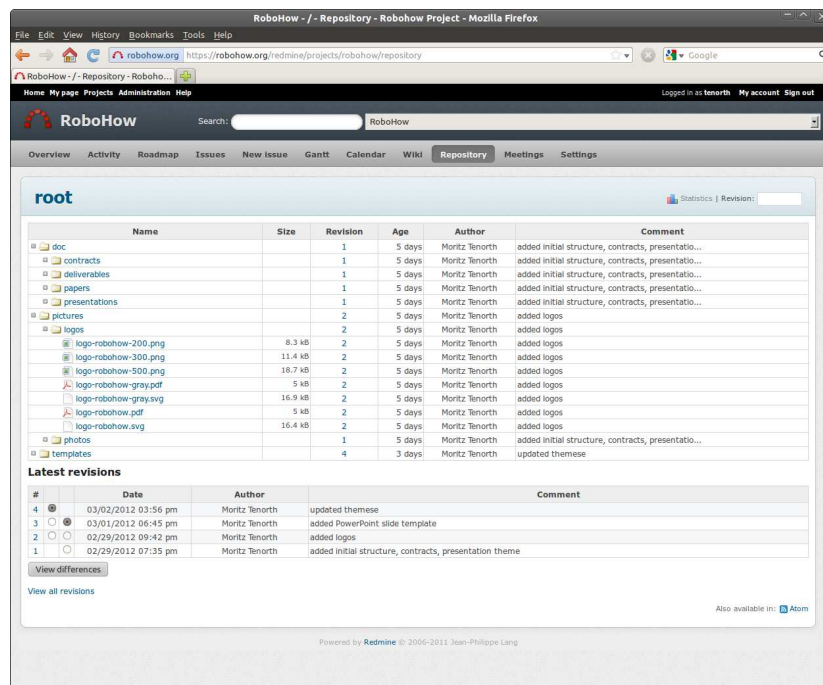

Figure 2.2: Redmine interface to the project-wide documents and pictures repository. The repository provides access to up-to-date versions of deliverables, contracts, presentations, and picture material.
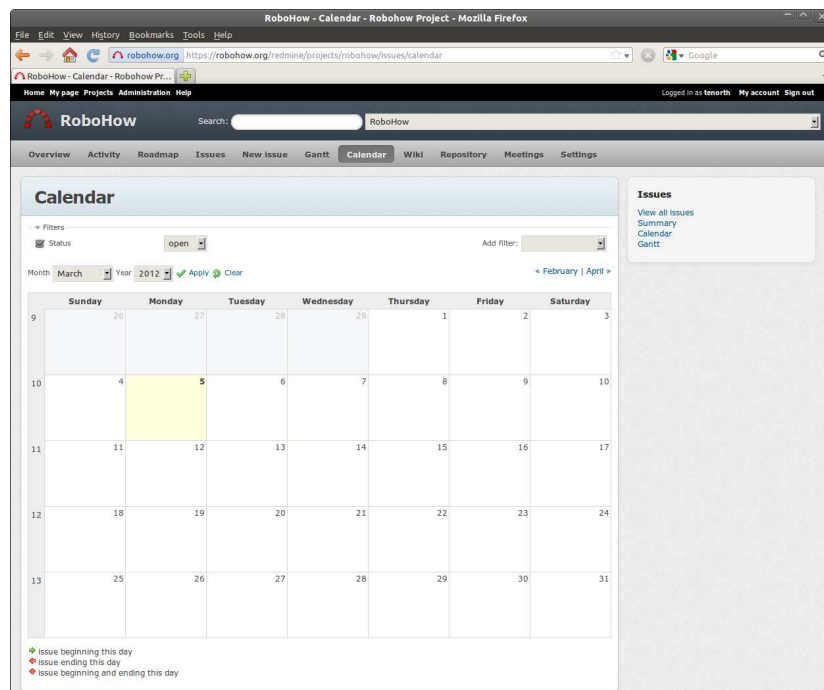
Figure 2.3: Calendar integration in Redmine. The calendar is linked to the web-based video conferencing system described in the following section.

Chapter 3

Web-based video conferencing

Enabling communication among project participants at distant locations is a challenging issue. Often, face-to-face communication remains more effective and efficient than exchanging emails. Therefore, we have set up a *BigBluebutton*[1] video-conferencing server. *BigBluebutton* is a very simple, browser-based solution that allows virtual meetings including shared presentation slides, audio, video and chat among participants.

The RoboHow "virtual meeting room" is available for meetings at *http://videoconf.robohow.eu* at any time. It works for for Mac, Linux, Windows, and Android operating systems and is very easy to use without any set-up or installation of software required on the participants' computers.
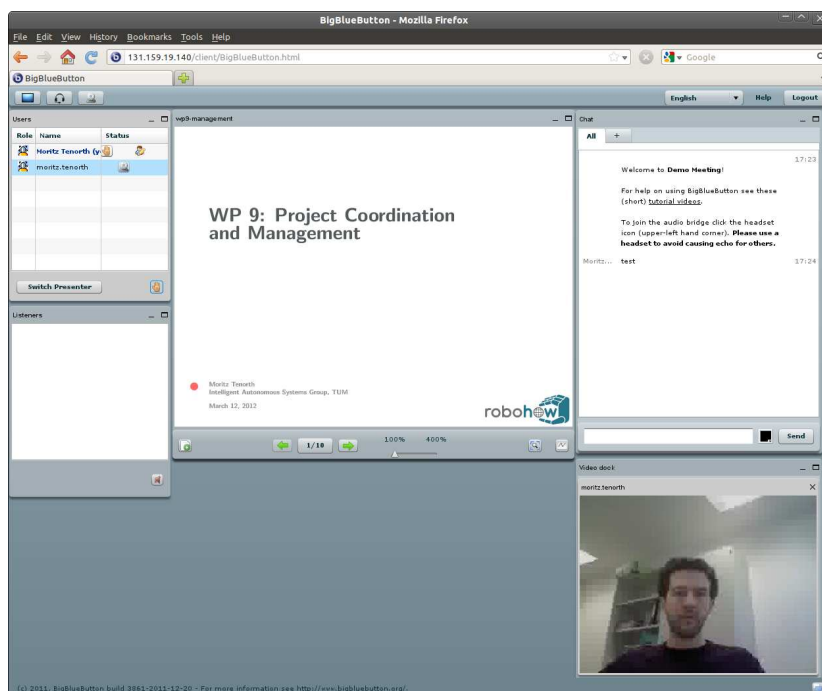

Figure 3.1: User interface of the BigBluebutton video conferencing server. The system supports sharing presentation slides, video streams, audio, as well as public and private chat among participants.

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[1]http://www.bigbluebutton.org/

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Chapter 4

Project mailing lists

A set of mailing lists has been set up to facilitate communication with the whole projects or specific groups. The project-wide list *robohow@robohow.eu* is intended for general announcements as well as scientific and technical discussions concerning several project participants. By using the mailing list for these discussions, one can ensure to keep everyone involved who may be interested.

In addition, there are a few function-based lists that allow to contact the project coordinators, the administrative management or the technical support. Here, the main purpose of using a mailing list is to distribute the information to all responsible people and to facilitate switching responsibilities in case another person takes over a task.

Currently, the following lists have been created. Additional mailing lists can easily be set up.

robohow@robohow.eu	All project members
wp-leaders@robohow.eu	WP leaders
phds@robohow.eu	PhD students and post-docs
coord@robohow.eu	Coordinators at TUM
administration@robohow.eu	Administrative project management at TUM
adm-partners@robohow.eu	Administrative contacts of the partners
techsupport@robohow.eu	Technical support with the RoboHow IT infrastructure