MUSCLE
Network of Excellence
Multimedia Understanding through Semantics, Computation and Learning

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BEYOND: The Virtual MUSCLE Experience

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1 Introduction

Generating, publishing and, most importantly, experiencing content in 3D virtual spaces is an emerging facility on the Internet with Second Life being the most prominent representative. The "Virtual MUSCLE Experience" puts this forward by creating a platform that provides for enhanced sustainability and visibility of both the MUSCLE community (its members and work packages) and its research outcomes.

Moreover, it represents an environment for science communication by putting on display selected projects teaching the underlying scientific and technological building blocks. BEYOND: The Virtual MUSCLE Experience will become the immersive onestop information center beyond the duration of the MUSCLE network ensuring continued sustainability of the MUSCLE achievements.

In order to bring scientific research results to a wide public we developed virtual showrooms in the popular online 3D environment SecondLife. Even though SecondLife is quite new, it has already evolved to one of the most common virtual worlds.

Users may engage in conversations with other users, exchange experiences as well as collectively explore and enjoy the featured content. On the one hand, such 3D virtual worlds address the aspect of social interaction by providing instruments to interact and to exchange experiences with other users that go beyond the possibilities of conventional text-based chat rooms. Especially ones inherent presence in space and the awareness of others facilitate the initiation of social contacts. On the other hand, using 3D virtual worlds has the advantage of communicating via commonly accepted spatial metaphors. Beyond these aspects, Virtual MUSCLE allows to browse and experience multimedia content by literally walking through it.

MUSCLE’s virtual showrooms in SecondLife provide presentations of scientific results, videos and other (showcase) content developed within MUSCLE: The MUSCLE virtual showrooms are accessible via: secondlife://MUSCLE/127/127/22.

2 The Virtual Showrooms

Besides the Virtual Showrooms with their two entry points on the platform, the MUSCLE Island in SecondLife features a hands-on area where you can present or experience life demos and a video area where different movies can be presented to the audience.

Since the creation of a virtual showroom is not trivial and cumbersome if done manually we have created some kind of a content management system for SecondLife. In three steps you can create and explore a presentation showroom.
Step 1

In the first step, presentations and pictures are loaded into the Content Management System. There you can create rooms for each topic containing one or more presentations. Additionally you define a separate room for each Institution. In the end, direct navigation will be possible from an institution to each topic it is involved with and vice versa.

The showrooms will be placed within SecondLife according to their research topic, based on different textual analysis. Therefor each institution as well as showcase needs to have a textual description which will be taken for this analysis.

Please refer to Section 3 for further information on the Content Management System.

Step 2

After loading the presentation data into the Content Management System you transfer the resulting package to SecondLife. There you just drop the files into the pink inbox, and the corresponding showroom buildings will be created automatically. Please note that you must not rename any of these
Furthermore two entry points are created, one listing all the institutions, the second showing all showcases with a direct link to the individual showrooms.

**Step 3**

After the creation process is finished, you can jump into the showrooms by clicking on one of the showcase- or institution-logos. This will directly teleport you to the right showroom. There you can experience the presentations, meet other visitors and discuss about the topics.
3 Content Management Manual

On the following pages you will find a brief introduction to the Web-CMS which is used to set up the virtual showrooms in SecondLife.

Using the Web-CMS

Login

- Enter your username and password to login
- Default user is “user: admin & pass: MusCl3CMs “
- The password is cAsE SEnSItiVe

Pic 1
Main view

- Section 1:
  - Use this section to switch between different views
  - Institutes only, showcases only, view all
- Section 2:
  - Logout from the Web-CMS system
- Section 3:
  - Within this section you can edit / delete specific institutes / projects
- Section 4:
  - The button “Add new”: Adds a new project or an institute
  - The button “Publish” will trigger the publish calculation. After the calculation it is necessary to download the zip file, when new files have been added to the systems.
  - The button “Download Zip” will start a download of a zip file. This file contains all new images. It is required to upload all images into Second Life and put them into the pink box. The pink box is located in the main area, where you can find the small cubes as well. Say “sesame open” and the pink box will become visible. The command “sesame close” will hide the pink box. You MUST NOT change the names of the files.

| Institutes | Showcases | Both | 3. | 4. |
Adding a project / an institute

Name: The specific name of the project / institute
- Description: The description for the project / institute
- Analysis Text: This text will be used for the correspondent analysis
- HandsOn Area: project / institute will be presented in the Hands-On Area
- Typ
  - If you select “New Institute” it will be added as new institute
  - If you select one or more Institutes, it will be added as a project of the selected institutes
Adding Images to a project / an institute

You can ONLY add pictures in the “Edit” Section

- The buttons “Add to Slide”, “Edit Slide”, “Create New Slide”, “Make Logo”, “Delete” will become available depending on your selection
- Add to Slide:
  - Adds one or more pictures to a slide
  - Available when: one slide is selected and one or more pictures
- Edit Slide:
  - Edits a slide (manipulate the position of pictures within the slide, delete pictures from a slide)
  - Available when: one slide is selected
- Create New Slide:
  - Creates a new slide with the selected pictures
  - Available when: at least two pictures are selected and NO slide is selected
- Make Logo:
  - Flags the selected picture as logo for the whole institute / showcase
  - Available when: one picture is selected
- The “Working on…” section is only visible for institutes. It contains all projects the institute is working on.
Editing a slide

- Use the arrows to change the position of a picture
  - Arrow Up: moves the current picture one slot up
  - Arrow Down: moves the current picture one slot down
- Set Free
  - Removes one picture from the slide and makes it available as a normal picture
- Del
  - Deletes one picture from the Web-CMS

![Edit Slide]

Pic 5
Installation

This document will guide you through the installation of the content-management-system (CMS) for the muscle application. Read the following information carefully and make sure all steps were successfully being done, before you proceed to the next step.

Setting up the directories

- Switch to the web root directory (where you plan to install muscle).
- Copy the files “installDirs.php” from the install directory and the config.php into the root directory of the muscle web application.
- Access the installDirs.php file with your Web-Browser. All directories will be created.
- Make sure all directories are flagged with read and write permission. (chmod 777)
- After the installation you should have the result show in Pic 6.

![Pic 6](image)

Setting up the correspondent-analysis tool

- Copy the directory “CA” to a location outside of the web-directory of your choice.
- Make sure all directories are flagged with read and write permission. (chmod 777)
- You should see the same results as shown in Pic 7.

![Pic 7](image)
Setting up the MySQL database

- Import the “install_db.sql” file per PhpMyAdmin webinterface.
- For import use the “Import” function of the PhpMyAdmin application. Pic 8 shows the required steps for the file import.
- All tables will be automatically created.
### Setting up the config.php

- Go to the root web-directory and open the “config.php” with an editor of your choice.
- Check the variables if they are correct for your installation. (Pic 9)
- Section 1 is for the mysql account.
- Section 2 is for the directories.
- Section 3 is for the names of the mysql tables.

![Pic 9](image)

### Setting up the required files

Copy all php-files in your chosen web directory for the web application
Copy all files from the css folder into the css folder of your web directory
Copy all files from the images folder into the images folder of your web directory