



# MUSCLE

## Network of Excellence

Multimedia Understanding through Semantics, Computation and Learning

Project no. FP6-507752

### Deliverable DN4.3b: BEYOND: The Virtual MUSCLE Experience

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<b>Dissemination Level</b>		
<b>PU</b>	Public	✓
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

Keyword List:

# BEYOND: The Virtual MUSCLE Experience

## 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

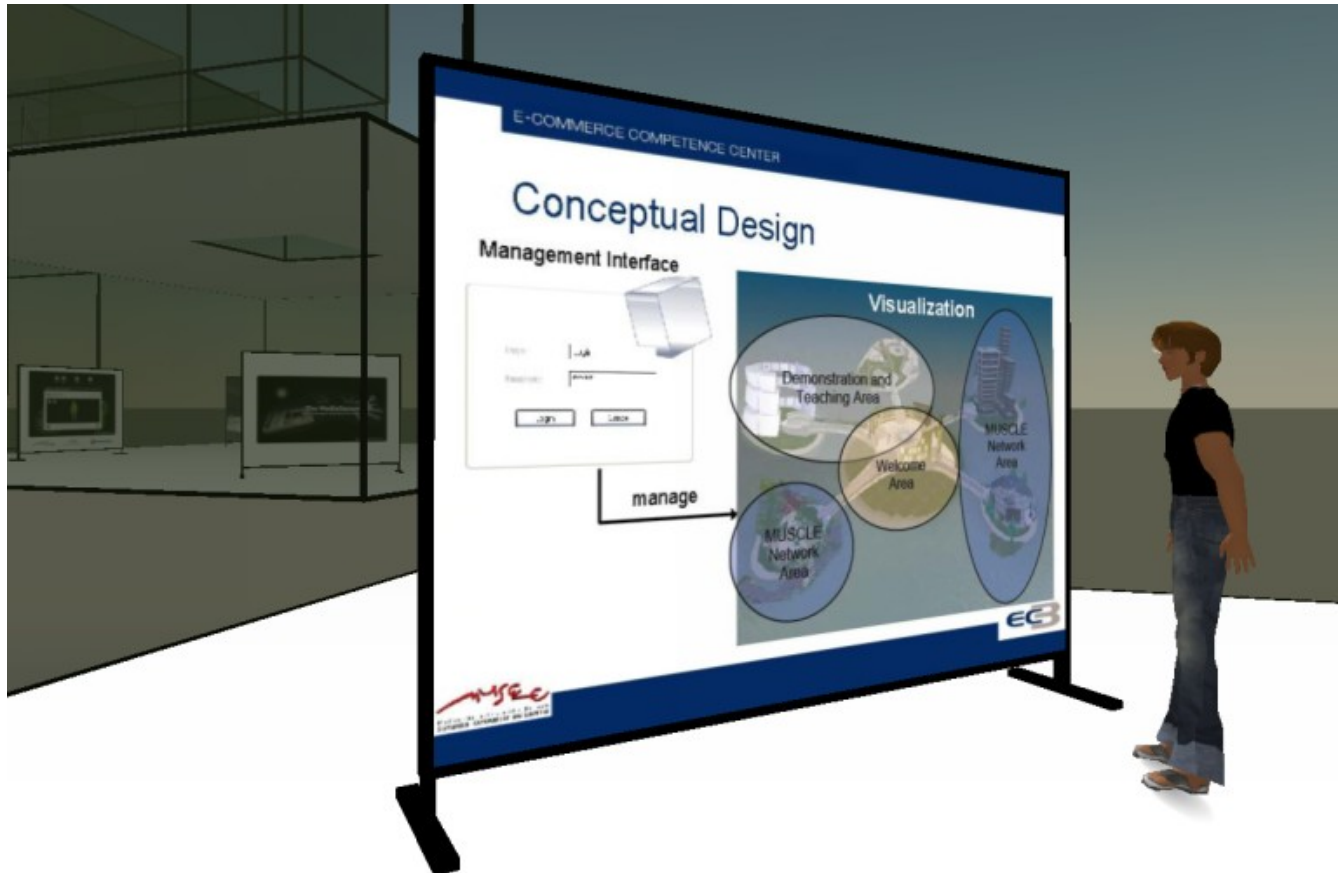


After loading the presentation data into the Content Management System you transfer the resulting package to SecondLife. There you just drop the files into the pink inbox, and the corresponding showroom buildings will be created automatically. Please note that you must not rename any of these

files.

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.

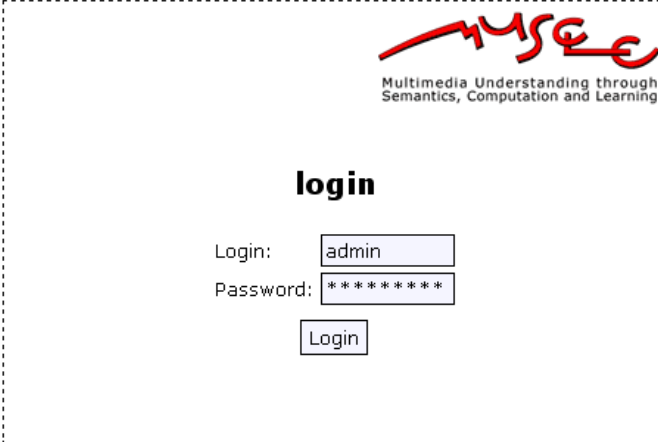
## 3 Content Management Manual

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 SEnSlitiVe



MUSE  
Multimedia Understanding through  
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**login**

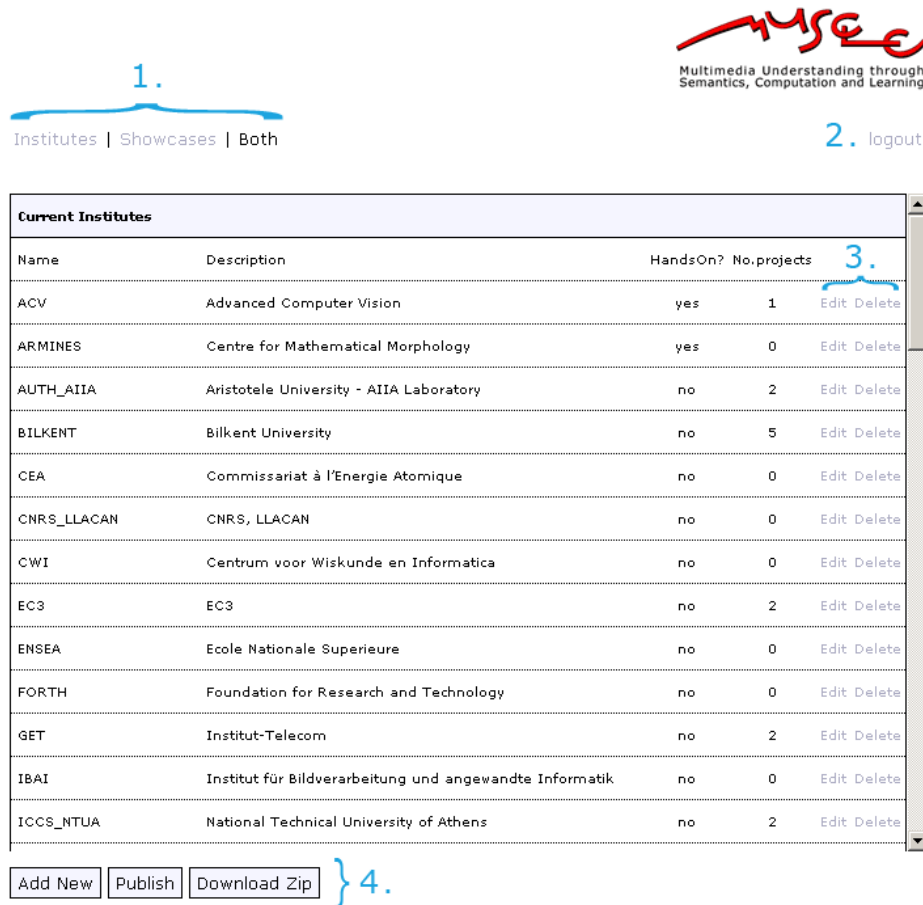
Login:

Password:

**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.



The screenshot shows the MUSE web interface. At the top right is the MUSE logo with the text "Multimedia Understanding through Semantics, Computation and Learning". Below the logo is a navigation bar with "1. Institutes | Showcases | Both" and "2. logout". The main content area features a table titled "Current Institutes" with columns for Name, Description, HandsOn?, and No.projects. A blue bracket labeled "3." highlights the "Edit Delete" links in the table. Below the table are three buttons: "Add New", "Publish", and "Download Zip", with a blue bracket labeled "4." pointing to them.

Name	Description	HandsOn?	No.projects	
ACV	Advanced Computer Vision	yes	1	Edit Delete
ARMINES	Centre for Mathematical Morphology	yes	0	Edit Delete
AUTH_AIIA	Aristotele University - AIIA Laboratory	no	2	Edit Delete
BILKENT	Bilkent University	no	5	Edit Delete
CEA	Commissariat à l'Energie Atomique	no	0	Edit Delete
CNRS_LLACAN	CNRS, LLACAN	no	0	Edit Delete
CWI	Centrum voor Wiskunde en Informatica	no	0	Edit Delete
EC3	EC3	no	2	Edit Delete
ENSEA	Ecole Nationale Supérieure	no	0	Edit Delete
FORTH	Foundation for Research and Technology	no	0	Edit Delete
GET	Institut-Telecom	no	2	Edit Delete
IBAI	Institut für Bildverarbeitung und angewandte Informatik	no	0	Edit Delete
ICCS_NTUA	National Technical University of Athens	no	2	Edit Delete

Add New Publish Download Zip } 4.

Pic 2

## 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






Add a new institute / Showcases	
Name:	<input type="text"/>
Description:	<input type="text"/>
Analysis Text:	<input type="text"/>
HandsOn Area?	<input type="checkbox"/>
Typ:	<div style="border: 1px solid black; padding: 2px;"><p>-- SELECT --</p><p>New Institute</p><p>Project of ACV</p><p>Project of ARMINES</p><p>Project of AUTH_AIIA</p><p>Project of BILKENT</p><p>Project of CEA</p><p>Project of CNRS_LLACAN</p><p>Project of CWI</p><p>Project of EC3</p><p>Project of ENSEA</p></div>
<input type="button" value="Save Changes"/> <input type="button" value="Back to Main"/>	

Pic 3

## 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 of 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.

Edit this institute	
Name:	<input type="text" value="EC3"/>
Description:	<input type="text" value="EC3"/>
Analyse Text:	<div style="border: 1px solid black; padding: 2px;">EC3, in particular the iSpaces Research Group, has long standing experience in information visualization and data mining. In the context of information visualization, the area of immersive virtual worlds and game engines have been used extensively for simulating complex relationships in an immersive three dimensional space. As an example, consider the <a href="#">MediaSquare</a> a</div>
HandsOn Area?	<input type="checkbox"/>
	<div style="display: flex; justify-content: space-around;"><div><input type="checkbox"/>  (Logo)</div><div><input type="checkbox"/> </div><div><input type="checkbox"/> </div></div>
	<div style="display: flex; justify-content: space-between;"><span>Add to Slide</span><span>Edit Slide</span><span>Create New Slids</span><span>Make Logo</span><span>Delete</span></div>
Upload a picture	
	<div style="display: flex; align-items: center;"><input type="button" value="+"/> <input type="text" value=""/> <input type="button" value="Durchsuchen..."/></div>
	<div style="display: flex; justify-content: space-around;"><span>Save / Upload</span><span>Back to Main</span></div>

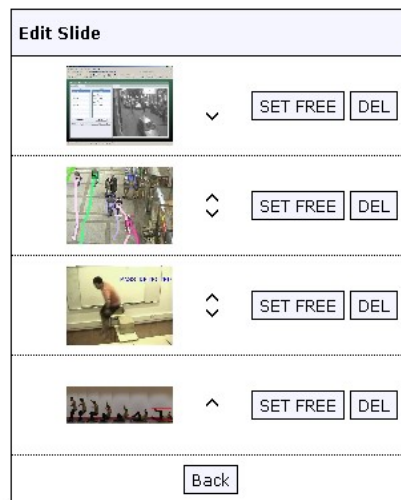
Working on ...
Shaping 3D Environments
Virtual Muscle Showcase

Pic 4



## 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



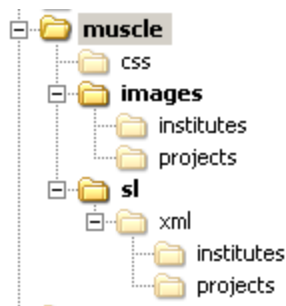
Pic 5

## ***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**

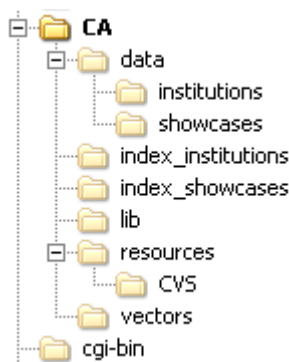
- Switch to the web root directory (where you plan to install muscle).
- Copy the files “install\_dirs.php” from the install directory and the config.php into the root directory of the muscle web application.
- Access the install\_dirs.php file with your Web-Browser. All directories will be created.
- 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**

### **Setting up the correspondent-analysis tool**

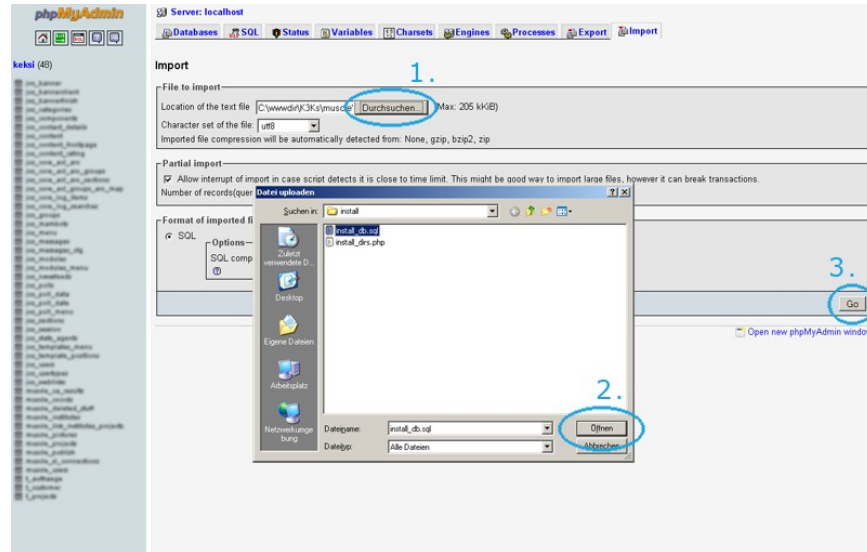
- Copy the directory “CA” to a location outside of the web-directory of your choice.
- Make sure all directories are flagged with read and write permission. (chmod 777)
- You should see the same results as shown in Pic 7.



**Pic 7**

## Setting up the MySQL database

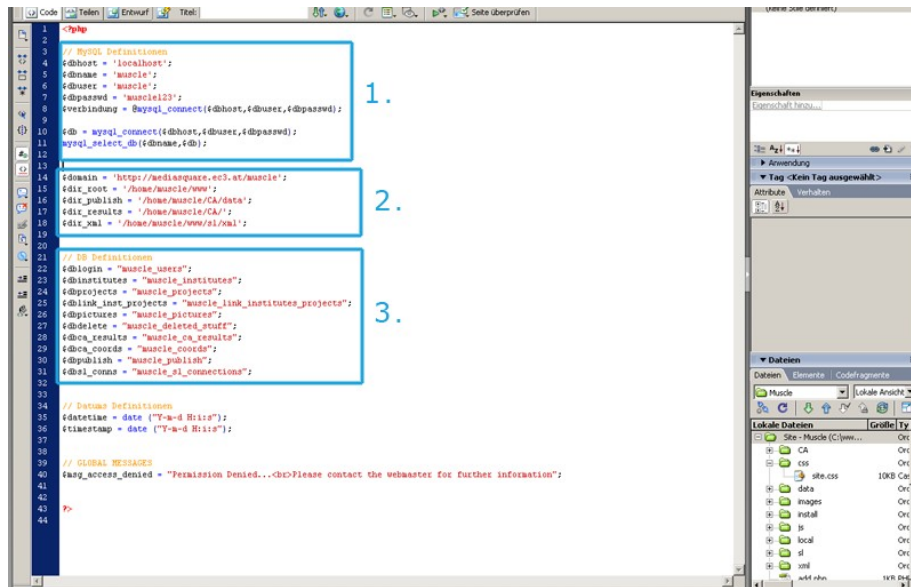
- Import the “install\_db.sql” file per PhpMyAdmin webinterface.
- For import use the “Import” function of the PhpMyAdmin application. Pic 8 shows the required steps for the file import.
- All tables will be automatically created.



Pic 8

## 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

## 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