User guide

SCORM (1.3) E-Learning Development Tool

Maicol Auli Casucci
maicol.aulicasucci@gmail.com

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1. Virtual machine

To use the virtual machine, VirualBox software is needed. VirtualBox is downloadable from the official website https://www.virtualbox.org/wiki/Downloads. The Operating System of the virtual machine is Ubuntu 14.04.

2. Available tools

Once the virtual machine has been imported and started, you will be able to use these tools:
- Java Wizard, used to add content to your e-learning course;
- Moodle, the popular LMS used to test the e-learning course you created;
- phpMyAdmin, used to check the tracking data of the SCORM standard.

Two simple scripts were created to get root permission in Ubuntu:
- Start Wizard, located in the Wizard folder. In order to start the wizard, choose run in terminal and insert the root password.
- Edit desktop zip files, located in the Desktop, to be launched to edit the SCORM packages saved in the Desktop.

The Ubuntu root password is **utente00**.

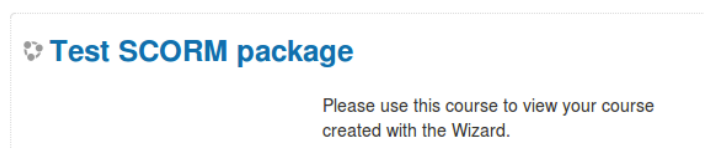# 3. How to test your e-learning course using Moodle

To access Moodle from the virtual machine, use Firefox and connect to http://localhost/moodle27/.

Username: **admin**
Password: **Admin.00**

To add a SCORM package to Moodle, follow these steps:
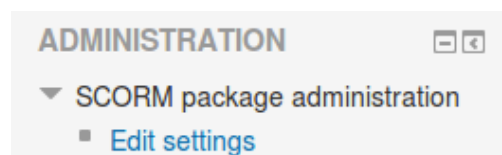1. select the course named "Test SCORM Package";

2. select the package "Edit this package";

3. under "Administration" → "SCORM package administration" select "Edit settings";

4. scroll down to section "Package", then delete the old package and load the new package created with the wizard (situated in the Desktop by default);
5. select the button "Save and display" to test the e-learning course.

4. How to check the SCORM tracking data

phpMyAdmin is a free software tool written in PHP, intended to handle the administration of MySQL over the Web. To access phpMyAdmin from the virtual machine, use Firefox and connect to http://localhost/phpmyadmin.
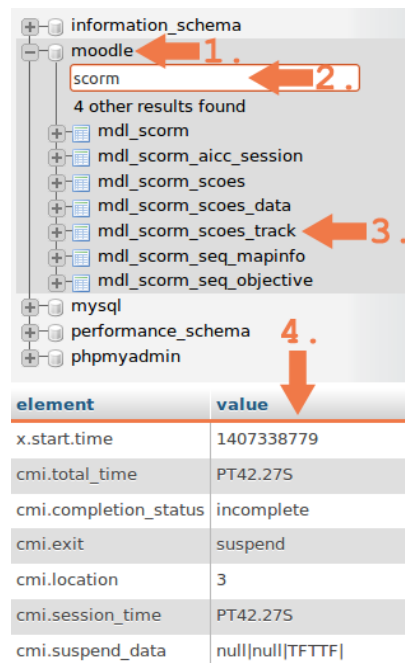
Username: **root**
Password: **mysql100**

To view the tracking data, follow these steps:
1. select the DataBase named "moodle" from the left column;
2. search the string "scorm" from the search bar;
3. select the values in the table named "mdl_scorm_scoes_track";
4. the elements value of CMI model are show on the right side of the browser.

These steps are shown in the figure below:

5. How to use the wizard

Once the wizard is launched (running in terminal the script "Start Wizard" – password **utente00**), the user can either create a new e-learning course or continue adding content to the previous one. Every time the user decides to create a new e-learning course, the previous one is deleted, and the wizard will ask the user to insert the metadata. Saving the metadata is recommended in order to index the content and speed up the LMS processes.

The wizard can add different kinds of pages to the pre-configured e-learning course (lib/ emptyCourse_default):

- page with text only, where the user can insert up to 3 paragraphs of text. It is also possible to select the minimum time that the learner will have to spend on the page, in order to avoid a fast skip throughout the course;
- page with text and 1-2 images, where the user can insert up to 2 images, selectable with a search dialog, and one paragraph. It is possible to set the minimum time required on this page as well as the page with text only;
- page with video, where the user can insert a video in different formats (ogv, webm, mp4, mov). In this case the learner will need to completely watch the video in order to complete the page.

All the pages of the course will need to be completed by the learner in order to access the final course.

The wizard will create the SCORM package only if all the sections of the course are added:

1. Introduction, minimum one page;
2. Pre-test, minimum one question and four possible answers;
3. Content, minimum one page;
4. Summary, minimum one page;
5. Final test, minimum one question and four possible answers.

For more information about the wizard, please review the comments in the code.

6. Customizations

All the paragraphs fields in the wizard allow the user to customize the text format using the CSS rules. Examples:

- Text color (default grey)

  ```
  <span style='color: red'>This text is red,</span> but this
  text is grey.
  ```

- Font size (default 16px)

  ```
  <span style='font-size: 22px'>The size of this text is
  22px,</span> but the size of this text is 16px (standard).
  ```

- Text alignment (default left)

  ```
  <span style='display: block' class='align-center'>This text
  is centered,<span> but this text is left aligned (standard).
  ```