

MultiMaker 2 Documentation

Program, examples and documentation © 2005 David Rowbory. david@rowbory.net

Introduction

MultiMaker 2 (MM2) is a complete rewrite of the original HyperCard™-based multiple choice test editing, marking and printing program written around 1995-6. This new version is written using Java, JavaScript, XML and HTML to be very flexible (not just BuzzWord®-compliant) and to run on all kinds of computer systems. The test files themselves will be easy to edit and read into other software to make the data entry future-safe.

The idea is that someone who wants to write a new multiple-choice test uses the MultiMaker program. They then Produce a self-marking test in HTML (web) format which is distributed to students for them to run. Students open the HTML page, tick the appropriate answers in the test and click the Mark button. The test is marked with incorrect answers identified and a score calculated. Students cannot retake the test.

This guide shows how to install and use the test making software MultiMaker, then how to distribute and use the tests you produce.

How to install the test-maker (MultiMaker)

First install the Sun Java engine:

Windows: <http://java.sun.com>

Mac OS X: should already be installed

[currently unsupported - Mac OS 8 & 9: Get MRJ from Apple.]

Then copy the MultiMaker folder to your hard disc or Documents folder and run it from there.

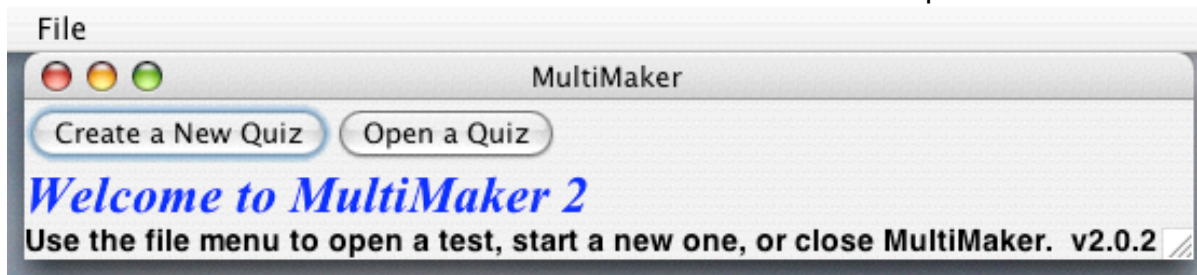
How to make tests with MultiMaker

Run the MultiMaker application:

Mac OS X: double-click MultiMaker application

Windows: Double-click **WinMM2.jar**

This opens a window with a menu bar. Click a button or choose **New** or **Open...** from the **File** menu to create a new blank test or open an existing one.



Note that this window displays the version number in the bottom-right of the screen.

If you click **Create a New Quiz** then a blank quiz window will open, otherwise, click **Open a Quiz** and choose a .mmtest file you have previously created. Don't try to open the .html (web page) files as they won't work here within MultiMaker - they are for the students to use only.

On the next page there is an example Quiz window:

1. Each test has a title and a description which will be displayed in the final self-marking test.
2. Click **New Question** to add a new question. Questions are numbered automatically. Click **Del** beneath a question to delete it.
3. Type the question text in the large box. If you want to add a picture, click on the **pic** button and choose the file. You must choose a file in the same directory as the test is saved, so put the file there before clicking **pic** in MultiMaker. Google image search - <http://www.google.co.uk/imgph> is a

good source of images. Make sure they're not too big.

4. Type in text for each option and click **Add Option** to add more. Each question can have as many options as you like.

5. Click on the checkbox to set an option as a correct answer. You can have as many correct answers as you like. All-or-nothing marking is used so the question must be answered completely right to gain credit.

6. To delete options click on **- Option**.

7. Click **Save** to save the test (a good idea to do that as you go along). Make sure it ends .mmtes

8. Click **Save As** to save it somewhere else or under a different name. Make sure you end the file with .mmtest otherwise you will be unable to reopen it.

9. Click **Produce Test** to create the HTML/web test file which pupils will use. Make sure it ends .html or .htm

Please remember to save the file. You will not be reminded if you close the window. All your changes will disappear unless you explicitly **save** them.

Once the test html files have been created you can copy them onto a website or other computers

Overall Title & Description

click to delete a question

all the possible options for this question. Tick the correct answer(s)

click to add another option to this question

click to open a different quiz

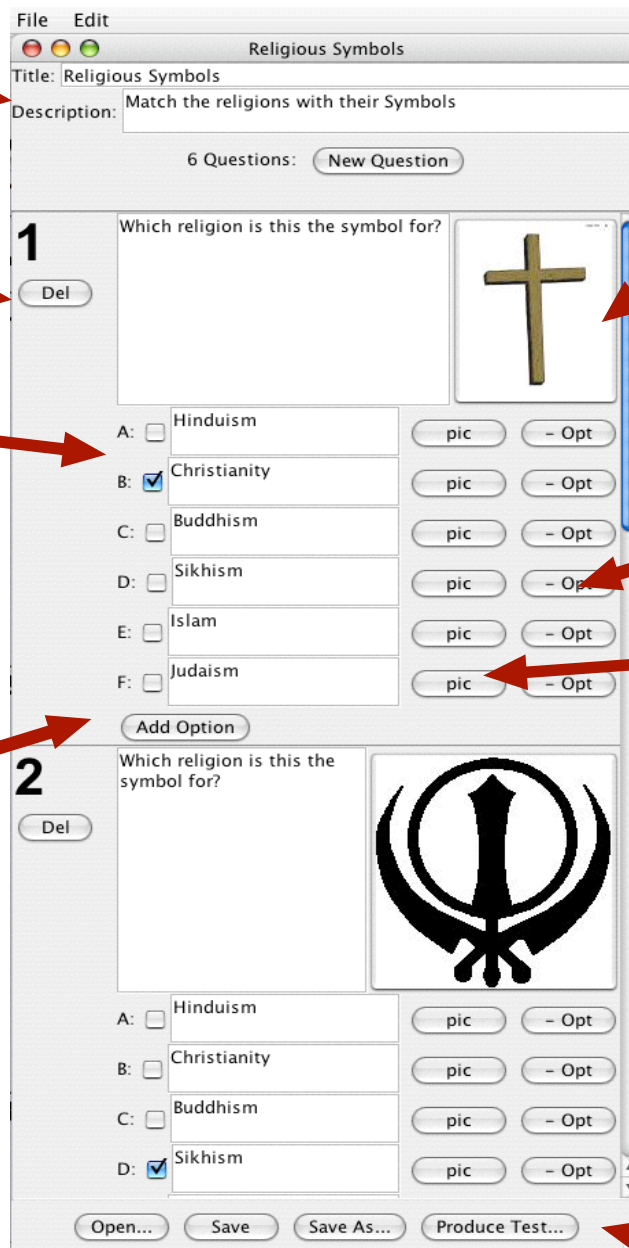
click to save changes to the current quiz

a picture for the question - click to choose a different picture file

click to delete an option from this question

click to choose a picture for this option

click to produce a self-marking quiz file



How to use tests

Produce a test using MultiMaker. You should save it as an html file. Copy this file and the **mark.js** and **styles.css** files (these 2 are vital support files) and any graphics files onto the computer where you want to carry out the test. When ready to start the test, double-click the test html file. A web browser should start.

The student should type in their name and their class, then go through the questions ticking the boxes of correct answers. When satisfied with their work, they click 'Mark' and the test will be marked.

As well as working out the score, the background of the questions will change to show what was right and wrong. Red indicates the student ticked a box they should not have ticked, and orange that they did not tick a box they should have done. Green indicates correct answers!

The tick boxes and buttons are disabled as soon as marking has finished so the test can not just be resubmitted or forged.

After the student is told the score they should show the page to their teacher to record it. Alternatively they could print the page as a record. Later, we plan to make it possible to email scores through to teachers.

Start of a Quiz

running in a web normal browser

The screenshot shows a web browser window titled "Religious Symbols". The address bar shows a local file path. The page has a navigation menu with links like Home, Apple, .Mac, Amazon, eBay, Yahoo!, News, JavaDoc, and Programming. The main content area has the title "Religious Symbols" and the instruction "Match the religions with their Symbols". There are input fields for "Name: David Rowbory" and "Class: 1d". Below this are three questions, each with a religious symbol and a list of options (A-F) with checkboxes. Question 1 shows a cross and has "B: Christianity" checked. Question 2 shows a Khanda and has "D: Sikhism" checked. Question 3 shows a crescent moon and star and has no options checked.

End of a Quiz

after marking has been done

The screenshot shows the same web browser window after the quiz is completed. The questions are now marked. Question 1 (cross) has "A: Hinduism" highlighted in green. Question 2 (Khanda) has "F: Judaism" highlighted in green. Question 3 (crescent moon) has "A: Hinduism" highlighted in red and "D: Buddhism" highlighted in yellow. Question 4 (Om symbol) has "A: Hinduism" highlighted in green. Question 5 (Star of David) has "F: Judaism" highlighted in green. At the bottom, a "Completed test - Results:" section shows "David Rowbory, class 1d 83%" and "Correct: 5 (Wrong: 1)". There are buttons for "Finished! Mark Test" and "Clear every answer and start again".

Licence

This software was developed privately, mainly initially for the use of Rosshall Academy RME department who commissioned the update of the freely produced MultiMaker 1.2.5. Redistribution is only permitted with express email/written permission of the author, David Rowbory, or Rosshall Academy RME department. Otherwise, the test-producing software and documentation may not be copied. HTML Test files are exempt from this restriction.

Areas for development

Make it warn you when you close a window and haven't saved.

Double-click on a mmtest document opens the test in MultiMaker.

Email results to teachers.

Auto-save

Less junk on output.

Better graphics and GUI.

Obscure the answers in the test file to avoid cheating.

Different ways of scoring partial matches to be more generous.

Changes

- 2.0.2 8th Mar 2005 simplified code (removed redundant parts), added relative URL for pictures to options not just the questions.
set all logging (for debugging etc) to use a debug method in TestEditor to reduce waste
including mark.js and styles.css in jar so we can output them with every new test.
renamed stylesheet.css to styles.css so it'll work on windows 8.3 conventions and when transferred to macs which don't read Joliet but only ISO9660 discs.
changed default value of title and description to be "" rather than null so we don't get 'null' appearing in files due to toXML and toHTML converting null strings to 'null'.
added Microsoft's "Mark of the Web" to HTML output to get round blocked content restrictions.
- 2.0.1 7th Mar 2005 corrected display problems on Windows by forcing rebuild of whole question panel - requires Questions and Options to know who the TestEditor is which owns them, so they can request a refresh.
changed HTML generation to use a text box not dropdown list for class - much easier to update
fixed the dodgy option-deleting mechanism to use objects not numbers for deleting.
changed pictures on questions to work relatively (though code still exists to allow absolute URLs to be saved if you want - but need to enable some GUI for this). This means that the files can be transported better, but that pictures all need to be in same folder as the final test.
improved window layout and resizing using Pack and bits of glue and struts
made MultiMaker (mac version!) a class derived from MultiMakerW (windows/linux) so that we didn't duplicate code, but also kept MultiMakerW free of Apple-specific bits.
- 2.0 28th Feb 2005 rearranged the main window to make it easier to start
initial release