

JAR-MCQ Basic is an advanced suite of tools designed to manage questions and generate examination papers for both multiple-choice and essay-type Joint Aviation Authority (JAA) Ab-Initio examinations.

**Product Overview**

The instruction of the JAA Ab-Initio syllabus requires numerous examinations to ensure that all trainees are suitably familiar with the subject matter covered; traditionally, this has meant that qualified instructors or examiners have had to prepare large numbers of examination papers by hand.

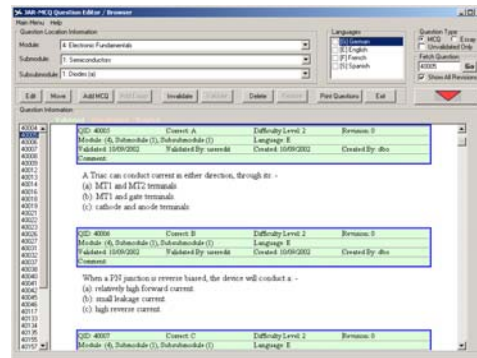
Additionally, the examiner or instructor has to ensure that the questions being asked on the examination papers for each sitting of each examination are chosen at random. This, coupled with the necessity to ensure that questions do not repeat within examination papers, causes this task to quickly become both labour- and time-intensive.

JAR-MCQ Basic is designed to automate the day-to-day tasks of exam generation and question management; it produces random, non-repeating examination (and associated solution papers for correction purposes) in minutes(as compared with hours using traditional approaches), containing both multiple choice and essay questions as required.

JAR-MCQ Basic uses a database from which it picks questions for its examination papers. Additionally, JAR-MCQ Basic includes advanced database management tools to populate this question database and properly categorize all questions.

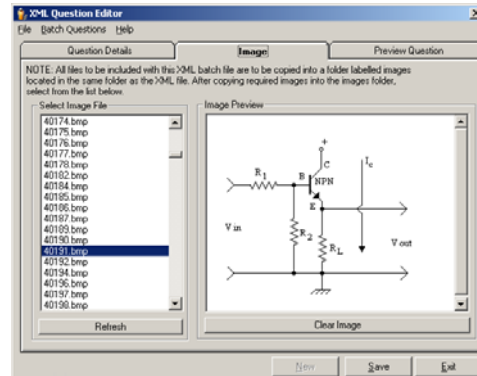
**Database Management**

The question database is maintained using our user-friendly database manager tools. These tools allow you to maintain your question databases for **both multiple choice and essay-type questions**.



*Multiple-Choice Question Manager*

Individual tools are provided to manage multiple-choice and essay-type questions. Both allow the user to add, edit, move and delete questions.



*Adding an Image to a Multiple Choice Question*

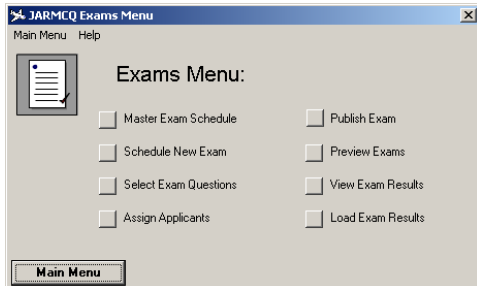
The Database Manager tools also feature text-formatting facilities so that you can enter common formatting requirements for technical questions, such as super- and sub-scripts, square root signs, Greek letters such as  $\pi$  and  $\eta$  etc., quickly and easily. There is also the functionality to add an Image to a Multiple Choice Question.

**Generating Examinations**

The other primary function of JAR-MCQ Basic is to produce examination and solution papers – the **Examination Wizard** provides this necessary functionality to produce examinations for any one module.

Like all JAR-MCQ applications, the Examination Wizard uses a simple point-and-click interface to guide you through several easy, logical steps to enter all the data required to generate your desired question and solution papers in.

At each step of the process, the Wizard will let you know what information it needs you to enter, and how to enter it. Once you have entered information it deems to be valid, it allows you to continue to the next step, until the Wizard is ready to choose questions.



*JAR-MCQ Basic Exam Generator Interface*

The Examination Wizard checks all user input to ensure that no conflicting or incorrect information is entered into it. Additionally, it implements JAR-66 regulations regarding:

- Number of multiple choice/essay questions per module
- Which modules are examined for each category (A, B1, B2)
- Difficulty levels for questions from each section (where required)
- Examination Duration

This allows the Examination Wizard to validate user input even further; an example would be to prevent invalid combinations of module, category, aircraft and engine type from being selected.

The Single-Module Wizard ensures that your examinations adhere to these rules to ensure that each paper produces fully complies with the necessary rules and regulations.

Additionally, the Wizard will determine whether your examination needs essay-type questions and will select the correct quantity of these questions automatically, as well as making printed papers available for the essay-type questions when these are required.

The Single-Module Wizard allows you to decide how the questions should be divided within the module either manually, or via a system of **templates**, which allows the user to decide standard distributions of questions for each module/category combination. This allows users to have a standardised question distribution for each type of examination so that they need not enter this individually each time the Wizard is run.

The Examination Wizard decides which questions within the question databank are relevant to the examination being prepared, and chooses questions **at random** from these, according to the quantities you specify. The system has been tested against a databank containing 10,000 questions.

## Examination Papers

JAR-MCQ Basic produces examination (or question) papers and solution (or examiner's) papers for multiple-choice and essay questions. Essay questions, of course, are only included when the rules require them.

The question paper is ready to be distributed in an examination environment; like all of the other papers JAR-MCQ Basic can generate, customisation is possible to include any messages or logos you may require. The solution papers are intended for use when correcting completed examinations.

## Utilities






JAR-MCQ Basic ships with a number of utilities; these are small tools that add functionality to the JAR-MCQ package, for example:

- **Question Distribution Summary:** This counts how many questions are available at each difficulty level in each section over limited ranges of sections or the entire database.
- **Question Printer:** Prints ranges of questions from the question database.
- **Template Printer:** This prints template data for review.

Due to the growing number of MROs using our system, ASTech is committed to continuously updating and adding features. General details, including hardware configurations and operating systems, are given in ASTech Flyer 99.5.

## Contact Us!

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