

ASTech JAR-MCQ Type-Specific Examination Tools

JAR-MCQ Type is an advanced exam management and generation system designed specifically to automate the production of examination papers for Joint Aviation Authority (JAA) multiple-choice examinations specific to an aircraft or family of aircraft.

Product Overview

Aircraft Maintenance Organizations which operate under the auspices of the JAA must examine their students regularly over a very wide range of subject matter; traditionally, this has meant that qualified instructors or examiners have had to prepare many exam papers by hand.

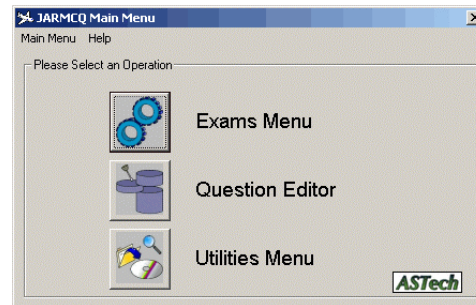
Additionally, the need for randomisation of the question matter across all examination papers means that the examiner or instructor would have to generate a new, different examination paper for each sitting of each examination being held for each topic on the syllabus. This, coupled with the necessity to ensure that questions do not repeat with examination papers, quickly becomes a labour- and time-intensive task, particularly for large examination papers.

JAR-MCQ Type is intended to take over the day-to-day task of exam generation; it produces random, non-repeating examination (and associated solution papers for correction purposes) covering questions specific to selected aircraft or families of aircraft. It is also quick and easy to use: examinations can be generated in minutes (as compared to hours and sometimes days using traditional approaches) using a simple point-and-click interface.

In order for JAR-MCQ Type to be capable of producing examination papers, it must first have a library of questions from which it can draw; to meet this need, JAR-MCQ Type uses a database system and associated tools so that a collection of questions may be created and properly categorised. The question library will generally be empty upon installation of JAR-MCQ Type, ready for the customer's questions to be added; however, it may become possible to buy banks of questions through ASTech in the future.

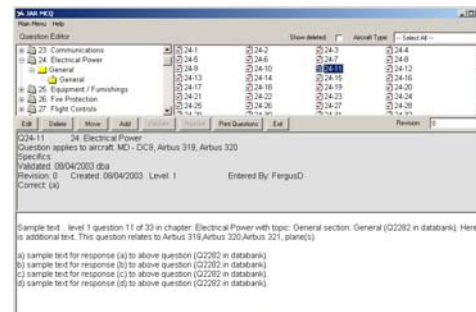
Database Management

The question database referred to above is maintained using our user-friendly Database Manager tool. This is equipped to both manage and fully define Type-specific multiple-choice questions as per JAR requirements.



Main Menu

As well as allowing the user to add, edit, move and delete questions, the Database Manager also allows you to associate questions with one or more types of aircraft and one or more "specific" (that is, any difference to what is regarded as being the default equipment for that aircraft type), such as a different engine or APU. This helps to ensure the relevancy of all questions chosen for each examination paper.



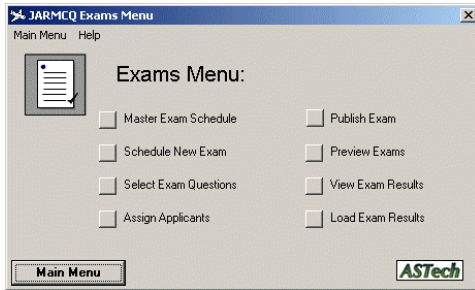
Question Editor

The Database Manager also features text-formatting facilities so that you can enter common formatting requirements for technical questions, such as super- and sub-scripts, quickly and easily.

Generating Examinations

The other primary function of JAR-MCQ Type is to produce examination and solution papers – the **Type-Specific Wizard** provides this functionality in a simple, easy-to-use package.

Like all JAR-MCQ applications, the Type-Specific Wizard uses a simple point-and-click interface to guide you through entering all the data it requires to generate your desired question and solution papers in easy, logical steps. At each step of the process, the Wizard will let you know what it needs you to enter, and how to enter it. Once you have entered information it deems valid, it allows you to go to the next step, until the Wizard is ready to choose questions.



JAR-MCQ Type Exam Menu

The Type-Specific Wizard chooses questions at random from the areas you specify, up to totals for each chapter that you also specify. Questions are chosen from each section according to the proportion of the overall body of relevant questions for that chapter each section represents, ensuring that sparsely populated sections are used less often and vice-versa.

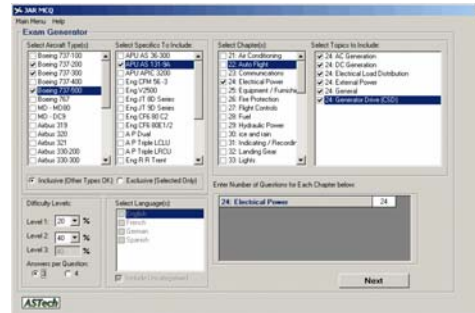
Examination Papers

JAR-MCQ Type produces both examination (or question) papers and solution (or examiner's) papers.

The question paper is ready to be distributed in an examination environment; like all of the other papers JAR-MCQ Type can generate, it can be customised to include any messages or logos you may require. The solution papers are intended for use when correcting completed examinations. For both examination and solution papers, JAR-MCQ Type can print long-form and short-form papers.

Long-Form papers, in both cases, contains the full question and answer texts for each question in the examination paper, and in the case of the solution paper, also contains detailed information about the source of the question; it's ID number, the ATA Chapter it belongs to, and so on.

Short-Form papers, on the other hand, contain boxes where the answers for each question may be entered – it is an answer sheet. The short-form solution paper, of course, has the correct answers already marked.



Examination Generator Screen

The short-form solution paper can be printed onto a transparency and overlaid on a student's answer sheet to greatly accelerate exam correction; if a question has more than one box marked, the question has been answered incorrectly, making the error easy to identify.

Utilities

JAR-MCQ Type ships with a number of management and reporting utilities; the purpose of these is twofold:

- To allow authorised users manage the structure of the question database: for example, to update the list of aircraft examined as new aircraft enter the market and older models are retired.
- To produce printed information and statistics concerning the contents of the question database; for example, printing sections of the question database for auditing purposes, or calculating the distribution of questions between modules.

The number of MROs using ASTech software is growing and new features are being included on a regular basis. For more information on JAR-MCQ, see ASTech Flyer 99.5.

Contact Us!

Contact ASTech (Atlantic Simulation & Training Technologies Ltd.) using any of these methods:

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|---|---------|---|
| ✉ | Address | ASTech
Unit 2,
Campus Innovation Centre,
Upper Newcastle,
Galway,
Ireland. |
| ☎ | Phone | +353-91-522318 |
| 📠 | Fax | +353-91-522328 |
| ✉ | E-Mail | info@astech.ie |
| 🌐 | WWW | www.astech.ie |