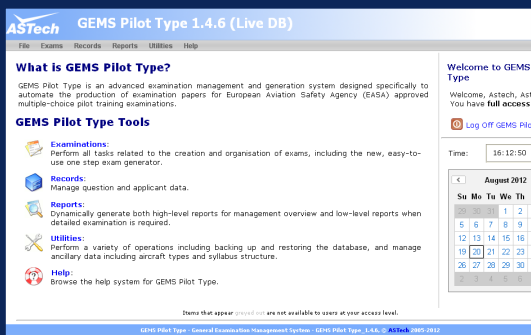


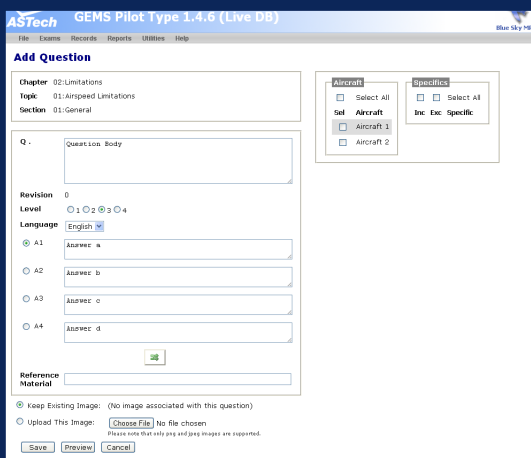
Key Features

- **ADVANCED EXAM MANAGEMENT SYSTEM SPECIFICALLY DESIGNED FOR PILOT TYPE EXAMINATIONS**
- **MULTIPLE CHOICE QUESTIONS CAN INCLUDE IMAGES, AIRCRAFT AND SPECIFICS**
- **EASY MANAGEMENT OF STUDENTS' RESULTS AND EXAMINATION PAPERS**
- **GENERATES BOTH PAPER BASED AND ONLINE EXAMS**
- **GENERATES STATISTICAL ANALYSES OF RESULTS**
- **AUTOMATED CORRECTION OF EXAM PAPERS USING OMR**
- **GENERATES EXAM ANNEX MATERIAL**

GEMS Pilot Type Homepage



GEMS Pilot Type Adding Questions



GEMS Pilot Type

GEMS Pilot Type is an advanced exam management and generation system designed specifically to automate the production of exam papers for multiple-choice pilot training examinations specific to an aircraft or family of aircraft (or customized categories within other industries). It can generate both paper-based (with or without automatic grading) and on-line examinations and has comprehensive analysis and reporting functionality. It can generate both paper-based (with or without automatic grading) and on-line examinations and has comprehensive analysis and reporting functionality.

GEMS Pilot Type takes 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.

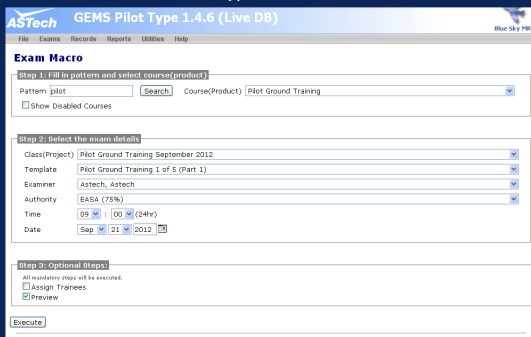
Functionality

All the function in GEMS Pilot Type are accessed through an intuitive GUI. The following are some of the main functionalities of ASTech's GEMS Pilot Type:

- Web application hosted on customers's corporate intranet
- Deployment as single VM (Virtual Machine) comprising web sever, database and scripting
- Multiple concurrent users with access privileges
- Both paper based and online exams (separate module for exam delivery) created
- Different formats of exam papers available. Customer logo included
- Automatic grading of paper (separate module)
- Graphics and mathematical equations can be included
- No practical limit on number of questions
- Question categorisation includes:
 - chapter, topic and section number
 - difficulty level
 - aircraft list e.g. B767, Airbus 380
 - specifics (e.g. engine, APU, etc.) included/ excluded
 - revision number
 - creator, validator and relative dates
 - supporting graphics
- Course and course instance (class) tables included or can access external applications
- Sophisticated templating system
- Exam comparison facility
- Extensive reporting facility including:
 - reports for all exams from particular candidate
 - reports for all candidates in particular exam
 - item analysis showing suspect questions
 - revision history for questions

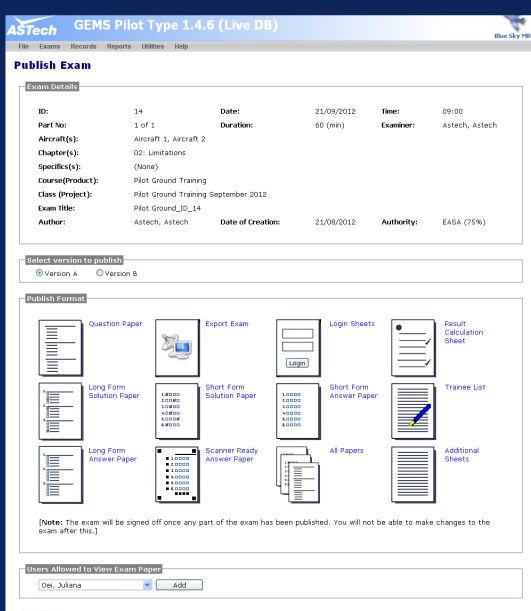
GEMS Pilot Type Overview

GEMS Pilot Type Exam Macro



The screenshot shows the 'Exam Macro' window in the GEMS Pilot Type 1.4.6 software. It is divided into three steps: Step 1: Fill in pattern and select course, Step 2: Select the exam details, and Step 3: Optional details. Step 1 includes fields for 'Pattern pilot' and 'Course/Product'. Step 2 includes fields for 'Class/Project', 'Template', 'Examiner', 'Authority', 'Time', and 'Date'. Step 3 includes checkboxes for 'Assign Trainees' and 'Preview'. An 'Execute' button is at the bottom.

GEMS Pilot Type Publish Exams



The screenshot shows the 'Publish Exam' window. It includes a 'Exam Details' section with fields for ID, Part No, Aircraft, Chapter, Specifics, Course, Class, Exam Title, Author, Date, Duration, Time, and Examiner. Below this is a 'Select version to publish' section with radio buttons for 'Version A' and 'Version B'. The 'Publish Format' section shows icons for various exam types: Question Paper, Export Exam, Login Sheets, Result Calculation Sheet, Long Form Solution Paper, Short Form Solution Paper, Long Form Answer Paper, Short Form Answer Paper, Trainee List, Scanned Ready Answer Paper, All Papers, and Additional Sheets. A note at the bottom states: '(Note: The exam will be signed off once any part of the exam has been published. You will not be able to make changes to the exam after this.)' There is also a 'Users Allowed to View Exam Paper' section with a search box and an 'Add' button.

Typical Operations

The following provide some typical operations in GEMS Pilot Type:

Editing Questions

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. GEMS Pilot Type allows exams and solution papers to be produced in a very small number of steps.

Generating Exams

Exam papers can be published in a number of formats including:

- Long Form Papers: Contains the full question and answer texts for each question
- Short Form Papers: Contain boxes where the answer for each question may be entered
- Other Forms

Benefits of GEMS Pilot Type

GEMS Pilot Type offers extensive reporting facilities simplifying the process of exam and question analysis. Reports can be created for each trainee showing the trainees details, exam details, achieved scores and answers for each question.

Questions can be categorized according to chapter, topic and section number, difficulty level, aircraft list e.g. B767, Airbus 380.

GEMS Pilot Type offers flexible deployment including stand alone computer configuration or web system deployment creating paper based as well as online exams. Paper exams are scanner ready and can be automatically corrected with the OMR software. GEMS Pilot Type is an EASA compliant and therefore follows the quality of standards.

ASTech in the Aviation Industry

Atlantic Simulation & Training Technologies (ASTech) is an internationally trading software company based in Galway, Ireland. The company specializes in products and services for the development and delivery of training and examination systems for industry. Customers within the aviation industry include Lufthansa Technical Training, SR Technics, Embraer, TAP Portugal, Lufthansa Resource Technical Training, Cargolux, Shannon Aerospace, including. Other products include GEMS Basic, GEMS Type, GEMS Fundamentals, GEMS OMR, GEMS Online Exam, GEMS PPL and GEMS FCL.

Functionality Overview

