



K n o w l e d g e i s P o w e r

تي دي ام للانظمة

القوة تكمن في المعرفة

# Essence Exam

Testing, Assessment & Delivery  
Management Solution

Managing Exams Made Simple

# What is Essence Exam?

Essence Exam is the most complete examination, testing, management and delivery system on the market. Market research has shown that while other exam systems may offer one or more of the modules present in Essence Exam, no other system offers a comprehensive, holistic solution. Essence Exam removes the need for integrations with other systems or manual processes.

Exam consists of 6 interlinked processes:

- Exam Planning and Administration.
- Exam Content Management.
- Exam Content Delivery, Collection and Marking.
- Halls and seats reservations.
- Question Bank.
- System Administration.

# Exam Planning and Administration

The Exam Planning process includes:

- Exam Hall Management
- Location (campus) Management
- Invigilator/Proctor Management
- Timetabling/Scheduling
- Notifications Management & Communication

Exam Administrators are able to book halls at different locations, assign invigilators and produce an individual timetable for each student, managing conflicts. All notifications to students and communication with staff can be handled via Essence Exam.

# Exam Content Management

- Exam Content Creation
- Templates
- Advanced Question Bank
- Online and Manual Exam Paper distribution

Essence Exam simplifies the exam paper process. All exam papers can be created online, and the questions and answers stored in the system for re-use. Templates simplify the creation process, and a range of different answers types can be used. The paper can then be set for online or manual paper based delivery.

# Exam Delivery and Collection

- Online Delivery
- Paper Delivery / OMR
- Attendance Reports
- Security Checks

Exams can be delivered online or as traditional paper based exams to exam halls. Essence Exam has advanced security features, such as fingerprint recognition to remove the possibility of cheating. Attendance reports can be published to give detailed information on who has taken the exam and who has failed to attend.

# Exam Marking

- Automated Marking for Online Exams
- Uploading of paper-based exams – OCR
- Automatic Marking (OMR) of using 'Transoptic' paper
- Automatic collation of student and course marks
- Results

Essence Exam handles the complete process for marking papers (except essay questions). Papers can be marked manually or automatically. All completed papers are stored in TAMS for future reference. OMR/OCR allows for paper based exams to be easily uploaded and marked. Results can be delivered directly to students.

# Reports

- Dashboard
- Student List
- Question Bank
- Student Results

The dashboard provides easy access to key exam statistics. These include Total Students, Total Exams, Total Uncorrected Exams. The Reports module offers all the standard exams information required. Users only see the information that they need. Essence Exam also has the ability to create bespoke reports on request.



# System Administration

- Exam 'Objects'
- User Creation
- Faculty Creation and Reservation
- Halls Creation and Reservation
- Location (campus) creation and Reservation

System Administrators create the full range of 'objects' needed to manage and run exams. Advanced security prevents hacking and unauthorised access. Each user is assigned individual permissions and levels, to control access to different elements of the system.

# Security

- User Level: Resolver, Method based, Router Based, API Based, Private Browser.
- Transmission: SSL.
- Database: Local Access Only.
- Optional: Finger Print
- Access Log File

SSL transmission ensures that all data in Essence Exam is encrypted when delivered across the network. Optional fingerprint access ensures that the exam can be created and delivered completely securely.

# Technology

- Locally Hosted or Cloud Based
- 3 Tier Architecture.
- Module Based Structure Hierarchy.
- 2 Way MVC.
- Technologies:
  - HTML5, AngularJS, Bootstrap, NodeJS, CSS3, PHP, MySQL, codeHive Framework, GoLang, MVC+MVW, API & Web Services, Web Kit, Polymer Web Components.
- Platforms:
  - Server Side: Windows Server, Linux or OSX Server
  - Client Side: Windows, Linux, OSX, iOS, Android, Mobile Ready with latest webkit based browser.

## IRT Compliant

IRT is a complex, mathematical process for assessing student learning. It often requires professional statistical tools, like SPSS, to analyse the assessment data. But Essence Exam makes it simple, automatically giving detailed usable information to lecturers, Students, course and faculty leaders.

Item Response Theory is fully integrated into Essence Exam, as a method of assessing the learning of students. Based on a students answers to questions, it is possible to assign levels of understanding of a subject. It can also be used to assess how effective individual exam and assessment papers are.

## Customisable by TDM Teams

- Branding – including logos and brand colours.
- Full range of customisation available
- Additional reports on request
- Supports a range of internal technology integrations
- Multilingual – supporting different writing systems e.g. Devanagari (India/Nepal), Arabic and Latin

Each University manages exams and assessments in different ways.  
By working with the TDM Team, each University can make Essence Exam unique to them.

# Advantages

- 1) Existing multiple systems are migrated into a single database.
- 2) Works with a University's existing IT infrastructure.
- 3) Both students and staff can access information on multiple devices – laptops, phones, tablets.
- 4) Regular technical updates from TDM Systems.
- 5) Identifies exam clashes and produces an optimal, individual exam timetable.
- 6) Easy to train users.
- 7) Time saving.
- 8) Real Time data.

## Summary

- Essence Exam is a complete solution for managing the exam process.
- It offers more functions than any other similar system.
- Full support and upgrades from TDM.
- Exam Administration and Planning.
- Content creation and management.
- Automated exam delivery, collection and marking.
- Optical Mark Recognition.
- IRT compliant.
- Secure.