

Technical Specifications

CORTEX | Automated Exams Delivering & Marking Platform

General characteristics

Platform Name	CORTEX © Automated Exams Delivering & Marking Platform
Website	https://cortex-global.com/
Usage	Administering A Levels mock exams for students across various subjects, featuring automated grading of student submissions.
Platform Features	A complex architecture of specialised algorithms developed for each subject allowing the student's work to be graded by pinpointing specific mistakes, providing comments on these mistakes, allocating points based on grading criteria, and awarding a final score for the task.
Platform Developer & IP Rights Holder	Cortex Global Limassol, 3040 Cyprus
Subjects Included in the Platform Suite	All A-Levels subjects (Mathematics, Further Mathematics, Physics, Chemistry, English, etc.)
Algorithms	The algorithms for grading student submissions were trained on a large volume of historical data, graded student A Levels exams from the period 2024-2025, under the supervision of leading examination board experts. Cortex algorithms were trained on a dataset of over 7,000 past papers per subject.
Automated Grading Speed	Grading 1 mock exam, on average, takes between 10 and 30 minutes.
Storage & Processing of Personal Data	The personal data of teachers and students is stored and processed within the educational institution's network perimeter on a dedicated server, and never leaves the organisation.
Compliance	The Platform complies with the highest cybersecurity standards, undergoing quarterly audits for OWASP vulnerabilities. The Platform is GDPR compliant.
Platform Supplier	“Cortex Global” or authorised distributors.
Supported Subjects	Mathematics, Further Mathematics, Biology, Chemistry, Physics, among others STEM+ subjects.

List of the Platform's main functional capabilities:

For Teachers:

Devices Support	Teachers can work on the Platform from a desktop computer, laptop, tablet, or mobile phone.
Statistics Logs	Access to detailed statistics of mock exams results for an entire class or an individual student.
Creation, Editing, and Scheduling of Mocks	Creating mocks across different subjects, with the option to use databases (e.g., Edexcel) or to create personalised test variants by uploading photographs from a textbook or handwritten task.
Grades Review	Access to gradings of an individual student's mock, with the ability to review and adjust the grade if necessary or upon disputes.
Schedule Monitoring	Access the schedule for assigned mocks in a calendar.
Assigning Mocks to a Class	Assigning mocks for a specific date, to a specific student, a specific class, or to all classes simultaneously.

For Students:

Devices Support	Students can work on the Platform from a desktop computer, laptop, tablet, or mobile phone.
Calendar	Access the calendar with scheduled mocks.
Taking the Mocks	Taking the mock exams assigned by the Teacher, or independently taking mocks on demand.
Grades Review	Receiving the grading with detailed comments on the completed mock. Cortex's specialized algorithm for each subject allows the student's work to be graded by pinpointing specific mistakes, providing comments on the mistakes, allocating points according to criteria, and awarding a final score for the task.
Downloading Grading Results	Download grading reports in PDF format.

Impact of the product for Educational Institutions:

Teacher Workload Reduction	Mock exams are graded automatically by the Platform without the need of mandatory teacher involvement. Nevertheless, the teacher retains the ability to make amendments to the grading and change the score.
Increased Number of Mocks	Teachers can designate "Mock Days" for classes or assign individual tasks to specific students on a desired schedule. In addition, students can take practice mock tests independently at home.
Quick Feedback	Teachers and Students receive the graded mock papers in an average of 10 to 30 minutes per subject.
Academic Performance	Student performance significantly increases due to the unlimited opportunity to practise. Students increase the number of mock exams taken both within the school and outside of it. The Platform provides a detailed evaluation of the work with constructive feedback on every mistake, offering useful teacher-style suggestions on how to improve students' skills.
Bypass External Tutoring Classes	The Platform provides the opportunity to take an unlimited number of mocks across subjects, offering automated, detailed feedback in a short timeframe. As a result, the services of external tutors used for grading mock exams will be in lower demand for students utilising the platform. Therefore, students are retained within the school's ecosystem.