AIR TRAFFIC CONTROL SIMULATOR

Fully Scalable, High Fidelity Simulator Solution



The Air Traffic Control (ATC) Simulator

is a fully scalable, high fidelity simulator solution for ATC Training, Testing and Procedures Development.

The 2D & 3D immersive simulator supports training in the development of practical ATC skills required for day-to-day operations and simulation of emergency scenario management.

Realistic radar, procedural and airport tower simulation environments are provided for the training of en-route, approach and tower controllers.

The solution is highly customisable and adaptable, offering the full training spectrum, from ab-initio to operations, and refresher training in a realistic airport and airspace environment.



Virtual Tower Simulator

- Seamless 360° visual environment
- Airport visual database with 3D models of all buildings and airside structures, runways, taxiways and aprons including an accurate rendering of markings
- Interactive control simulation
- 3D models for aircraft, vehicles and ships
- Generates day and night scenarios as well as different weather conditions
- Simulation of aircraft emergencies



Procedural Non-Radar Simulator

- Provides comprehensive procedural control operations training
- Available as a standalone or integrated module with the virtual tower or radar simulator to create complex scenarios
- Oceanic Control



Radar and Surveillance Simulator

- Facilitates full training spectrum in air traffic control surveillance operation
- Allows flexible distribution of processes across computer elements:
 - Surveillance Detection
 - Radar Data Processing
 - Flight Data Processing
 - Automatic Dependent Surveillance -Broadcast (ADS-B)
 - Wide Area Multilateration (WAM)



Voice Communications Control System

- Integrated voice communications network with realistic simulation of all ATC Air-Ground and Ground-Ground communication functions and facilities
- Integrated voice recording and replay synchronised with the ATC simulation exercise
- Customisable voice recognition feature

Additional capabilities:

- ATC ConOps development and validation
- Airspace design and optimisation (sectors, routes, approach procedures)
- Remote tower camera positioning
- Airport or airspace visualisation tools
- Electronic Flight Strips
- ADS-C/CPDLC
- Safety Nets
- Approach Sequencing
- Sector workload display

Features

User-friendly data preparation facility

Supports flight data processing simulation

Aerodrome lighting panel simulation

Advanced Instructor and Simulation ToolsAdvanced replay capabilities & instructor debriefing tools



Simulation of Aircraft Emergency Scenarios

Electronic flight strips for IFR/VFR/Military flights



User-friendly Voice Recognition editor for easy additoin or modification of phraseologies



Civil and military aircraft manoeuvres Formation form and break including military approaches



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