Edda Systems AS

ATC Simulators

The manufacturer of eCoach
Edda Systems AS

- Established in 2005, by 5 experienced ATM engineers (ex Avinor)
- 100% owned by the employees/founders

The main focus areas are:
- ATC simulators - The eCoach simulator portfolio is our main product
- Consultancy services within the ATC/ATM, telecom and defense

- Located in Spikkestad outside Oslo.
ATC simulator portfolio
- optimized for:

- ATC Controller Training
- Airspace Planning
- ATC System Test
eCoach

Controller Training
- Overview
Consider an area of responsibility
The eCoach ATC Simulator

- Instructor/Supervisor
- Approach Controllers
- ACC Controllers
- 3D Tower Position(s)
- Pseudo Pilots
The eCoach ATC Simulator

- Instructor/Supervisor
- 3D Tower Position(s)
- Approach Controllers
- ACC Controllers
- Pseudo Pilots
The Tower Position

- Presents the view outside the airport tower
- Radar view of the airspace surrounding the airport
- Ground view of the runways and the taxiways
- Flight information system /lists
- Flight strip printer (Optional)
- Voice communication system (VCS)
  - Radio
  - Telephony
- Information system
The eCoach ATC Simulator

- Instructor/Supervisor
- 3D Tower Position(s)
- Approach Controllers
- ACC Controllers
- Pseudo Pilots
The Approach Position (Approach/Departure Control)

- Presents and controls the airspace close to the airport
The eCoach ATC Simulator

- Instructor/Supervisor
- Approach Controllers
- ACC Controllers
- 3D Tower Position(s)
- Pseudo Pilots
The ACC Position (Area Control)

- Area of responsibility is the upper airspace
The eCoach ATC Simulator

- Instructor/Supervisor
- Approach Controllers
- ACC Controllers
- 3D Tower Position(s)
- Pseudo Pilots
The Pseudo-Pilot Position

- Pilot all manual traffic
  - In the air
  - On the ground
  - Radio contact with Controllers
The eCoach ATC Simulator

Approach Controllers

ACC Controllers

Instructor/Supervisor

3D Tower Position(s)

Pseudo Pilots
The Instructor/Supervisor Position

- The same HW configuration as a Controller Position

- SW Components
  - Radar View
  - Flight Lists
  - VCS
  - Server Manager
    - Manage the system
  - Exercise Designer
    - Create exercises
eCoach versions for ATC Controller Training
eCoach versions for ATC Controller Training

- eCoach Enterprise
- eCoach Basic
- eCoach Custom
- eCoach Remote Training
The eCoach **Enterprise** edition is the standard Training Simulator configuration for systems with more than eight positions.

- Controller Working Positions. (ACC, APP, 2D & 3D TWR)
- Pseudo pilot(s)
- VCS (Voice Com. System)
- Supervisor position
- Server
The **Basic** edition is a complete autonomous ATC training simulator, for smaller systems (typically 1 to 8 positions). It has no physical server.

- Controller Working Positions. (ACC, APP, 2D & 3D TWR)
- Pseudo pilot(s)
- VCS (Voice Com. System)
- Supervisor position
- Server (SW only)
The **Custom** edition - an ATC simulator that feeds simulated radar- and AFTN data into an existing ATC system:

- Pseudo Pilots
- VCS (Voice Com. System)
- Supervisor position
- Server

The server sends radar- and AFTN data to the ATC system where students are doing their training.
VCS Simulator

- Simulates A/G, G/G and PSTN communication
- Easy to setup and configure
- Configurable HMI
- Recording & Playback
eCoach 3D TWR Simulator Module

- The 3D Tower Simulator Module is an extension to the eCoach Enterprise, Basic and Custom edition
- Generates the view as seen from a control tower with traffic on and above the ground.
- A system may contain several 3D Tower simulators which can be configured to be part of a single exercise or multiple exercises
- Capable of displaying various elements such
  - airport vehicles
  - airport lighting
  - wind, fog, clouds, snow, rain
  - time of day with various light conditions
- emergency situations on and above the ground
Remote Training – The Concept
Airspace Planner

- Design, modify and evaluate airspace (SID, STAR, IAP, ATS routes etc.)
- Fast-time simulation / Real-time simulation
- Calculates fuel consumption and track miles
- ARINC-424 leg definitions, AIXM import of procedures
- Optional: Noise Module. Calculates noise distribution on the ground
The eCoach TDG enables cost efficient verification of the ATC system behavior.

It combines an ATC simulator with the ability to create complex test scenarios. This enables a thorough, repeatable and automated verification of the ATC system.
Examples
eCoach P-Pilot Position
eCoach Airspace Planner
Questions..
Thank You!..