MaxSim ATC Simulators - Overview

Adacel’s MaxSim simulators deliver leading-edge capabilities to the simulation user. With installations around the world, Adacel systems are being used every day by hundreds of people in a variety of training and research and development roles.

Components
MaxSim provides high-fidelity simulation of control tower and IFR control unit environments with sophisticated functionality to support the most intricate civil & military ATC training and procedure evaluation. Systems can be operated stand-alone or fully integrated and MaxSim includes automation features for unmanned positions. Command execution can be accomplished directly using Adacel’s speech recognition or through traditional pseudo-pilots or both.

System reliability is key to maximizing the use of your simulator resource. MaxSim has a proven record of better than 98% availability.

Scenario Development Tools
The Scenario Development Tools speed the creation, preview and modification of scenarios by automatically generating traffic according to predefined user parameters. The instructor can also manually create scenarios. The tools enable the user to rapidly review and fine tune the scenario with easy to use graphical interfaces.

Interoperability
Adacel has considerable experience integrating MaxSim’s capabilities with other systems. Interoperability can be achieved using HLA, DIS and other protocols allowing multiple systems to share data in a common playing area. This permits our systems to operate in conjunction with other simulators or to generate a simulated traffic environment in an operational real world system.
Ease of Use - Intricate Functionality - Common Tools & Interfaces 
MaxSim - The Benchmark ATC Simulation Suite

**Supervisor Features**
MaxSim provides the supervisor with total control to manage the training exercise during runtime. Functions include capabilities to add or remove aircraft, inject events, modify weather, and take control of any aircraft or vehicle in the scenario. The supervisor can message any supporting position and pause, rewind or resume an exercise to make a teaching point. The system is common to Tower and Radar applications.

**Speech Recognition & Pseudo-Pilot Features**
Designed for economy of effort – increased automation and efficient modes for command entry reduce the number of people required to conduct training. Adacel’s speech recognition system for direct voice command input is the ultimate in automation and the pseudo-pilot control interface also features time-saving mechanisms for operators to define their own shortcuts.

MaxSim simulators deliver leading-edge capabilities to the simulation user. Adacel systems are being used every day by hundreds of people in a variety of training and research and development roles, including: NASA, the FAA, USAF, Austro Control, Air Services Australia, ENAV Italy, Hungaro Control.
**MaxSim Tower**

MaxSim Tower simulators create consistent, job-like reality that generates the immersive environments necessary for students to acquire and retain new skills at a much faster pace. Students graduating from programs using MaxSim simulators demonstrate the confidence and maturity normally seen only in more experienced controllers.

*Systems range from 180-degree field of view to fully enclosed 360-degree tower cab simulations*

*Out-the-Window visual display can be supported on virtually any format, horizontal or vertical*

**Auxiliary Displays**
MaxSim supports a variety of auxiliary display systems such as an independent ground visual channel, airfield lighting control panels, weather & wind displays, and surface movement detection systems.
MaxSim Radar

MaxSim Radar is a versatile simulation tool that can be used for radar and non-radar procedural training in all facets of the IFR control environment as well as in the design and testing of flight patterns and procedures.

Environmental effects such as winds aloft and pressure regions & effects are supported.

Systems include configurable flight progress strips with batch printing.

MaxSim Radar can be fully integrated with the MaxSim Tower systems.

Simulates various radar formats for the airport, terminal and en route control environments

MaxSim Radar provides tools to customize settings to specific user requirements and can be configured for a multiple radar mosaic or a single radar feed.

MaxSim Radar can be integrated with a Precision Approach Radar (PAR) simulation that is available as an optional add-on system.
**Individual Task Trainers & Small Footprint Systems**
*Compact Packages with Full-sized Features*

Systems share the same scenario creation tools and capabilities of a full-sized MaxSim. Playing areas, scenarios, 3D databases and visual models are compatible throughout all MaxSim system configurations.

Can be integrated with Adacel’s speech recognition system or controlled via pseudo-pilot. Systems can also do double duty as scenario creation and testing tools.

*Setups can accommodate various optional display screen sizes and configurations*

Perfect solution for maximizing hands-on training in a multi-seat classroom setting or for situations where space is limited.
MaxSim Mobile Systems

Enables tower & radar training virtually anytime, anywhere

Offers the same high-fidelity functionality as Adacel’s full-sized MaxSim ATC simulators, but on a compact, transportable platform.

Triple screen visual displays can be integrated with a single laptop supervisor position. Transportable in a shock deterrent case.

Mobile systems enable rapid, cost-effective deployment to solve training needs at alternate locations

Can support tower out-the-window views, local/ground control, departure/approach control and PAR control modes on a single system.

Multiple independent Tower and Radar systems can be networked for combined training.

Complete system packs into a single pelican case approximately 25”x25”x25” (65cmx65cmx65cm)

Selected by the U.S. Army for their ATC Common Simulator program
Over the years Adacel has been recognized and honored repeatedly within the modeling and simulation industry for exceptional innovation and program quality.

Product Innovation & Excellence

Adacel is CMMI Level 3 and ISO 9001:2008 certified

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