



## STATE-OF-THE-ART AIR TRAFFIC CONTROL SIMULATION AND TRAINING SYSTEM.

MaxSim is an all-in-one Tower and Radar air traffic control simulation and training system, trusted by ANSPs and military organizations worldwide. The system was built with high emphasis on human factors, based on Adacel's 30+ years of experience understanding air traffic control training context and the human factors of air traffic control environments, a team that includes many former air traffic controllers, and extensive feedback from our expansive global customer base. Today's MaxSim delivers a comprehensive set of training and simulation capabilities to meet the vast range of military and civilian customers' needs. Hundreds of MaxSim simulators are used daily all over the world as air traffic controllers train with confidence to remain proficient in their critical air traffic control skills.



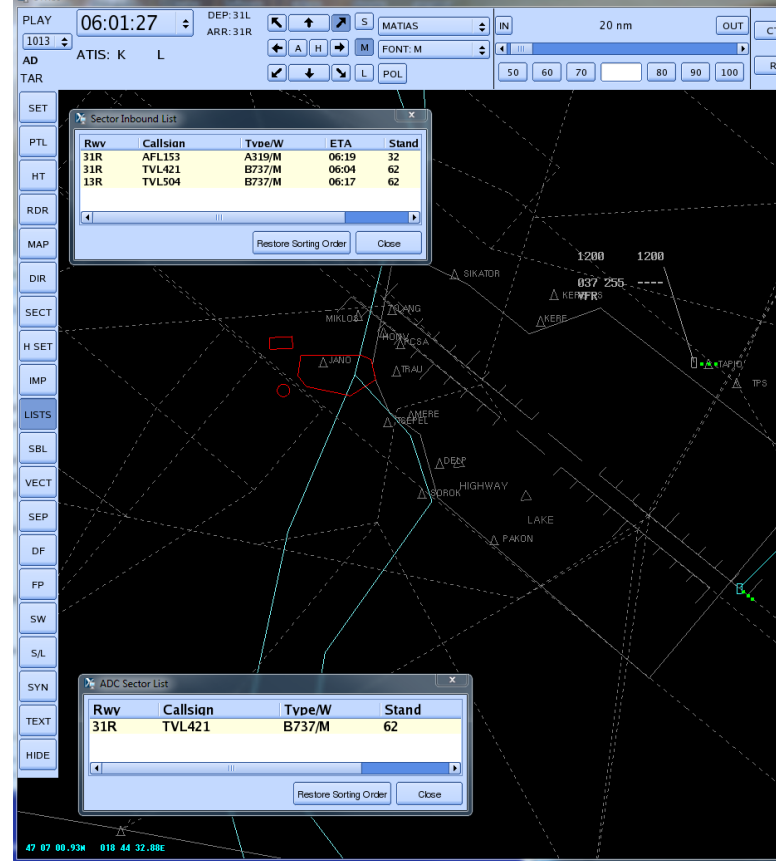


# MAXSIM TOWER AND RADAR: COMPETITIVE ADVANTAGES

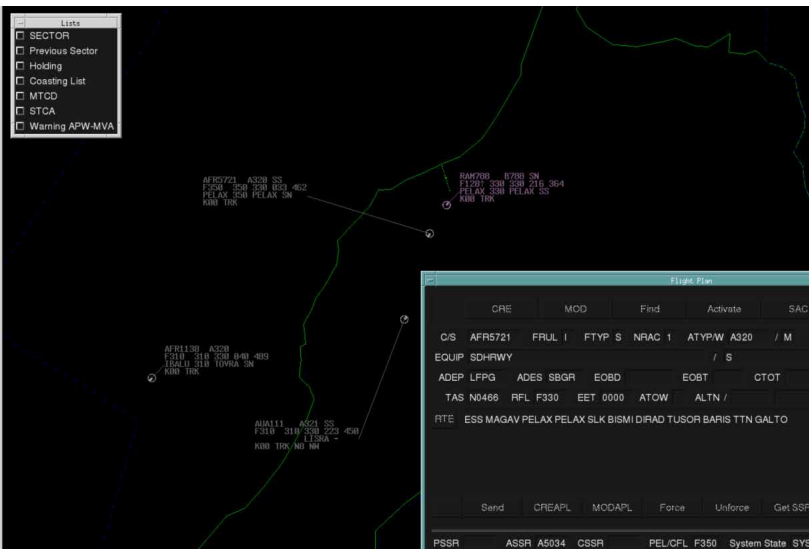
## SIMULATION REALISM FOR AN ENHANCED TRAINING EXPERIENCE

Using 3D high-fidelity images with multiple views, the simulator accurately emulates real ATC environments.

MaxSim Radar delivers flight and radar data processing that feeds electronic flight strips, flight plan lists, safety nets (STCA, MTCD, APW, MSAW, level and route adherence monitoring, duplicate SSR code), Automatic Dependent Surveillance Broadcast and Contract (ADS-B & C), Controller-Pilot Data Link Communication (CPDLC), precision approach radar, and more.



MaxSim accurately emulates real-world ATM systems, including international automated radar system displays



Both radar interfaces have access to Flight Plans and Flight Plans lists. With MaxSim you get advanced RDPS and FDPS capabilities

MaxSim Tower features the same capabilities as MaxSim Radar, plus a generic or site-specific lighting and weather panels, Digital Automated Terminal Information Status interface, cable barriers, light gun, a slot message interface, and more. It also includes an Airport Surface Detection Equipment display equipped with runway incursion alert, stop bar infringements alerts, and slot warnings.

MaxSim offers a significant advantage to its users: this simulator and all its subsystems, including Tower and Radar, are fully and seamlessly integrated and interoperable as extensions of one to another.



adacel.com

ISO 9001:2015 Certified  
Appraised at CMMI Level 3 Capability  
© January 2023 Adacel



## MILITARY FOCUS

A MaxSim variant can also be configured with a wide variety of military procedures, including; formations (battle, chase, echelon, stream, offset pair), tactical approach, simulated flame-out, patterns (overhead, radar, SFO, break, carrier break, outside, low closed) with definable parameters for each runway. On the ground, the military features supported by MaxSim include arm-dearm, fuel pits, ORP, and cable engagements, just to name a few.

## CIVILIAN AVIATION APPLICATION

You can replicate a wide variety of civilian aircraft flying to your airport or airspace using corporate aircraft, general aviation, experimental, ultralight fixed wing, reciprocal rotors aircraft, rotorcraft, and VSTOL as well as a wide array of special operations and emergency procedures.

## MAXSIM'S EASY INTEGRATION CAPABILITIES

Adacel has years of experience interfacing its MaxSim with 3rd-party systems. These interconnections are done through gateways to the target systems. Depending on your needs, communication can be set up as either unidirectional or bidirectional. Past projects include integrations with these providers: Nav Canada, AviBit, CAE, NASA, Letvis, JTC-TRS and Adacel's Aurora Oceanic and Approach ATM system, just to name a few. Protocols vary based on third-party software and can involve ASTERIX or DIS/HLA protocols.

## VERSATILE USE

MaxSim supports multiple students running a single scenario, and each position is configurable to adapt to any role with one single click. With our cloud-based solution and mobile system configurations, students can access training anytime, anywhere. In addition, automated ground or tower controllers are available to support students' self-training. And to simulate pilot communications, our customers can take advantage of Lexix--Adacel's proprietary voice recognition system. With such a vast database--MaxSim's database features over 400 airports and more than 2000 aircraft--we can accommodate the training needs of most discerning customers.



[adacel.com](http://adacel.com)

ISO 9001:2015 Certified  
Appraised at CMMI Level 3 Capability  
© January 2023 Adacel





## SCALABLE TO YOUR NEEDS

You can scale and configure MaxSim for a 360-degree set-up with projectors or monitors down to a portable 3-screen controller position supported by a supervisor and their laptop. The scalability based on needs makes the simulator quite affordable. And regardless of the configuration, with MaxSim, you can simulate the entire flight operations life cycle.

## EASE OF USE

Despite MaxSim's complex design and extensive capabilities, the simulator is amazingly easy to use. You have an intuitive and well-structured scenario development and the option of various modes of flight operations. You can easily create shortcuts and customized macro commands and can change the simulation environment by altering events, weather, and traffic. In addition, you can easily monitor and control the pace of training sessions, and one student alone can run complex training simulations.



*You can scale and configure MaxSim for a 360-degree set-up or use it from a desktop or mobile system. MaxSim is the world's first ATC Simulation and Training system with VR/MR capabilities used in a training environment.*

## HIGH ACCURACY

MaxSim delivers high-quality representation of the airport environment, real-world aircraft characteristics, including flight envelopes, precise airport and airspace elevations, distances and dimensions along with world-leading aviation speech recognition and speech generation system.

This simulator is used by colleges to train new air traffic controllers. In addition, the U.S. government and military agencies use MaxSim to develop new procedures, conduct aviation hazard analysis and operational investigations.



*With MaxSim, a supervisor can quickly change the simulation environment: create new events, modify weather or air traffic.*



[adacel.com](http://adacel.com)

ISO 9001:2015 Certified  
Appraised at CMMI Level 3 Capability  
© January 2023 Adacel

## ENHANCED TRAINING AND MONITORING WITH RECORD & PLAYBACK AND RECORD-KEEPING CAPABILITIES

MaxSim simulator can record and playback any lessons, and the student sign-on and progress are automatically tracked. The trainer can easily filter and export simulation training results by simulator usage, scenario run, or student participation.



MaxSim delivers impressive tracking and time-saving performance.



## SO WHY CHOOSE MAXSIM?

Using MaxSim significantly reduces training program time when compared to non-simulator supported programs. As a trainer, you have complete control of the training pace or level of complexity and can easily record simulator usage and student performance. At any time, you can adjust training conditions, and any real-world operations and procedures are faithfully simulated. Seasoned controllers report total virtual immersion within minutes of interaction in the simulator's environment, making the transition to the real-life ATM environment a breeze. The system delivers an impressive up to 99% availability, meets or exceeds Industry MTBF and MTTF rates, and is backed by a large and responsive customer service group, with worldwide support. When you become an Adacel customer you join a vast family of users who collectively benefit from each other's input on the system's evolution. We look forward to welcoming you to our Adacel family.



*The support has been very, very good. I would say excellent. The response time is really quick. For any issues that we bring up, a ticket is generated and the issue is worked on until it's resolved. So we are very happy with our customer support, definitely.*

*Duncan van Heyningen  
Manager - ATS Training & Development  
Princess Juliana International Airport*

**We are here to help. Contact us: [info@adacel.com](mailto:info@adacel.com)**

### UNITED STATES

9677 Tradeport Drive, Orlando,  
Florida 32827-5318  
USA

### CANADA

895 De La Gauchetière West, Suite 300  
P.O. Box 48  
Montréal, Québec H3B 4G1  
Canada

### AUSTRALIA

29/3 Westside Avenue  
Port Melbourne, Vic, 3188  
Australia

### ESTONIA

Sõpruse pst 145,  
13418 Tallinn  
Estonia



[adacel.com](http://adacel.com)

ISO 9001:2015 Certified  
Appraised at CMMI Level 3 Capability  
© January 2023 Adacel