MaxSim is an all-in-one Tower, Radar, and Oceanic 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. For your convenience, approach, en-route, and oceanic control environments reside within the same MaxSim software as well.

One variation of 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), and more.

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, precision approach radar, 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.
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. In addition, automated ground or tower controllers are available to support students’ self-training. And to simulate pilot communications, our customers in the US 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.
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.

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.

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 FAA-certified colleges to train air traffic controllers. The U.S. government and military agencies use MaxSim to develop new procedures, conduct aviation hazard analysis and operational investigations.

You can create shortcuts and macro commands and can quickly change the simulation environment by altering events, weather, and air traffic.

You can scale and configure MaxSim for a 360-degree set-up or use it from a desktop or mobile system, which makes the simulator quite affordable.
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 training personnel. 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.

We are here to help. Contact us: info@adacel.com

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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

ISO 9001:2015 Certified
Appraised at CMMI Level 3 Capability
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