



**AEROTURN ALSO COMES IN A PRO VERSION. ASK US FOR MORE DETAILS.**

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**AeroTURN** is an intuitive CAD-based software used for reliable and cost-effective evaluation of aircraft movement at airports. With an extensive library of passenger, cargo and military aircraft - engineers and planners can easily assess aircraft space requirements, jet blasts, gate clearances, taxiway traffic, and terminal layouts. Together with features to create new aircraft types, produce sophisticated animations and generate top-level reports; has made AeroTURN the leading choice for the global airside design industry.

**» ADVANCED AIRSIDE DESIGN TOOLS**

Do more with AeroTURN. Set jet blast envelopes during turning to see the effect on ground operations or to determine placement of blast fences and vehicle staging areas. Simulate pushback and towing of aircraft using a tractor/towbar. Display operational zones around aircraft fueling and servicing points for stop line placement and safety checks. Insert a template of standard ground vehicle servicing arrangements around a stationary aircraft to accommodate ground crews at neighboring stands.

**» "HUNTING" FOR THE RIGHT SOLUTION**

**AeroTURN** contains the innovative "hunting" ability. Simply supply basic parameters and AeroTURN finds the solution for you. The hunting concept operates within AeroTURN's three most powerful features: the ability to automatically generate oversteer maneuvers, instant reverse corner simulations, and the ability create aircraft simulations offset from a travel way edge.

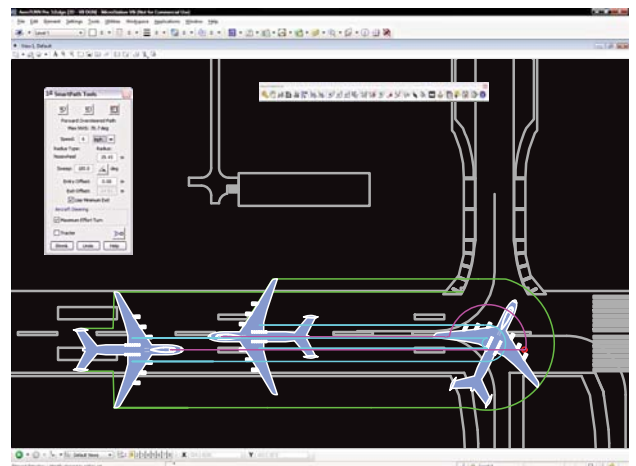
**» Oversteer Corner Path** lets you evaluate aircraft movements in tight turning conditions more realistically such as in the case of parking an aircraft along lead-in lines or defining space requirements at runway-to-taxiway intersections.



**»** Hunting for the desired turn angle is accomplished using the **Select Sweep** function. This feature allows you to generate turn maneuvers by selecting any CAD element such as a line representing a lead-in line.

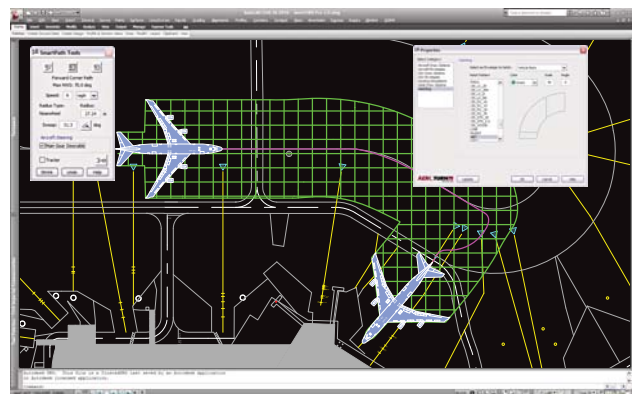


**»** Use the **Place Offset Simulation** tool to ensure an aircraft has enough required lateral room while turning at low speed - extremely useful for defining pavement clearances and required fillets (e.g. ICAO guidelines) at taxiway-to-taxiway intersections. Input an offset distance and select a line element representing ground striping, curbs, or edge of pavement and the software automatically "hunts" and draws the optimal path while maintaining a constant clearance.



**»** Simulate high angle turns to assess aircraft maximum effort turning maneuvers under differential braking. Engage or disengage the steerable main gear (for supported aircraft models) while performing a forward turning simulation.

**» Oversteer simulation** | Speed-based oversteer option gives realistic representation of how aircraft maneuvers in tight conditions. Eliminates need for judgmental oversteering.



**» Offset Simulation** | Create aircraft paths that maintains a minimum clearance from a roadway element (i.e. curb, barrier, paint line, edge of pavement, etc.).



**AeroTURN** represents the latest in cutting-edge technology for performing swept path analysis. **SmartPath Tools**, the heart of the software, features three interactive drive modes for simulating forward and reverse aircraft turn maneuvers quickly and easily while incorporating the use of engineering algorithms that account for speed, super-elevation, lateral friction and turn radii.

### TURN SIMULATION ANALYSIS

- **SmartPath** tools for performing aircraft turn simulations in one continuous motion
- Generate arc, oversteer, offset, and reverse corner simulations
- Simulate movement with steerable main gear (supported aircraft models)
- Perform maximum effort turning maneuvers under differential braking
- Define points on or off the aircraft for tracking and swept path envelope generation
- Continue generating new independent paths from one main path to explore different maneuvers from the last point of a simulation
- Simulate cockpit (pilot's eye) or nosewheel tire paths
- Track landing gear and wing tip paths
- Place aircraft simulations on arcs, polylines, complex chains, or splines
- Add and analyze lateral clearances for aircraft

### PUSHBACK OPTIONS

- Simulate maneuvers for aircraft being towed or pushed back by a tractor/towbar configuration
- Mark the tractor centerline path for towing operations and the aircraft main gear centerline path for pushback operations

### OUTPUT CAPABILITIES

- Generate aircraft turn simulation reports showing aircraft speed, path lengths, and start conditions at each section of the simulation
- View dynamically changing radius and steering angles during simulation editing
- Produce full-motion or frame-by-frame animation
- Perform multiple sequenced simulations and record to video with Transoft Solutions' presentation software, InVision within the CAD environment
- Perform multiple sequenced simulations and record to video with Transoft Solutions' presentation software, InVision

### POWERFUL DESIGN FEATURES

- Analyze jet blast envelopes at idle, breakaway, and takeoff speeds
- Place stationary aircraft with safety clearance lines, fuelling points, and other service point
- Insert support vehicle servicing arrangement templates around an aircraft stand
- View service point locations for electrical, fuel, oxygen, water, hydraulics, and lavatory

### AIRCRAFT LIBRARY

- Extensive aircraft library from major manufacturers with a major expansion to include new commercial, cargo, military aircraft and helicopters
- Ability to create custom aircraft

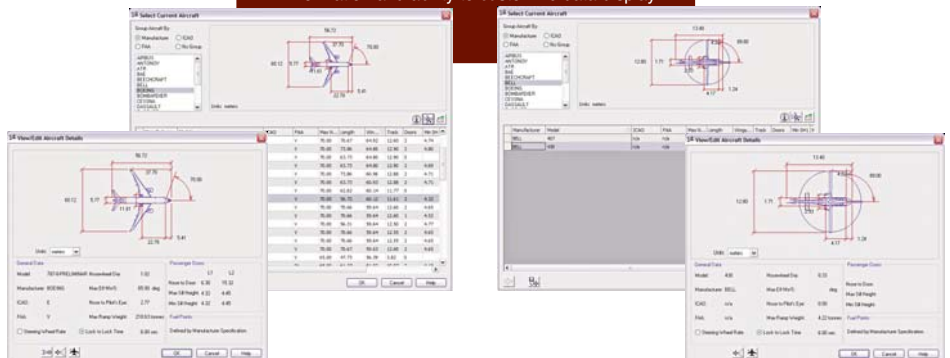
### COMPATIBILITY

- AutoCAD® 2004 - 2010 series of products (except AutoCAD LT)
- MicroStation® V8.1, V8 2004 (V8.5), XM, V8i
- **System Requirements:**  
Full support for 32 and 64-bit operating systems  
Workstation: Windows® 2000, XP, Vista, Windows® 7  
Network: Windows® Server 2000, 2003, 2008

### AEROTURN HIGHLIGHTS

- Intuitive "Hunting" concept
- Ability to simulate aircraft oversteering
- Track offset paths
- Ability to create simulations on spline elements
- Comprehensive hatching options for enhanced presentations
- Create instant reverse corner simulations
- Improved user interfaces and dialogue boxes
- Sweep angle selector tool simplifies the selection of turn angles for forward and reverse maneuvers
- Improved layer management gives users the option to place simulations on current layer, a specific layer, or a new layer altogether
- Aircraft security permissions allow administrators to apply limits to the level of vehicle customization

» Select Current Aircraft | Select aircraft grouped by manufacturer, FAA and ICAO class codes, as well as view additional aircraft information and ability to customize data display.



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