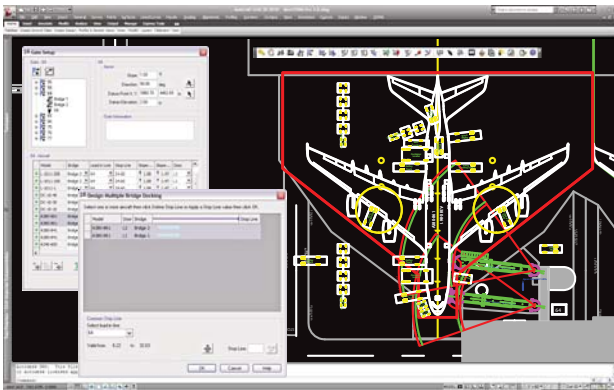


TAKE FLIGHT WITH THE LATEST TECHNOLOGY

3



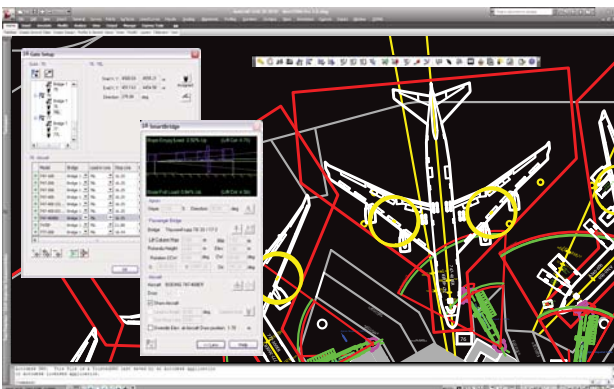
AeroTURN Pro is the most advanced CAD software for airside designing and gate planning. Evaluate complex docking scenarios with multiple passenger boarding bridge (PBB) and aircraft combinations. Check operational efficiency at stand positions for servicing different aircraft classes along multiple lead-in lines. Simulate aircraft and support vehicle turning maneuvers for clearance and safety requirements at runways, taxiways, and aprons. AeroTURN Pro has all the features and functionality built into one **complete software solution**.



» Choose from a filtered list of appropriate aircraft or bridges that can be successfully docked. A successful design will display in green. Values displayed in red will indicate the slope has been exceeded

ASSESS COMPLEX DOCKING SCENARIOS

Create stand positions to operate efficiently for servicing aircraft of different classes along multiple lead-in lines. Apply powerful design filters to display only compatible aircraft or bridges with the current docking scenario. Gate information can be stored with operational guidance or restrictions to report on the impact at adjacent gates.



» Analyze terminal layouts to determine the effect of new aircraft models and classes will have on gate arrangements.

ADVANCED GATE DEVELOPMENT

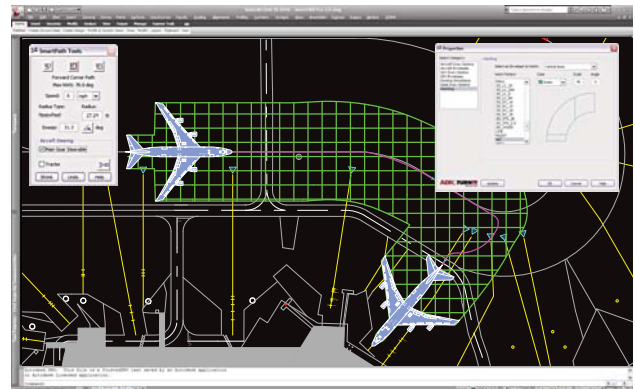
Design airport gates around assigned aircraft. Multiple aircraft can be grouped and positioned along lead-in lines or a single aircraft can dock to multiple bridges to suit bridge slope, safety clearance boxes, support equipment, and fueling point locations. Evaluate gate layouts with visual feedback with the flexibility to select aircraft, docking doors, and bridge models.

INTELLIGENT DESIGN WITH SMARTBRIDGE

Drag and drop bridge docking for either rotunda to aircraft or aircraft to rotunda to assess apron space. **SmartBridge** 'heads up' display presents real-time bridge slope calculations, operating limits, graphical elevation views, and warnings during the docking process.

DYNAMIC AIRSIDE SIMULATIONS

Use **SmartPath Tools** to generate swept paths simulations for aircraft and vehicle maneuvers. The three interactive drive modes apply advanced engineering algorithms that account for speed, steering, and turning radii to produce realistic aircraft and vehicle movements even in **maximum effort turning** conditions.

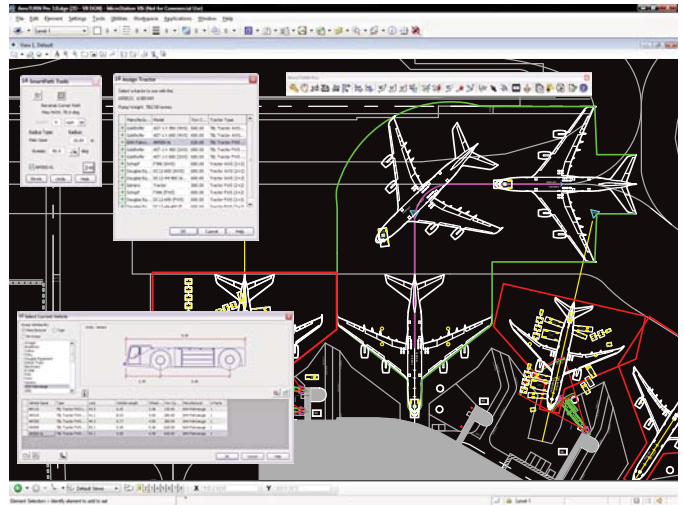


» Speed-based oversteer options gives realistic representations of how aircraft maneuver in tight conditions. Eliminates the need for judgmental oversteering.

PUSHING TECHNOLOGY TO THE NEXT LEVEL

APRON OPERATIONAL PLANNING

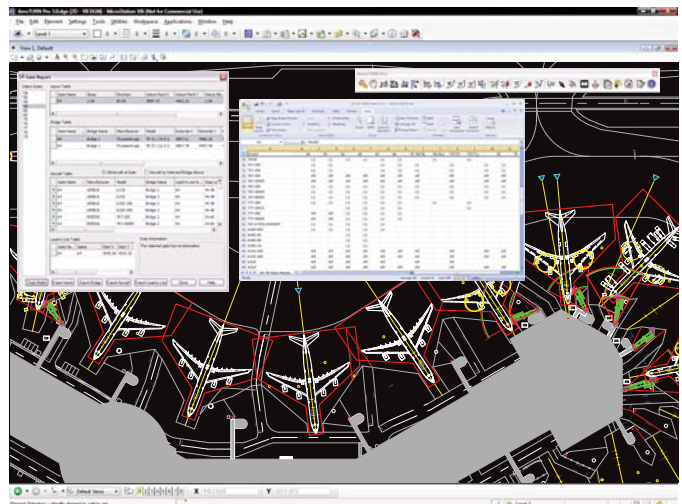
» Display operational radii around aircraft fueling points to aid in stop line placement and to ensure safe distances from terminal glass walls for fueling procedures. Insert a template of standard ground vehicle servicing arrangements around a stationary aircraft to prevent conflict between ground crews and service vehicles at neighboring stands.



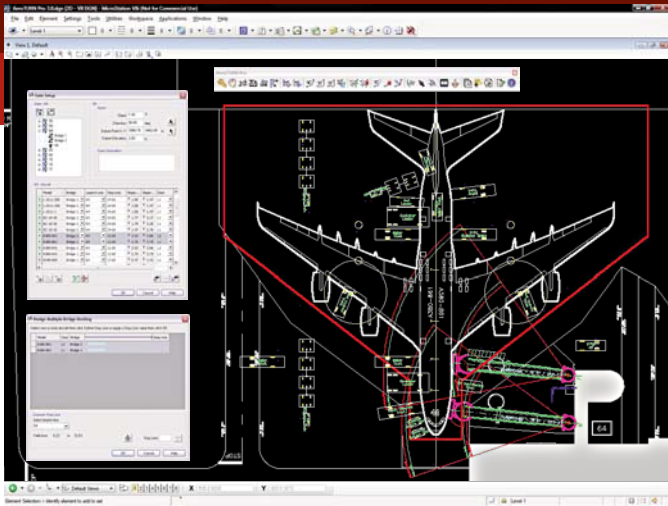
» Pushback and towing operations can be done easily.

ADVANCED AIRSIDE DESIGN TOOLS

» Set jet blast envelopes or additional aircraft symbols during turn simulations to check the effect on ground operations or to determine placement of blast fences and vehicle staging areas. Position tracking points on or off the aircraft for envelope generation to evaluate key points of interest (i.e. outer edge of engine).



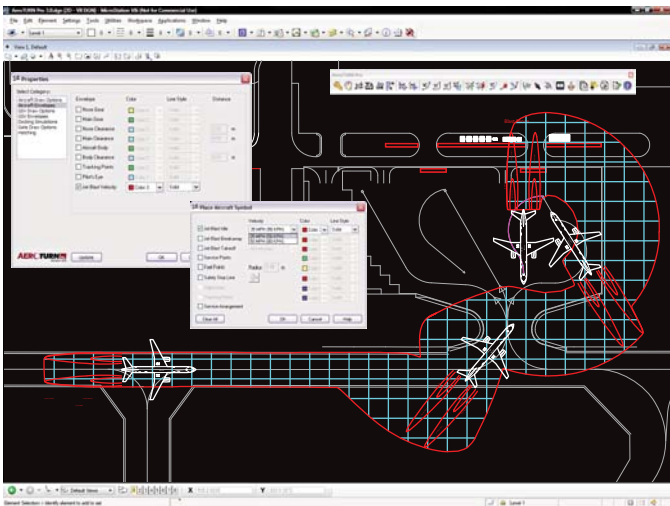
» Reports can be saved and shared between different departments for airport safety and operational assessment as well for client presentations.



» Keep safety a priority in your airside designs.

CARRY OUT PUSHBACK SIMULATIONS

» Generate speed based pushback (towbar or towbarless) simulations from a filtered list of over 2,200 compatible tractor and aircraft combinations. This functionality includes the ability to mark the nosewheel path of the aircraft for both towing and pushback operations with multiple drive modes.



» Output and save reports in MS Excel and Word.

REPORTING – SHARE YOUR IDEAS

» Create aircraft turning simulation and docking reports with PBB, aircraft, and apron characteristics. With **Gate Report**, produce multiple reports with info on assigned aircraft/bridge models, docking doors, rotunda locations, lead-in line coordinates, and stop lines labeled with parked aircraft positions. Data can be saved with graphics and exported to enterprise reporting programs.



AeroTURN is available in a base version for performing aircraft turn simulations and swept path analysis

Bentley
Sustaining Infrastructure

Autodesk
Authorized Developer

TURN SIMULATIONS AND SWEEPED PATH ANALYSIS

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

PUSHBACK CAPABILITIES

- Simulate maneuvers for aircraft being towed or pushed back by a tractor (towbar and towbarless) configuration
- Mark the tractor centerline path for towing operations and the aircraft main gear centerline path for pushback operations
- Select from a filtered list of appropriate aircraft and tractor combinations

AIRSIDE DESIGNING ABILITIES

- Evaluate a selected jet blast envelope (for idle and breakaway speeds) on apron and taxiways during turning simulations to ensure safe ground handling operations
- Place stationary aircraft with or without safety clearance lines, fueling points, and other service points
- Insert ground support vehicle servicing arrangement templates around a parked aircraft to visualize typical apron operations
- Define a radius around the fueling points on the aircraft to visually aid in stop line placements within limits for fueling as well as safe distances from terminal glass walls
- View ground service connection locations for electrical, fuel, oxygen, water, hydraulics, and lavatory servicing

REPORTING CAPABILITIES

- Create gate reports of aircraft stand positions complete with bridge model, locations of rotunda, parked cab, and stop lines with assigned parked aircraft
- Generate a gate matrix listing all gates and supported aircraft based on accommodated docking doors
- Create reports with all design information related to apron or lead-in line conditions
- Generate aircraft turn simulation reports showing aircraft speed, path lengths, and start conditions at each section of the simulation
- Create reports of aircraft or bridge docking simulations with information on bridge slopes, lift columns, rotunda elevation, and door sill heights

DOCKING AND GATE PLANNING FEATURES

- Completely redesigned Gate Setup user interface to provide object sensitive information and controls to design complex docking scenarios (multiple bridge or multiple lead-in lines)
- Automatically draw and label stop line positions for completed docking scenarios
- Docking Offset shifts the position from the bridge cab center to the aircraft door
- Simulate bridge docking for either rotunda to aircraft or aircraft to rotunda
- SmartBridge allows 'heads up' graphical display of docking simulations and PBB conditions, including real-time slope information, during the design process
- Display boarding bridge's maximum operating limits and user-defined safety limits.
- Calculate max bridge slope, cab and rotunda rotation and tunnel extension
- Simulate multiple aircraft per bridge docked to any door ahead of the wing
- Drag multiple aircraft along a lead-in line to a single stop line position during gate setup to design docking for one or more simultaneous bridge connections
- Override the min/max lift column positions to be saved within the defined gate
- Choose manufacturer specific "P" (Pin) positions for bridge lift columns
- Display safety clearance lines and aircraft ground service points at an aircraft stand
- Run design filters to show only compatible bridge or aircraft in a docking scenario

OUTPUT FEATURES

- Run airside animations with Transoft Solutions' presentation software, **InVision**, to create enhanced sequencing (aircraft, ground support vehicle, and docking simulations) presentations. Save and export them into selected video formats
- Display nosewheel steering angle and turn radius for instant readouts
- View dynamically changing radius and steering angles during simulation editing

AIRCRAFT, PASSENGER BOARDING BRIDGE, GROUND SUPPORT VEHICLE LIBRARIES

- Major expansion to aircraft library for commercial, cargo, military aircraft and helicopters
- Passenger boarding bridge libraries from CIMC, DEW, Jetway Systems, NKI Aviobridge, Sovam, TEAM, and ThyssenKrupp
- Major expansion to ground support vehicles including emergency vehicles, baggage trains, catering trucks, passenger buses, and aircraft refuelers
- Library of towbar and towbarless tractors for aircraft towing and pushback
- Create custom aircraft, bridge, ground support vehicle, and tractor configurations

COMPATIBILITY

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

For more information on AeroTURN Pro visit www.transoftsolutions.com



GO ABOVE AND BEYOND WITH AEROTURN PRO

"AeroTURN Pro has provided a reliable and cost effective method for evaluating and assisting in the design of new and existing facilities."

Keith Hui, Senior Associate, NBBJ

"A wonderful software for airport design as both aircraft tracking and gate simulation are all in one package."

Lincoln Chan, Project Engineer, Hatch Mott MacDonald

"Easy to use and saves time in the analysis and design of terminals. I would say AeroTURN Pro is a very impressive piece of software."

Jorge A. Monroy, CH2M HILL / Design Group Northwest

"With AeroTURN's sophisticated functionality, tasks are completed in much less time than by conventional methods."

Keith Foglia, Project Manager, Urban Engineers

"It is a breakthrough tool in the area of airport passenger bridge planning and design. It makes aircraft, bridge, stand, gate planning and designing much more efficient. (AeroTURN) has the potential to greatly reduce the cost of designing the bridges and testing existing and new aircraft types."

East Midlands Airport (EMA)

Manchester Airport Group



THE 'PLANE' BENEFITS OF AEROTURN

SAFETY COMES FIRST

Prevent incidences between aircraft, ground operations, and airport structures with dynamic visual feedback during the course of designing and planning.

MORE TIME FOR DESIGN

No more having to manually work out and check aircraft turning radii or bridge slope angles; calculations are done in the software allowing you to focus on more important design work.

MOVE PRODUCTIVITY SKYWARDS

With 'drag and drop' functionality, guesswork is kept to a minimum. AeroTURN makes it easy to place airside design elements in the drawing giving instant outcomes.

KEEP A CAP ON COSTS

AeroTURN Pro has all the design, analysis, and reporting tools together in one program requiring no costly additional modules. Ideal to meet budgets.

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To download our product demos or to find out more information about our products, please visit our website at

www.transoftsolutions.com

Please note that some products are only available in specific regions and languages.