Airside Planning, Design and Operations Software

TRANSOFT SOLUTIONS

AVIPLAN

Aircraft Maneuver and Parking Stand Simulation and Visualization

The preferred choice of airport designers, planners and operators around the world, AviPLAN® is the complete CAD software solution for safe and accurate airside planning and design. Whether you are considering near-term scenarios or master planning, AviPLAN lets you plan with confidence. Use it to revise apron layouts, develop complex stands with multiple boarding bridges, design taxiways and fillets, and generate detailed nose-gear or cockpit ground markings. It also allows you to perform safety clearance, jet blast impact, or operational efficiency studies.

There are four AviPLAN products —from the comprehensive AviPLAN Airside Pro to AviPLAN Turn. The software suits all requirements, from busy, multi-fleet international airports that accommodate intercontinental flights to smaller regional airports. All products feature an extensive library of passenger, cargo and military airplanes and helicopters, plus ground support vehicles, modeled according to manufacturer specifications. A library of passenger boarding bridges for designing your own contact or remote stands is also available in AviPLAN Airside and Airside Pro.

Choose the version that best suits your needs

AVIPLAN AIRSIDE PRO

AviPLAN Airside Pro

The complete package to simulate aircraft and service vehicle movement. In addition to the features below, use AviPLAN Airside Pro to design taxiway intersections, nose gear or cockpit centerline markings, and complex stands with multiple boarding bridges and lead-in lines (MARS stands). Extra stand planning features include automatic stop line creation, airplane positioning, parking optimization, and conflict detection. Also define apron services such as fuel pits, 400 Hz, and conditioned air. The software's 3D capabilities let you present compelling results through animated presentations.

AVIPLAN AIRSIDE

AviPLAN Airside

AviPLAN Airside brings you the capabilities of aircraft and service vehicle maneuvering found in AviPLAN Turn, plus the added ability to plan aircraft parking stands. Design contact or remote parking positions and access a full library of 2D passenger boarding bridges, which you can modify to specific bridge characteristics, such as limits, cabin rotation, slope, and more.
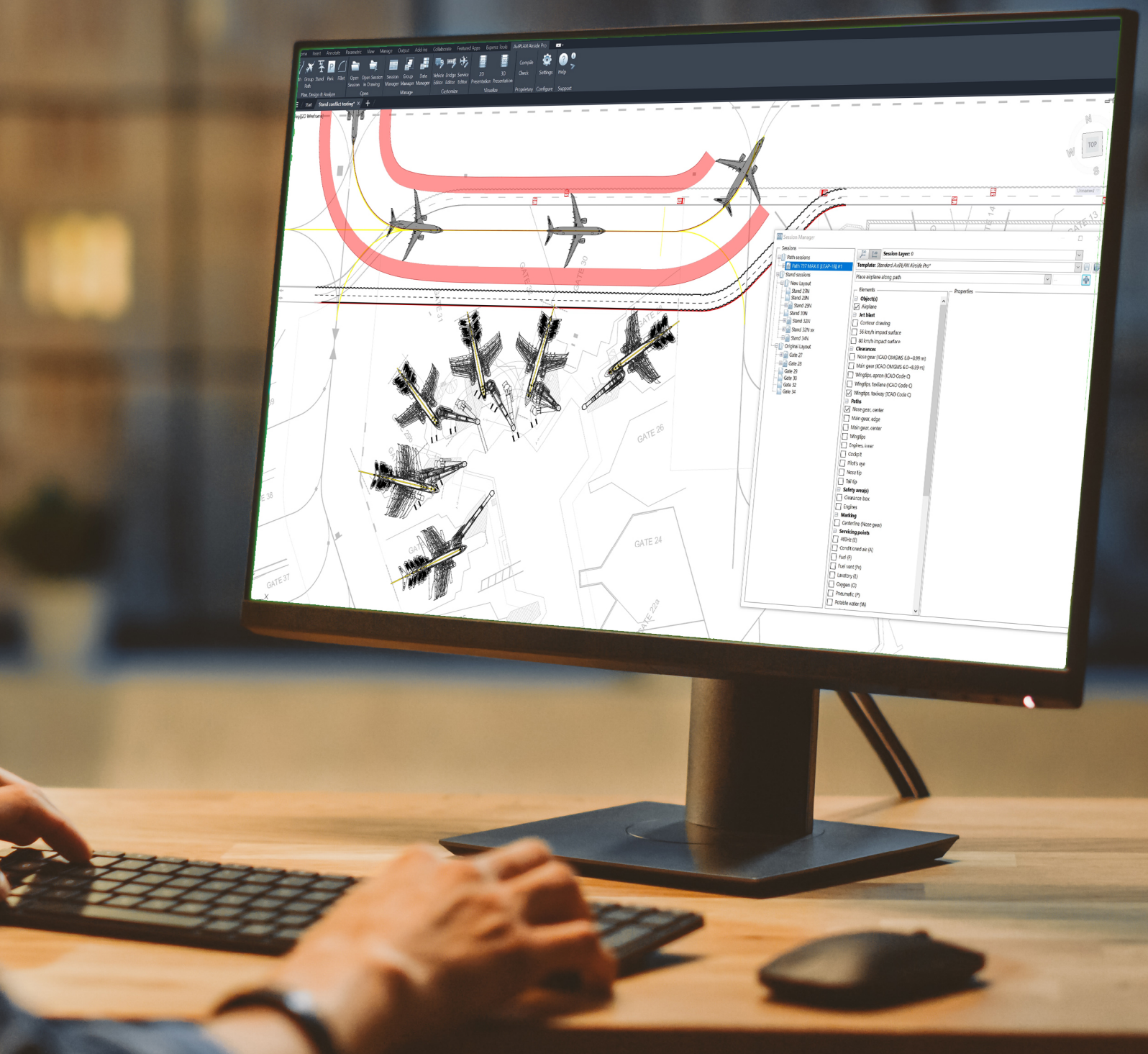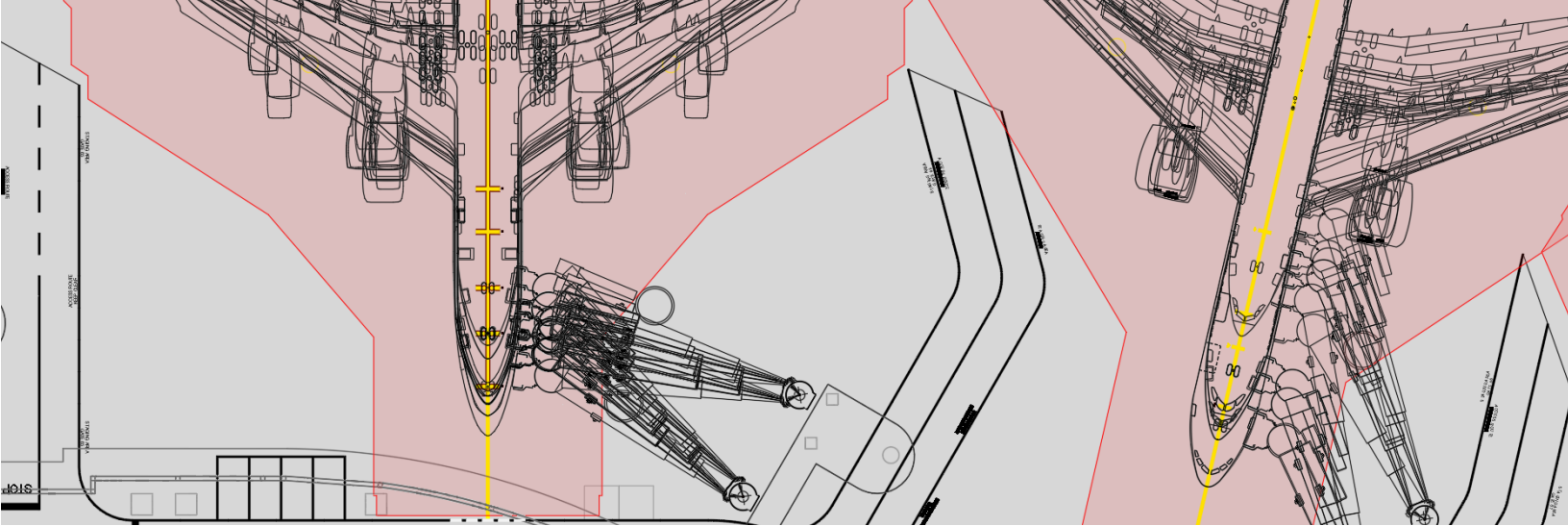
AVIPLAN TURN PRO

AviPLAN Turn Pro

AviPLAN Turn Pro has all the features of AviPLAN Turn, along with the ability to design taxiway fillets, generate detailed nose gear or cockpit ground markings, and simulate groups of aircraft moving simultaneously. Use the software's 3D capabilities to review vertical clearances or create sophisticated movie-style animations for stakeholder presentations.

AVIPLAN TURN

AviPLAN Turn

Perform aircraft and ground vehicle simulations, following nose gear or cockpit ground markings, and analyze pushback operations with AviPLAN Turn. Account for different speeds and turning angles, all with a few clicks. Elements such as swept paths, engine-intake areas, safety clearances, and jet blast contours and impact areas can be visualized in a 2D CAD environment.

Why choose AviPLAN?

Save design time

Using the easy-to-use graphical interface, simply overlay AviPLAN simulations on top of your existing CAD airport drawing to quickly test whether your design will accommodate safe aircraft and vehicle maneuvers from runway to gate. AviPLAN generates accurate movements based on inputs, including variations in speed and steering angle (even in reverse), and different types of turns. It will also automatically follow identified nose gear or cockpit ground markings.

View important details

AviPLAN clearly displays the details you need to see: aircraft paths (nose and main gear, cockpit, engines and wingtips), safety clearance envelopes, and jet blast velocity contours and impact areas for various thrust levels. Safety clearance guidelines from ICAO, FAA and EASA are also included in the software.

Produce compelling reports and presentations

Easily create CAD text block, Microsoft® Word and Excel reports, and export or share templates and custom objects. With the Pro versions, you can also convert technical aircraft maneuver and docking simulations into sophisticated 2D and 3D movie presentations, so stakeholders can easily visualize complex technical results or capacity issues.
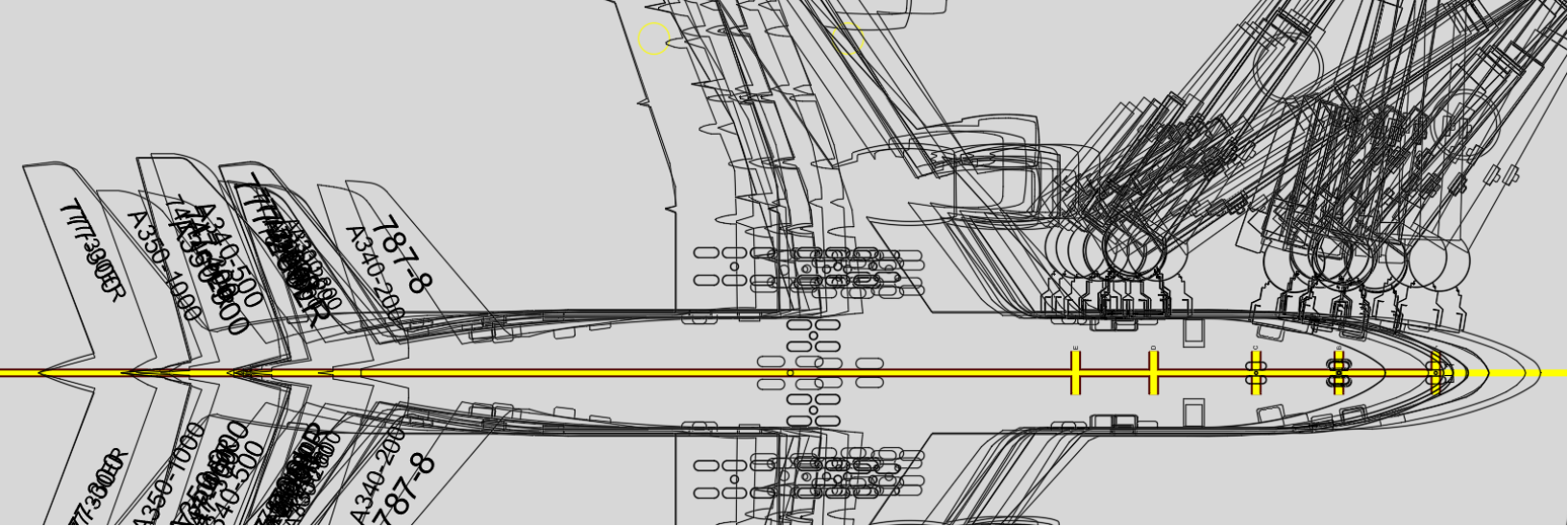
Drive operational efficiencies

Airports rely on making the most of their available airside space while ensuring safe and efficient movement of aircraft, service vehicles, passenger boarding bridges and passengers. AviPLAN allows you to precisely plan and simulate safe aircraft maneuvers from runway to gate as well as the placement and staging of service equipment. The result—efficient operations that minimize impact on the environment while maximizing the bottom line.

Depend on accurate results

AviPLAN's library incorporates the most up-to-date manufacturer information on a range of aircraft, including dimensions, capabilities, jet blast data, and other specifications. The library also contains a broad spectrum of ground support vehicles, and in the case of AviPLAN Airside and Airside Pro, an array of passenger boarding bridges. You can also create your own custom vehicles. With Transoft's well-established, validated algorithms, you can trust you are seeing the precise, true-to-life results of aircraft and vehicle maneuvers on the ground. In fact, manufacturers often use AviPLAN to test the capabilities of their equipment.

Features

What you see on screen is as close as it can get to real life because AviPLAN accurately reflects how aircraft and service vehicles move on the ground, and what can be achieved by a pilot, vehicle or bridge operator.

Choose from a library of aircraft and vehicles

Select from a comprehensive library of commercial, cargo and military airplanes, helicopters, VTOLs, pushback tractors, and ground service equipment (including catering trucks, luggage carts, conveyor belts, and so on), or create your own custom vehicle. AviPLAN Airside and Airside Pro also include a library of passenger boarding bridges.

Simulate aircraft and ground vehicle maneuvers

AviPLAN's reliable algorithms generate accurate movements and swept paths. Even complex maneuvers that require extreme turns, like those executed on a runway turn pad, can be precisely simulated. ICAO, FAA and EASA airplane classification and clearance regulations are built in to help you maintain required safety distances and clearances from runway to gate. Jet blast contours and impact surfaces for various engine thrust levels can also be clearly visualized.

Analyze aircraft pushback operations

Define new operational pushback procedures or verify existing ones by accurately portraying complex maneuvers using towbarless and tractor/towbar configurations.

Plan seamless aircraft loading and servicing

Model aircraft turnaround requirements utilizing manufacturer-specified or custom service vehicle arrangements to best manage the use of staging areas and service roads. Also design contact or remote parking positions with both AviPLAN Airside and AviPLAN Airside Pro.

The Leading Software Package for Airside Planning, Design and Operations
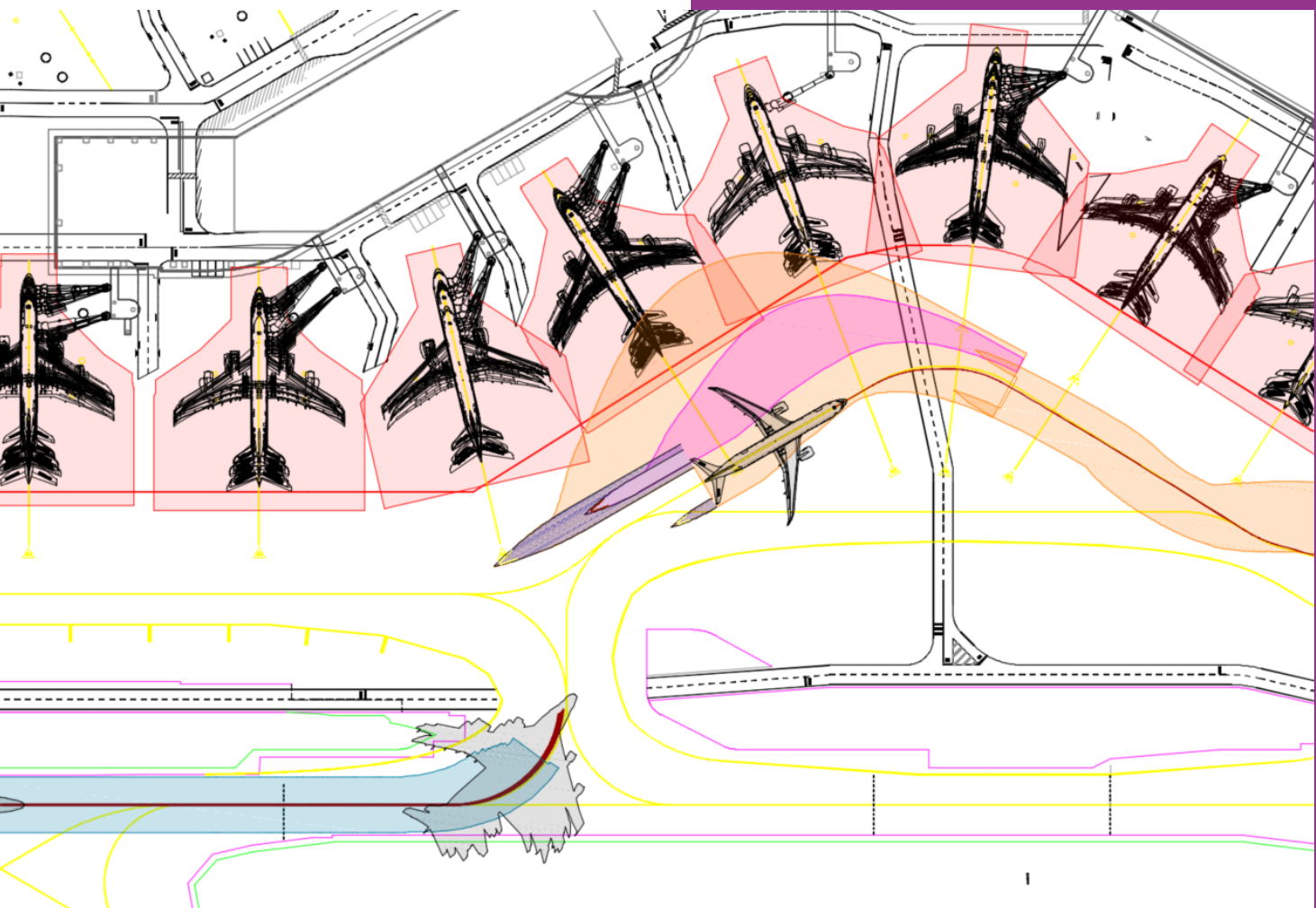
Platform & System Requirements

CAD Platform Compatibility (64 bit only):
This software is compatible with major CAD platforms;
Autodesk® AutoCAD®, Autodesk Civil 3D®, Bentley®
MicroStation®, Bentley OpenRoads Designer® and
Bricsys® BricsCAD®.

For platform and system requirements, including a list of
all supported versions, scan the QR code below and visit
the Product Compatibility page in our Support Help Desk.

Languages Available

English

Scan the code
to learn more