AUTOTURN™

The Leading Vehicle Swept Path Analysis and Turning Simulation Software

AutoTURN® is the vehicle swept path analysis software of choice for transportation engineers, architects, and planners worldwide.

TRANSOFT SOLUTIONS™

ABOUT TRANSOFT SOLUTIONS

Celebrating 25 years of providing innovative engineering software with extraordinary client services and support.

Transoft Solutions develops and supports innovative and timesaving CAD-based software for engineers, architects, and drafters for their civil and infrastructure design and planning needs.

Transoft's products have become the de facto standard of the departments of transportation of many state and national agencies throughout the world – a level of success that clearly makes us a worldwide leader in our field.

Our purpose as a software company is to provide transportation professionals with productivity-enhancing tools they can trust, giving them the confidence to build the safest and most efficient roads, ports, airports and rail systems. As we continue our journey towards becoming the world's leading provider of transportation engineering software, we are committed to maintaining the highest level of ethics and professionalism at every engagement. We will always be mindful of our people, offering them exciting work and an enjoyable workplace, and we will do our part to make the global community a better place to live in.

A GLOBAL PRESENCE TO SERVE YOU BEST

Our company, with headquarters in Richmond, British Columbia, Canada, is supported by an office in Rotterdam, Netherlands responsible for the Europe, Middle East, and Africa region; an office in Sydney, Australia servicing the Asia Pacific region; and with international agents located around the world.

OUR SUCCESS IS OUR CLIENTS

Trusted by 80% of top European engineering firms, in more than 120 countries worldwide, Transoft Solutions is fully committed to customer satisfaction. Our goal is to exceed client expectations in the products we deliver and in the sales and technical support we provide. We continually incorporate key user suggestions into the development of all software products. Our personalized sales and technical support ensure that client feedback gets into the product development process.

TRANSOFT SOLUTIONS PRODUCTS

Design Solutions For Transportation Infrastructure, & The Built Environment

VEHICLE SIMULATION

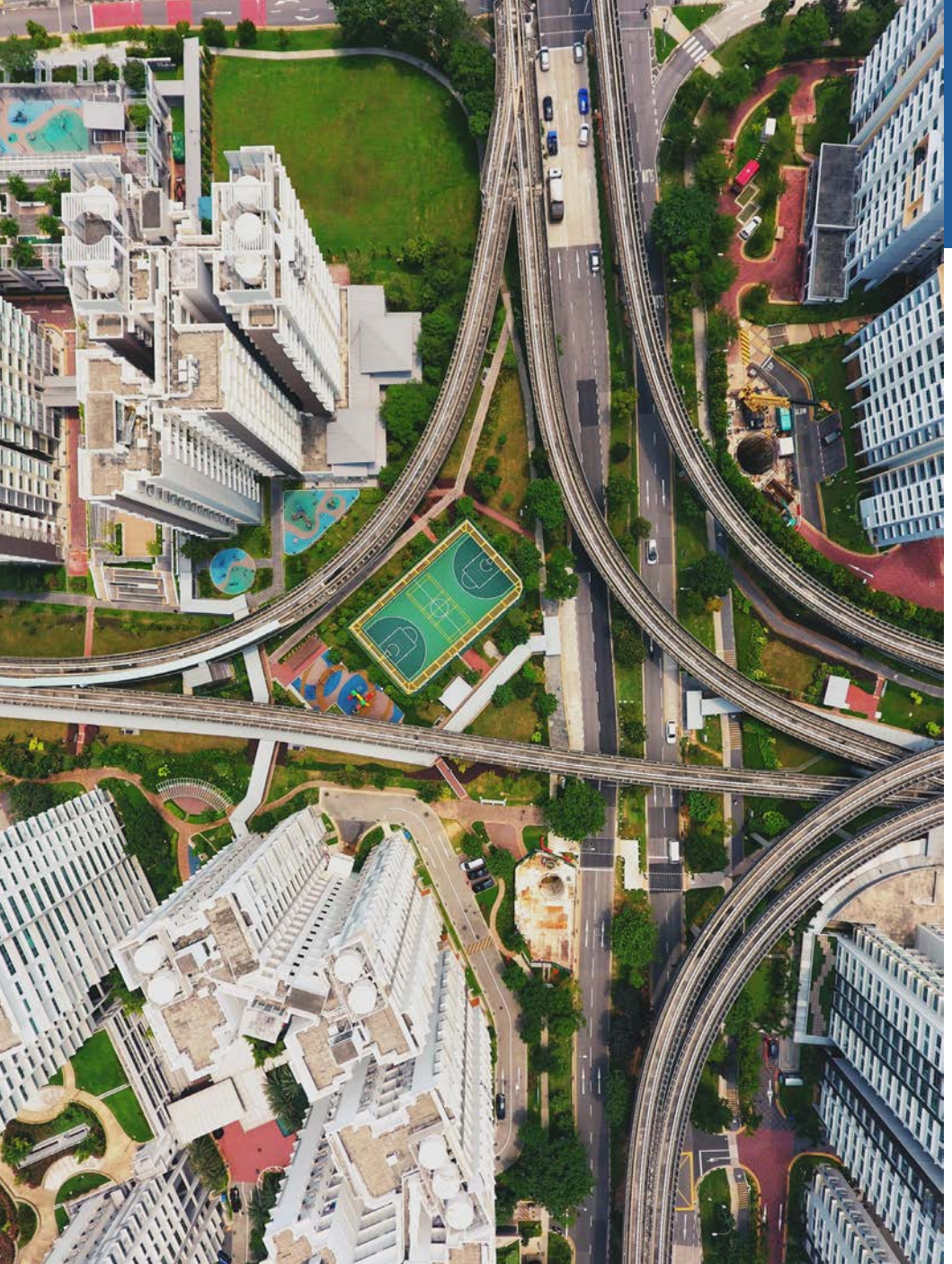
The largest selection of advanced swept path solutions to suit your design needs.

CIVIL & TRANSPORTATION

Easy to use, enhanced workflow software for engineering design challenges.

AIRPORT INFRASTRUCTURE

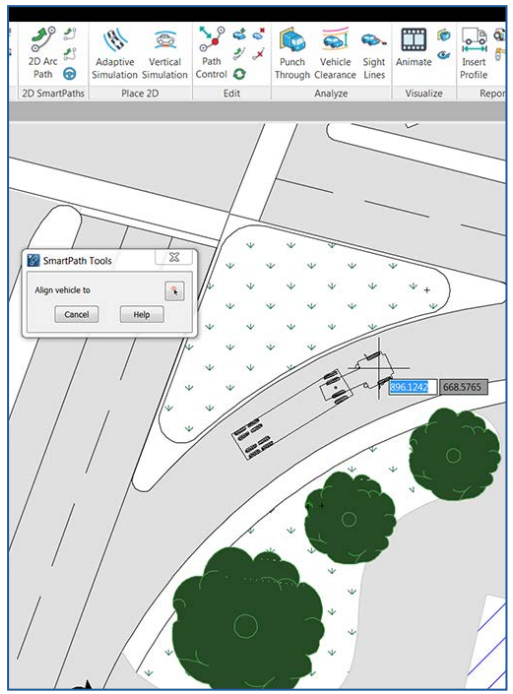
Software solutions tailored for airport planners, engineers, architects and operators.



WHAT IS AUTOTURN

Vehicle Swept Path Analysis & Turn Simulation

Engineers and designers are always looking for ways to save time. Multiple iterations of the same design cost time and money. The AutoTURN software line takes all the guesswork away and allows designers to explore more 'what-if scenarios' without adding extra design time. Conflicts are highlighted and corrected in a fraction of the time the manual process requires.



- Trusted throughout the engineering community, the AutoTURN name is synonymous with meticulously researched, high quality software.
- AutoTURN's 'heads up' design method together with its intuitive features means you're working much more efficiently.
- AutoTURN lets you evaluate different vehicle accessibility options in just minutes. And less time spent means lower project costs.
- We partner closely with the major developers of CAD platforms including: Autodesk®, Bentley® and Bricsys® to provide seamless integration.

INTRODUCING AUTOTURN FAMILY

A Wide Range Of Swept Path Solutions To Suit Your Design Needs

Transoft Solutions provides intuitive, practical, and cost effective solutions for the engineering, construction and architectural community. From CAD-based software that simplifies the design process to project support help and advanced training, our complete line of products and services cut expenses and expedite work processes. This is why thousands of clients in over 100 countries and 97% of the ENR's Top 100 AEC firms have chosen us for their civil, transportation, and infrastructure design requirements.

Positioning	AutoTURN Lite™	AutoTURN™	AutoTURN Pro™	AutoTURN Online™	AutoTURN Revit™	AutoTURN Rail™
Basic Swept Path Analysis - CAD	✓					
Standard Swept Path Analysis - CAD		✓				
Professional Swept Path Analysis - CAD			✓			
Basic Swept Path Analysis-Non-CAD or all other CAD				✓		
Basic Swept Path Analysis - Revit					✓	
Light Rail Swept Path Analysis - CAD						✓

AUTOTURN LITE™

Basic Vehicle Turn Simulation

AutoTURN Lite is a low-cost, entry-level vehicle turn simulation software for modeling basic maneuvers.

With a core feature set, AutoTURN Lite will have you up and running vehicle simulations quickly and easily without the need for extensive training. Creating basic vehicle maneuvers is a straightforward process in AutoTURN Lite – ideal for infrequent users and designers who do not wish to outsource their vehicle access work.

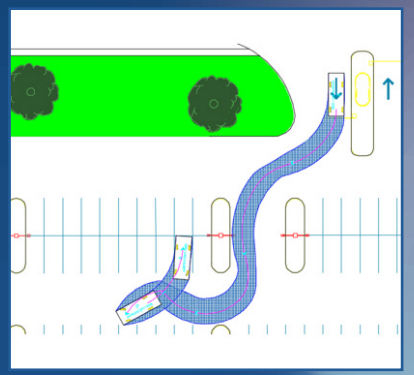
GUIDELINE BASED SWEPT PATH CHECK FOR SIMPLE PROJECT SCENARIOS

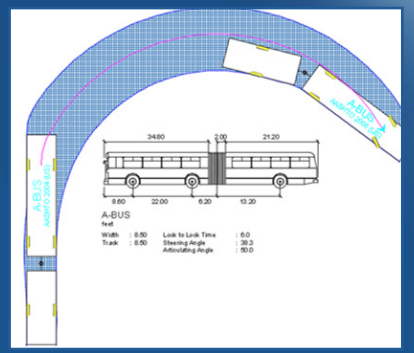
› Basic Simulation Tools
Turn simulations can be dynamically created (forward and reverse) by simply dragging your mouse from point to point. The Place simulation command lets you add a simulation to a path thanks to pre-drawn lines such as splines, lines, polylines, arcs and complex chains.

› Choose from ready-to-use vehicle libraries
AutoTURN Online offers a wide selection of guideline based standard vehicle libraries for numerous countries. Each library contains commonly used vehicles such as delivery trucks, buses and cars.

› Scalable vehicle libraries
AutoTURN Lite is standard shipped with two free national design vehicles libraries of your choice and a Transoft library of 4 commonly used vehicles.
Other vehicle libraries are available as add-on content through our webstore.

› More Features
- Reverse vehicle maneuvers using 1 part vehicles
- Insert Profile View
- More Features in AutoTURN and AutoTURN Pro





WATCH VIDEO

LEARN MORE

AUTOTURN™

The standard in swept path analysis

With over 30.000 users worldwide in more than 120 countries, **AutoTURN** is globally recognized as the de-facto standard for performing vehicle swept path analysis.

The program is used to confidently analyze road and site design projects including intersections, roundabouts, bus terminals, loading bays, parking lots or any on/off-street assignments involving vehicle access checks, clearances, and swept path maneuvers.

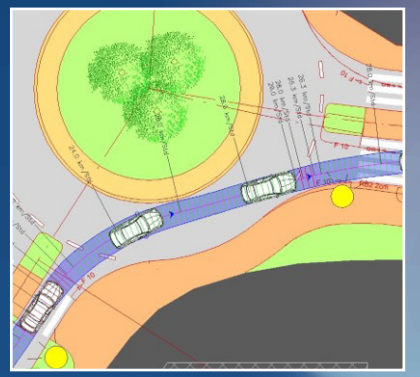
INCLUDES ALL FEATURES FROM AUTOTURN LITE, PLUS:

› Comprehensive Libraries
AutoTURN includes a large selection of national design vehicle standard libraries, including the latest guideline vehicles for UK, France, Netherlands, Germany, Norway, Sweden, Finland, Spain and many more countries.

› Powerful capabilities
AutoTURN allows you to go beyond swept paths checks. This feature-rich software provides tools to analyze vertical profiles, conflicts, sightlines and speed profiles. In addition there are a number of innovative features to simulate special transports.

› Enhanced Vehicle Creation
The vehicle creation interface allows you to easily configure custom vehicles by defining its dimensions, axles, wheels, trailers and steering types (i.e. rear steering). Vehicles can include loads and cargo shapes as a wind-blades or snow ploughs.

› More Features
- Field tested by Universities and special Transport companies
- Detach trailers
- Liftable axles
- Animation, Video export



WATCH VIDEO

LEARN MORE

AUTOTURN PRO™

Advanced turn simulation software

AutoTURN Pro AutoTURN® Pro is the state-of-the-art tool for performing swept path analysis. With the Swept Path 2.0 technology built-in, it takes the analysis to a whole new level from Path Automation to 3D Clearance Analysis. Incorporating the trusted AutoTURN engine together with the patent pending technologies for automating paths with IntelliPath and generating three-dimensional vehicle clearance envelopes – professional engineers, architects, and drafters can analyze their designs whether it is assessing the vehicle circulation or checking ground clearances.

INCLUDES ALL FEATURES FROM AUTOTURN, PLUS:

› 3D Swept path analysis
With the unique 3D swept path technology you can check ground and overhead clearances, and quickly identify possible issues with terrains, driveways, ramps or bridge crossings. The section of a 3D swept path will display in a different color indicating collisions with objects or terrain.

› 3D Sightline Analysis
AutoTURN Pro allows you to conduct 3D sight line analysis, based on the location of the driver's eye as well as object heights and stopping sight distances to check for potential vehicle conflicts with terrain obstructions.

› Vehicle Site Circulation
AutoTURN Pro features IntelliPath - the only swept path tool with artificial intelligence for automating vehicle path trajectories and for performing route analyses for vehicular circulation plans.

› More Features
- All features from AutoTURN Standard
- 3D realistic vehicle models
- Create cross sections
- Pitch and Roll angle check
- 3D Video creation
- Liftable axles

WATCH VIDEO

LEARN MORE

AUTOTURN ONLINE™

Vehicle Turn Simulation in the Cloud

AutoTURN Online is a full-cloud ~~CAD~~ software, allowing you to simulate vehicle turning paths online.

While the full desktop version of the software is available in CAD (e.g. AutoCAD, MicroStation, BricsCAD), this online version of AutoTURN provides the basic functions for performing vehicle turning analysis to customers without supported CAD platforms.

WORK ONLINE, IMPORT ANY DXF OR JPG TO CREATE A VEHICLE SWEPT PATH ANALYSIS

› No need for a supported CAD platform

Are you using AutoCAD LT, Vectorworks, ArchiCAD Dataflor, Pythagoras, NanoCAD or any other CAD System which don't offer a swept path solution? No problem, AutoTURN Online allows you to check your projects, without installing software – very easy.

› Choose from ready-to-use vehicle libraries

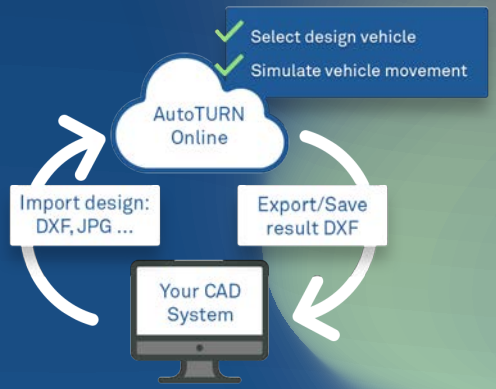
AutoTURN Online offers a wide selection of guideline based standard vehicle libraries for numerous countries. Each library contains commonly used vehicles such as delivery trucks, buses and cars.

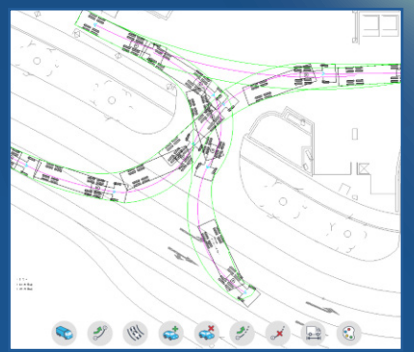
› Dynamic swept paths with reliable results

Quickly and easily create turn simulations, by dragging your mouse and clicking from point to point. And you can be confident in your results, as AutoTURN Online handles minimum turn curves, speed limitations, steering times and vehicle limits.

› More Features

- Import / Export DXF
- Import / Export JPG; PNG
- Analyze swept path with multiple vehicles
- Forward and Reverse maneuvers
- Export result to your CAD System to continue or save as end result.





LEARN MORE

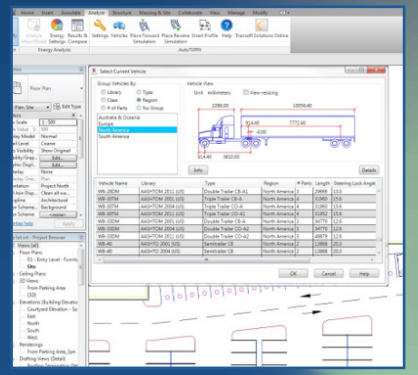
WEBSITE

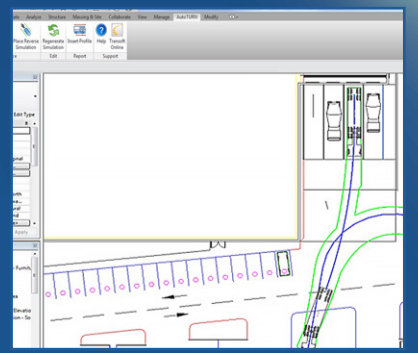
AUTOTURN REVIT™

Vehicle Swept Path Solution for Architects

AutoTURN® for Autodesk® **Revit®** delivers an easy-to-use swept path analysis tool for Revit users, allowing engineers, architects and other design professionals to perform simple turning maneuvers under the Revit environment.

Revit users have the AutoTURN intelligence, database and experience in turning capabilities and swept path analysis at their fingertips, enabling them to perform turning simulations and identify possible constraints or design limitations.





BASIC, GUIDELINE BASED SWEPT PATH CHECK WITHIN AUTOTURN FOR REVIT

› Model Complex Simulations
Use AutoTURN for Autodesk® Revit® to simulate the turning movements realistically within the user's site plan drawings. Select a design vehicle and determine if the swept path will conflict with elements within the site plan.

› Standard vehicle libraries
AutoTURN for Revit includes national standard vehicle libraries for numerous countries.
The Program Settings feature puts the controls at the user's fingertips so they can customize their view.

› Forward and Reverse
Simulate how the vehicle will behave as it navigates a turn reflected in the plan and shows the vehicle swept path and demonstrates the path where the wheels, centerline and frame take as the design vehicle completes the maneuver.

› More Features
- Work within Revit®
- Insert Profile view for better documentation

WATCH VIDEO

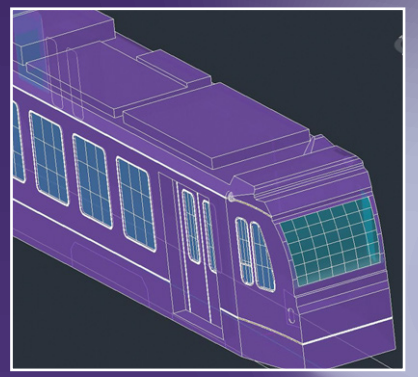
LEARN MORE

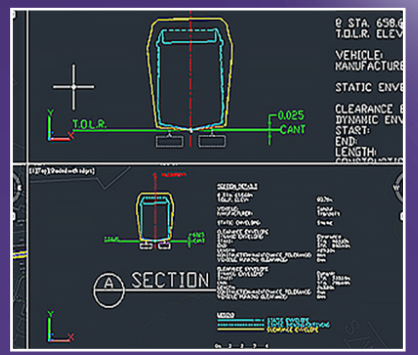
AUTOTURN RAIL™

Light rail transit design and analysis

AutoTURN Rail includes features for the planning and design phase that dramatically decrease design time and increase efficiency.

In addition, light rail designers can achieve safer designs with this productivity enhancing tool. Conflicts are highlighted and can be corrected in a fraction of the time the manual process requires.





INCORPORATING THE TRUSTED AUTOTURN® ENGINE

› 3D Light Rail Simulations
Simulate design vehicle movement on user prepared alignment (horizontal, profile, and cant) in 2D and in 3D that is sensitive to changes in elevation as well as cant/superelevation.

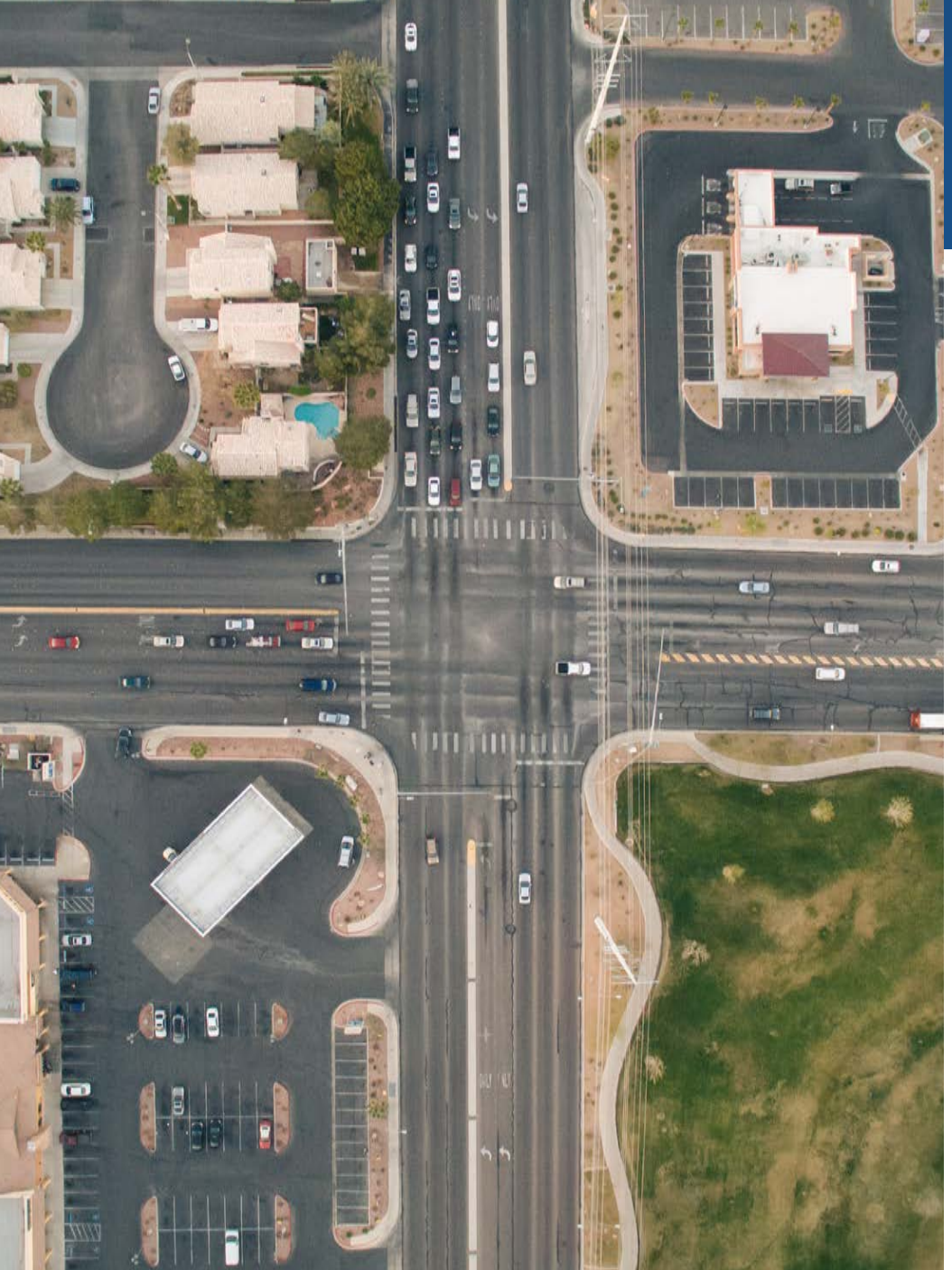
› 3D Structure Envelopes
Quickly generate structure envelopes that can account for tunnels, trenches, retained sections, overpass, buildings, and station platforms.

› Create Light Rail Vehicles
Recreate a project design vehicle that reflects manufacturer specifications in AutoTURN Rail. Attach manufacturer's static and dynamic envelopes, and any user defined vehicle envelopes.

› More Features
- Generate cross section views
- Create multiple 3D structure envelopes
- Set Tracking Points for doors or mirrors
- Create platform edges

LEARN MORE

WEBSITE



WHAT WE CAN OFFER YOU

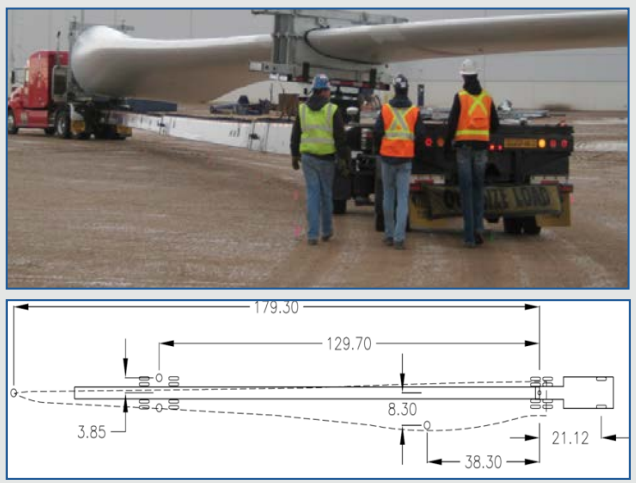
Experience And Expertise To Grow Your Business

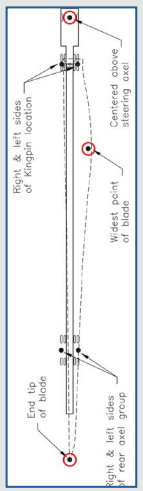
- **Flexible Licensing:**
  Standalone, Network, Subscription, Cloud-based
- **Multiple Platform Support:**
  Autodesk, Bentley, Bricsys, ZWSoft or general DXF
- **Training:**
  Online and Tailored by experienced instructors
- **Global Technical support:**
  98% customer satisfation
- **Project Support Services:**
  Expert assistance in vehicle customization

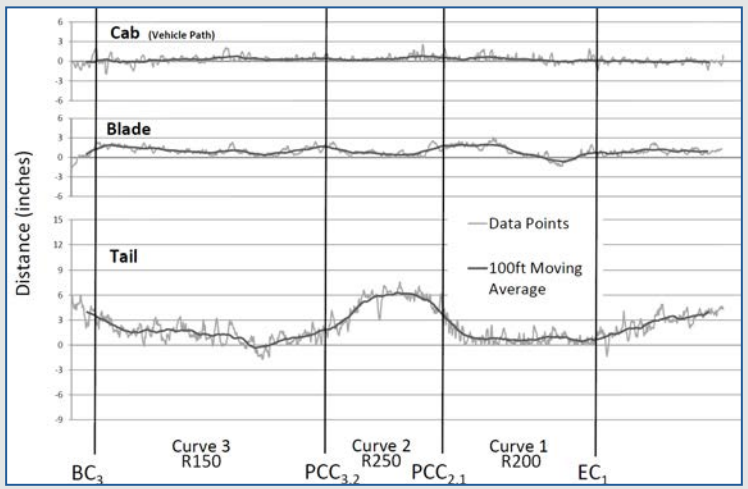
OUR COMMITMENT

Customer Satisfaction, Continuous Product Development, Personalized Sales/Technical Support

Comparison of Field Tests vs AUTOTURN Simulation







Key Tracking Points; Cab, Blade, Tail

95% of Distance less than		
Cab	Blade	Tail
3.5 cm	5.3 cm	17.8 cm

- **Software Quality**
  Continuously improving and developing new tools
- **Accurate Results**
  We perform field test to verify the accuracy of the turning characteristics produced by the program
- **Up-to-date Guidelines**
  Close collaboration with research agancies such as AASHTO (in North America) and CROW (The Netherlands)
- **25 Year of Development Expertise**
  Customer feedback

PRODUCT COMPARISON

Major Features – AutoTURN 10 product series

Vehicle Swept Path & Turn Simulations	AUTOTURN LITE™	AUTOTURN™	AUTOTURN PRO™
Simulate forward and reverse maneuvers dynamically using field tested algorithms	✓	✓	✓
Considers speed, super-elevation and friction coefficient and displays lateral acceleration	✓	✓	✓
Simulate a maneuver along a pre-drawn path	✓	✓	✓
Realistic plan view for selected vehicles	✓	✓	✓
Simulate reverse maneuvers for 1-part vehicles (e.g. car, bus)	✓	✓	✓
Simulate reverse maneuvers for 2-part and 3-part vehicles (e.g. truck with trailer)		✓	✓
Simulate a maneuver maintaining an offset from a pre-drawn path using advanced algorithms		✓	✓
Control a swept path simulation with dynamic grip editing and real-time dimension display		✓	✓
Define custom geometry (e.g. any 2D shape of a vehicle outline or tracking point)		✓	✓
Define any tracking points to analyze vertical clearances in a profile view		✓	✓
Sightlines and stopping sight distances along a path, horizontal or vertical alignment		✓	✓
Conflict analysis between simulation and geometry with real-time feedback		✓	✓
Simulate detached/parked trailer operation		✓	✓
Detect start position of the vehicle with the intelligent vehicle orientation		✓	✓
Simulate body articulated vehicles (e.g. articulated dump trucks, mining and construction vehicles)		✓	✓
Create custom vehicles with detailed definition vehicle dimensions, roof lines, underside clearances		✓	✓
Specialized vehicle transport library for wind turbine, beam, abnormal and oversized loads		✓	✓
Customize advanced rear steering linkage ratio for specialized transport		✓	✓

PRODUCT COMPARISON

Major Features – AutoTURN 10 product series

Vehicle Swept Path & Turn Simulations	AUTOTURN LITE™	AUTOTURN™	AUTOTURN PRO™
Manual rear steering modes: independent or linkage-based steering		✓	✓
Perform turning maneuvers for 2D telescoping trailers and logging trucks		✓	✓
3D vehicle envelope clearance analysis (i.e. overhead and terrain conflicts)			✓
Advanced automation of swept path simulation for vehicle or site circulation analysis			✓
Considers vehicle limits (yaw, pitch and roll) for simulating maneuvers in 3D			✓
Easy conversion of a basic 2D swept path simulation in AutoTURN to a 3D simulation			✓
Evaluate cross sections anywhere along a 3D swept path to visualize clearances to terrain			✓
Evaluate longitudinal section along vehicle path to visualize clearances to terrain			✓
Define custom geometry as 3D Load			✓
Import custom trailer body profile outline to analyze overhead and ground clearances			✓
Add any 3D tracking points for detailed analysis			✓
3D sightlines and stopping sight distance along a path, horizontal or vertical alignment			✓

Vehicles / Libraries	AUTOTURN LITE™	AUTOTURN™	AUTOTURN PRO™
EUROPE: UK | FR | GE | NL | DK | AUT | FI | NO | CH | CZ | IT | SE | IS | SL | HU | ES | RU	1 Library included	✓	✓
NORTH AMERICA: US | CA | ME; LATIN AMERICA: AR | BR | CL | CO | PE	1 Library included	✓	✓
AUSTRALIA: AU | NZ;	1 Library included	✓	✓

PRODUCT COMPARISON

Major Features – AutoTURN 10 product series

Vehicles / Libraries	AUTOTURN LITE™	AUTOTURN™	AUTOTURN PRO™
ASIA: HK | KH | KR | TW | VN | IN | ID | JP; AFRICA: SA; MIDDLE EAST: AE | IL	1 Library included	✓	✓
Includes assorted vehicle types (fire engine; sports utility; artic. buses)		✓	✓
3D enabled standard vehicles with height and ground clearances			✓
Support service to model custom vehicles		Add on	Add on

Display and Presentation Features	AUTOTURN LITE™	AUTOTURN™	AUTOTURN PRO™
Display inner, centerline, curb to curb, and wall to wall radius	✓	✓	✓
Display realistic vehicle plan views for presentation purposes	✓	✓	✓
Animate a simulation	✓	✓	✓
Export an AVI video of an animated simulation		✓	✓
Import and export layer settings		✓	✓
3D realistic vehicle models for presentation purposes			✓
3D camera positions for video export			✓
3D animation and video export			✓

PRODUCT COMPARISON

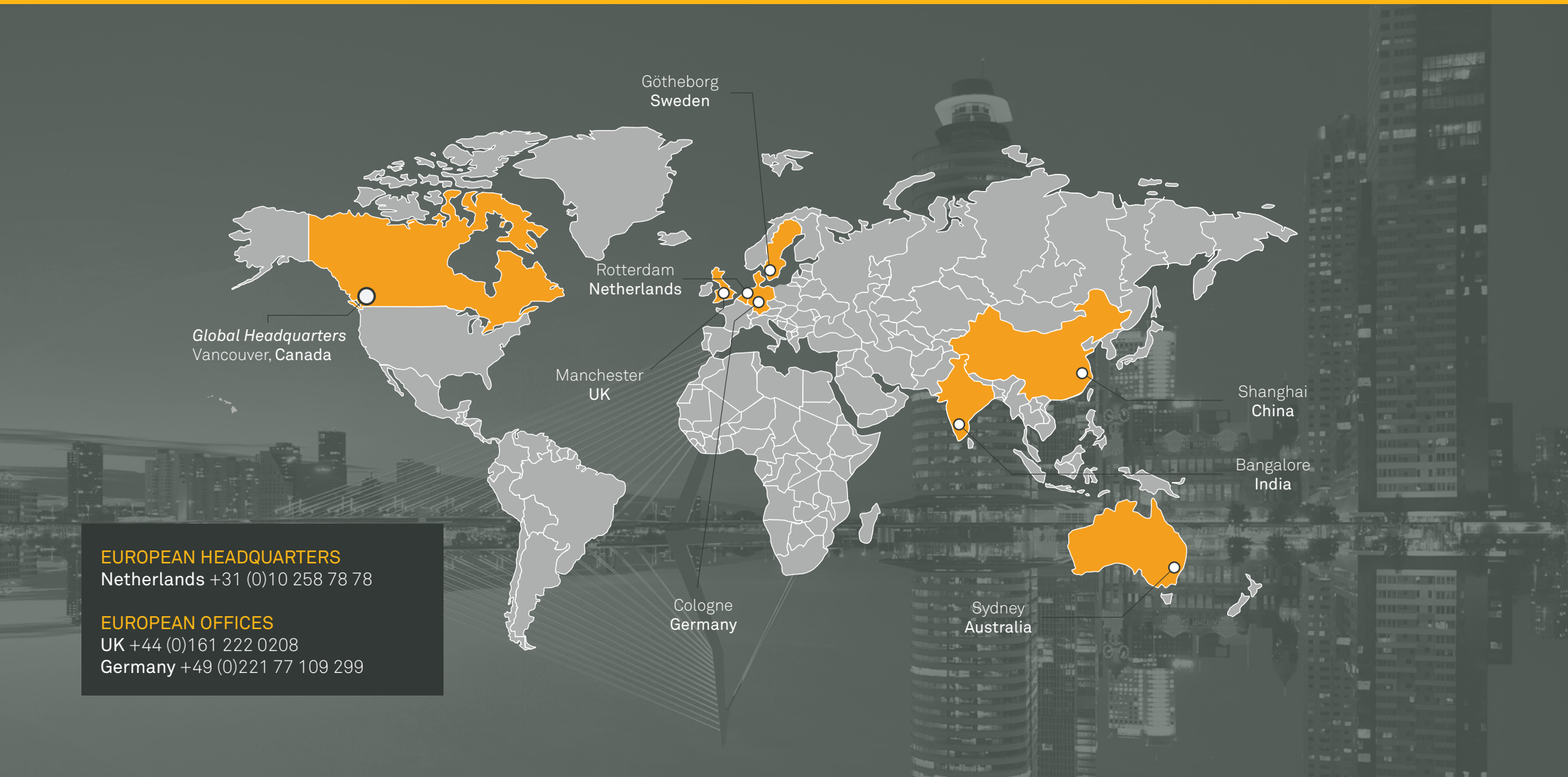
Major Features – AutoTURN 10 product series

Technology / Compatibility	AUTOTURN LITE™	AUTOTURN™	AUTOTURN PRO™
Autodesk® AutoCAD® 2010 – 2018 (except AutoCAD LT)	✓	✓	✓
Autodesk® AutoCAD® Civil 3D® 2010 – 2018 surfaces and alignments		✓	✓
Bentley® MicroStation® V8i, CONNECT®, PowerDraft V8i, PowerCivil V8i		✓	✓
Bentley® Power GEOPAK V8i, Power InRoads V8i		✓	✓
Bentley® AECOsim Building Designer V8i, CONNECT, OpenRoads Designer CONNECT		✓	✓
Bricsys® BricsCAD® (Pro and Platinum) V16 – V17		✓	✓
ZWSOFT® ZWCAD® 2017		✓	✓
Workstation: Windows® 7, 8, 8.1,10 (32, 64-bit)	✓	✓	✓
Network: Windows® Server 2008, 2012, 2016		✓	✓
Workstation Silent Install / Windows® Installer (MSI)		✓	✓
License server with user permissions and license checkout		✓	✓

License Options	AUTOTURN LITE™	AUTOTURN™	AUTOTURN PRO™
Perpetual License (Single User License)	✓	✓	✓
Network License (Site License)		✓	✓
Subscription License (1 Year rental)	✓	✓	✓
Zone License (for license conform regional / global usage)		✓	✓

TRANSOFT SOLUTIONS

Find Us Globally



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NOTES

Your local Transoft Solutions Partner:

TRANSOFT™
SOLUTIONS

DESIGN WITH CONFIDENCE

EUROPE / MID. EAST / AFRICA

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