



5¹

AutoTURN 5.1 is a comprehensive, practical, and extremely user-friendly CAD-based design tool used by transportation Engineers, Architects, and Civil Drafters/Designers to help assess vehicle maneuvers for all types of roadway, highway, and off-street projects ranging from intersections, roundabouts, loading bays, to parking facilities and more. This proven turn simulation software is relied up by thousands of engineers and architects in over 80 countries around the globe. And because AutoTURN incorporates guidelines for minimum turn radii, transition curves, super-elevation, and lateral friction from known standards such as AASHTO, **YOU CAN BE CONFIDENT IN ALL YOUR EVALUATIONS.**

With our latest version, we've upped the functionality to give you more flexibility for complex vehicle turning maneuvers. AutoTURN now has one-of-a-kind, sophisticated features such as vehicle **front and rear steering linkages**. Now specify different ratios for ranges of steering angles between front and back wheels for even greater usability - ideal to evaluate if your multi-axle semi-trailers, trucks and articulated buses are able to navigate narrow roadways, tight curb radiuses or intricate roundabouts. Together with new vehicle library additions and the ability to loop design animations for dynamic presentations, AutoTURN is sure to be your transportation design software of choice.

"HUNTING" FOR THE RIGHT SOLUTION

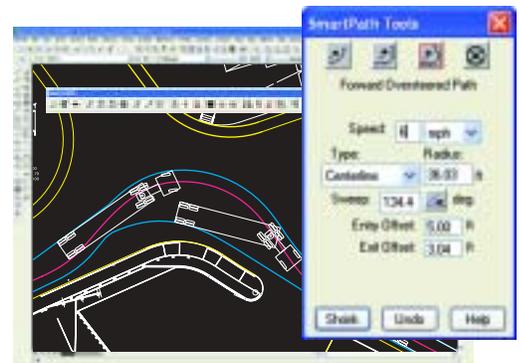
AutoTURN 5.1 introduces the concept called "hunting." The idea is simple: let the software find your solution for you. When you supply the basic parameters AutoTURN does the work. That means even less trial and error than ever before. The hunting concept operates within AutoTURN 5's three most powerful new features: the ability to automatically generate oversteer maneuvers, instant reverse corner simulations, and the ability create vehicle simulations offset from a travel way edge.

» **Oversteer Corner Path**, the newest SmartPath Tool, lets you evaluate articulated vehicle movements and tight turning conditions more realistically. As your vehicle approaches a corner, this tool steers the vehicle wide enough so the trailing unit does not encroach on curbs, pedestrian sidewalks, medians, other vehicles, etc. Simply set entry and exit offsets, "hunt" the desired sweep angle, and AutoTURN 5 automatically generates an oversteer simulation!

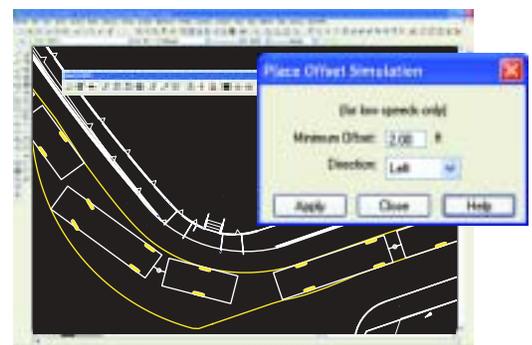


» Hunting for the desired turn angle is accomplished using the **Select Sweep Angle** function. This one-click supplementary tool allows you to automatically generate turning maneuvers by simply selecting any roadway element such as loading bays for reverse maneuvers, or edge of pavement for forward directions.

» AutoTURN 5 now features a new **Place Offset Simulation** tool to ensure that a vehicle can accommodate minimum required lateral clearance while turning at low speed. Simply select an offset distance and a roadway element such as a curb or edge of pavement, and the software automatically "hunts" and draws the optimal path for you maintaining a constant clearance from the selected roadway element.



» Speed based oversteer option gives realistic representation of how articulated vehicles negotiate turns. Eliminates need for judgmental oversteering.



» Create a vehicle path that maintains a minimum clearance from a roadway element (i.e. curb, barrier, paint line, edge of pavement, etc.).

**Need a better way to test vehicle
movements through a complicated design?**

THE WORLD'S MOST WIDELY USED VEHICLE TURN **SIMULATION** SOFTWARE



Take a closer look at some AutoTURN Features

AutoTURN represents the latest in cutting-edge technology for performing vehicle swept path analysis and is a superior alternative to antiquated and tedious manual turning templates. **SmartPath Tools**, the heart of the software, features four interactive drive modes which enable you to simulate forward and reverse vehicle turn maneuvers quickly and easily while incorporating the use of engineering algorithms that account for speed, super-elevation, lateral friction and turn radii.



»» **GENERATE ARC PATH**

Create turn simulations, such as through roundabouts, quickly and easily with this command by simply dragging your mouse and clicking from point to point.



»» **GENERATE OVERSTEER CORNER**

Offers you a more realistic representation of how a vehicle negotiates tight turning conditions, particularly useful for multi-part, articulated vehicles.



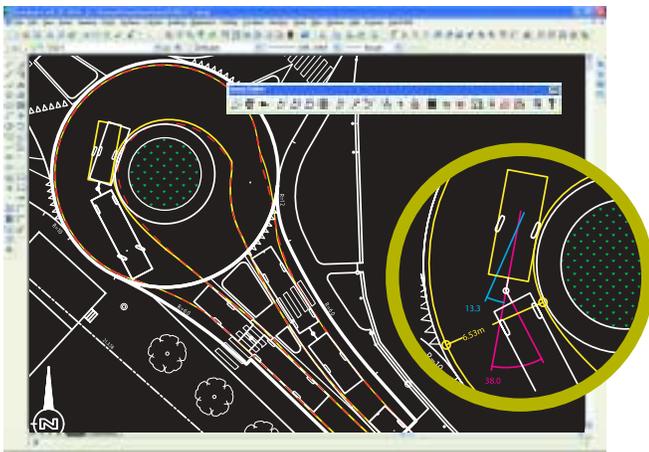
»» **GENERATE CORNER PATH**

Creates simulations using an entrance tangent, arc and exit tangent. You have the option to set the vehicle's radius and sweep angle or select sweep angle tool, perfect for intersection designs.



»» **STEER A PATH**

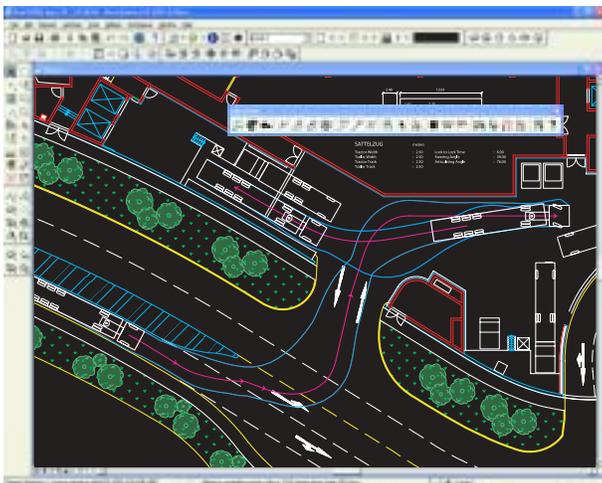
Steer A Path enables you to drive a vehicle with variability. This is useful for areas requiring finite movement such as with loading bays or parking lots.



»» Assess multiple vehicle turning simulations for complex roadway geometry.

«« **ASSESS VEHICLE MANEUVERS EASILY**

With AutoTURN 5.1, you can confidently check multiple vehicle turning simulations using different vehicles/vehicle configurations to ensure that they can be accommodated by your designs. Even complex turning situations (i.e. roundabouts) are easily evaluated using powerful features such as the Generate Oversteer Corner tool. With advanced capabilities, as in our new front and rear linkage steering feature, different ratios can be applied to various ranges of steering angles between the front and back wheels of single vehicles types or the articulation angles of multi-part vehicles. All this provides with you a more realistic representation of how a vehicle would handle tight turning conditions - extremely useful for articulated buses and trucks.



»» Powerful features make vehicle reverse maneuvers easier than ever.

«« **REALISTICALLY MODEL REAL WORLD SITUATIONS**

Using the unique abilities only found in AutoTURN 5.1, you're in the driver's seat for meeting design challenges head on. You can use the combination of powerful SmartPath tools (i.e. Generate Arc Path / Generate Corner Path: forward and reverse) in a single simulation to realistically model vehicle movements for site planning. Negotiate turns for tight entrances and aisle ways as well as confidently perform multi-part vehicle reverse maneuvers utilizing the Select Sweep Angle tool to set vehicle alignment to existing CAD geometry. Get it all in one user-friendly, cost-effective software package.

Trusted in over 80 countries world wide.

Want to evaluate complete turning maneuvers for an articulated vehicle?

» NEW AUTOTURN 5.1 FEATURES

- **NEW!** Front and rear steering linkages gives users the flexibility to use new front and rear steering vehicles with the ability to specify the linkage ratios between front and rear steering.
- Execute forward and reverse maneuvers in one seamless continuous motion
- Modify and edit drawn simulations using Path Control
- Place vehicle simulations on arcs, polylines, complex chains, or splines**
** using Place Vehicle command only
- Calculate steering lock angles for user-defined vehicles
- Add and analyze lateral clearances for vehicles and loads
- Create conical lines of sight to evaluate mirror views, blind spots or headlight paths

» OUTPUT CAPABILITIES

- **NEW!** Animations can be looped continuously for presentations and demonstrations
- Dynamic turn radius displays for instant read-outs
- Animation options include full-motion & frame-by-frame
- Run simultaneous vehicle animations
- Printable vehicle path data reports
- Save simulations in drawing or output folder
- Define maximum sweep area that a vehicle can negotiate
- Automatically save a new layer of your simulation within the CAD environment

» INTERFACE ADVANTAGES

- **NEW!** Improved and updated warning dialogs
- Simple and fast point-and-click commands
- Comprehensive on-screen help manual
- Interactive software tutorials

» VEHICLE OPTIONS

- **NEW!** Additional vehicle types
- **NEW!** Updated AASHTO 2004 & International standard vehicle libraries
- Apply vehicle dimensions & profiles

AUTOTURN 5.1 HIGHLIGHTS

- Front and rear steering linkages
- Intuitive "Hunting" concept
- Ability to simulate vehicle oversteering
- New tool for tracking offset vehicle paths
- Ability to create simulations on spline elements
- Create instant reverse corner simulations
- Flexible template generator capable of creating standard or user-defined turning templates
- Improved interfaces feature navigation panes and category breaks making it easier to find and set properties
- Sweep angle selector tool simplifies the selection of turn angles for forward and reverse maneuvers
- Comprehensive swept path envelope hatching options for enhanced presentations
- Improved layer management gives users the option to place simulations on current layer, a specific layer, or a new layer altogether
- Calculator to determine user-defined vehicle steering lock angles
- Vehicle security permissions allow administrators to apply limits to the level of vehicle customization

» COMPREHENSIVE VEHICLE LIBRARY

- **NEW!** Four new vehicle libraries
- Expanded standard and specialized vehicle libraries for: US (AASHTO 2004), Caltrans 2005, Canada (TAC), Austroads, New Zealand, UK: DETR DB32, France, Germany: RAS-K-EAE, FGSV, Netherlands: CROW, ROA, Danish: DANSK.
- **NEW!** Updates to existing vehicle types
- New vehicle types include London taxi, double-decker bus, ambulance truck, ambulance van, and limousine
- Create and add user-defined vehicles or vehicle types

» COMPATIBILITY

- AutoCAD[®] 2000, 2000i, 2002, 2004, 2005, 2006, 2007
- MicroStation[®] v8.1, v8.5, XM
- System requirements: Windows[®] 2000, XP, 2003 Server

For more information on AutoTURN
visit our website at

www.transoftsolutions.com



USERS FROM ALL OVER THE WORLD AGREE ABOUT AUTOTURN.....

"AutoTURN is advantageous because the user can see directly what he is doing in his CAD-program."

"The steering of the vehicles is very easy to perform."

Tute - Bau GmbH & Co. KG, Wunstorf, Germany

"I was impressed with the new features and asked several people to watch me demonstrate some commands on their sites. Everyone was impressed."

Kimley Horn, USA

"AutoTURN is the best model we are aware of to determine the off tracking characteristics of vehicles on turns of various radii and central angles."

CALTRANS, California, USA

"The ability to construct paths by moving the vehicle (SmartPath "Generate Path" Tool) was most useful to me and it worked well. This tool is intuitive in use and I believe will allow me to do the same work faster."

Louisiana DOT, USA

"When we do planning with AutoTURN, we benefit from the flexibility and user-friendly handling of the program. We can easily modify our turning curves with the feature "path control" and we can easily delete the last section of our swept path and continue without having to start all over again."

Ingenieurgruppe IVV GmbH & Co. KG, Aachen, Germany

"Every time that I design a road and when it requires having the best design possible, AutoTURN is always one of my tools."

John Kocan, SNC-Lavalin, Canada

"It saves a lot of time not having to draw and redraw the placement of your polyline which is needed to create a path."

Carter & Burgess, USA

HOW TO CONTACT US

NORTH AMERICA - HEAD OFFICE

1.888.244.8387 (Toll Free Canada and US only)
Telephone 1.604.244.8387
Fax 1.604.244.1770
info@transoftsolutions.com

EUROPEAN OFFICE - NETHERLANDS

Telephone +31 10 235 51 37
Fax +31 10 235 51 38
infoEU@transoftsolutions.com

INTERNATIONAL CONTACT

Telephone 1.604.244.3824
Fax 1.604.244.1770
infoINT@transoftsolutions.com

AUSTRALIA CONTACT

1.800.107.106 (Toll Free Australia only)
Telephone +61 2 9420 0331
Fax +61 2 9420 0332
infoAUS@transoftsolutions.com



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.

Get your designs right the first time with AutoTURN.