

Swept Path Analysis

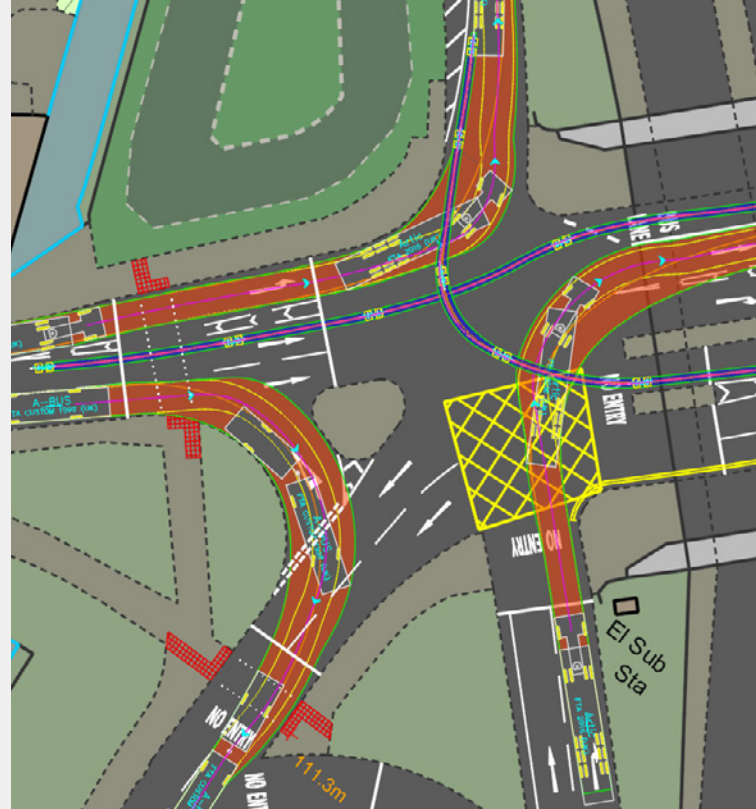
Intuitive and accurate swept path analysis software

Model, Visualise and Analyse Vehicle Paths

Experience the precision of the most comprehensive swept path analysis and turning simulation software designed to meticulously check your site layouts, access roads, intersection safety, loading docks and road designs.

Ensure all types of vehicles can drive safely and efficiently, from bicycles and cars to buses, trucks and heavy-haul industrial transport vehicles. You can quickly test multiple manoeuvres and be confident that your results are accurate and highly realistic. Across the globe, municipalities, cities, and top AEC firms turn to AutoTURN to ensure accuracy and reliability in their design projects.

Our patented technology allows you to automate processes, saving you time and increasing productivity. AutoTURN's enhanced review, presentation and reporting features expedite project approval and elevate the value of your work.



Discover the best design and model complex scenarios

Manually 'drive' a standard design guideline vehicle or a manufacturer-specific vehicle of your choice while controlling the speed, superelevation, lateral friction and turn radius using AutoTURN's SmartPath tools. The software will compute the space requirements and display the results so you can focus on your design's important safety and operational aspects.

Quickly create simulations and check multiple manoeuvres for all vehicles accessing the site or see if your intersection and turning lanes can accommodate your design vehicles simultaneously. Generate accurate and efficient simulations when testing your designs with vehicles with larger steering lock angles (smaller turning circles), eliminating the risks of over-design and costly rework.



Solve multiple possible drive paths

Automatically solve possible drive paths based on the available space and the desired speed with the IntelliPath® feature. It calculates the maximum allowable speeds for specific turns based on the vehicle type and available space for turning. IntelliPath® enables time-saving and informed decision-making, boosting productivity and reducing human errors. Great for scenarios such as traffic calming and site circulation analysis. Eliminate the challenges of modelling vehicles with varying steering capabilities manually.

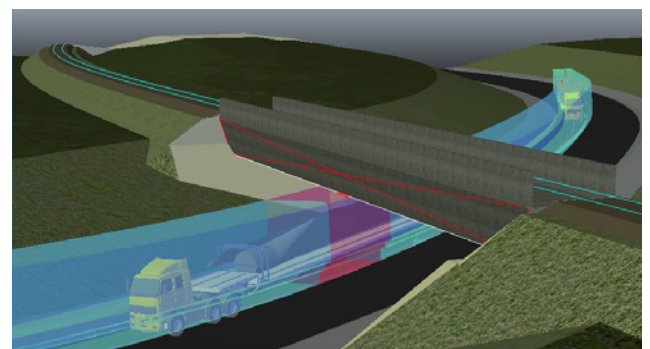


Simulate bicycle movements for a more inclusive urban design

Our innovative bicycle turning simulation tool, developed in collaboration with Sustrans, custodians of the UK National Cycle Network, empowers transportation planners and engineers to create safe and inclusive road designs.

Adopt sound, inclusive urban design principles that prioritise active transportation to create safer and more accessible neighbourhoods. Just like motor vehicles, bicycles have their own turning radius, and as the speed increases, so will the swept path of these bicycles.

Validate your design effortlessly simulate these movements and the turning requirements of various cycle types, including typical bicycles, bikes with trailers, scooters and more. Ensure your on-street and off-street design projects provide enough space to safely accommodate all the bikes since good traffic flow for cyclists plays an important role when designing bicycle infrastructure.





Visualise the impact in 3D

Prevent costly damages to vehicles and infrastructure using AutoTURN Pro's 3D Clearance Analysis tool during design. By incorporating terrain elevation, overhead obstacle, and vehicle clearance data in the project drawing, issues not anticipated in designing in a 2D plane are now detected in the 3D space and can be resolved faster. This patented technology simulates the 3D vehicle envelope and analyses multiple design layers to detect potential conflicts with lateral, ground and overhead structures.



Review your results with quality diagnostic tools

The automated tools ensure your design aligns with the local transportation agencies' guidelines and safety requirements. Conduct informed reviews of simulations with the Inspect Simulation tool, which allows you to check any manually produced simulations to ensure key parameters, such as steering angle, speed, and proximity to vehicles or objects, meet design criteria. The visualisation tools generate a conceptual 3D rendering of your road or site design, illustrating how vehicles will use the designed infrastructure to stakeholders and clients faster and more effectively. Additionally, you can produce detailed reports, allowing peers and other stakeholders to conduct reviews and provide quicker approval for your design.



Test your design with a vast array of vehicles

In addition to using the vast catalogue of vehicles, you can now test designs with various new speciality manufacturers' vehicles such as forklifts, limousines, construction cranes, fire trucks, and tanker trailers. Standard vehicle libraries have been updated to meet the latest design guidelines in multiple countries. With over 900 manufacturer-specific vehicles, quickly search by library name and apply filters to refine results or set custom vehicle groups that match your country or local area design guidelines.



Design safe infrastructure with sightlines

Ensure drivers have enough time to notice and react to potential conflicts on the road by utilising AutoTURN's sightline checks, stopping sight distance evaluation and object heights analysis. AutoTURN's 2D and 3D (horizontal and vertical alignments) analyses can help identify blind spots or sight failure zones that may be compromised by obstructed sightlines at intersections, bends in the road, terrain obstructions, and others alike.

Choose the
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according to
your needs

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Best for:

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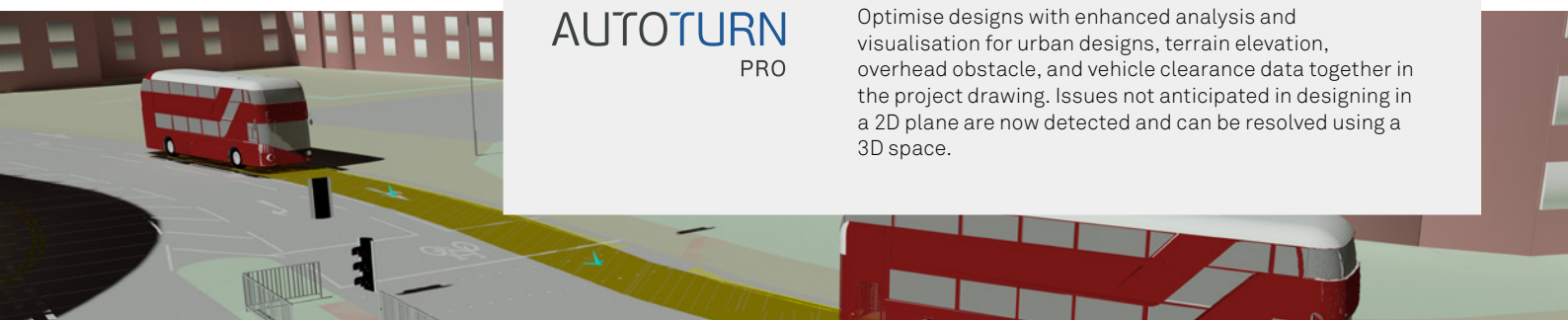
Basic Vehicle Path Simulation

Confidently analyse road and site design projects including intersections, roundabouts, bus terminals, loading bays, car parks or any on/off-street assignments involving vehicle access checks, clearances, and swept path maneuvers.

AUTOTURN
PRO

Design for all Users & in a 3D Environment

Optimise designs with enhanced analysis and visualisation for urban designs, terrain elevation, overhead obstacle, and vehicle clearance data together in the project drawing. Issues not anticipated in designing in a 2D plane are now detected and can be resolved using a 3D space.



Vehicle Libraries

- Over 1.000 standard design vehicles according to national guidelines.
- Europe, Middle East and Africa** – Austria | Bahrain | Czech Republic | Denmark | Finland | France | Germany | Hungary | Iceland | Ireland | Israel | Italy | Netherlands | Norway | Poland | Russia | South Africa | Slovakia | Slovenia | Spain | Sweden | Switzerland | UAE | UK
- Hundreds of additional vehicles based on manufacturer specifications in categories like city vehicles, fire & rescue, agriculture, refuse collection, buses, construction and many more.
- Variety of bicycle types, like cargo bikes, mopeds, bicycles with trailers and tricycles.
- Specialised libraries for heavy transport, eco combis and EMS configurations

Platform & System Requirements

CAD Platform Compatibility
(64 bit, except Bentley V8i series):

This software is compatible with major CAD platforms, including Autodesk® AutoCAD®, Autodesk® Civil 3D®, Bentley® MicroStation®, Bentley® OpenRoads Designer, Bricsys® BricsCAD® Pro.

For details on platform and system requirements, including the list of all supported versions, please visit the product compatibility section using the QR code below.

Languages Available

English, French, German, Spanish, Italian, Czech, Chinese.

