



Autopath

by **CGS plus**

Vehicle Swept Path
Analysis Software



AUTODESK
AUTOCAD CIVIL 3D
Compatible



AUTODESK
AUTOCAD
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AUTODESK
AUTOCAD MAP 3D
Compatible



DEVELOPED FOR



Version 2017

Autopath 2017

Vehicle Swept Path Analysis Software

Easy to use and capable of allowing users to be up-and-running within minutes, Autopath is a professional software for vehicle swept path analysis that is favoured by civil engineers, transportation professionals, architects, and planners for projects of all varieties and scale.

Autopath is also the ideal platform for projects that require users to maneuver around stationary objects, such as intersections, roundabouts, parking lots, airports, loading bays, construction sites, and more. However, Autopath is not limited to cars, trucks, trailers, and airplanes, as you can use the software to create your own library of non-standard vehicles, like construction equipment, farm equipment, and more.

Bottom line, Autopath is not only engineered to meet all necessary market requirements and eliminate any unnecessary complexity, it is also available at an affordable price without compromising functionality, or reliability.

Autopath features

- Dynamic horizontal and vertical analysis
- The ability to fully account for vehicle speed and recommended steering rates in both forward, and reverse vehicle turn maneuvers
- Forward and reverse turn prediction
- Easy Drive, a fast interactive method of defining the vehicle path in forward and reverse direction
- Realistic vehicle movement simulation, with the ability to control vehicle speed and steering
- Swept path analysis of vehicles with multiple trailers
- Support for custom and/or special transport vehicles with multiple axles and turning wheel definitions
- Support for all types of vehicles, including EuroCombi trucks, articulated buses, forklifts, and harvesters
- AASHTO 2004, which is a 2011 library featuring specifically designed vehicles and trailers
- Easy-to-use tools to create new vehicles and trailers as needed, or modify existing ones
- The ability to create dynamic swept path analysis results and reports

Used for	Vehicle Swept Path Analysis and Vehicle Turn Simulation on intersections, roundabouts, parking lots, airports, transportation projects, loading bays, warehouses, and/or construction sites
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Supported CAD platforms	AutoCAD, AutoCAD Civil 3D, AutoCAD Map 3D 2017 to 2013; BricsCAD V16 to V13
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Supported languages	English, German, Russian, Portuguese, Italian, Polish, Czech, Hungarian, Turkish, Slovenian
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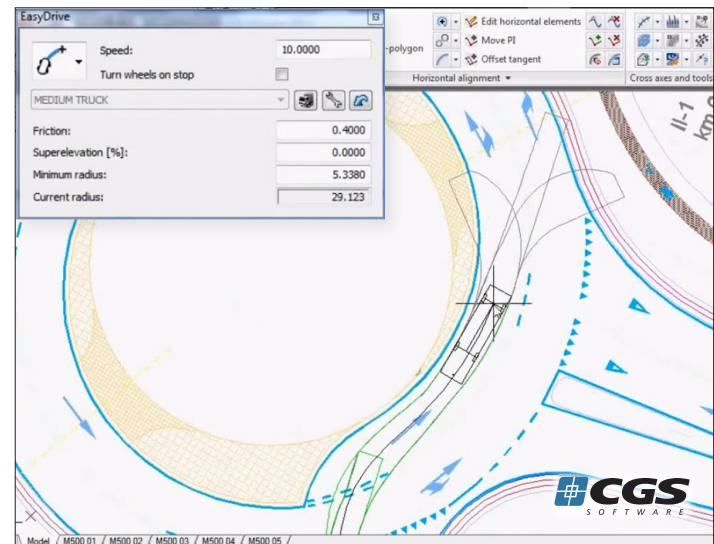
Included Standards	USA (AASHTO), Germany (FGSV2001), Sweden, Norway, Australia, New Zealand
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Product Internet page	www.autopath-software.com www.cgsplus.com
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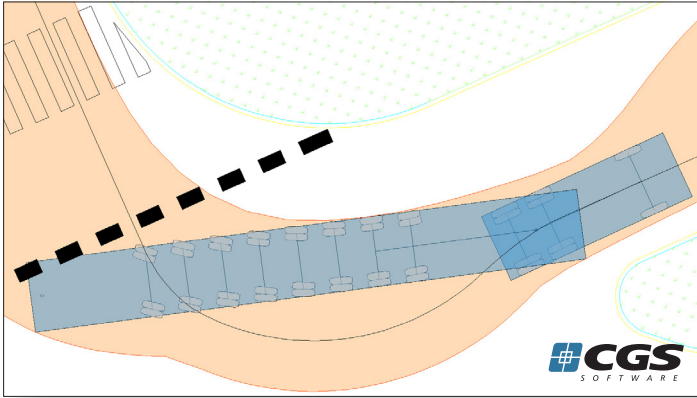
Included standards

Autopath supports many local standards, including:

- USA (AASHTO)
- Germany (FGSV2001)
- Sweden
- Australia
- New Zealand



Example of roundabout transportability evaluation



Support for custom and/or special transport vehicles with multiple axles and turning wheel definitions

Ease of use

Given its ease of use, Autopath users are up-and-running in a matter of minutes and should not require any additional training.

Easy Drive

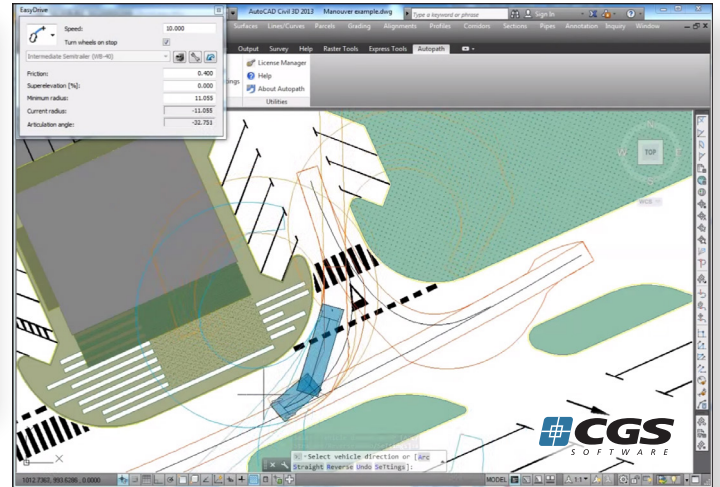
Easy Drive is an interactive method of defining a vehicle's path. Besides an easy input feature, this tool includes realistic simulations thanks to the parameters it considers, such as vehicle speed, wheel turning speed, and the super elevation of the road.

Predictive turning technology

Forward and reverse turn predictions can be developed by using Easy Drive, which, in turn, helps users precisely predict a vehicle's movement, especially where a path is narrowed by obstacles.

Dynamic editing of vehicle path

By moving the path grips, a vehicle's path can be easily (and intuitively)



Example of forward and reverse turn prediction of truck with single trailer for purpose of truck parking terminal evaluation

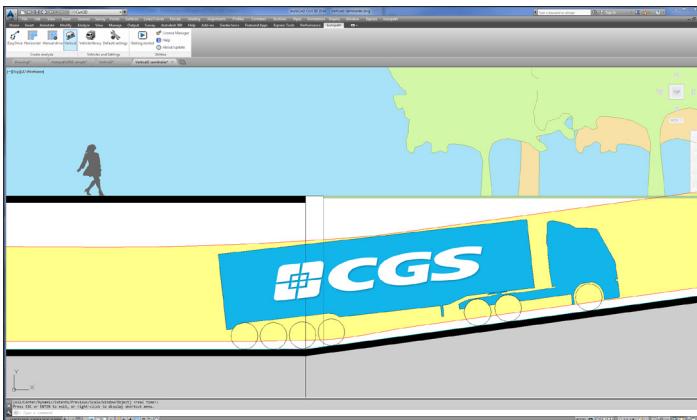
controlled. Doing this allows users to easily fine-tune vehicle pathways and see whether, or not a vehicle will be able to pass through a given set of constraints.

Vertical Clearance

Vertical clearance is used to check a vehicle's clearance in places like parking garages, bridges, and more – all while taking into account (and realistically displaying) every wheel.

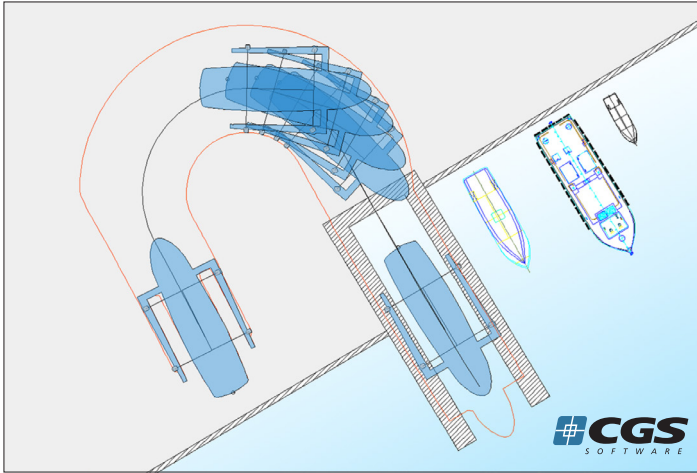
Various Driving methods

You can define a vehicle path in a variety of ways. In addition to Easy Drive (the interactive method), a vehicle can also follow a Civil 3D alignment, or even a polyline. You can then select whether the front, or rear vehicle axis will follow a given path.



Autopath vertical analysis enables easy evaluation of garage entrances, road overpasses ...





In some cases, the easiest way to define a vehicle path is by manual steering. This means the vehicle can be steered using either the mouse pointer, or keyboard.

You can also increase, or decrease vehicle speed and/or change the vehicle type at any given moment, as well as have the option to drive a vehicle in reverse to analyze parking and turning maneuvers.

Custom Vehicle Library

Users can create custom vehicles thanks to an easy-to-use interface. Included in the software are a variety of vehicle libraries, such as AASHTO and others that consist of airplanes, trucks, trailers, and cars ... and there is no extra cost for additional vehicles.

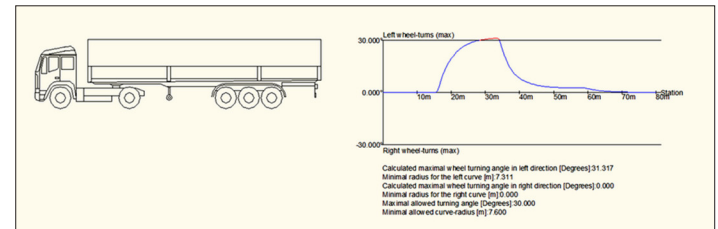
Graphical representation of the analysis results

Users can graphically show the results of any analysis using different reports and/or graphics.

For example, you can draw the vehicle's outer edges and tire and axis trails, in addition to hatching the swept path areas and graphing the vehicle tire angle to accurately show the steering of the vehicle along a given path.

Proven algorithms

All calculations done in Autopath are based on algorithms found in Plateia, a CGS plus software used by road design professionals worldwide. Autopath also regularly conducts intensive, GPS vehicle movement analysis on both standard, and special vehicles to provide the most accurate algorithms in the industry.



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