

# PERFORMANCE HIGHLIGHTS

## ALLPLAN ENVIRONMENT

Allplan Environment is directed at architects, city planners and landscape architects as well as civil engineers. In combination with Allplan Architecture or Allplan Engineering, building construction and civil engineering works can be efficiently planned while taking into account the real terrain, the urban development environment and the surrounding road network.

### DIGITAL TERRAIN MODEL

Allplan Environment enables you to create digital terrain models easily and map them realistically. A digital terrain model is the basis for designs, layouts, earthworks quantities and their visualization. Point coordinates, which you can import and export in a variety of formats (e.g. REB, ASCII, LandXML), form the basis for this. The use of UTM- and Gauss-Krüger coordinates is also possible. The digital terrain model also takes account of exterior boundaries, break lines and recesses. Slopes can be generated with constant or variable inclines. Mapping is carried out using either triangular meshing or contours, whereby elevations and contours are automatically labeled. You can generate longitudinal and transverse profiles along any routes. Verifiable embankment and excavation calculations are also possible – including against horizons.

### ATTRACTIVE SITE PLANS

You can use Allplan's powerful layout and design tools to create layouts for civil and structural engineering, urban planning, and landscaping and road construction. As a result, you can create plans with hatching, pattern lines, color gradients and transparencies incorporating bitmaps and persuasive visualizations. You can even store scanned documents and aerial photos and adapt these perfectly via three-point realignment.

### URBAN PLANNING AND ROOM PLANNING

You can create zoning and master plans with the functions for urban planning and room planning. You can create volumetric models from plots and intelligent building structures, which support various roof forms and show your spacing areas. You can use this to determine base and floor area factors or building volume.

### LANDSCAPING

To design public spaces, green areas and gardens, you create plant keys placing plants in many different ways and using route and tree plans. Plant legends and quantities can be derived from these.

### ROAD DESIGN

Clothoids and functions for efficient stationing and labeling are available for route mappings in road construction. Layouts with gradients, as well as torsion traces and transverse slope traces can be derived from the digital terrain model.

## **BRIDGE AND CIVIL ENGINEERING**

A special bridge and civil engineering module is available for the design of bridges, tunnels, supporting structures, ramps, dams and channels. A three-dimensional curve is first generated from the site plan, which can be assigned any cross-sections, taking account of the transverse slope. This produces a complex three-dimensional model, which can be used as the reliable basis for the design and of reinforced concrete.

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## **TRAFFIC CIRCLE DESIGN**

Allplan Environment also helps you to manage traffic circles easily. The basic geometry of the traffic circle is generated from just a few parameters such as type, roadway width, radiuses and position of the arms.

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## **REALISTIC ROUTE SIMULATIONS**

A special tractrix curve tool is available so that you can test the feasibility of traffic circles, intersections, road openings and delivery zones. This enables you to perform realistic route simulations for different cars, trucks and buses in critical situations.

Current system requirements can be found at [allplan.com/info/sysinfo](http://allplan.com/info/sysinfo)

