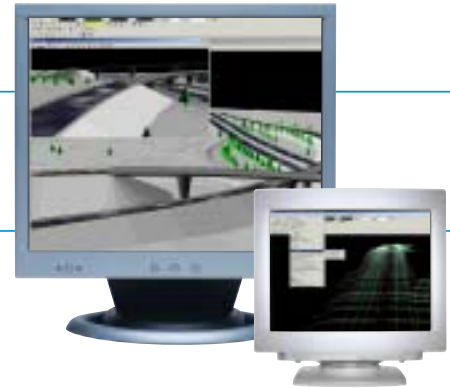


▶ CAiCE™ Visual Roads® 10

autodesk®



Powerful Transportation Design

CAiCE™ Visual Roads® 10 software helps you create design models for all types of transportation projects, including simple roads, complex highways and interchanges, airport runways, canals, and dikes. User-defined restraints for roadway design make CAiCE Visual Roads software completely customizable to any level of detail. Used by government agencies and civil engineering companies across North America, CAiCE Visual Roads software provides robust engineering capabilities that support every phase of the transportation design process.



The powerful CAiCE Visual Roads visualization tools make problem areas and conflicts easy to spot, and you can instantly see the results of modifications.

Adaptable

You can completely customize CAiCE Visual Roads to support your local design standards. User-defined restraints lend flexibility to both simple and complex road designs, so you can modify alignment design constraints, superelevation specifications, profile constraints, and cross section details more efficiently. You can even plug in CAiCE fragments, which are ready-made components such as raised or depressed medians, travel lanes, and catch slopes. Plus you can develop or change alignments and profiles quickly, so it's easy to try out alternative designs.

Interactive

Creating alignments, profiles, superelevation specifications, and design models is a completely interactive process. The design utilities provided by CAiCE Visual Roads include built-in, user-definable design tools that automate the process of meeting design requirements, such as minimum radius and spiral length, superelevation application, and sight distance on vertical curves.

Intelligent

Robust and easy-to-use earthwork computation capabilities help you classify and compute volumes for different material types. You can use the Horizontal Alignment Editor to create or modify alignments using any combination of numerical input and onscreen graphical digitizing. You can access user-definable tables that define minimum curve radii, spirals, and vertical curve lengths based on the design speed. The features combined in CAiCE Visual Roads help you meet all the challenges of roadway design.

CAiCE Visual Roads 10

Digital Terrain Modeling (DTM)

- Work with large data sets.
- Construct cross sections.
- Tag obscured areas.
- Detect and resolve breakline crossings.
- Compute freehand cross sections and profiles.
- Perform 3D site design, including building pads, retention basins, and interchanges.
- Display surface slopes, water flow directions, and catchment areas.

Geometric Layout

- Create interactive horizontal and vertical alignment.
- Define edges of pavements, intersection geometry, compound curves, and spirals.
- Automate design checks.
- Compute best-fit alignment to surveyed points.

Profile Definition

- Define profiles with graphical and numerical input.
- Check sight distance criteria and overlaps.
- Compute best-fit profile to surveyed points.

Cross Section Design

- Define proposed cross sections with customizable fragment libraries.
- Define rehabilitation criteria and methodology.
- Design multiple alignments and roadways simultaneously.

Superelevation Definition

- Calculate multiple slope and shoulder superelevation.
- Work with automatic overlap resolution.
- Use customizable ASCII superelevation table files.

Earthwork Analysis

- Calculate volumes and generate reports.
- Define material exceptions.

Data Format Compatibility

Compatible with most data formats, such as AutoCAD® DWG (including 2004), DGN (including V8), DXF™, and LandXML.

Quantity Estimating

- Calculate pay-item quantities.
- Create reports and pay item tables.

Redesign

- Modify and rerun design files and run in batch mode.
- Use interactive template editor for design modifications.

Customization and Report Generation

- Integrated Microsoft® Visual Basic® for Applications (VBA) for customized macros.
- Use VBA to link your project database to other databases.

Visualization, Graphics, and Imaging

- Display realistic, real-time project renditions.
- Drape images onto surfaces, and view background files.
- Map images to real-world coordinates.
- Create AVI files for drivethroughs, design reviews, and client presentations.

Drafting/Plans Production

- Manipulate and label text.
- Annotate and plot plans, profiles, and cross sections.
- Draw line segments, line strings, and cells.

System Requirements

For system requirements, visit www.caice.com.

Companion Products and Services

Autodesk provides integrated consulting, training, and support to help you get the best return on your investment in Autodesk® technology.

The CAiCE Maintenance Program gives you complete technical support and access to the latest CAiCE software releases and enhancements, simplifying your software management and budgeting process. To learn more, contact your Autodesk Authorized Reseller.

Purchase or Learn More

To learn more about CAiCE Visual Roads, visit www.autodesk.com/caice. Purchase CAiCE Visual Roads through your Autodesk Authorized Reseller. To locate the reseller nearest you, visit www.autodesk.com/reseller.

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