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Questions and Answers

1. General Product Information

1.1 What is CAiCE Visual Survey?

CAiCE™ Visual Survey® 10 software is an object-based surveying tool with a graphical, interactive approach to importing, editing, and processing data. You can use it throughout the workflow to import raw data from any major data collector; process electronic survey data; define existing topographic and terrain data; and produce fast and easy digital terrain models (DTMs). CAiCE Visual Survey software also manages survey data editing efficiently from a common interface called the Observations Master (OBM) file. Offering field-tested processing techniques, the most advanced graphical editing tools available, precision DTM creation, and easy customization, CAiCE Visual Survey software helps you streamline the surveying process and increase productivity.

1.2 Who uses CAiCE Visual Survey?

Surveyors with consulting firms, county and municipal agencies, and departments of transportation (DOT) use CAiCE Visual Survey for projects of every type, including right of way, topographic, volumetric, and as-built surveys.

Department of transportation users include Florida DOT, Michigan DOT, Georgia DOT, Washington DOT, Caltrans, Texas DOT, Wisconsin DOT, and Arkansas DOT.

1.3 Why should I buy CAiCE Visual Survey?

No other survey software enables you to easily convert raw field data into deliverable plans from a stand-alone environment. CAiCE Visual Survey gives the transportation industry an alternative to 2D drawing files by providing an intelligent database of 3D coordinates. This database greatly improves error checking of raw field data and helps ensure the integrity and stability of transferred data, thus improving the delivery of accurate information to the design engineer. The intelligent database provides tools that streamline and automate tasks and that improve the productivity of field and office staffs. Customization options enable you to adjust the software to fit your workflow requirements and help ensure that field standards are being met.

1.4 Is CAiCE Visual Survey a stand-alone product?

Yes. CAiCE Visual Survey is a stand-alone product and does not require any other application packages to operate. It provides general-purpose automation tools for all survey-related projects.

CAiCE Visual Survey can also run with Visual CADLinks. With CAiCE Visual CADLinks technology, you can link CAiCE Visual Survey with AutoCAD® or MicroStation® software. This technology dynamically links CAiCE Visual Survey and the CAD package of your choice, as

they run side by side. It offers the best of both worlds: the design modeling capabilities of CAiCE Visual Survey and the extensive drafting capabilities of a CAD system.

1.5 How does CAiCE Visual Survey interface with data collection systems and other survey data imports?

CAiCE Visual Survey supports survey data import from several data collection devices and software systems, including Sokkia, TDS, Leica, Trimble, EFB, SDMS, and DMP. Other formats can be handled through a customized Microsoft® Visual Basic® for Applications (VBA) macro. You can communicate directly with most survey data collection and total stations using built-in communication software.

1.6 What is the Survey Data Editor?

CAiCE Visual Survey provides a powerful and interactive Survey Data Editor that is based on Microsoft® Access technology. You can use it to view and edit raw survey data collected in the field using the Sokkia, TDS, Leica, Trimble, EFB, SDMS, and DMP data collection systems. This comprehensive raw Survey Data Editor uses Microsoft Access as the engine to view, modify, and add to the survey data. It includes utilities for adding and editing instrument calibrations, axis tests, and level peg tests; adding and editing instrument setups; adding, editing, and deleting point observations data, including elevations, measurements, and feature codes (classifications).

1.7 What is the Survey ToolBox?

CAiCE Visual Survey software comes with an integrated Visual Survey ToolBox, which is a collection of more than 50 macros and programs that facilitate surveying operations. The ToolBox includes a variety of import, export, report, geometry, and graphics utilities, as well as a traverse entry and adjustment tool, a legal description writer that links with Microsoft Access and Word, and several slopestake report utilities.

1.8 Does CAiCE Visual Survey offer COGO functionality?

The CAiCE Visual Survey product includes a full suite of coordinate geometry (COGO) commands and capabilities. Its coordinate geometry tools for defining points, lines, curves, spirals, and chains are simple, powerful, and completely interactive. You can define points by known coordinates, latitude and longitude, direction and distance, angle and distance, alignment stations and offsets, intersections, projections onto other objects, and tangencies on curves. CAiCE Visual Survey also provides many ways of storing circular curves and has several utilities for defining and editing chains.

1.9 How can CAiCE Visual Survey be adapted to individual client standards?

Because many organizations work with multiple public and private clients, customization capabilities are crucial. CAiCE Visual Survey uses feature codes, feature tables, cell libraries, system settings, toolbars, color tables, text libraries, sheet format, and plans production settings to make it easy to comply with standards specific to a client organization.

1.10 Does CAiCE Visual Survey offer DTM functionality?

CAiCE Visual Survey software provides advanced terrain modeling capabilities. Its unique methodologies used for triangulation and breakline processing produce accurate terrain models and provide a high degree of flexibility in data collection techniques. Points and

triangles are shared in a central database so cross sections, freehand cross sections, profiles, elevations, and feature codes can be accessed quickly.

1.11 Can CAiCE Visual Survey edit DTM triangles?

Once a DTM is created, the average surveyor spends one to two hours eliminating triangles that do not reflect survey data in the model. CAiCE Visual Survey provides several timesaving methods to eliminate degenerate triangles inside and outside selected DTM surfaces. These methods include the ability to "obscure" triangles within or outside a closed boundary chain, associate feature codes to triangles, and automatically create a boundary around the DTM model for the clipping of extraneous triangles.

1.12 What types of reports does CAiCE Visual Survey generate?

CAiCE Visual Survey software functionality provides several built-in report formats. In addition, you can easily create customized reports through a VBA macro. CAiCE Visual Survey generates a complete set of stakeout reports for construction layout. These include radial stakeout of points, curves, and spirals; stakeout of curves and spirals by tangent offsets; radial stakeout of chains; stakeout of chains by even stations; stakeout from one chain to another; and slope stake reports for design sections.

2. Purchase Information

2.1 How do I purchase CAiCE Visual Survey?

You can purchase CAiCE Visual Survey through your local Autodesk CAiCE Authorized Reseller. To locate the reseller nearest you, visit **www.autodesk.com/reseller**.

2.2 What is the value of purchasing a maintenance contract for CAiCE Visual Survey?

A maintenance contract includes all software releases and interim updates that become available during the contract period; complete technical support by telephone, email, or fax (from 8 a.m. to 8 p.m. EST, Monday through Friday, excluding holidays); and access to the customer-only website, which provides an extensive knowledgebase, downloads, and a user discussion forum.

2.3 Where is CAiCE Visual Survey sold?

CAiCE Visual Survey is currently sold in the United States and Canada.

3. Compatibility and System Requirements

3.1 What are the minimum system requirements for CAiCE Visual Survey?

- Intel® Pentium® II processor or better
- Microsoft® Windows® XP, Windows 2000, Windows 98, or Windows NT® 4.0
- 128 MB RAM
- 700 MB free disk space for complete installation
- SVGA display, 256 colors

3.2 What other formats is CAiCE Visual Survey compatible with?

- AutoCAD DWG (including 2004)
- DGN (including V8)
- DXF™
- LandXML
- Reduced survey data imports include AutoCAD® DWG, MicroStation® DGN, TDS (Tripod Data Systems), SDMS (AASHTO's Survey Data Management System), ASCII, CEFB
- Raw survey data imports include TDS, Prosurv, Sokkia, AASHTO SDMS, Leica, Trimble, Caltrans DMP, Florida EFB, and other formats

4. Customization, Consulting, Training, and Support

4.1 How do I get customized development done for CAiCE Visual Survey?

A major advantage of CAiCE Visual Survey is the ability to customize it to meet unique standards and practices through various types of settings, tables, libraries, and macros.

CAiCE Visual Survey includes Microsoft VBA as a macro development language. Because the software combines VBA with user-accessible functions for database access, graphical interaction, and geometric computations, you can develop macros that customize CAiCE Visual Survey to meet the needs of your organization.

CAiCE Visual Survey also uses VBA tools to open direct links between the software and many other Windows applications such as Excel, Word, Access, and ArcView. Format translators, data import/export utilities, customized plans production tools, geometric computation utilities, and many other applications can be written exactly to your organization's specifications. Furthermore, these macros are simply added to a macro library for immediate access.

Customization Examples

- Smart objects
- Feature tables and cell libraries
- VBA macros
- Fragments
- Visual TugBoats and Visual WebBoats
- Format translators
- Plans production tools

4.2 Are professional consulting services available for CAiCE Visual Transportation products?

Yes. Experienced Autodesk/CAiCE consultants are available to work with your group at several different levels. Users with specific organizational needs can construct an on-site consulting program that fortifies available internal resources. The Autodesk/CAiCE consultants become an integral part of your team to help you become productive on the software as quickly and as cost effectively as possible.

Using experience from other implementation projects, consultants work with you to develop a comprehensive project plan tailored to your requirements. Our proven methodology helps you eliminate unnecessary documentation, paper-based design sessions, and inflexible project plans that result in higher costs.

Consulting Examples

- Workflow analysis
- Implementation strategy
- Installation support
- Transition planning
- Import/export translators

4.3 Does Autodesk offer training classes for CAiCE Visual Survey?

Autodesk offers both standard and customized training classes for CAiCE Visual Survey. Training classes for new and advanced users consist of lectures, demonstrations, and hands-on tutorials and range from three to five days. The standard classes are typically offered at the Autodesk CAiCE office in Tampa, Florida, or at preselected venues throughout North America.

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