

# BENTLEY® DESCARTES™

## One-stop imaging solution for mapping, visualization, and raster-to-vector conversion projects

Designed as a comprehensive solution production imaging, and visualization workflows, Bentley® Descartes™ 2004 Edition is used around the world in mapping, civil engineering, and other AEC projects.

Bentley Descartes is a complete imaging solution with tools to warp, reference, reproject, resample, edit, enhance, and mosaic imagery. With Bentley Descartes, you can drape completed image mosaics over 3D terrain models to produce outstanding image scenes. You can also create or update color maps with a rich set of brushes and editing tools. Plus, you can convert maps or documents with integrated line-following and optical character recognition (OCR) capabilities.

### Bring Your Projects to Life

Everyone understands a picture. With Bentley Descartes, you can work as if you were at the site. You can use any MicroStation® editing tool to draw over an image backdrop or load any MicroStation Development Language (MDL®) application and use it with Bentley Descartes. By incorporating images into your projects, you can produce striking visual documents that are easy to understand and that help communicate designs effectively to colleagues, clients, and the public.

### Format Flexibility

Bentley Descartes makes it easy to use any source image or scanned document to address the diverse needs of all imaging, visualization, and conversion projects. You can use individual images or different types of images simultaneously. The high-performance image display of Bentley Descartes lets you work easily with a wide range of industry-standard raster file formats. And performance is maintained, no matter how large the file or mosaic size.

### WYSIWYG Georeferencing and On-the-Fly Reprojections

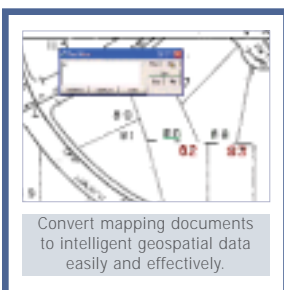
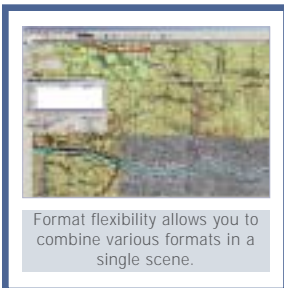
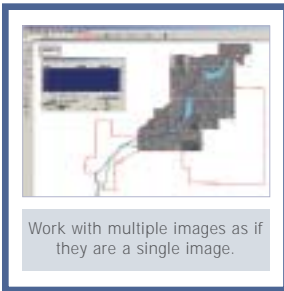
You can quickly and efficiently register images with Bentley Descartes. The WYSIWYG registration process is much more intuitive than methods that require distinct windows for vector and image data or that rely heavily on transformational statistics. A range of tools lets you perform operations from simple image squaring to multipoint precision registration. And, georeferenced images can be reprojected on-the-fly to another projection system.

### Extensive Editing, Mosaicking, and Visualization Tools

With Bentley Descartes, you can rapidly create seamless image mosaics. Bentley Descartes includes tools to move, scale, and rotate images or objects within images, as well as tools to make regions of images translucent or transparent. These interactive tools provide dynamic feedback, making image manipulation intuitive and efficient. You can work with single images, or apply an operation to a selection set of images. A mosaic can be draped over a digital terrain model to create exciting, dynamic presentations. You can also use the source imagery to create multi-media and integrate it into a presentation or proposal with minimal effort.

### Superior Map Editing and Document Conversion

Bentley Descartes includes a rich set of tools to edit or convert maps and other documents. You can work completely in raster, convert raster to vectors, or work with hybrid raster/vector files. You can also work with black and white or color documents. Plus, you can use line-following tools, color brushes, and OCR to streamline and automate your conversion projects.



Visit us on the Web for more information about Bentley solutions and services.  
[www.bentley.com](http://www.bentley.com)

## BENTLEY DESCARTES AT-A-GLANCE



Easily integrate raster and vector data.



Presentation-quality visualizations are a breeze with Bentley Descartes.

### SYSTEM REQUIREMENTS

- Processor: Intel® Pentium®-based or AMD Athlon™-based PC or workstation
- Operating System: Microsoft® Windows® 2000 (SP2 or higher recommended), Windows XP, Windows NT® 4 (SP6 recommended), Windows 98 (Second Edition recommended)††, Windows Me
- Prerequisite Application: MicroStation, MicroStation GeoGraphics V8 (for raster reprojection functionality)
- Memory: 128 MB (256 MB or more typically results in better performance).
- Hard Disk: 200 MB minimum free disk space
- Input Device: Mouse or digitizing tablet
- Output Device: Most industry-standard devices are supported. Works with output devices supported by Windows.
- Video: Supported graphics card. Dual-screen graphics supported with vendor-supplied drivers for Windows NT 4. Multi-monitor configurations supported with Windows 98, Windows 2000 and Windows XP.

### Industry-standard File Format Support

- Formats: TIFF (1 to 32-bit), GEOTIFF, iTIFF, COT, CIT, RLE, CALS, PCX, IMG, BUM, TG4, INT, RGB, TGA, JPEG, RLC, RS, HMR, BMP, and IKONOS 3, and 4 bands from Space Imaging
- Compression schemes: Deflate, PackBits, CCITT3, CCITT4, and JPEG
- Wavelet compression schemes: ECW and MrSID
- Fast open and save operations with no conversion

### Image Selection Sets

- Perform an operation on multiple images simultaneously
- Process mosaics as a single image
- Move, scale, rotate, or warp image mosaics in a single operation

### Advanced Editing Tools

- Interactively move, scale, rotate, and change the affinity angle of an image scene
- Cut or crop
- Corridor cropping of images, DGN elements, and models
- Color brushes (filtered editing)
- Image enhancement

### Automatic Vector Stamping

- WYSIWYG stamping as vector data is stamped at the current zoom factor
- Stamp settings achieve optimal stamp results without manual "experimenting"

### Enhanced Toolset for 3D Image Manipulation

- Perspective
- Elevation
- Orientation (front, right, isometric, etc.)

### Precision Warping with Register

- Easy-to-use interface for creation of more precise warps
- Precise, accurate fit with WYSIWYG display of vectors and control points over raster
- Ability to offload processing to a convenient time with batch resampling.

### Mosaic Tools

- Automatic seaming
- Automatic feathering
- Unlimited number of images
- Automatic color balance

### Image Projection Management (requires MicroStation GeoGraphics®)

- Dynamically reproject raster data from one coordinate system to another
- Supports nested raster attachments

### Automatic and Interactive Raster-to-vector Conversion

- Rapid conversion of drawings or maps into useful, discipline-ready vectors
- A wide range of tools (snap to interactive conversion to automated conversion) for great flexibility in workflow adjustments for different projects or varying documents
- Conversion of any type of map or drawing, in black and white or color

### Bentley Publisher Client

- View, edit, and plot images from Bentley Publisher, an IIP (Internet Imaging Protocol) image server.

### CALL TODAY FOR MORE INFORMATION

Bentley Systems, Incorporated provides software for the lifecycle of the world's infrastructure. The company's comprehensive portfolio for the building, plant, civil, and geospatial vertical markets spans architecture, engineering, construction (AEC) and operations. With 2003 revenues reaching \$260 million, Bentley is the leading provider of AEC software to the Engineering News-Record Design 500 and major owner-operators.

For more information, visit [www.bentley.com](http://www.bentley.com) or call 1-800-BENTLEY.

#### Bentley Worldwide Headquarters

Bentley Systems, Incorporated  
Exton, PA, USA  
+1 800 BENTLEY  
+1 610 458 5000

#### Bentley International Headquarters

Bentley Systems Europe B.V.  
JC Hoofddorp  
THE NETHERLANDS  
+31 23 556 0560

