

# Top 10 Benefits

Professionals worldwide use AutoCAD® Raster Design software for a wide range of applications. Raster Design extends the power of AutoCAD® software and AutoCAD-based products to help you perform raster drawing cleanup, editing and manipulation, raster-to-vector conversion, and image processing. The software helps you to work with imagery in a broad range of industry formats, analyze DEMs (digital elevation models) and multispectral images, and much more. Enabling you to work in the AutoCAD environment, Raster Design virtually eliminates the need to purchase and learn multiple applications. Why should you upgrade or buy AutoCAD Raster Design 2008? Here are 10 reasons:

**1. Minimize costly redrafting and accelerate drawing revisions with fast and accurate raster-to-vector conversion tools.**

Reduce the time to convert your raster drawings to vector with interactive and semiautomatic conversion tools. The addition of dynamic dimensioning and grip editing to AutoCAD Raster Design's vectorization tools speeds up the conversion and verification of raster primitives such as lines, arcs, and circles. Create and effectively manage hybrid drawings by converting only the necessary raster, thereby speeding up document and drawing revisions and updates. The vectorization follower tools further simplify the process of converting continuous raster entities into AutoCAD polylines, 3D polylines, and AutoCAD® Land Desktop contour objects.

**2. Make better use of geospatial data through improved Interoperability with AutoCAD Map 3D 2008.**

Extend the image-handling capabilities of AutoCAD® Map 3D software. The enhanced image-capture capabilities in AutoCAD Raster Design 2008 enable AutoCAD Map 3D to access image data through the FDO (Feature Data Object) Data Access Technology.

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Only with Raster Design can you then edit (perform true coordinate transformations, crop unwanted regions, merge multiple images, and more), process, analyze, and save your modifications. AutoCAD Map 3D can then access these edits through an FDO reconnect. Take advantage of this improved interoperability to prepare raster data in Raster Design for more effective use in AutoCAD Map 3D and AutoCAD® Civil 3D® software.

### **3. Use a wide range of raster editing and drawing cleanup tools.**

Clean your scanned drawings with easy-to-use raster editing and cleanup tools. Use the “paint-like” Touchup tool to fill gaps and erase fragments in raster drawings. Use powerful REM (raster entity manipulation) tools to edit and create raster geometry. REM capabilities now include the ability to extend, trim, fillet, and offset raster geometry. Use cleanup tools for despeckling, deskewing, and correcting bias to clean, straighten, and improve the overall legibility and quality of the scanned drawings.

### **4. Enjoy support for an extensive variety of industry-standard formats.**

AutoCAD Raster Design supports a broad range of industry-standard image formats, including DOQ, ECW, GeoTIFF, GIF, JPG 2000, MrSID®, and TIFF. In addition to support for DEMs, AutoCAD Raster Design 2008 supports multispectral imagery such as DigitalGlobe’s Quickbird and Landsat FAST L7A imagery. DigitalGlobe is a supplier of high-resolution commercial satellite imagery offering submeter resolution imagery supporting applications ranging from map creation to image analysis. The Landsat FAST format is the most widely used of the Landsat image formats. Particularly important for the U.S. Department of Defense and the federal intelligence community is the National Imaging Transmission Format (NITF), which is now supported in Raster Design.

Other supported multispectral imagery types include 8- and 11-bit IKONOS satellite imagery and the NGA (National Geospatial Agency) DTED (digital terrain elevation model) files used primarily in military and security applications.

### **5. Adapt existing and new imagery to meet your project requirements.**

Get the most out of inexpensive imagery that does not contain georeferencing information by rubbersheeting to align aerial photography with your project. The rubbersheeting feature helps you apply different techniques and manage your control points. The rubbersheeting preview feature displays the image as it will appear after the rubbersheet operation is completed.

Use new or reuse existing imagery with a coordinate system different from that of your current project. Perform coordinate transformations when you receive images with no assigned coordinate system to get the image into your project coordinate system. Do this with all forms of images, including DEMs and multispectral satellite imagery. Use the raster data query feature to probe your image data, by referencing a coordinate system different from that of your project if necessary. Using coordinate transformations, you can make available imagery adapt to your project requirements, thereby avoiding the need to acquire new imagery and saving you time and money.

### **6. Reap the benefits of multiresolution image technology**

Now you can directly edit multiresolution files such as LizardTech’s MrSID, ER Mapper’s ECW, and industry-standard JPEG 2000 formats in AutoCAD Raster Design 2008. Save changes or edits, such as cropping and highlighting areas of interest, to JPEG 2000 format and retain multiresolution advantages of small file size and fast performance while retaining high visual image quality.

**7. Send drawings containing images easily and reliably to clients, partners, and agencies.**

Save bitonal raster images within the DWG™ file instead of maintaining the image as an external reference. Simplify your document management tasks by avoiding the need to track external image references. Now you need to maintain and transport only one file. The ability to embed or extract images at any point in the process gives you increased flexibility.

**8. Use raster data analysis to make better business decisions.**

Create color elevation representations directly from DEM, DTED, and ESRI® GRID raster files. Visualize slope and aspect for the information you need to make better design or policy decisions. Show vegetation, land cover, and environmental information using readily available multispectral satellite imagery.

**9. Create high-quality, eye-popping displays with imagery.**

Integrate imagery to improve your project's appearance. Use color mapping to show different representations of your image data. Apply hill-shading and blending effects for professional presentation results. Create color elevation representations directly from DEM files. Visualize slope and aspect for the information you need to make better design or policy decisions. Show vegetation, land cover, and environmental information using readily available multispectral satellite imagery.

Also, create image snapshots for publishing, word processing, presentation, and other applications. Capture color mapping results from DEMs, multispectral imagery, and other images to improve the visual quality of your work and create more-compelling presentations for use and distribution to a wider audience.

**10. Enhance your existing image archive.**

Get the most out of your raster data with powerful image processing tools in AutoCAD Raster Design. The tonal adjustment feature helps you to make nonlinear adjustments for brightness and contrast. For instance, enhance the darker tones while preserving the appearance of mid-tones and lighter colors, and vice versa.

Use the Palette Manager to manipulate individual colors and entire palettes for color images. Select and change a color, combine several color indexes, compress the palette, and import and export palettes. Using the Palette Manager, you can also isolate features, such as contours within maps, by turning everything else to the background color. The Palette Manager improves the overall quality of your image database, providing for more uses of this data across the organization.

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