

An Open Archive Tutorial: Why Raster Edit?

DEFINITIONS

Raster

Raster image files are produced by digital image capture devices, such as digital scanners and digital cameras, and are composed of a series of dots or pixels. There are many different raster image formats in use. Photographic images frequently use GIF, JPEG, and PCX, while engineering drawings or scanned documents are typically saved as TIFF, CALS, and C4 format.

A raster image is not directly compatible with vector-based graphics found in CAD systems. Vector files are defined by specific points in a coordinate system. A circle in CAD is defined by a center point and a radius. No such information exists for a circle in a raster file.

Raster Editing

Scanned engineering drawings can require editing that moves and/or adds lines, corrects geometry, and keeps drawings current. Raster editing is the process of making these changes to raster images without converting them into another format. Some of the available raster editing programs, can select raster objects, much in the same way that CAD software selects vector objects. The selected raster objects can then be erased, moved, rotated, copied, or scaled depending on the task.

WHY KEEP DRAWINGS (SCANS) IN RASTER

The advantages of scanning paper drawings are broad and well-known. But what may not be known are the advantages of maintaining your scanned drawings in a raster format. Raster is **universal**. It is **vendor, version, and rev level independent** and as **generic** as a .txt file. In fact, more engineering drawings are preserved in raster than vector.

- As software manufacturers update and improve their software, older versions become obsolete. Maintaining drawings in raster ensures that they will be usable well into the future.
- Raster data is easily viewed by any standard viewer which is usually included with the PC operating system.
- Raster files are 30 - 50% smaller than vector files. This can be particularly important with archiving and transportability.
- Raster editing doesn't require conversion to vector which can be time consuming, cumbersome, requires special software, and trained personnel.

WHAT CAN RASTER EDITING DO?

- ▶ Grid and ortho snap for accurate insertion
- ▶ Move, copy, scale and rotate selected or new raster
- ▶ Add basic geometry such as lines, circles, arcs and rectangles
- ▶ Insert raster drafting objects such as text, ellipses & polygons
- ▶ Support for measurements, leaders, calibration & dimensions
- ▶ Fill with patterns including cross hatch, translucency, border styles and pen widths
- ▶ Erase areas using rubout, rectangle area, polygon windows, and circle & ellipse fills
- ▶ Multiple levels of undo to repair undesired results
- ▶ Change approval to make updates permanent
- ▶ Enhancement or clean up such as deskew, despeckle and crop

Conventional thinking prescribes that you convert your scanned drawings into vector for editing. While this is true for complex changes that require the "smart" capability of CAD, many revisions can be done within the confines of raster.

For more information, see our paper [S.E.A. \(Scan, Edit, Archive\) Your Paper](#). Learn how to scan your paper library of engineering drawings, edit in raster, and manage the drawings in an organized drawing and document system.

Raster Editing Solutions

GTXRaster CAD® Series v.8.5 -

A new release from GTX, the RasterCAD series provides raster editing and vector conversion for use within AutoCAD. It supports all current AutoCAD® versions including 2005. ▶ [GTX Info](#)

Open Archive RasterREnew is a simple and fast raster editor which can meet most raster editing needs.

▶ [RasterREnew info](#)

THE NEXT STEP

- [Learn more about raster editing and conversion products](#)
- [Download a raster editing demo](#)
- [How to manage your scanned drawings](#)
- [See previous newsletters](#)
- [Contact Open Archive Systems at 603-890-9980 or \[info@openarchive.com\]\(mailto:info@openarchive.com\)](#)

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