**CADRA® Raster**

The Best Way to Edit & Convert Raster Software

**FEATURES**

**Benefits from Using CADRA Raster**

- No loss of design intent; Raster data actually becomes part of the CADRA drawing and is saved along with the vector data in a .cad file
- Ability to have raster and vector data in the same drawing, no need to redraw the whole drawing
- Replace raster data with precise, clearer vector data
- Reduce archive bulk; Scan and store your drawings easily and safely
- Supports import & export of CALS, TIFF as well as a number of other scanner image formats
- Edit and reuse Raster data

**CADRA Raster Characteristics**

- Reverse direction conversion (vector-format drawings to Raster)
- Tight integration with CADRA enables you to use advanced CADRA editing tools
- Trace Raster data to convert it to Vector format
- Deskew option is used to rotate the image by a small amount to align the scanned drawing to the X and Y axes
- Despeckle is used to remove "noise", or small extraneous dots from the raster data
- Can raster two drawings using CADRA's overlay feature
- Drawings are stored in all-raster, all-Vector or a combination of both
- Full suite of user documentation
- WYSIWYG (What You See Is What You Get)

Mentor Graphics also offers a number of industry leading services to assist you in increasing the productivity of Cadra and your engineering department. We offer the following:

- Education
- Consulting
- Specialized Programs

**What are some users doing with Raster?**

- Rastering CADRA and other drawing for use in documentation.
- Safely storing all their archived paper drawings
- Re-using Legacy designs and drawing

https://www.mentor.com/products/mechanical/cadra

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**Why Choose CADRA Raster?**

CADRA Raster is an option to CADRA Mechanical drawing and scans conventional paper drawings and converts them into CADRA drawings, eliminating the need for manual recreation. Reduce archiving bulk and preserve your legacy data in a more cost effective manner. Reduce or eliminate your reliance on service bureaus, performing raster conversion and editing drawings is cheaper to use multiple workstations in house and save turnaround time. Promote legacy, reuse and reduces the introduction of errors, as CADRA Raster is up to 4X faster than recreating drawings manually.

**CADRA Raster Features**

- Add new vector entities to the raster database
- Completion of the brief raster-to-vector conversion process yields a drawing equivalent to a natively created one
- Easy-to-use paint functions facilitate erasing, moving, or copying portions of scanned drawings, making reuse productive
- Tracing option enables copying only a small portion of a large drawing if desired
- Threshold window feature visually tracks the progress of raster-to-vector conversions in-process
- Use of advanced CADRA editing tools such as variable line width, and pan and zoom for both vector and raster editing (to do what?)
- Supports import and export of CALS, TIFF (CCITT Group 3, Group 4, and Uncompressed) image formats, as well as a number of other scanner image formats including Image-X, Ana Tech, GTX, and Integrated Automation
- Utilizes traditional Windows graphical user interface (GUI) on the PC platforms
Above is an example of an old paper drawing scanned and read into CADRA.

Main Raster Menu
- Align
- Edit
- Move
- Ovly merge
- Raster dw
- Raster neg
- Rasterize
- All
- Partial
- Dpi
- Rest Size
- Set size
- Region
- Blank ras
- Unblink ras
- Delete ras
- Return

Align sub Menu
- Translate
- Deskew
- Despeckle
- All
- Partial
- Rotate 90
- Rotate 180
- Rotate 270
- Return

Edit sub Menu
- Erase curs
- Erase area
- Sktch curs
- Sktch area
- Return

Move sub Menu
- Translate
- Copy
- Merge
- Invert
- Xmirror
- Ymirror
- Rotate
- Scale
- Pivot
- Return
### CADRA at a Glance...

**CADRA Raster** – Raster-to-vector conversion utility for converting paper drawings into CADRA files

**CADRADirect** – A suite of CADRA translators that allow write/read of CADRA drawings

**CADRAView/Check** – Share designs as view-only, markup, and red-line

**CADRA Solid Modeling Integrators:** The SolidWorks and SpaceClaim integrators have bidirectional data exchange that turns solid models into accurate CADRA designs and legacy CADRA files into Solid Model sketches with ease. This can be used for documentation or cost effective 2-1/2D designs and provides photo-realistic images of CADRA designs in progress for prototyping

**CADRANC** – 2- through 5-axis numerical control (NC) programming with full mill turn support and control of a diverse mix of CNC machines

**CADRA Plot** – Batch plot management and file translation

**CADRA-BOM** – Automate bill of materials (BOM) creation, reuse setup and retrieve

**CADRA-EDM** – Data management facility

**CADRA-LIB** – Library of components created with CADRA productivity features in mind

### Benefits from Using CADRA-Add-ons CADRA Productivity Tools

- QuickDim intelligent dimensioning
- QuickPick rapid selection and insertion of parts, layers, and overlays
- QuickHatch for crosshatching
- QuickTrim for trimming and cornering
- FlexDesign adds dimension-driven variation and design capabilities
- Planar, step and complex sectioning with crosshatch control
- Preview of geometry to be created
- In-place figure editing
- In-drawing foreign language text
- Plot preview, plots PDFs
- Bi-directional HPGL format
- Microsoft Office integration (OLE)
- In-Drawing Documentation Tools

### Design Automation

- Visual Basic Object model interface
- CADRALIB intergraded Component Library
- CADRABOM bill of materials automation
- CADRAEDM data management facility
- CADRADirect read and/or write CADAM, CADDS, DWG, DXF, IGES, PDF, HPGL, MICROCADAM, CATIA, and CCD

### Low Cost of Ownership

The efficient drawing productivity brought to your desktop by CADRA, allows exploration time for iterations, innovations, and clarity, which leads to improved product quality and faster time to market. CADRA provides an overall cost effective ownership experience, with its links into other CAD tools and availability on fresh Hardware and Operating Systems.

### Improve Design & Documentation Quality

When Drafting with CADRA it allows you time to explore alternatives and focus on clarity and accuracy of the imported 2-1/2D models for increased drafting and documentation quality.

### Reduced Cost, Faster Time to Market

When using CADRA Raster you immediately turn a cost savings and compress the release schedule. No need to redraw drawings with CADRA Raster.

### Fits Existing Infrastructure

CADRA runs on 32 bit and 64 bit versions of Windows 7sp1, 8.1 and 10 Professional and Enterprise. As well as Windows servers versions 2008sp1, 2008r2x64, 12 R2 and 16. Microsoft Word documents, Excel spreadsheets, PowerPoint presentations and pictures can be embedded in CADRA drawings. Legacy data or data from other CAD programs can be imported as well using OLE (Object Linking and Embedding).

### Global Solution

CADRA is available in multiple languages including English, French, German, Italian and Japanese. Reduction in the learning curve and data migration times are obtained through training, database conversions, programming tools, viewers, and direct interfaces with other CAD tools, as well as quick links to 3D visualization.