

**Tips & Tricks**

**Did you know that?**

1. You can correct various geometric distortions of raster images using different correcting operations:

- Change Size to adjust an image dimensions to specified values;
- Find Closest to adjust an image size to one of the standard formats;
- Modifying Scaling and Resolution to resize an image proportionally and modify an image resolution;
- Cropping to reduce an image size to a specified rectangular image area size;
- Deskewing (automatic or manually);
- Four-Point Correction to correct an image geometry from trapezium or parallelogram shape to rectangular.

Such operations are recommended, even necessary, before applying more complicated operations such as layering of vectorisation.

You can specify a set of these operations in the AutoCorrect folder of the WiselImage tab from the AutoCAD Options dialogue box.

When auto-correction is performed, the specified operations are applied step by step in the order they are arranged in the AutoCorrect tab (figure one).

2. You can speed up and increase accuracy of raster-to-vector conversion by turning off unnecessary objects and/or line styles.

To vectorise raster images of different types, you need to use various sets of AutoCAD entities. For example, to vectorise the images of maps or schemes, it is best to use polylines, approximating raster curves of arbitrary form; to vectorise engineering drawings you should use algorithms that create lines, circles, and arcs – in this case the vector results will correspond closest to the original drawing.

To recognize images of different structure in the best way, WiselImage Edit/Pro use vectorisation algorithms which recognize raster analogues of vector entities and generates approximating vector objects of corresponding types. The vectorisation process is directly influenced by the setting of geometrical parameters of recognition, which are located in the Recognition tab of R2V Conversion Options Dialogue box (figure two).

3. You may improve text recognition by specifying text patterns in OCR parameters dialogue.

The WiselImage PRO OCR module recognizes raster text strings and creates AutoCAD text objects, using the style of the text specified in the WiselImage Pro tab of the Options dialog box of AutoCAD. In addition, the height and rotation of the created text strings are calculated.

The standard package contains a file of OCR characters templates, which the program uses to recognize the English alphabet, digits, punctuation marks and special characters. You can customize OCR specifying a set of word templates or patterns (figure three).

A word template is a rule defining an allowed consequence of characters within one recognized word. In the selected raster (figure 4) we forced OCR recognize words

containing: only digits (%D); English capital letters (%E); a symbol and one digit (4S%1D); a symbol, one digit and one English letter (%S, %1D, 1E).

During the learning process, OCR creates letter templates and writes them to the library. You can save letter templates in the existing library file or the one created by you. If you use your own file of character template libraries, OCR will recognize characters described in this file only. You can assign the height to the created patterns and define the layer to place the recognized vector texts in.

4. You may convert raster symbols using the Raster Find/Replace command.

The find and replace operations find objects and replace them with any vector or raster objects defined by you. You can use as a sample the sets of AutoCAD lines, arcs, circles, and polylines. When the program finds an object, it pans the drawing so that the found object is displayed in the screen centre. This object is highlighted with a colour and a dotted frame.

If a replacing object is specified, it is redrawn over the found object. If you are not satisfied with the object found, you can skip it. You also can modify the position and the size of replacing object, using Move, Scale, Rotate commands.

You may save conversion settings into a disk file, so you won't need to redefine conversion settings for similar images.

For more information, visit the RasterTech web site: [www.rastertech.com.au](http://www.rastertech.com.au)

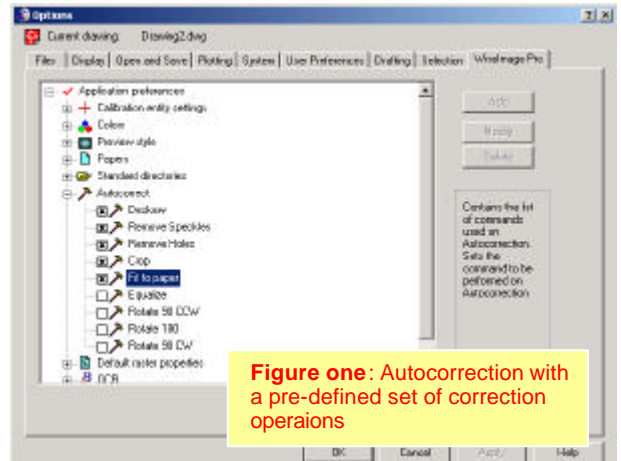


Figure one: Autocorrection with a pre-defined set of correction operations

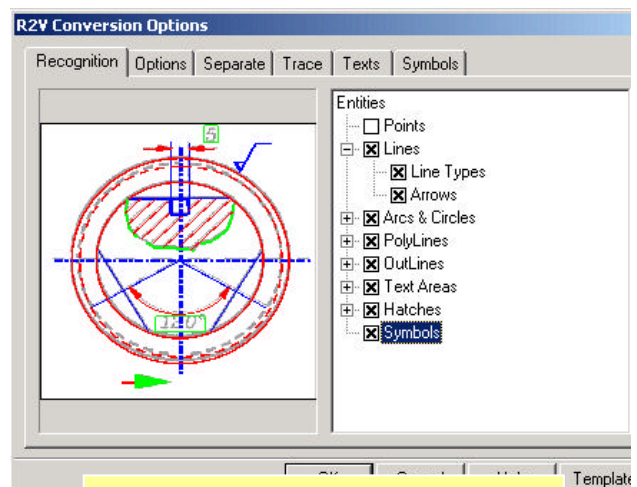


Figure two: Recognition – the Entities tree

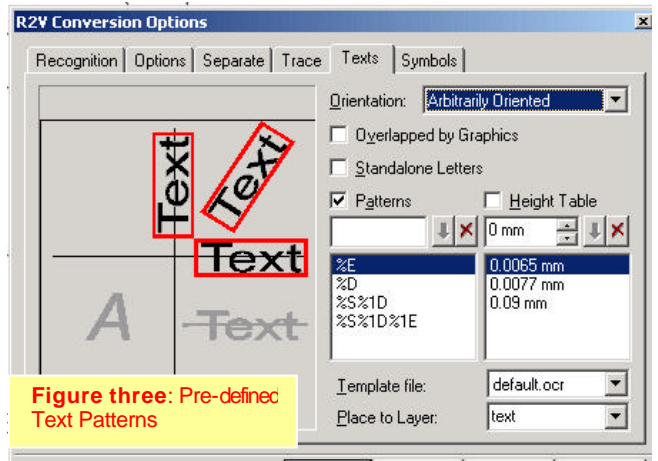


Figure three: Pre-defined Text Patterns

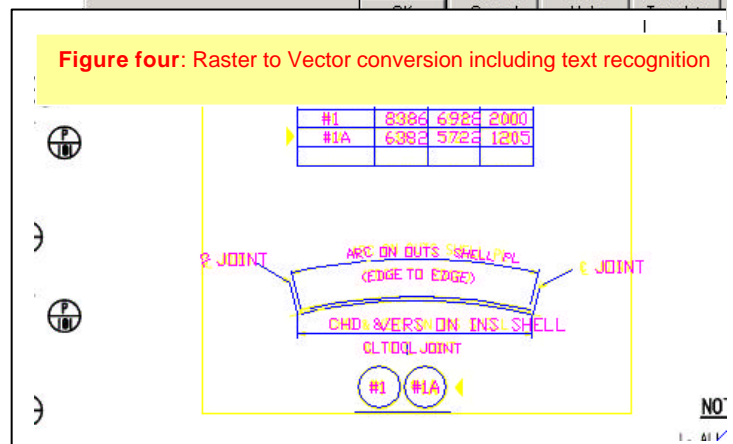


Figure four: Raster to Vector conversion including text recognition