

Working with colour images.

As you saw from our last help file, WisImage provides an impressive set of tools to manipulate colour images.

One of these is Colour Separation, which allows you to place objects of one sort marked with the same colour into separate monolayer.

A real map or colour diagram is usually made up of a small number of colours. However, from scanning we get a colour raster image with thousands of colours. The Colour Separation procedure allows you to assign basic colour to the objects (categories) and the dots of each category in a separate, non-overlapping monochrome subset (layer).

Let's consider an image with a blue line passing across yellow and white background. Actually this yellow line will consist of blue and green dots. Thus, to classify the image dots correctly, you need to define three categories: the first one with yellow basic colour where all dots of yellow background will be put, the second one with white basic colour where all dots of white background will be put, and the third one with green and blue basic colours where all dots of blue line will be put.

Separation to several monochrome layers.

The first step to specify separation parameters is to define a set of object categories in the original image. For example, it can be background, isolines, roads, rivers, railways, vegetation, etc. You can specify up to 255 categories. Each category has two properties: name and symbolic colour. To open the layering dialog box, choose Colour Separation from the rImage menu.

Then you need to specify attributes and basic colour in Categories and Colours.

To add a new category:

1. Click Create category in Categories
2. Specify, using the eyedropper, the object in the image, the dots of which should fall in this category.

By default, the box specifies the colour corresponding to the specified pixel colour and the category name "LayerN", where N is automatically generated number (figure one). If you want to modify these default parameters, enter the category name in the Name and select a colour from the palette.

3. Click OK

Noise Reduction and Despeckle options

You can use the Noise Reduction slider and Despeckle option to adjust separation sensitivity to small objects.

By default, the slider is set on an average value. If categories, containing large filled areas are the most important for you, reduce the value of this parameter to reduce raster speckle and holes in this category objects. If you try to get monochrome layers, containing small or thin objects, such as texts, characters, level lines or grids, increase the value of this parameter, to prevent the small object shapes from being thinned and distorted, caused by noise reduction. Of course, this increases the noise level on all layers.

Setting Despeckling on, you eliminate the influence of noise and small objects on the colour analysing procedures.

Running Colour Separation

When performing the separation procedure, the program creates a separate monochrome image for each category and places the objects, belonging to this category on this image. The AutoCAD

layers are created in the drawing, on which new raster images are placed. The layer names are the same as the category's names. Images colours are defined according to the symbolic colours of appropriate categories (figure two).

You can separate several colour images into layers simultaneously. If several images are inserted in the drawing and they are available (visible, located on unlocked layers), you need to select a group of raster images to perform colour separation.

Use the colour separation preview window to view the results of modifying parameters. Note that an image preview is in scale 1:1 and provides the most reliable results

If you are not satisfied with the results of separation, try one or several methods: modify the category basic colours or add new basic one, using the Colours buttons. Note that you should specify a sufficient number of basic colours, describing each category. For better results, you should select colour samples both in the middle and closer to the object boundary.

Deleting or modifying are irreversible operations, so if you want to be able to return to the current dialog box adjustment, save current adjustment to a template (click the Template button).

When you are satisfied with the quality of separation preview, click the Apply button.

When you have the objects placed on their own monochrome layer, you can apply different operations including editing (smoothing, contouring, thickening, thinning, etc) and vectorizing see figures three and four)

For more information, please visit the Rastertech web site:

www.rastertech.com.au

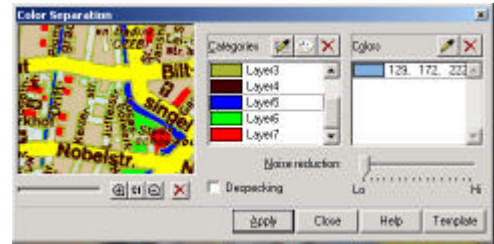


Figure one: Colour Separation Dialog Box

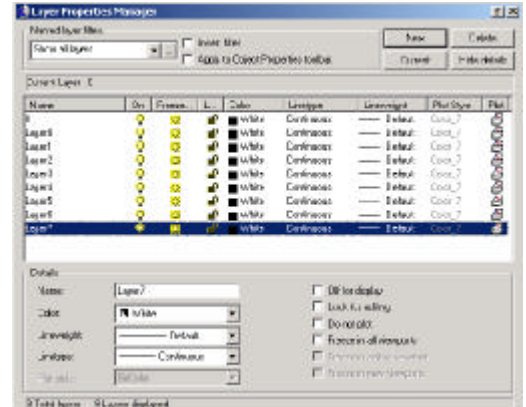


Figure two: AutoCAD Layers with raster objects

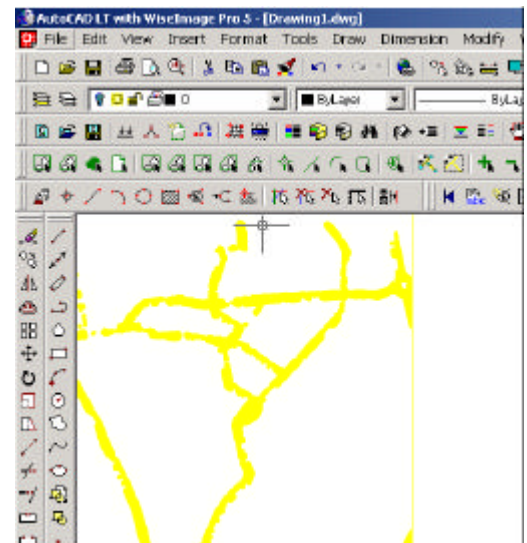


Figure three: Layer0 with raster roads

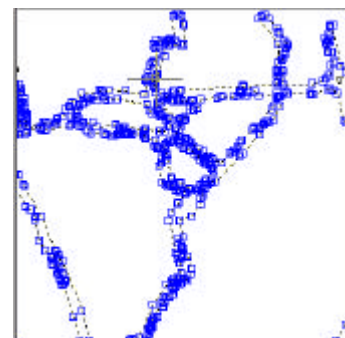


Figure four: AutoCAD layer with the road objects vectorised