

## Creating symbols using CorelDraw

## Help Sheet 16

You can create your own symbols using a vector graphic program such as Corel Draw or Adobe Illustrator.

The files need to be saved as windows metafiles, (.wmf) or enhanced metafiles (.emf)  
Writing with Symbols handles vector drawings as follows:

- All elements of a drawing that are **black** will be handled by Writing with Symbols as the **symbol colour**. So that if the symbol colour is changed in the program, anything made in black will change.
- Any part of a symbol which is created in **white** will be treated as **background colour**, and will not be displayed.
- Any line which is created at the **minimum pen thickness** will be given the symbol thickness set by Writing with Symbols. Lines which are created thicker in the drawing package will not be automatically adjusted.
- The aspect ratio of the symbol is preserved in Writing with Symbols, and the symbol display size is determined by the actual symbol height. If you want to have an item which does not fill the fill space, then it needs to be placed on a background – as, for example, the symbol for **and**. The background can be made with a white rectangle as a background, or it can be made with no-colour (see later)

### 1. Setting up the system in Corel Draw

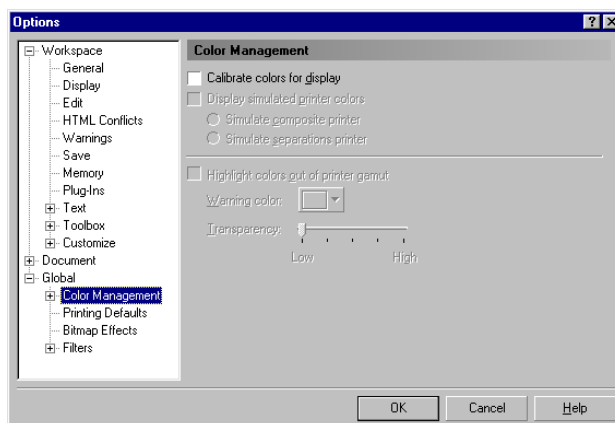
#### Graphic colour

Set the graphic colours as absolute and not calibrated for display. If you do not do this then the black will not be black, and several other colours will also be different when you use them. (This does not apply to very early versions of Corel)

To set the colour:

From the **Tools** menu in Corel, select **Options**

Click on the little plus sign by **Global**, and then click on the words **Colour Management**. Make sure that the box **Calibrate colours for display** is NOT checked.



When you want to draw something that is to remain looking black, irrespective of the symbol colour settings, then select the very darkest grey from the colour table.

## 2. Setting the line thickness

You can choose to set the line thickness to be thin, so that you can handle it in the program, or to set it to be the desired thickness. The problem with Corel is that when the program saves the lines, they are not genuine thick lines, but are a thin outline with a fill. This can cause problems if you need to edit the image subsequently. This is one of the reasons that the original Rebus symbols were made with thin lines to be thickened in the program.

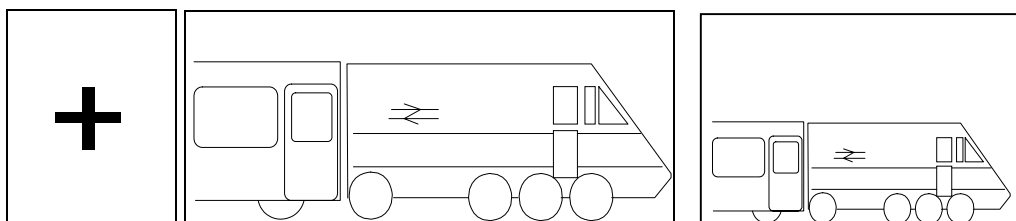
To create symbols with thin lines:

Set the nib thickness to be as thin as possible by:

- Click on the pen icon
- This opens a strip of icons - click on the pen icon again - and then choose "all objects"  
Click OK
- This opens a larger dialog box. Under the width item use the right hand drop down box and choose "picas, points" and in the left box set the dimensions to be "0,0".  
Click OK
- Make sure that the line colour is black (0,0,0) and not almost black. You can test this by making a sample symbol, import it into WWS and check that it will thicken the lines and change the colour under the graphic controls
- Draw your symbol using this line thickness. You should rely on Writing with Symbols to thicken the lines as you require. You will get less good results if you use thicker lines in Corel Draw
- From the menu bar under "Edit" choose "Select All", then under "Arrange", choose "Group"
- **Note** - When you create some text make sure that you then 'convert to curves' (under the 'arrange' menu item)

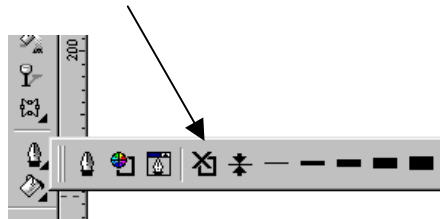
## 3. Setting the background, or setting a default frame size

If your symbol is not reasonably square in proportion, you may want to set a background area to place the symbol as you want it. For example the symbol for **and** would appear too big if it were not contained within a background. The symbol for train has an image that is 3 times as wide as it is high. This means that without modification the train would appear the width of three symbols, making it disproportionately larger than other symbols in the same line. By setting the train on a smaller rectangle the whole image is reduced.



- If you need to set a background. Which can be either a solid white background, or a white rectangle. Choosing white for this, will mean that it will not show in Writing with Symbols

- Select the rectangle tool and drag a rectangle over the symbol. Keep this as tight as you can against the edges of the symbol drawing - unless you particularly want the symbol to be small in the centre of the space it usually occupies
- Make the fill colour white. Do this by clicking with the left mouse button on the white square in the colour palette at the bottom. This may cover your drawing. To send the background behind the symbol, go to "Arrange" on the menu bar and then select "To Back". Remove the outline of the background by highlighting the rectangle, then from the pen menu, select nul-outline



- From the menu bar under "Edit" choose "Select All", then under "Arrange", choose "Group"
- Go to the "File" menu and select "Export". In the box "List files of type" choose "Windows Metafile, \*.wmf" Navigate to where you want to save the image and then type in the file name leaving the .wmf file extension. Click OK
- You will now be asked if you would like a placeable header in the metafile. Say yes to this question. The file is now ready to add to Writing with Symbols
- You are strongly advised to save your drawing in BOTH the Corel Draw format (,cdr) AND metafile (.wmf).In this case you will be able to open the .cdr file when you want to make changes, rather than importing the .wmf. This will reduce the errors and make editing much easier. Suggestions are given below for handling the problems when this is not possible

#### 4. Additional notes on importing metafiles

When you import a .wmf file all of the lines will have been chopped into smaller lines and the bezier curves will be lost. You can reinstate some of these by selecting the line and then selecting auto-reduce from the top menu bar. This will put some of that data back.

When you import a .wmf, the background and any other filled shapes will have two elements - the fill and the outer line. If you select the background (which is white and therefore invisible) you will only select the fill. This will not select any line that is also there, (which is why you are recommended to delete it at the beginning). However, since this line is also invisible you may move it out of the way for editing, and accidentally re-save it in an altered position. This can make the final drawing appear the wrong size.

When a metafile is re-opened or imported, all solid shapes, including thickened lines, will have both an outline and a fill. This can cause confusion when editing if you are not alert to the double image.

Another occasional error that occurs is parts of lines or symbols disappearing when the metafile is re-imported or re-opened. This seems to depend on the video card in your computer. If this happens you are definitely advised to work from the cdr files whenever possible.