

Short Simple Guide to Drawing Images for Sketchboard.

Matin Wynne has ask me to try and write some form of guide on how to draw images for use with sketchboard, and what type of program should be used.

First one must consider the drawing package that will be most suitable, I personally use MS Visio 2003.

I cannot discuss the pro's and con's of other drawing packages, as I have no knowledge of them, and I am sure other members will have drawing packages of their own that they use and feel comfortable with.

I can only recommend what I consider to be the essential things that are needed in a package to be able to draw reasonable presentable images.

This can be generalized by the facilities needed in such a package and my suggestions are listed below:

1. Use a drawing package that has a large enough page layout to enable you to draw the largest item you need or may think you need.
MS Visio will go up to A0 size pages, more than enough for most, if not all sketchboard images.
Another reason for mentioning this is, some packages have a nasty habit of loosing parts of you drawing file when you draw beyond the page boundaries.
Again MS Visio will allow you to draw over the page boundary and will save all of the image in a file when saved, it will not however, print the whole image for obvious reasons, since the printer will have been instructed to only print up to the page boundaries.
2. One of the most important things you need in the package, is an accurate flexible ruler to enable you to draw images to scale.
The ruler must be capable of manoeuvring and measuring at any required angle.
3. The package must have a good selection of drawing tools, including a good (large) selection of template shapes that are fully scalable and have variations such as perspective, shaded and in some cases embossed or raised forms.
It is also important that appropriate template shapes should be rotate-able to any required angle. These are all required, at some time or other, when drawing different images.
4. The package must have a good colour palette, a bare minimum of 256 colours is essential, the more colours the better.
This will give you more scope to achieve more accurate colouring of an object.
Another essential regarding colour is, any template shapes used by the package should also be capable of using all available colours of the palette, as either fill or line colouring, and also they should accept and shading options at the same time, this can make an object look as if in 3D rather than flat.
5. The package must be capable of importing other file formats, raster files such as bitmaps, BMP files, GIF, JPEG, PNG TIFF and Metafiles.
It should also be capable of importing scalable vector graphics.
These will be needed when you want the overdraw from a picture, photograph or other image as and when required.
6. The package must be capable of saving files in various formats.
Again, here the recommendation is, bitmaps, BMP files, GIF, JPEG, PNG TIFF and Metafiles and scalable vector graphics. The format GIF is, of course, essential for use in sketchboard.

There is also a case for exporting Autocad vector files such as DXF and DWG, but these are not essential.

Now for some hints and tips on how I draw my images, nothing spectacular, and anyone should be able to do it.

Take the case of a simple post, FIGURE 1 shows the simple process in drawing a simple post.

First drag and drop a rectangle from the template shapes, then lengthen and squeeze until you have the required basic shape, as shown in FIGURE 1 A.

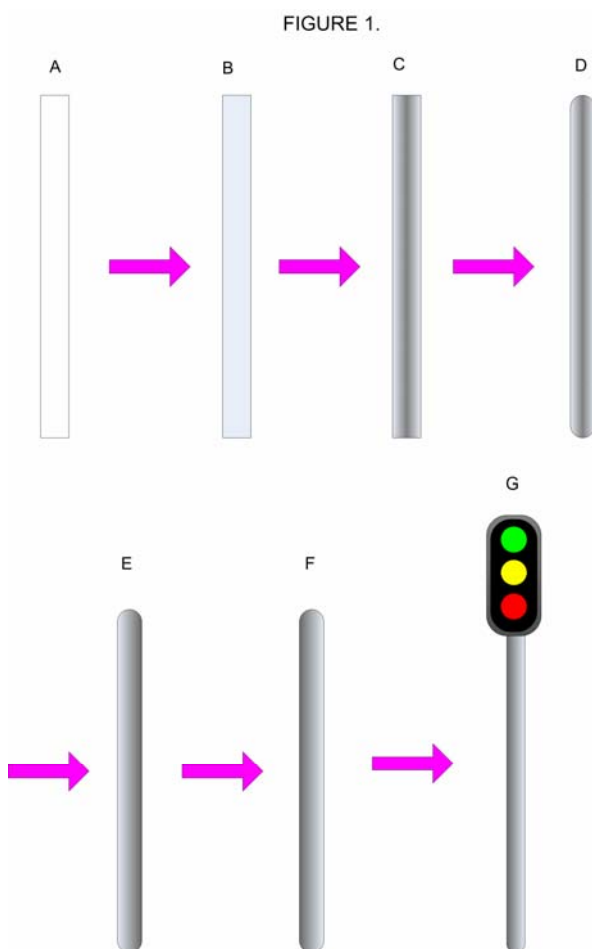
Then add the base colour you want the post to be, in this case we have chosen a light grey, as shown in FIGURE 1 B.

Next we need to give the post some visual depth by using the **< Format > < Fill >** menu. In the menu we select suitable shading colours and patterns to give the effect as shown in FIGURE C. In this case I used pattern No. 26 and pattern colour 19, the basic fill colour light grey remained the same.

Now by adding half round ends, or initially using a 'rounded rectangle' shape template in the first instance, we get the post as shown in FIGURE 1 D.

We can then change the shadow effect on the post to either right or left of the post as shown in FIGURE 1 E & F. This is done by using the **< Format > < Fill >** menu again and selecting fill pattern 27 for E, and fill pattern 25 for F.

Now with a few other shapes added and suitably colouring you can make the post into a signal light, as shown in FIGURE 1 G.

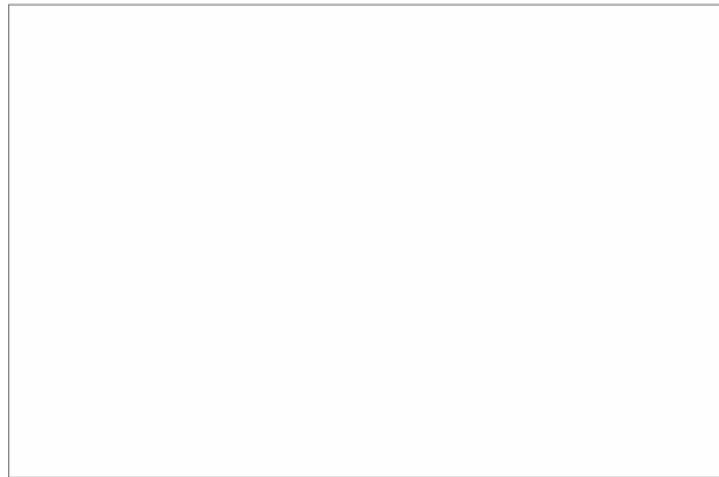


Now take the case of a water tower from an aerial view point.

First start with a rectangle of the required overall size, as shown in FIGURE 2.

Then using < Format > < Fill > menu, fill the rectangle with whatever single colour you think suitable. Try to make this contrast slightly to the 'plating' you will put in next.

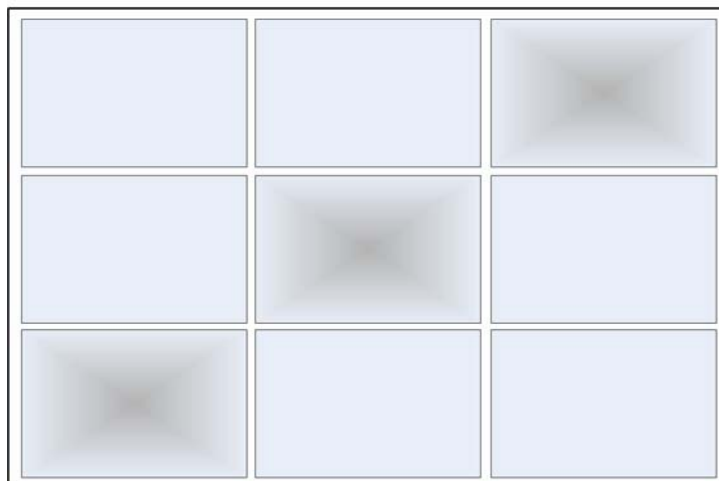
FIGURE 2.



Then add smaller rectangles to simulate plating, adjust the size of a single 'plate' to that required, then copy that 'plate' to give the number you require, in this case it's 9, as shown in Figure 3.

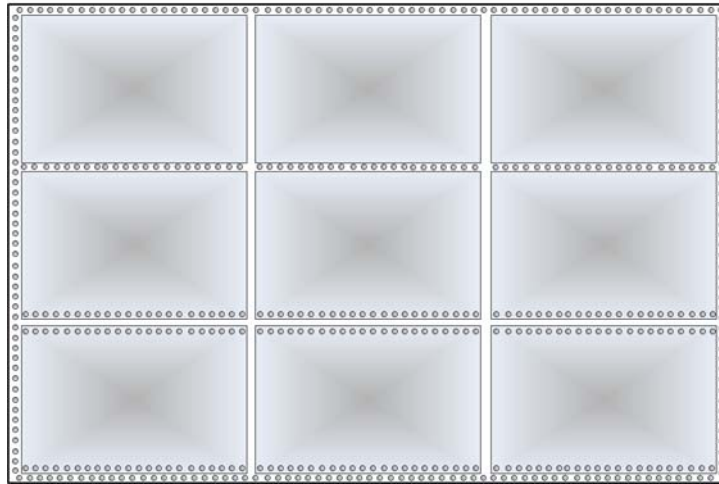
Each individual 'plate' has the basic colour light grey, then using < Format > < Fill > menu, with a fill pattern No 35 and fill pattern colour No 17 you can simulate bulging plating. This has been shown on three of the smaller rectangles ('plates') for clarity in FIGURE 3.

FIGURE 3.



Complete the fill pattern for all 9 'plates', you can add for affect, riveting as required. I have done this partially as shown in FIGURE 4.

FIGURE 4.



This takes time to do but the effect is well worth it.

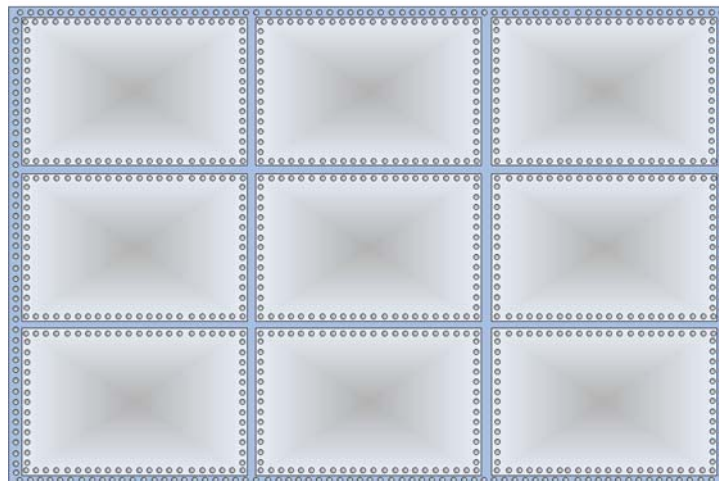
You start riveting by drag and dropping a circle, then reduce this in size to the desired diameter, you will probably need to zoom right in to do this.

Next fill the circle using **< Format > < Fill >** menu, with a fill pattern No 25 and fill pattern colour No 18 you can simulate dome head rivets. Once this is done you can position the first rivet, then copy and paste the rivet and position that at the required pitch. You can group the two rivets and copy them and paste and position the copy. Again you can now group the four rivets and copy and paste them. Keep doing this until you have a complete row of rivets at the right length. If you go over the length with the grouping and copying, remember, you can always un-group at the end and delete any excess rivets.

When you have completed one row, you can go through the same process, copying and pasting each row until the riveting job is done, it doesn't take so long this way.

The result you should get is like that shown in FIGURE 5.

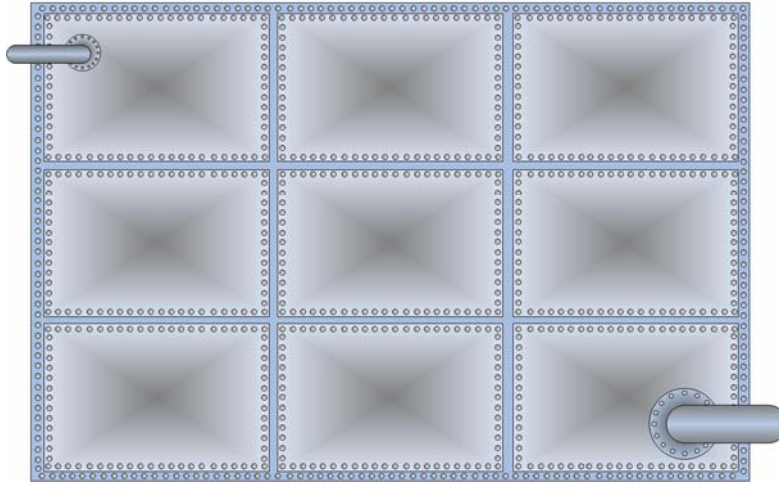
FIGURE 5.



Now all you need to do is add any associated bits, such as pipes, valves, access covers and perhaps a ladder etc.

I have added just quick samples of what can be done, a large bore filler pipe and flange, and an overflow/vent pipe and flange, as shown in FIGURE 6.

FIGURE 6.



All these are done with the simple shapes contained in the package.

Now if you wanted some wooden planking say, for old style goods platforms, or covering over a water tank, or decking for a signal cabin platform/or the steps to the cabin, then again simple shapes can achieve this.

Again we first take a rectangle and make it the size of a single plank to the length and width required as shown in Figure 7 A.

I have left the rectangle in the figure A as it comes when you drag and drop it on the work area, it is always a light grey colour to start with.

Next we change the base colour to something that appears like dark work stained wood, by using [< Format >](#) [< Fill >](#) menu, and selecting say, a solid base colour brown No 21 in the palette (you can alter the colour for the wood as required if it does not suit), as shown in FIGURE 7 B.

Next we make it look as if light is shining on the surface of the plank to give it some life by using [< Format >](#) [< Fill >](#) menu, and selecting say, a fill pattern No 33 and fill pattern colour No 18 this simulates an incident light shining from one end and scattering along most of the plank, as shown in FIGURE 7 C.

Is all you need to do then is to copy and paste as many of them as you wish and then you can either butt them together, or leave a small gap, as shown in FIGURE 7 D.

FIGURE 7.



For building roofing, either tiling or slates, you can draw and colour in the same manner as the planking above, but using appropriate colours and shading.

Also the tiles and slates can be copied and pasted as we did for the rivets of the water tower, again once you get a few done it does not take that long.

An alternative to this is to use some commercially available graphics sheets of slates or tiles and crop them to the right size to fit the roof part and paste the image overlay in the correct position. This process takes long, and you will need an image processing program to do it, I use Photoshop 4.

The major problem with using this method is to avoid 'eye-catching' discontinuities and repetitive patterns in the overlaid parts.

The same above processes can be used for brick and stone work of top view edge on building walls.

For surfaces, such as asphalt (tarmac) careful use of the colour palette and shading patterns can produce a reasonable result.

Here again you could also use the graphics image overlay technique, but again beware of 'eye-catching' discontinuities and repetitive patterns in the overlaid parts.

Paving can also be simulated in the same manner as used for tiles and slates, but would be larger in size and require slightly different colour and shading.

With a little imagination and patience, you can produce a reasonable looking image for Sketchboard, so have a go see what you can do.

Hope this helps

Brian Nicholls.