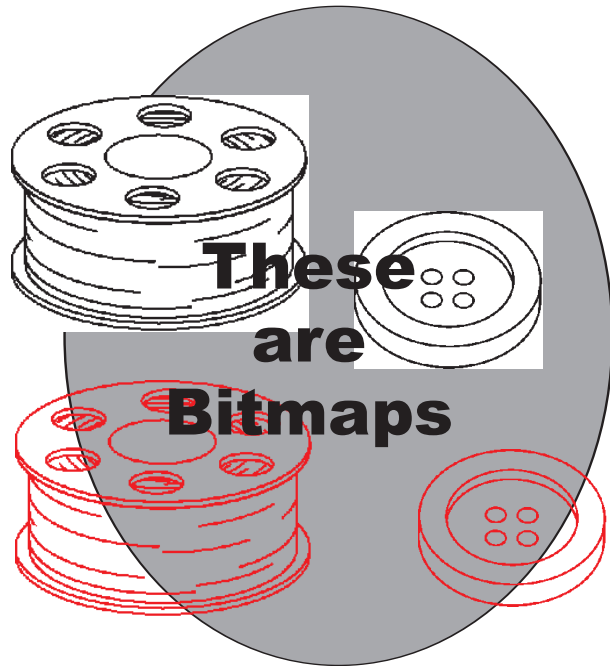


# Enhancing Black & White Bitmaps



**These  
are  
Bitmaps**

*Black and White bitmaps have their uses, but they tend to be boring!*

## **B/W Bitmaps in Draw:**

One nice feature of black and white or monochrome bitmaps, is that they can be colorized (while still bitmaps) within Draw. You can change the fill color (which affects the white pixels) and the outline color (which controls the black pixels) Thus, you can set the fill to none, and make them transparent.. Beyond that, there's not much you can do with them in that state, other than resize or crop them.

## **OCR-Trace:**

I have to admit, OCR-Trace is not my favorite program, but there are certain types of bitmaps it handles quite well. These samples that Jinx sent me, happen to fit that category. What Trace does, is take a bitmap and try to intelligently convert it into vector artwork. This is not nearly as easy as converting vector to bitmap.

No matter what settings you use, there are certain bitmaps that will just not convert cleanly. Text often looks ragged, objects often have far more nodes than necessary, and often there are simply too many or the wrong type of object created.

The bobbin and button are very good candidates for tracing .The bobbin Trace resulting in a group of 40 objects. I've "exploded" and shaded them, so you can see what objects were created.

These might not be the objects you would have drawn if creating from scratch, and that is one of the major problems with Trace. It can't interpret an image in the same way human intelligence can.

Still, for this particular example, the resulting group is useful. Note, that I did not ungroup it to colorize. I used the [Ctrl] key to select child objects within the group in order to colorize. The interactive fill tool came in handy for creating the metallic look of the bobbin itself, by creating a series of fountain fills.

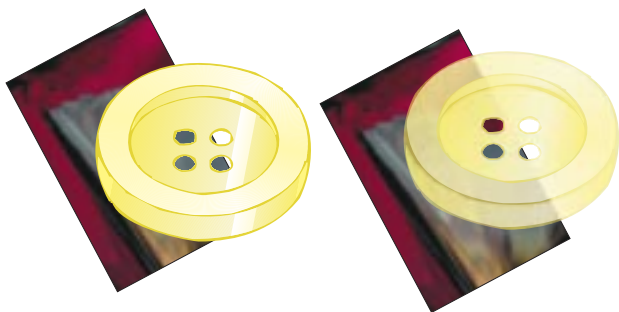
## **The Button:**

The button worked out even better! When traced, the result was a group of only 7 objects! Of course, this could probably be drawn quite easily using a series of ellipses. Either way, results in vector art that is much more flexible to use than the original monochrome bitmap.

Like the bobbin, I made liberal use of the interactive fill tool, to give the button some highlights and shade. In the right hand example, I apply a uniform transparency to the group to make the button partially see-through.



**These  
are  
Vectors**

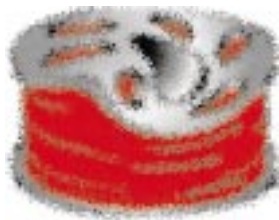


# “Ok, Trace is cool, but what about working Directly with Bitmaps?”

Swirl Effect



+ Vignette Effect



+ Impressionism



## Why work with bitmaps if vector objects are more flexible?

Photo-Paint (and its rivals) have made bitmap editing much easier, more flexible, and certainly more powerful. Still, for simple things like the bobbin or the button, it is probably preferable to work with vector objects, where you have complete control over fills, sizing, etc.

But, unless you are willing to spend hours creating hundreds of objects, vector art will never match bitmaps for the subtlety of color variation, softness of edge, or texture you can achieve. In short, it takes a great deal of effort to make vector artwork look “real” or “painterly.”

For example, after going through all the work of converting the bobbin to vector, I’ve converted it back to a (color) bitmap, so that I can apply some interesting effects to it, as shown at the left. These effects can be accomplished within Draw, without ever visiting Photo-Paint.

## A Quilt Rendered in Photo-Paint:

The last example, was a quilt pattern. In this case, I worked with it in Photo-Paint, so that I had more flexibility. Here are a few of the things I did:

- ◆ I used the magic wand mask tool to mask each shape and turn it each into a separate object
- ◆ I used a variety of texture and bitmap fills on each object (so far, a lot like what you would do in Draw)
- ◆ I used a combination of masking, adding noise, blurring and tonal adjustments to get something that looked a bit more cloth-like—softer and more textured looking.

## Your Challenge:

One thing I was trying to achieve, and didn’t quite accomplish in the time I spent on this was to make it look more “quilt-like,” with more depth to the pieces, like you would see if it were a heavily padded down quilt. I could sort of achieve the result using “The Boss” effect, but it was a little too geometrical looking. So, let’s see who can come up with a solution for the next meeting.

