

Creating a Texture

One of the big features that was on many user's Wish List was the ability to apply textures to features and parts in Inventor. Release 5 adds that capability.

Autodesk Inventor comes with a library of surface textures. You can also define, store and apply your own textures. A texture that you define can be especially useful when, for example, you'd like to represent a series of holes or slots in a part but there is no need to model each hole or slot for manufacturing or analysis purposes. For example, for a part such as a grill or a screen, it may be more convenient or economical to represent each hole or slot as a texture rather than a modeled feature. To that end, you can create textures with transparent pixels so that a part will display as transparent wherever those transparent pixels appear.

Defining your own textures gives you the flexibility to precisely customize the texture color, pattern and size. You can also adjust the texture map pixel measurement and dpi resolution to create texture patterns that match the scale of the parts to which the textures are applied.

When applying a texture to a part, keep in mind that the texture color combined with the part color displays as the product of those colors. For example, a texture with a color that is primarily a dark gray will, when combined with a part color, which is a light blue, display as a darker blue, relative to those two shades. Combining a texture with a color that is primarily red with a part color of green will display as black, just as if you viewed a red object through a green filter.

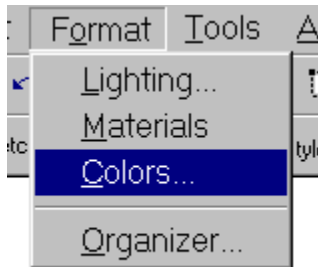
If you want the texture color to display on the part with exact fidelity to the texture color as it appears in the preview window of the Texture Chooser dialog box, you must set the part color to white. Set each color property in the Colors field, on the Color tab, of the Colors dialog box to White. Then apply a texture.

**Exercise 3:
Creating a Texture**

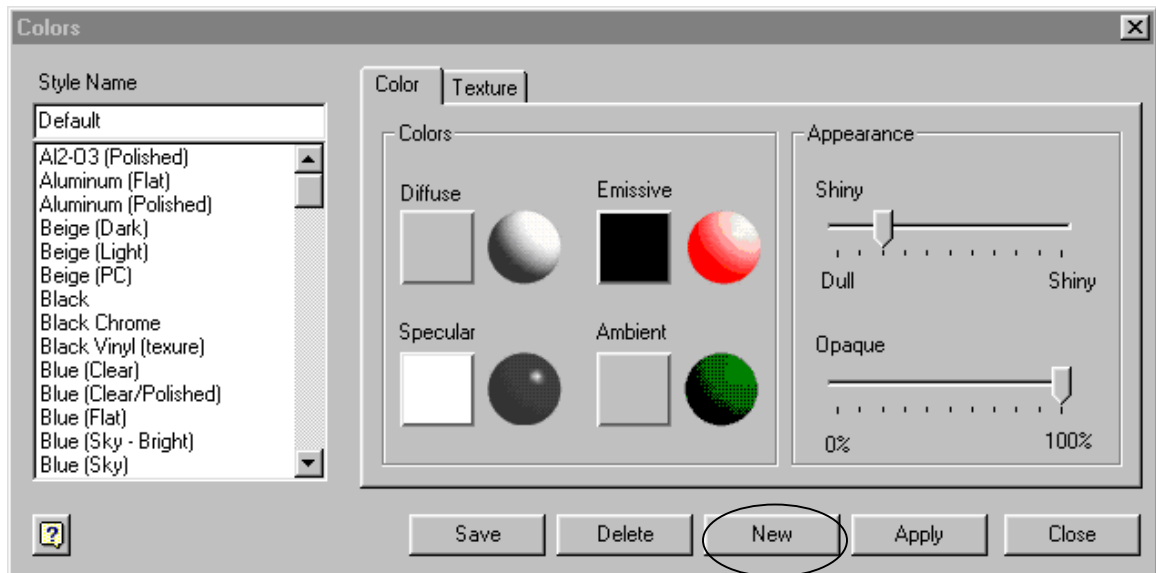
File: New using Standard (inches)

Estimated Time: 30 minutes

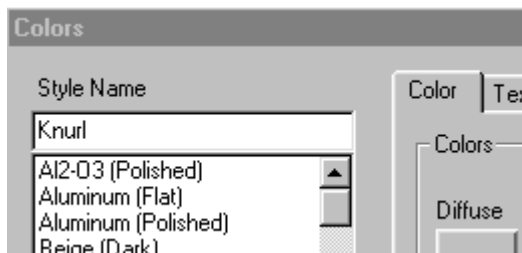
Open a New file.



Select Format>Colors.



Press the 'New' button.



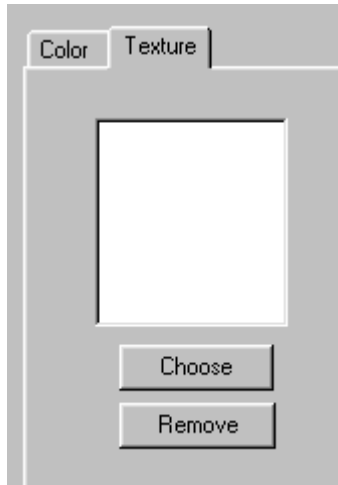
Under Style Name, type Knurl.

Pick the rectangle titled Diffuse.

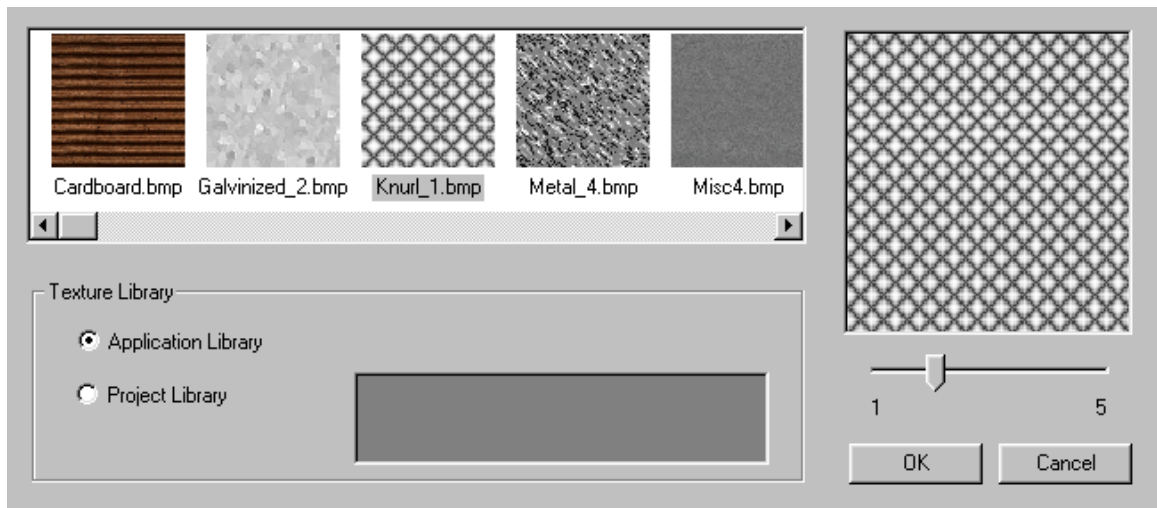
The Color dialog will appear.

Select 'White'.

Set all the rectangles (Specular, Emissive, Ambient, and Diffuse) to White.



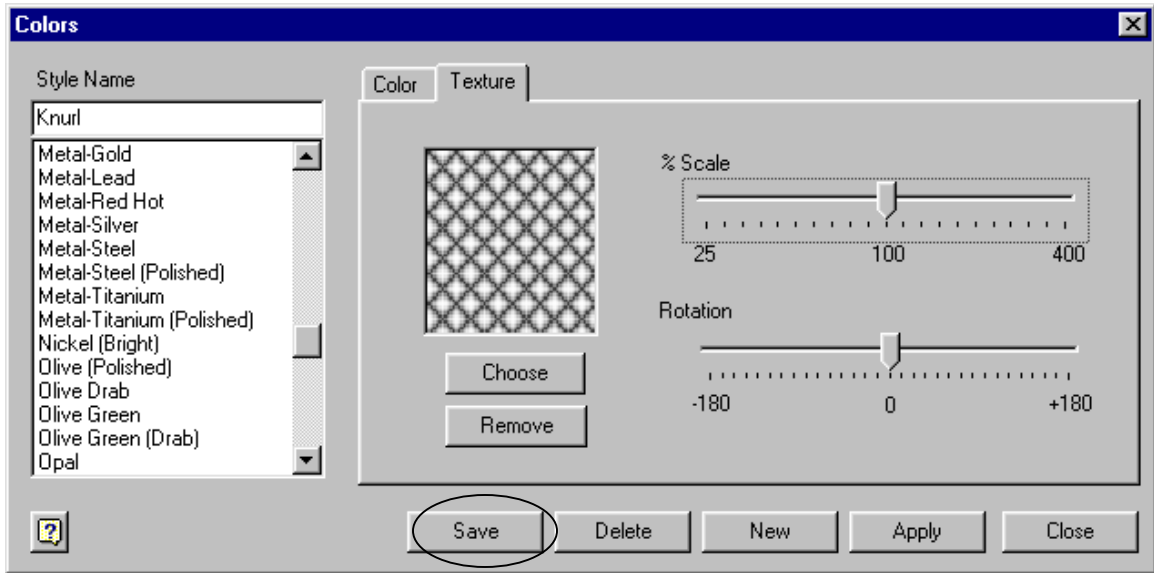
Select the Texture tab.
Click the Choose button.



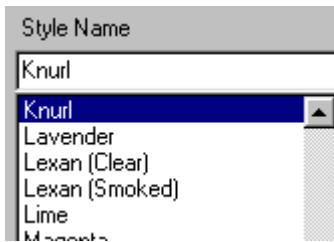
Under Texture Library, select Knurl1.bmp. Notice that you can control the density of the knurl pattern by moving the slider on the left.

Set the slider so it is around 2.

Click OK.



Press 'Save'.



The Knurl definition has now been added to your Style Name list.
Click Close.