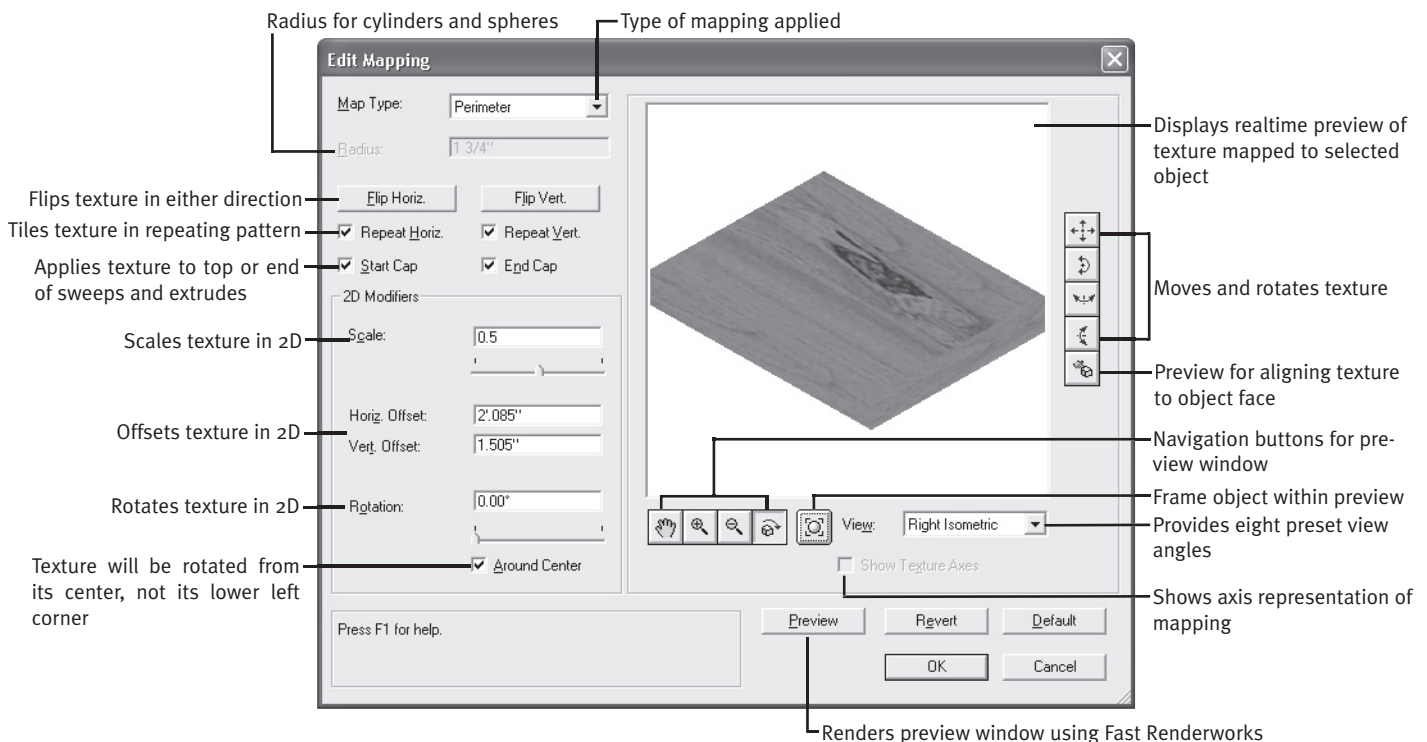


## TEXTURE MAPPING

While some types of textures, such as glass or metals, don't have a grain or direction, most textures will need to be mapped across an object in a certain direction, or with the texture pattern starting at a precise point.

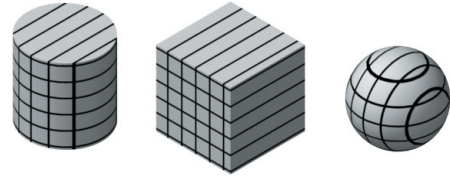
To set the mapping of a texture across an object, first select the object. If a texture has not already been assigned, choose one in the **Render** section of the **Object Info** palette.

Most texture mapping parameters can be adjusted directly in the **Object Info** palette. They can also be mapped in a separate dialog box. Click on the **Mapping** button in the **Object Info** palette to open the **Edit Mapping** dialog box. Begin by setting the **Map Type**. Depending on the type of object selected, not all of the following map type options will be seen.



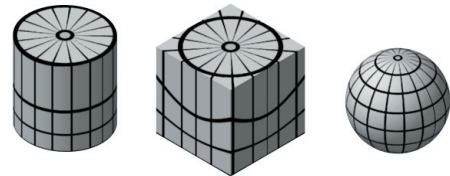
**Plane**

*Plane* mapping projects a texture as a flat plane across an object. When using *Plane* mapping, the preview window shows a sample of the texture as a square at the intersection of three lines. The lines represent the X, Y and Z axes. The square represents one instance of the repeating texture pattern. This type of mapping tends to suit flat objects best as it quickly distorts when used on spherical, cylindrical or irregularly shaped objects.



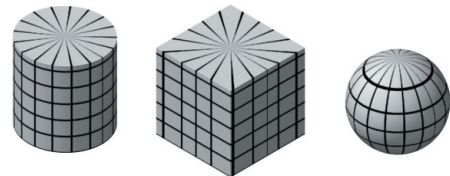
**Sphere**

*Sphere* mapping wraps the object so that the texture radiates out from its central axis. The radius of the texture is usually set to the same radius as the sphere being mapped. Spherical textures work best for spherical or irregularly shaped objects, and they distort on flat objects.



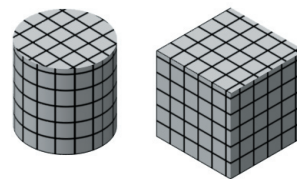
**Cylinder**

*Cylinder* mapping works in a similar fashion to *Sphere* mapping. The texture radiates out from the center of a cylinder, and a radius is set to adjust the texture size to fit the object being mapped. When using *Cylinder* or *Sphere* mapping, the preview window shows an instance of the repeating texture pattern with a central axis and a radius.



**Perimeter**

Perimeter mapping applies the texture onto each face of an object. This mapping type is only available for extrudes and sweeps, and includes options to use a *Start Cap* and an *End Cap* to add the texture to the top and bottom of the extrude or sweep. When *Perimeter* mapping is chosen, the buttons below the *Preview* window that set the texture's position are grayed out. Perimeter mapping is not available for sphere objects.



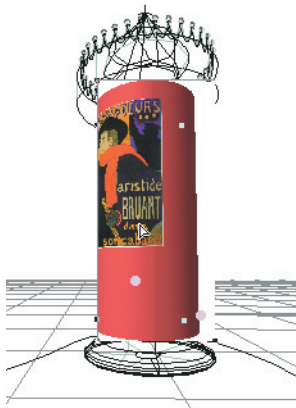
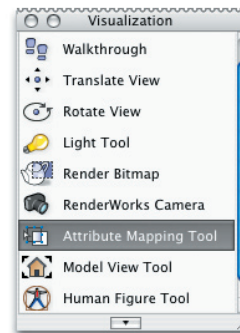
## Roof

**Roof** mapping is used to apply a texture to a Vectorworks roof object. The texture is rotated to align to each roof face. This is only available for roof objects, which have no alternative mapping methods.



## Attribute Mapping Tool

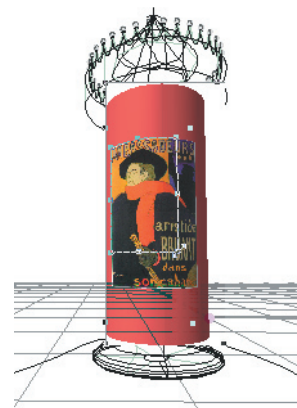
The **Attribute Mapping Tool** allows for interactive manipulation of textures on the actual objects they are applied to. Activating the tool with the object selected renders the area around the object and allows you to move, rotate and scale the texture directly on the object. The **Attribute Mapping Tool** can be used only on **Plane**, **Sphere**, and **Cylinder** map types.



Moving a texture



Rotating a texture



Scaling a texture

### CREATING TEXTURES

To create a new texture, choose **New Resource** in the **Resource Browser**, and select **Renderworks Texture** from the list. In the **Edit Texture** dialog box, the settings for textures and a preview window are found.

The options to cast and receive shadows are available for each Renderworks texture. Although you may not often need to turn these options off, they can be useful in directing focus. For example, a house surrounded by many trees may not receive a lot of light. By turning off **Cast Shadows** for the tree objects, you can keep them in the drawing and have a nicely lit house with shadows cast from itself. Similarly, deselecting **Receive Shadows** could create the illusion that an object is self-illuminated, such as with product images in the model of a booth display. The **Cast** and **Receive Shadows** options only work for ray-traced shadows.

