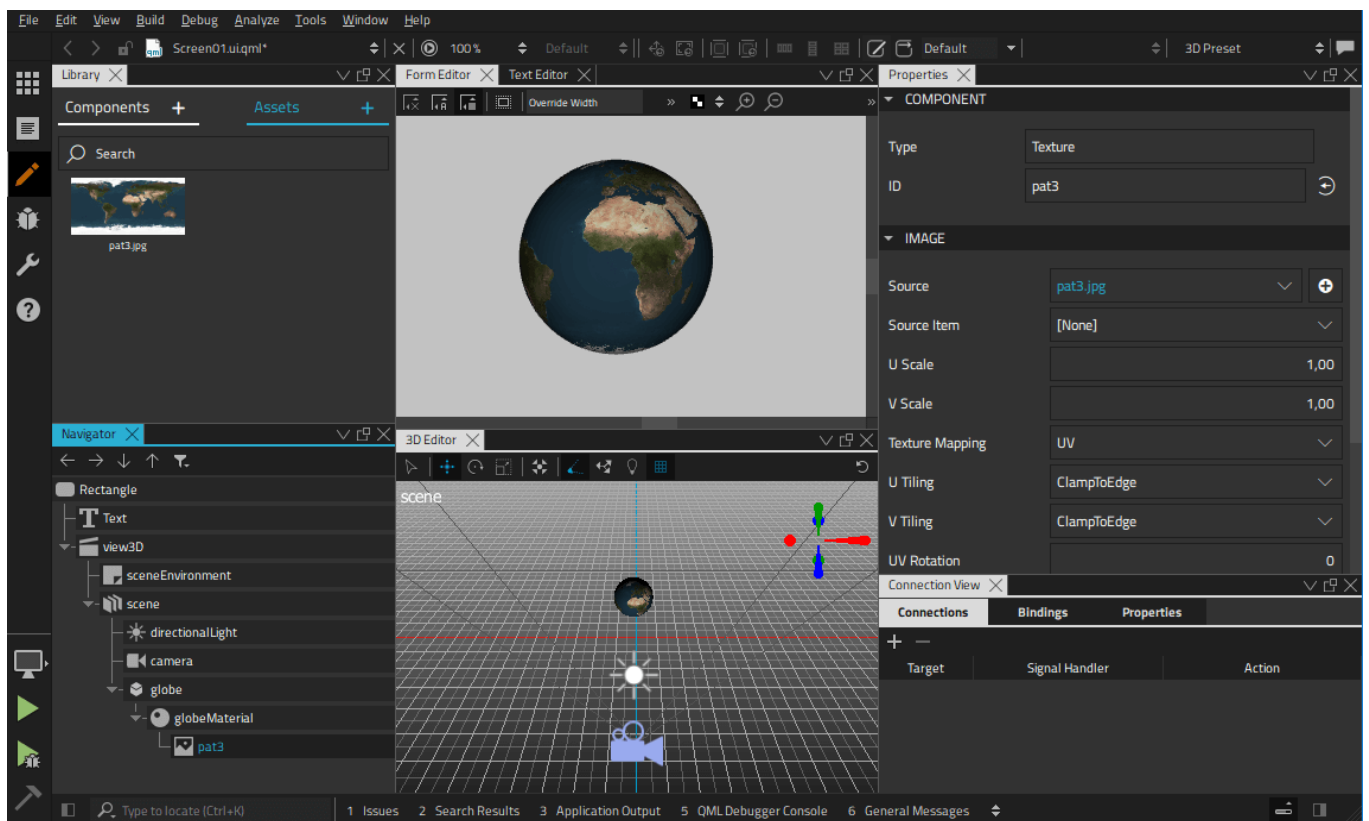


Textures

You can use the **Texture** component to attach textures to materials. You specify an image to use as the source file for the **Texture**, and also define how it is mapped to meshes in a 3D scene.



Selecting the Mapping Method

To specify the method of mapping to use when sampling a texture, select **UV**, **Environment**, or **LightProbe** in the **Texture mapping** field.

UV mapping is the process of projecting 2D images to the surface of a 3D model for texture mapping. The letters *U* and *V* denote the axes of the 2D texture because *x*, *y*, and *z* are already used to denote the axes of the 3D object in the model space. You can paint the polygons that make up a 3D object with color and other surface attributes from a UV texture map. Pixels in the image are assigned to surface mappings on the polygon. Usually this is done by programmatically copying a triangular piece of the image map and pasting it onto a triangle on the object.

UV mapping is used by default for diffuse and opacity maps. It sticks the image to the mesh, so that a particular same portion of the image always appears on a particular vertex, unless you animate the UV properties.

Light probe mapping is used by default for HDRI sphere maps of light probes. For more information about light probes, see [Using Highlights and Reflections](#).

To use image data from a file, specify the path to the file in the **Source** field. To use a 2D Qt Quick QML type as the source, specify the type in the **Source item** field. The type is rendered as an offscreen layer. If you specify the source item, any image you might specify as a source is ignored.

Note: Currently, there is no way to forward input events to the Item used as a texture source.

UV Scaling

The **U scale** and **V scale** properties define how to scale the U and V texture coordinates when mapping to a mesh's UV coordinates.

Scaling the U value when using horizontal tiling specifies how many times the texture is repeated from left to right, while scaling the V value when using vertical tiling specifies the repetition from bottom to top.

To control how the texture is mapped when the U scaling value is greater than 1, set the horizontal tiling mode in the **U tiling** field. To control how the texture is mapped when the V scaling value is greater than 1, set the vertical tiling mode in the **V tiling** field.

To specify that the texture is not tiled, but the value on the edge is used instead, select **ClampToEdge**. To repeat the texture and mirrored it over the x or y axis, select **MirroredRepeat**. To repeat the texture over the x or y axis, select **Repeat**.

Setting UV Transform Properties

To offset the U coordinate mapping from left to right, set the position of the component in the **U position** field. To offset the mapping from bottom to top, set it in the **V position** field.

Specify the U and V pivot point in the **U pivot** and **V pivot** fields.

To rotate the texture around the pivot point, specify rotation as degrees in the **UV rotation** field. A positive value indicates clockwise rotation.

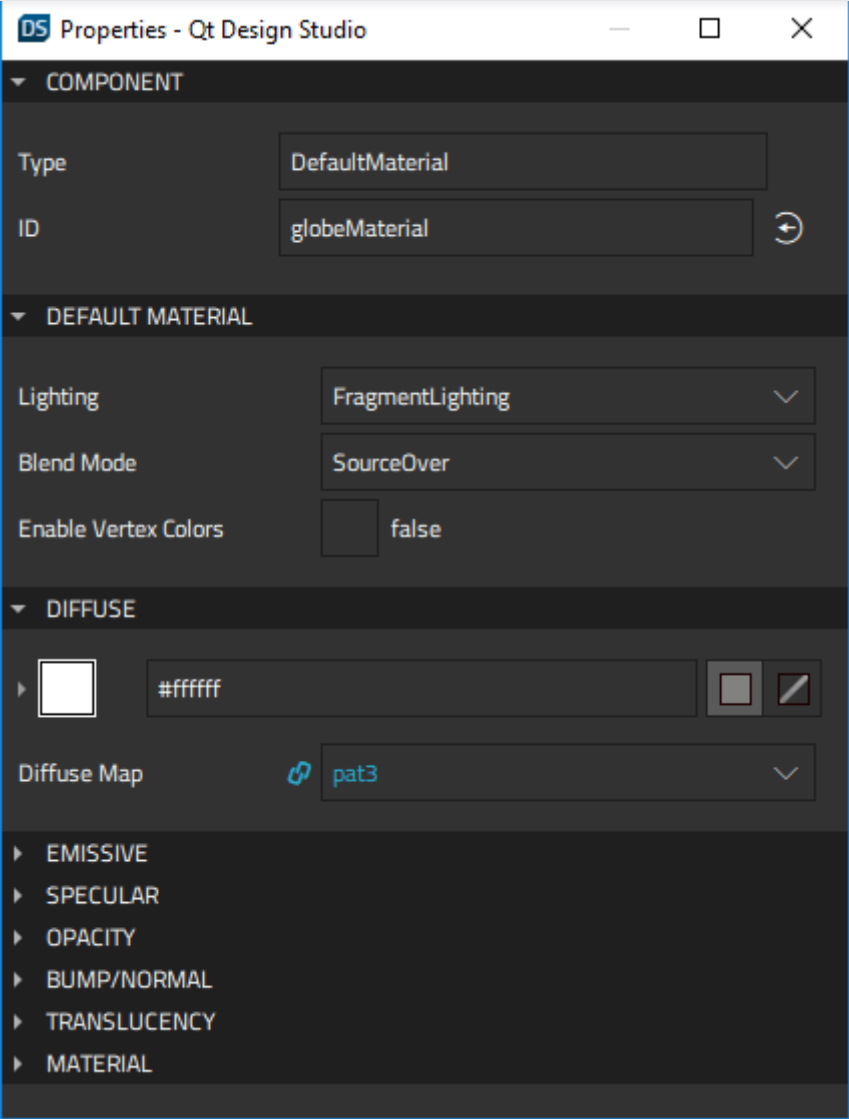
For more information about rotating and pivoting components in the local coordinate space, see [Managing 3D Transformations](#).

Applying Textures to Materials

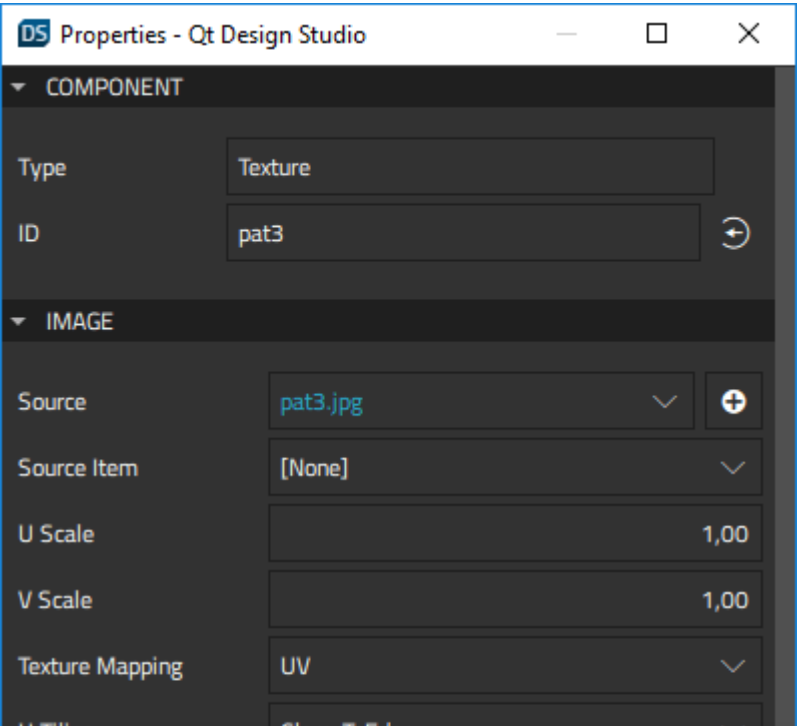
Drag-and-drop an image from [Assets](#) on a material to create a texture component. Dragging an image to a default or principled material opens a **Select Texture Property** dialog. You can select the property to attach the texture to in the **Set texture to property** field. For a custom material, you must assign the texture to a map. If the **Texture** component is not displayed in **Components**, you should add the **Qt Quick 3D** module to your project, as described in [Adding and Removing Modules](#).

To use Texture components to apply textures to materials, drag-and-drop a Texture component from **Components** > **Qt Quick 3D** > **Qt Quick 3D** to a material component in [Navigator](#). The new texture should now be visible in the **2D** and **3D** views.

Note: If the colors in your texture are not visualized correctly, you should check the color in the **Diffuse** property of the material and try changing it to white (#ffffff).



To change the source file for the texture, select the **Texture** component in **Navigator**, go to the **Properties** view, and specify a new image to use in the **Source** field.





UV Rotation	0
U Position	0,00
V Position	0,00
U Pivot	0,00

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[3D Materials](#) >



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