Rendering an AO pass and using it with VRayMtlBlend

This page provides a guide on rendering an Ambient Occlusion pass in V-Ray for Nuke and using it with the V-Ray Blend Material.

Overview

In this tutorial, we set up a Nuke script to use a VRayDirt texture in V-Ray and use it along with a VRayMtlBlend so that two materials are combined together when the Ambient Occlusion pass is used as a mask.
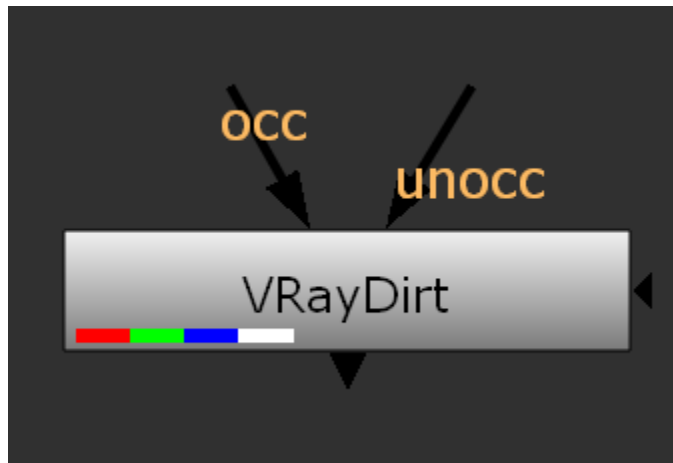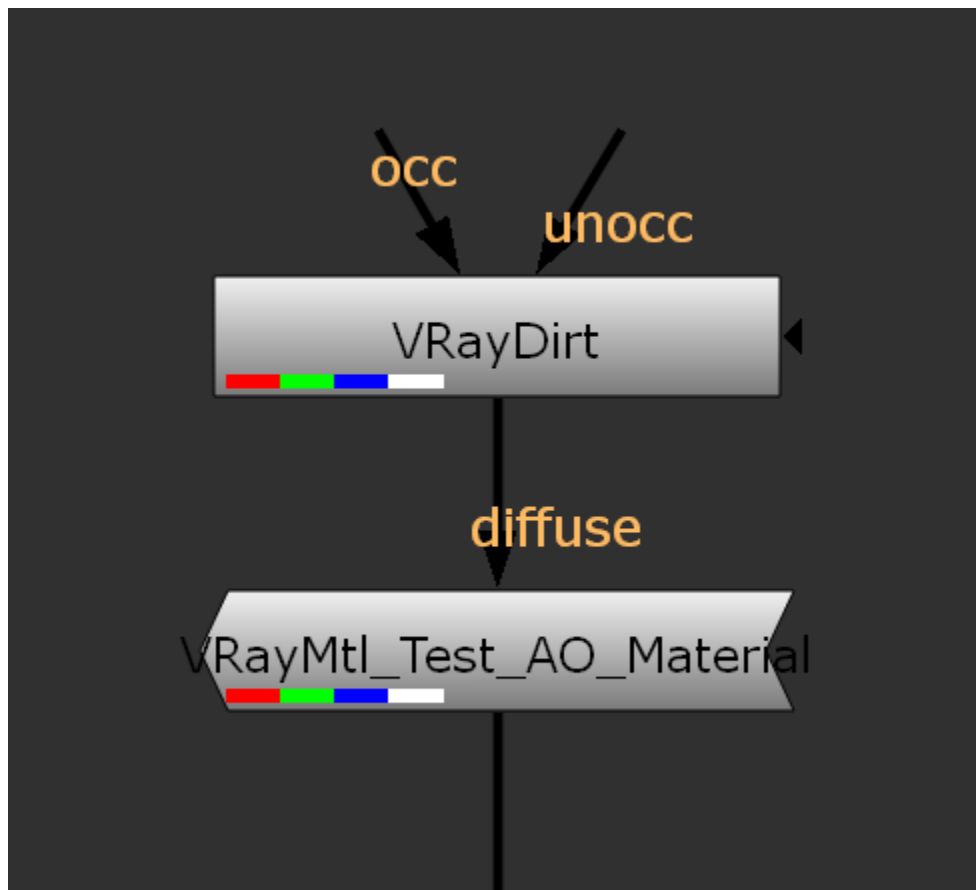

Part I: Setting up the AO Pass

In this first section, we set up a **VRayDirt** node and connect it to the diffuse channel of a VRayMtl, which will be used temporarily to tune-in the AO settings before later use as a mask.
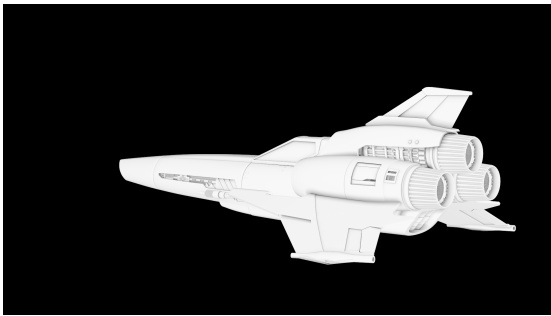
1. Create a **VRayDirt** texture.

2. Create a **VRayMtl,** name it *VRayMtl_TestAO_Material* and then connect the **VRayDirt** texture as its diffuse input.

3. Connect the VRayMtl_Test_AO_Material to the *img* input of the geometry within the scene.
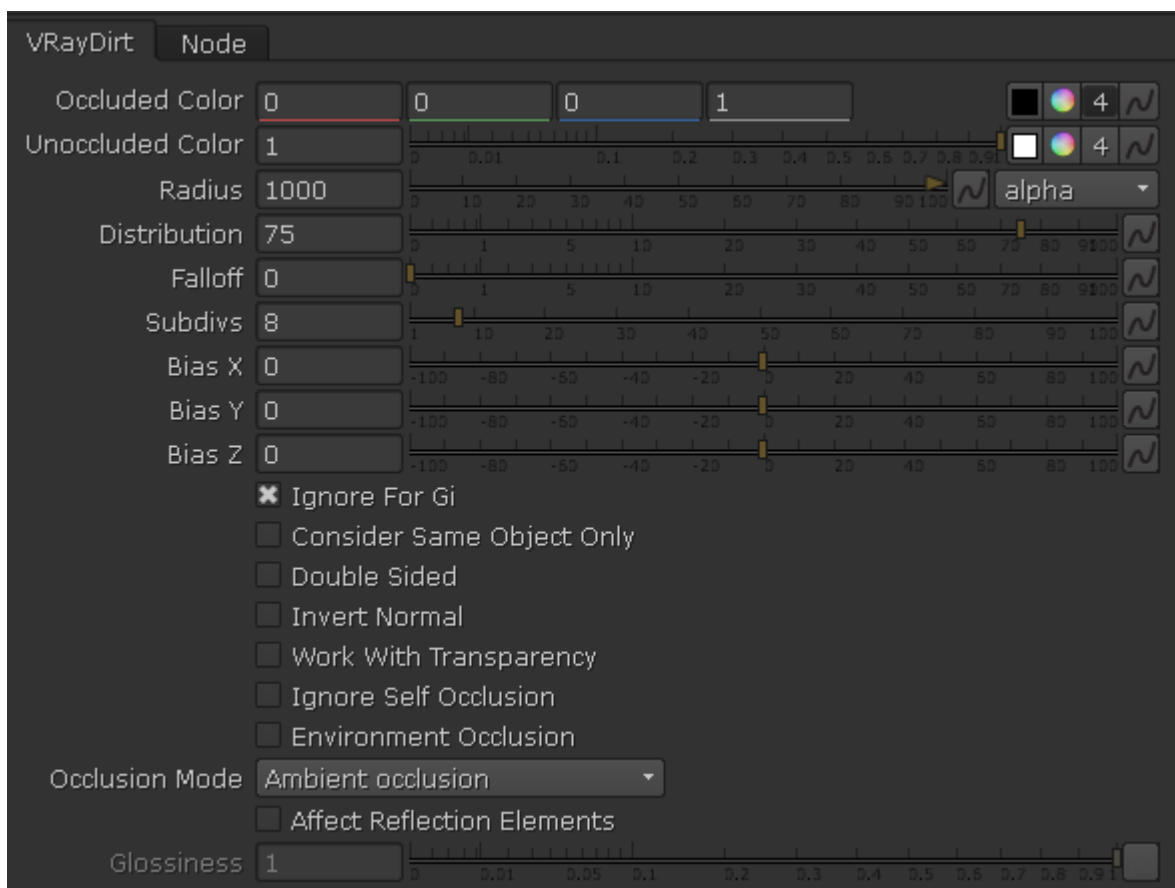

Beauty Render with **VRayDirt** used as the Diffuse channel for V-Ray Material, which currently only using the default values for **VRayDirt**.

The Diffuse Render Element with **VRayDirt** used as the Diffuse channel for V-Ray Material, which currently only uses the default values for **VRayDirt**.

4. Currently at the default **VRayDirt** settings, there are not a lot of dark areas to later use to blend the two materials. So using the test VRayMtl we have set up so far, the **VRayDirt** texture can be tuned to reach the look desired to act as that blending mask when we eventually use the **VRayMtlBl end**. For tuning, it is easier if the viewer in Nuke is set to the diffuse channel.

In the examples below, the **VRayDirt** texture has been tuned to give it a darker and broader output, by using a large **Radius** of *1000* and a high Distribution value of *75* (which tightens the dark areas). Also, the **Subdivs** have been raised to *8* so that the resulting texture is not overly noisy.

ⓘ For a full explanation of all the parameters of the VRayDirt texture, please see the Occlusion or Dirt Map page.

Beauty Render with **VRayDirt** used as the Diffuse channel
for V-Ray Material with tuned settings.

The Diffuse Render Element with **VRayDirt** used as the
Diffuse channel for V-Ray Material with tuned settings.

Part II: Using the AO pass as a mask for a VRayMtlBlend

In this section, we learn how to use the AO pass as a mask for a VRayMtlBlend to control blending between two materials.

1. Create a **VRayMtlBlend** material and connect the VRayDirt texture as a mask.
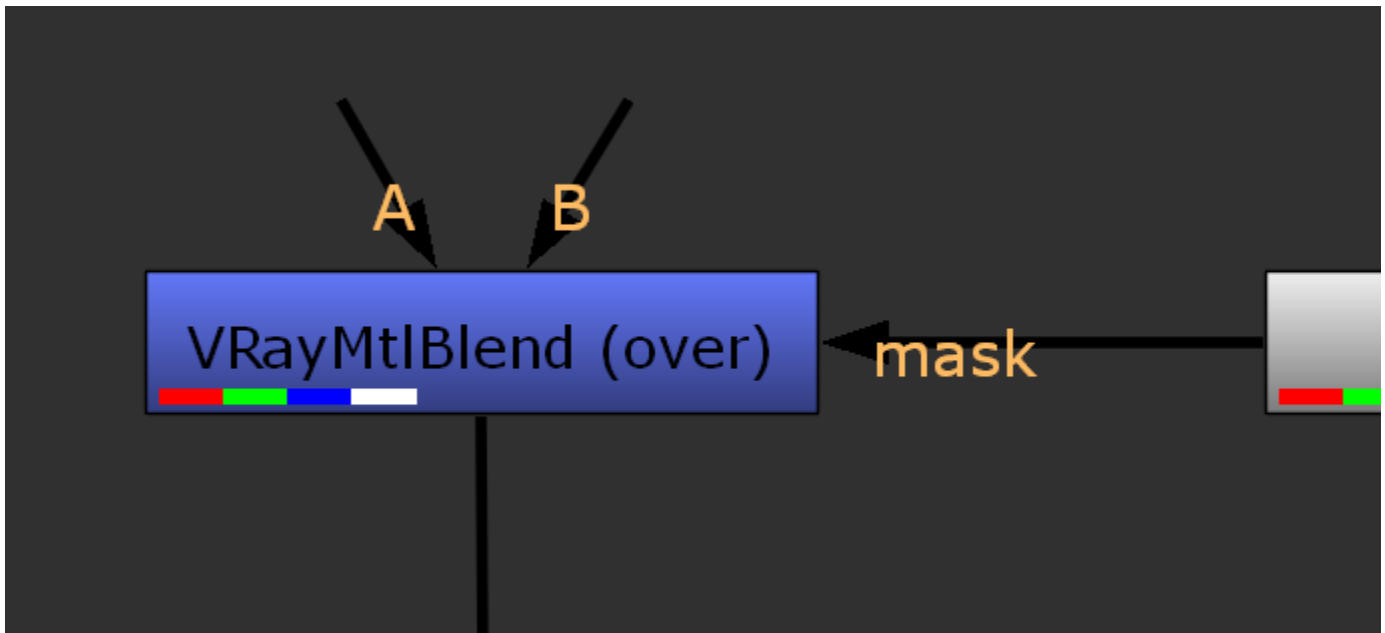
2. Create a **VRayMtl** material, name it *VRayMtlRust,* and connect the **B input** of the VRayMtlBlend material.

3. Create a **VRayTexNoise** texture and connect it to the diffuse input of the *VRayMtlRust* material. This acts as a basic rust color and gives some mild variation to the diffuse channel.
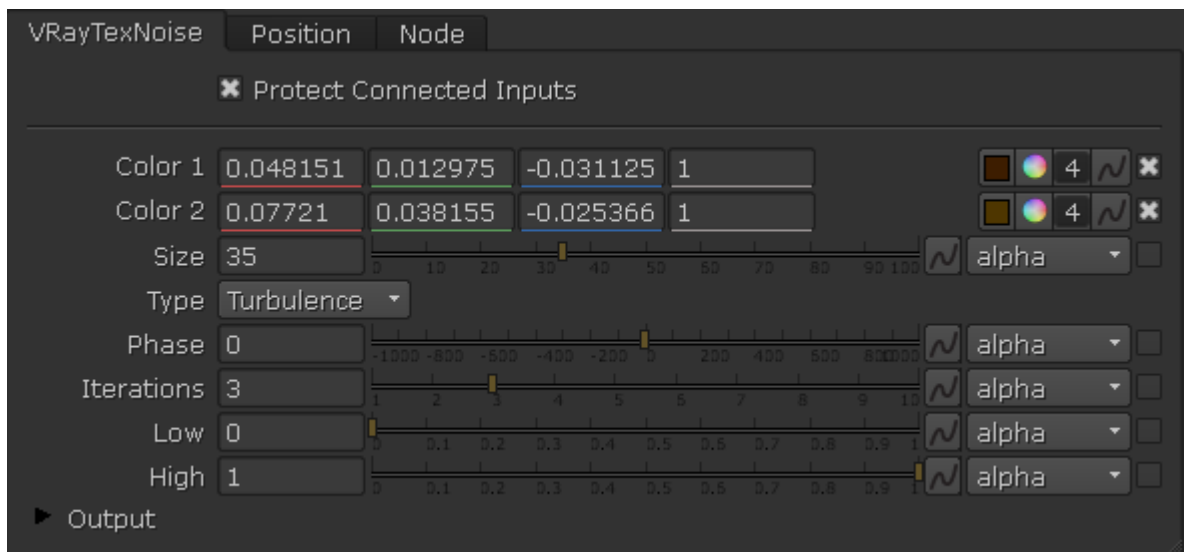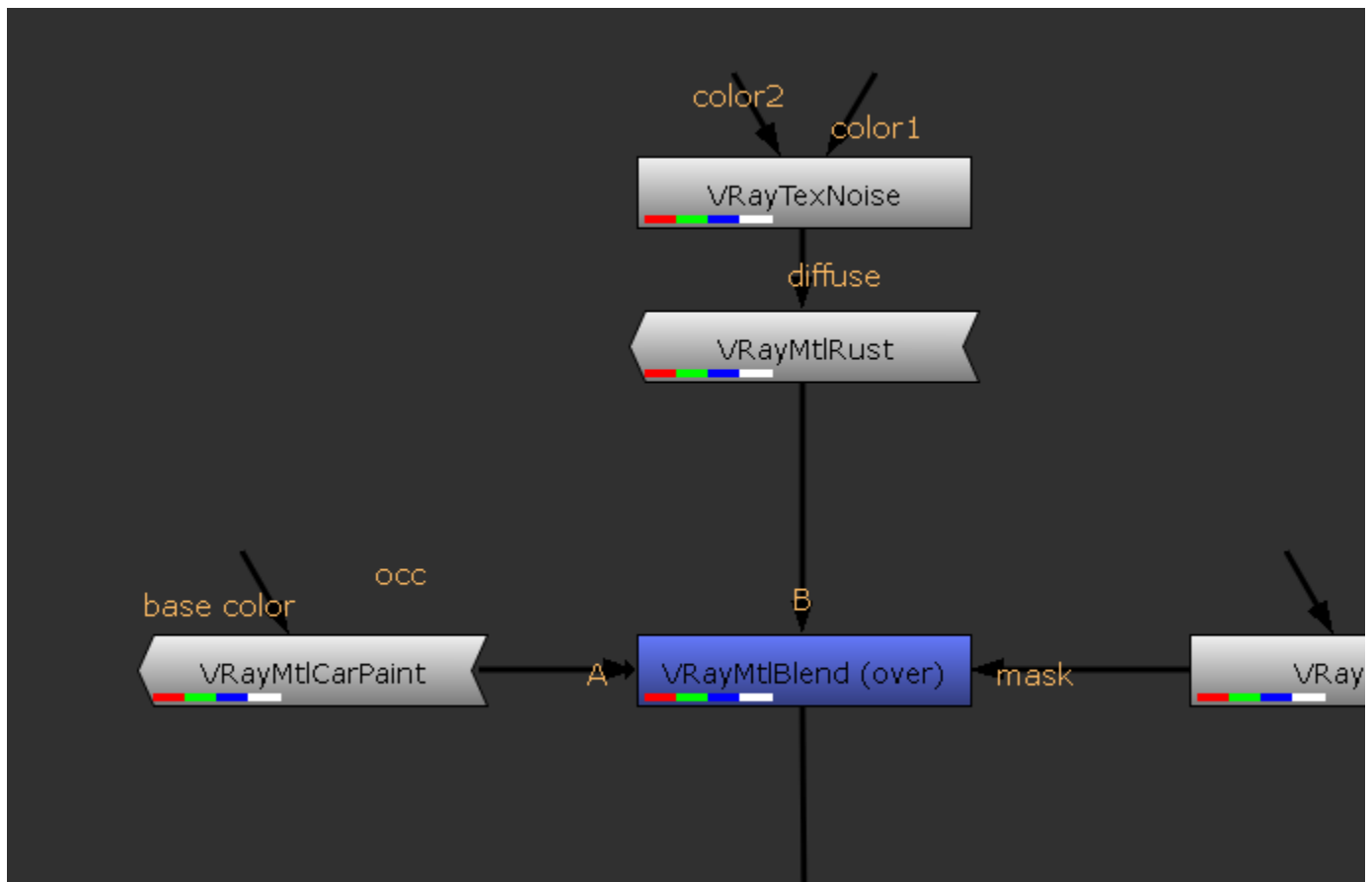

4. Create a **VRayMtlCarPaint** material, name it *VRayMtlCarPaint,* and connect the **A Input** of the VRayMtlBlend material.
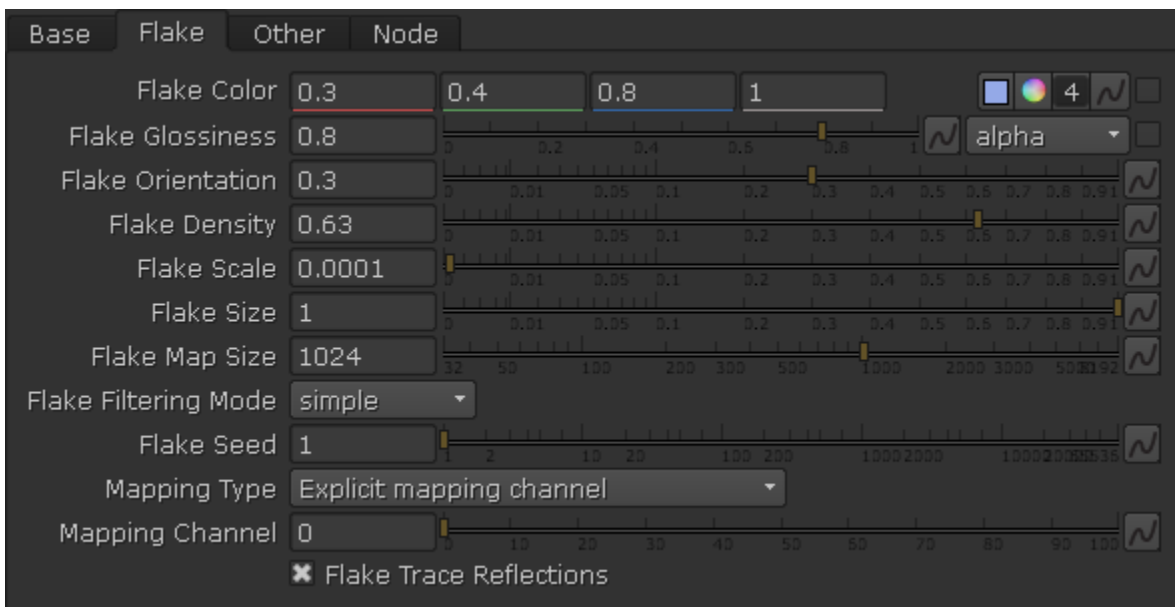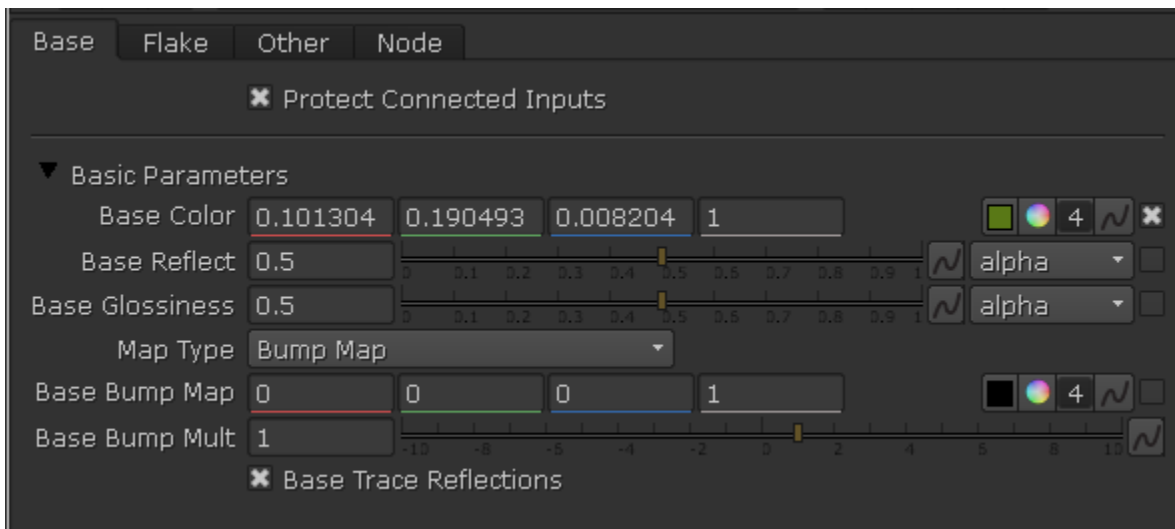
A Beauty Render of **VRayMtlBlend** with a **VRayDirt** acting
as a mask between VRayMtlRust & VRayMtlCarPaint
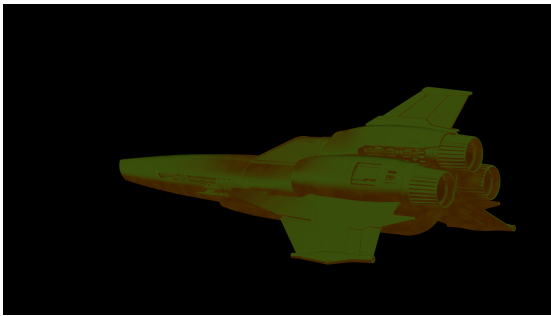
The Diffuse Render Element of**VRayMtlBlend** with a **VRayDi
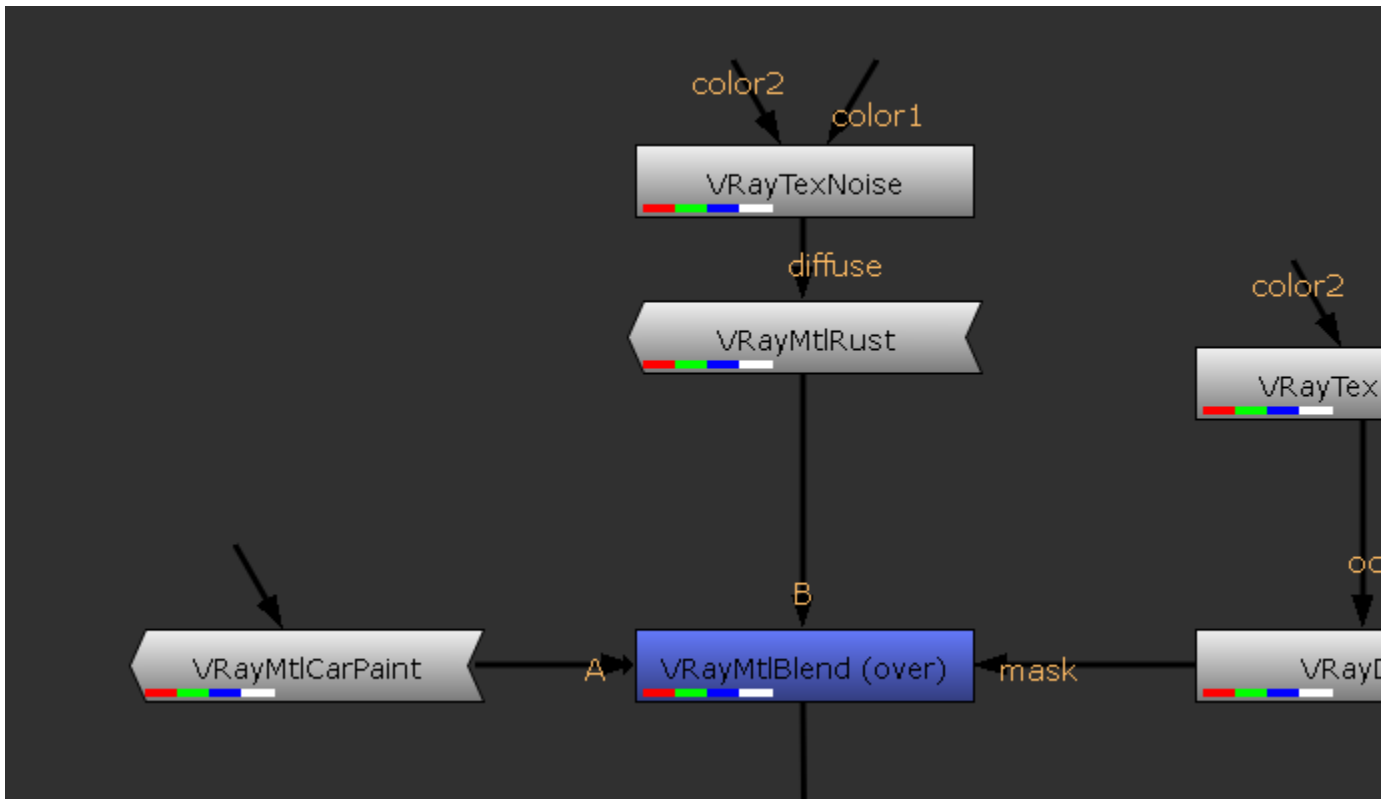rt** acting as a mask between VRayMtlRust &
VRayMtlCarPaint

Part III: Adding variation the VRayDirt used as a mask for a VRayMtlBlend

In this section we learn how to add some variation to the **VRayDirt** which is being used as a blend control mask for the **VRayMtlBlend** and its two
materials.

1. Create a **VRayTexNoise** texture and connect it to the Occluded Color channel of the **VRayDirt**.

2. Ensure that **Color 1** of the **VRayTexNoise** texture is set to *black* and that **Color 2** of the **VRayTexNoise** texture is set to *white*.

3. Change the **Type** in the **VRayTexNoise** texture to **Fractal**, with **Iterations** set to *2,* and **Size** set to *10.*
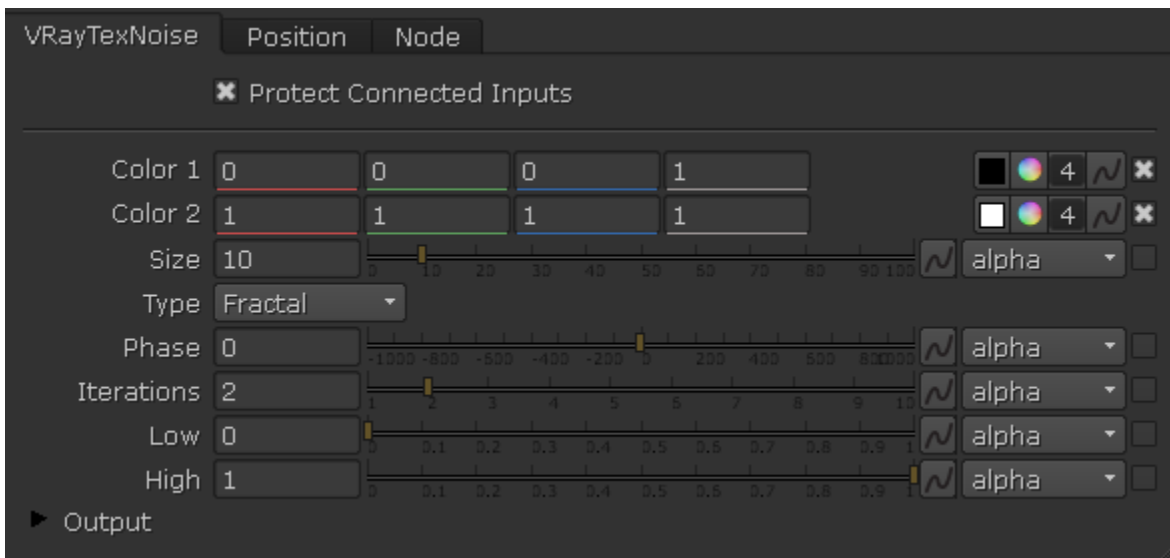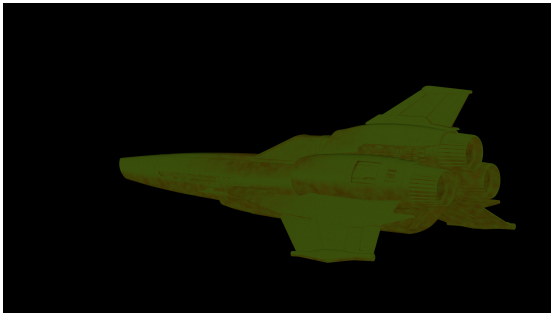

4. Render the image.

A Beauty Render of **VRayMtlBlend** using a **VRayDirt** as a mask between VRayMtlRust and VRayMtlCarPaint, with **VRayTexNoise** adding variation to the **VRayDirt.**

The Diffuse Render Element of **VRayMtlBlend** with a **VRayDirt** as a mask between VRayMtlRust and VRayMtlCarPaint, with **VRayTexNoise** adding variation to the **VRayDirt.**