Volumetric Grid

This page provides information on the Volumetric Grid as implemented in V-Ray for Houdini.

Overview

The V-Ray Volumetric Grid is a special kind of volumetric effect that works with grid-based cache formats, as opposed t the Environment Fog, which is a general purpose volumetric shader.

The Volumetric Grid setup requires two nodes - a geometry node with a volume object in it (e.g. V-Ray VolumeGrid Cache), and a second volume node in the mat network:

- V-Ray VolumeGrid Cache – Reads and visualizes volumetric cache data (*.aur*). Contains controls related to how volumetric geometry is loaded during rendering.
- V-Ray VolumeGrid Shader – Controls the rendering and shading properties for the volumetric cache. In addition to volumetric rendering, this node provides options for isosurface rendering and meshing.

This two-node setup allows users to export native Houdini volumes and render them with V-Ray using the V-Ray Volume Grid.

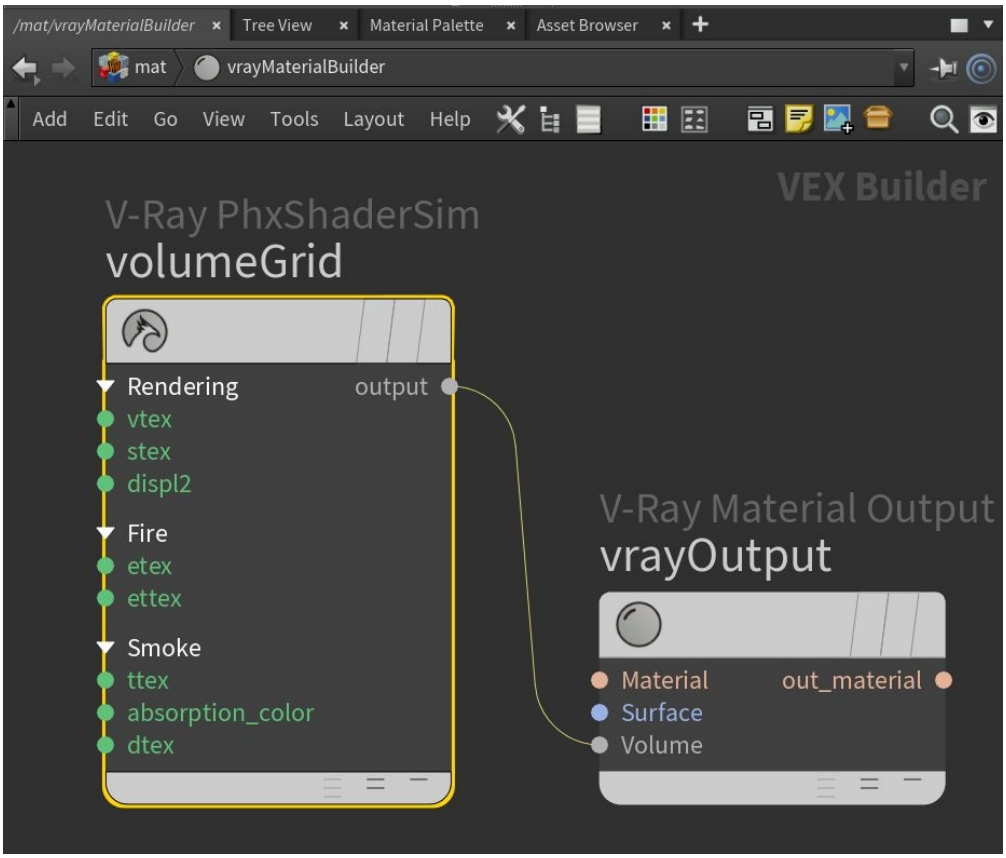
Currently there are compatibility issues with Volume Rendering on macOS and Linux operating systems. This will be resolved as soon as possible.

Setting up the Volume Grid

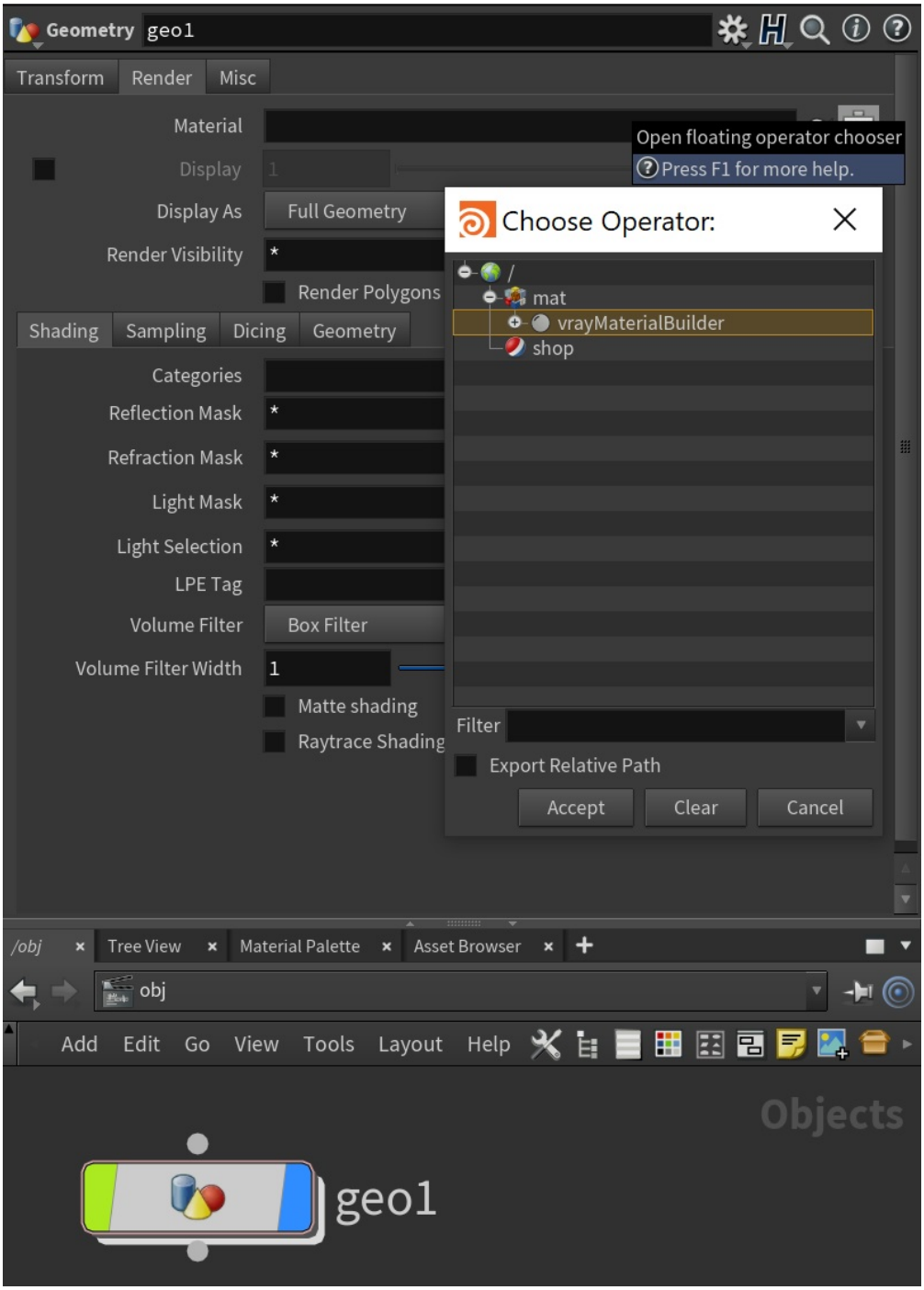
To set up the V-Ray Volume Grid, perform the following steps:

1. Create a Geometry node with a volume object (such as V-Ray Volume Grid Cache node, VDB through File SOP, or Volumetric Geometry) inside it.

2. Create a mat network with a V-Ray Material Builder node. Inside the V-Ray Material Builder context, create a V-Ray VolumeGrid Shader and connect it to the Output node.



3. Select the Geometry node and in the **Render** tab, connect the V-Ray Material Builder with the VolumeGrid Shader in the **Material** input.



If you want to apply V-Ray VolumeGrid Shader with a Material SOP, you must first pack the volume object with a Pack SOP.