OpenVDB

OpenVDB is an open source hierarchical data structure for volumes. It has become the standard for interchange of volumetric data between applications. For more information about OpenVDB, see the OpenVDB FAQ .

Rendering from an OpenVDB File

If you already have a .vdb file, RenderMan will read the vdb file using **blobbydso:impl_openvdb** procedural instead of converting the .vdb file to volume.

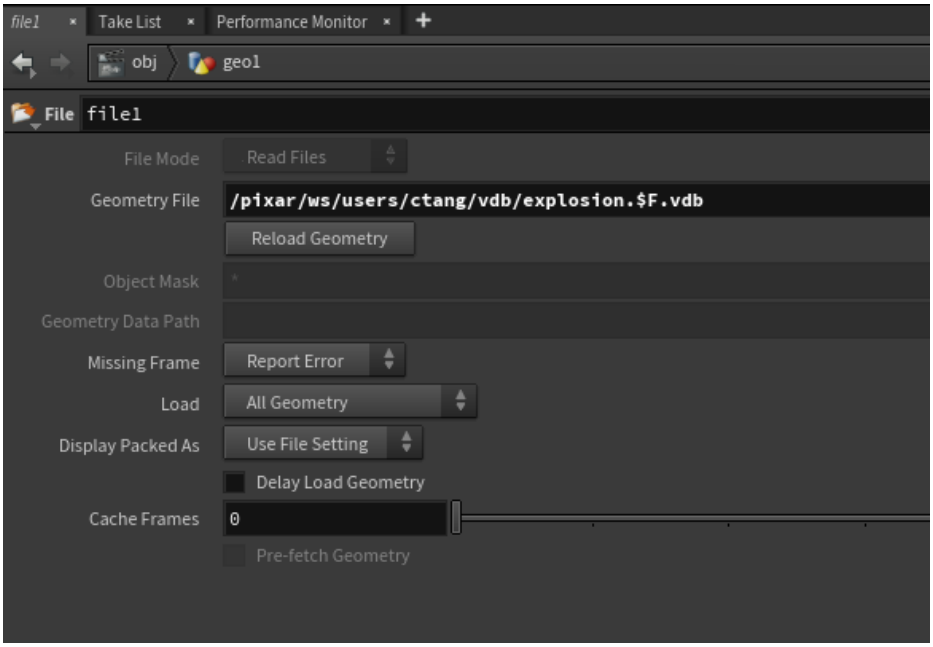
Simply create a **Geometry** SOP. Dive inside the node and set the **File** SOP's **Geometry File** parameter to point to your .vdb file.

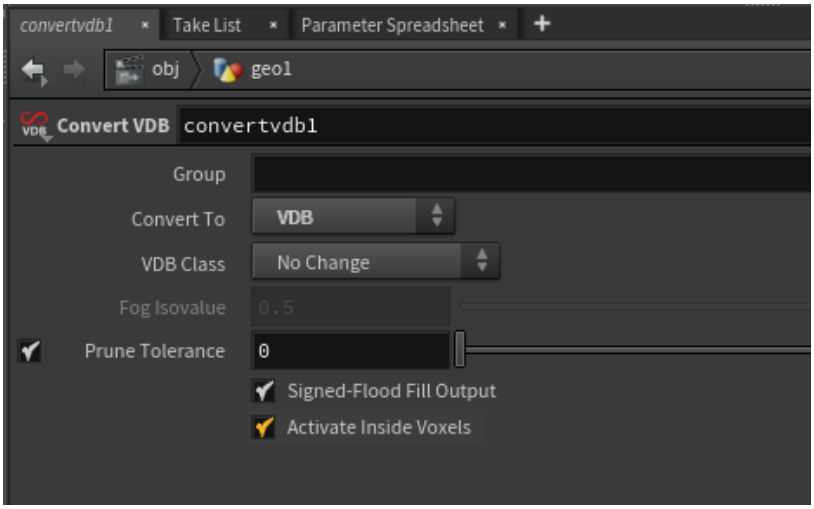
That's it!

RenderMan for Houdini will automatically detect the bounding box and all the VDB grid names.

Assign PxrVolume or your volume Bxdf to the Geometry node. Don't forget to set the density primvar name (which matches the density grid name in your .vdb file) appropriately in PxrVolume.

Your node info button can tell you what primvars are available if they were exported, examples include density, emission, temperature, velocity...



Rendering from Houdini Volume

To render a Houdini volume network or a non-VDB file, connect it to a **Convert VDB** SOP. Change **"Convert To"** to **VDB.** When you render, RenderMan for Houdini will automatically write out the .vdb file to the Houdini temporary directory. This way, we are utilizing the efficient VDB format and not emitting RiVolume data that could get very large.