

Volume Render: High Def Volume Rendering

The Volume Render module allows for the generation of High Definition Volume Renderings. This exercise will demonstrate how to generate a high definition volume rendering using a CT data set with a Volume Composite with a tissue map overlay. Note the high definition volume renders can be generated with any of the rendering algorithms available in the Volume Render module.



1. Load the **CT_Heart.aww** data set from the **\$:\BIR\images\TutorialData** directory.
2. Open the **Volume Render** module (**Display > Volume Render**).
3. Open the Render Size option from the Generate menu and change the Width and Height of the Render size to 2000x2000. Then click Apply (figure 1).
4. Open the **Render Type** window from the Generate menu and select **Volumetric Compositing**, check the Interpolated Rays option (figure 2).
5. Click the **Tissue Map** button to open the Tissue Map tool. Right-click on the main tissue map panel and select **Default Tissue Maps**, choose the **CT 2** default tissue map.
6. Now open the **Perspective Rendering** tool (**Tools > Display > Perspective**) and then click the Perspective Render button (figure 3). In Perspective mode, a ray is cast for every output pixel in the rendering. In this case 4 million (2000x2000) rays are cast through the current field of view (FOV) for the perspective geometry.
7. Note the Render Size controls the number of rays, and the FOV controls the space in the volume through which that number of rays is cast. It may take a little while to render depending on the volume size.
8. Once the rendering is complete, the HDVR will be displayed in the main Volume Render window.
9. To save the rendering, Select **File > Save Rendering**. Name the rendering HDVR and then click the **Save Last Rendering** button.
10. Close the Volume Render module before proceeding to the next exercise.

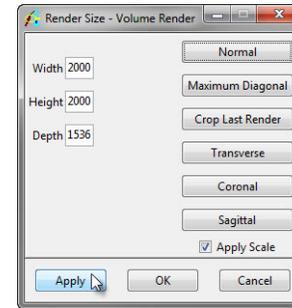


Figure 1

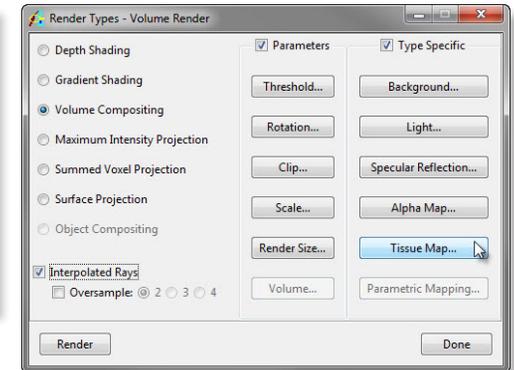


Figure 2

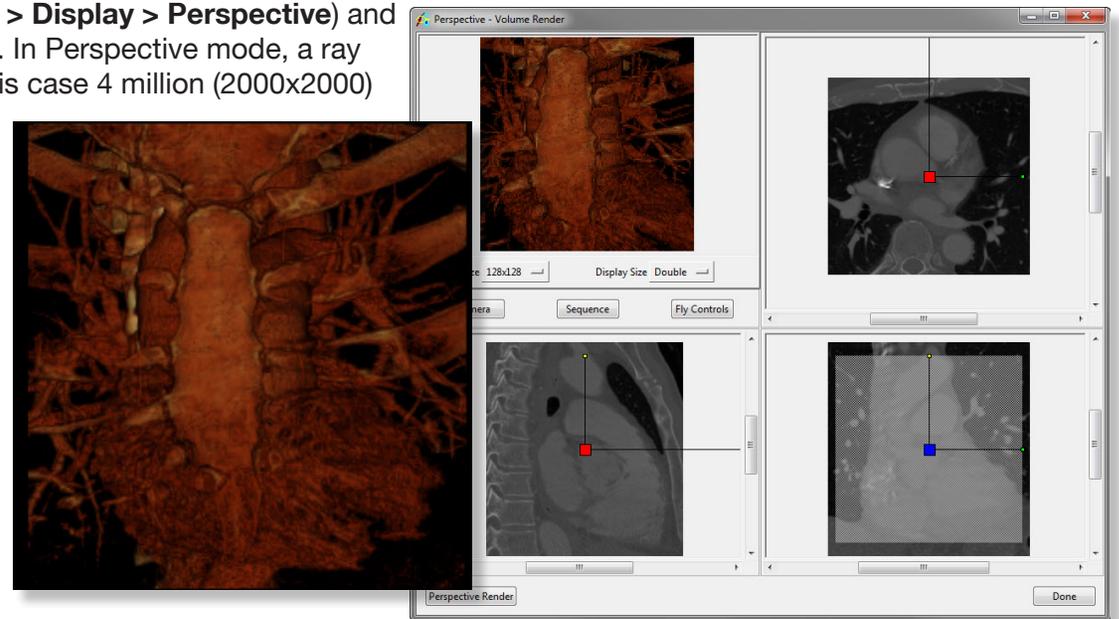


Figure 3