

Exercise 19 : Volume Render Parametric Mapping

Volume Render provides the ability to generate parametric maps when a related volume is loaded and the render type is set to gradient shading. This exercise will demonstrate how to use the parametric mapping option.

1. Load the **SISCOM_Extracted_Brain.avw** and **SISCOM_4D_ActivityMap.avw** data set from the `$:\BIR\images\TutorialData\AdditionalData` directory.

note | The SISCOM_4D_ActivityMap is a multivolume created using the SISCOM module. Each volume represents an activation map generated with a different activity standard deviation. Starting at 0.1 and increasing at a 0.1 intervals to 5.0



2. Open the **Volume Render** module (**Display > Volume Render**). In the Volume Render window, select **File > Input/Output Ports** (figure 1).

3. Drag-and-drop the **SISCOM_Extracted_Brain** file from the Analyze workspace into the **Volume** port. Next, drag-and-drop the **SISCOM_4D_ActivityMap** from the Analyze workspace into the **Related Volume** port.



4. Open the **Preview** window (**Generate > Preview**).

5. Open the **Parametric Mapping** window (**Generate > Type Specific > Parametric Mapping**).

6. In the Parametric Mapping window, set **Parametric Mapping** to **On** (figure 2).



7. Review the rendering in the Preview window. If necessary, use the **Rotation** window (**Generate > Rotation**) 'Change View' option to maneuver the brain to a desirable orientation (figure 3).

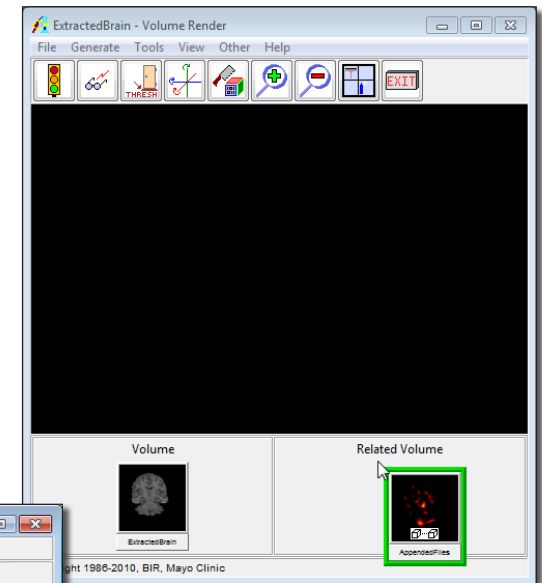


Figure 1

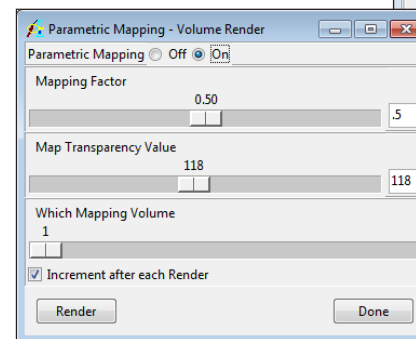


Figure 2

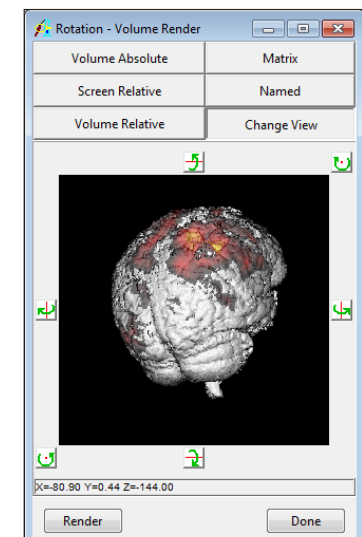


Figure 3

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8. Review the effects of changing the **Mapping Factor** and **Map Transparency** options in the Parametric Mapping interactively in the Preview window.
9. To view the 4D multivolume over time, use the **Which Mapping Volume** option. Check **Increment after each Render**, then press **Render**, until you've made your way through the volumes (figure 4).
10. Close the Volume Render module before proceeding to the next exercise.

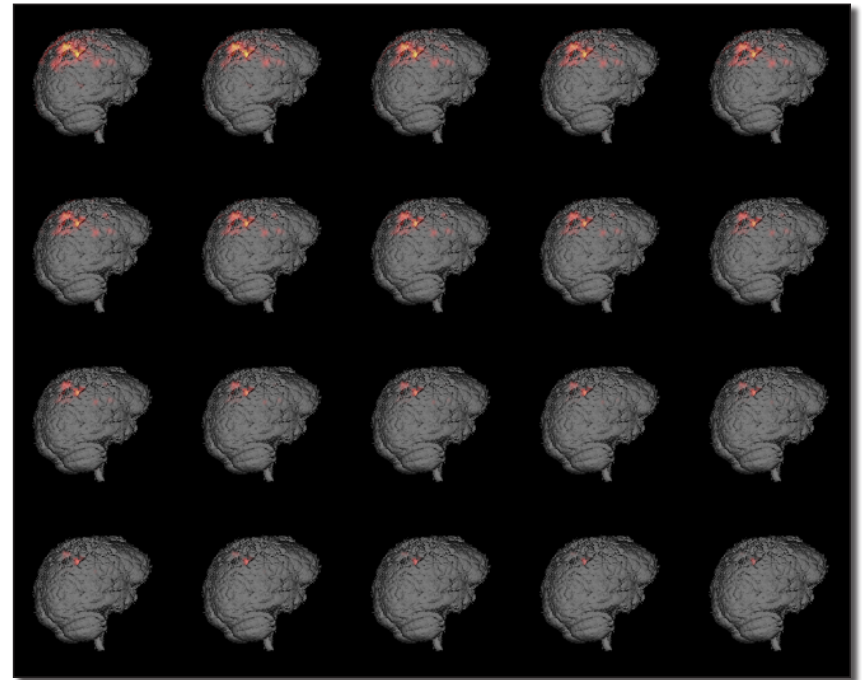


Figure 4