Surface Render: Surface Maps

Surface Render provides a semi-automated interface for the conversion of object maps into surface maps using the Adapt/Deform algorithm.

1. Load the **Cubic_CT_Head.avw** data set from the **$:\BIR\images\TutorialData** directory.
2. Open the **Surface Render** module (**Display > Surface Render**).
3. Choose **File > Load Object Map** and load the **Cubic_CT_Head** object map from the **$:\BIR\images\TutorialData** directory.
4. In the Objects window (**View > Objects**) returned, set **Control by** to **Attribute** and set the **Display** attribute to **Off** for the **Rope**, **Left Skin**, and **Skull** objects (figure 1).
5. Choose **File > Create Surface Map**.
6. In the **Surfaces** window (**View > Surfaces**) returned, click **From Object(s)**. A dialog box will be returned asking if you would like to create the surface map from all currently active objects, click **Yes**. The objects that have their 'Display' attribute set to 'On' (in the Objects window) will be tiled and a surface map generated.
7. Once the surface map is generated, click **Render** to display the results (figure 2).
8. Choose **File > Load Surface Map** and load the **Cubic_CT_Head.smp** surface map from the **$:\BIR\images\TutorialData** directory.
9. Click **Render** to display the results.
10. Open the **Camera** tool (**Generate > Camera**) and set **Sort** to **Front-Back** (figure 3). Click **Render** to display the results.
11. In the Surfaces window set **Control** by to **Attribute**. Choose **Shading** from the **Attribute** drop-down menu and change the shading of the **Right Skin** surface to **Gouraud**.
12. Click **Render**, note the changes in the rendering (figure 4). Experiment with the different shading options.
13. Choose **File > Save Surface Map** to save changes made to the surface map.
14. If you wish to export the surface map out of Analyze for use in another application, choose **File > Export Surface Map**. Surface maps can be exported out of the Surface Render module in the Inventor (.iv) or VRML (.vrml) surface description formats.
15. Close the Surface Render module before proceeding to the next exercise.

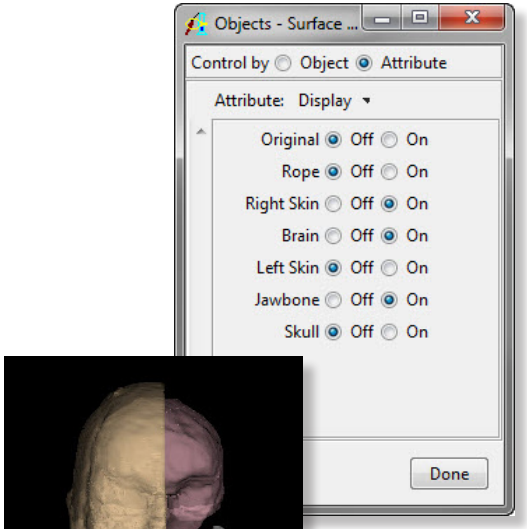

Figure 1

Figure 2

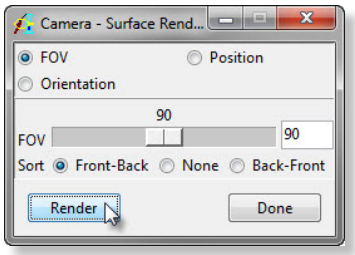

Figure 3