Information Visualization

Final task

システム情報学研究科

システム科学専攻

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1. Functions:

1-1. Users can change the shading models with original model (no reflection), lambertian reflection model, phong reflection model, blinn-phong reflection model and cook-torrance reflection model by selecting in the drop-down list.
1-2. Users can add/delete slice planes and change the height of these slice planes by dragging the slider bar.
1-3. Users can change the color of these models by selecting colors in the controller.
1-4. Users can change the isovalue of these models by dragging the slider bar.

2. How to use:

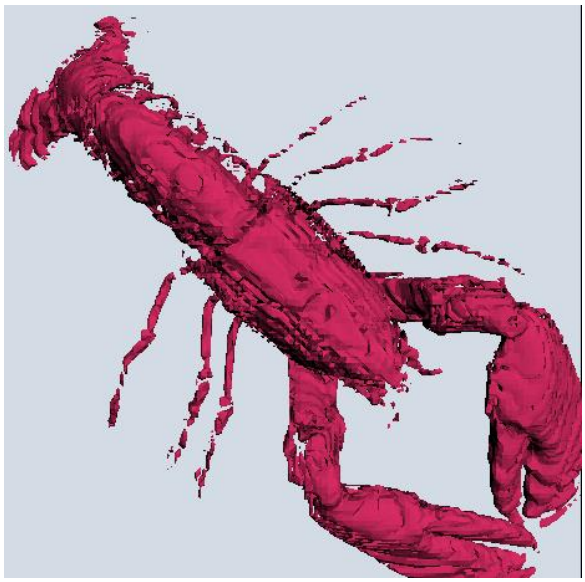
We can use the following functions as below:

2-1.Change isovalue.
We can change isovalue from 0 to 255.

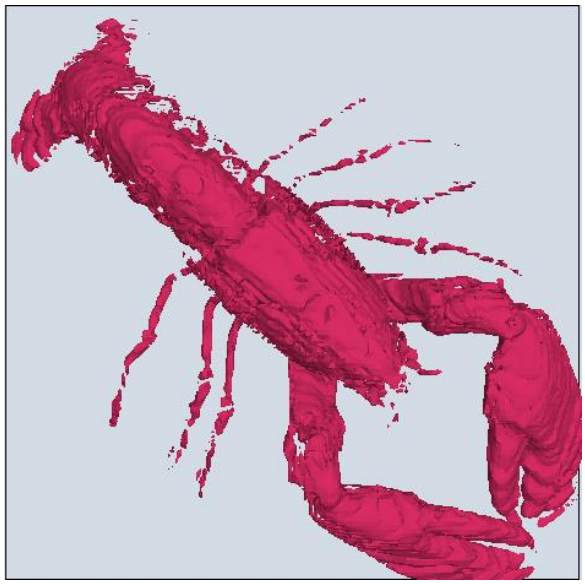
2-2.Change color.
We can change color of lobster by changing the value of R,G,B from 0 to 255.

2-3.Shading model.

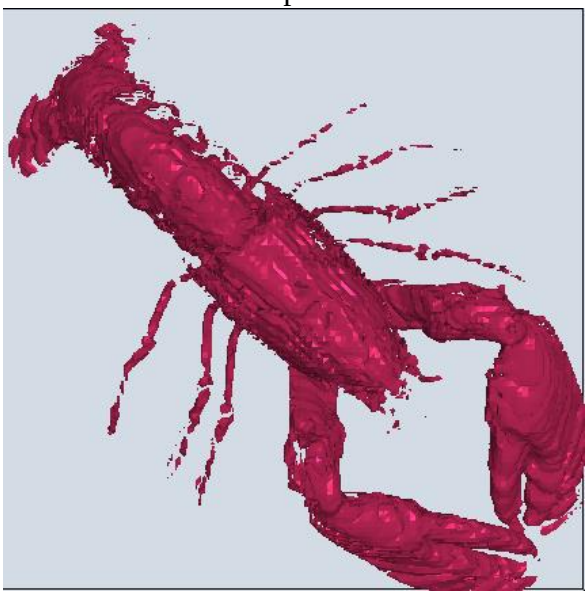
(1). noraml model: the extracted isosurfaces from the lobster data without any reflection or shading. The color can't be changed.



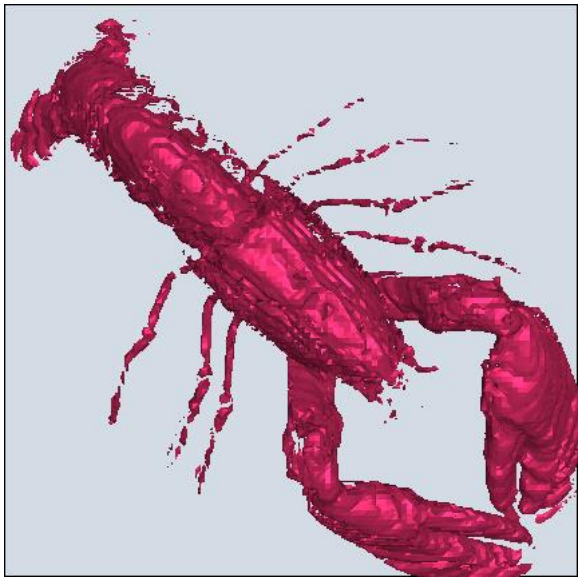
(2). Lambertian reflection model: the implementation of lambertian reflection based on the original model with vertices interpolated. The color can be changed.



(3). Phong reflection model: the implementation of phong reflection based on the original model with vertices interpolated. The color can be changed.



(4). Blinn-phong reflection model: the implementation of blinn-phong reflection based on the original model with vertices interpolated. The color can be changed



2-4.Reset.

You can click "Reset" button at any time, and the input will be reset immediately