

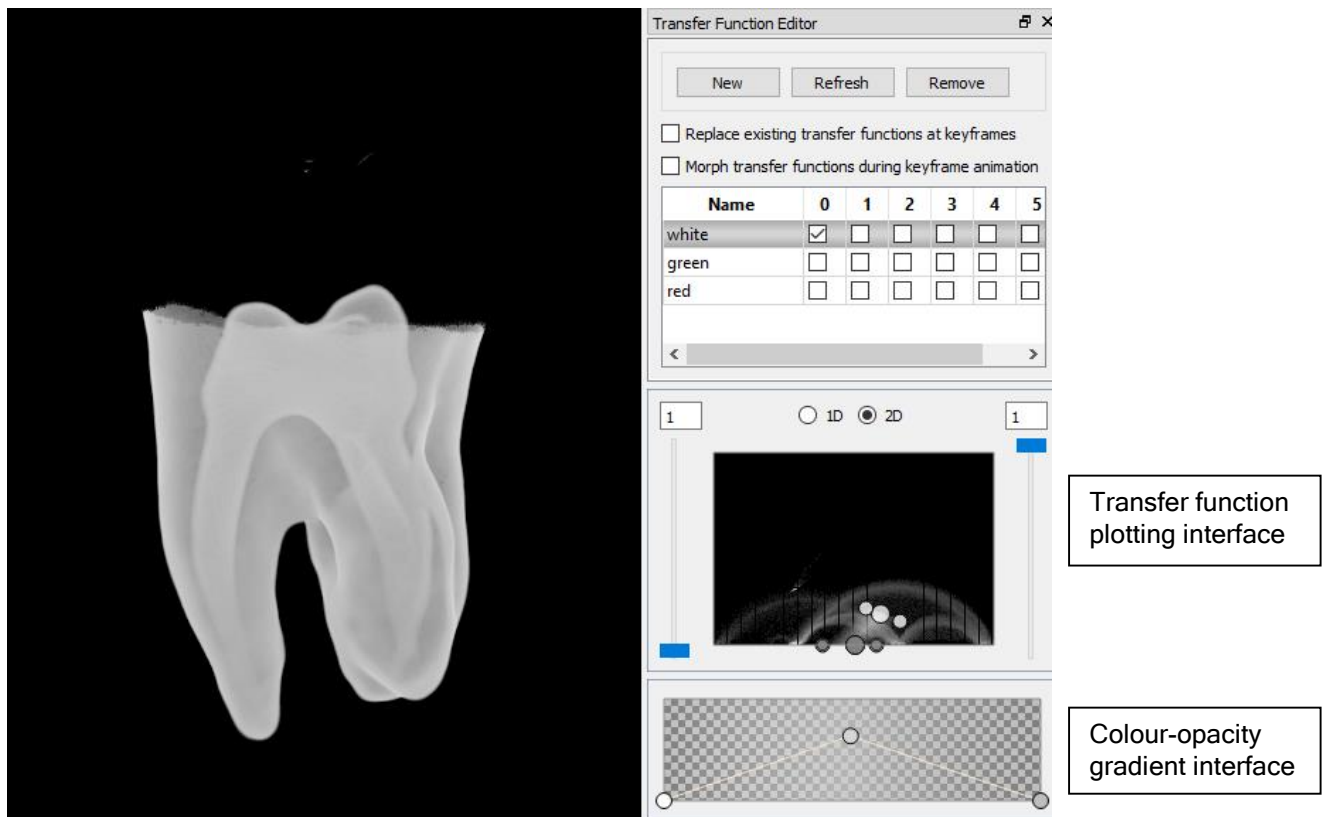
Tutorial-04

Open Drishti Render.

Load **tooth.pvl.nc** (created in tutorial 01) in Drishti Render.

Switch to HiRes mode.

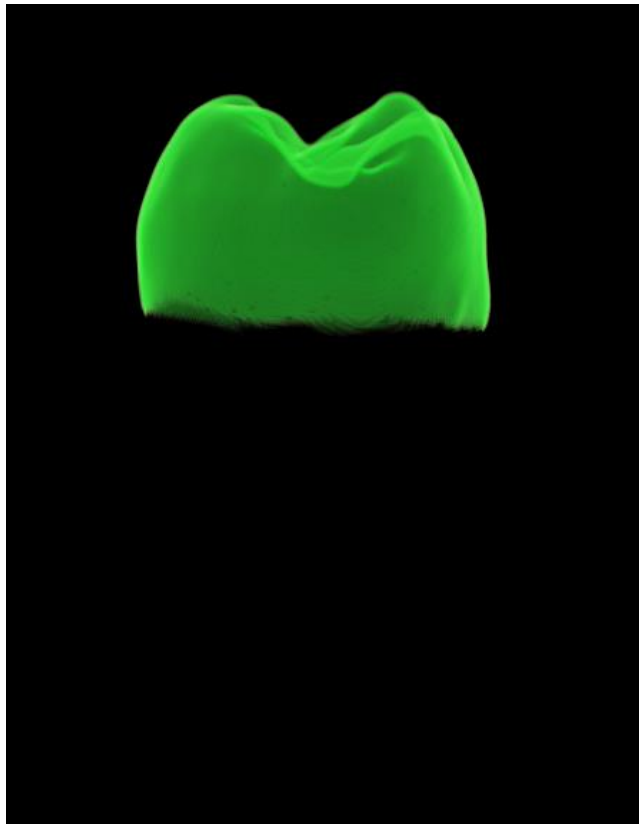
Add three transfer functions *white*, *green* and *red* as shown below.



Use Ctrl+Left mouse to rotate the spline normal points around.

These transfer functions catch the boundary layer in the data. In tutorial-03 we classified the homogeneous regions in the data. Arches within the 2D histogram usually signify the boundary between two homogeneous regions.

Select **1D** switch on Transfer Function plotting interface to display the 1D voxel intensity histogram for the data. Default display is 2D histogram.



Transfer Function Editor

New Refresh Remove

☐ Replace existing transfer functions at keyframes
☐ Morph transfer functions during keyframe animation

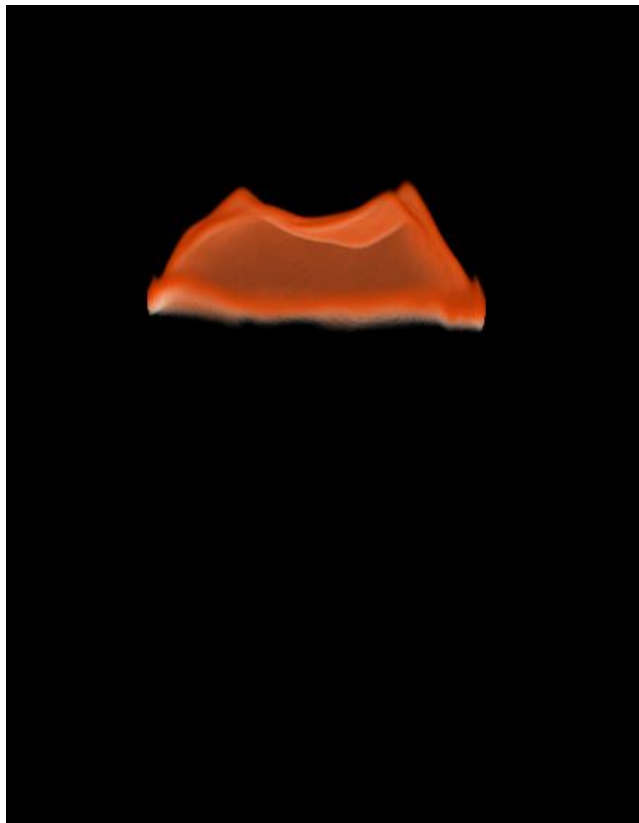
Name	0	1	2	3	4	5
white	☐	☐	☐	☐	☐	☐
green	☒	☐	☐	☐	☐	☐
red	☐	☐	☐	☐	☐	☐

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1 1D 2D 1

A 2D visualization of the transfer function, showing a green volume rendered against a black background, with a blue bar at the bottom.

A 1D visualization of the transfer function, showing a green volume rendered against a black background, with a blue bar at the bottom.



Transfer Function Editor

New Refresh Remove

☐ Replace existing transfer functions at keyframes
☐ Morph transfer functions during keyframe animation

Name	0	1	2	3	4	5
white	☐	☐	☐	☐	☐	☐
green	☐	☐	☐	☐	☐	☐
red	☒	☐	☐	☐	☐	☐

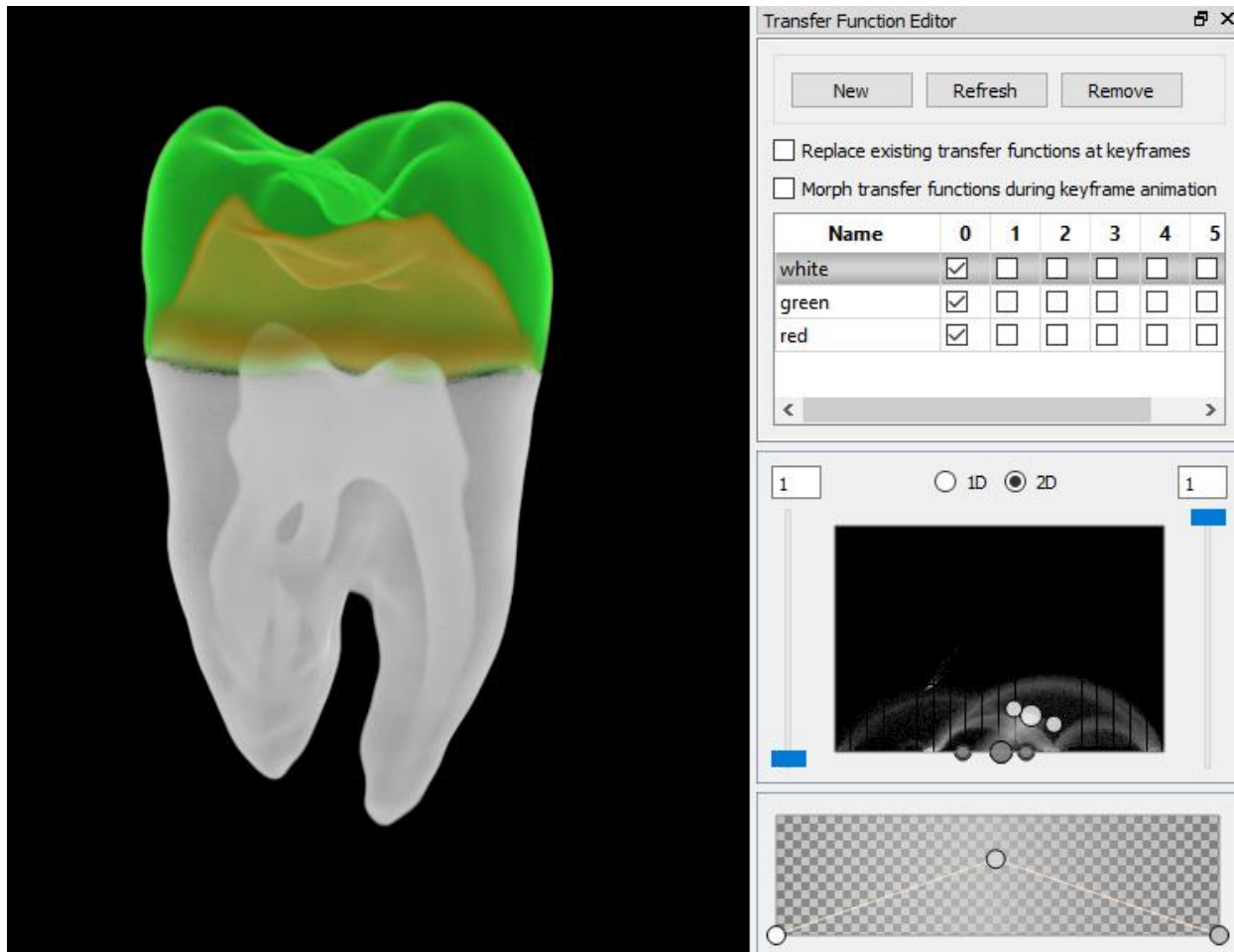
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1 1D 2D 1

A 2D visualization of the transfer function, showing an orange volume rendered against a black background, with a blue bar at the bottom.

A 1D visualization of the transfer function, showing an orange volume rendered against a black background, with a blue bar at the bottom.

Now switch on all transfer functions to show all three regions.



Close **Transfer Function Editor** and open **Shader Widget**.

Press **1** for screen-based shadow rendering : Toggle->Shadow Render (1)

Switch on **Reveal** in **Shader Widget**. There are two types of reveal - *Peel* and *Keep Inside*. Observe the changes in the rendered image when changing the sliders for *frontface*, *backface* and *mix*.

Press **Ctrl+H** to read help for **Shader Widget**.

Try to obtain the following renderings. Play with *shadow contrast* and *shadow blur* settings to see the effect on the rendering.

