

Operators:

- Model – Allows for changes in the model being represented in the vis
- Steps – The number of boxes the 3D model is divided into
- Alpha Correction – Changes the alpha of the colours in the vis
- Colour 1/2/3 – The colours used to demonstrate depth
- Step Position 1/2/3 – A scale used to determine the depth of the colours to which they are assigned
- Navigation – Mouse movement and input can be used to pan and rotate the image
- Zoom – Mouse wheel scrolling or pressing allows the user to increase the size of the object

Operands:

- The three model types provided are a foot, a teapot, and a bonsai tree
- The operand for steps is any integer between 0-512
- The operand for alpha correction is any decimal between 0.01 and 5 rounded to 2 digits
- Six-digit Hexadecimal values representing shades in the RGB colour space are the operands used by the Colour operator
- Step position uses a decimal number between 0-1 rounded to 2 decimal places

Parameters of Interaction:

- The Model operator uses a simple drop-down menu containing the 3 options available
- Steps is controlled by a slider for simplicity; or a text box which displays accurate values and can be used to key in numbers as desired.
- Alpha Correction and Step Position both work on the same principle as steps
- Colour has a text box which displays the current hexadecimal value on a background of the colour it represents.
- It can be changed by hovering over the text box and using the RGB colour scale to pick a shade; or by simply typing the desired hexadecimal value in the text box

Suggestions for additional operators/operands:

- Selection
 - The ability to select certain steps or slices for a more detailed and less crowded analysis of the object in the x-ray
- Filtering
 - The vis allows the user to colour items in the slices based on their depths or thickness but does not allow the user to properly see through the outer layers clearly.
 - Lowering the alpha helps but by being able to filter out the pixels on the slices that are a certain colour would allow for a more detailed view of the x-ray.

References:

Leandro R Barbagallo. 2018. *LEBARBA*. [ONLINE] Available at: <http://www.lebarba.com/WebGL/>. [Accessed 27 March 2018].