

3D Organon XR User Manual XR Imaging

for PC VR Headsets

Available for:

Standalone VR headset (connected to a PC): Meta Quest 2 | Meta Quest 3 |

Meta Quest Pro | Pico Neo 3 Pro | Pico 4/4E | HTC Vive Focus 3

PC VR Headsets: HTC Vive Pro/Pro 2/Pro Eye | HTC Vive Cosmos
and Windows MR headsets like HP Reverb G2

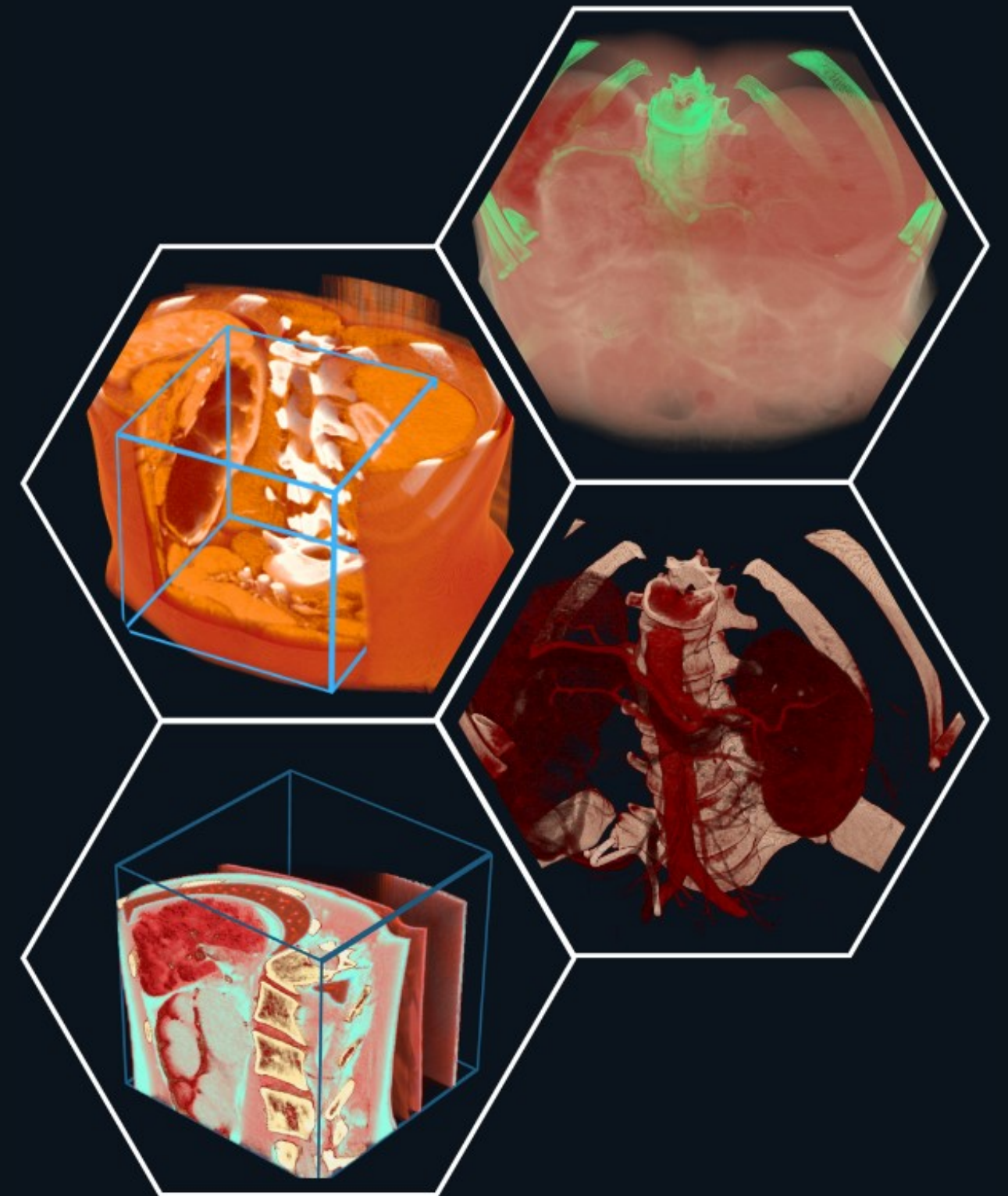


Table of Contents

Kindly continue reading, or click on a link to get directly to a specific section.

Setup	3
The Lobby	4
The DISCLAIMER NOTICE	5
DICOM Visualization	6
VR Controllers	7
User Interface	9
Menu	10
Library	11
Colorize	13
• Select a Coloring Scheme	14
• The Coloring Palette	15
• Start a new Coloring Scheme	16
• Adding new Nodes	17
• How to Delete Nodes	18
• Save your custom Coloring Scheme	19
Shaders	20
Save your Scenes	21
Save your Presets	22
Slicing	23
Cutoff	24

1 Requirements

- For Hardware Requirements & Installation Instructions [click here](#).
- To log in, you must have an active **Subscription** which is provided to you with a License Key.

If you already have a Subscription then:

- Activate your 3D Organon account from the **Welcome to 3D Organon** email you received.
- Get your License key from the **Order confirmation | 3D Organon License key(s)** email you received.

If you do not have a Subscription:

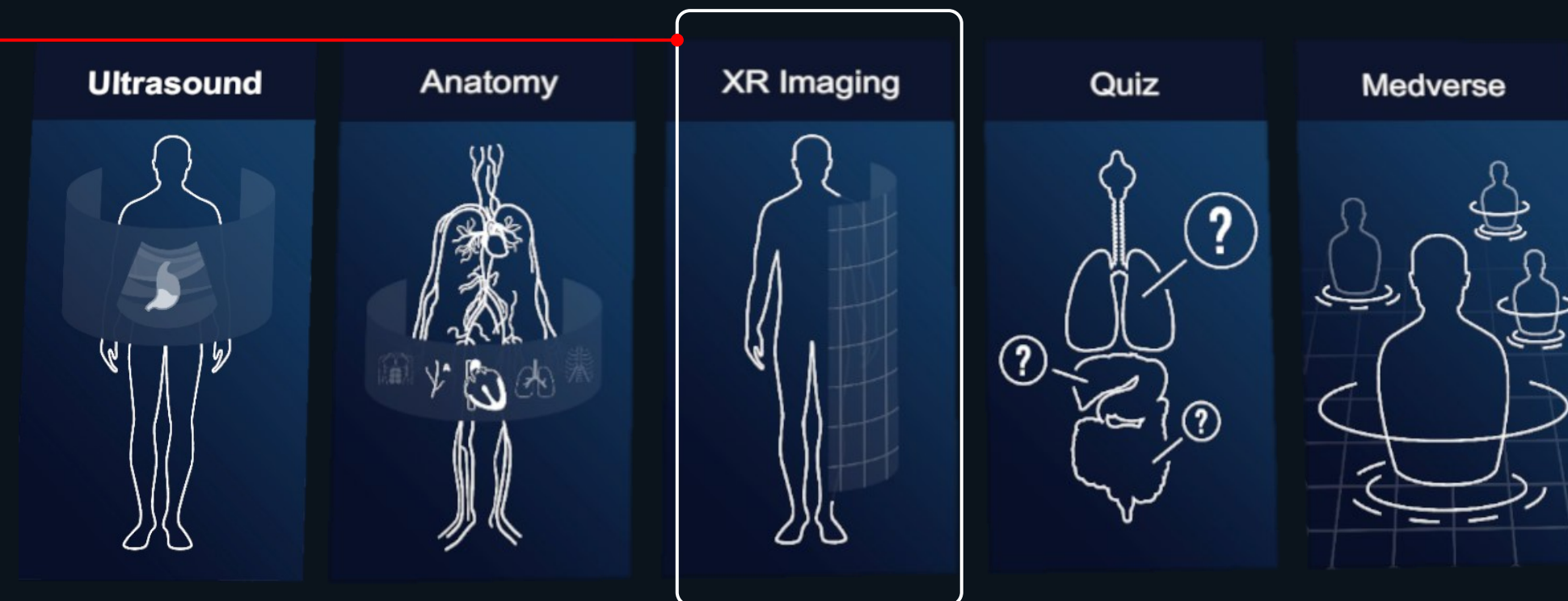
- Contact our Customer Development Team at prosupport@3dorganon.com

2 The Lobby features

Select from the following modules:

- XR Imaging

**The XR Imaging module is not included in Standalone VR headsets.*



3 The DISCLAIMER NOTICE

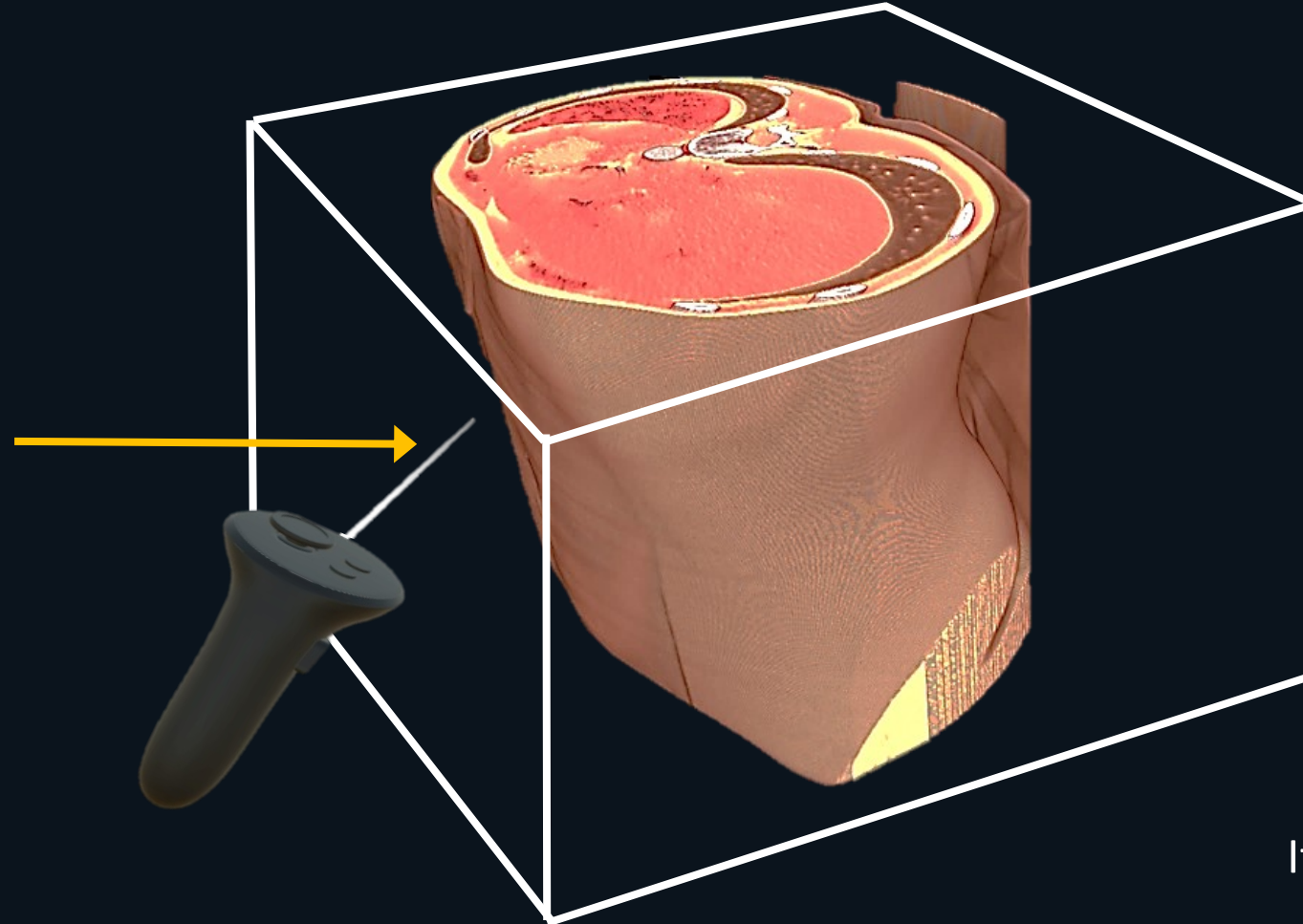
“Please acknowledge that this software is intended for educational and informational purposes ONLY and is not meant to be used for surgical planning or disease diagnosis medical purpose. You understand the importance of responsible use of this software and you are committed to using this software only for likely purposes.”

The software provides a user-friendly platform that allows to gain a better understanding of complex medical anatomy and concepts. This can be a crucial resource for medical students, healthcare professionals, and other interested individuals who are seeking to enhance their knowledge of medicine.”

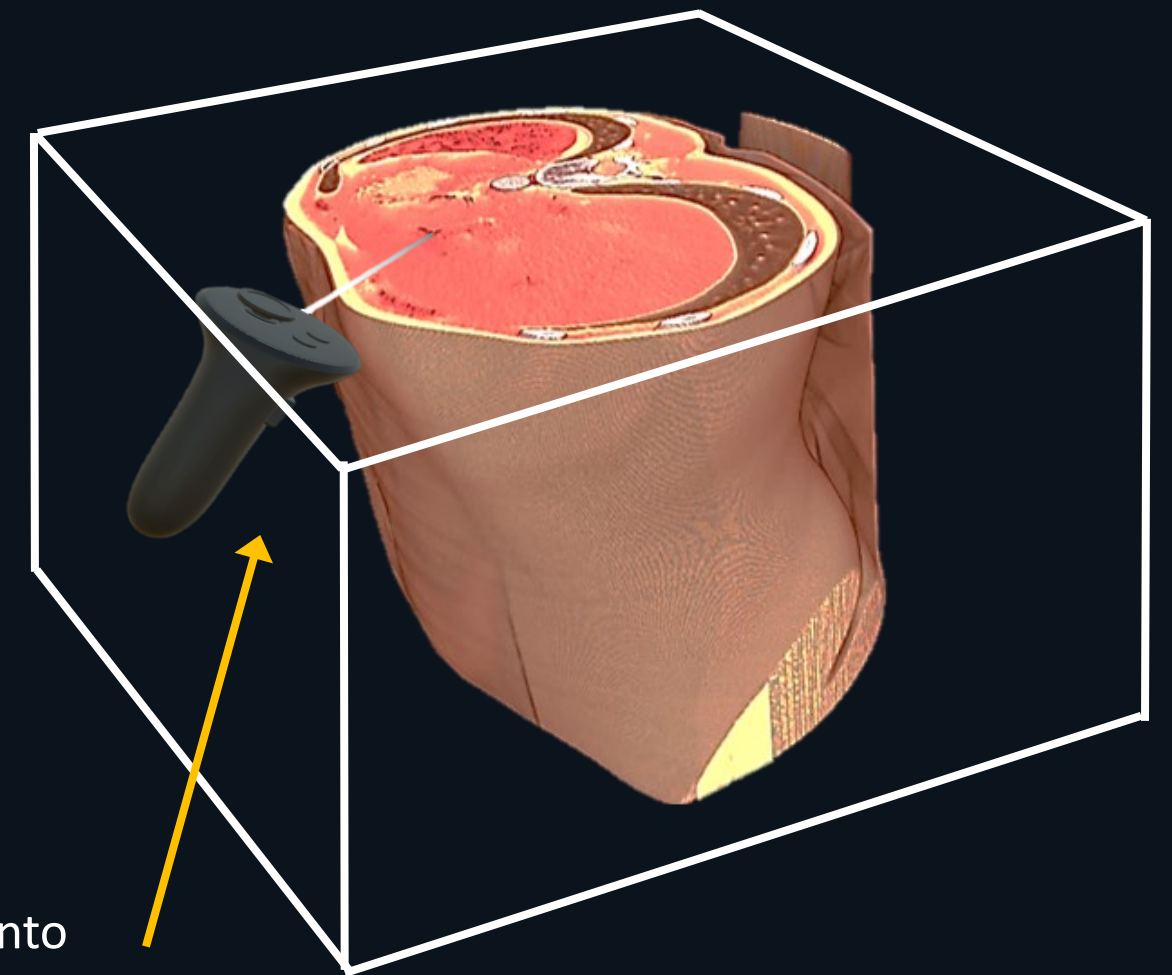
4 How a DICOM File is visualized

- The system recognizes the rendered model including tissues and air as a uniform box.

The laser pointers are not penetrating through the model due to the actual boundary of the DICOM.



If you want to point onto tissues at the visible area you need to move the controller inside the virtual box.



5 The Controllers

- Interface options with Thumbstick / Touchpad

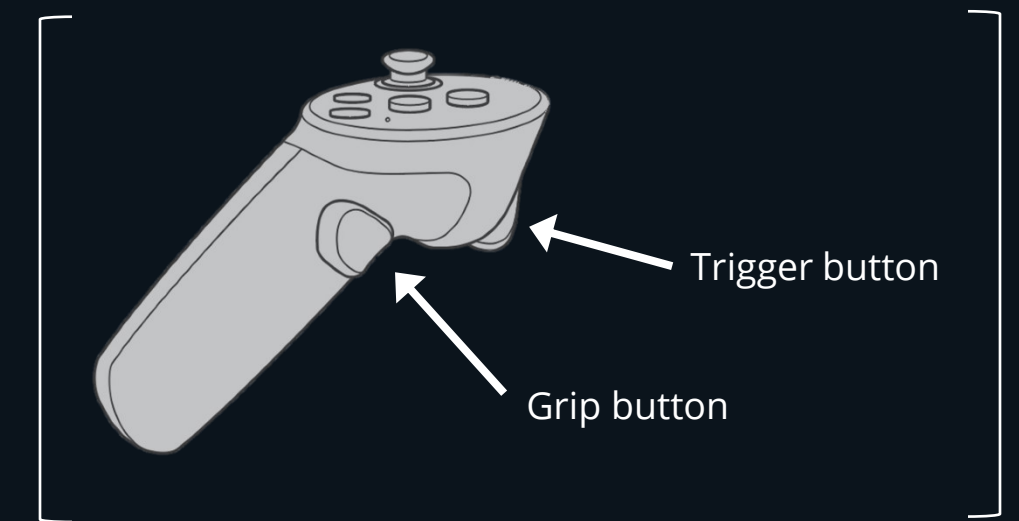
Model rotation across the **Vertical** axis.

Model rotation across the **Horizontal** axis.



Up or Down movement of the whole model (Pan).

Scaling the model larger or smaller.

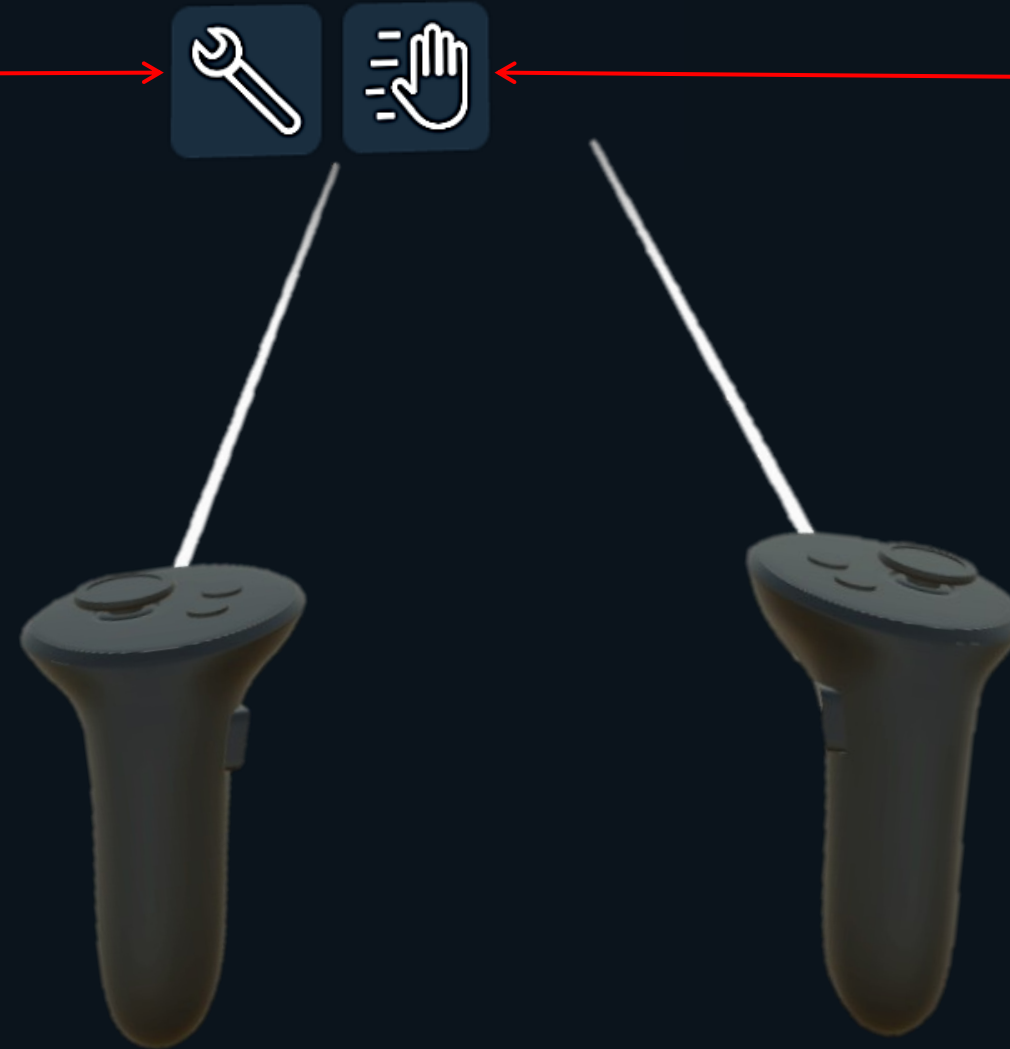


VR Controllers

Click on the wrench icon for the **Tools** to appear.



Swap the Tools from the right to the left controller and vice versa.

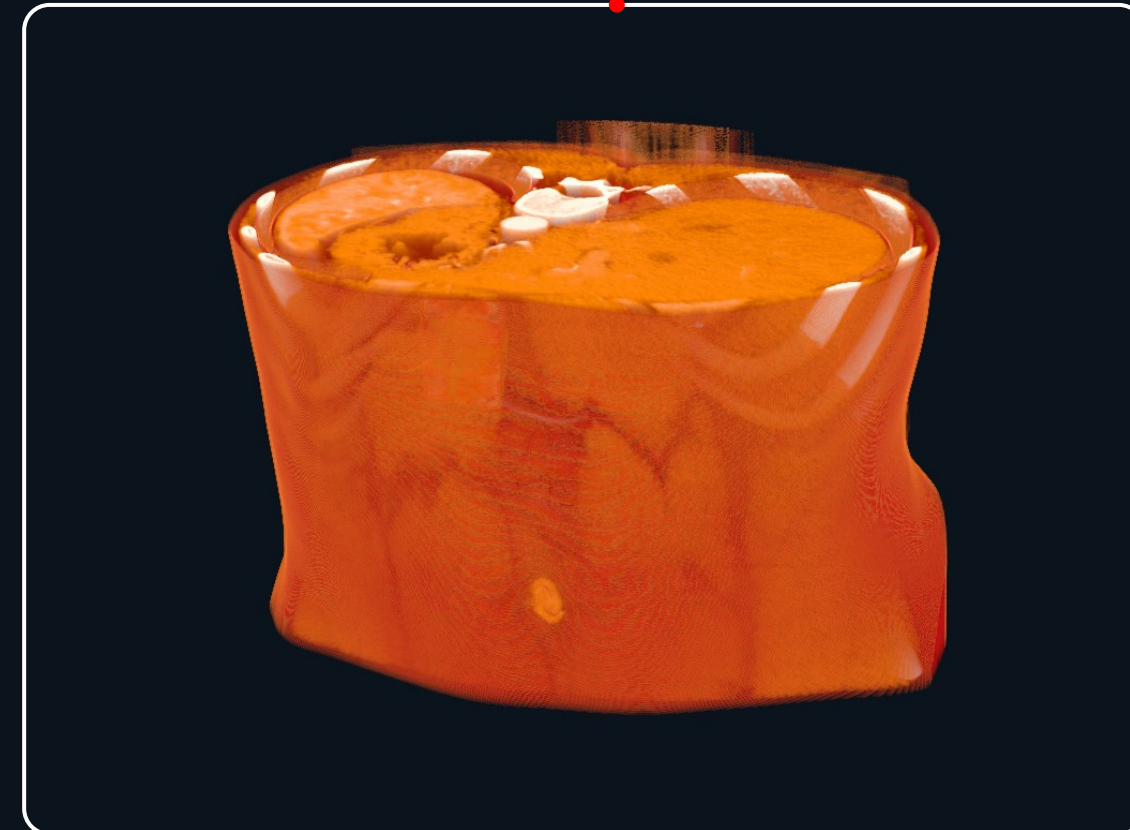
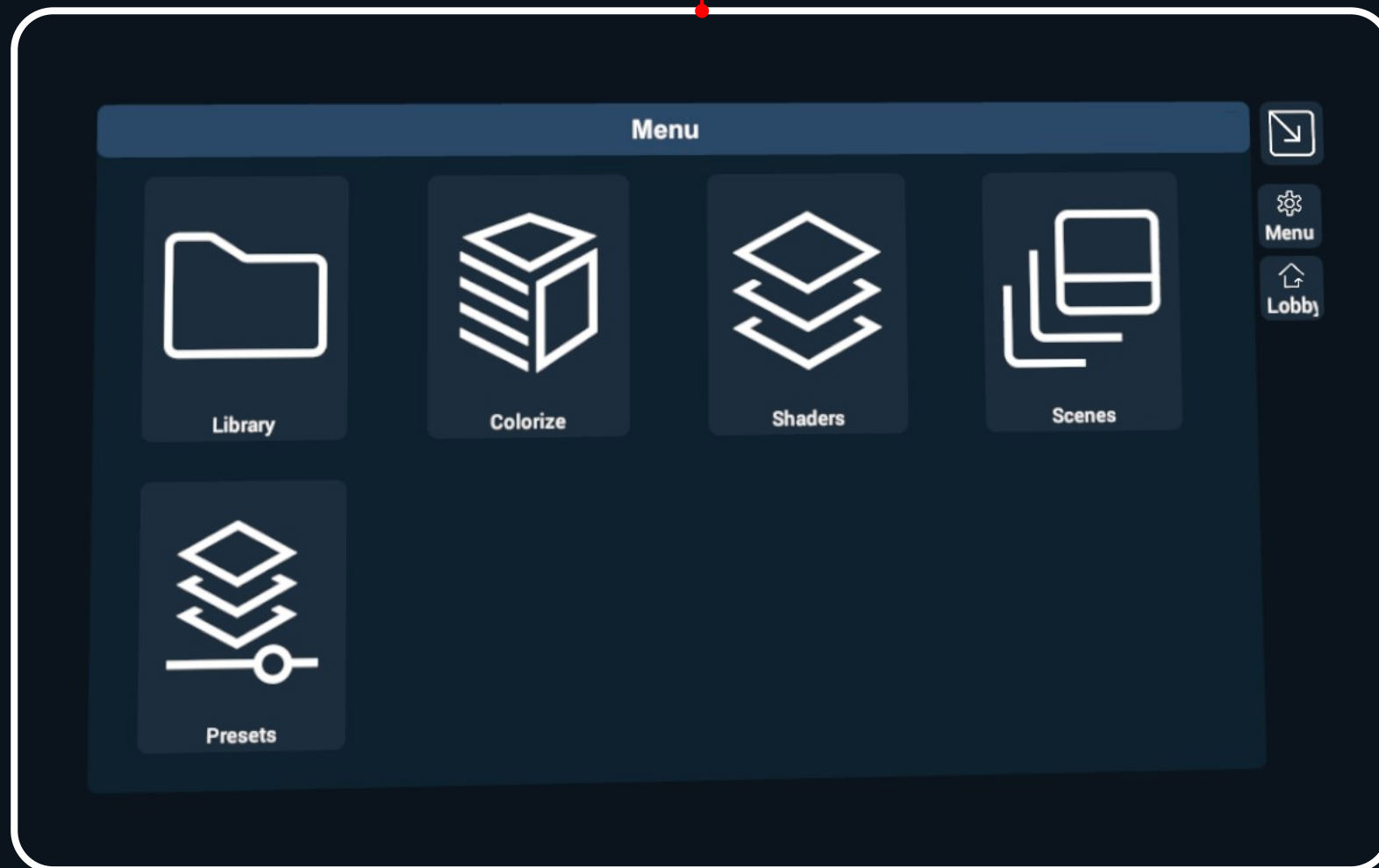


User Interface

Turn your head to the left to locate the 'Menu'.

In the 'Menu', you can choose between the Library, Colorize, Shaders, Scenes, and Presets.

Scene View



Menu

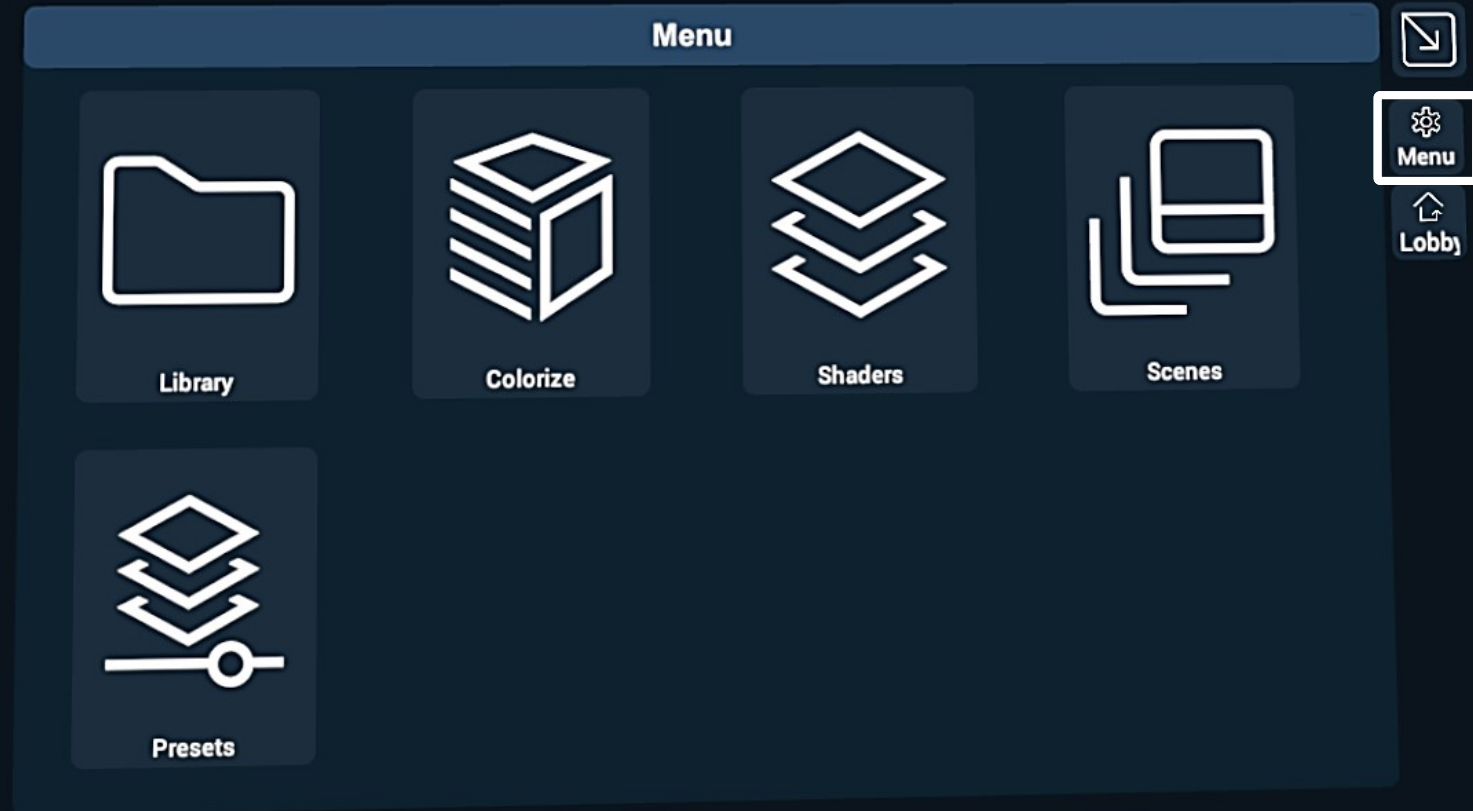
How to send the Menu to your controller for easy viewing.

Click on this icon and send the whole Main Menu to your left controller.

For easy viewing, click on this icon to fold or unfold the 'Main Menu' panel.

Swap the Main Menu or the Tools from the right to the left controller and vice versa.

Click on the wrench icon for the 'Tools' to appear.



Logout:

Press the 'Logout' button to shut down the app and remove your access credentials from autologin (recommended for public computers and libraries to avoid credentials from being stored in the device).

Themes:

Blue (default), Black, Green, White

Users can download additional languages.



Quit:

Press the 'Quit' button to turn off the app (your credentials are stored locally. You do not have to insert them again when you log in the same device). Internet access at login is still required.



Once a language has been downloaded, you can uninstall it by clicking on the Bin icon.



Open, Import, and Sync DICOM files locally.

The app comes with pre-loaded DICOM Files.

Delete a Dicom from your Library

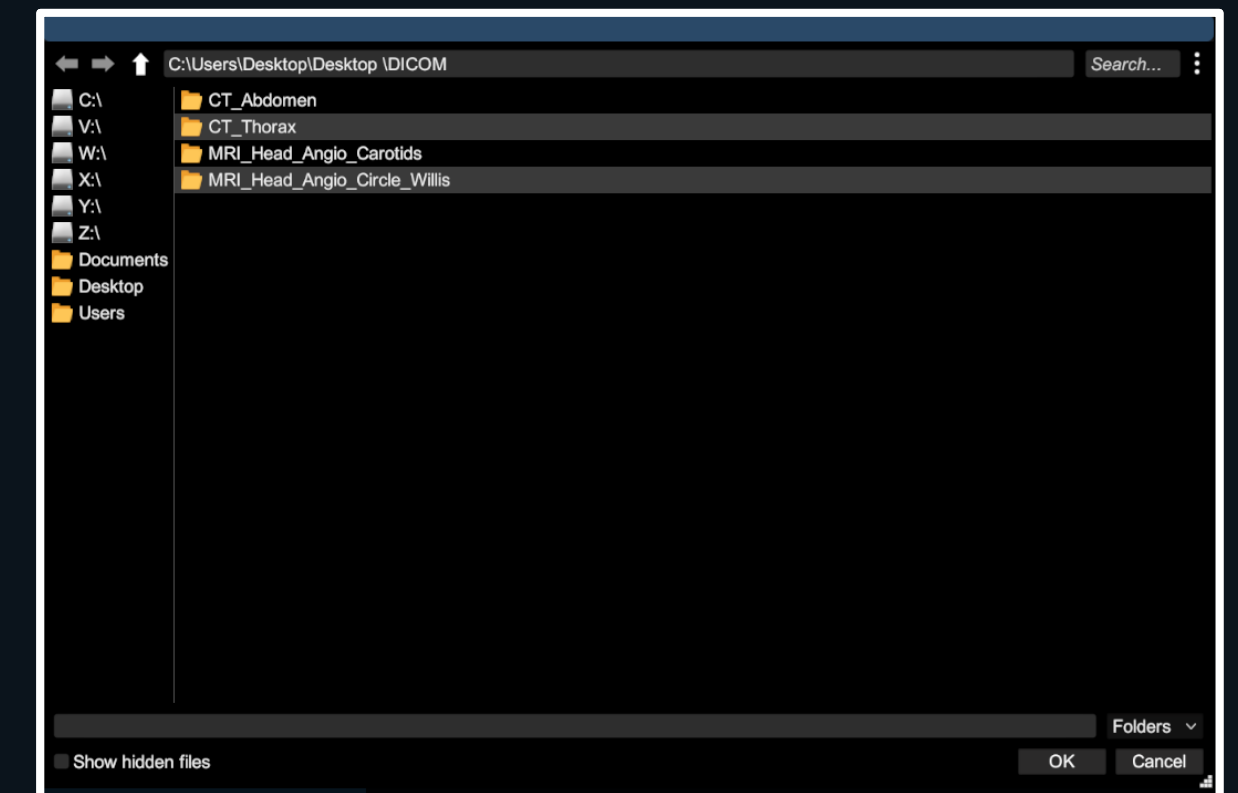
How to Import a new DICOM

Click on **Import** and select the folder that contains the DICOM dataset.

You don't need to select a single file. The DICOM File is an array of files (.dcm, .dicm, .dicom) stored in parent folder.

The files may be a CT or MRI medical imaging modality.

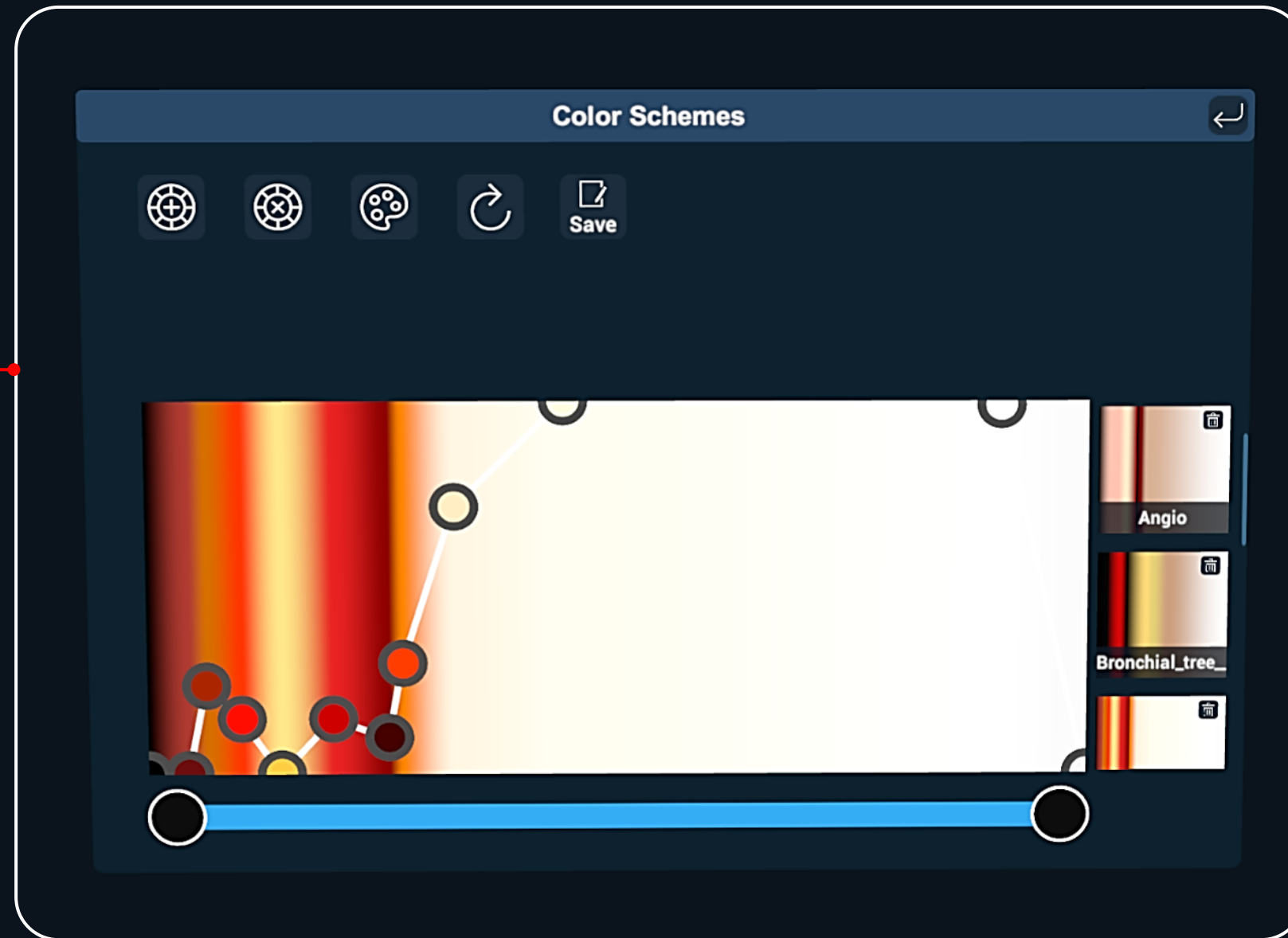
Select a thumbnail image and press the trigger button to open.





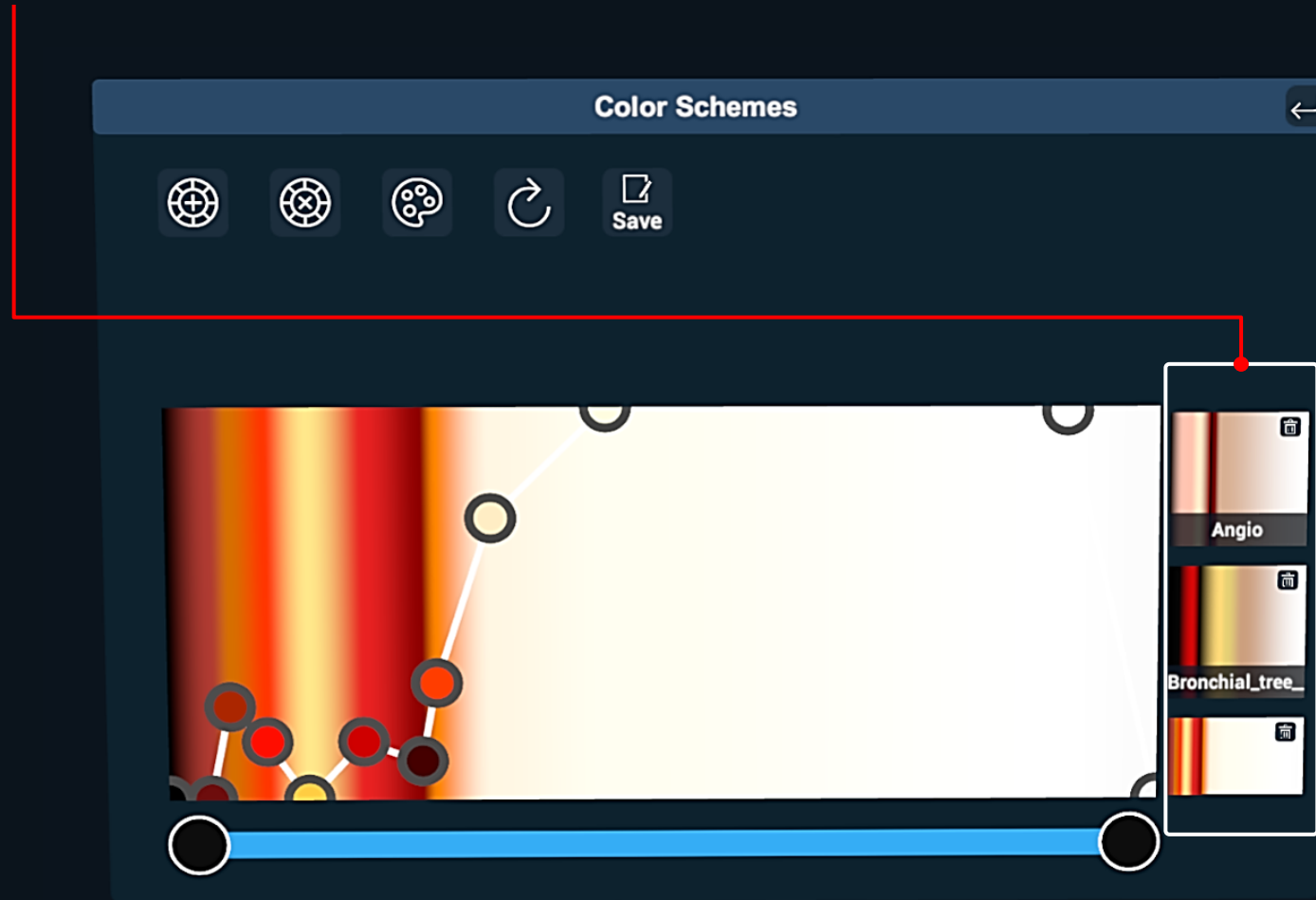
You may Colorize tissues based on their medical imaging grayscale density characteristics.

Colorize menu





Select a Coloring Scheme



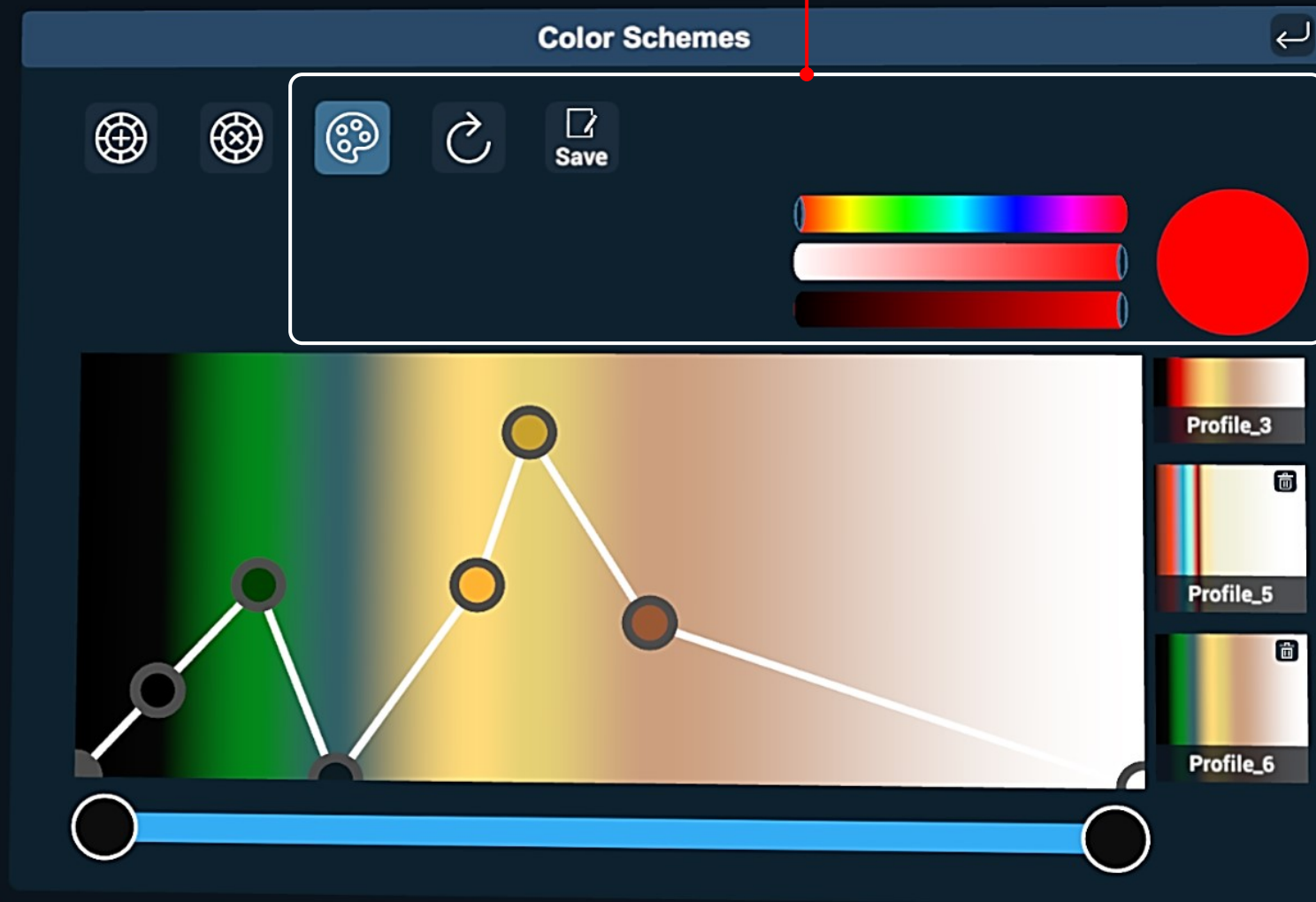
- 1: Angio
- 2: Bronchial_Tree_Lungs
- 3: Profile_1
- 4: Profile_2
- 5: Profile_4
- 6: Bones
- 7: Profile_3
- 8: Profile_5
- 9: Profile_6





Click on the Palette icon to open the Coloring Palette.

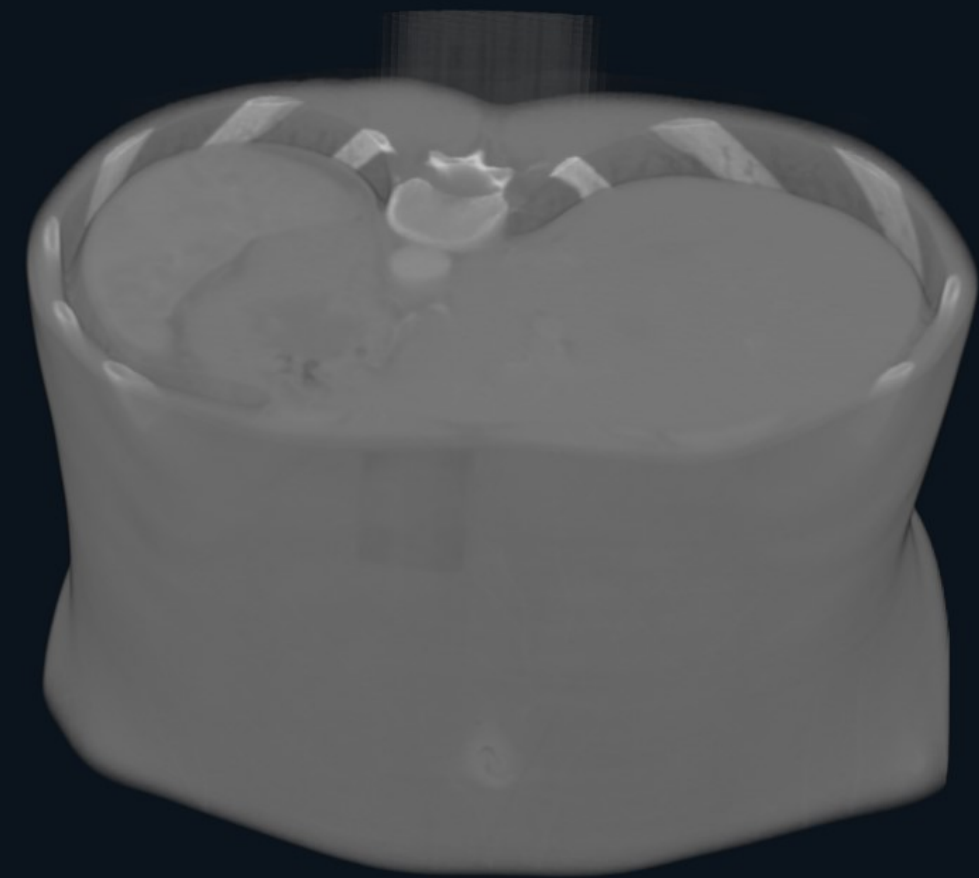
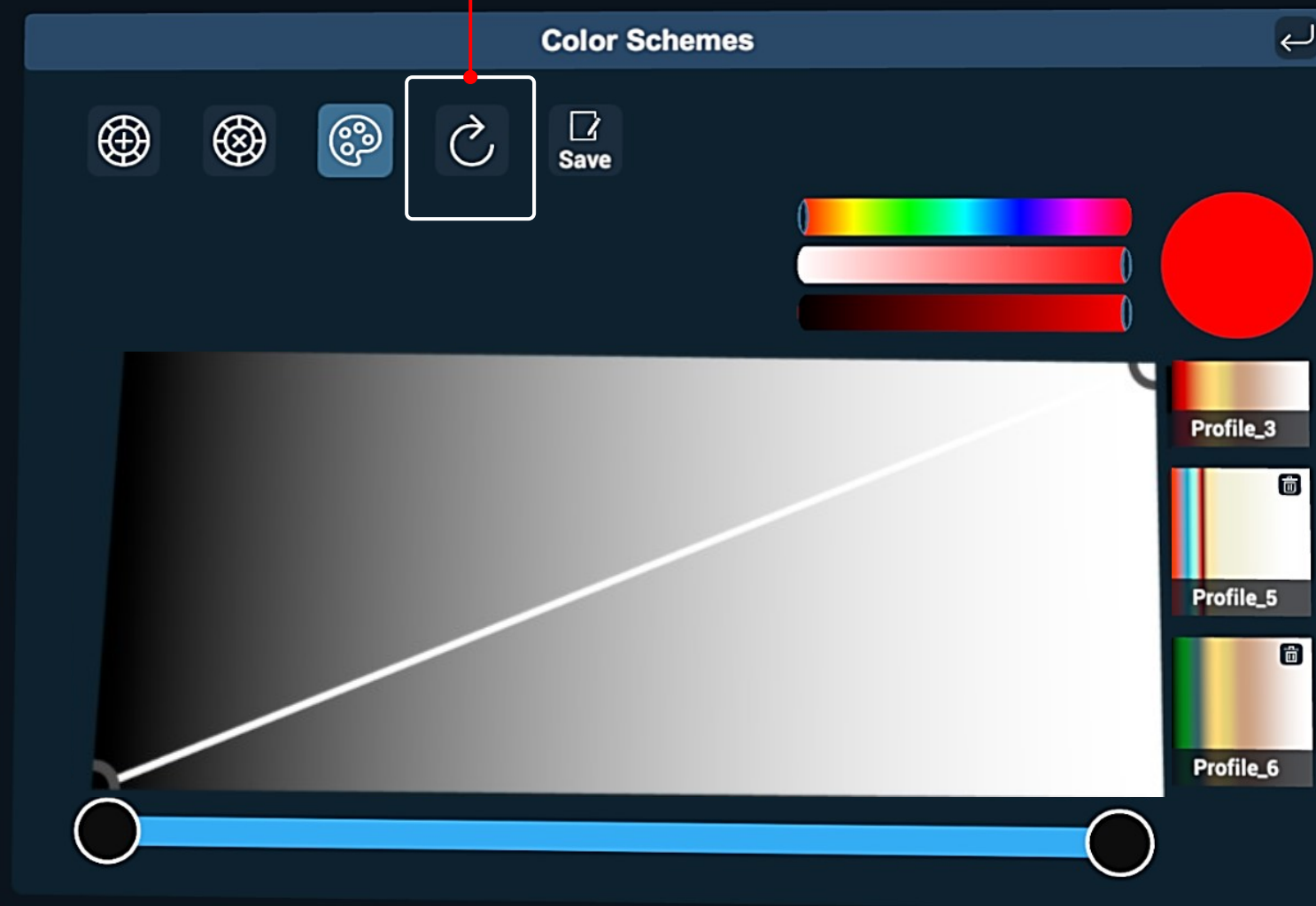
The Coloring Palette





To reset the coloring scheme just click on the reset icon. You will then be able to add new Nodes.

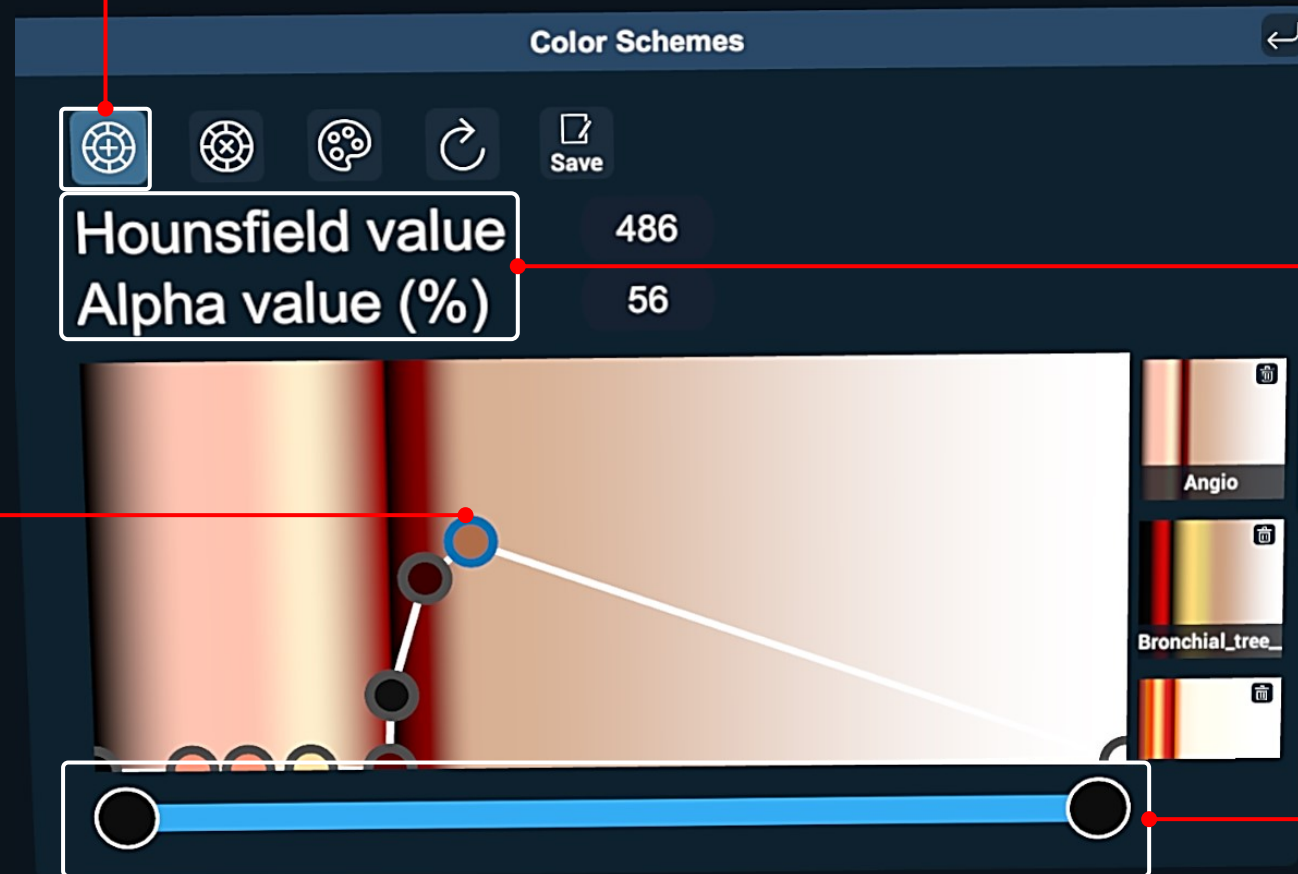
Start a new Coloring Scheme





First select a Coloring Scheme and then add new Nodes.

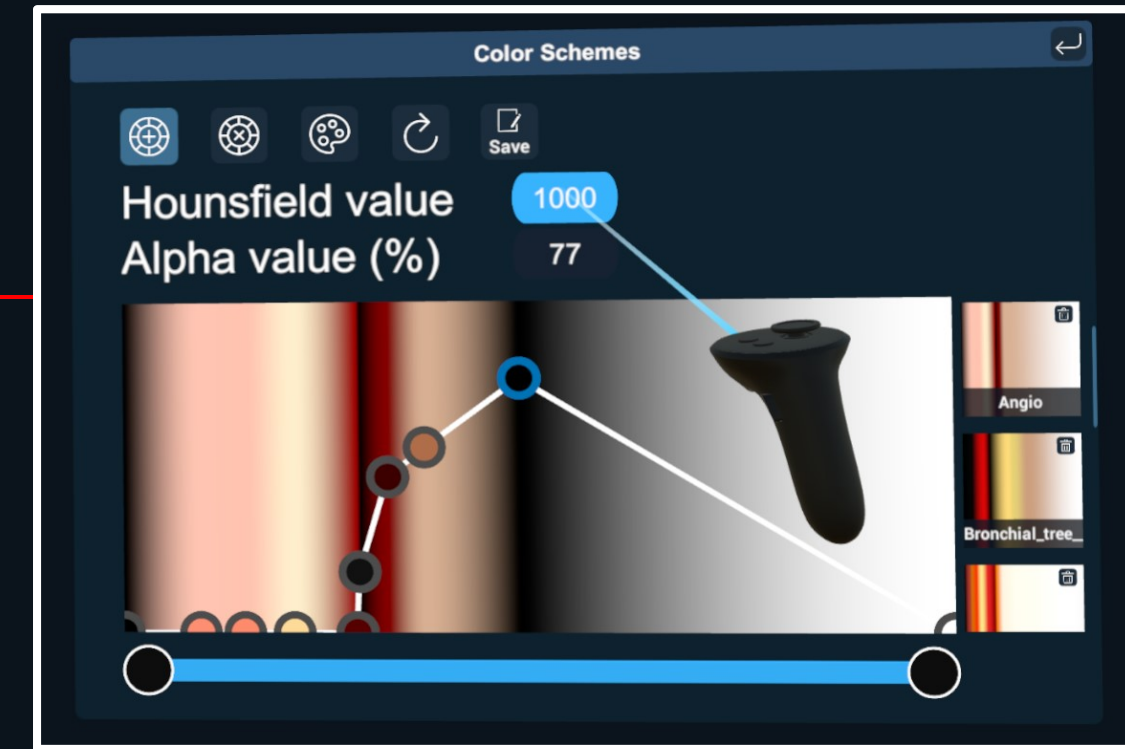
1) Enable Node Addition mode



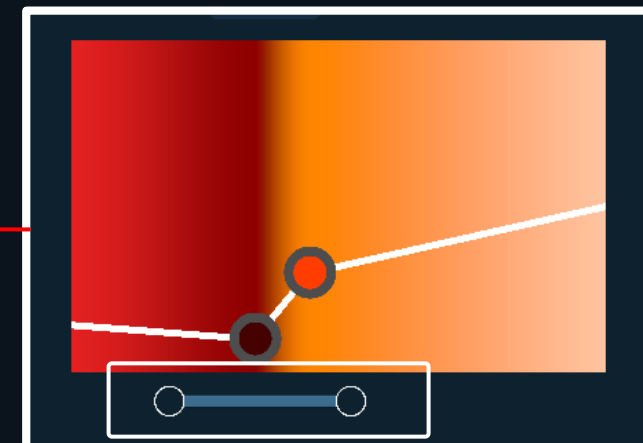
Add a Node to a desired location by clicking on the Trigger button.

Click and hold the Node to move it around.

2) Disable Node Addition when finished



- First click on a Node
- The Hounsfield Value and Alpha value (%) will appear.
- In order to modify the values, click on them.



Narrow down the spectrum of presented Hounsfield units for fine tuning.

Move these nodes accordingly to focus on specific bands of values. Lookup on books and online about tissue-characteristic values.

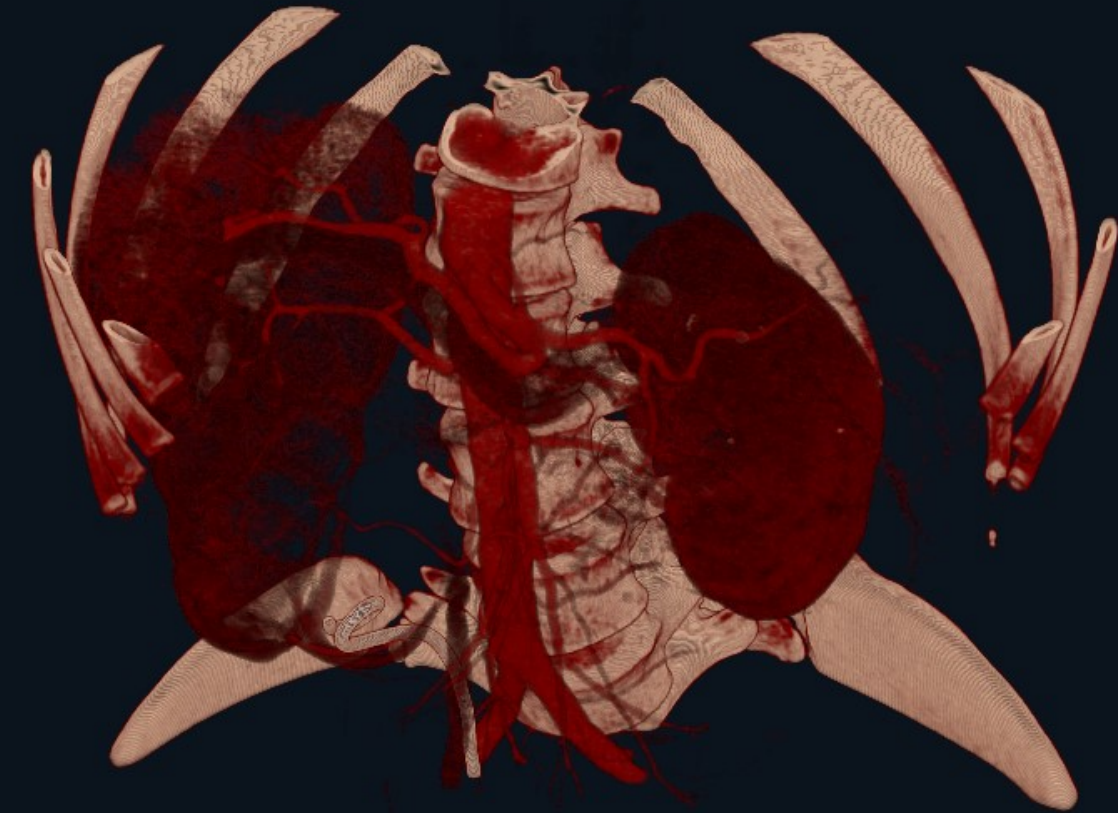


Enable the Node Delete mode

Just click on a Node to delete it.

303

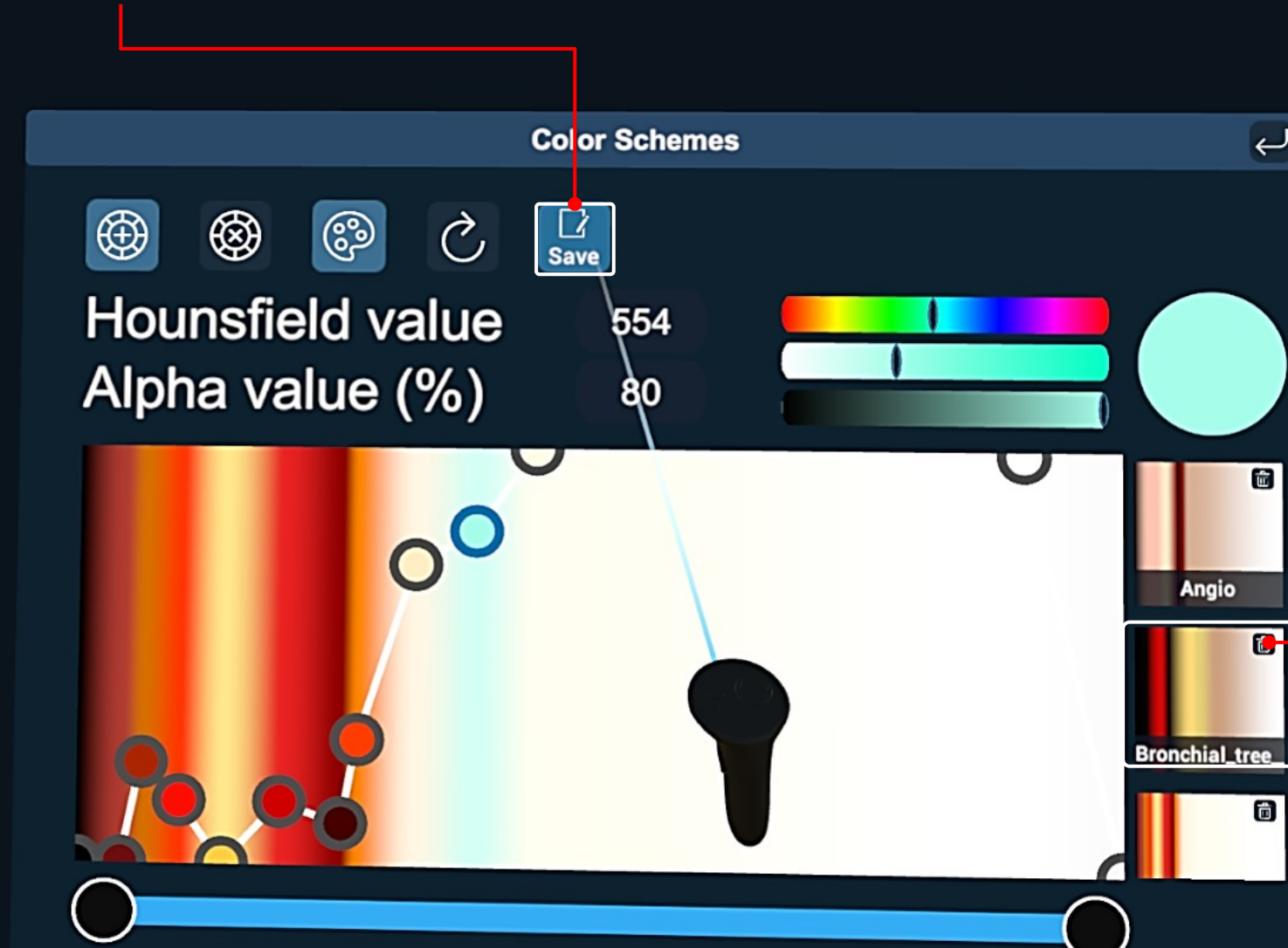
Hounsfield Value





Save a preset with your custom Coloring Scheme

Type a name for your file. Click on Save.



Delete current Coloring Scheme

The Coloring Scheme will be saved under your Coloring Schemes.



Modify how 3D DICOM models are visualized and rendered.

The Shaders Menu

Direct Volume Rendering (default option).

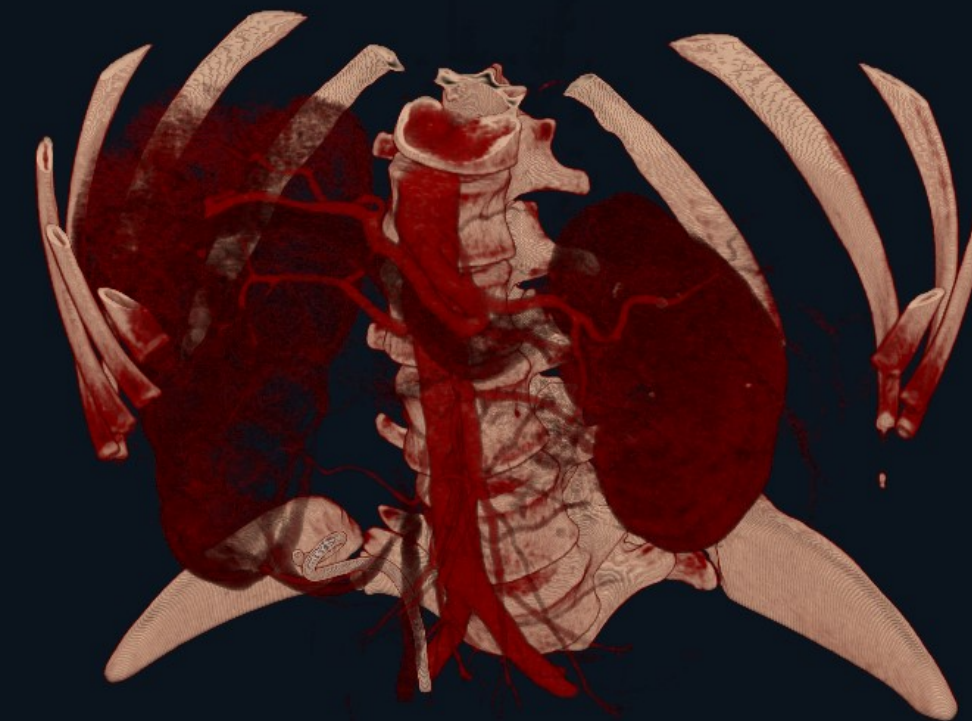
Isosurface Rendering option.

Reset option.

Detail 512

Tissue filtering -1024 3071

3D DICOM Detail Level
(will affect performance too).



Hounsfield units cutoff range.
This is a measurement of density based from the source DICOM dataset.



Save the current custom Colorization view or Load and apply a preset on the current scene.

Enter a name for your new Scene and then click on Save.

Delete a Scene.

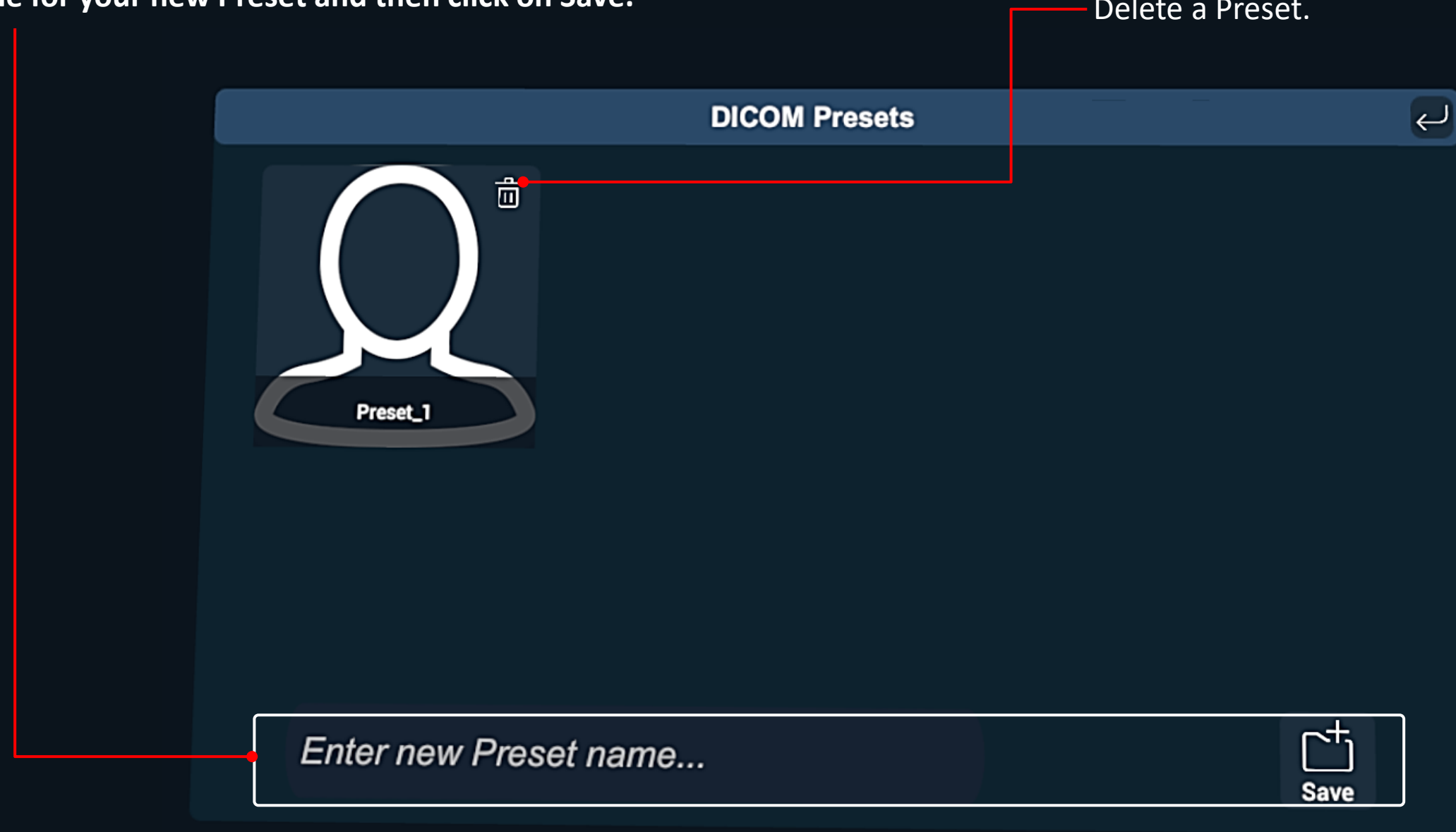




Save the current Rendering mode as a Preset or Load a previous set to apply on the current scene.

Enter a name for your new Preset and then click on Save.

Delete a Preset.



Tools - Slicing


Realtime sectioning of the 3D DICOM model.


For Coronal, Transverse, and Sagittal sectioning.

DICOM Tools [T]

 Slicing  Cutoff



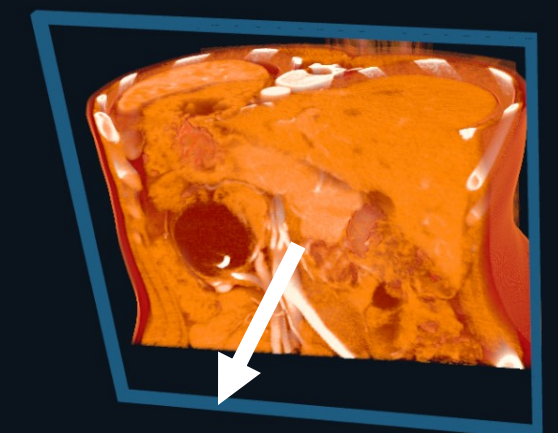
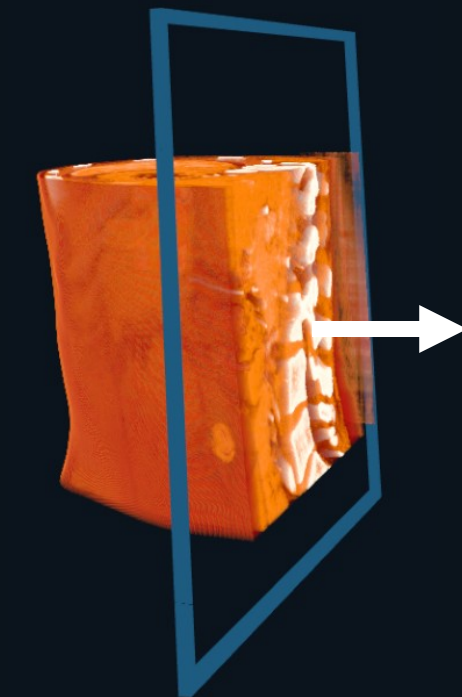
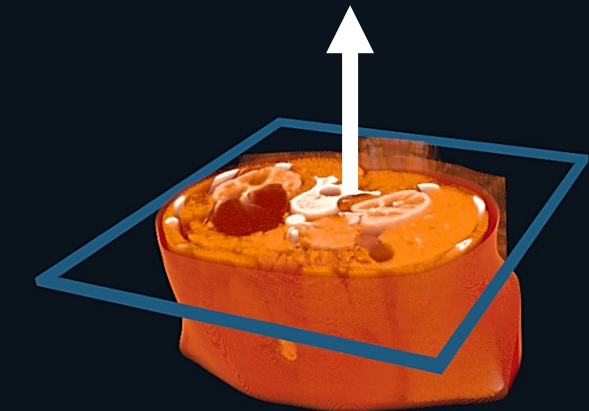
Slicer Settings 



Reset



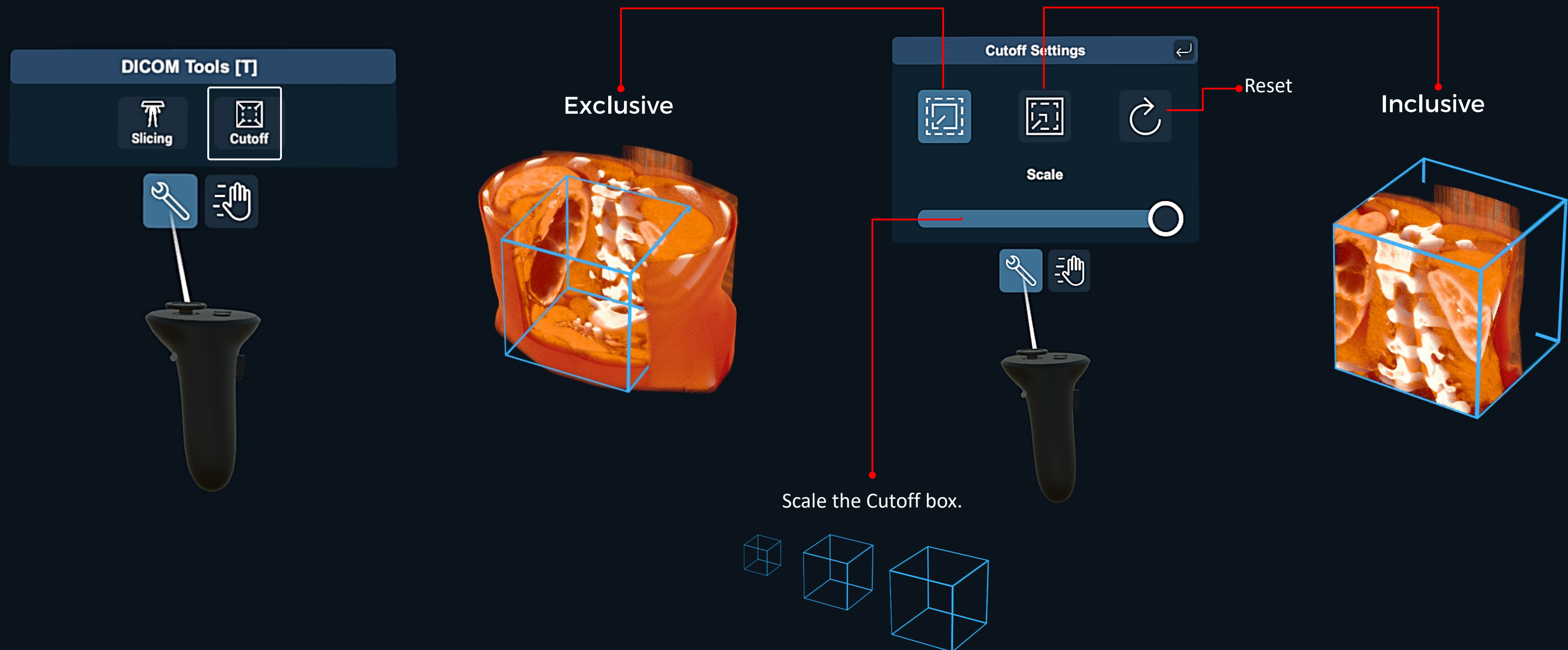
The Slicing plane can be moved using the **Grip** button.

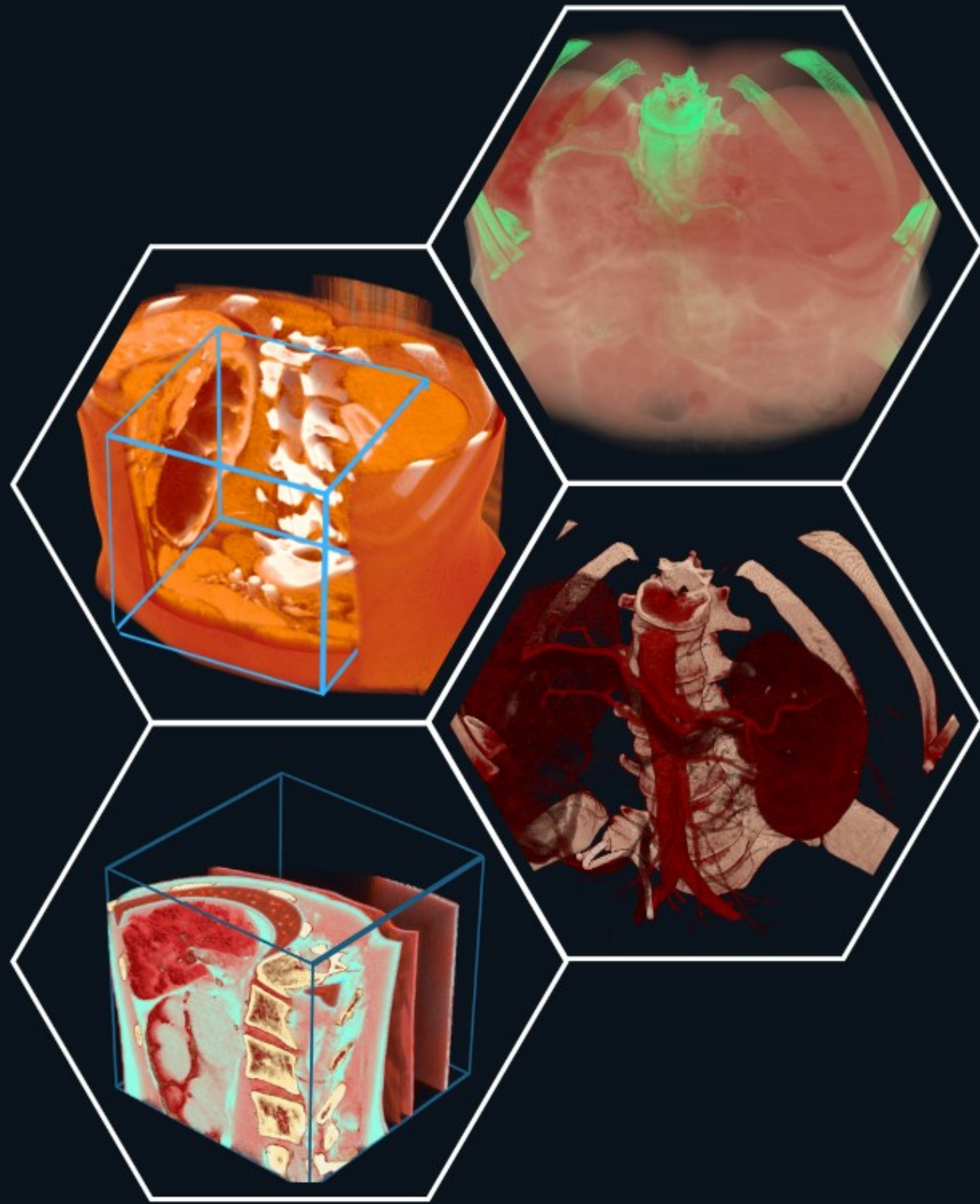


Tools – Cutoff box

Realtime sectioning of the 3D DICOM model

- Define an **Exclusion** or **Inclusion** box area of tissue removal (to determine or focus on deep cavities).
- Use the **Grip button** to move the Cutoff box, even if the box is inside the 3D DICOM.





For any questions or feedback, please contact our Local Distributor
or reach us at: support@3dorganon.com

Check out our **Help Center** for more information about 3D Organon, at any time!

