Quick Manual

Vesalii RadiologyVR

About Vesalii

"Vesalii" **the biggest medical library in the world**, aims at assisting universities, students, healthcare professionals, and even patients in receiving quality and accurate medical information. It also provides different tools to easily view, study, and understand human anatomy of the male and female using 3D, virtual reality, and real CT scan models.

We have the largest medically accurate content developed by our anatomy experts and doctors, offering more than 1,000 histology images, 50,000 landmarks, 20,000 traceable blood vessel and nerve paths, 500,000 CT images, and over 5 million medical words.

Vesalii Products

Vesalii has created software that mainly focus on the anatomy of the human body and histology in addition to radiology and Dicom convertor for the purpose of learning and harnessing the best tools to facilitate and empower the learning and researching process

Our Products

Vesalii Anatomy 3D

Explore the comprehensive structure of the female and male human body in a stunning 3D environment, covering every anatomical structure with full medical information for each.

Vesalii Anatomy VR

Explore the comprehensive structure of the female and male human body in an immersive virtual reality environment, covering every anatomical structure with full medical information for each.

Vesalii Dicom Converter 3D

Convert your DICOM files into a 3D model that can be used on your desktop computer or smartphone, allowing you to explore your DICOM images in a 3D environment.

Vesalii Dicom Converter VR

Convert your DICOM files into a 3D model that can be viewed using virtual reality (VR) gear, allowing you to explore your DICOM images in a one-of-a-kind experience you never experience before.

Vesalii Radiology 3D

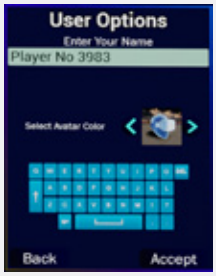
Learn and understand how to read CT medical images, control tissue density, and body planes (axial, sagittal, coronal) on a stunning 3D model created from over 1 million CT images available for you to study.

Vesalii Radiology VR

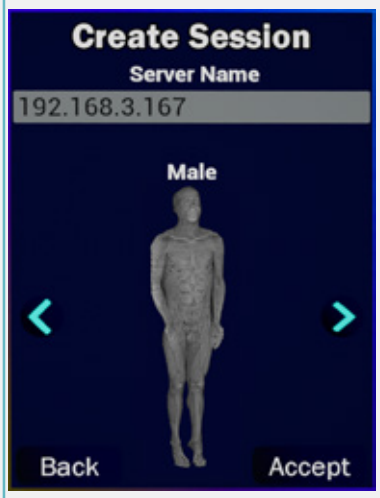
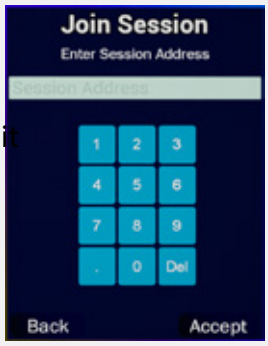
Learn and understand how to read CT medical images, control tissue density, and body planes (axial, sagittal, coronal) on a stunning 3D model viewed using immersive VR technology created from over 1 million CT images available for you to study.

Quick Guide

Figure 1
start screen

Button	Function
Male	Launch the application with the male 3D model in the VR environment as a single user
Female	Launch the application with the female 3D model in the VR environment as a single user
Name & Avatar Selection 	Customize your name and avatar by: * Enter your name in the text * Change your avatar color to be identified when entering LAN workshop

For the best software performance always choose the right VIVE version

Button	Function
Create Session 	**Create a session to get other users involved.** After choosing this option, insert the following: ► Name of the session in the text field ► Select 3D body gender (Male or Female) ► Select accept by pointing at it with the laser using controller 1 and pressing A (trigger) to launch the application and start the session
Join Session  Quit	Join a session over a VPN connection ► Enter the IP address of the server. ► Press Accept to join the session. ► Press back to go to the main menu
	Close the application

The server can grant access to clients or revoke it by pointing to the avatar and pressing the trackpad button (thumb-stick). The server can also mute all sounds coming for a client's microphone.

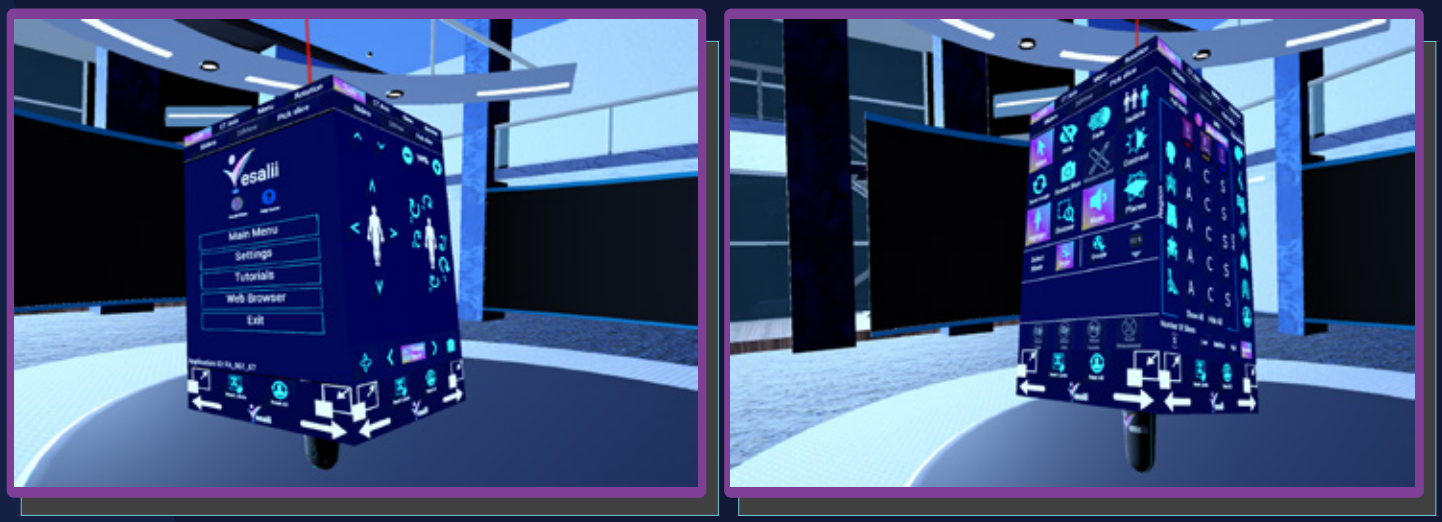
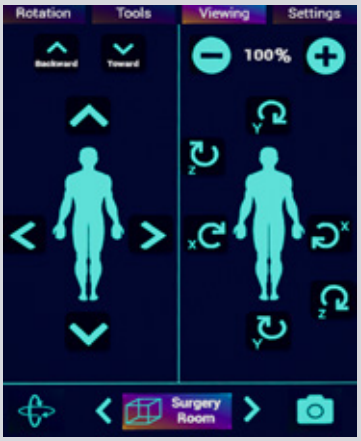


Figure 2
cube navigation

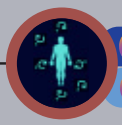
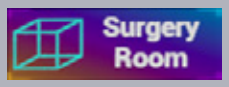
Button	Function
Main Menu	Bring the user back to the main menu **(Figure 1 Start Screen)**
Settings	Display a set of options to set graphic details & resolution
Tutorials	Access video tutorials that fully explain how to use Vesalii Radiology VR (Coming soon)
Web Browser	Surf the internet within the application
Exit Vesalii	Leave Vesalii Anatomy VR

Icon	Name	Function
	Scale down	Reduce the size of the cube by 10% for each click
Undo	Undo	Revert last action
Reset All	Reset All	Reset single part/group/multiple to its original location
Clear Labels	Clear Labels	Remove all body part labels
Redo	Redo	Reapply last action (only activated after Undo function)
	Scale up	Used to enlarge the cube by 10% for each click

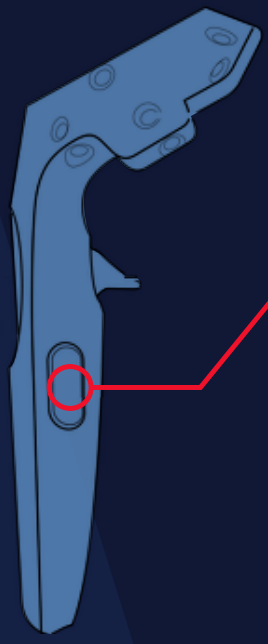
Undo function will revert the last action as it was taken (if you select a group it will revert all the group back)



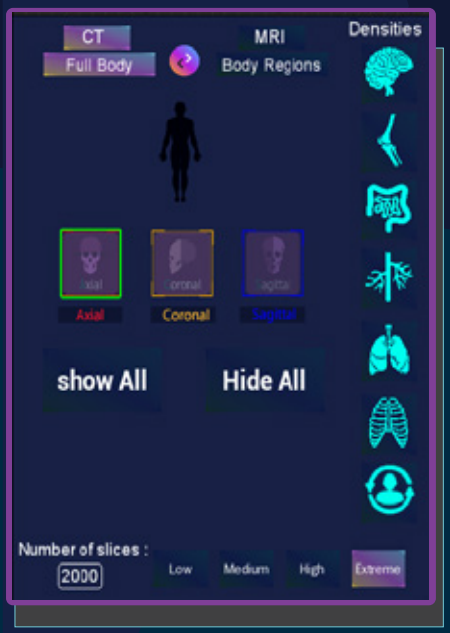
Toward Move the body to the front (Z axis)	Backward Move the body to the back (Z axis)
Move the body up (Y axis)	Move the body down (Y axis)
Move the body to the left (X axis)	Move the body to the right (X axis)
Zoom in to the body	Zoom out of the body

Num.	Icon	Name	Function
1		Transform Panel	By using the tools and buttons on this Panel you can move the body in the 3D scene
			! Note that you can control the body by clicking at any arrow in gizmo ! Pressing on the body image icon, the camera will return to the default pose
2		Show Visual Gizmo	Showing visual (X,Y,Z) axes arrows on the body
3		Surgery room	The default VR room where application starts
			! Switch off the surgery room by clicking on it, you can change the background color using ◀ ▶
4		Real View	Allow you to see the human body in the actual room you are in
			! This will turn on the VR headset camera, so modules might not have this feature

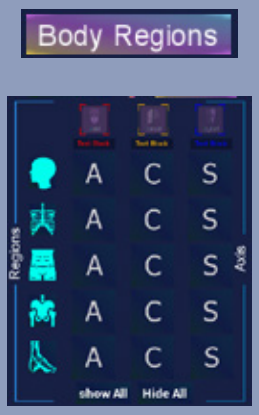
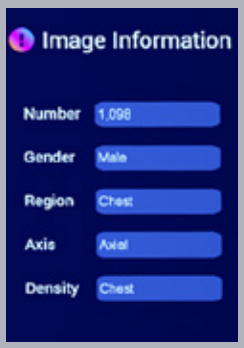
Num.	Icon	Name	Function
1		Select	Select a slice to control and use various tools on it
		Hide	Select a hide option to apply to the selected slice  Make the selected part invisible.  Hide all slices above the selected slice.  Hide all slices below the selected slice.
		Fade	Select a Fade option to apply to the selected image  Fade the selected slice or group of slices.  Fade all slices other than the selected slice.  Control the fade value and fade tint color applied to the selected slices
		Isolate	Isolate the selected slice to see it alone in the scene
		Reset Image	Used to display the default normal view of a slice or group

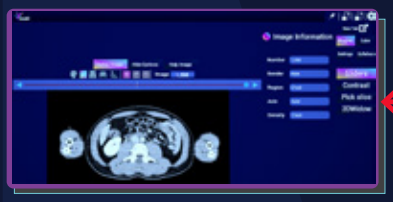


Num.	Icon	Name	Function
		Screenshot	Take a screenshot of the current view
		(Use Grip button on the controller as a quick snapshot shortcut)	
		Measure	Measure the distance between two point on an isolated slice
		Contrast	Change the contrast of the image
2		Highlight	Highlight a single slice from the CT model so you can select the desired image easily (Depending on the currently active axis)
		Discover	A cube that can be moved on the 3D model to help you better see inside
		Music	Used to play background music while the software is running
		Planes of Body	Used to reveal three plane lines that can be moved on the body
		Single Selection	Select a single slice
		Group Selection	Select a group of slices
		Group Percentage	Select a percentage of CT images from a drop-down list to be displayed and use tools on
		Reset Fade	Reset The fade action applied to all faded images
		Reset Hide	Reset the hide action applied to all hidden images
		Reset Isolate	Cancels the isolate action to bring all other Images back in view
		Reset Measure	Remove the measuring tool effect from the scene

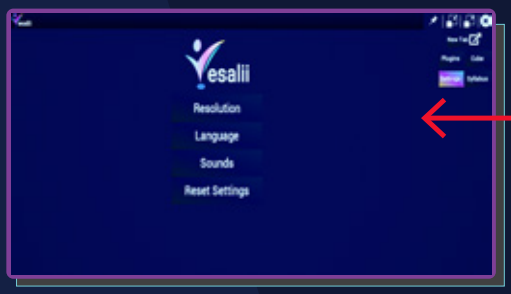


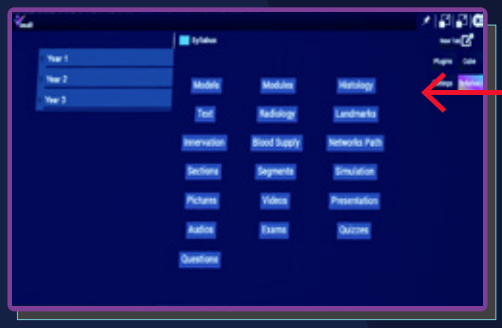
Num.	Icon	Name	Function
1	Full Body show All Hide All Number of slices : 2000 Low Medium High Extreme	Complete Body Number of slices	Shows the CT images of the entire body for the axis or axes you select. Display the full body according to the selected axis: -Axial plane: Shows the images in the axial plane. -Coronal plane: Shows the images in the coronal plane. -Sagittal plane: Shows the images in the sagittal plane. Control the number of CT images to be displayed
2		CT Densities	Select one of the preset densities to be able to better see certain structures based on their density

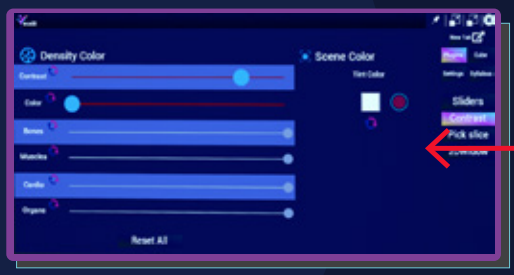
Num.	Icon	Name	Function
3		View Switch	Switch between viewing the full body or body regions
4		Body Regions show All Hide All	Select an axis or more to display all CT images in the selected axis, or select a region to display CT images in all axes for the region. Also select a certain region and certain axis to be displayed. Show all body regions. Hide all body regions.
5	    	Sliders New Tab Active Image Image 1,098 Hide Options Help Image	Reveals the following options: Show information related to the selected CT image, such as number of image, gender, region, axis, and density. Opens a new window where you can open other panels, such as the Pick Slice window and 2D Window among others. Determine the desired region and axis, and select any slice using the slider. The number of the selected CT image Determine the desired region and axis, and hide the images using the two sliders. Reveals a bar that allows the selection of a region, an axis, and a percentage of images to appear in the model using a slider. If the images you select from the help image bar are already visible on the model, nothing will happen.



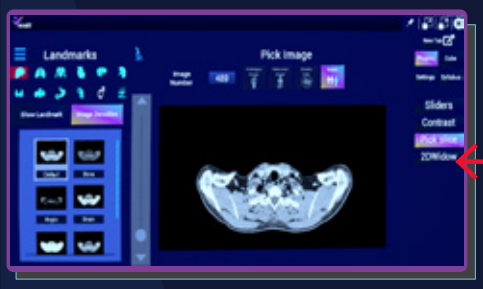
When if full body view, the option to select the region is disabled

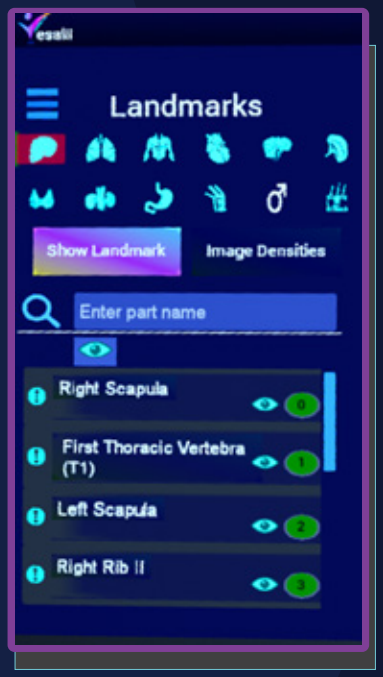


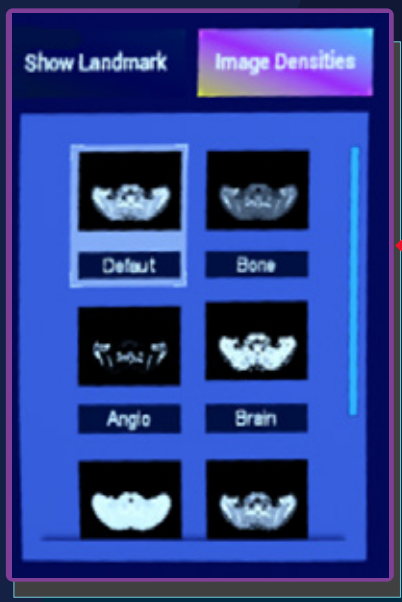


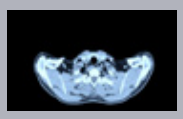


Num.	Icon	Name	Function
5.1			Pin down the current view to the scene.
	Plugins	Plugins	Opens a window to select the Contrast, Pick Slice, and 2D Window features.
	Cube	Cube	View the panels of the cube as windows for easier navigation.
	Settings	Settings	Opens the settings window.
	Syllabus	Syllabus	Manage/edit your syllabus .
	Contrast	Contrast	Bones: Increase or decrease the visibility of bones in the image.
			Muscles: Increase or decrease the visibility of muscles in the image.
			Cardio: Increase or decrease the visibility of the heart in the image.
			Organs: Increase or decrease the visibility of the organs in the image.
			Contrast: Change the contrast of the image.
			Color: Change the color of the CT image depending on the contrast of the image.
	Scene Color		Change the tint color of CT images.
6	2D Window	2D Window	Open the 2D window, which allows you to see 2D images of the selected slice in all three axes at the same time. You can also change the image displayed using a slider and change the density .







Num.	Icon	Name	Function
7	Pick slice	Pick Slice	Select the slice to apply different actions to it, show landmarks on it, and change its density.
			Hide all slices above the selected image. Hide all slices below the selected image. Undo the hiding action. Isolate the selected slice to see it alone in the scene.
	Show Landmark	Show Landmark	Show the landmarks on the parts visible in the selected image. The landmarks reveal the exact location of the parts and their names. You can select the system(s) for which the landmarks will be shown.
			
			Show/hide landmark on body parts. Show information for the selected landmark.
	Image Densities	Image Densities	Change the density of the selected CT image to make structures with a certain density more visible.