How to draw regions
How to draw regions with LIFEx?

Pre-requisites:

• Create an account on www.lifexsoft.org
• Install the LIFEx software
• Read the tutorial: How to open and view Dicom images?
As a general rule, some tools are placed in hidden menus. To access these tools, click on the down arrow (for instance near Circle3D icon for “Draw” tools).
To create a new ROI, click on “New” icon ...
... and select the 2D or 3D brush.
... or the 2D pencil...
... or other tools by clicking on the right arrow to access the hidden menu.
A selected ROI appears with a green header bar and is editable. An active ROI has the open eye icon on the left of the header bar, and is visible on display. An ROI can be selected and active, or active only.
To draw a ROI, the instructions are given in the lower left-hand corner.
The volume in red corresponds to the brush volume.
Shift + left click to draw.
Shift + right click to erase.
Shift + wheel upward to extend the brush size. Shift + wheel downward to reduce the brush size.
Click on the arrow to open an information box.
To change the name of the region, click on C1.
In red, the ROI volume in $\text{cm}^3$ and in voxel.
To save the ROI, click to .nii (Nifti format).
To close an ROI, click on the X.
To hide the ROI, click on the eye icon.
To create a new ROI, click on New.
To change the ROI color, click between the eye icon and the ROI name (on the colour rectangle) and select the new ROI color.
To move an ROI, click on the Move icon (it may be in the hidden menu). Shift + left click to change the ROI position.
Be careful to un-select the Move icon at the end of the operation.
In PET, click on the Peak icon (it may be in the hidden menu) to calculate the SUVpeak and automatically get the corresponding VOI (here in yellow).
Click on the Max icon to move the 3D pointer on the voxel containing the maximum ROI value.
Click on the Copy icon to create a copy (in green) of the selected ROI. The two ROI initially overlap, you can use the Move option to separate them.
Click on the Union icon to create a new ROI defined as the union of the active ROIs.
Click on the Flip icon to create a new mirror ROI based on the selected ROI.
To erase an ROI, click on the Empty icon.
To display or hide all ROI, click on the eye icon.
Based on a ROI, here C1 (in orange), click on 40% icon to create a new ROI using a threshold equal to 40% of the maximum intensity in C1 (in green).

(same principle with 70% icon)
Based on a ROI, here C1, click on n% icon to create a new ROI using a threshold set by the user (if you set it to 40%, you get the same as with the 40% icon).
Click on the icon to activate an absolute or relative threshold based on the selected ROI or to create a new ROI.
Click on the Close icon to close an ROI in 3D using a dilation followed by an erosion of 10 voxels.
In the case of an ROI that is not connex (ie includes several clusters), click on the KeepOne icon to keep only the biggest connex component (=biggest cluster)…
... or on the Split icon to split ROI into multiple connex ROIs.
To load an ROI, click on Load ROI icon and select the file...
... or drag & drop the file in the right panel.
To measure the distance between two points, click on Dist icon.
To measure an angle, click on Angle icon.
If you have questions, please read the online documentation:
www.lifexsoft.org/index.php/resources/documentation

or contact us: contact@lifexsoft.org