



Applied Chest Imaging Laboratory

Boston, Massachusetts. USA



BRIGHAM AND
WOMEN'S HOSPITAL



HARVARD
MEDICAL SCHOOL

Parenchyma Subtype Training

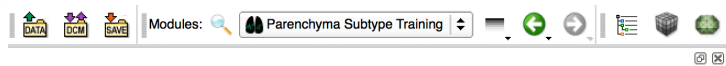
A Chest Imaging Platform Slicer Extension module

Overview

- Goal: The Parenchyma Subtype Training module is an easy way to label different lung structures.
- Each fiducial stores information of the type and subtype of structure as well as the region where is placed, and whether there is or not an artifact on the image.
- The list of fiducials could be exported in a .csv file easy to manage for your study.



Parenchyma Subtype Training



Help & Acknowledgement

Main area

Active volume: 1001_UVM_CANCER

Select type

- ☒ ILD
- ☐ Emphysema
- ☐ Airway
- ☐ Vessel
- ☐ Nodule
- ☐ Mesothelioma
- ☐ Normal parenchyma

Select artifact

- ☒ No artifact
- ☐ Undefined
- ☐ Motion

Select subtype

- ☒ Any
- ☐ Subpleural line (SpL)
- ☐ Reticular (Ret)
- ☐ Nodular (Nodr)
- ☐ Ground glass (GG)
- ☐ Honeycombing (Hon)
- ☐ Centilobular nodule (Cen)
- ☐ Nodule (Nod)
- ☐ Linear scar
- ☐ Cyst (Cyst)
- ☐ Fibronodular

Select region

- ☒ Any
- ☐ Right Superior Lobe (RSL)
- ☐ Right Middle Lobe (RML)
- ☐ Right Inferior Lobe (RIL)
- ☐ Left Superior Lobe (LSL)
- ☐ Left Inferior Lobe (LIL)
- ☐ Ascending Aorta (AA)
- ☐ Transversal Aorta (TA)

Main area

Active volume: 1001_UVM_CANCER

Load fiducials file

Remove last fiducial

Save markups

rs/mp30/.config/www.na-mic.org/CIP/CIP_ParenchymaSubtype1

Data Probe

Show Zoomed Slice

L
F
B

1- Select an input CT image



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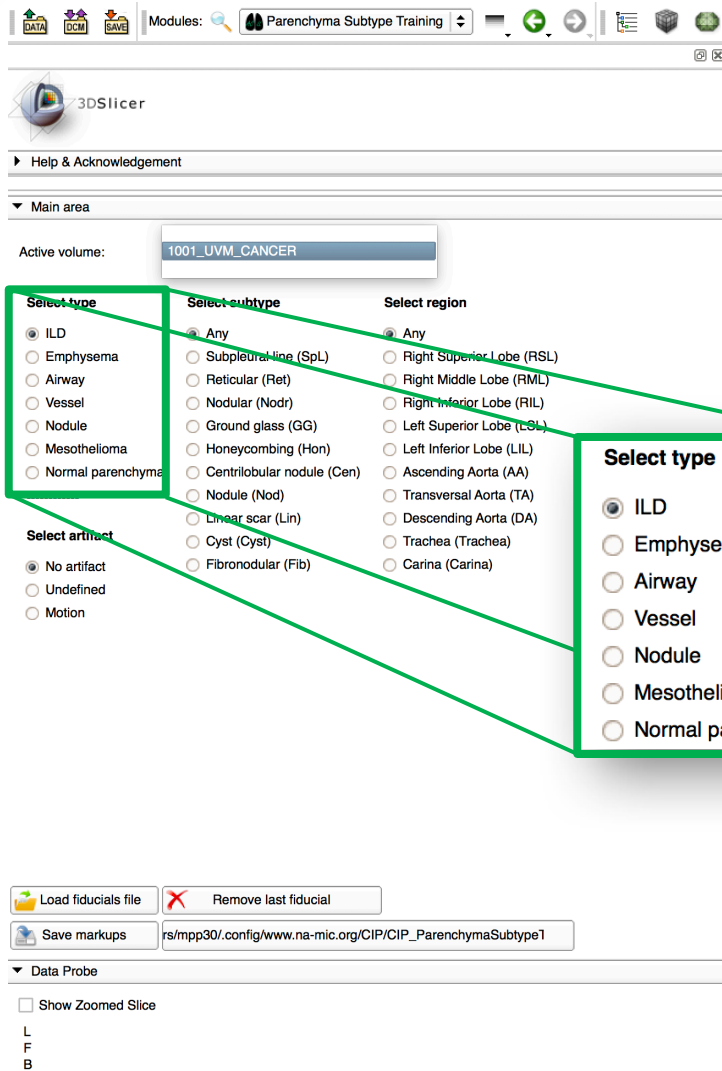


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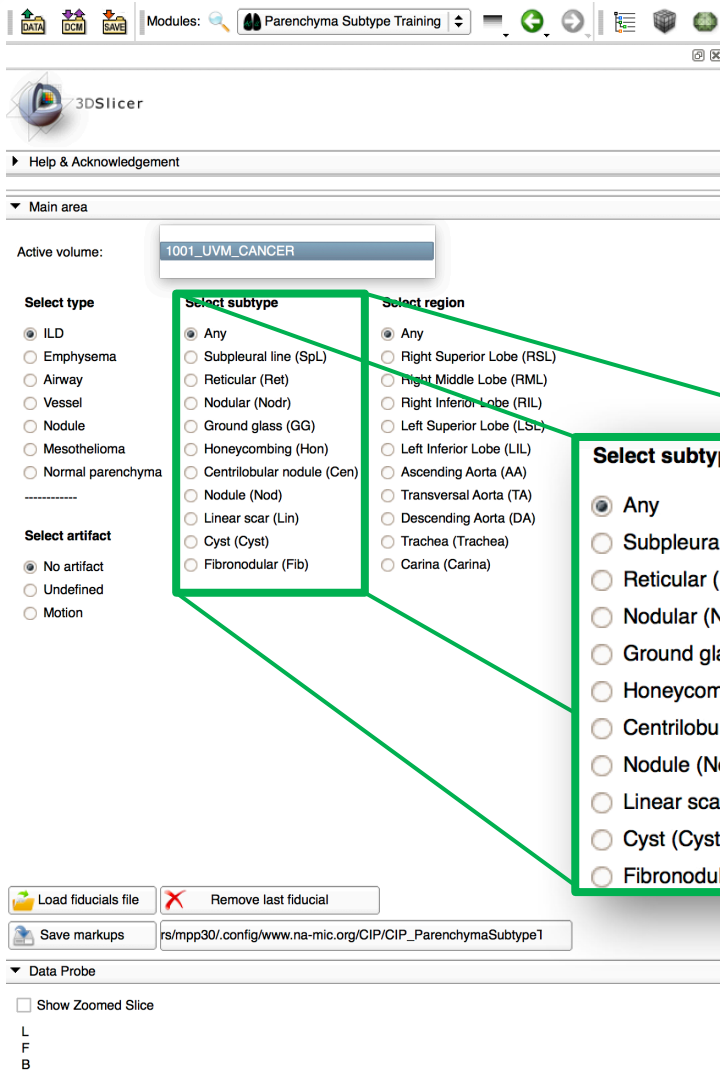


2- Select the desired parenchyma

Tip: The Parenchyma subtype list will change depending on the selected type.



Parenchyma Subtype Training

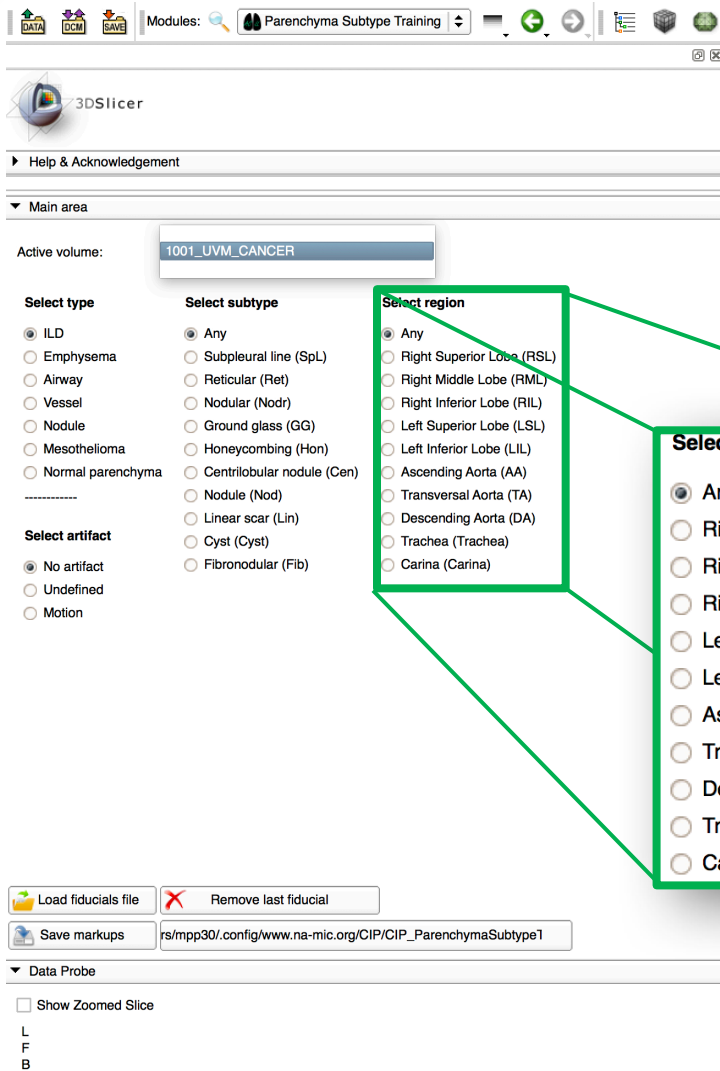


3- If desired, select the subtype of parenchyma.

Tip: "Any" is selected by default.



Parenchyma Subtype Training



3- Select the region where the markup is going to be placed.
Tip: "Any" is selected by default.



Parenchyma Subtype Training

3DSlicer

Modules: **Parenchyma Subtype Training**

Active volume: 1001_UVM_CANCER

Select type	Select subtype	Select region
<input checked="" type="radio"/> ILD	<input checked="" type="radio"/> Any	<input checked="" type="radio"/> Any
<input type="radio"/> Emphysema	<input type="radio"/> Subpleural line (SpL)	<input type="radio"/> Right Superior Lobe (RSL)
<input type="radio"/> Airway	<input type="radio"/> Reticular (Ret)	<input type="radio"/> Right Middle Lobe (RML)
<input type="radio"/> Vessel	<input type="radio"/> Nodular (Nodr)	<input type="radio"/> Right Inferior Lobe (RIL)
<input type="radio"/> Nodule	<input type="radio"/> Ground glass (GG)	<input type="radio"/> Left Superior Lobe (LSL)
<input type="radio"/> Mesothelioma	<input type="radio"/> Honeycombing (Hon)	<input type="radio"/> Left Inferior Lobe (LIL)
<input type="radio"/> Normal parenchyma	<input type="radio"/> Centrilobular nodule (Cen)	<input type="radio"/> Ascending Aorta (AA)
	<input type="radio"/> Nodule (Nod)	<input type="radio"/> Transversal Aorta (TA)
	<input type="radio"/> Linear scar (Lin)	<input type="radio"/> Descending Aorta (DA)
	<input type="radio"/> Cyst (Cyst)	<input type="radio"/> Trachea (Trachea)
	<input type="radio"/> Fibronodular (Fib)	<input type="radio"/> Carina (Carina)

Select artifact
☒ No artifact
☐ Undefined
☐ Motion

Select artifact
☒ No artifact
☐ Undefined
☐ Motion

Load fiducials file Remove last fiducial

Save markups rs/mpp30/.config/www.na-mic.org/CIP/CIP_ParenchymaSubtype1

Data Probe

☐ Show Zoomed Slice

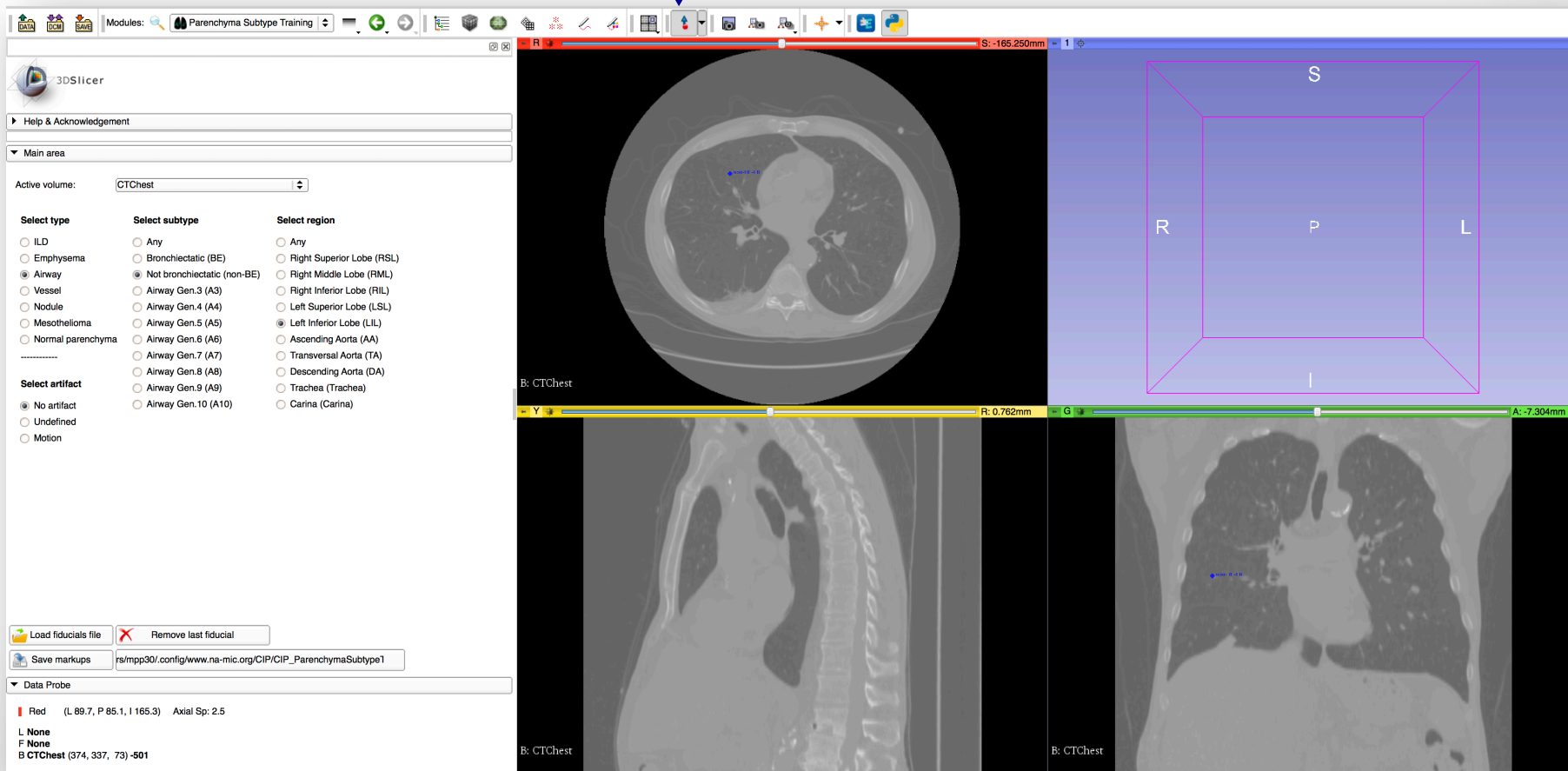
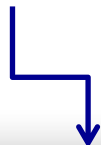
L
F
B

4- Select whether there is an artifact on the image or not.

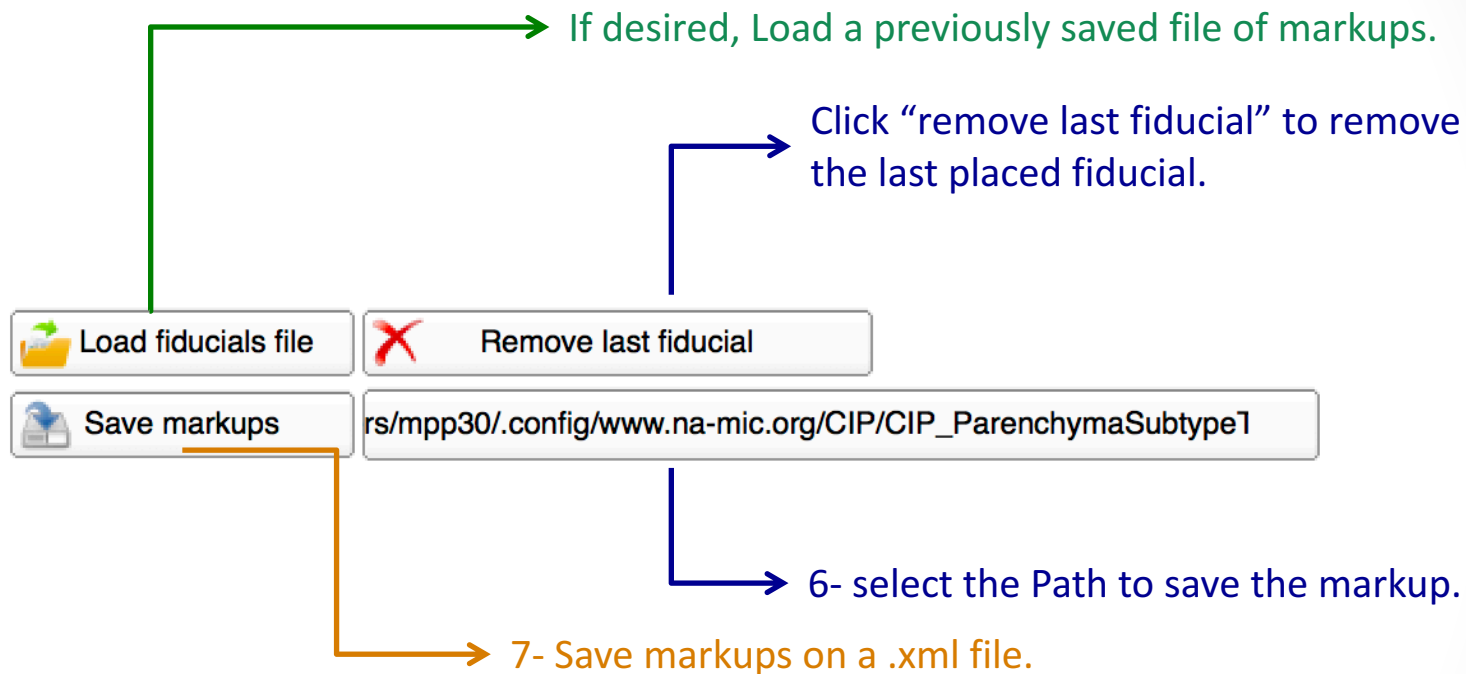
Parenchyma Subtype Training

5- Place fiducial on any of the views.

Tip: make sure that the fiducial placer is selected.



Parenchyma Subtype Training



Parenchyma Subtype Training

- The Parenchymal Subtype Training module is part of the Chest Imaging Platform extension for 3D Slicer (www.chestimagingplatform.org)
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