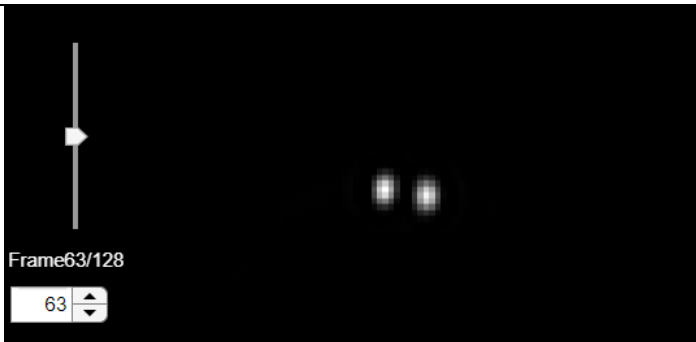


Partial Volume Effect - PVE	
	Calculate coefficient (s)
	<div style="border: 1px solid black; padding: 2px;"> Calculate Coefficient(s) Inputs Outputs View Remnants Exit Algorithm </div>
1	Insert the number of datapoints
	A. Extract coefficient(s) from <input type="text" value="4"/> datapoints(min:4, max:8)
2	Insert inputs for each datapoint
	B. Inputs for datapoint <input type="text" value="1"/>
3	Select SPECT file
	B. Inputs for datapoint <input type="text" value="1"/> i. Select SPECT file <div style="border: 1px solid black; padding: 5px;"> Browse <input type="text" value="Current Folder"/> </div>
4	Select SPECT image
	<div style="border: 1px solid black; padding: 5px;"> <p>Folder contents</p> <p>TOMOCT_EM001_DS.dcm</p> <p>TOMOCT_EM_IRAC001_DS.dcm</p> <p>TOMOCT_EM_IRNC001_DS.dcm</p> </div>
5	Options: scroll to view remnants, save image, copy image, pan, zoom in, zoom out, restore view
	
6	Define the initial and last slices with remnants and press enter
	ii. Define SPECT slices with remnants Initial Slice: <input type="text" value="57"/> Last Slice: <input type="text" value="66"/>
7	
	iii. Show ROI Lock ROI Define ROI with remnants on SPECT image

Press "Show ROI" button and define ROI with remnants

Frame63/128
63

ii. Define SPECT slices with remnants
Initial Slice: 57 Last Slice: 68

iii.

Define ROI with remnants on SPECT image

Lock ROI

Frame63/128
63

ii. Define SPECT slices with remnants
Initial Slice: 57 Last Slice: 68

iii.

Define ROI with remnants on SPECT image

8

iv. Administered Activities (MBq) *Enter activity where applicable*

Remnants	<input type="text" value="0"/>	or	Remnant1	<input type="text" value="0"/>	Remnant2	<input type="text" value="0"/>
Background	<input type="text" value="0"/>		Remnant3	<input type="text" value="0"/>	Remnant4	<input type="text" value="0"/>

9 Options: save image, copy image, rotate, pan, zoom in, zoom out, restore view

v. Calculate Counts

Counts:

<input type="text" value="1.086e+06"/>	Remnant 1
<input type="text" value="9.668e+05"/>	Remnant 2
<input type="text" value="0"/>	Remnant 3
<input type="text" value="0"/>	Remnant 4

Threshold %

Change Threshold or Continue

10








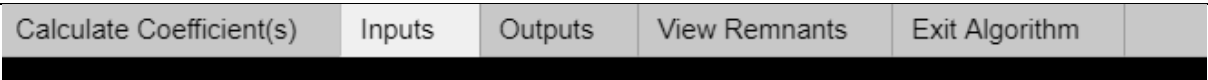
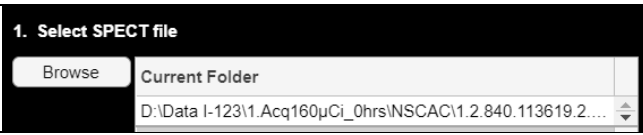
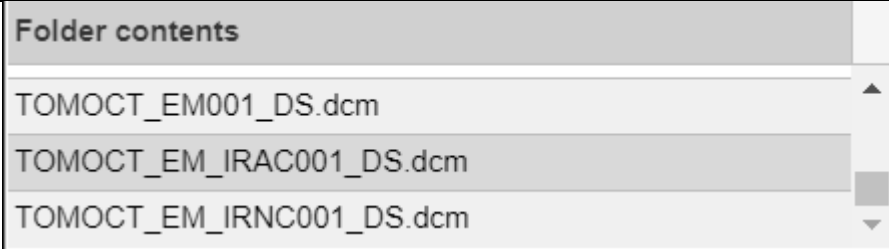
vi) Optional

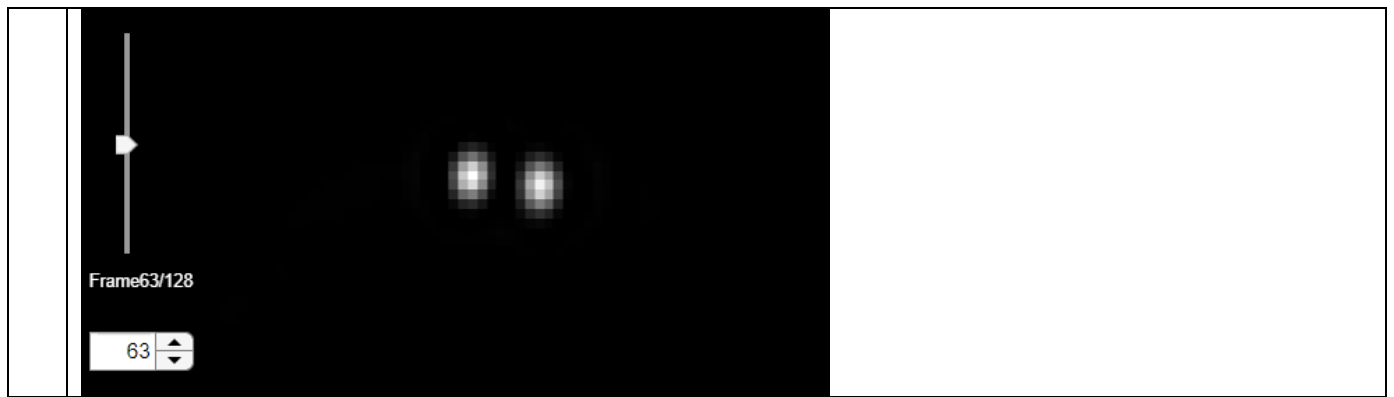
on SPECT image

for A(123) > 6 MBq & A(123) > MBq

Go back to 3 to view remnants or Continue

11 Press "Next" button to insert the inputs for the next datapoint

		
		
12	When insert all datapoints, press the “Calculate Coefficient” button	
		
		
	When the coefficients are calculated,	
		
13	Export coefficients to file	
		
	When coefficients are saved,	
		
	Inputs	
		
14	Select SPECT file	
		
15	Select SPECT image	
		
16	Options: scroll to view remnants, save image, copy image, pan, zoom in, zoom out, restore view	



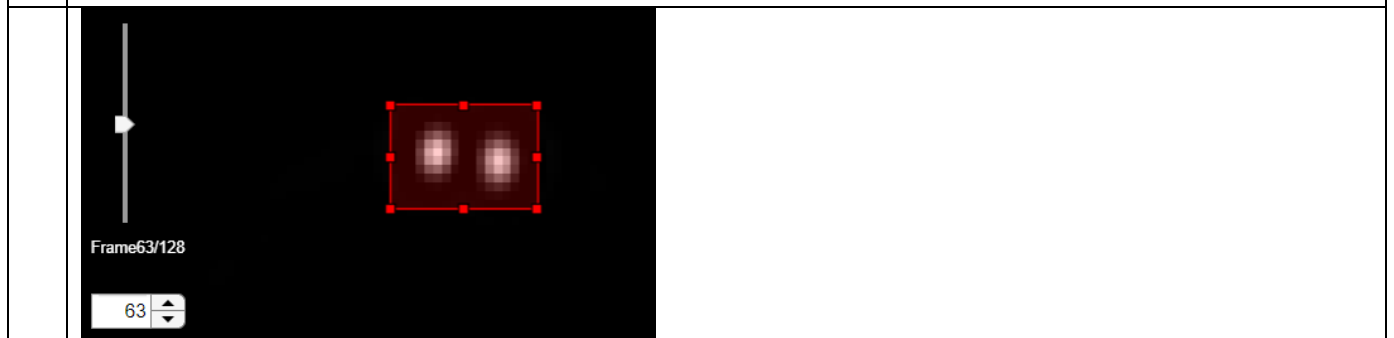
17 Define the initial and last slices with remnants and press enter



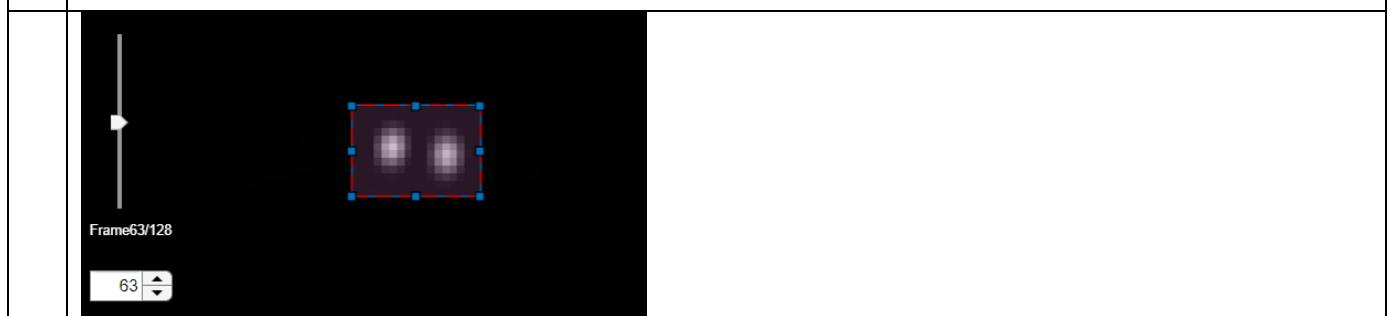
18



Press "Show ROI" button and define ROI with remnants



Lock ROI



19

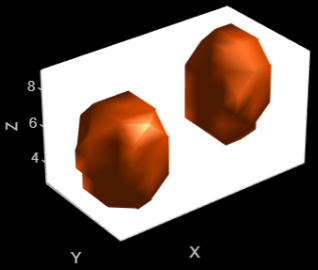
4. Administered Activities (MBq) *Enter activity where applicable*

Background	<input type="text" value="0"/>	Remnant 1	<input type="text" value="0"/>	Remnant 2	<input type="text" value="0"/>
		Remnant 3	<input type="text" value="0"/>	Remnant 4	<input type="text" value="0"/>

20 Options: save image, copy image, rotate, pan, zoom in, zoom out, restore view

5. Calculate counts and show 3D remnants

Show 3D remnants



Counts:

<input type="text" value="1.08e+06"/>	Remnant 1
<input type="text" value="9.54e+05"/>	Remnant 2
<input type="text" value="0"/>	Remnant 3
<input type="text" value="0"/>	Remnant 4

Threshold %

Change Threshold or Continue

21

6. Optional

on SPECT image

for A(I123) > 6 MBq & A(I131) > MBq

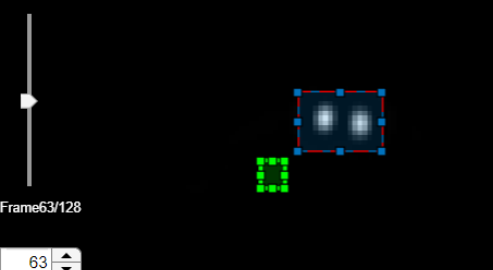
Go back to 3 to view remnants or Continue

22 Press "Show Background ROI" button and define ROI in background region

7. Background ROI

Initial Slice: Last Slice:

Move ROI in other background region Background counts calculated

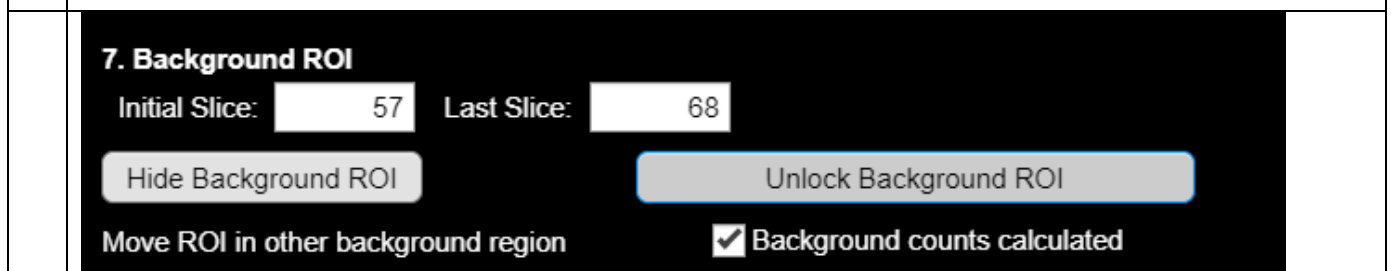


Frame63/128

Lock background ROI



When you locked ROI, the background counts are calculated



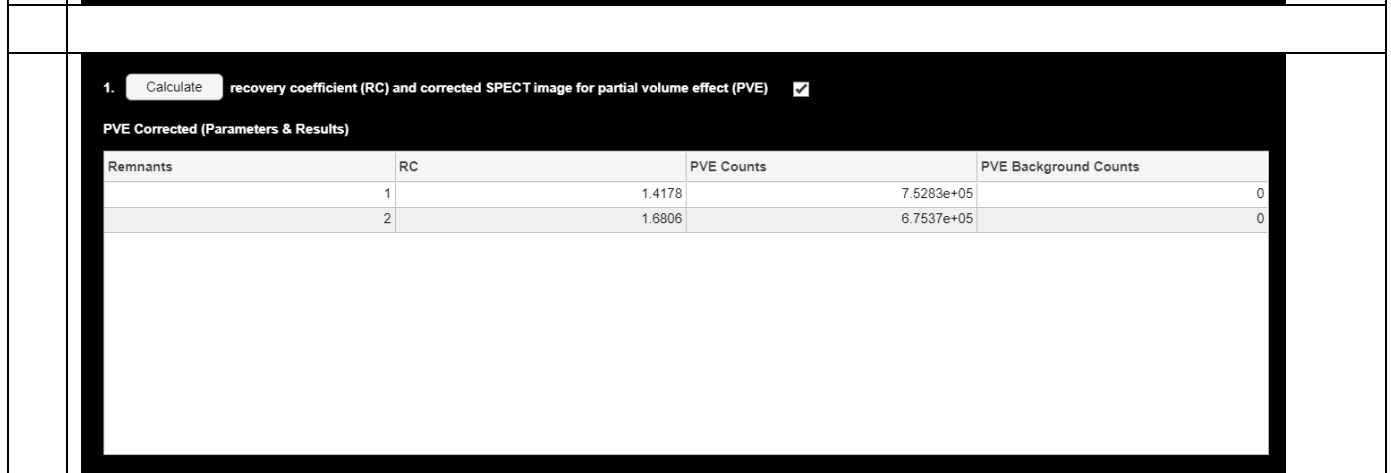
23 Load the file with coefficients



Outputs



24



- The table is saved in C:\Thyroid_img_analysis\PVEFiles. The name of the Excel file is PVE_Output
- The PVE corrected image is saved in the same folder of SPECT image



26 Insert Tags for filling purposes

Enter Tag Numbers for filing purposes-Tag1 (compulsory):

Tag2 (Optional):

Tag3 (Optional):

Tag4 (Optional):

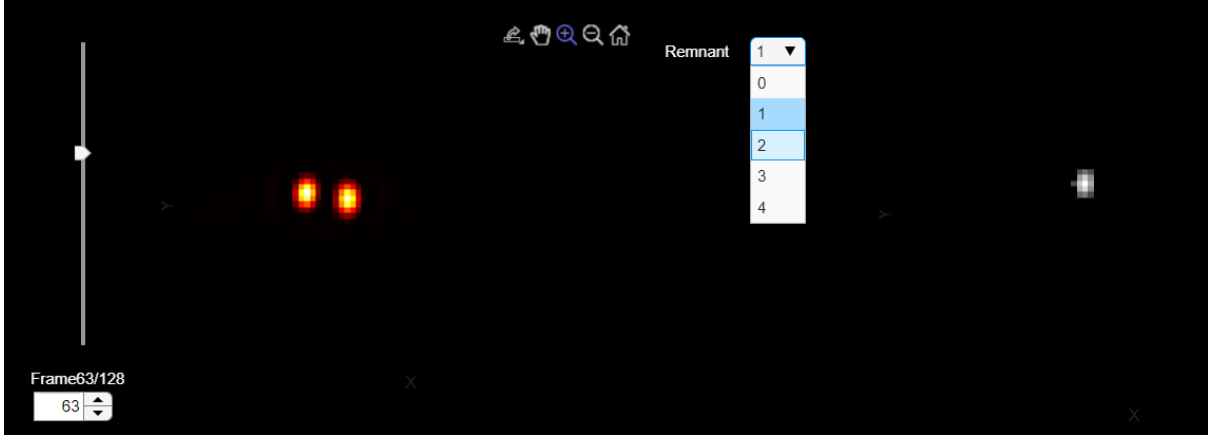
Tag5 (Optional):

Tag6 (Optional):

View Remnants

Calculate Coefficient(s) | Inputs | Outputs | **View Remnants** | Exit Algorithm

- 27
- Left: SPECT Image with remnants
 - Middle: Droplist to select remnant to view
 - Right: SPECT Image showing the selected remnant
- Options: scroll to view remnants, save image, copy image, pan, zoom in, zoom out, restore view



PVE Corrected (Parameters & Results)

Remnants	RC	PVE Counts	PVE Background Counts
1	1.4178	7.5283e+05	0
2	1.6806	6.7537e+05	0

Exit Algorithm

Calculate Coefficient(s) | Inputs | Outputs | View Remnants | **Exit Algorithm**

28 Exit algorithm options

Do you want to correct another image for PVE?

Yes

No

Do you want to enter in algorithm or algorithm or software?