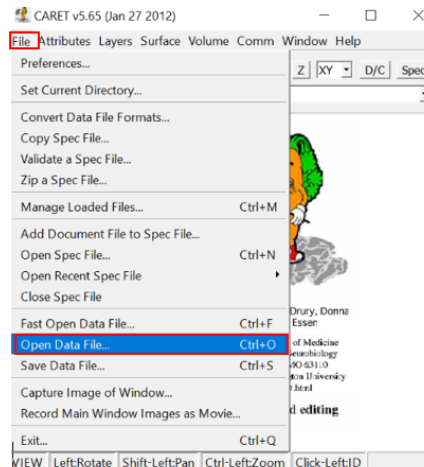
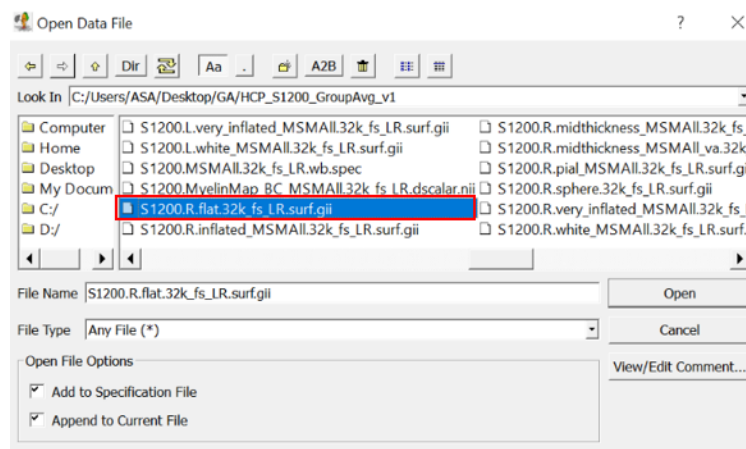


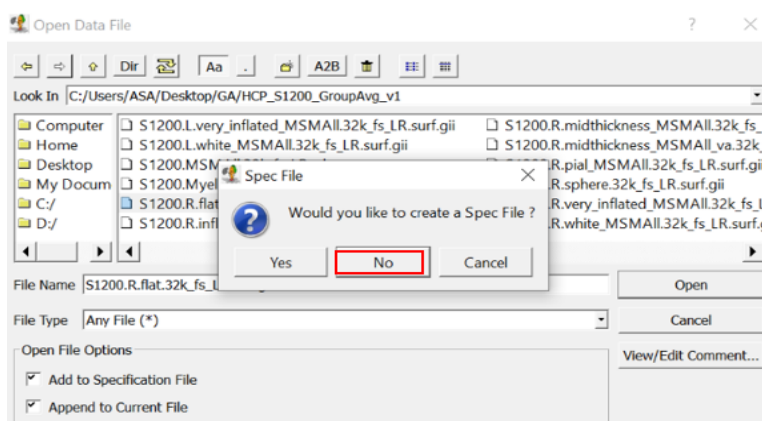
- 1- Open “Caret”.
- 2- Select “File”.
- 3- Click on “Open Data file...”.



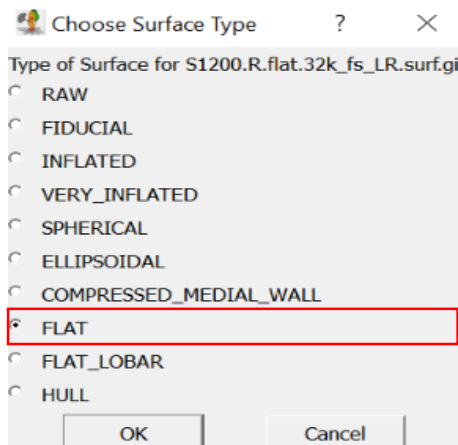
- 4- Choose the surface file you want to be used, then click on “Open”.



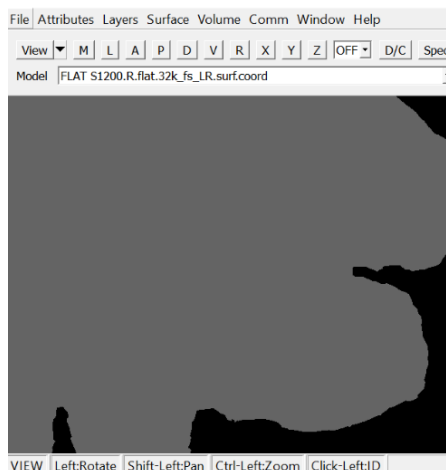
- 5- When you selected the surface file, click on “No” so that no Spec File will be generated.



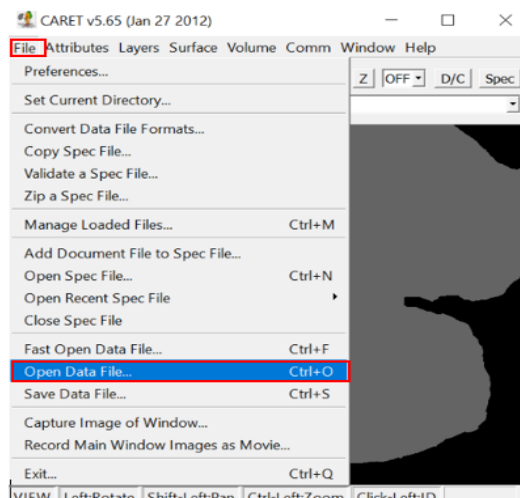
6- Choose the type of selected surface, then press “OK”.



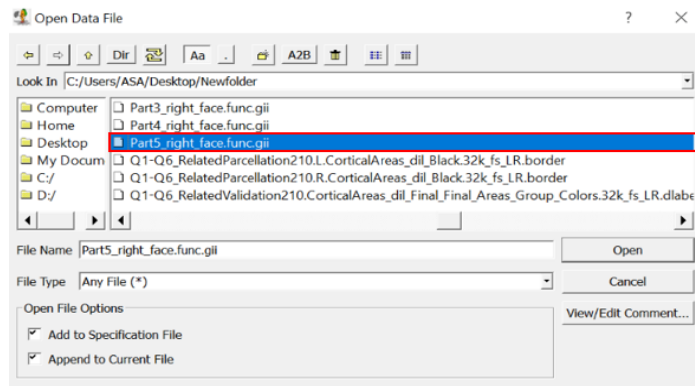
7- After all these done, surface can be visualized.



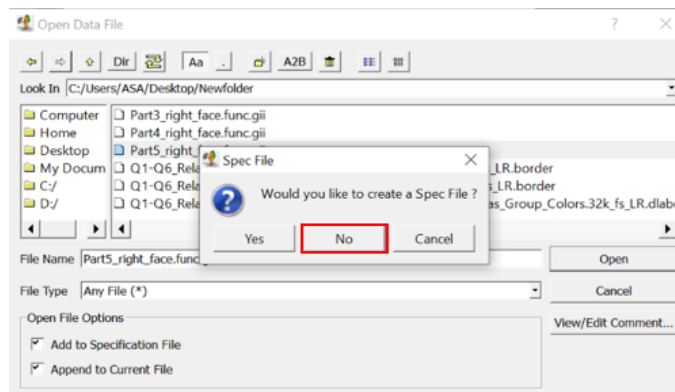
8- Then, one should open the functional data. In this regard, click on “*File*”, then select “*Open Data File...*”.



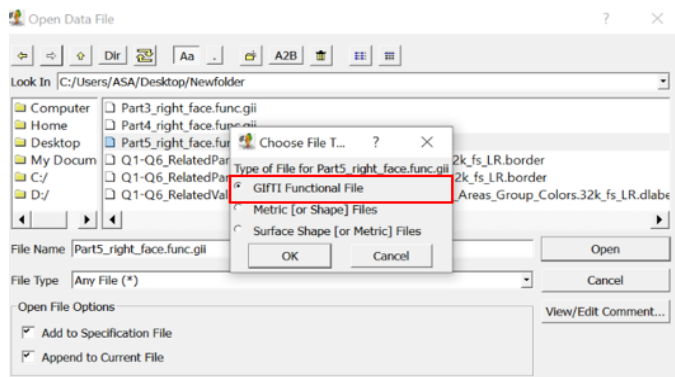
9- Select the “*.func.gii” file.



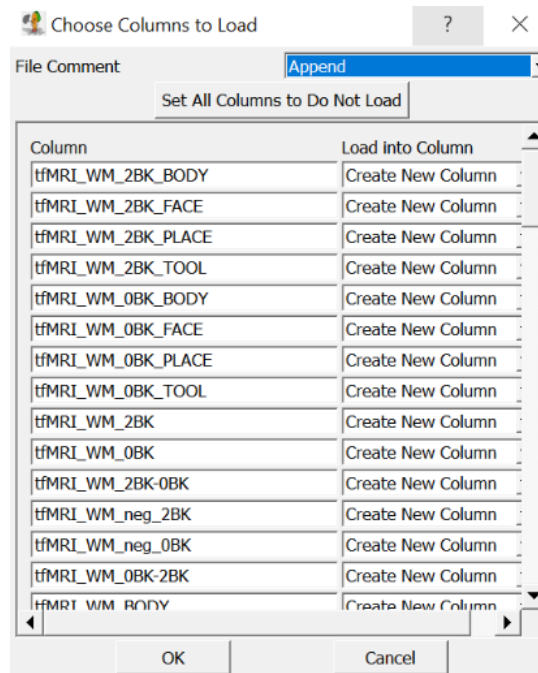
10- Select “No” so that no Spec File will be generated.



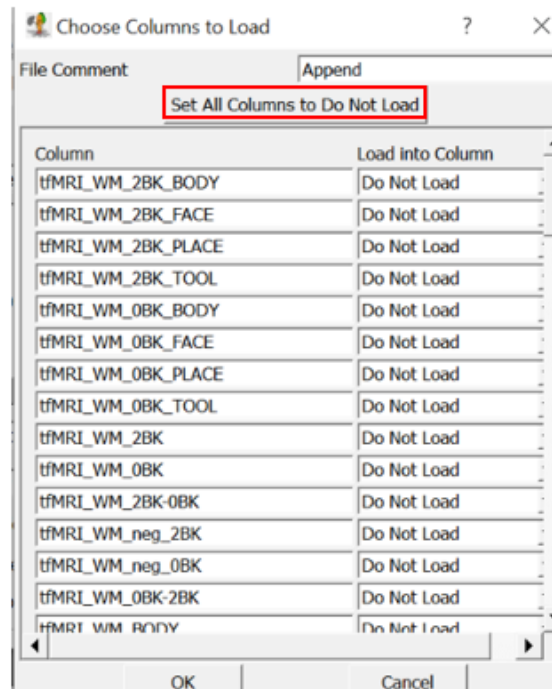
11- Choose the file type. → GIFTI



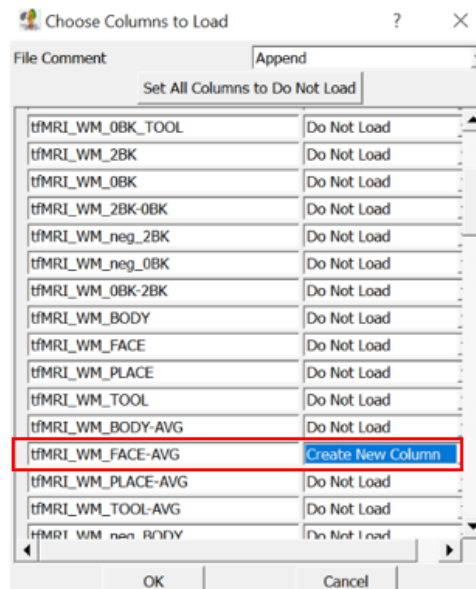
12- In this case, the GIFTI file contains some contrasts, which are shown here:



13 – Select “*Set All Columns to Do Not Load*”.



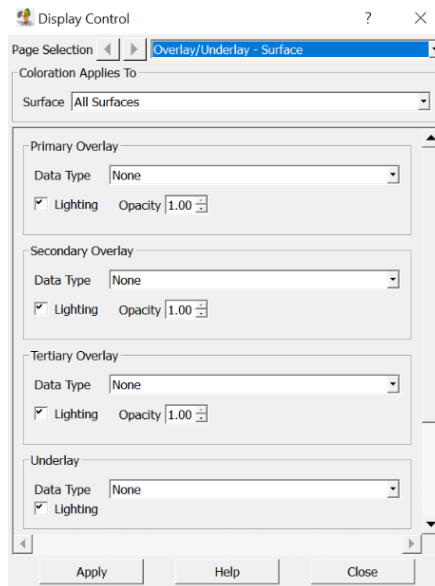
13- Now, one will select the contrast that one wants to continue with (in this case, the one which is binary).



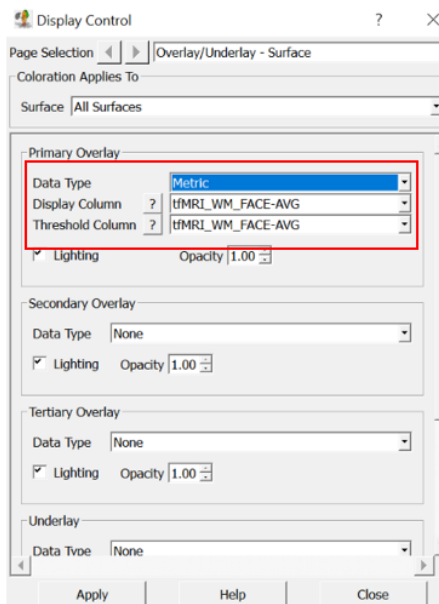
14- Now that everything (structural + functional data) is loaded, click on “D/C”.



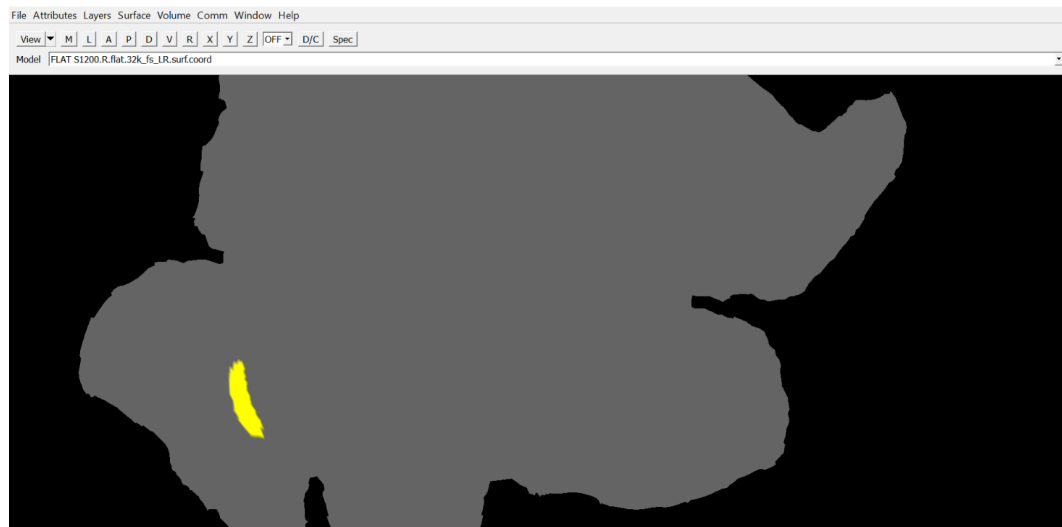
15- The window shown below will be opened.



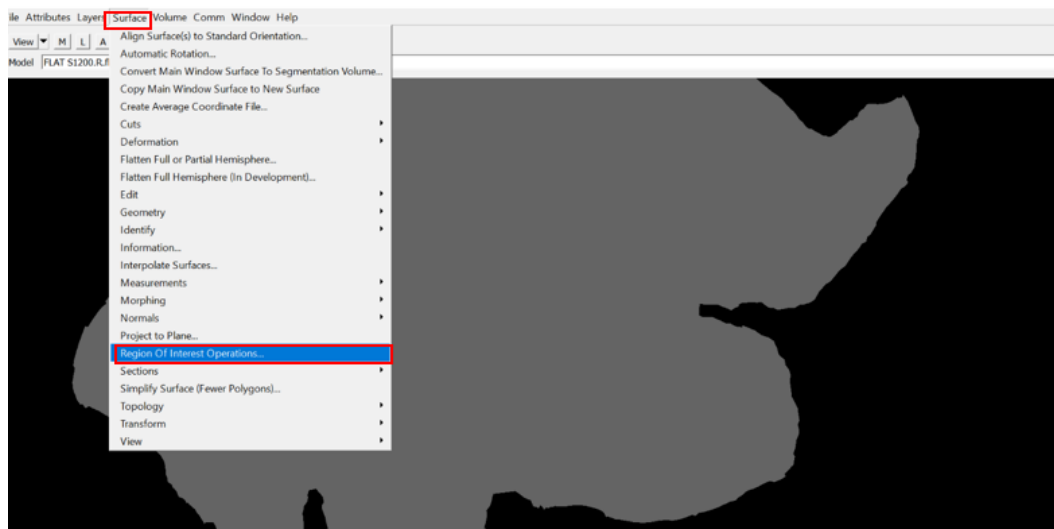
16- In the “*Primary Overlay*” section, choose “*Metric*” as the “*Data Type*”. Moreover, one should select the contrast that one wants to continue with in the “*Display Column*”.



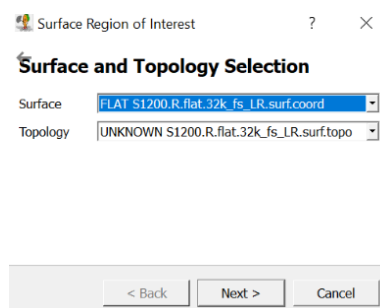
17- Now, the functional data of the selected contrast is overlaid on the surface.



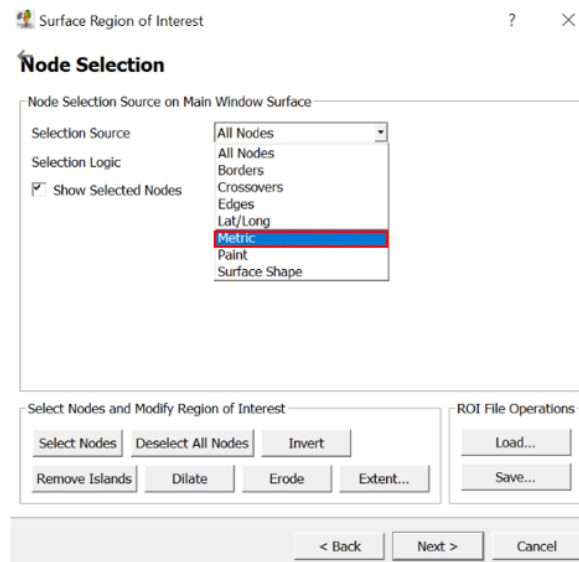
18- Select “*Surface*”, then select “*Region of Interest Operations...*”.



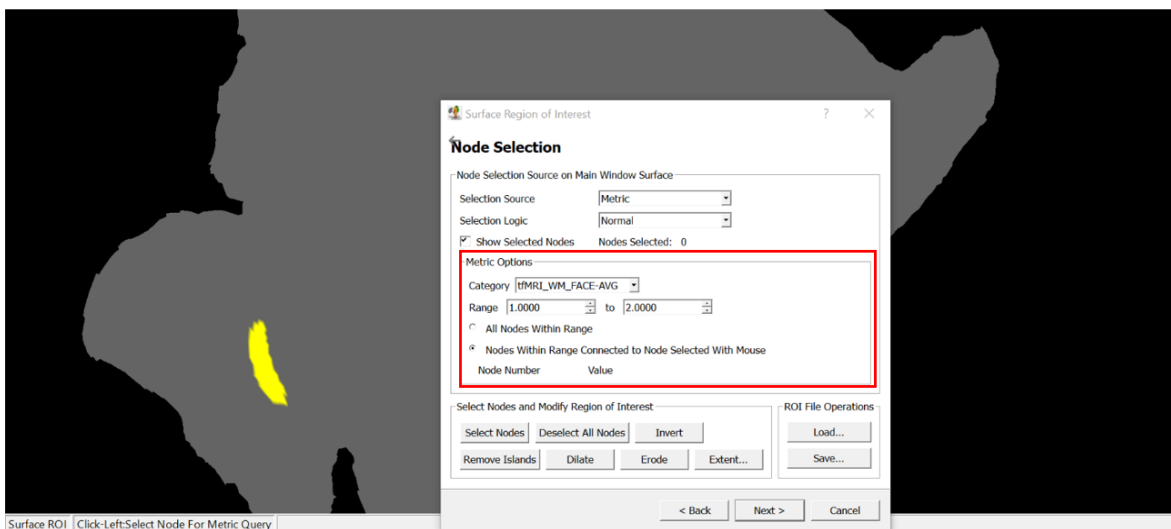
19- The following window will appear. Leave the details unchanged and click “*Next*”.



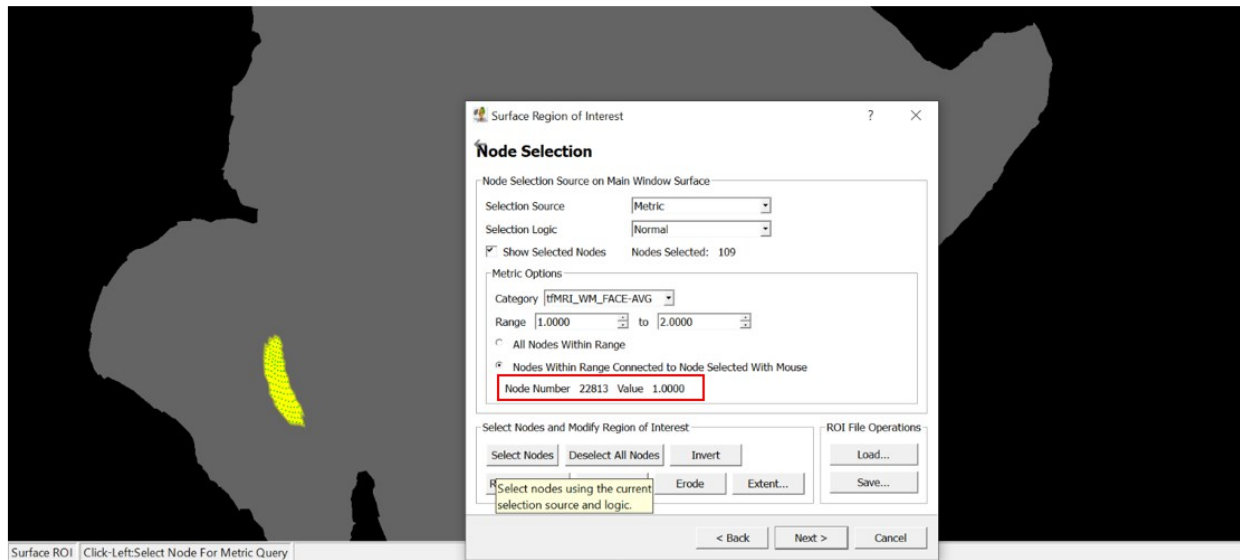
20- In the window that just comes up, select “*Metric*”.



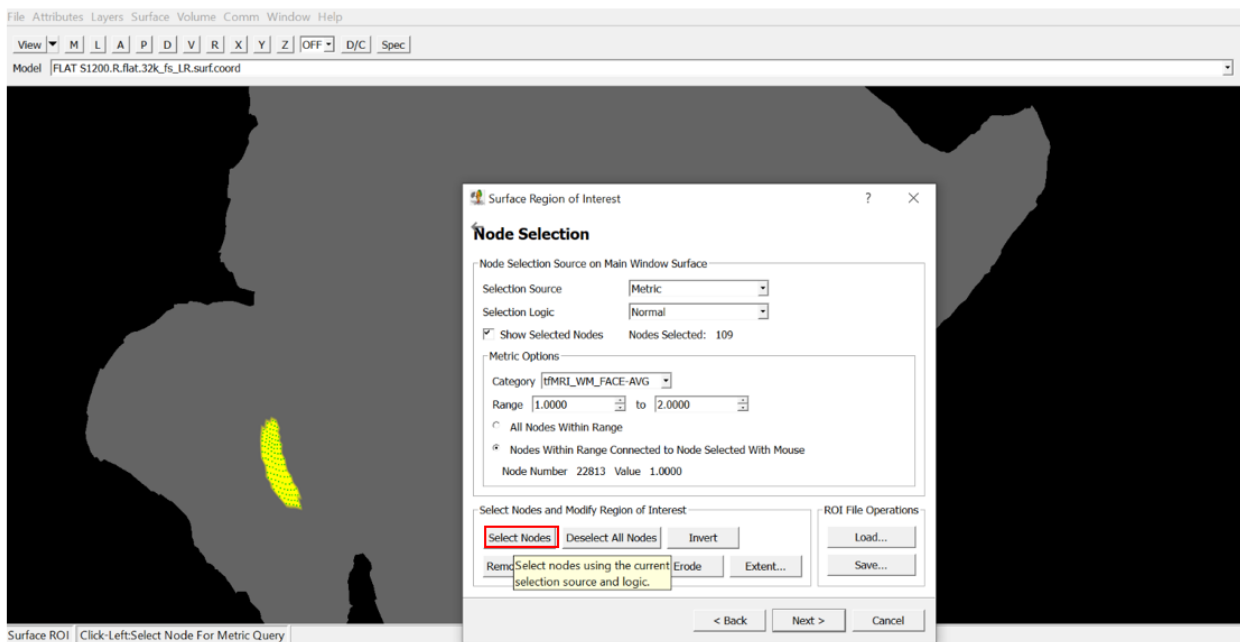
21- In the “*Metric Options*”, change the range then select “*Nodes Within Range Connected to Node Selected With Mouse*”.



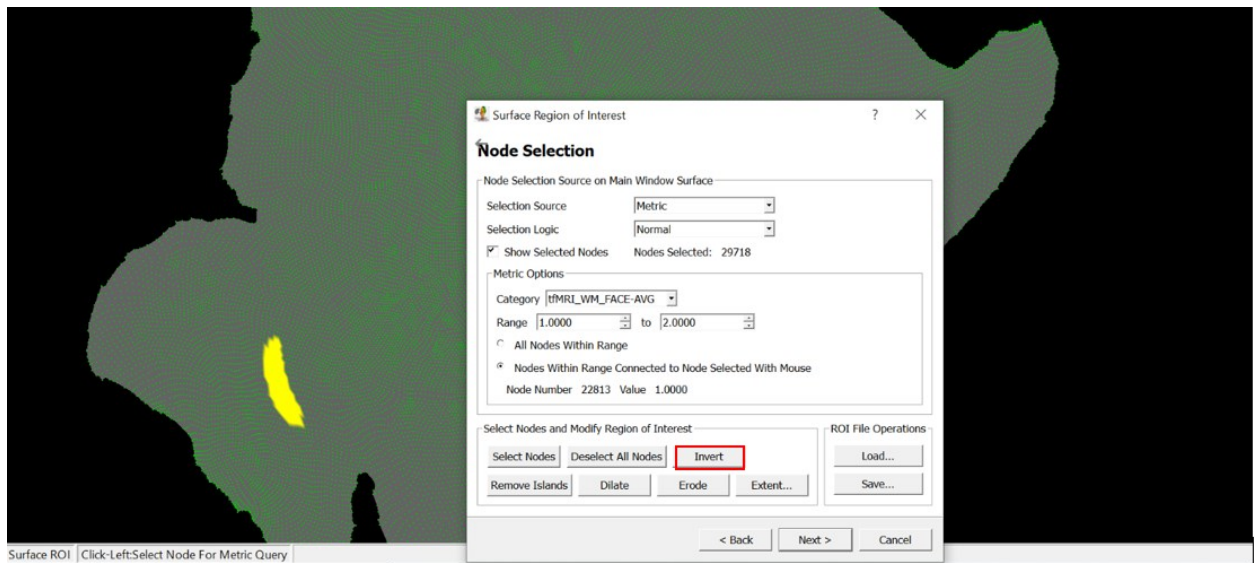
22- One then should select the area, for which one wants to know the vertices number, by clicking on a node within the area. It is possible to see the “*Node Number*” of the selected vertex here.



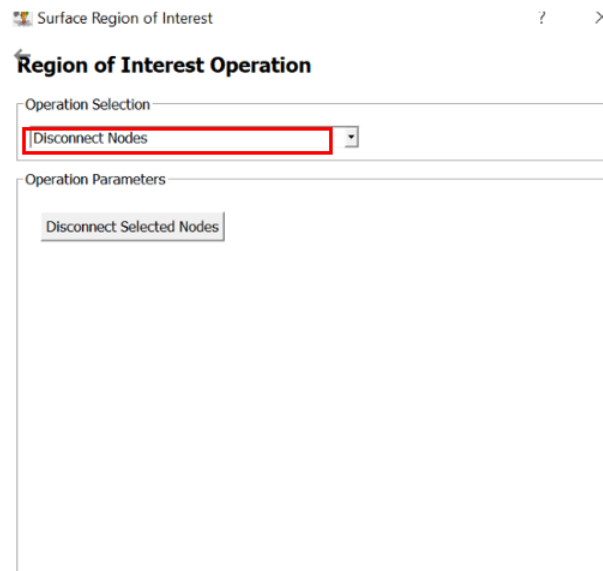
23- Now, choose “*Select Nodes*”. One can see that all the vertices within the ROI are selected. (Pay attention to the green dots.)



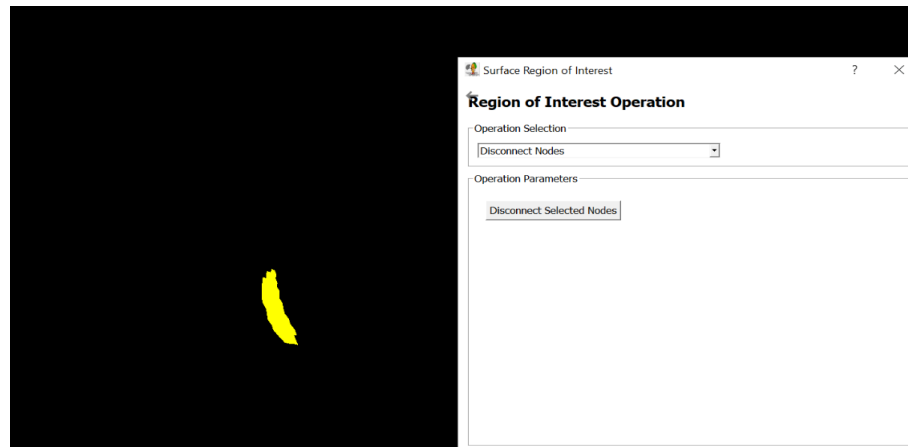
24- Click on “*Invert*”.



25- Click on “*Next*”. Now, change “*Operation Selection*” to “*Disconnect Nodes*”.

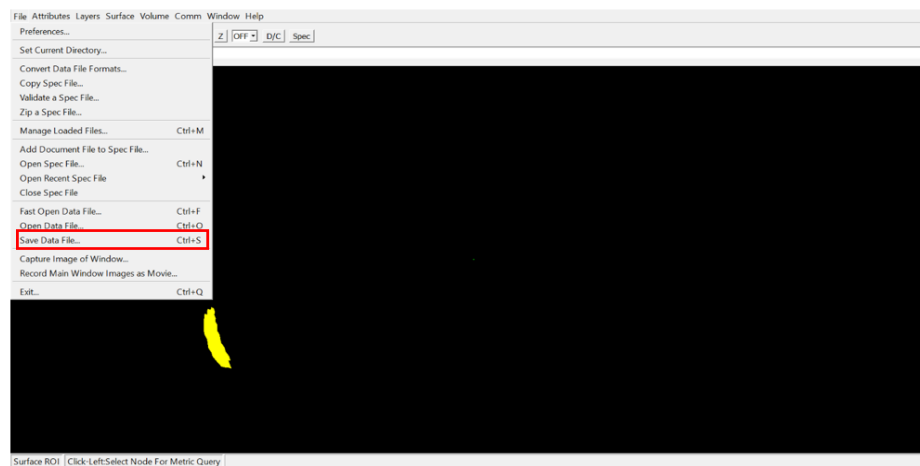


26- Here, you can see the result:

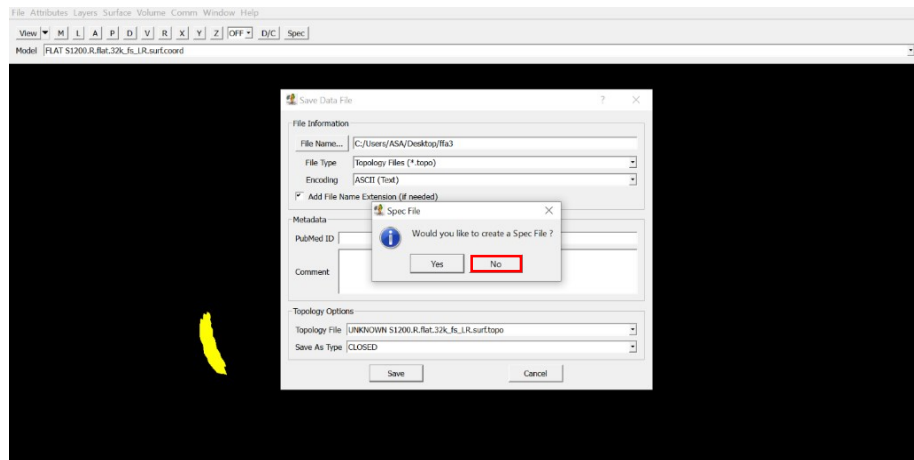


27- Now, you can finish the process.

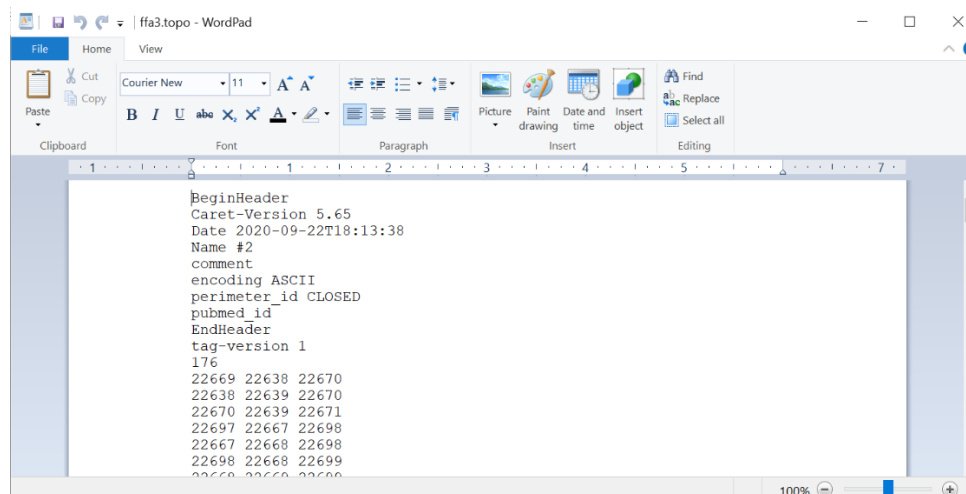
28- Click on “*File*”, then select “*Save Data File...*”.




29- Change File Type to “*.topo”, change Encoding to “ASCII”, and then click on “Save”. Do not save it as Spec File.



30- Open “*.topo” file using WordPad to make sure that its content is fine.



31- Import the “*.topo” file into Excel and then delete the unwanted rows.



	A	B	C
1	BeginHeader		
2	Caret-Vers	5.65	
3	Date	2020-09-22T18:13:38	
4	Name	#2	
5	comment		
6	encoding	ASCII	
7	perimeter	CLOSED	
8	pubmed_id		
9	EndHeader		
10	tag-versio	1	
11	176		
12	22669	22638	22670
13	22638	22639	22670
14	22670	22639	22671
15	22697	22667	22698
16	22667	22668	22698
17	22698	22668	22699

	A	B	C
1	22669	22638	22670
2	22638	22639	22670
3	22670	22639	22671
4	22697	22667	22698
5	22667	22668	22698
6	22698	22668	22699
7	22668	22669	22699
8	22699	22669	22700
9	22669	22670	22700
10	22700	22670	22701
11	22670	22671	22701
12	22701	22671	22702
13	22671	22672	22702
14	22702	22672	22703
15	22726	22697	22727
16	22697	22698	22727
17	22727	22698	22728

32- By using the code below in MATLAB, you can find the vertices number of the selected area.

```
ffa = xlsread('C:\Users\ASA\Desktop\aks\ffa3.xlsx');
ffa_v = unique(ffa(:));
```

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