

Investigating localization
within a sample section

Examples

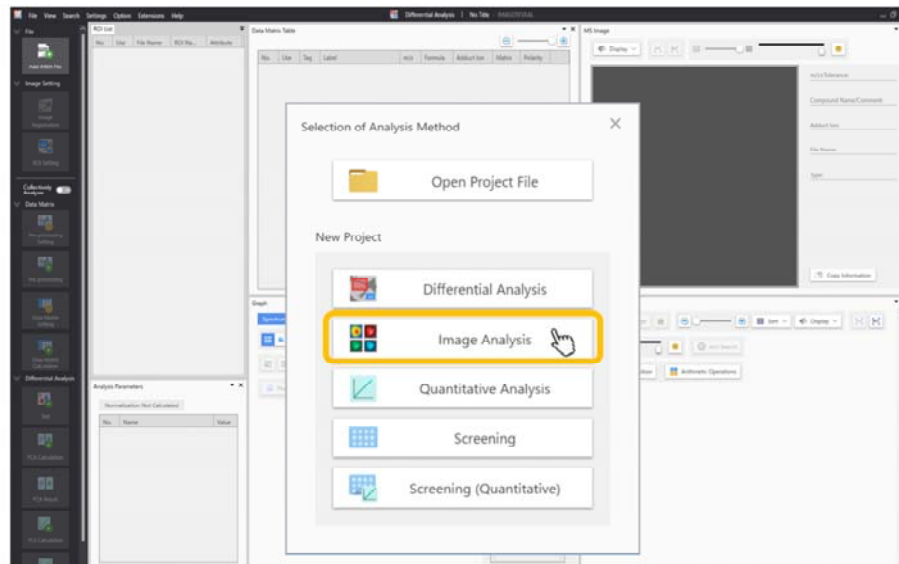
1. Which compounds have which distributions within the sample section?
2. What components colocalize with known localization?
3. Divide up pixels into specified cluster numbers.

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Steps

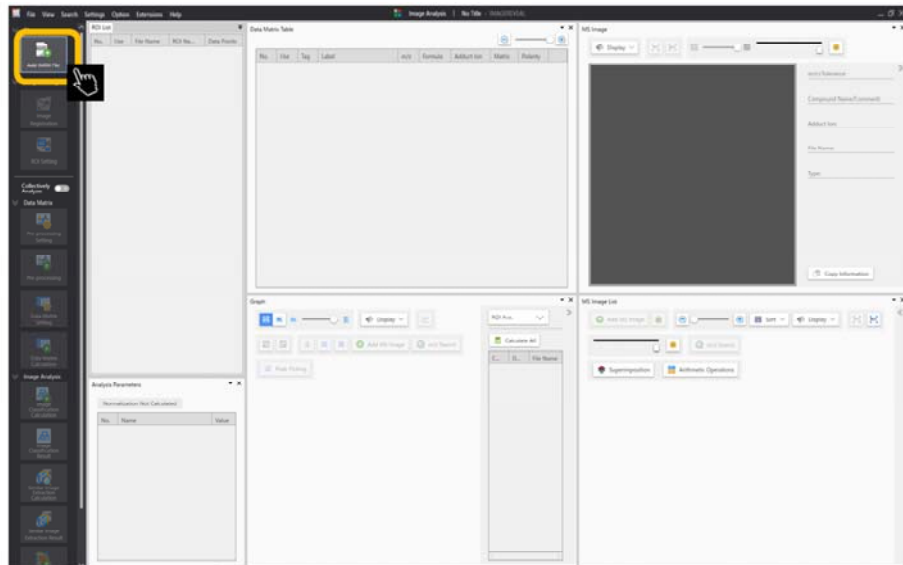
1. Select “Image Analysis”
2. Read in data
3. ROI settings if necessary
4. Data matrix table calculations
5. Segmentation

1. Select “Image Analysis”

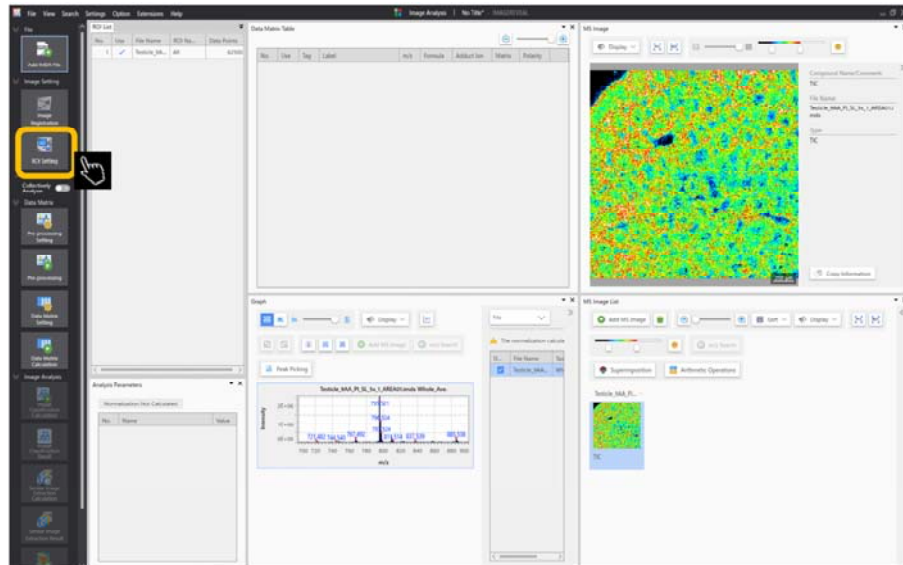


Read in a data file (.imdx format)

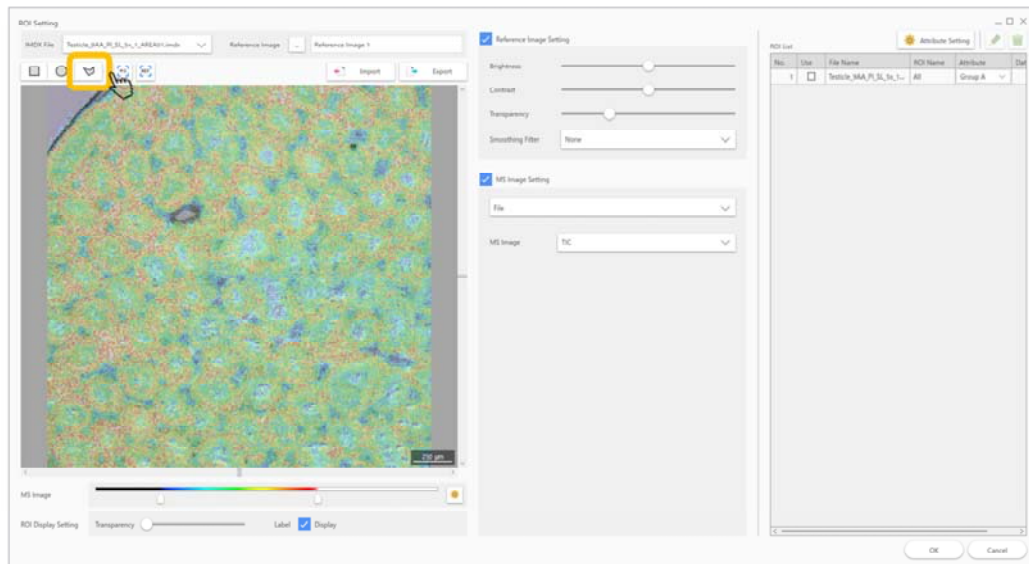
2. Add data file (.imdx)



3. If necessary, alter ROI settings

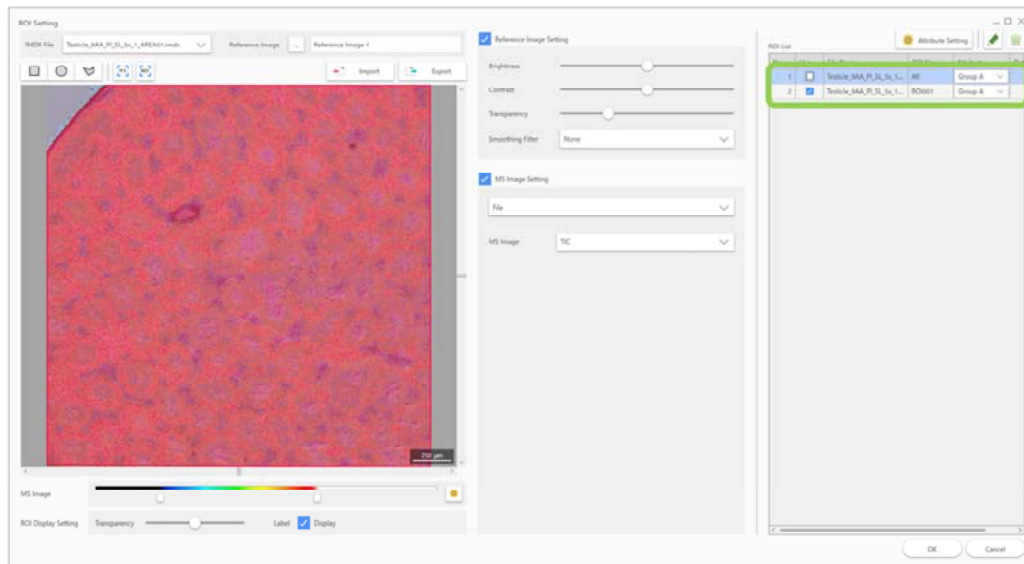


3.1 ROI settings



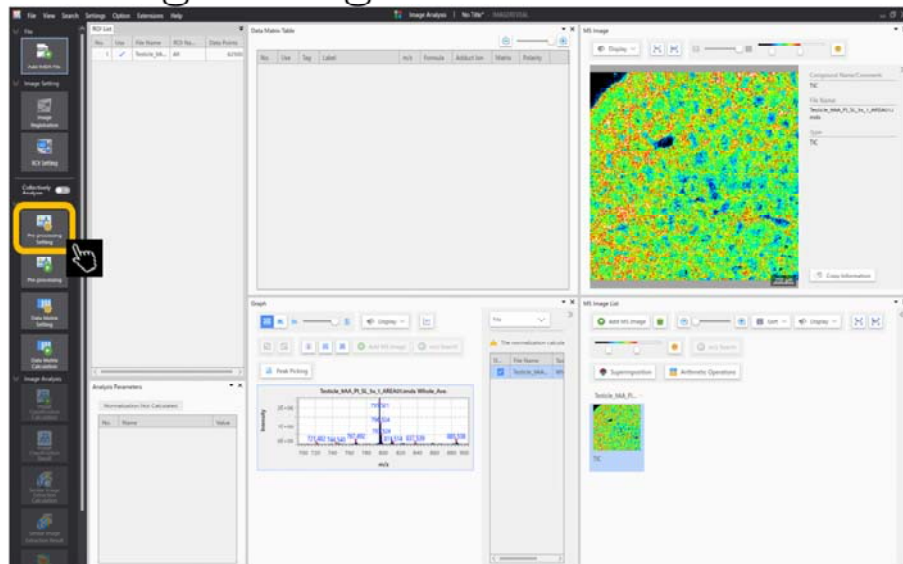
An ROI can be selected as a rectangle, a circle or a polygon.

3.2 ROI settings



After drawing the ROI, apply attributes.
(If 2 or more attributes are not set, testing cannot be started.)

4. Data matrix calculations – pre-processing settings

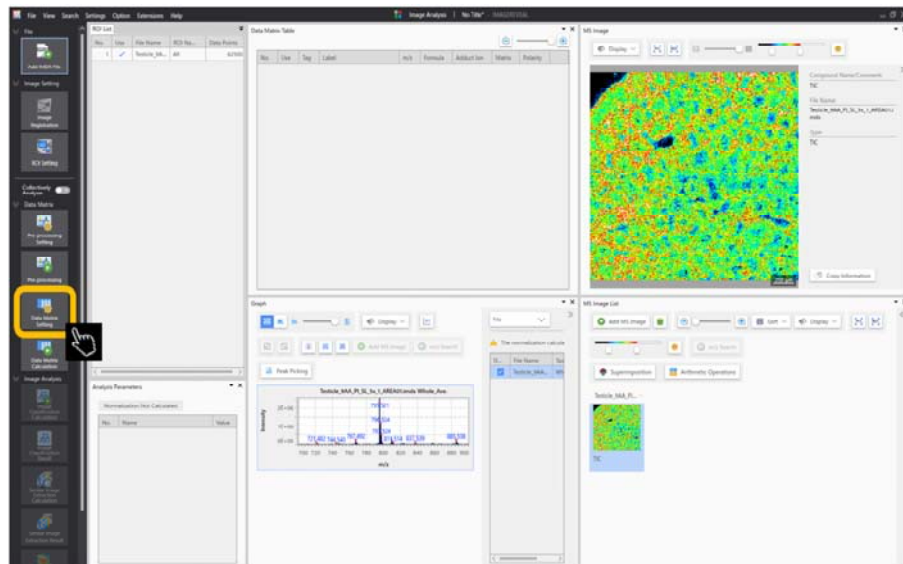


4.1 Pre-processing settings

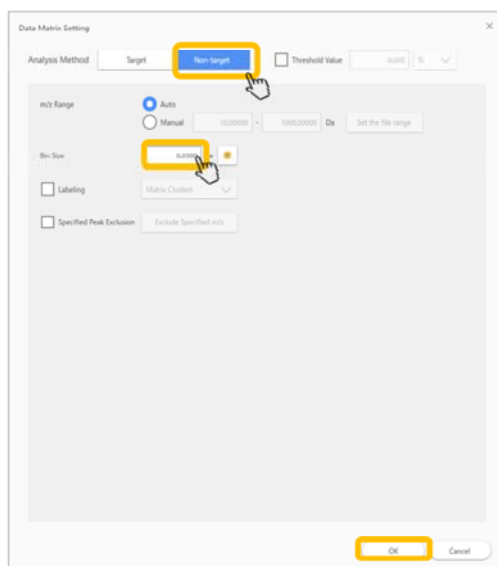


TIC is generally used.

4.2 Data matrix settings

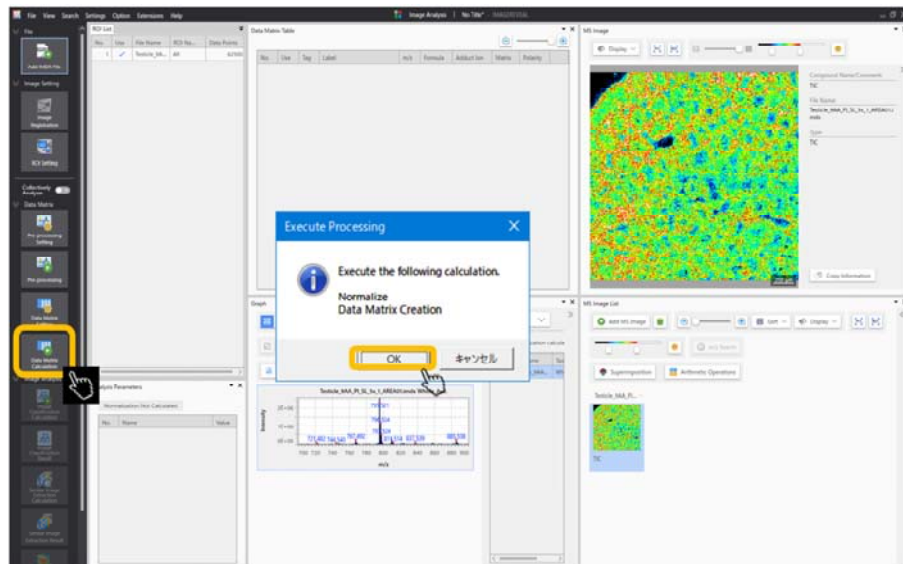


4.3 Data matrix settings

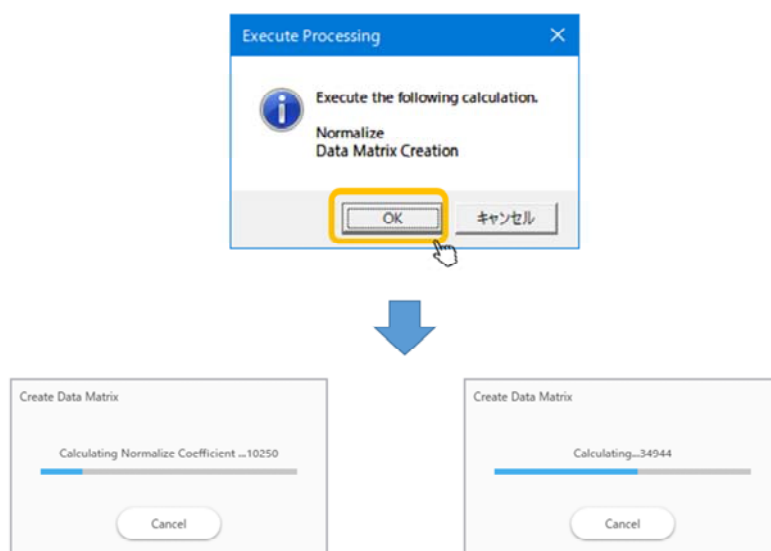


Non-target: cut out fixed widths of signal intensity from the spectrum.
Target: specify particular m/z values and the tolerance width.

4.4 Data matrix calculations



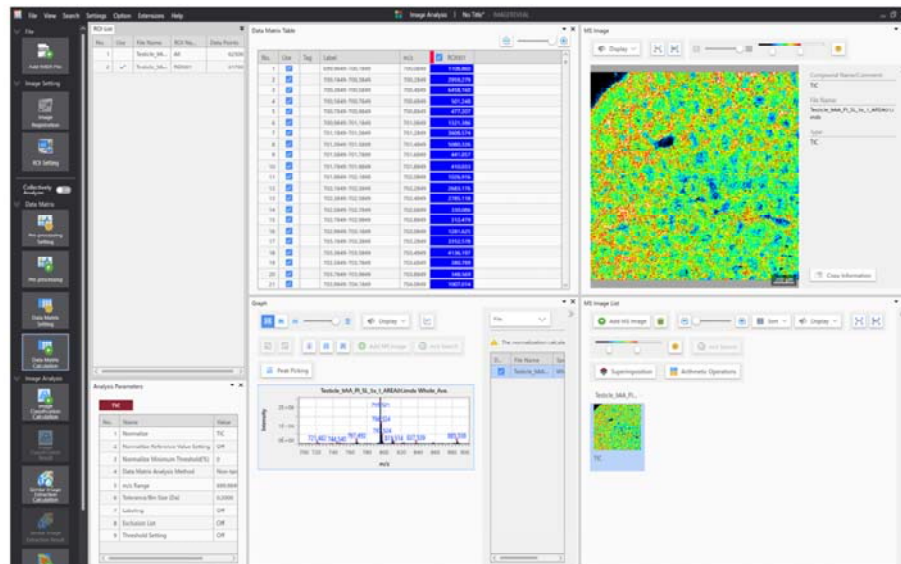
4.5 Running calculations



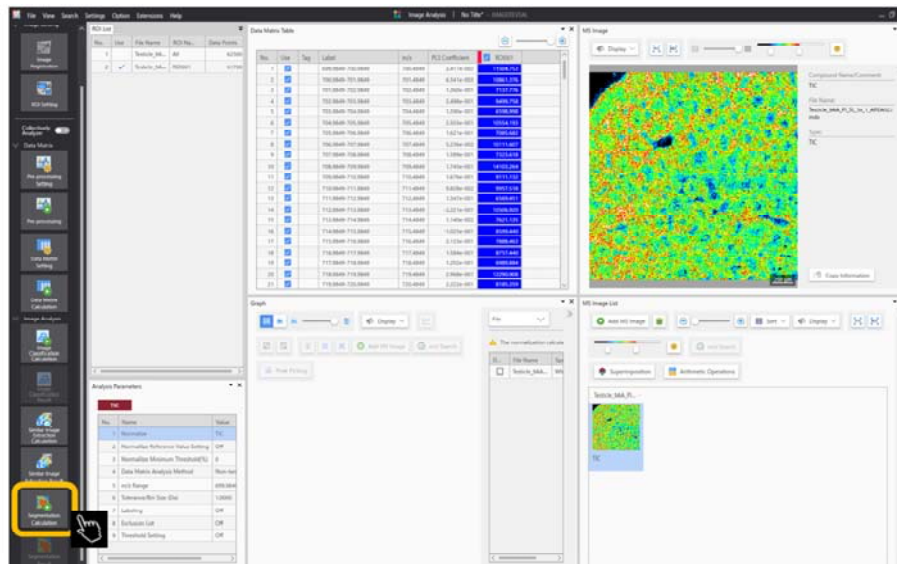
If pre-processing calculations have not yet been carried out, they will be run here at the same time.

If there are a large number of target compounds, the calculations will take longer.

4.6 Data matrix calculations are complete

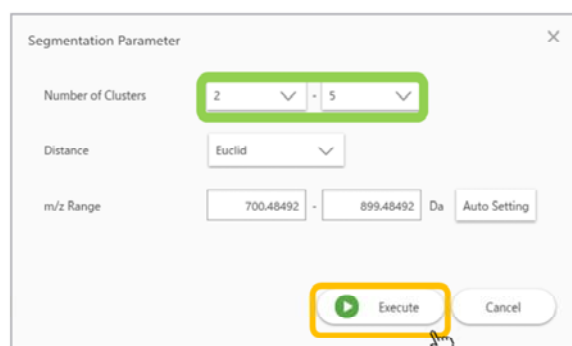


5. Select “Segmentation”



If necessary, apply ROI settings.
Calculate data matrices.

5.1 Segmentation parameters



Segmentation Parameter

Number of Clusters: 2 - 5

Distance: Euclid

m/z Range: 700.48492 - 899.48492 Da Auto Setting

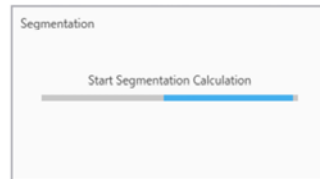
Execute Cancel

Set the number of segments
In this case, there will be segment no.s 2,3,4 and 5 for a total of 4 results.

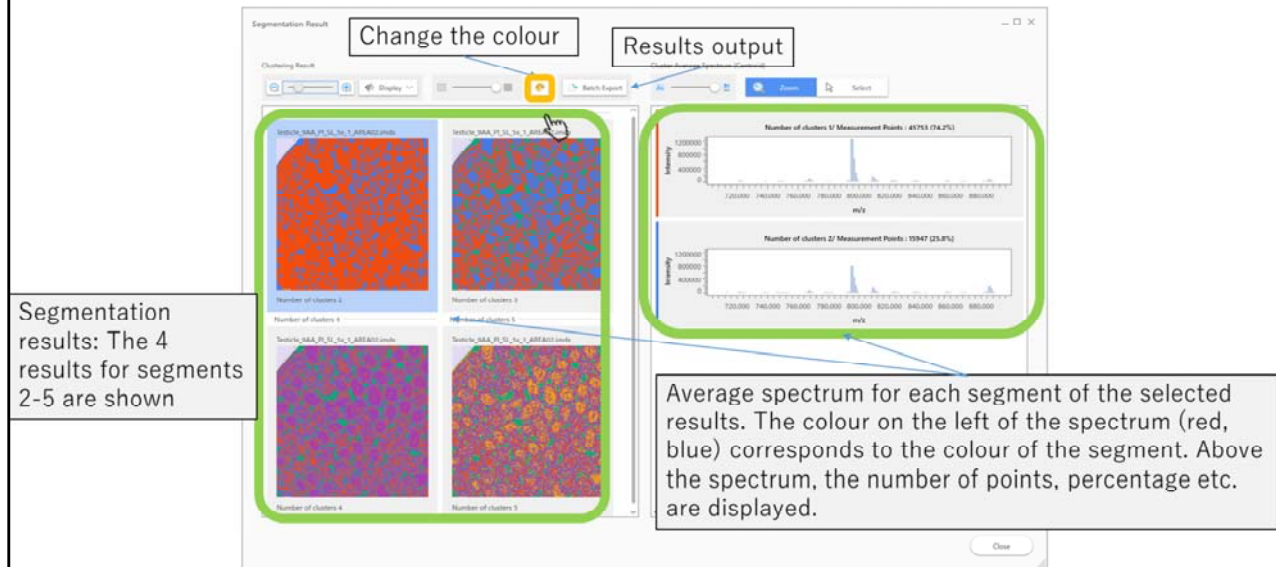
Set the number of segments.

In this case, there will be segment no.s 2,3,4 and 5 for a total of 4 results.

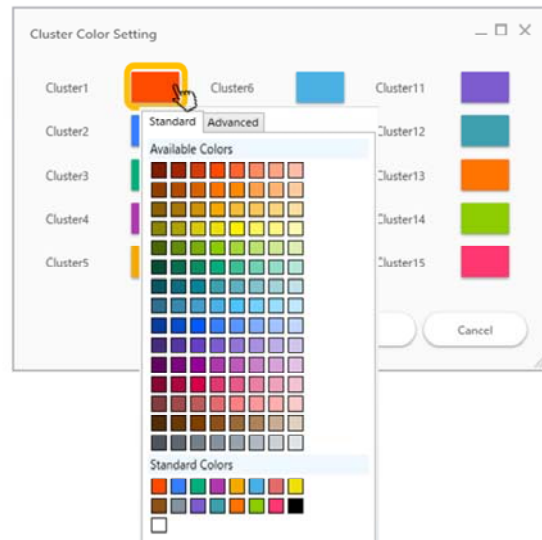
5.2 Segmentation calculations



5.3 Segmentation results



5.4 Changing the colours of the segments



The colour of each cluster can be chosen