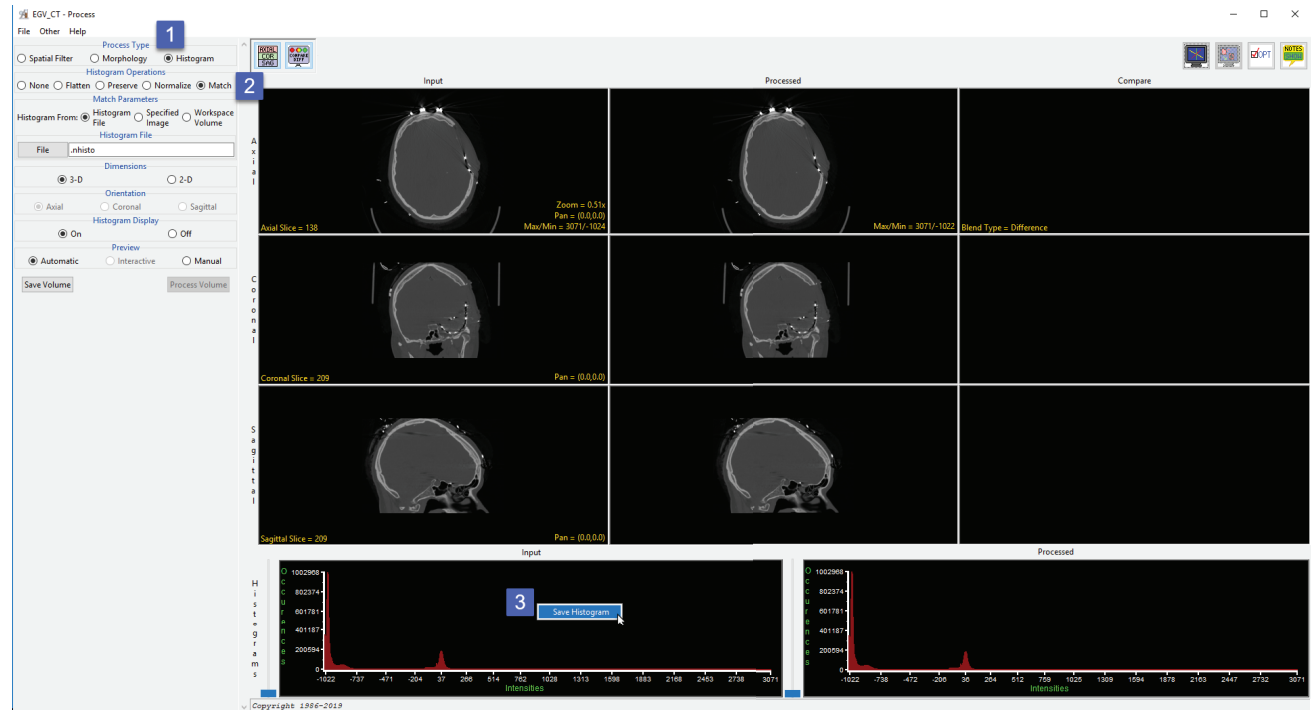


Histogram Match

Histogram matching matches the intensity distribution of a volume to a histogram. The function forces the histogram of the input volume to match the grayscale distribution of the specified histogram file from another data set. Volumes of the same subject should have the same general distribution of gray levels, even though the parameters of a particular volume (exposure, brightness, contrast) may vary widely. Histogram matching may be used to normalize the absolute grayscale values of a set of volumes to a selected optimal example.



The goal of this exercise is to match the histograms of two data sets acquired for the same subject. Download the ECG_CT.avw and EVG_MRI.avw datasets from <http://analyzedirect.com/data> to follow along.

Load the two data sets into Analyze using the Input/Output module. Select the EVG_CT data set and open Process.

Set the Process Type to Histogram [1] and select the Match Histogram Operations option [2].

Right-click on the Input histogram and choose Save Histogram [3]. Save the histogram file to the Desktop. Close the Process module.

Histogram Match (continued)

Select the EVG_MRI data set and open Process.

Set the Process Type to Histogram and select the Match Histogram Operations option.

Click the File button under Histogram File [4] and then navigate to and select the .nhisto file saved for the EVG_CT data set and then click open.

The histogram will be applied to the data set. Note the change in the processed histogram [5] and the processed MRI data [6].

Click Save Volume to save the processed data to the workspace.

