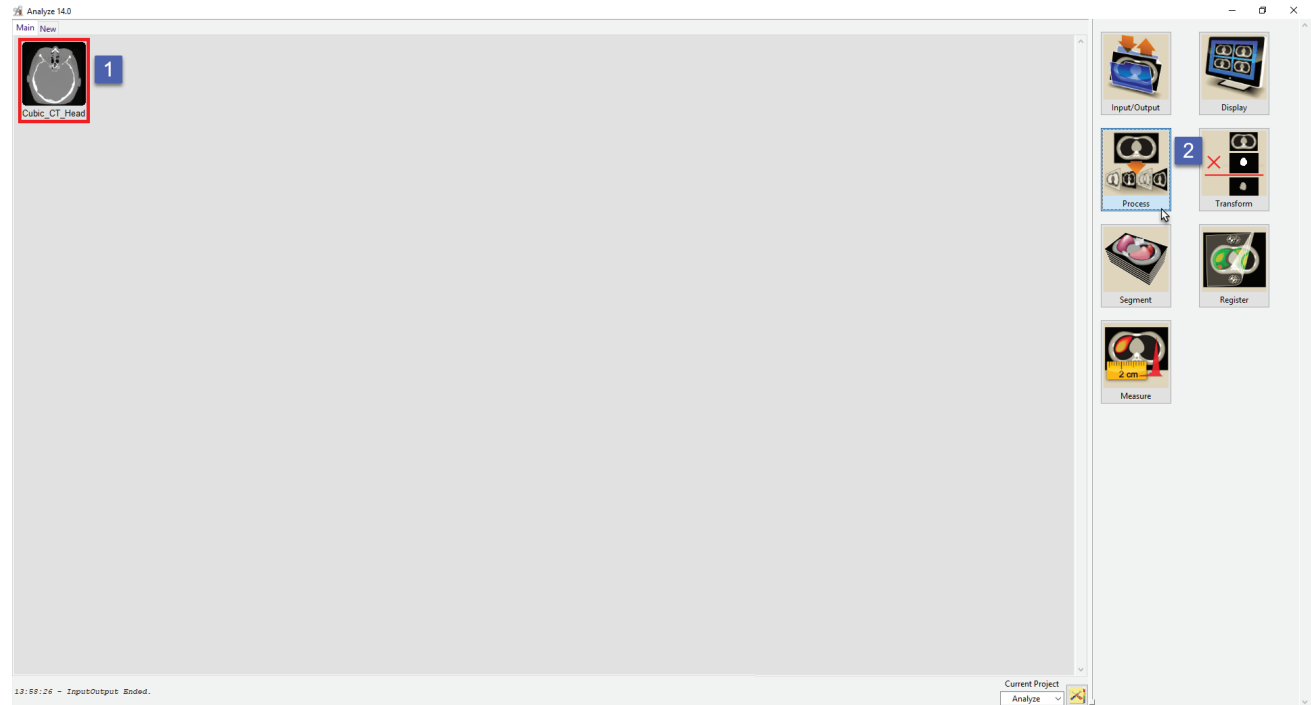


## Histogram Flatten

The histogram flattening function allows users to attempt to produce an even distribution of voxels across the gray scale range specified by the Output Range minimum and maximum. A volume which has roughly equal numbers of voxels at every gray scale value will tend to exhibit maximal contrast across the entire gray scale range. Original grayscale values may be brightened, darkened, and or binned together to affect the flattening procedure.

In this exercise we will apply the histogram flattening function to Cubic\_CT\_Head data set and observe the effects.



Download the Cubic\_CT\_Head.avw data set to follow along from <http://analyzedirect.com/data>

Load the Cubic\_CT\_Head.avw into Analyze using the Input/Output module.

Select the Cubic\_CT\_Head data set from the workspace [1] and open Process [2].

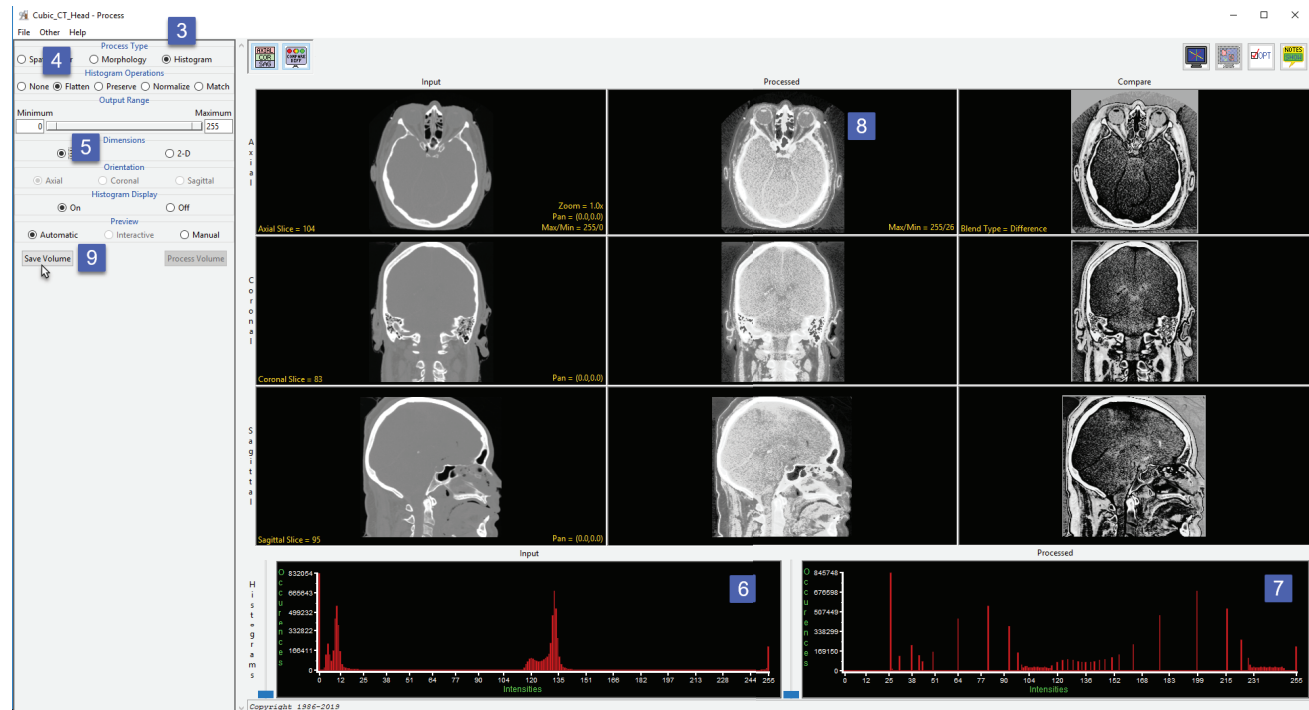
## Histogram Flatten (continued)

Select the Process Type Histogram [3].

Set the Histogram Operation to Flatten [4].

Leave the Output Range Minimum set to 0 and Maximum set to 255 [5].

Note the input histogram [6] and the flattened output histogram [7]. The histogram flattening function has evenly distributed the range of voxels from the input volume across the grayscale range of the output volume.



Review the enhanced processed data set [8]. Additional structure in the brain can be seen in the processed image that is not visible with the current Max/Min levels set for the input volume.

Click Save Volume [9] to save the processed image data to the workspace.