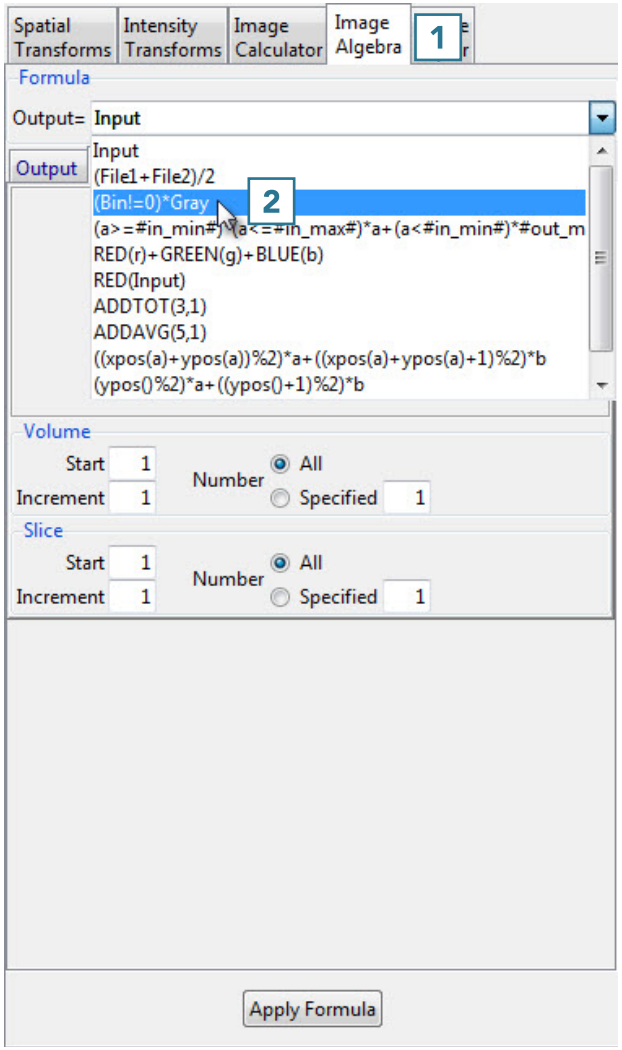
9. Applying a Binary Mask to a Grayscale Volume

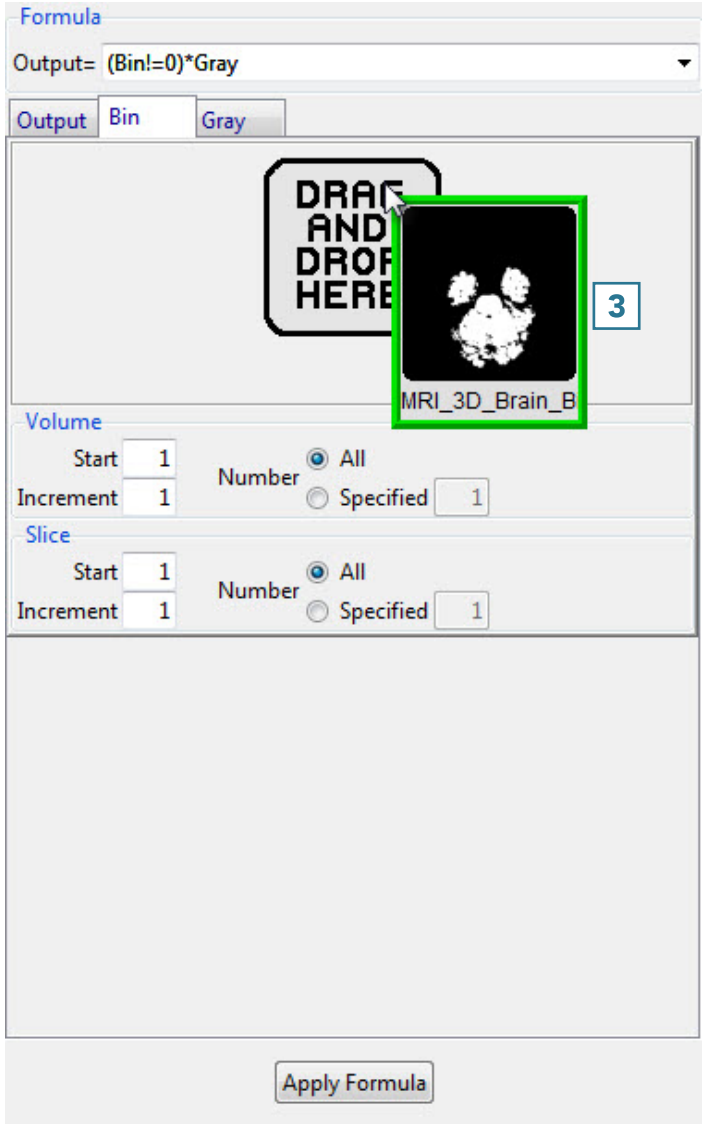
This exercise demonstrates how to multiply a grayscale data set with a binary data set. The binary brain will act as a mask; all voxels in the grayscale data set that fall within the binary mask will be kept, while the voxels that fall outside will be removed.

- Open Transform and navigate to Image Algebra. 1
- From the formula drop-down, select the third option down: (Bin!=0)*Gray. 2

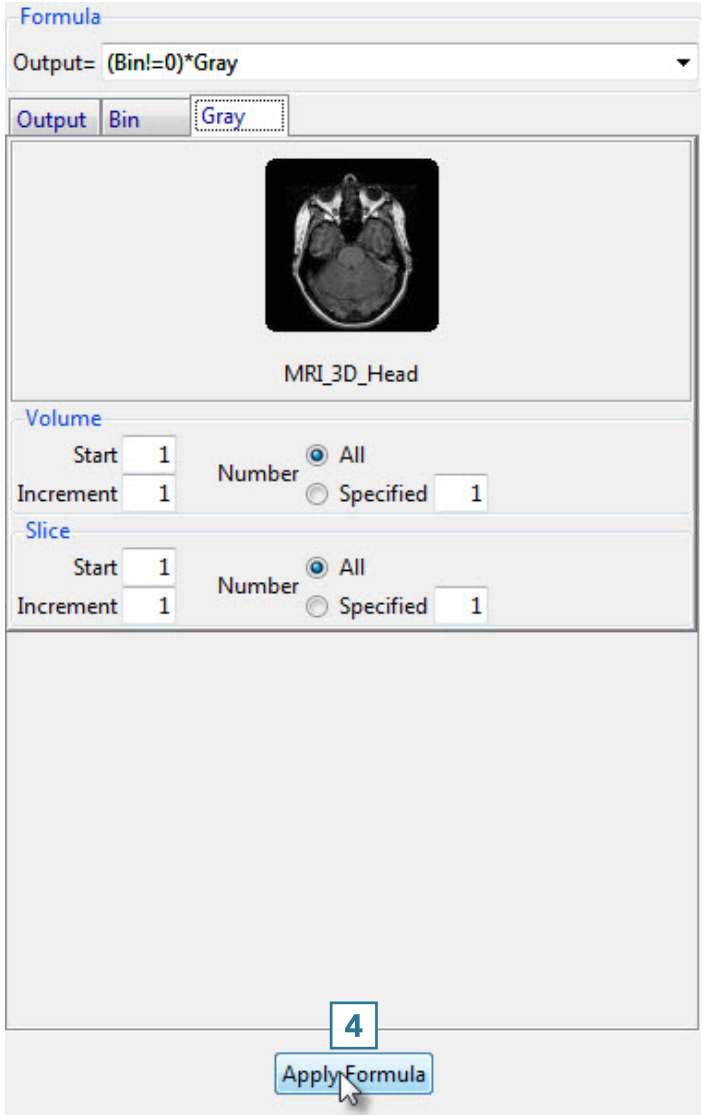
Download the MRI_3D_Head and MRI_3D_Brain_Bin data sets to follow along http://analyzedirect.com/data/



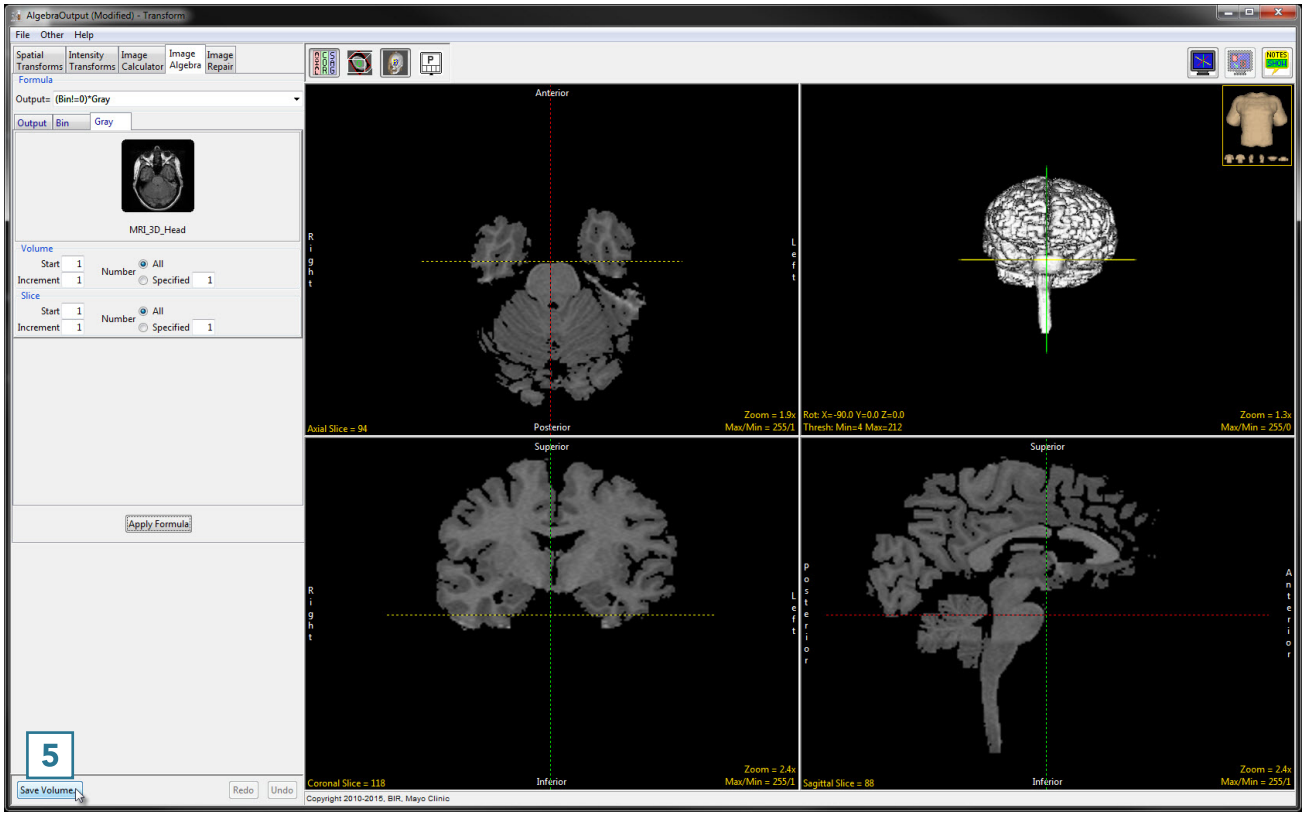
- The input variables will appear as tabs labeled with the variable names.
- Drag and drop the binary data set into the designated space on the Bin tab. 3
- Do the same with the grayscale data set on the Gray tab.



- Once both data sets are loaded into Image Algebra, click the Apply Formula button. 4



- The result is shown to the right.
- Click Save Volume **5** to save the masked data set.



- In the Save Transformed window, choose to create a new workspace volume 6 and rename. 7
- Click Save Volume. 8
- Close Transform.