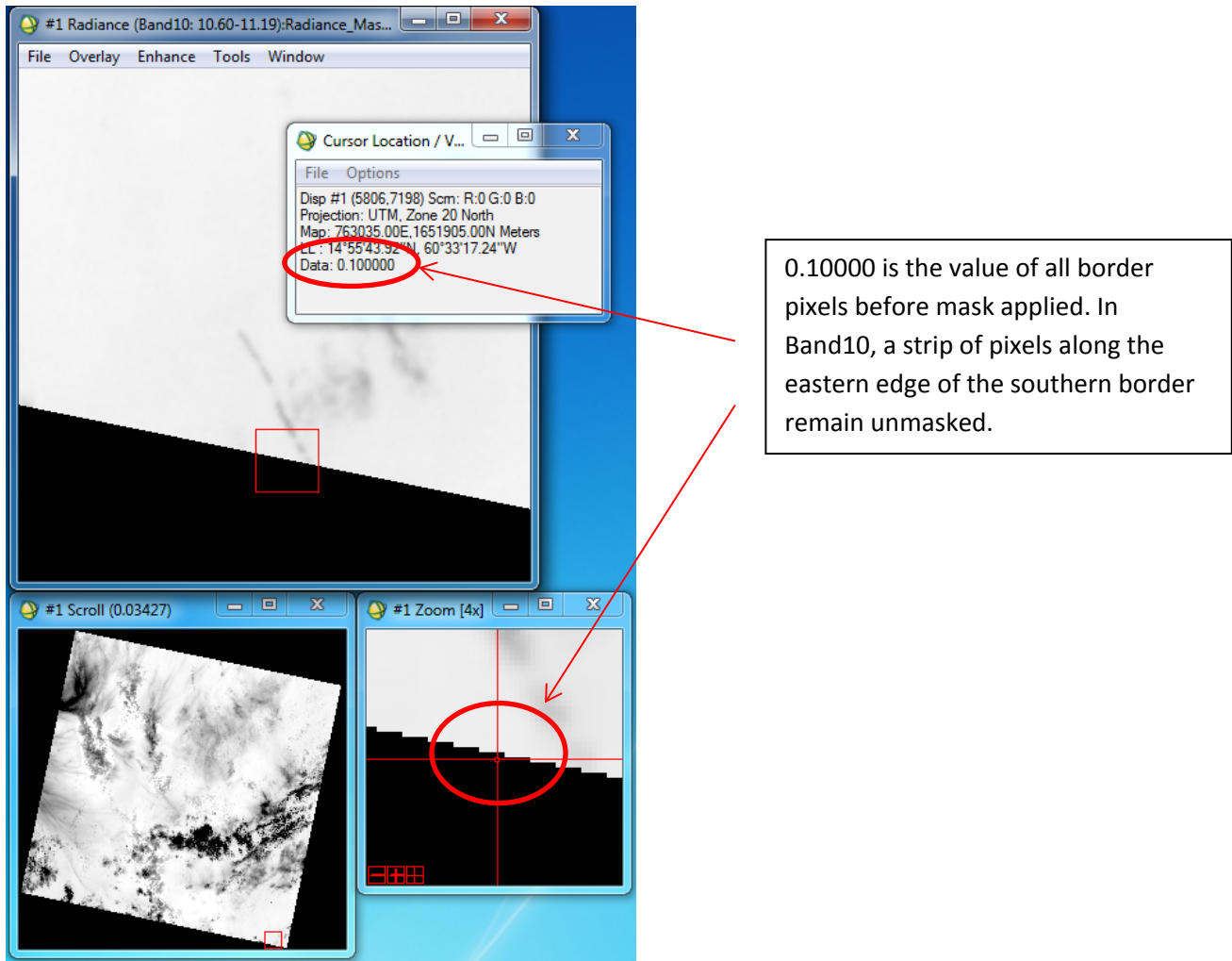


Landsat 8: Masking Border Pixels – Thermal Bands

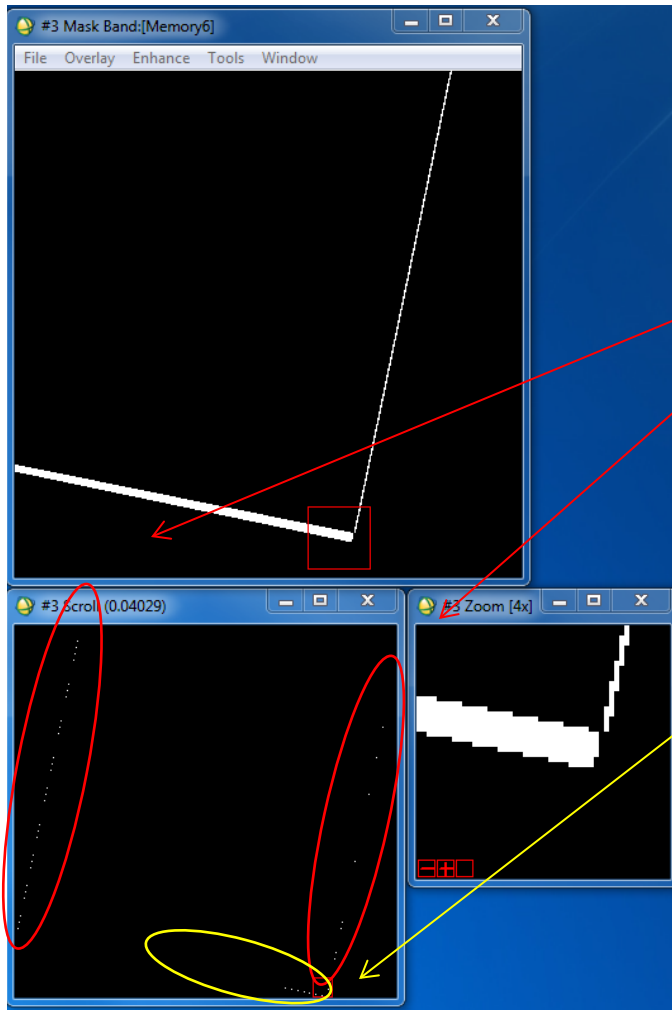
When building masks for the borders of Landsat 8 images, selecting “Mask pixel if ALL bands match range” causes the mask to miss a few regions of border pixels in each band. This can be prevented by selecting “Mask pixel if ANY bands match range” when creating the mask.

Example of Unmasked Pixels (when mask using “ALL bands” applied) – Dominica, Band 10 Radiance



Extent of Pixels that Remain Unmasked with “ALL bands” masks:

“ANY bands” mask was applied to the Dominica DN values image after an “ALL bands” mask had been applied to the image. Thus the pixels highlighted in the second mask (the “ANY bands” mask) were only the ones that had a value of zero in one band but not the other.



Border pixels that only appear in Band11

20786 pixels total (calculated by ENVI Compute Statistics)

Border pixels that only appear in Band10

4609 pixels total (calculated by ENVI Compute Statistics)

NOTE: Though the lines of pixels do not appear entirely solid in the scroll window, both lines in Band 11 are entirely solid and of approximately consistent thickness. The line in Band 10 decreases in thickness as it approaches the middle of the southern border at which point it becomes dashes (a few pixels long and wide) and ends soon thereafter. The shape of the regions of border pixels unique to each band appears to be consistent within each band. (i.e. Band 10 always has 4609 pixels in the same formation in the same location in the image, etc.)