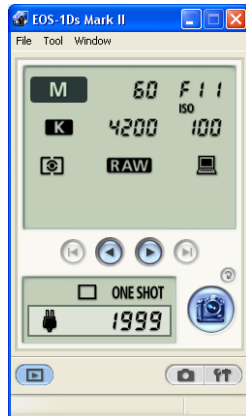


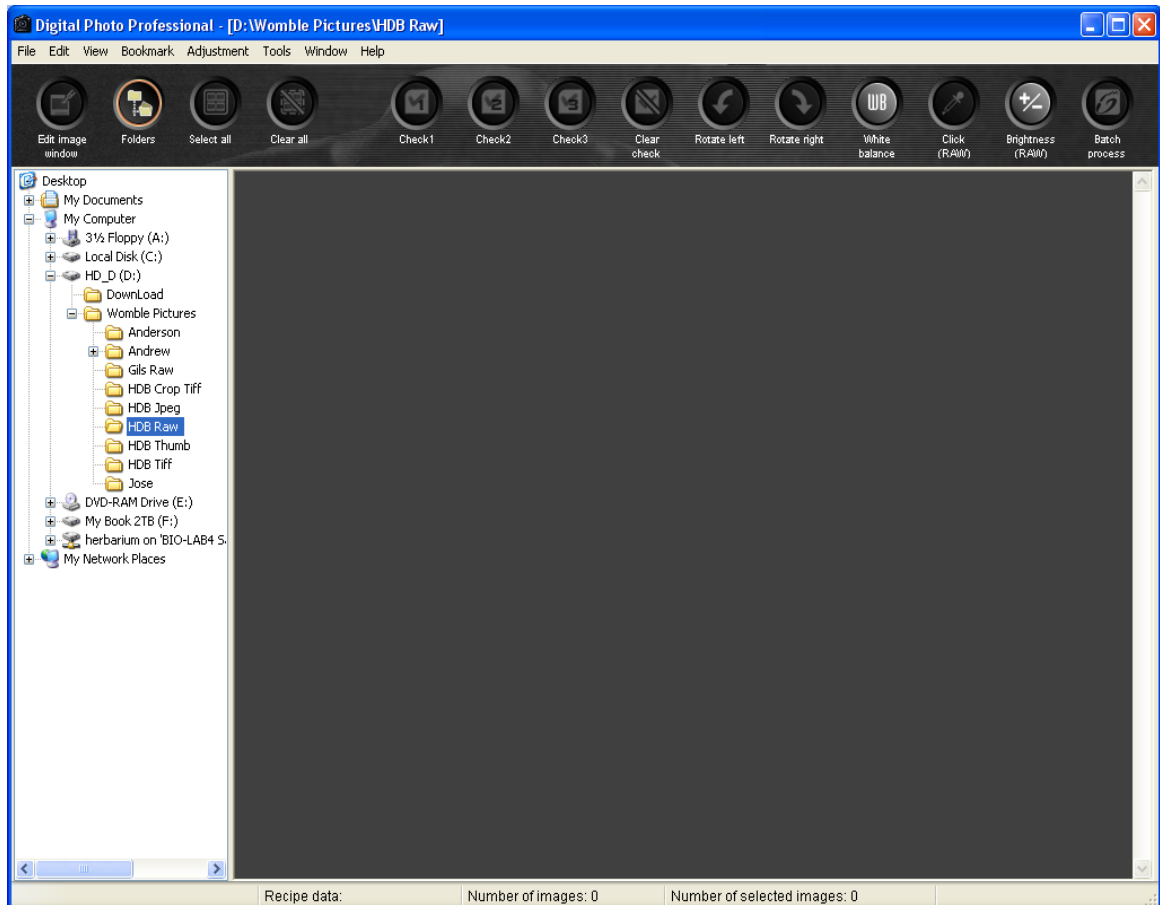
Imaging Protocol for FSU's Robert K. Godfrey Herbarium
Last updated 4 May 2012

Imaging Procedure

1. Turn on lights and allow them to warm up for at least 10 minutes.
2. Turn on camera and remove lens cap.
 - a. EOS-1Ds Mark II will appear as below:



3. Open Digital Photo Professional using the icon located on the desktop.
4. Ensure that folder highlighted blue is HDB Raw as depicted below.



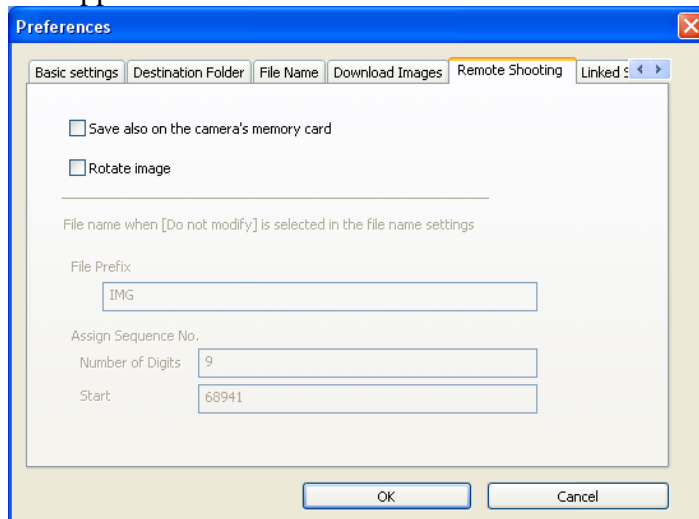
5. Ensure that the values in the EOS-1Ds Mark II window are correct: M, 60, F11, K, 4200, 100, Raw (as shown above). If a value differs from this, click on the value and use the arrows (circled in green below) to change the incorrect value to the correct value. Do not worry about the “ONE SHOT” Number as it varies from time to time.



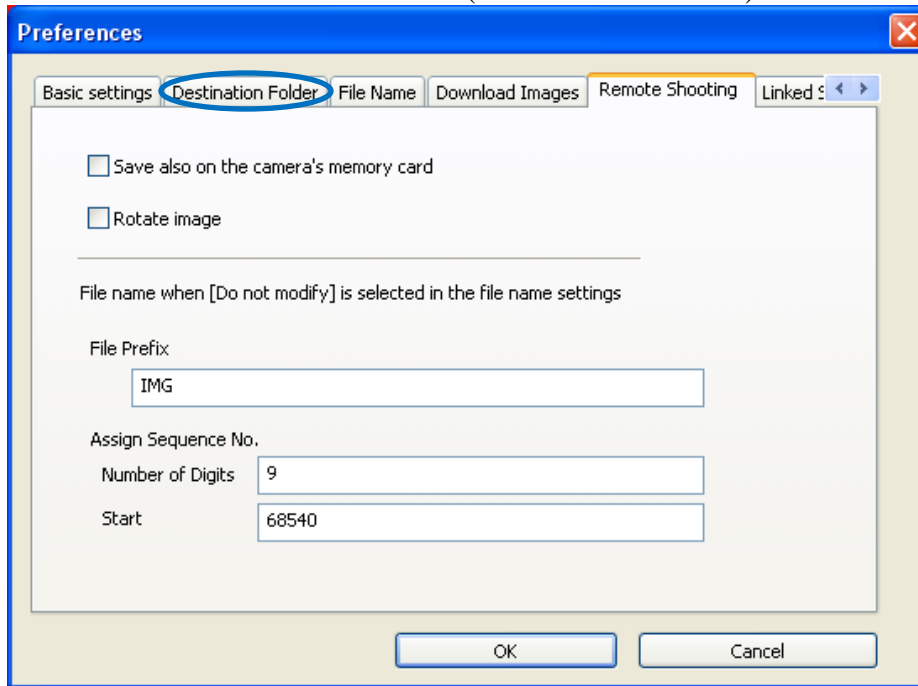
From

To

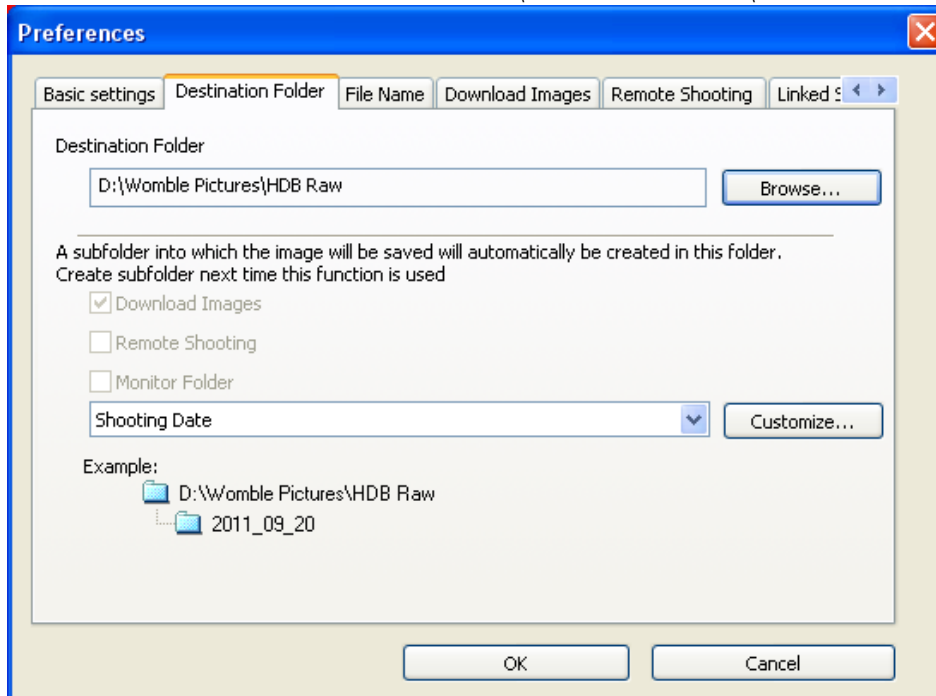
6. Look through the folder to be imaged to ensure that all bar codes are in sequence; affix a yellow post-it over out-of-sequence bar codes to alert you to change the bar code sequence before shooting this specimen.
7. Click File and then Preferences on the EOS-1Ds Mark II window. The following window will appear:



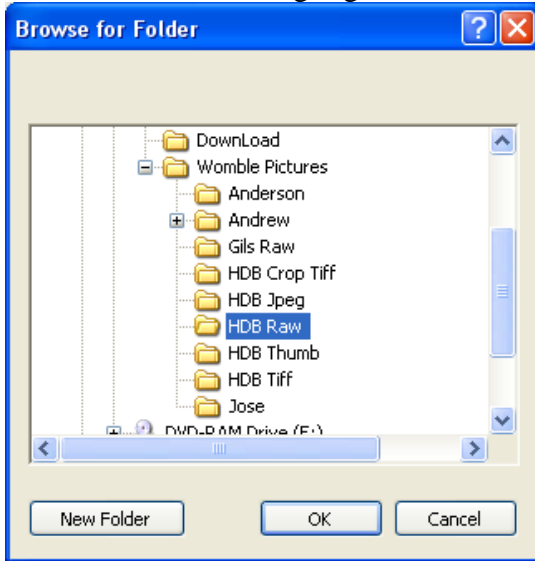
8. Click on the tab Destination Folder (circled in blue below).



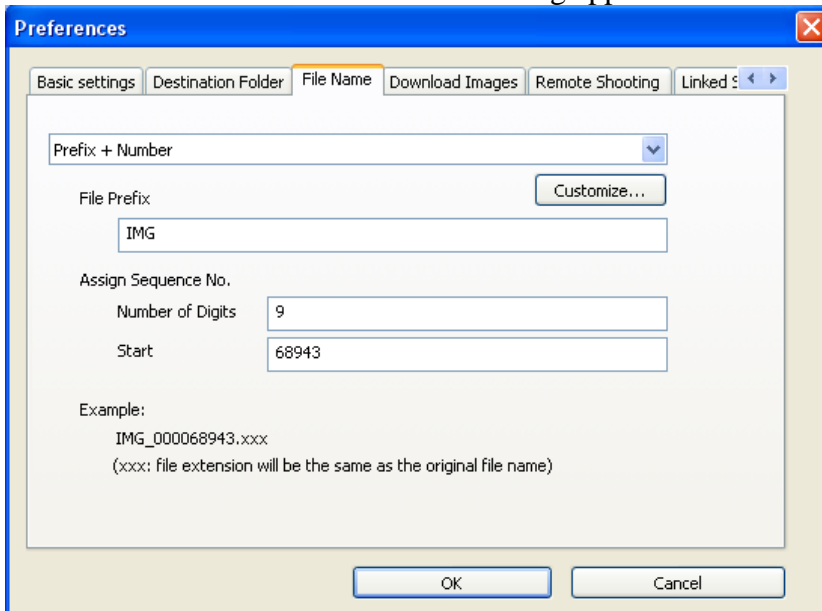
9. Ensure that the Destination Folder is D:\Womble Pictures\HDB Raw as shown below.



10. If this is not the save destination folder, click “Browse” and search for the folder name HDB Raw so that is highlighted in blue as such:

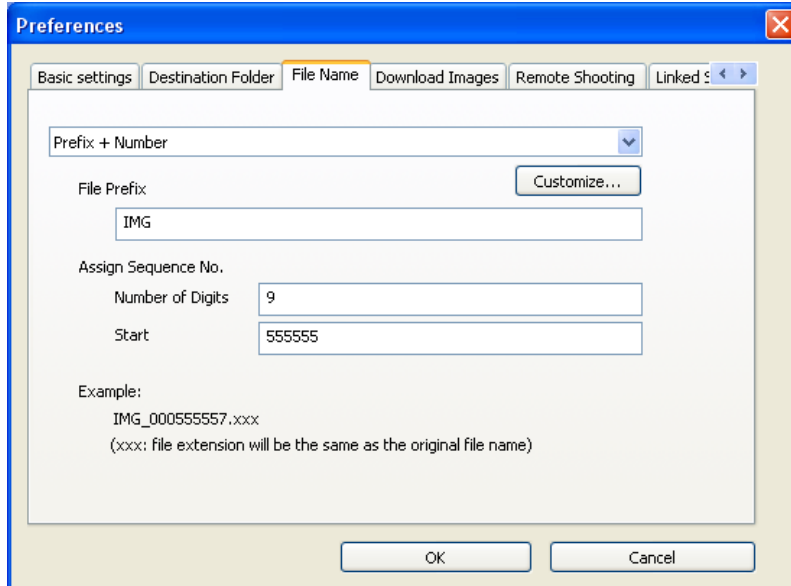


11. Click Ok.
12. Click on the File Name tab so the following appears:

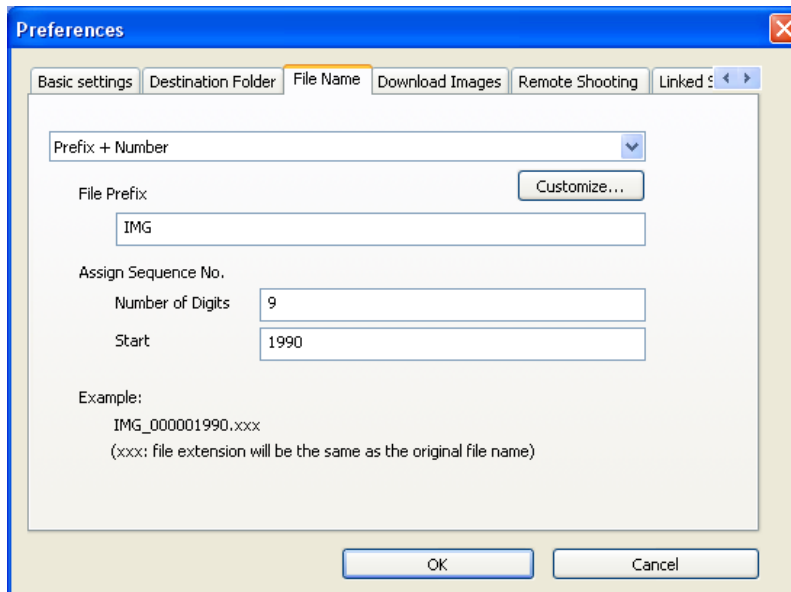


13. Ensure the File Prefix is IMG and the Number of Digits is 9.
14. Type the barcode number of the specimen into the box next to Start.

15. The following are examples of barcode numbers entered correctly into the box next to Start:



Barcode Number: 000555555



Barcode Number: 000001990

16. After entering the barcode number click Ok.
17. Take the first image by clicking on the “blue camera” icon in the lower right corner of the EOS-1Ds Mark II window.
 - a. **Warning:** Ensure that all text information is faces in the direction of the imaging computer.

18. Continue with the next specimen until you reach a specimen with a barcode that is not in series.
 - a. For sequences that are not in series click File, then Preferences in the EOS-1Ds Mark II window (See step 7).
 - b. Change the barcode number (See step 12). Repeat as necessary for each barcode not in series as you image.

19. **Warning:** There are specimens that are like the following link displays:

<http://herbarium.bio.fsu.edu/view-specimen.php?RecordID=3934>

- a. In the instance of finding a specimen like the following proceed in the following manner:
 - i. Image the specimen before the specimen as displayed in the link (i.e., follow step 17).
 - ii. Place the specimen that is similar to the specimen image in the link provided as normal in the imaging frame.
 - iii. On the camera lens, look for the following option circled in red in the following image:



- iv. Switch the option from “AF” to “MF” by sliding it up.
- v. Proceed to take image as in step 17.
- vi. After imaging switch the option from “MF” back to “AF” by sliding it down.

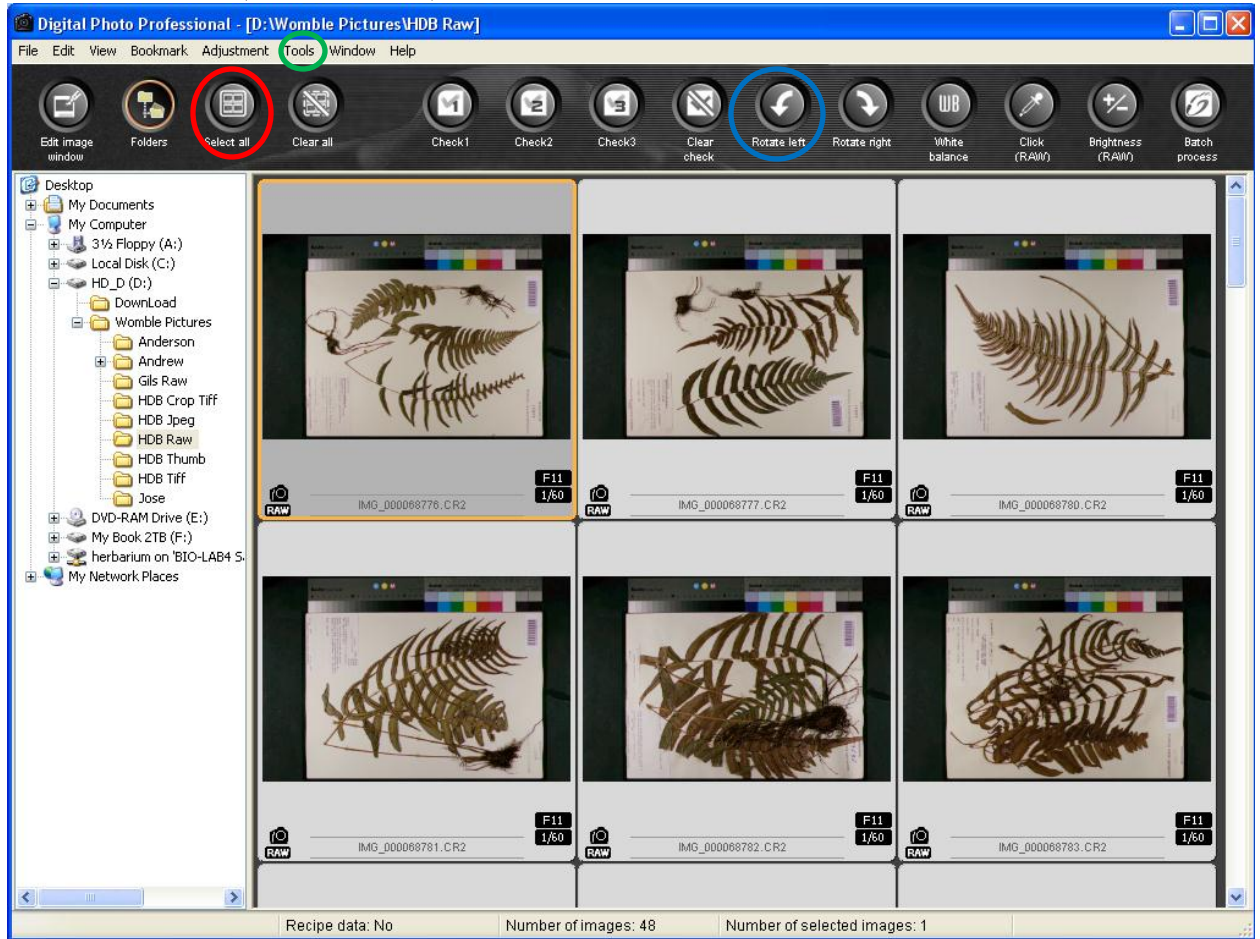
20. **Warning:** There are specimens that are in folded pieces of paper.

- a. Place the specimen in the imaging frame as normal
- b. Unfold the pieces of paper so that the specimen is visible.
- c. Use the weights placed by the camera to hold the fold pieces of paper down.
- d. Take image of specimen as normal.
- e. Remove the weights from specimen.
- f. Refold the paper to its original folding.
- g. The following links displays the procedure outlined in the steps above (i.e., steps a-c): <http://herbarium.bio.fsu.edu/view-specimen.php?RecordID=73590> ; <http://herbarium.bio.fsu.edu/view-specimen.php?RecordID=73576>

21. Continue imaging specimens as in step 18.

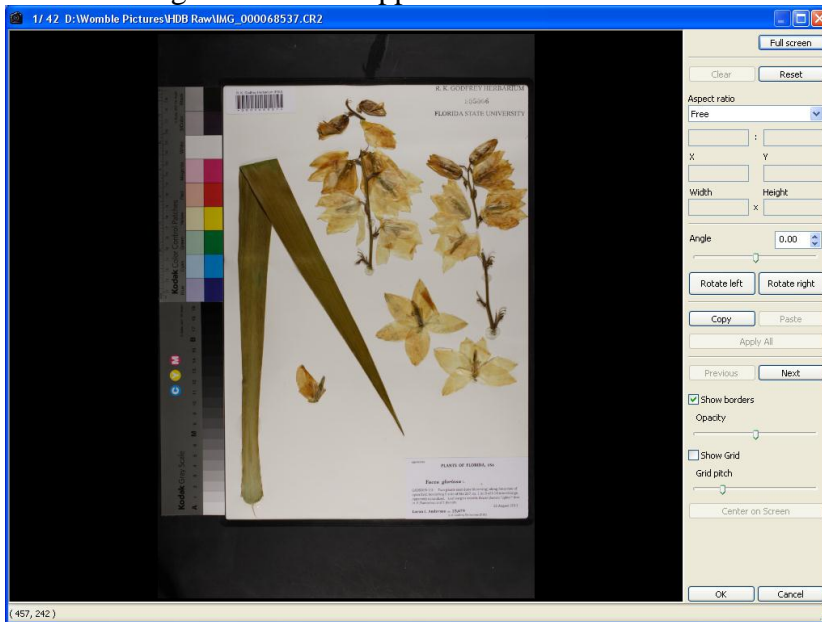
Conversion Procedure

1. Close the EOS-1Ds Mark II window.
2. In Digital Photo Professional, click the Select All option (circled in red).
3. Click Rotate Left (circled in blue).

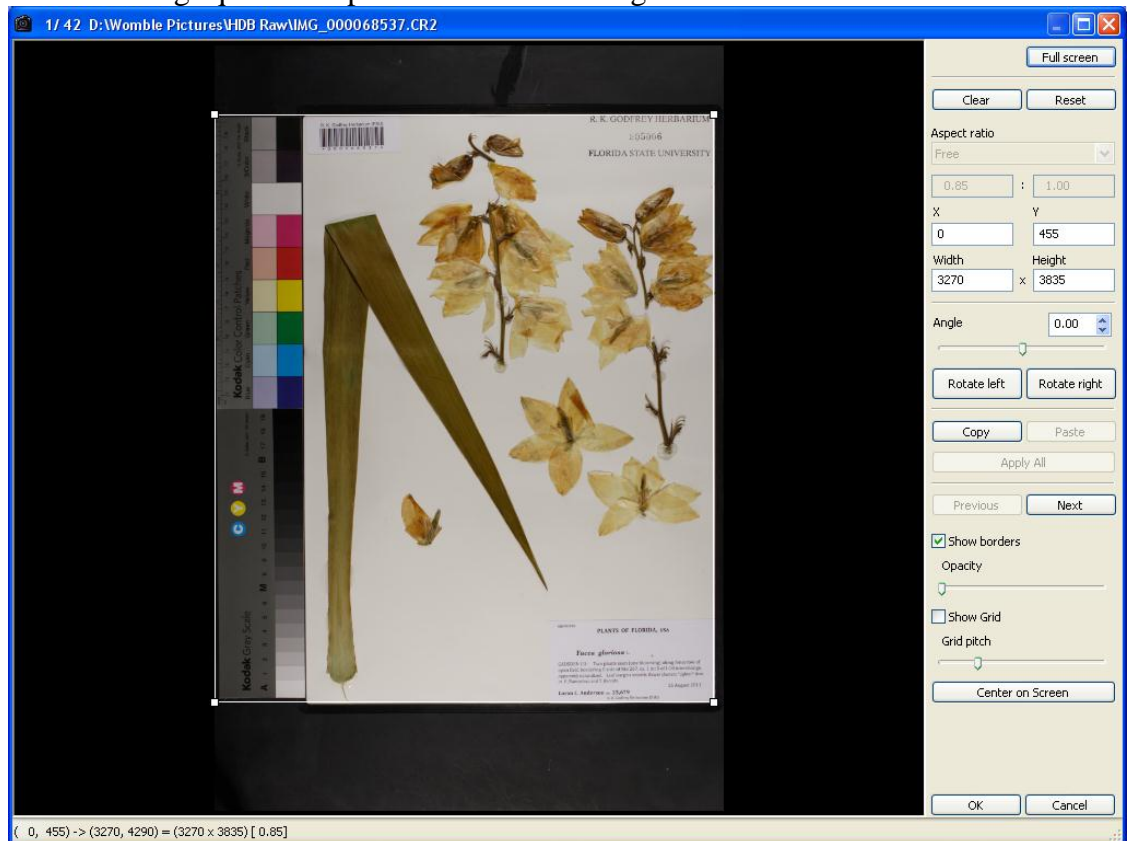


4. Click Tools (circled green in the image above), then Start Trimming/Angle Adjustment tool.

5. The following window will appear:



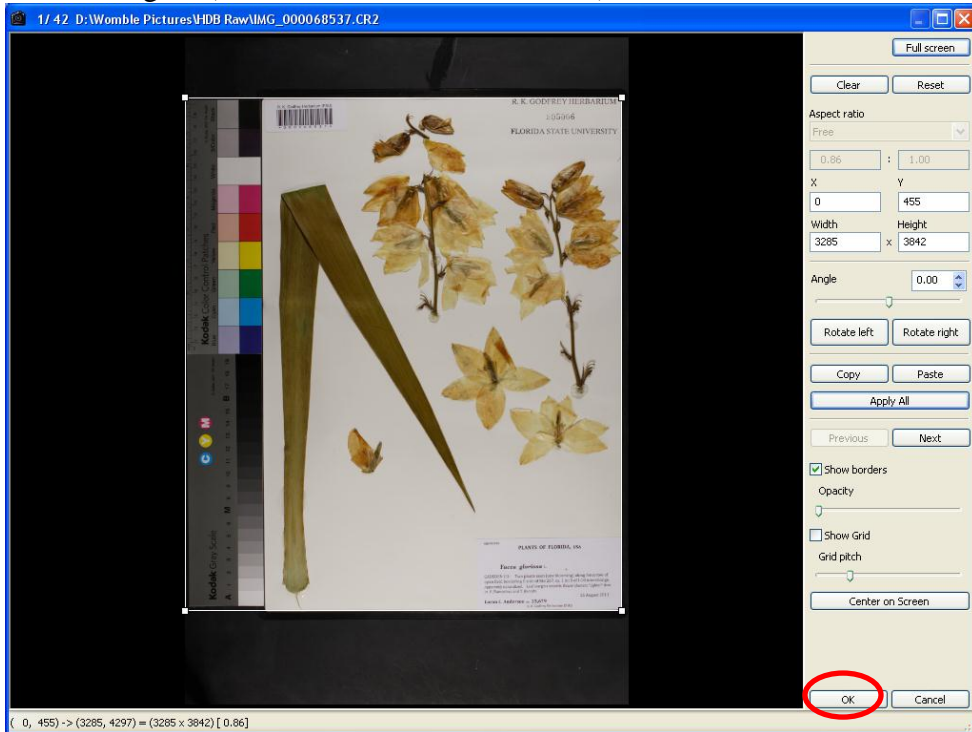
6. Left click on the image (i.e., not black borders) to draw a square around the image.
- The dimensions of the square are as follows:
 - X = 0, Y = 469, Width = 3270, Height = 3842.
 - Note:** These values can only be entered after an attempt to draw a square.
 - The following square was placed around the image as seen below:



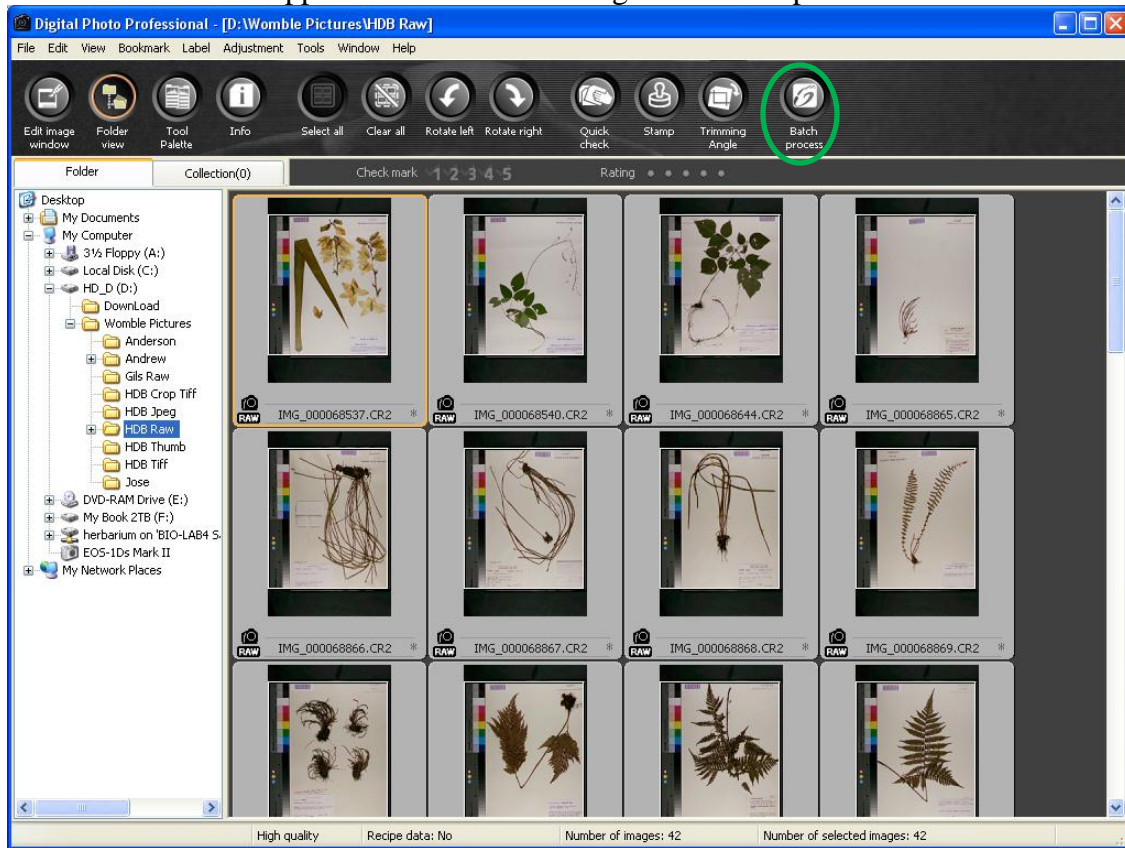
7. Click Copy and then click Apply All.
8. The following window will appear:



9. Click Ok.
10. Click Ok again (as shown below circled in red):

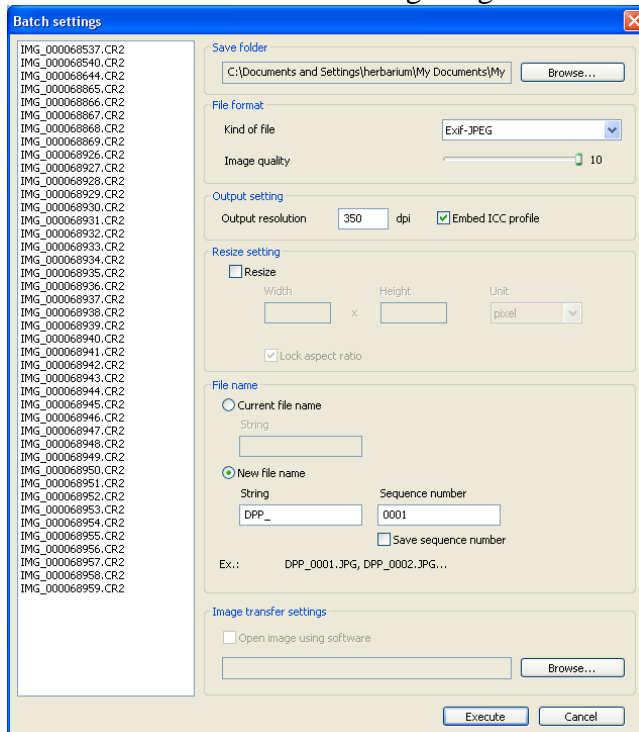


11. The window will disappear so that the following window is open:

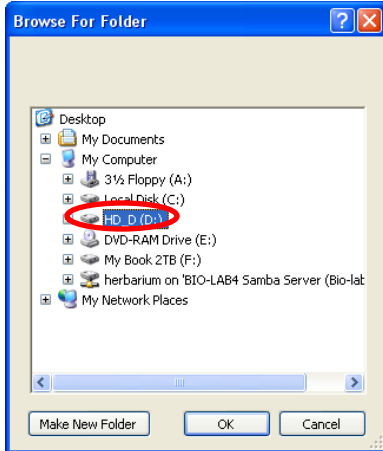


12. Click Batch process as indicated above (circled in green).

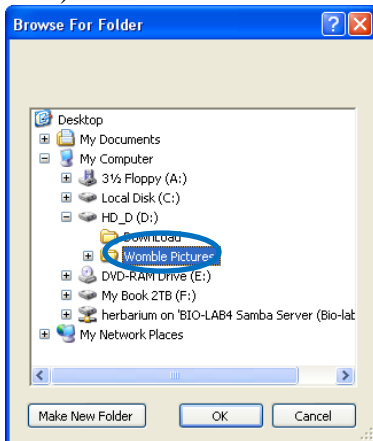
13. A window such as the following image will show after you click Batch process:



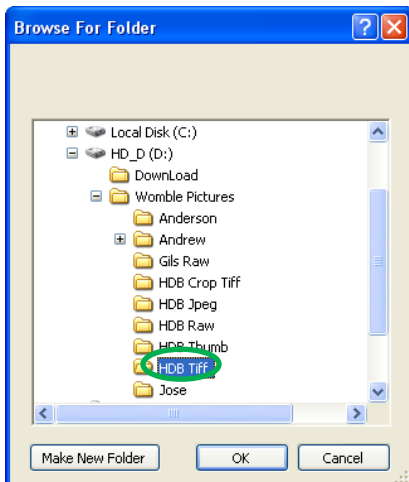
14. Ensure that the Save folder is D:\\Womble Pictures\\HDB Tiff. If it is go to step 20.
15. If the save folder is not as listed above, click browse.
16. The following window will show up.



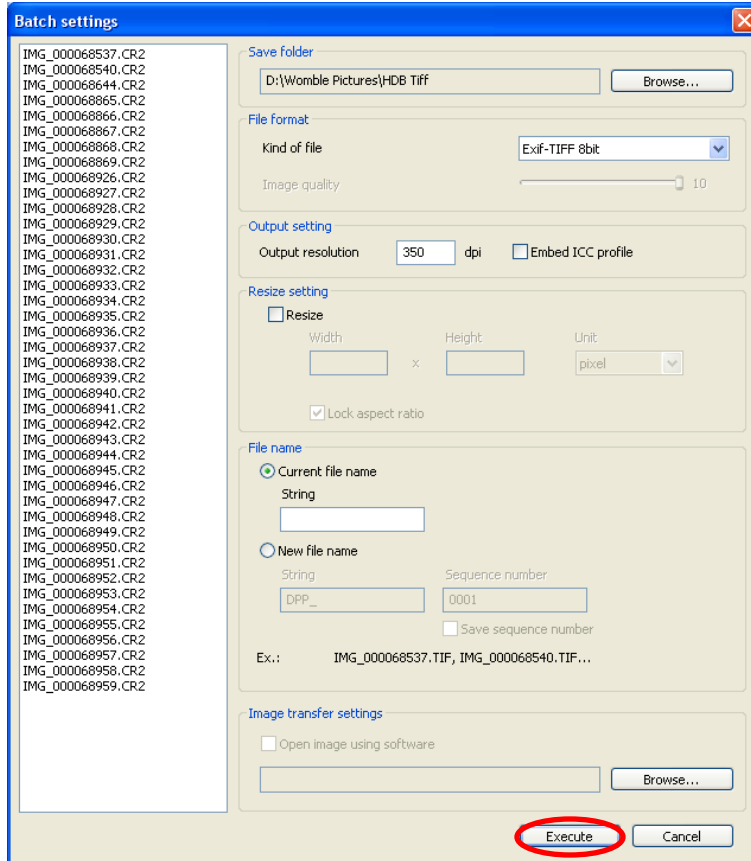
17. Click on HD_D(D:) (circled in red)
18. After clicking on HD_D (D:) click on Womble Pictures as indicated below (circled in blue).



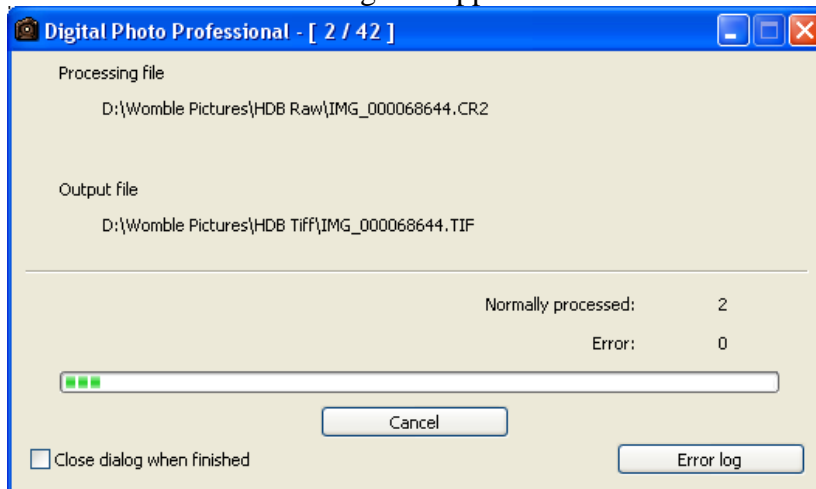
19. After clicking on Womble Pictures, click on HDB Tiff (circled in green) and then click ok.



20. Now that the save folder is D:\\Womble Pictures\\HDB Tiff click “Execute” as indicated below in red.

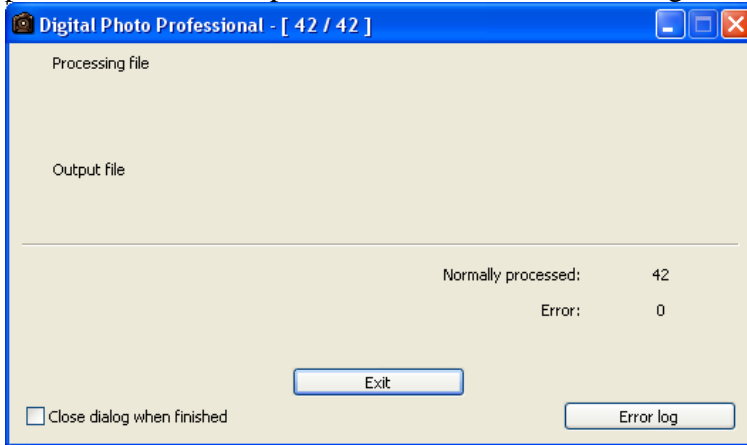


21. A window like the following will appear:



22. Note the numbers in the brackets. These numbers indicate how many images you have taken (i.e., 42) and the number of images you have converted from the Raw format to the Tiff format (i.e., 2 at this time).

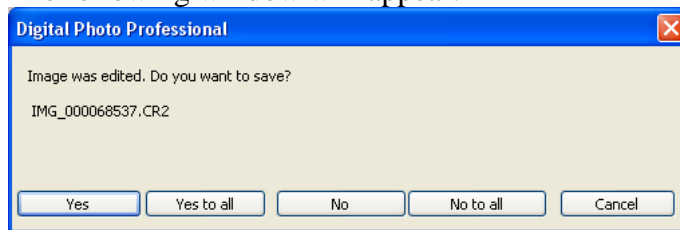
23. When all of your images have been converted from the Raw to Tiff format the window as pictured above in step 13 will look like the following:



24. Click exit.

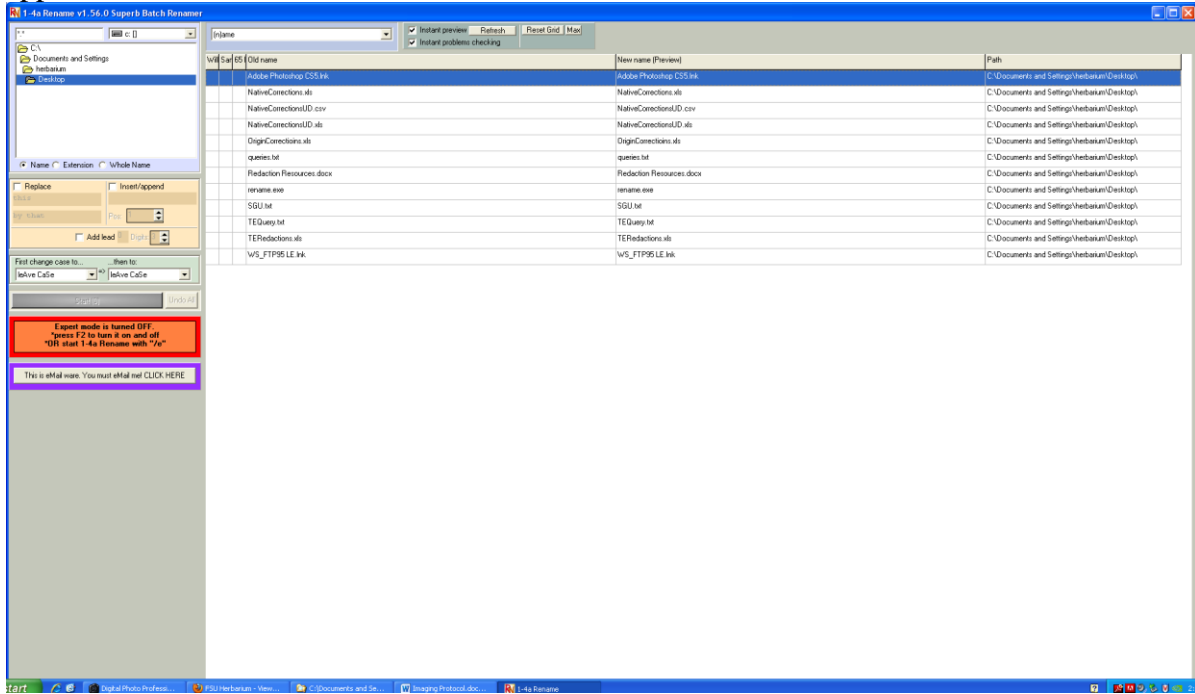
25. Close Digital Photo Professional.

a. The following window will appear:

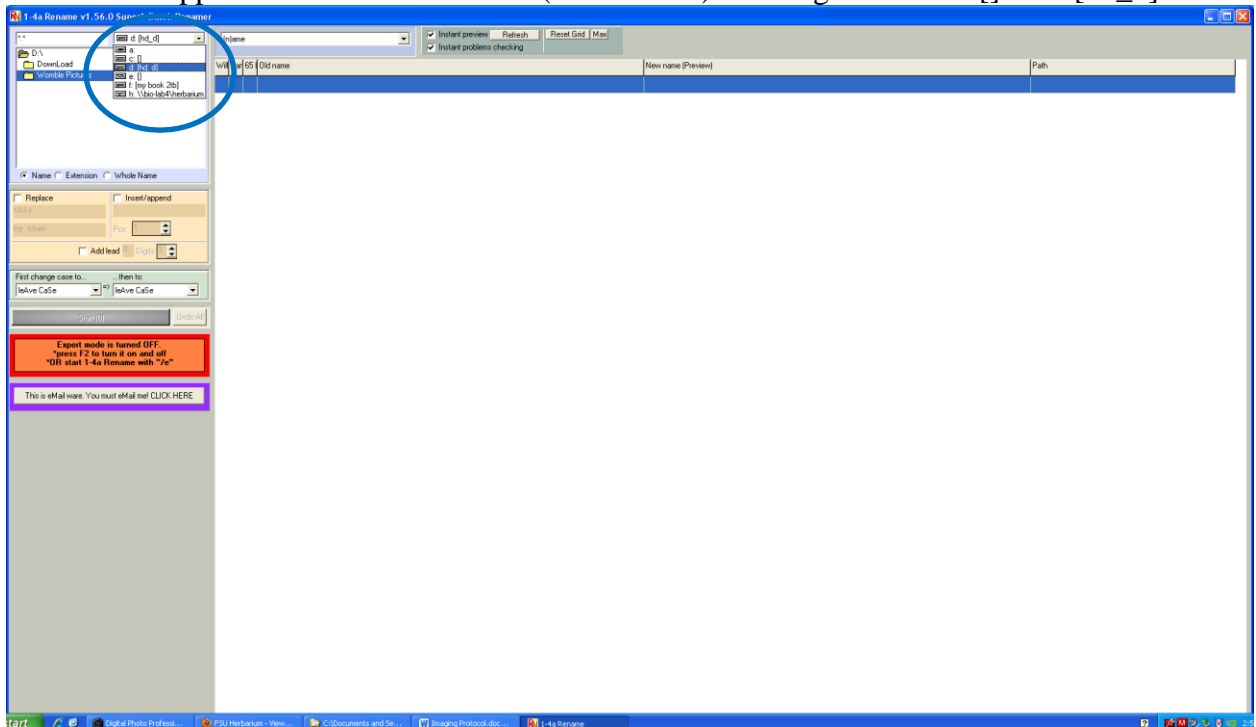


b. Click "Yes to all."

26. Go to the desk top and click on the rename (RN) program so that the following window appears:



27. Click in the upper left as indicated below (circled blue) to change it from c: [] to d: [hd_d]

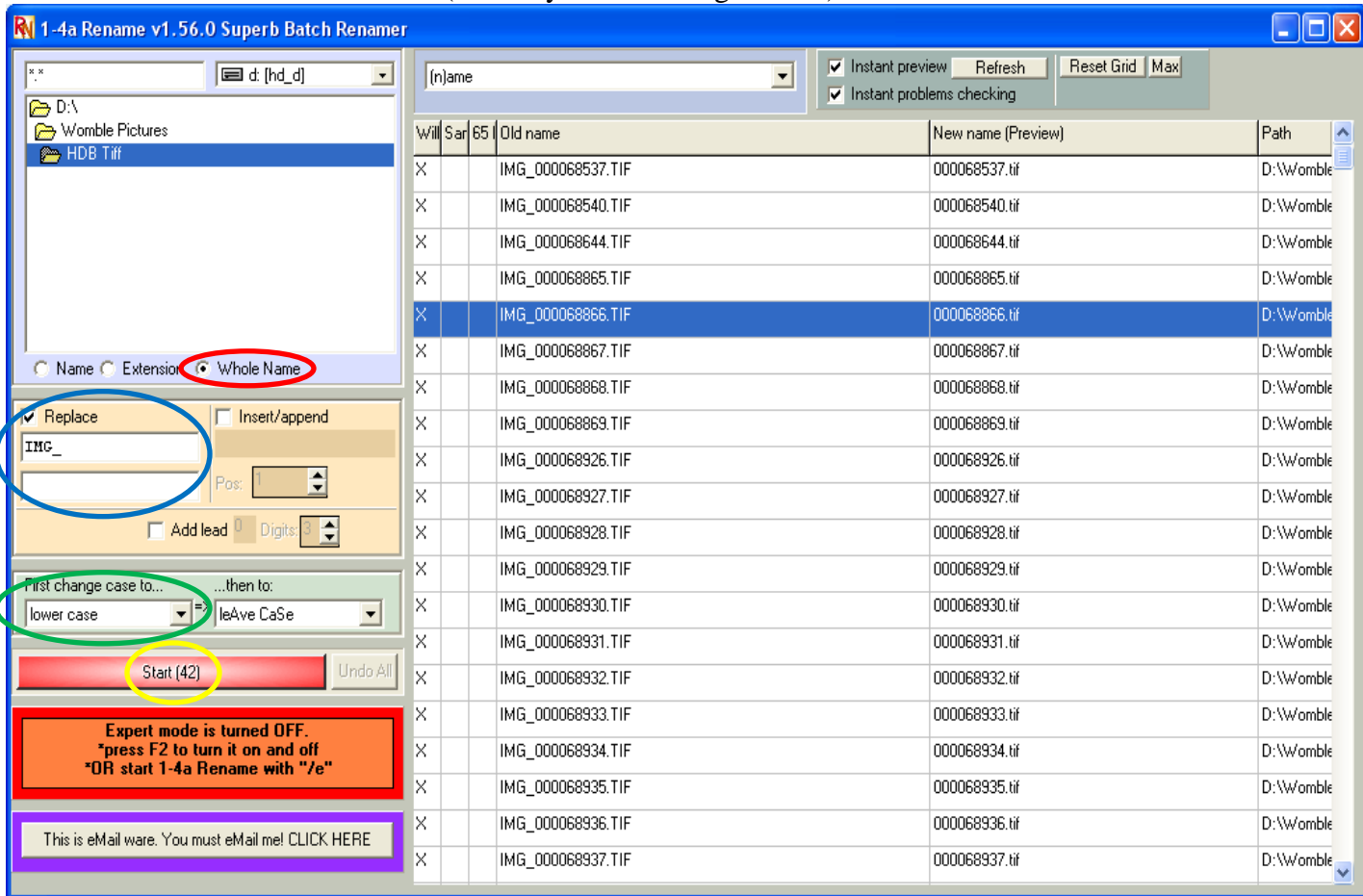


28. Double click on Womble Pictures.

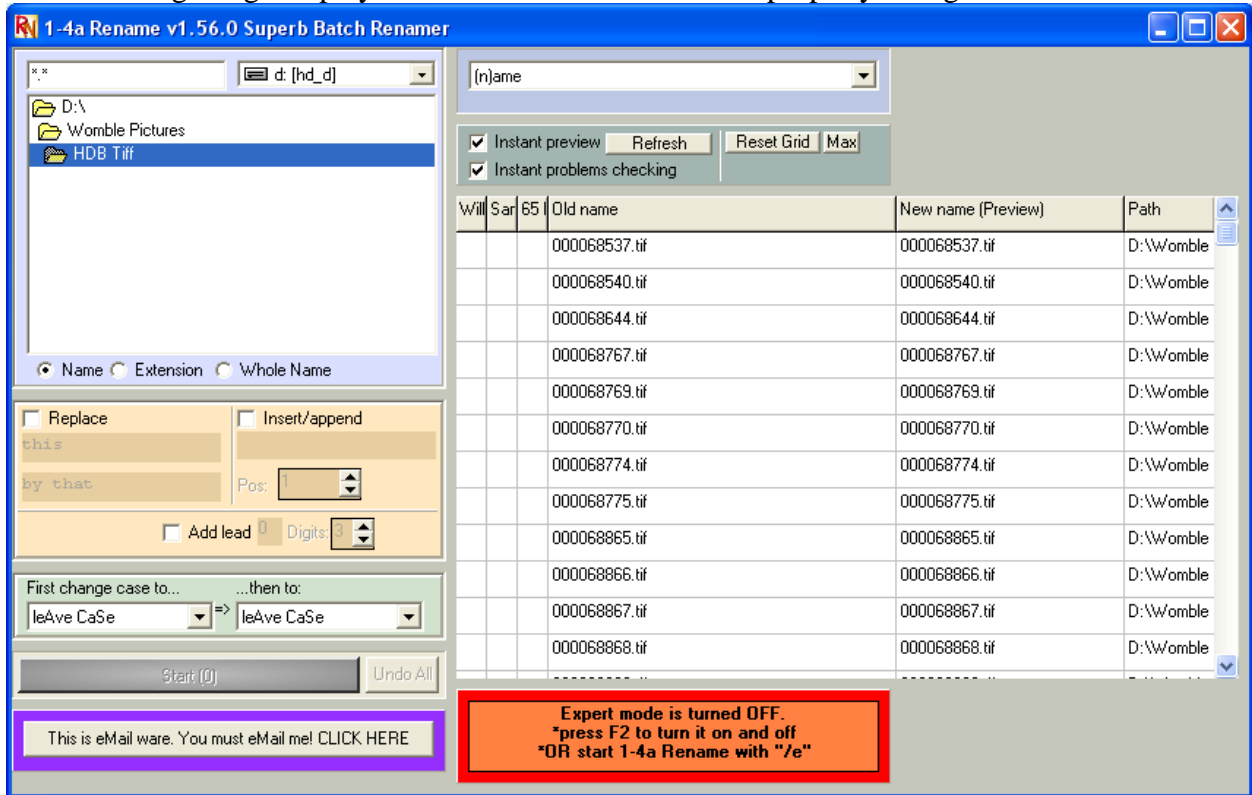
29. Scroll to HDB Tiff and double click.

30. Change the filenames by:

- checking Whole Name (circled red in image below)
- Checking "Replace."
- Place "IMG_" in first box and nothing in the second box (circled blue in image below)
- "First change case to" lower case by clicking on the arrow and scrolling to "lower case" (circled green in image below).
- Then left click Start (circled yellow in image below).



31. The following image displays that the filenames have been properly changed:

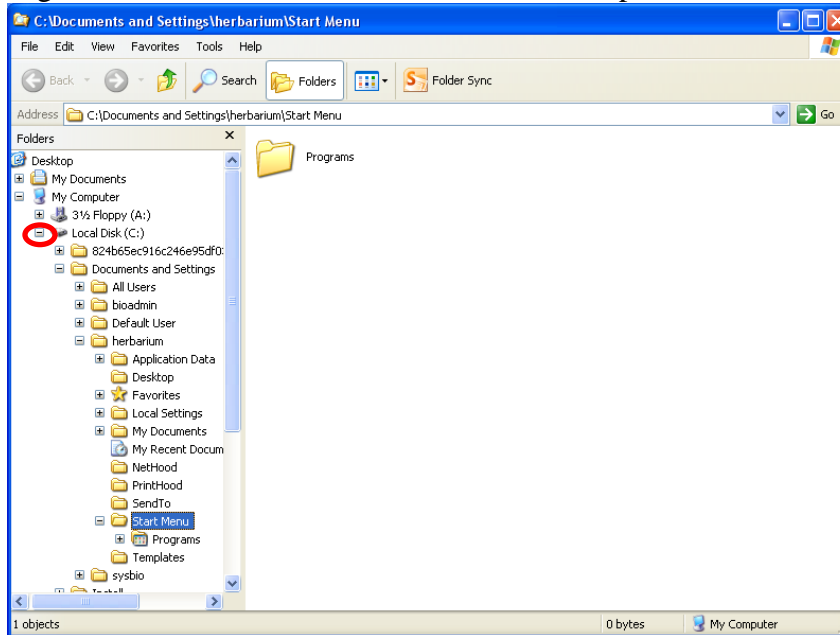


32. If the filenames are not correct repeat step 30 until the filenames look like the filenames in the image above.

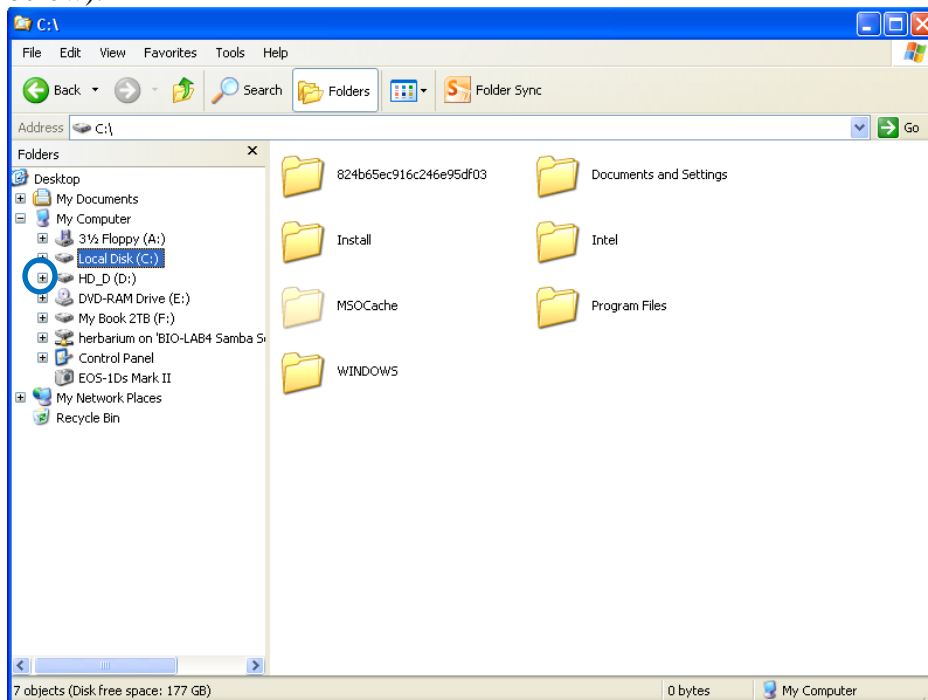
33. Close the Rename Program.

Processing Images

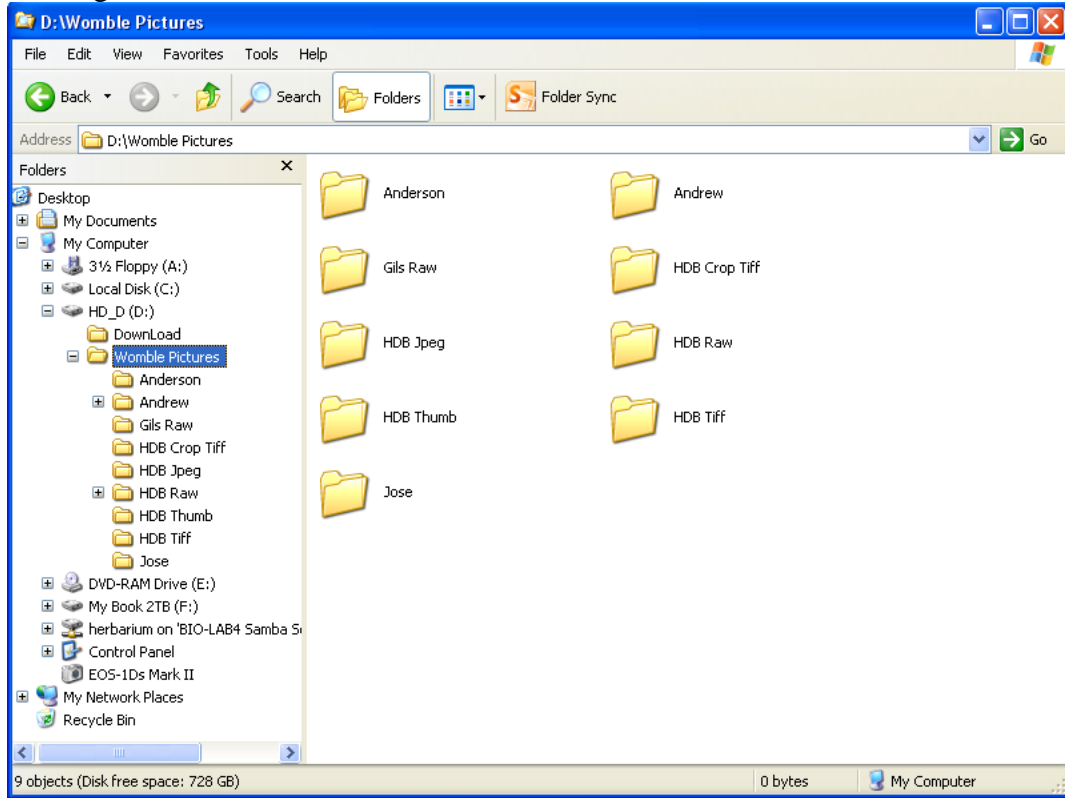
1. Right click the start menu and then left click Explore. The following window will appear:



2. Repeat step 1 once more so that two windows that look like the image above are open.
3. Left click on the "minus sign" in both windows for Local Disk (C:) (circled in red in the above image under step 1).
4. Left click on the "plus sign" in both windows for HD_D (D:) (circled in blue in the image below).

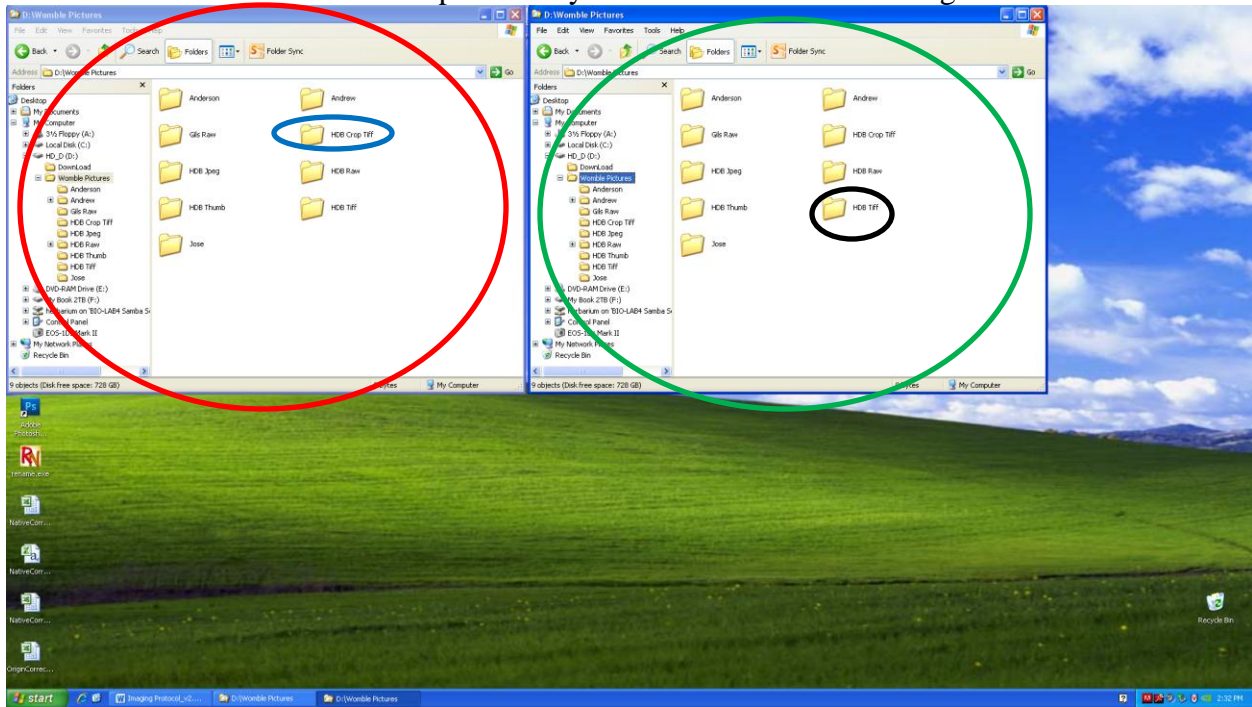


5. Left click on Womble Pictures in both windows. The following image shows after left clicking on Womble Pictures in one window:

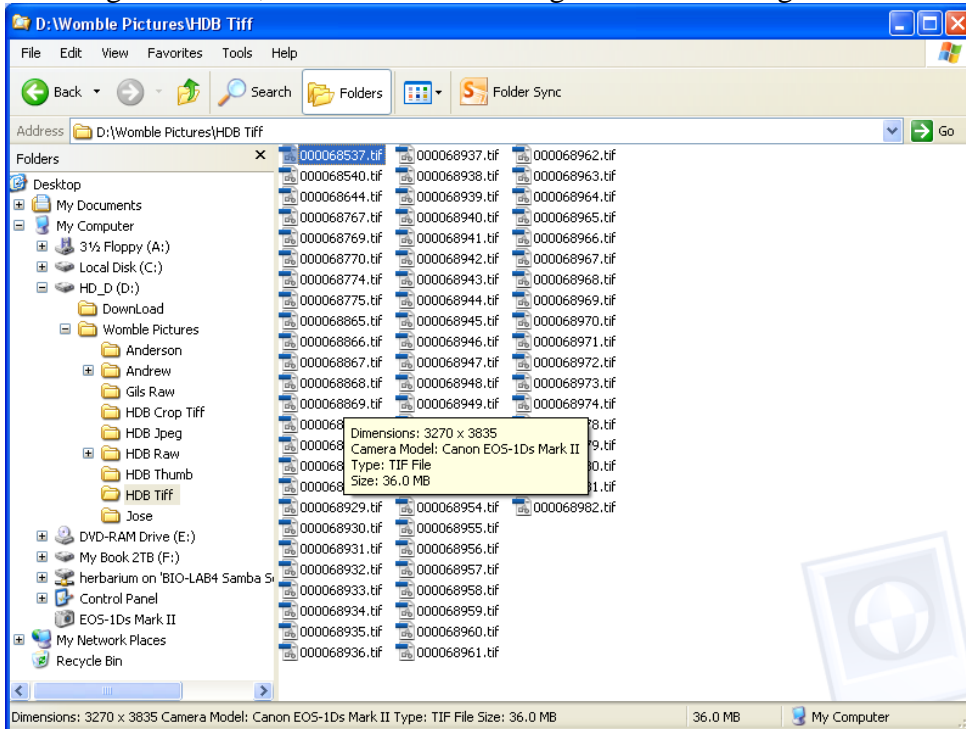


6. Ensure that both windows are as the image above shows.

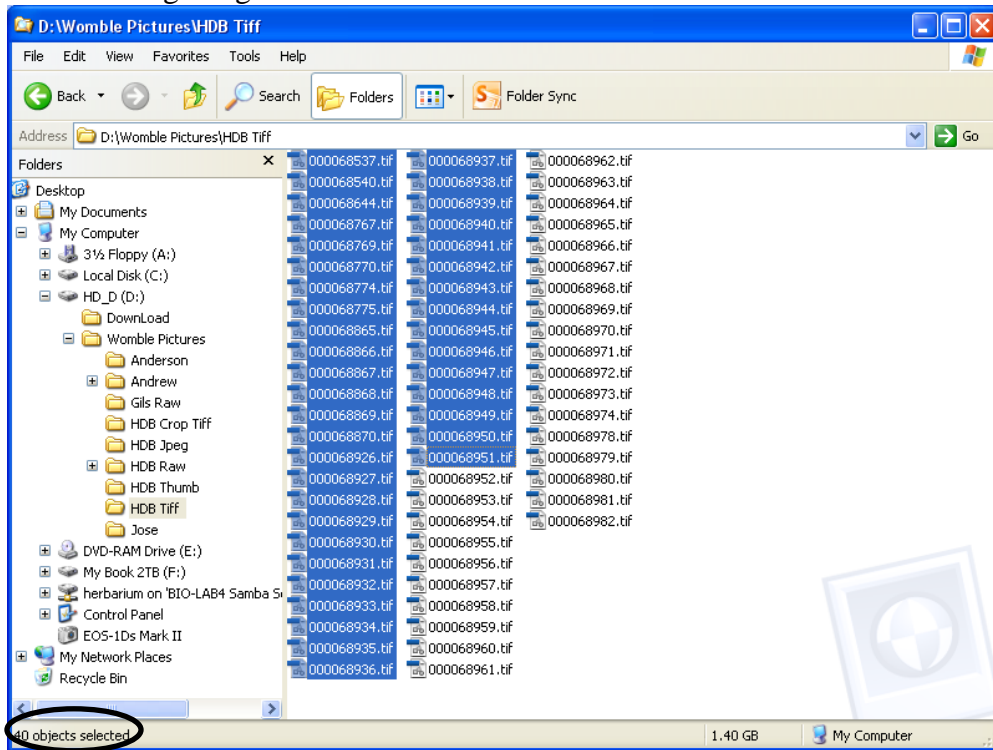
7. The two windows should be open side by side as indicated in the image below:



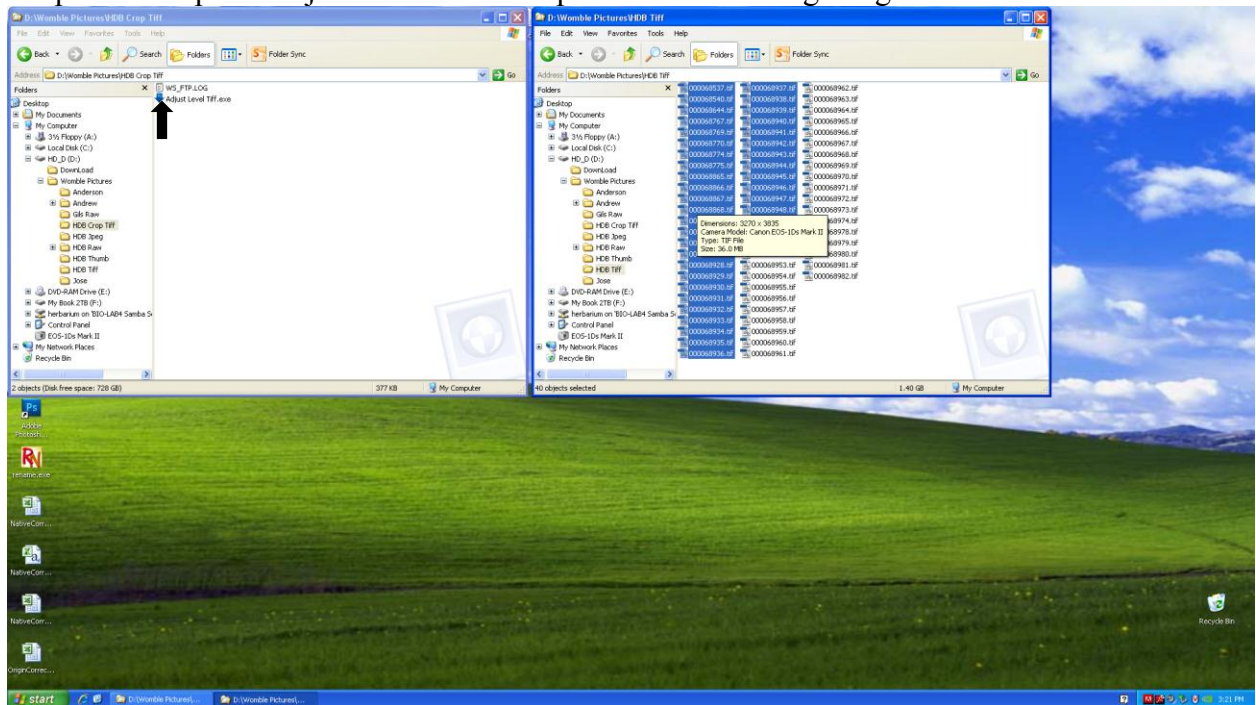
8. In the right window (circled in green above) double left click on HDB Tiff (circled in black above).
9. In the left window (circled in red above) double left click on HDB Crop Tiff (circled in blue above).
10. In the right window, left click the first image as the following window shows:



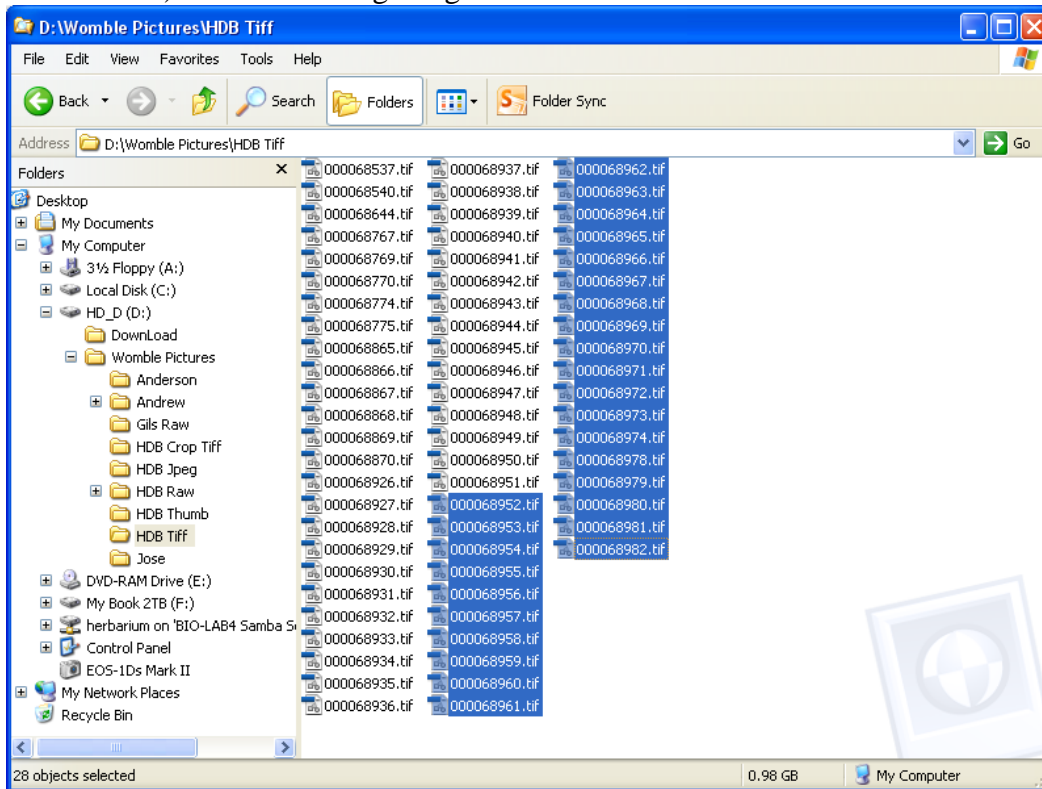
11. Click “Shift” on the keyboard and use the arrow keys to highlight no more than 40 images.
 - a. The number of images highlighted is indicated in the lower left corner as the following image shows:



12. Left click and hold onto your highlighted images and drag them to the left window and place on top of “Adjust Level Tiff” droplet as the following image shows:

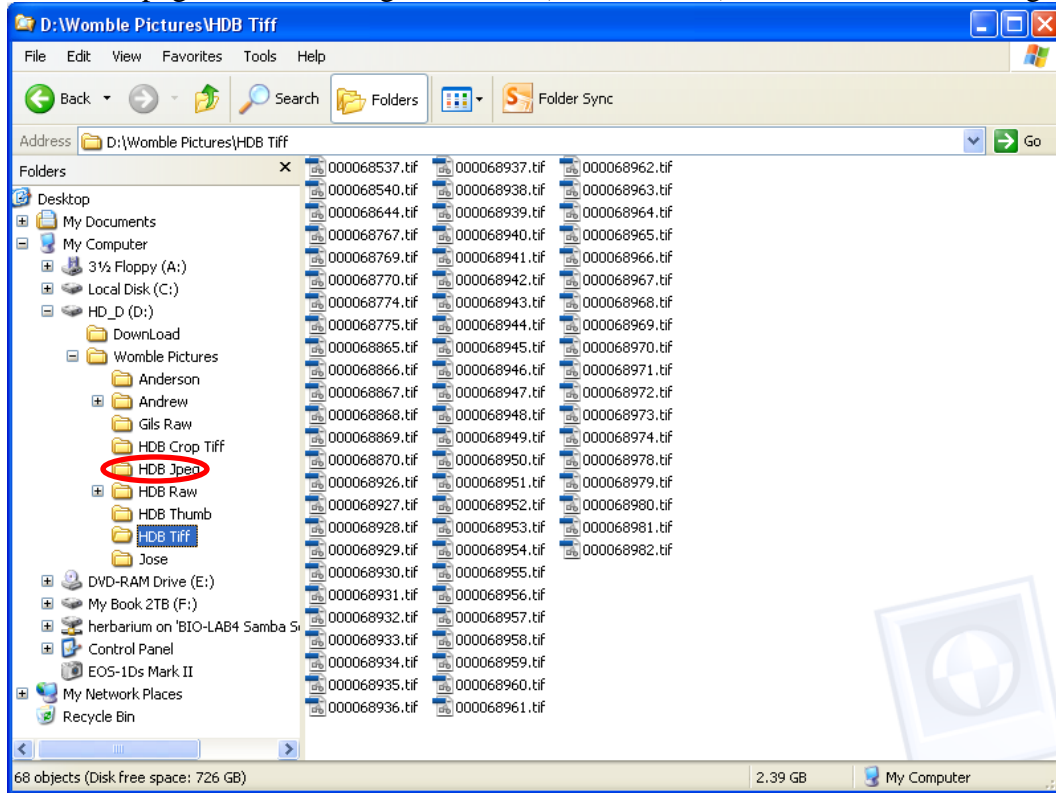


13. After placing the highlighted images on the “Adjust Level Tiff” droplet, Adobe Photoshop CS5 will open.
 - a. Photoshop will automatically preform the action “Adjust Level Tiff.”
 - b. Photoshop will have finished performing the action after it reaches the last image highlighted.
 - c. After Photoshop reaches the last image highlighted, left click on the two windows from the start toolbar that were previously opened.
14. Highlight the remaining set of images (see step 11) in the right window (no more than 40 at a time) as the following image shows:

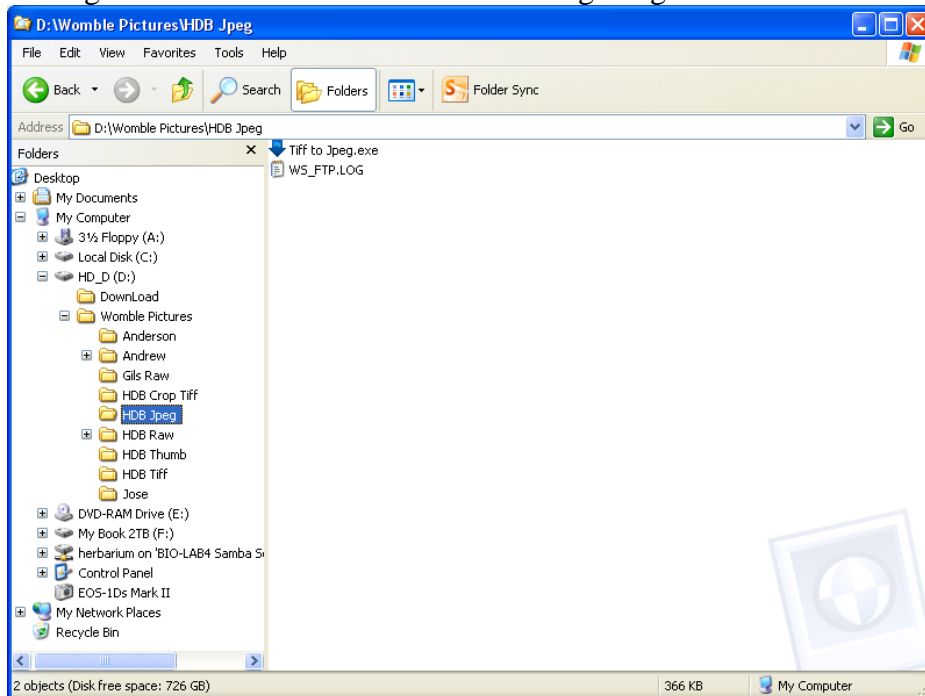


15. Repeat step 12.
16. Repeat steps 12 to 14 as necessary.

17. After all Tiff images have been converted using the “Adjust Level Tiff” droplet, click on the HDB Jpeg folder in the right window (circled in red) as indicated in the image below:



18. The right window will look like the following image:

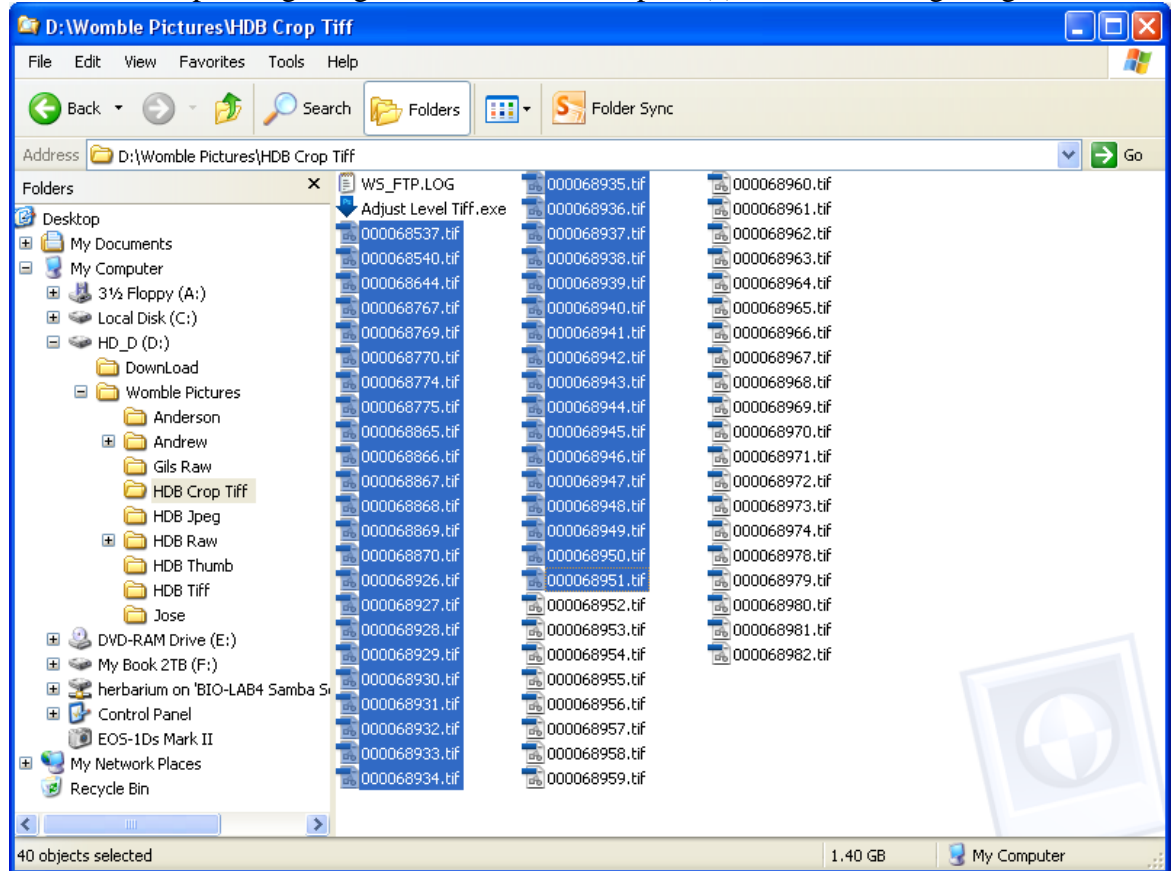


19. Left click on the left window.

20. Repeat steps 10 and 11.

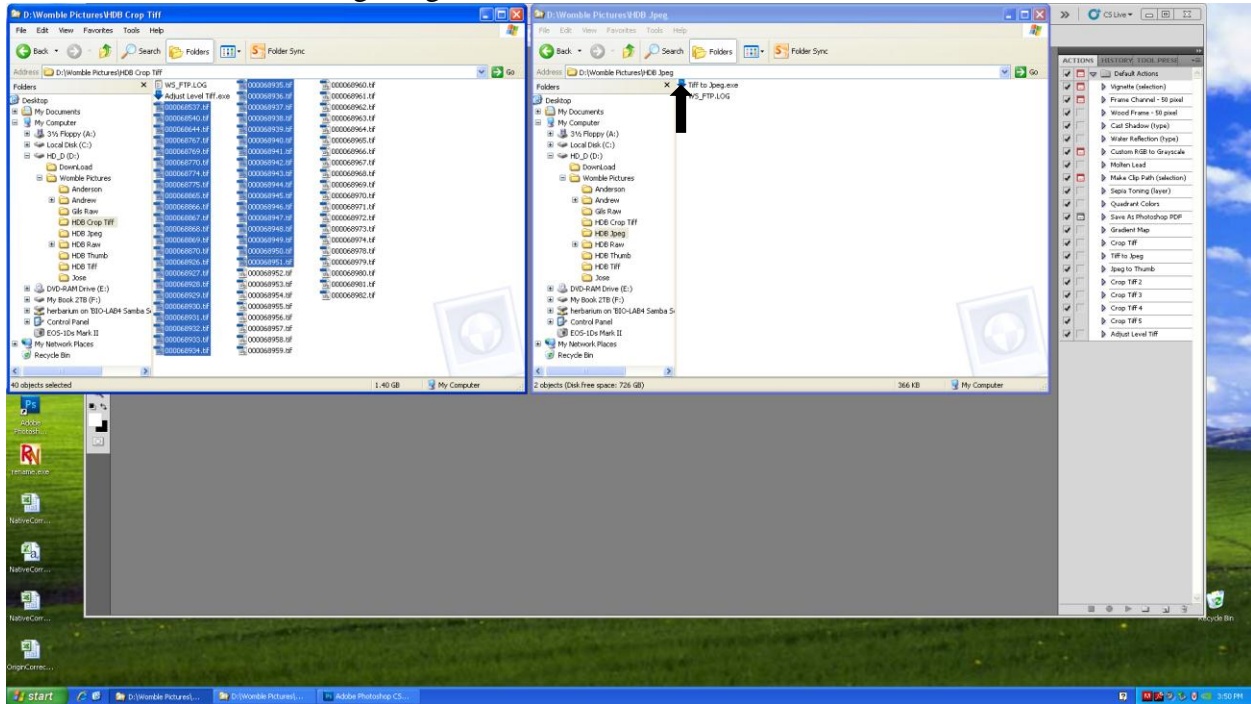
a. **Note:** now the window is the left window instead of the right as indicated in steps 10 and 11.

b. The corresponding image associated with Step 11 (a) is the following image:



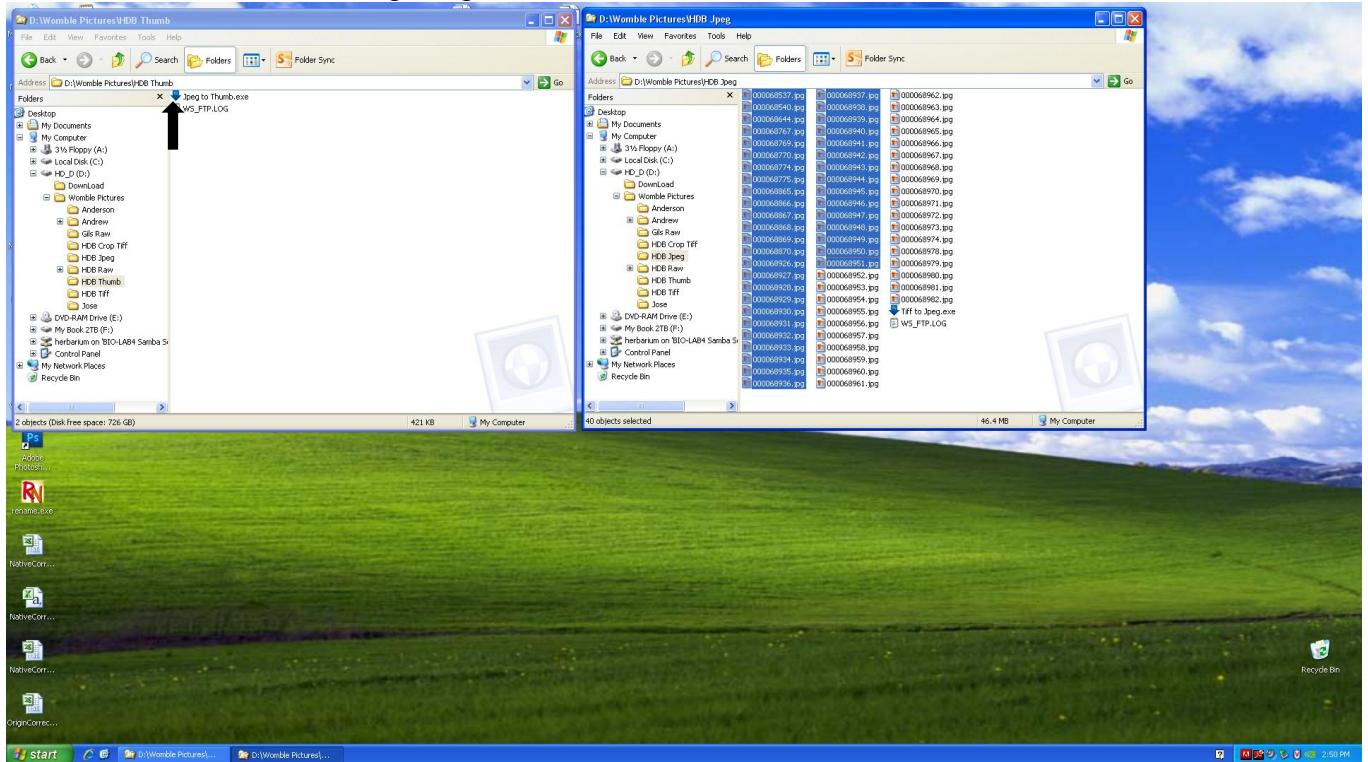
21. Repeat steps 12.

- a. **Note:** Drag them to the right window and place on top of “Tiff to Jpeg” droplet as the following image shows:



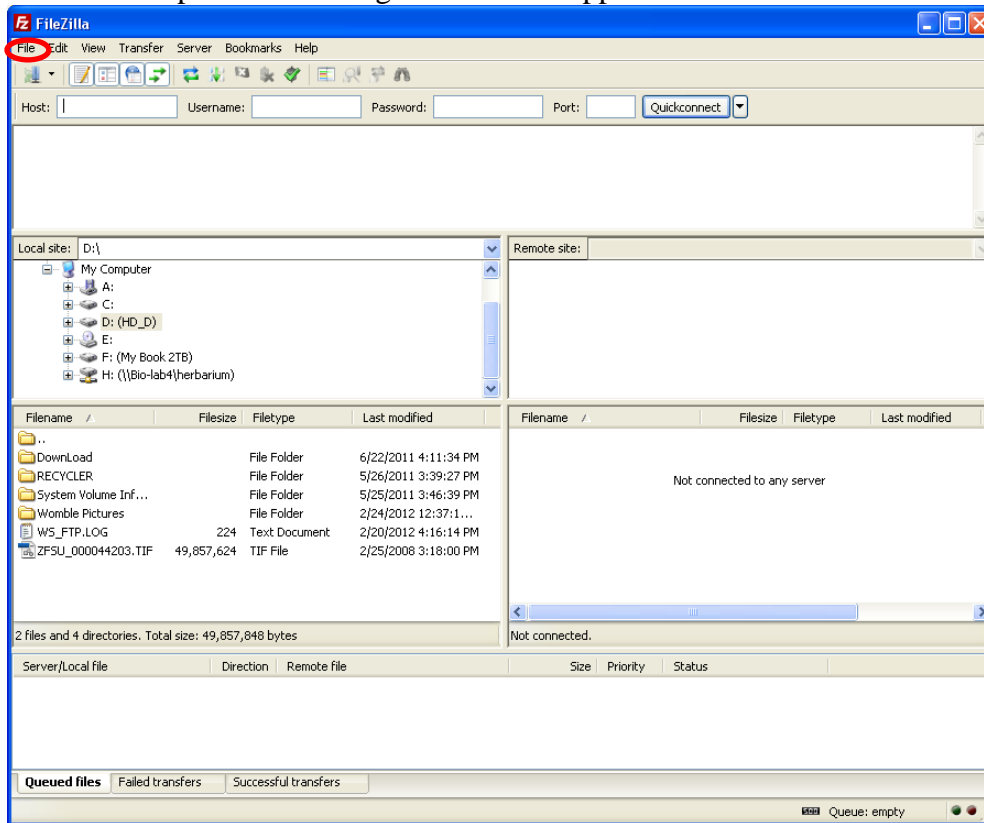
- b. Continue as necessary following steps 14, 15, and 16 until all tiff images have been processed to jpegs.

22. Left click on the left window. Left click on HDB Thumb.
23. Proceed to follow steps 10 to 16 to convert the jpeg images to thumbnails.
 - a. **Note:** Drag them to the left window and place on top of “Jpeg to thumb” droplet as the following image shows:

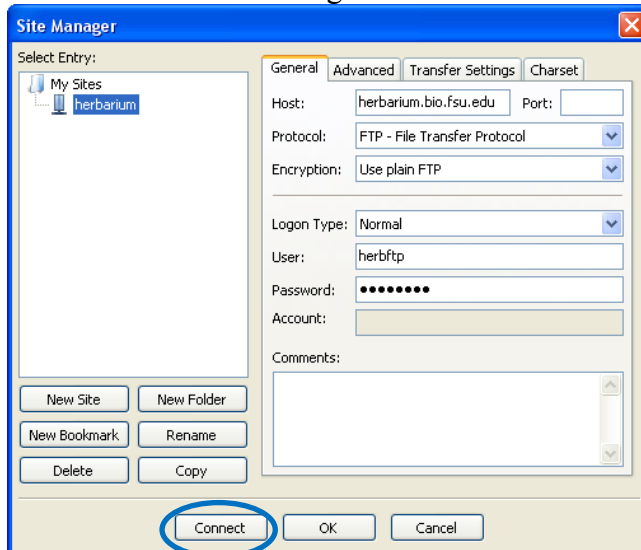


Uploading Images to server

1. After completing steps 10 to 23 in *Processing Images*, left click on the icon “FileZilla” on the desktop. The following window will appear:

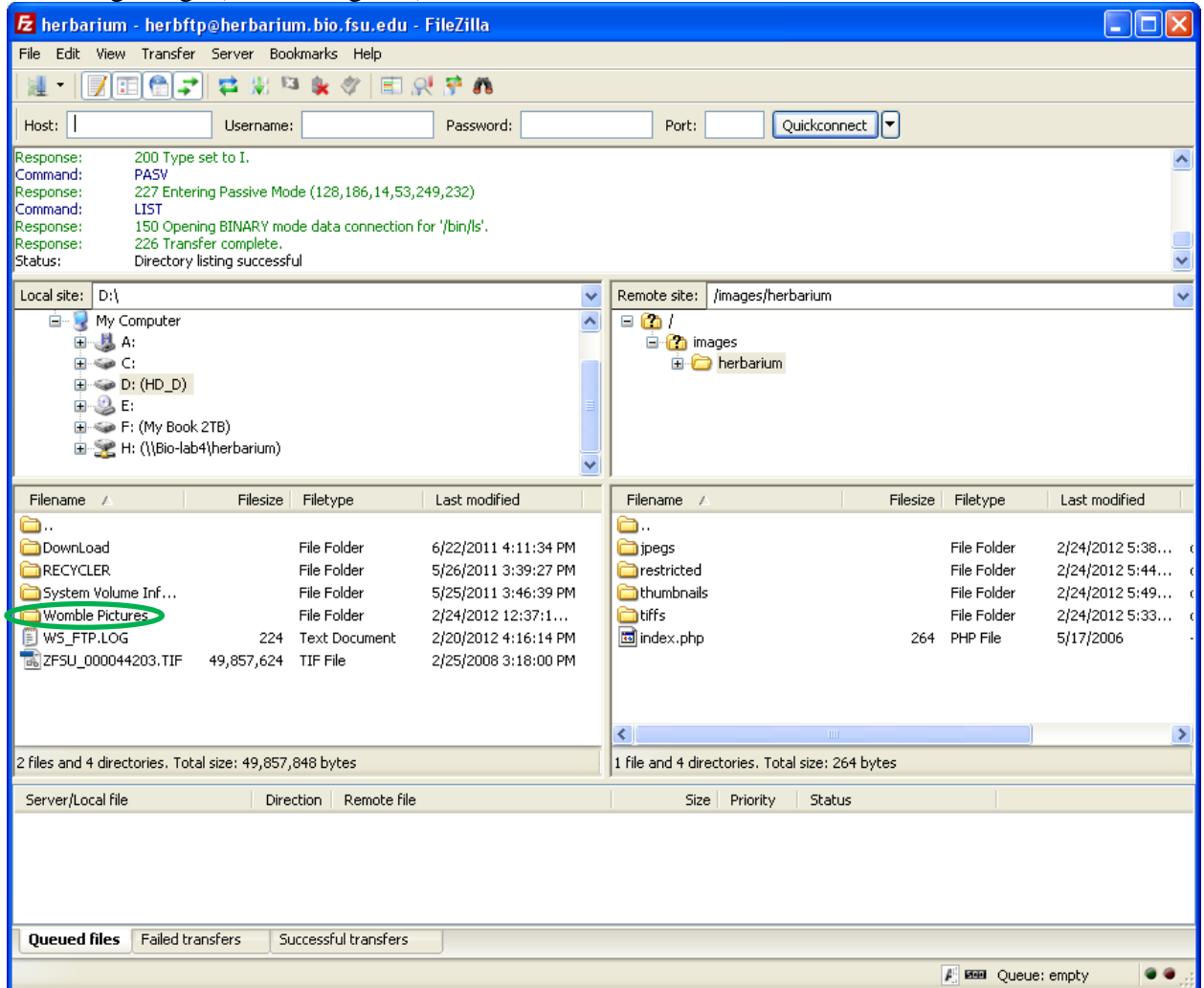


2. Left click on “File” circled in red in the image above.
3. Left Click on “Site manager...” so that the following image appears:



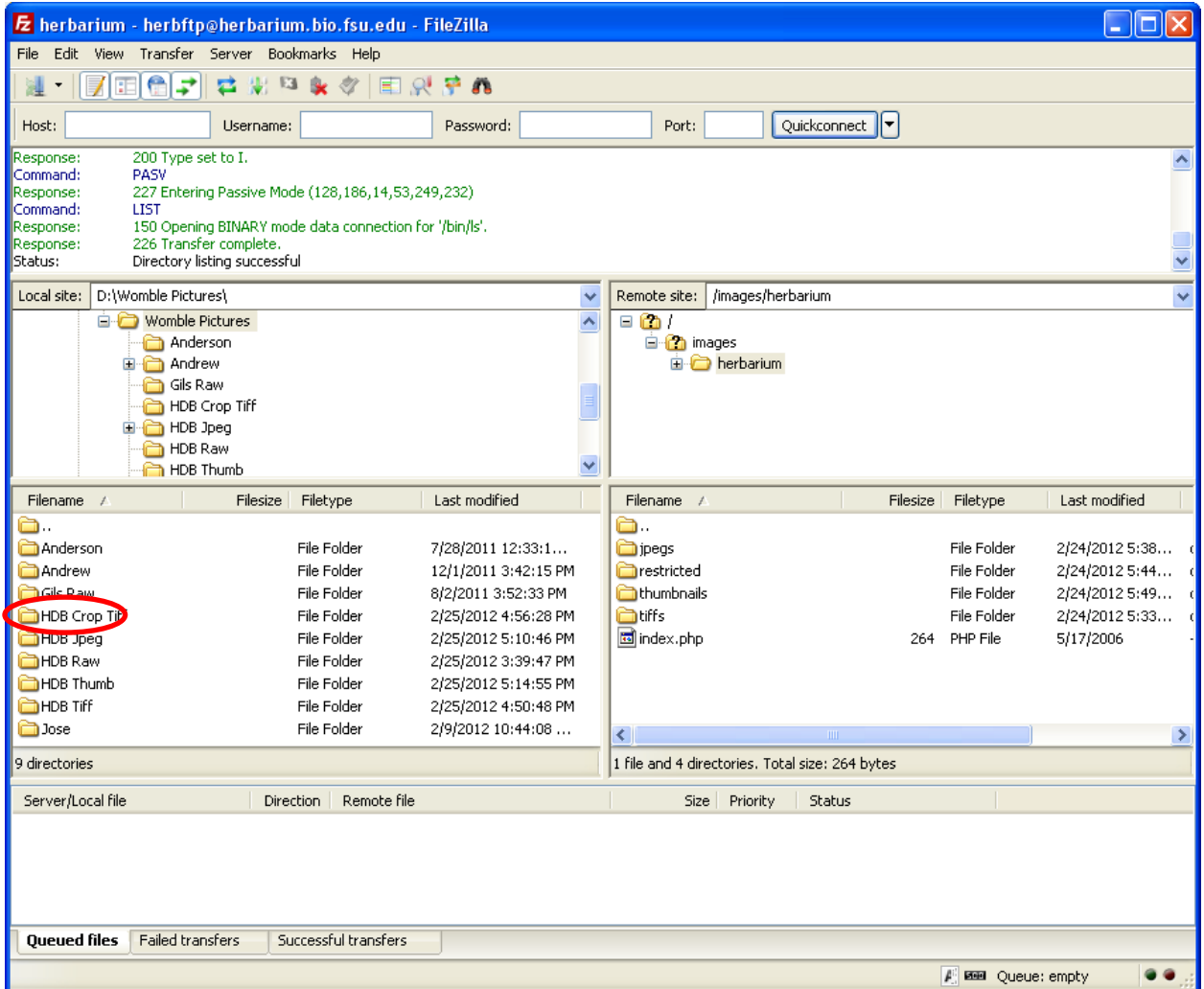
4. Click “Connect” which is circled in blue in the above image.

5. Search for “Womble Pictures” on the left side of the window as indicated in the following image (circled in green):

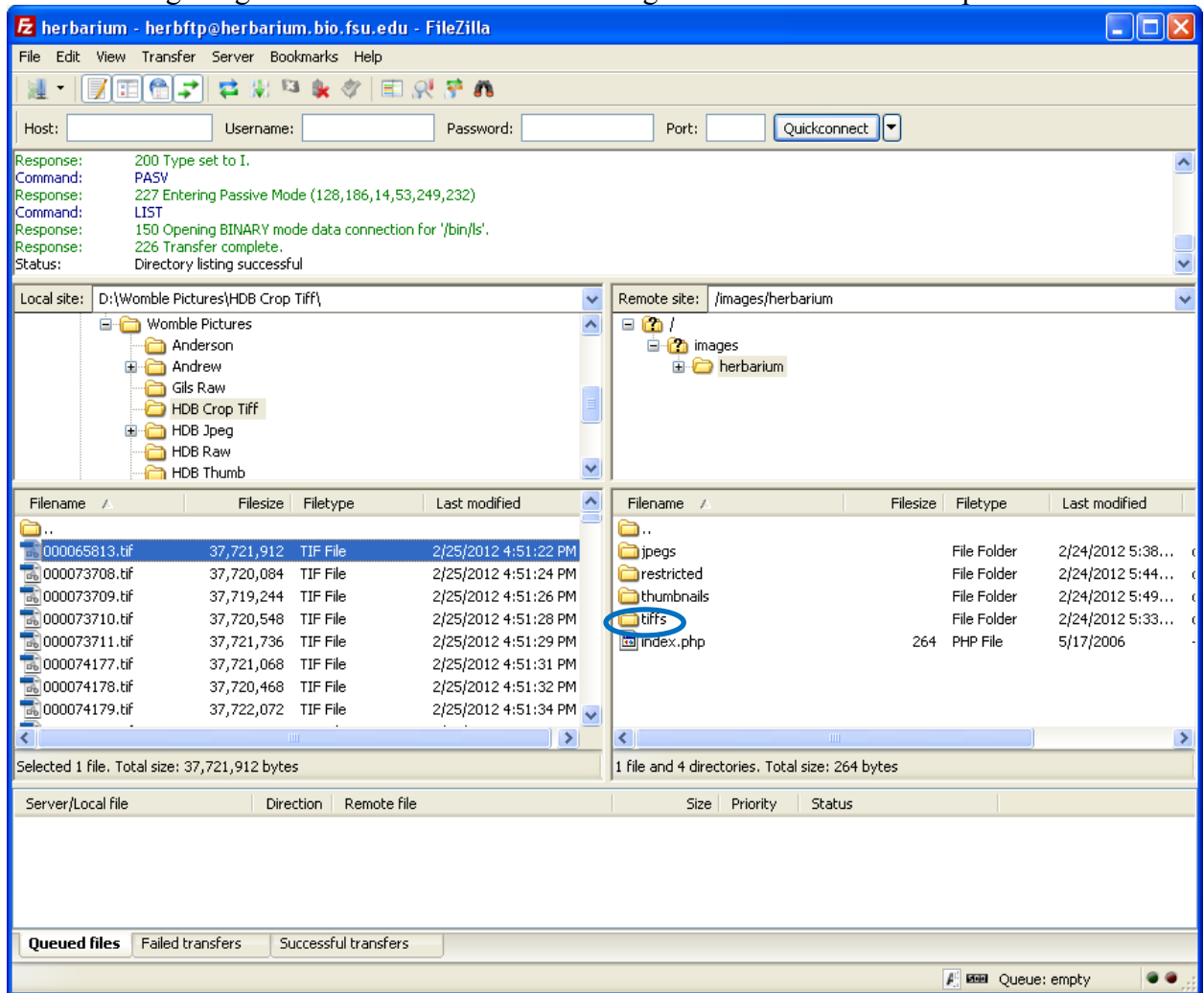


6. Double left click on the “Womble Pictures” folder.

7. Double left click on the folder “HDB Crop Tiff” as the following image displays circled in red:

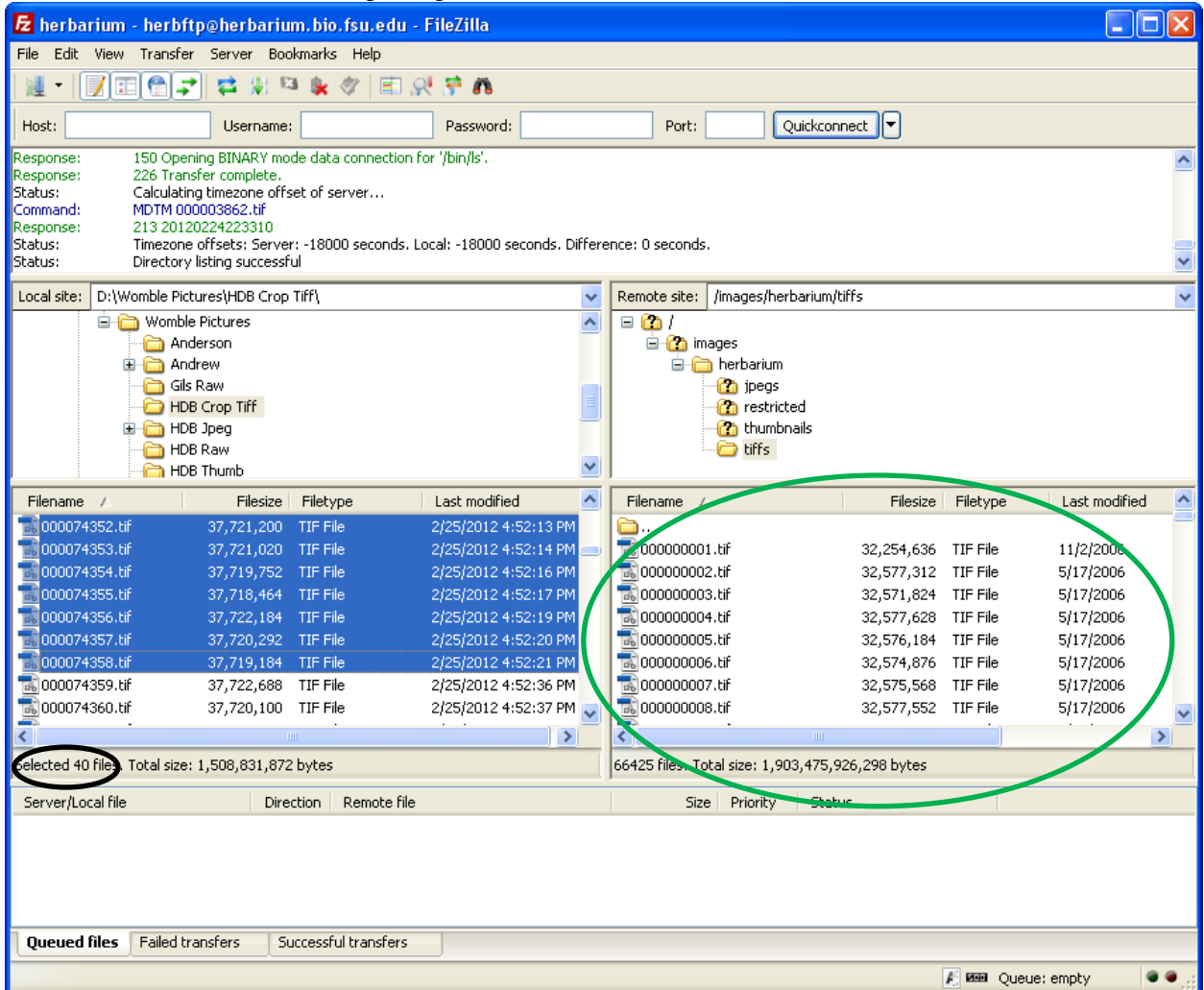


8. The following image shows after double left clicking on the folder “HDB Crop Tiff”:



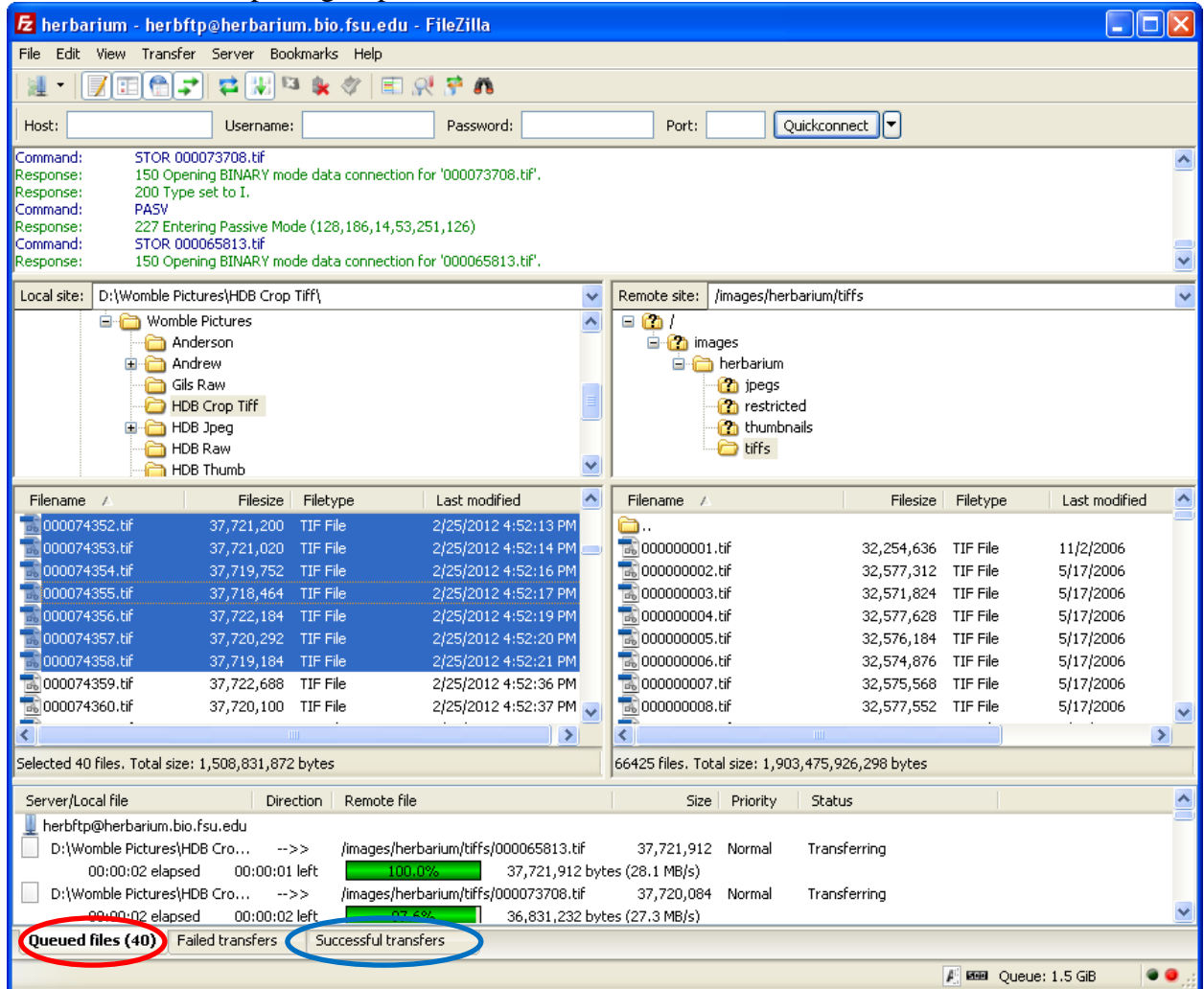
9. Double left click on the folder “tiffs” in the right window of FileZilla as indicated in the above image (circled in blue).

10. Use the Shift key to highlight no more than 40 images. (Refer to step 11 in the *Processing Images* if necessary)
 - a. The number of images highlighted is indicated in the lower left corner (circled in black) as the following image shows:



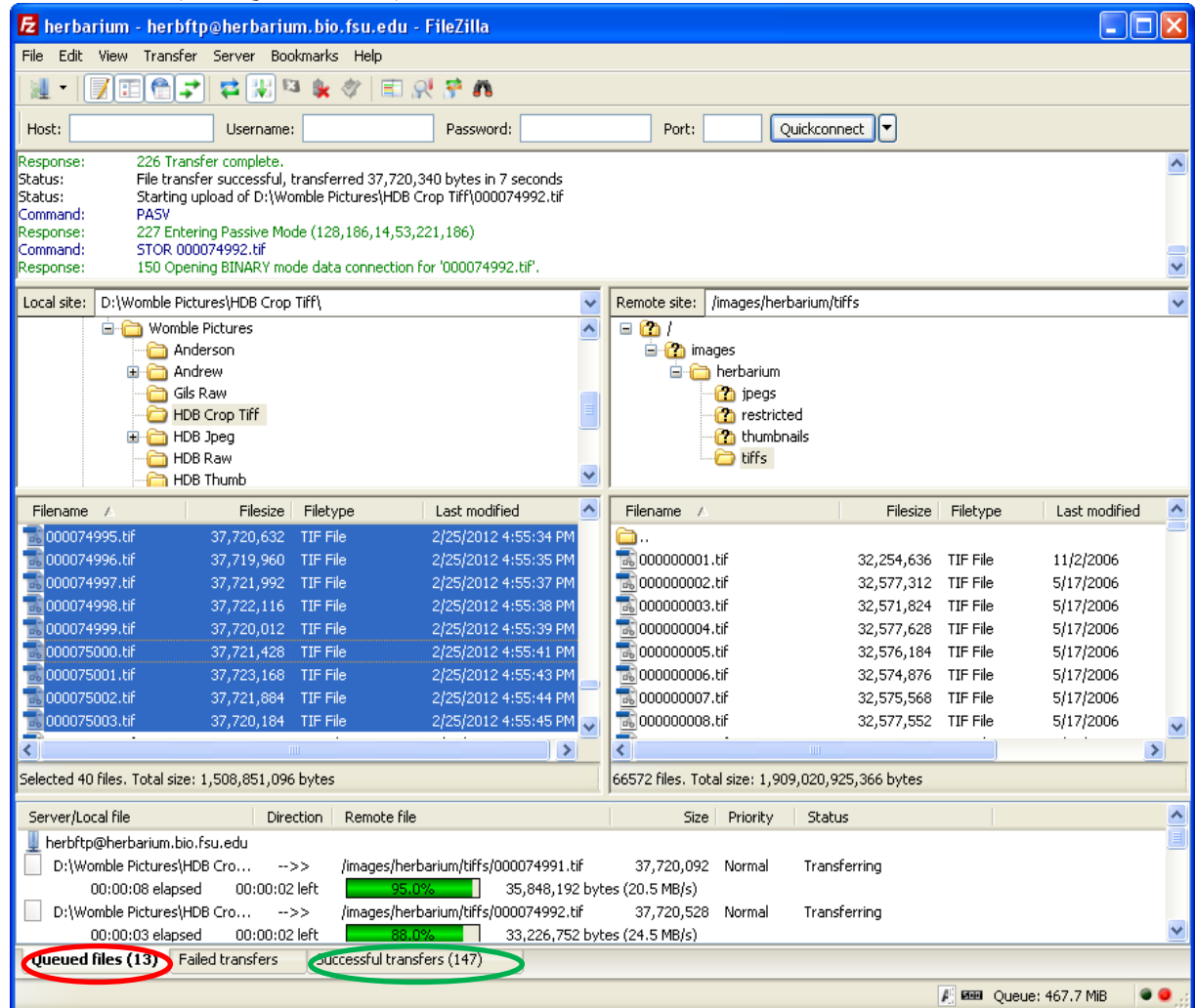
11. Left click and hold onto your highlighted images and drag the images to the right window in FileZilla as indicated in the above image circled in green.

12. The images will then be uploaded onto the server. The following image displays what will show after completing step 11:

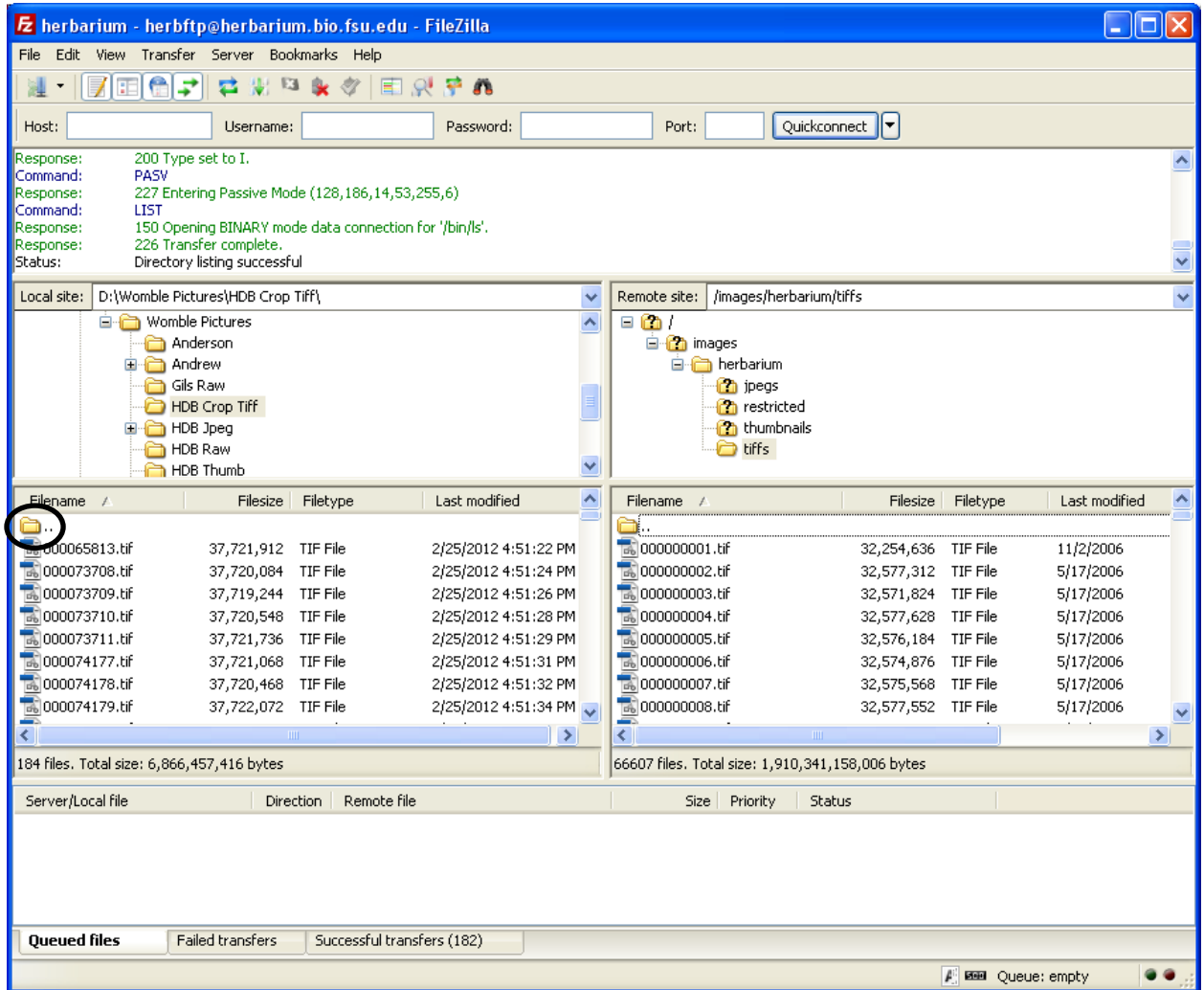


- Note:** The lower left corner says “Queued files” (circled in red in the above image). This number should read 40 since the amount of images being uploaded to the server is 40 images.
- Note:** Also in the lower left corner is a tab that says “Successful transfers” circled in blue in the above image.

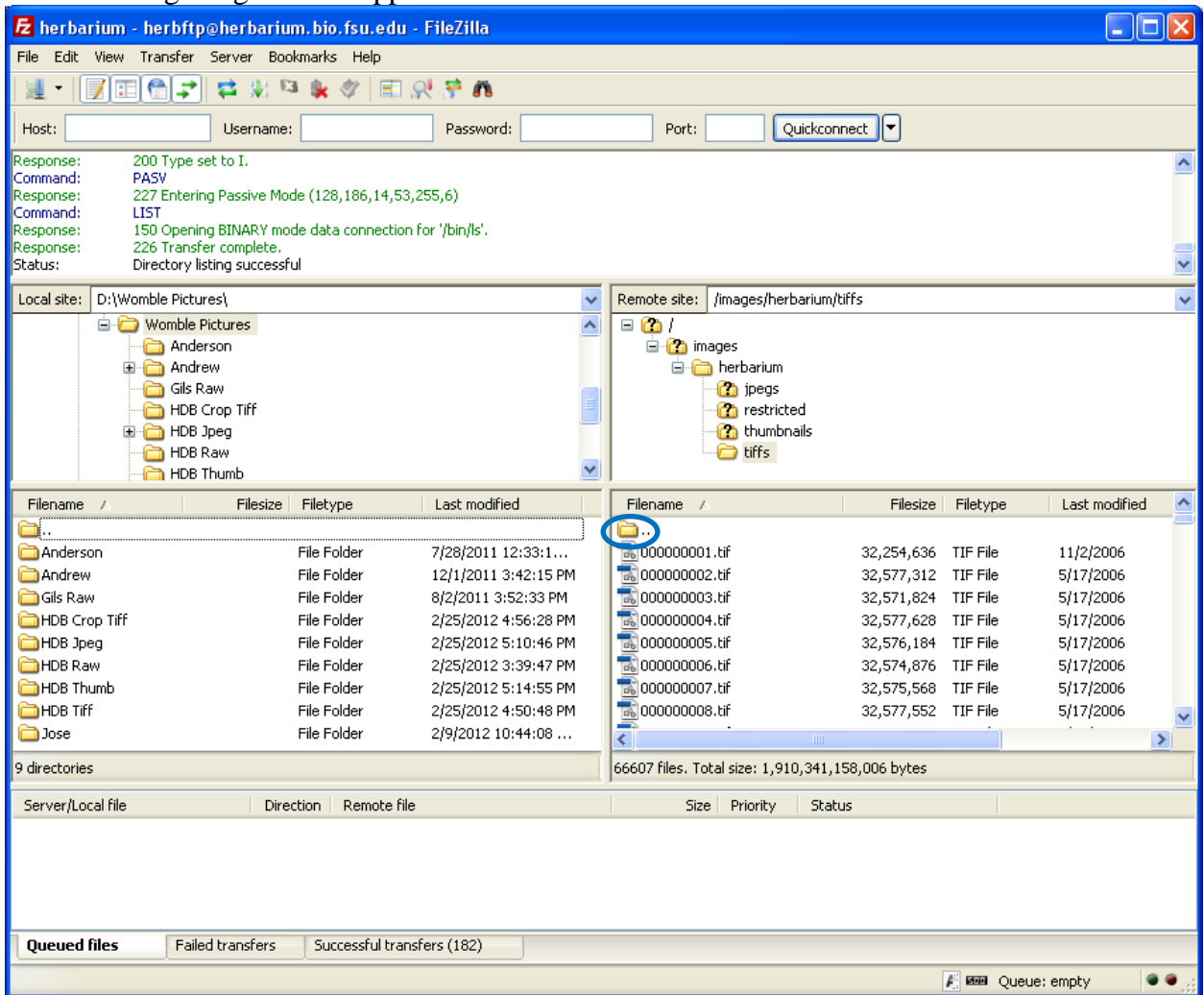
- c. The following image displays that 147 images have been successfully uploaded onto the server circled in green and that there are 13 more images to be uploaded to the server (i.e., Queued files) circled in red:



13. After uploading the amount of tiff images to be uploaded onto the server, scroll to the top on the left side of the screen to double left click on the folder as the following image shows:

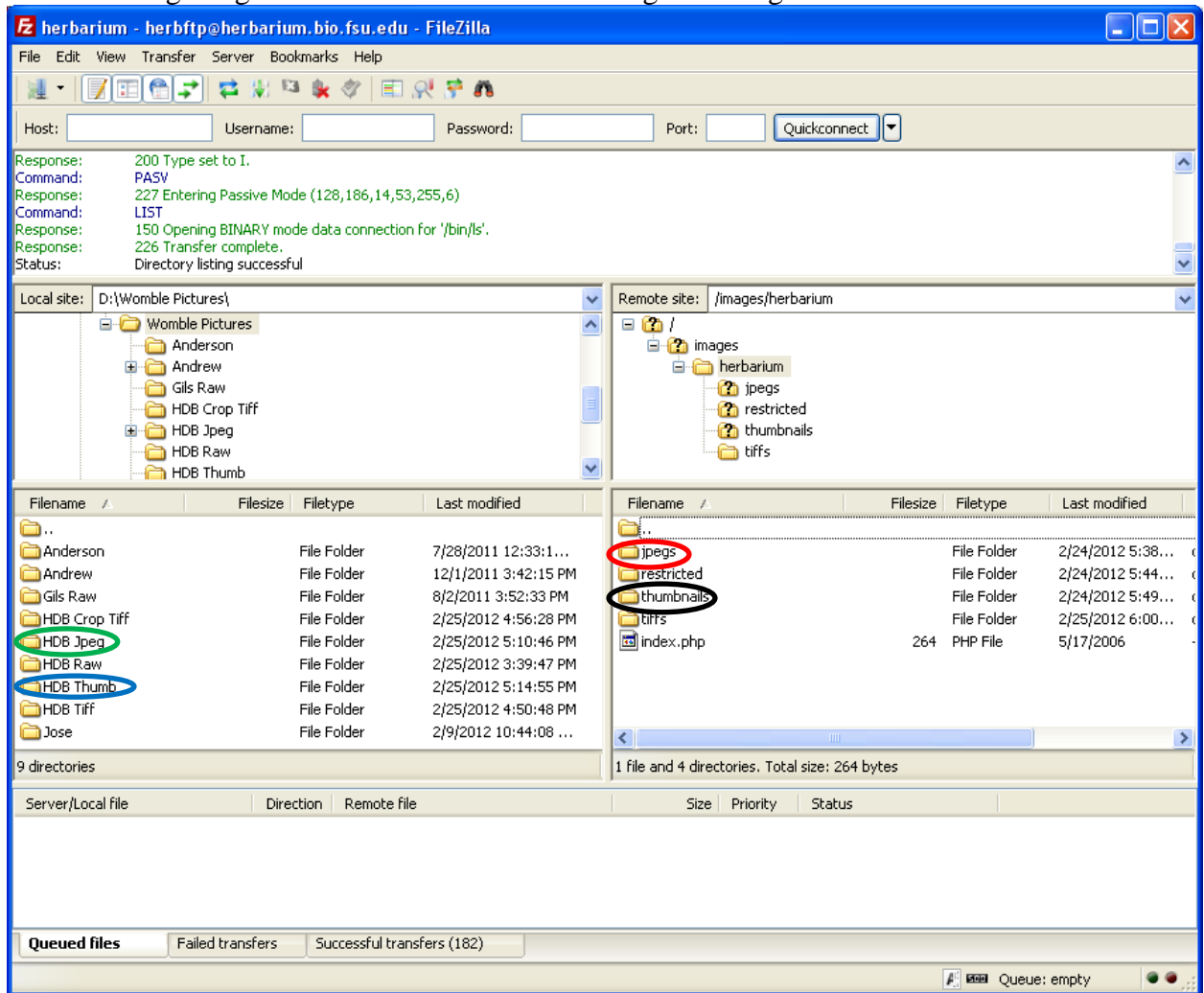


14. The following image should appear:



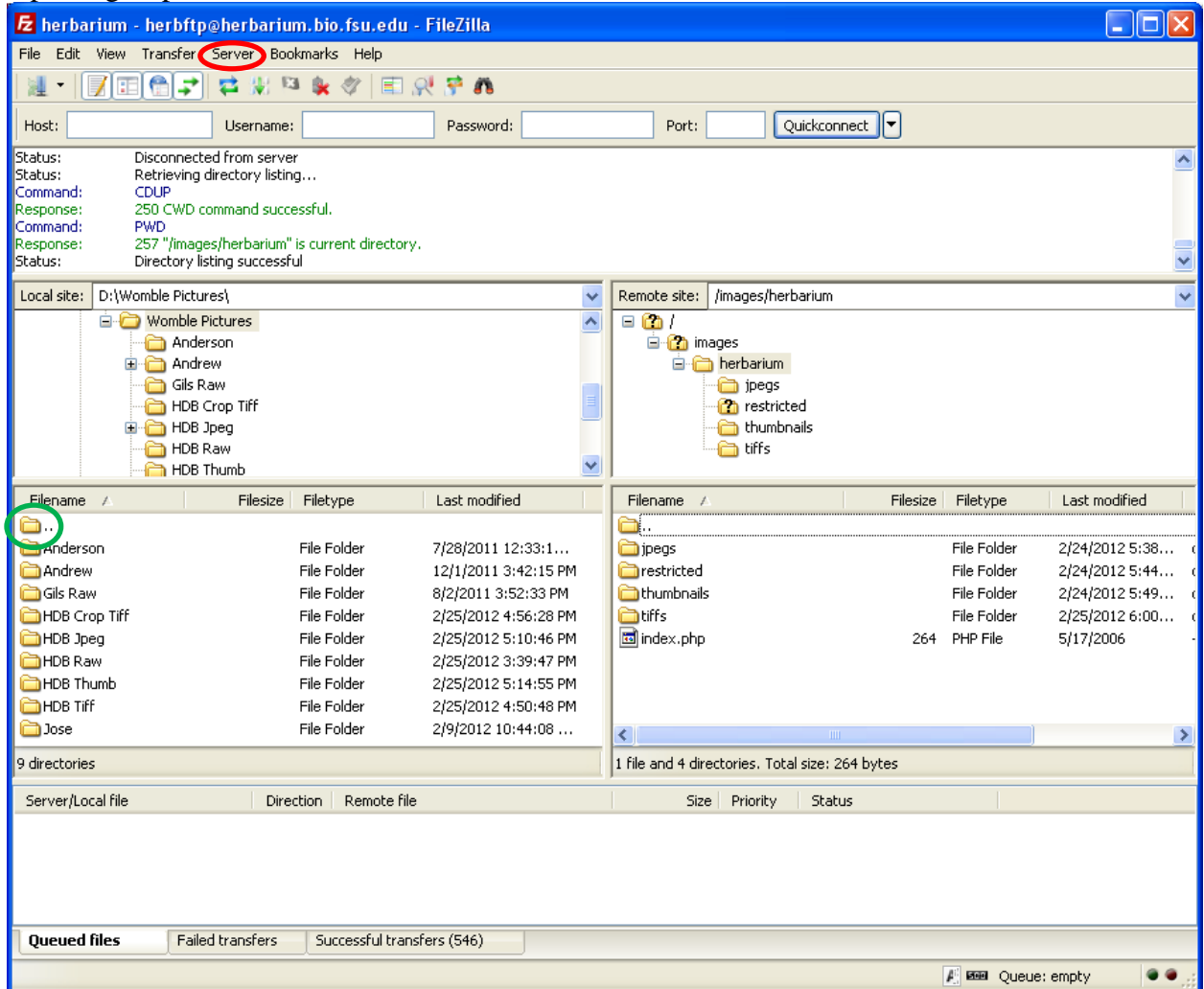
15. Double left click on the folder on the right screen, circled in blue in the above image.

16. The following image shows after double left clicking on the right side of the screen:



17. Double left click on the “HDB Jpeg” folder on the left side of the screen (circled in green in the above image).
18. Double left click on the folder “jpeg” on the right side of the screen (circled in red in the above image).
19. Repeat steps 10 and 11 until all jpegs have successfully been uploaded to the server.
20. Repeat steps 13, 15 except double left click on the “HDB Thumb” folder on the left side of the screen (circled in blue in the image above) and then double left click on the folder “thumbnails” on the right side of the screen (circled in black in the above image).
21. Repeat steps 10 and 11 until all thumbnails have successfully been uploaded to the server.

22. Repeat steps 14 and 15. The following image shows what the screen will look like after repeating steps 14 and 15:



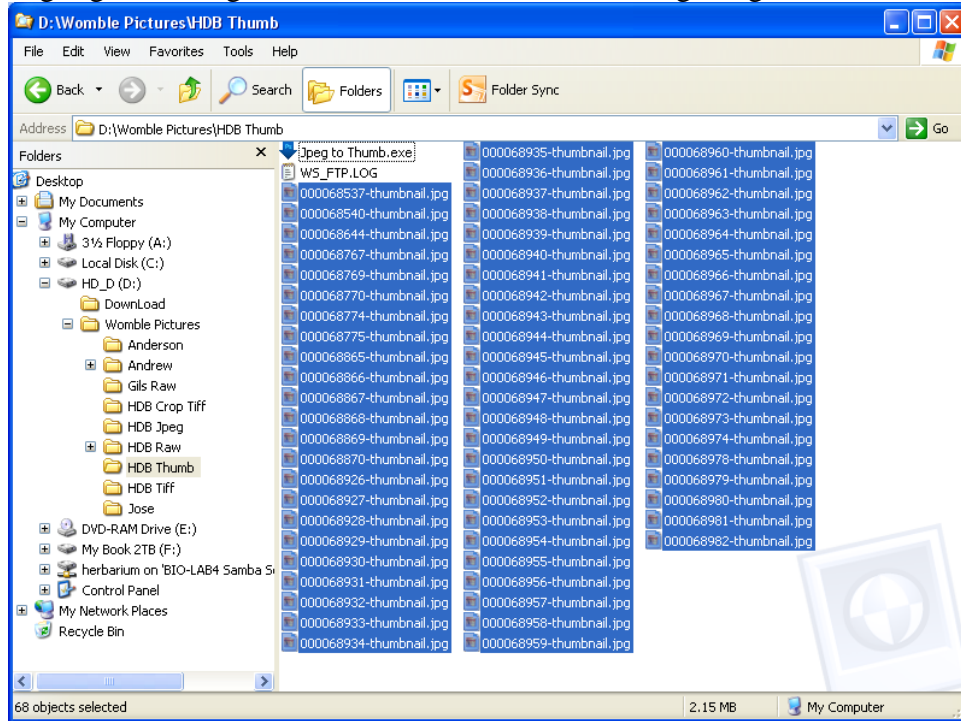
23. Double left click the folder on the left side of the screen again (circled in green in the image above).

24. Left click "Server" (circled in red in the above image).

25. Left click "Disconnect."

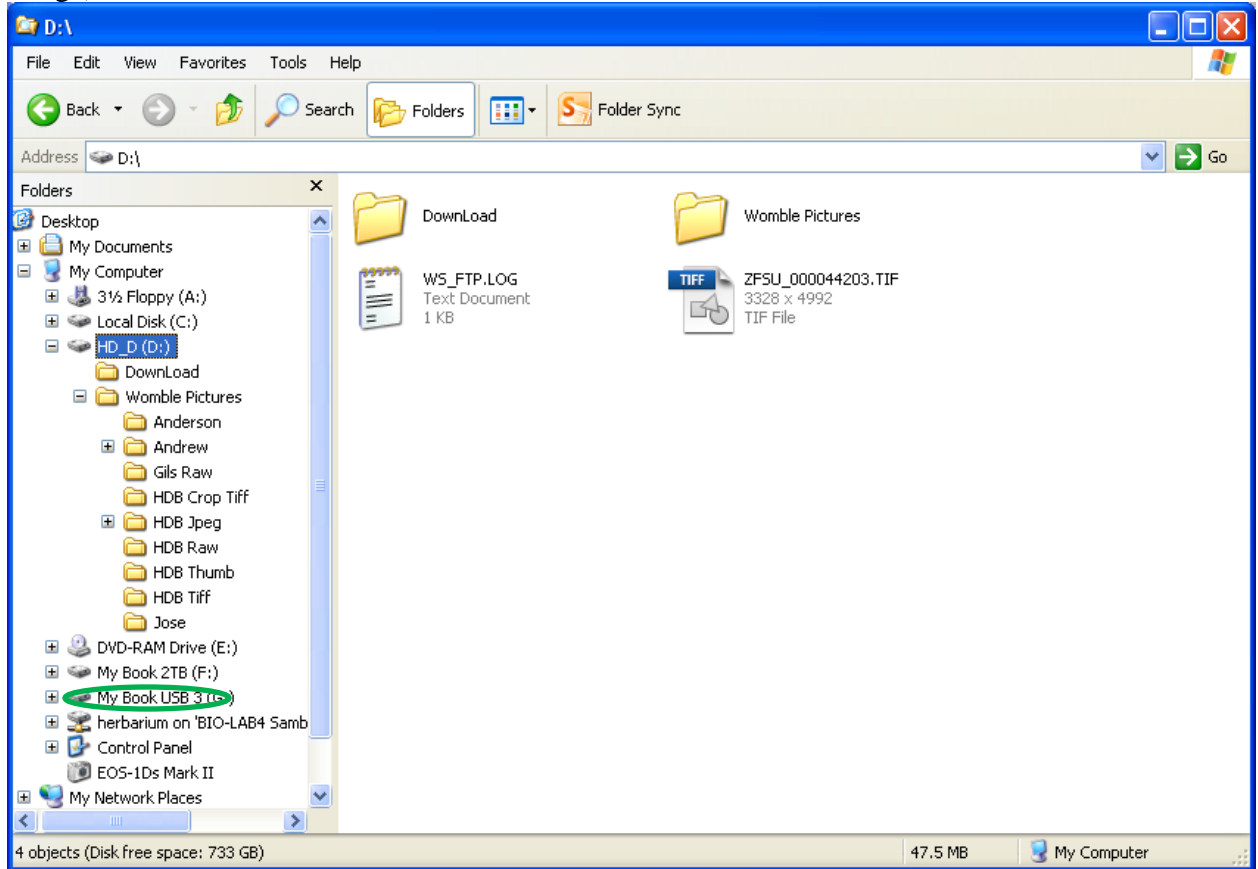
26. Exit the FileZilla program.

27. Proceed to the windows open (i.e., HDB Thumb and HDB Jpeg).
28. Highlight all images in HDB Thumb as the following image shows:

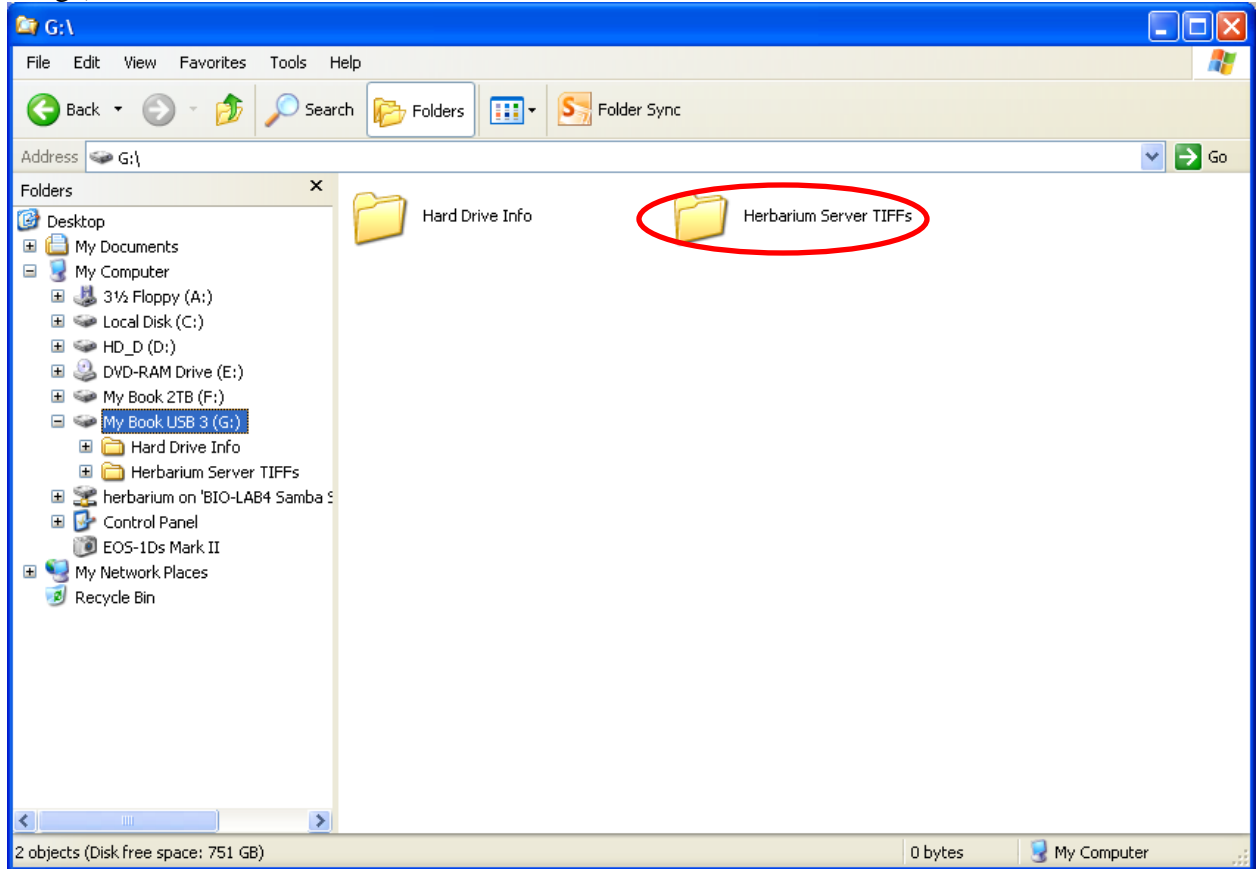


29. Hit Delete on the keyboard.
30. Confirm Multiple File Delete by left clicking yes.
31. Repeat steps 28 to 29 for the HDB Jpeg window.
32. Navigate to HDB Crop Tiff by left clicking on the folder HDB Crop Tiff in the left window.
33. Repeat steps 28 to 29.
34. Navigate to HDB Raw in the right window by left clicking on the folder HDB Raw.
35. Repeat steps 28 to 29.
36. Navigate to HDB Tiff in the right window by left clicking on the folder HDB Tiff.

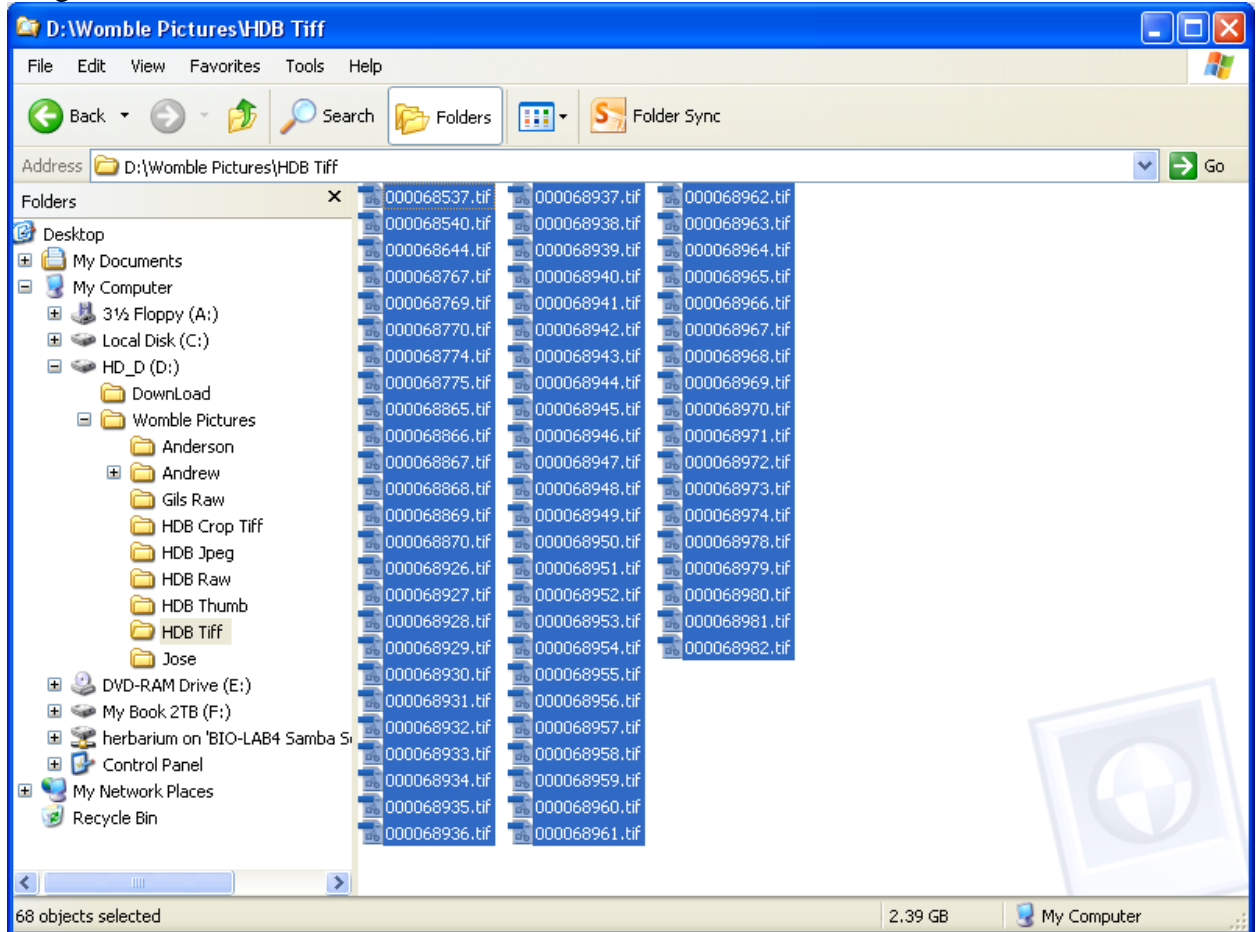
37. Left click in left window on “My Book USB 3 (G:)” (circled in green in the following image):



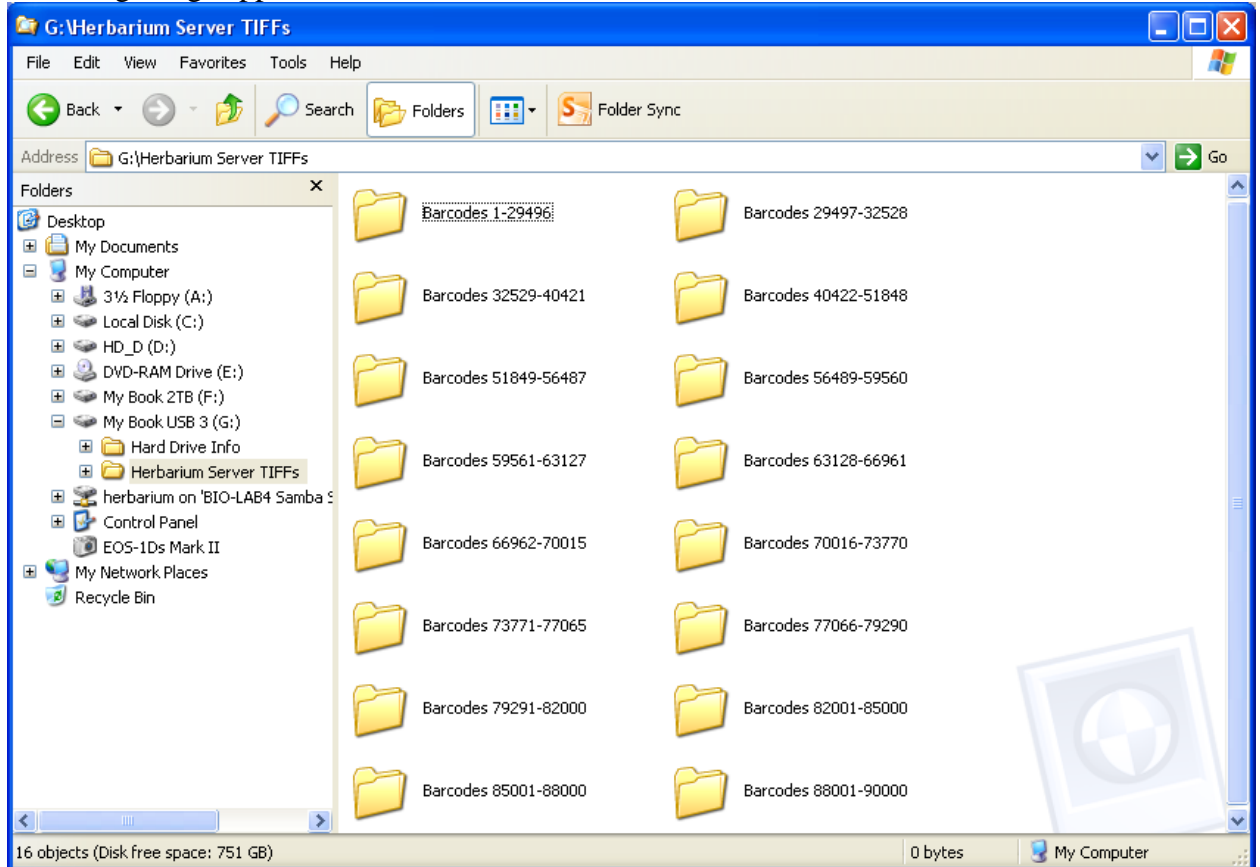
38. Double left click on the folder “Herbarium Server TIFFs” (circled in red in the following image):



39. Highlight all the tiff images in the right window by pressing “Ctrl+A” as the following image shows:



40. Double left click on the folder “Herbarium Server TIFFs” in the left window so that the following image appears:



41. Drag all the highlighted tiff images to the left and place them in their respective folder (based upon barcode number) in Herbarium Server TIFFs.
- Note:** Refer to step 12 in *Processing Images* if necessary.
 - Note:** If the barcode images being dragged to the external hard drive are in the barcode range 73771-77065, place tiff images **only** into the folder labeled “Barcodes 73771-77065.”
 - Note:** The same will follow for all other barcode images with varying barcode ranges.
42. After all highlighted images have successfully copied to “My Book USB 3 (G:)” in their respective folders, left click on the right window and hit delete on the keyboard.
43. Close both windows and Adobe Photo Shop.
44. Left click on the Recycle Bin in the lower right corner of the desktop.
45. Left click “Empty the Recycle Bin” and left click yes to “Confirm Multiple File Delete.”
46. Close the Recycle Bin.
47. Turn off lights, camera, and computer/speakers/computer monitor.
48. Replace lens cap back onto camera.

Protocol written by: Andrew Martin, Tim Andrus, and Austin Mast