

# z\_\*OBSOLETE\* Making single bone tif stack in OsiriX

**\*\*OBSOLETE, DO NOT USE\*\***

## Osirix Bone Segmentation Instructions

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01.14.10

### *Importing Images Into Osirix (Database Window)*

1. Open Osirix
2. Import scan images: File Import Files...
3. Click on the gray arrow next to the newly imported series
4. Click on the scan that is now displayed

### *Creating a Region of Interest for a Single Bone*

1. Select the study of interest in the Database window
2. Open the 2-D Viewer window by clicking it's icon on the top toolbar
3. Set default ROI name: ROI Set Default ROI Name...
4. Enter the name of the bone you wish to isolate (e.g. Femur)
5. Select the Closed Polygon Tool from the Mouse button function toolbar
6. Create a polygon around the bone of interest for the first image slice that the bone is visible
7. Create ROIs at for all the image slices that contain the bone
  - a. It is ok to skip a few slices between ROIs, these can be interpolated at the end
8. Interpolate the ROIs to fill in gaps between slices
9. Go back through each slice and make sure that the ROIs are correctly sized and oriented to capture the entire bone of interest without much (if any) other tissue/bone
10. Save the ROI to a file: ROI Save All ROIs of this Series... or Save Selected ROI(s)...
11. Repeat steps 3-10 for each bone

### *Isolate Bones within Each ROI*

1. Select an ROI that you would like to isolate
2. Set all the pixel values outside the selected ROI to black: ROI Set Pixel Values to...
  - a. Make sure the 'ROIs with same name as the selected ROI' radio button is selected
  - b. Make sure the 'Outside ROIs' radio button is selected
  - c. Make sure the 'To this new value:' radio button is selected (This value should be the default number for black – -3024)
  - d. Click OK
3. Export the new images containing only the bone of interest: File Export Export to DICOM file(s)
  - a. Make sure the 'All images of the series, including:' radio button is selected
  - b. Make sure the 'As stored in memory in 16-bit BW' radio button is selected
  - c. Make sure the interval of images is set from the first image to the last image. This can be changed by editing the numbers or moving the slider
  - d. Uncheck 'Send to DICOM node' radio button
  - e. Type a series name in the corresponding field. Try and name the series the same name as the bone isolated using the ROI
  - f. Click OK
4. Click on the new series now visible on the left panel and scroll through the images to ensure that they are correct
5. Click back on the original 'full' series
6. Repeat steps 1-5 for each ROI that you would like to isolate
7. **Close the 2D Viewer**

### *Export Tif Image Stacks for Each Isolated Bone*

1. Select the all of the series' that you would like to export to tiff image stacks in the database viewer
2. Export them: File Export Export to TIFF
3. Select a destination for the image stacks
4. Click Choose