Calculating Wound Area – Using NIH/SCION Image Software

Note: prior to opening NIH/SCION Image, images must be saved as .TIF files, see Digital Camera SOP.

Open NIH/SCION Image - Double click on the SCION Image icon on your desktop. When NIH/SCION Image opens it will not automatically fill up your computer screen. For optimal viewing, maximize the program window by clicking on the maximize window button at the top right corner of the SCION Image program bar.

Locate the Wound Image - Pull down the File Menu on the Toolbar and select Open. Locate the appropriate .TIF file in the "_WATS Photos" directory and click OK.

Two windows containing the image will appear on the screen. One image will be called <Indexed Color>; the other will be called <.TIF (RED)>. The <.TIF (RED)>image will appear black and white; the <Indexed Color> image will be in color. You may choose either of the two windows for calculating area. In some cases, the image may be more clear in <.TIF (RED)> while in others <Indexed Color> might have better quality. Choose the window that best displays the wound margin.

*If you are having trouble calculating area using the Indexed Color window, close out of the program, re-open it and use the TIF(RED) window only.

Verify that the Tools Window and the Info Window are showing to the right of the Image Window. If they are not both present, pull down the Windows menu under the Toolbar and select the missing window(s).

Adjust the Image - If the image is larger than the screen, use the hand icon in the Tools Window to move the image around the screen as needed. To use the hand icon, click on the hand and the cursor will change to look like the icon. Holding down the left mouse button, move/drag the hand icon with your mouse as you would a pointer, the image will move with the hand icon.

Set Scale – click on the icon in the Tools Window that looks like a diagonal line with a triangle underneath it (it is the 5th icon listed in the right column of the Tools window). The cursor changes to a crosshatch. Locate the ruler in the image. Drag the cursor while holding down the left mouse button carefully along the ruler for 1 cm. After releasing the mouse button, you will see a line along the ruler on the screen*****. Pull down the Analyze menu under the Toolbar. Select Set Scale. Enter the Known Distance of the line you traced. In this case it will be 1. Select Centimeters for Unit of Measurement. Click O.K.

***** It is important to select a 1 cm section of the photographed label that is as close as possible to perpendicular to the angle at which the image was taken as possible. For example, if the label was placed on a curvilinear body surface (a three-dimensional surface), you will notice some distortion of the ruler in the photograph (a one-dimensional surface), as it curves. Select the portion of the ruler that is least distorted.

Trace the Wound - When the image is positioned to show the entire wound, click on the free-hand marquis tool (it looks like an irregular circle or a heart). The cursor changes to a crosshatch. Holding down the left mouse button, trace around the margin of the wound edge with the crosshatch. Release the left mouse button when finished. The outline of the wound should appear as a broken line. You may re-draw the tracing as many times as you like. The previous tracing will disappear if you click on the left mouse button or the free-hand marquis tool.

Calculate Area - Pull down the Analyze menu under the Toolbar. Select Measure. The area calculation for the wound will appear under the Info Window under Area in square centimeters. Record this in the Access database under Area Measurement. If the area measurement reads as ‘0’, re-draw the wound margins and repeat the process.

Close out of NIH Image Pull down the File Menu and select Close. If you are asked if you want to save changes to the images, select No.

Note: if the traced area disappears after releasing the mouse button or the area measurement does not calculate in the Info Window, you will need to modify your clipboard buffer. Please contact Dana Striplin at (734) 930-5118.