For Skye Light Box & Video Camera

Firstly, calibrate the system:

1. Click File and Connect Camera

2. Place the black calibration disc (3cm or 10 cm) under the camera and make sure all of the disk can be seen on the screen

3. Click File and Capture Image

4. Set the threshold by dragging the blue cursor bar in the top Threshold window. Try to get the yellow left hand image the same size and shape as the captured image on the right

5. Click Image and Set Scaling Factor. Choose the 3cm or 10cm disk option as appropriate

6. Save the calibration settings

7. Remove the calibration disc

Now place a root under the perspex frame and gently spread it out. Adjust the lighting and focus as necessary to create a good contrast between root and background. It is important not to change the camera position or zoom, else the calibration you have just made will be invalid.

1. Click File and Capture Image or you can click on the camera icon or simply press F1 as a shortcut

2. Set the root threshold by dragging the cursor bars in the top Threshold window. It is often easy to choose just one colour, e.g. blue for a stained root.

3. Try to get the yellow right hand image the same size and shape as the captured image on the left

4. If necessary, click Image and Set Region of Interest and drag a square to analyse only part of the image

5. The roots are automatically analysed and the results shown in lower left hand side of the window

6. Save results by clicking File and Save Results

7. Print / view the image and results by clicking File and Print Image Results

Repeat with more roots as required. One calibration procedure per session is sufficient unless the camera position or zoom is changed.

Issue 1