# Image Capture Quick Start Guide

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Phase-contrast image of a discoaster taken onboard the JOIDES Resolution during IODP Expedition 355 (Arabian Sea Monsoon). Image taken by D. Kulhanek.

# Introduction

This document provides an introduction to using the SPOT cameras and Image Capture software used on the JOIDES Resolution.

## Procedures

1. Turn on camera (*Figures 1A and 1B*). Make sure the slider on the microscope is pulled out (*Figure 1C*) or the switch is set to the camera position (*Figure 1D*) to allow light to reach the camera.







Figure 1. Shipboard microscope cameras. A. SPOT idea camera on stereoscopes. B. SPOT camera on transmitted light microscopes. C. Slider to switch light from oculars to camera on transmitted light microscope. D. Lever to switch light from oculars to camera on stereoscopes.

2. Open Image Capture software on computer and login with username, password, and expedition number.



Figure 2. Image Capture software interface.

3. Select the sample by clicking on **Browse** (red box, *Figure 2*). You can search by **Sample Types**, analysis type (**Test List Selectors**), or both (green boxes, *Figure 2*).

Select the sample from the sample list (blue box, *Figure 2*) and close the browser window. The selected sample shows up above the image pane on the main screen (purple box, *Figure 2*).

- 4. On the main screen, select Objective, Filters, Light Source, Contrasting Method, and Illumination Method (orange boxes, Figure 2).
- 5. Click on Acquire (yellow box, *Figure 2*) to bring up the image capture window, which shows the live image from the microscope. If you have a settings **Profile** (purple box, *Figure 3*) saved, be sure it is selected.

-You can adjust the image using the sliders under Gamma, Contrast, and Saturation (orange boxes, Figure 3).

-You can adjust exposure settings, image capture area, and focus area (green box, *Figure 3*, see Image Capture User Guide for details). **\*NO TE: You must use** *Full Chip* as your *Imaging Area* or the scale bar will be incorrect.

When you are happy with your image, click Acquire (red box, Fig. 3). The image capture window closes after the image is acquired. The new image appears in the main window (Fig. 4) of the Image Capture program.



Figure 3. Image Capture software interface showing live image.

7. Select the correct objective and Optovar (upright microscope) or magnification wheel (stereoscope) combination from the drop down list under **Objective** (orange boxes, *Figure 2*). The scale bar will be automatically calculated and added to the image by the software upon upload. If the settings on the microscope differ from those selected, the scale bar will be incorrect.

For a detailed explanation of how scale bars are added, see page Image Capture: Image Scaling\_378P.

8. If you are happy with the image, click **Upload** (red box, *Figure 4*) to upload the image to the LIMS database. Note: you can add comments (yellow box, *Figure 4*) such as species name or other pertinent information.



Figure 4. Image Capture software interface showing acquired image.

- The image disappears after upload; however, you can get it back by clicking on the Objective drop-down menu. If you want to save a copy to a local folder, click on Export (green box, Figure 4).
  Note: this only saves a copy of the jpeg image; a high-resolution tiff is saved in the database and can be accessed through LIMS Reports (LORE).
- 10. You can check to see if your image was saved in the LIMS database through LIMS Reports (LORE); however, you do not need to do this after every image capture.

### Credits

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