

Nikon Scope

Camera Setup

1. Log onto the monitor using the common login
 - a. Username: Lab_User
 - b. Password: Juday7Birge
2. Turn the camera on by hitting the power button on the camera connected to the scope. The light displayed should be green
3. Turn the compound scope on with the switch behind the coarse focus on the right-hand side of the microscope
4. Select the NIS app on the desktop titled '**NIS-Elements D 5.20.00 64-bit**' to the desktop.
5. When the program opens you will see a gray screen
6. In the task bar of the program there is a green arrow between the 'Calibration' and 'Image' tabs that will read 'Live (+)' if you hover the cursor over the icon. Select this to open a live feed from the scope camera
7. There should now be an image on the screen. The images displayed below are present in the autocapture folder. I am unsure how to change the folder where images are stored once captured, but any captured image will appear in this autocapture folder

For Measuring Images

1. In order to measure phytoplankton on the scope using the imaging software, you must first make sure that the scope is calibrated to the correct objective
2. Select the calibration tab and open the 'Objectives...' window
3. A list of objectives corresponding to the scope will be displayed (e.g., Plan 4x = 4x objective; Plan 10x = 10x objective; Achromat LWD 40x = 40x objective). Right-click whichever objective the scope will be set to when taking pictures and select "Set As Active"
4. It may be necessary to give each objective a Nosepiece designation. Click on the horizontal line next to the objective name (e.g., Plan 4x) and give it a position. I gave the objectives positions based on magnification with 4x receiving Position 1, 10x Position 2, 40x Position 3, and the Oil Immersion 100x Position 4 (if necessary)
 - I placed a calibration stage micrometer slide and checked the calibration of the 40x objective, and it looked to be calibrated correctly.
5. After getting the calibration set up, the window on the far right has the tools to measure length (in μm) with the tools underneath the Length tab
6. There are also tools in the window on the far right of the screen to clear lines off of the screen as well as clear any length data collected
7. Captured images can be deleted from the autocapture folder by right clicking the image and hitting delete