LUMENERA'S INFINITY CAMERA & SOFTWARE INSTALLATION GUIDE

SIDE 1: PRODUCT INSTALLATION

The installation CD that came with your camera includes the INFINITY application software and the INFINITY camera device drivers for Windows. If your computer does not have a CD drive, you can also download the software package (which includes the camera device drivers) from the software downloads page on our website:

http://www.lumenera.com/support/microscopy/drivers-downloads.html

Notice to Mac Users: The software installation instructions and quick start guide on this card are for Windows based platforms. If you are using a Mac platform, please visit the same software downloads page of our website, where you can download the latest INFINITY for Mac software package (which also includes the INFINITY camera device drivers).

Note for all INFINITY camera users: Although different software applications and device drivers are required for Windows and Mac platforms, the camera set up instructions outlined below are the same for both Mac and Windows users.

SOFTWARE INSTALL INSTRUCTIONS FOR WINDOWS

Instructions that apply to software installations for INFINITY USB-based cameras on Windows platforms, whether downloaded from the web site or installing using the CD:

1. Prior to plugging the camera into your computer, you must first install the INFINITY CAPTURE and ANALYZE software.
2. Where possible, execute the installation file using a right-mouse click, choosing the option 'Run as Administrator' from the pop-up menu.
3. This is a complete software and driver package installation. Follow prompts to un-install any older version or reboot the PC.
4. Connect the camera to the PC on completion of the installation, while still logged into the computer as the Administrator. Launch the INFINITY CAPTURE software to confirm that the device drivers and filters are correctly registered and a live preview from the camera is displayed.
5. Log out from the Administrator account. The camera software is available to any user account on the PC.

CAMERA SET UP FOR BOTH WINDOWS & MAC USERS

1. Remove the camera lens cap, and mount the INFINITY camera on your microscope's camera port, equipped with a C-mount adapter.
2. Connect the USB cable between the INFINITY camera and the computer. If a power adapter was supplied with the camera, connect it to AC power and plug it into the INFINITY camera. After several seconds, verify that the LED on the back of the camera is on, showing that the camera device drivers have loaded successfully on Windows. For Mac the device drivers will only load when the application launches.
3. Ensure that your microscope light source is on and that the configuration of the microscope is directing light up to the camera.
4. Launch either the INFINITY CAPTURE or the INFINITY ANALYZE application. A PDF copy of the user manual is installed with the Windows software package. Mac quick start guides are available on the software downloads page of our site.

See the reverse side of this card for the software quick start guide for Windows.

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GETTING STARTED WITH YOUR NEW CAMERA

SIDE 2: SOFTWARE QUICK TIPS FOR WINDOWS

INFINITY CAPTURE APPLICATION - QUICK START GUIDE

Refer to the **INFINITY CAPTURE User Manual** for complete information on this application.

1. Launch the INFINITY CAPTURE application.
2. Adjust the camera exposure manually, or enable the Auto Exposure Correction check-box to have the software adjust the image intensity.
3. Use the global white balance function (color cameras only) when a clinical scope has an empty field of view or when a white/grey card is in the field of view of a stereoscope.
4. Place the sample in the field of view and adjust the microscope focus until the image on the monitor is sharp and clear.
5. Use the Camera icon button to capture an image.
6. The Options menu provides access to features such as auto file saving, image flip/mirror, etc.

INFINITY ANALYZE APPLICATION - QUICK START GUIDE

Refer to the **INFINITY ANALYZE User Manual** for complete information on this application.

You can also access **Video Tutorials** on the Lumenera website. Both resources can also be accessed from the Help menu within INFINITY ANALYZE. The steps in this Quick Start Guide contain only a summary of the basic functions available within the software.

1. Launch the INFINITY ANALYZE application.

2. EXPOSURE: Begin by adjusting the camera's response to the available light. Adjust the Exposure slider manually until an image of moderate brightness is displayed on-screen, or enable the Continuous Auto Exposure function to allow the application to obtain an image with the brightness indicated in the Average Intensity slider. Both of these controls are located under Camera Control in the left side panel.

3. WHITE BALANCE: All color cameras require that the response from the Red, Green, and Blue pixels be adjusted to provide the correct color response to the available light. Remove any sample from the field of view of a clinical scope, or place a piece of white or grey card under a stereoscope. Click on the White Balance button under Capture Control in the left side panel. The image displayed should appear as a uniform grey color. Increase the camera exposure time to make the background brighter.

4. IMAGE CAPTURE: Place a sample in the field of view and adjust the microscope focus until the image of the sample is sharp and clear on the monitor. Images can be captured by using either a double-click on the live preview window, or by clicking on the large Capture button in the Capture Options on the left panel. Save images in the native .SIF file format to preserve the calibration data with each image. Images may also be saved in JPG, BMP, or TIF format, but these formats cannot store the calibration data, so it is recommended to add a micrometer bar prior to saving.

5. CALIBRATION: Accurate measurements can be made and reference micrometer bars can be added to images that have been captured with the calibration functions configured correctly within the software. INFINITY ANALYZE works with a single active calibration at a time, but multiple calibrations can be stored and used as Presets. Once calibration presets are defined, measurements can be made on either the live preview or on captured images. Refer to the video tutorials (Accessible from the Help menu -> Online Help), or the User Manual for details on how to calibrate the camera for accurate measurements with various objectives.