

## Installation and Operating Manual



# LithoCAM

## v 2.5

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for ©Troika Dotmeter Software

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## 1. Introduction

Thank you for choosing a Troika LithoCAM Lite. The LithoCAM Lite is used for plate and film percentage readings. To avoid issues during installation, follow the instructions precisely.

The LithoCAM Lite camera is a precision optical instrument, treat it with respect and it will give the user years of useful service. Troika Systems Limited produces the LithoCAM Lite product based on the Logitech Pro 4000 series of web-cams. Warranty claims should be directed to your dealer and/or Troika Systems Limited and not Logitech.

### Operating Systems information

The dotmeter operates on Windows 2000 and Windows XP.

### Whats in the box

The package contains::

- A LithoCAM Lite dotmeter
- A CD containing the dotmeter application, DirectX software and this manual in PDF format

Your dealer should be notified of any shortages or damages within 7 days of receipt.

### Software Patch Information

Software patches are used with the LithoCAM, they allow users to update the application so that it function best the their plate type.

As new plate are launched onto the market patches will be implemented to ensure compatibility with those plates, any instructions as to there use will be shown in the patch notes on web site or installation CD.

### New Software versions

New software can be downloaded from our WEB site

[www.troika-systems.com](http://www.troika-systems.com)

## 2. Windows XP Installation

**DO NOT PLUG IN THE DOTMETER UNTIL REQUESTED TOWARDS THE END OF THE INSTALLATION**

On inserting the LithoCAM CD, the LithoCAM installation menu will appear, as that shown below:



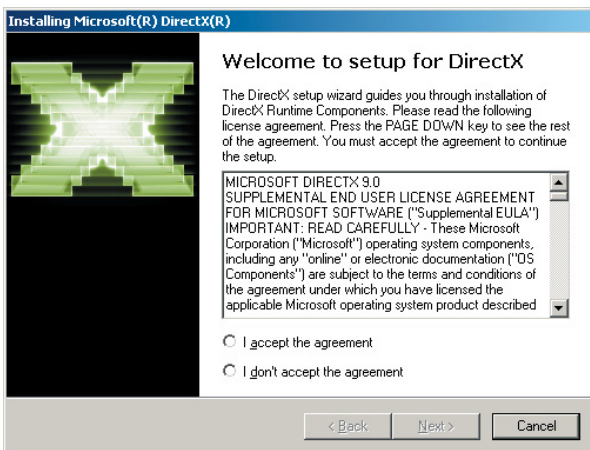
The Installer window offers a number of options.

The first Option opens the LithoCAM Installation and Operating manual.

You should print out the manual because it might be more up to date than the printed version you are currently reading.

The second option installs the **DirectX** Software.

Windows XP should already have DirectX installed as part of the Operating System. To ensure it is installed continue with the DirectX installation, (you will be presented with a dialog box similar to that below) if it does not request a reboot DirectX was already on your system.

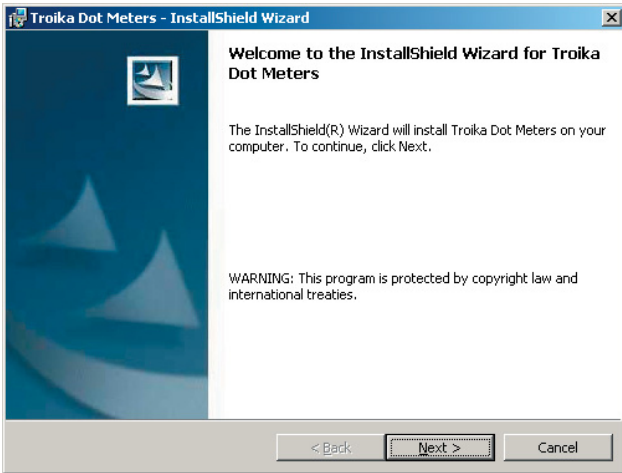


To complete its installation, DirectX will need to reboot your PC, so make sure all other applications are closed and all work is saved.

Once your PC has restarted, the installation menu will reappear on the screen.

Now install the LithoCAM Lite application and camera drivers

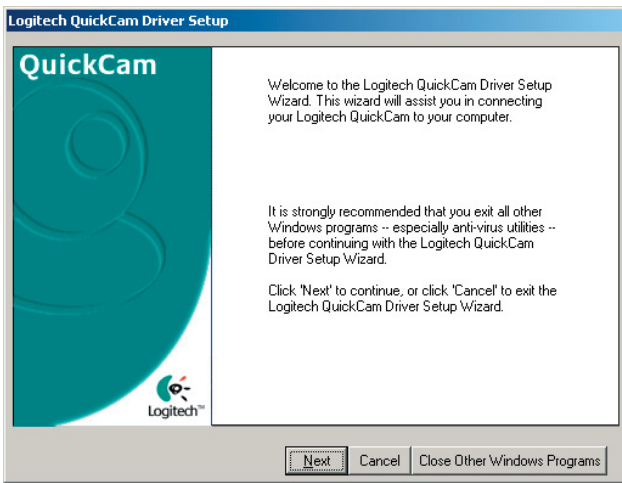
**Follow the onscreen instructions to install the software. The LithoCAM application is installed first, followed by the Camera drivers – see the figure below.**



Read the terms and continue if accepted.

Follow the onscreen instructions to install the software – see the figure to the left. The LithoCAM application is installed first and the camera drivers second

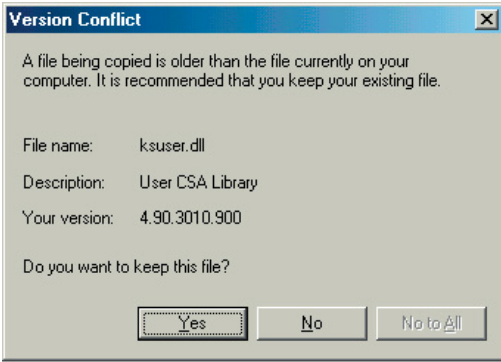
You will be asked to restart your PC at this point.



Once the LithoCAM software is installed, the camera drivers need to be installed, as shown left.

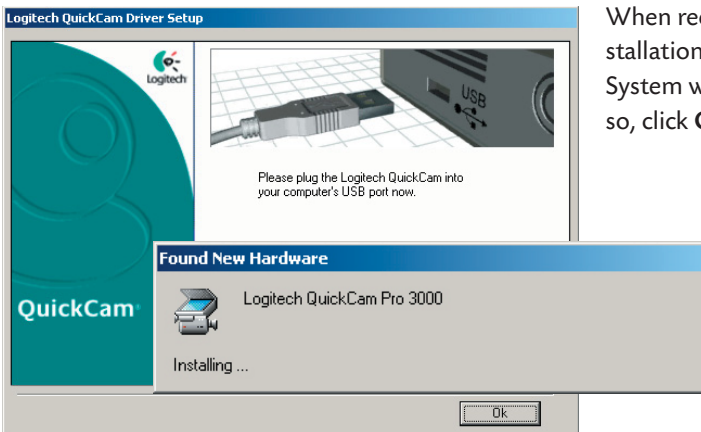


If at any time during the installation a window similar to that below is seen, it is a Microsoft Digital Signature. This has no impact on the installation, the PC or other applications. Press 'Continue Anyway' i.e. Do NOT press ENTER, as this will stop the installation by default.



If a **Version Conflict** window, such as that shown below occurs during the installation, keep the existing file by clicking **Yes**.

Ensuring all other applications are closed, and anti-virus utilities are switched off, press **Next**.



When requested, plug in the Dotmeter in order to complete the installation procedure – as shown in the figure given. The Operating System will take a while to find the new hardware. Once it has done so, click **OK**. Windows XP installation is complete at this point.



When finished, click on **Exit Installer** to close the installer.

### 3. Windows 2000 Installation

**DO NOT PLUG IN THE DOTMETER UNTIL REQUESTED TOWARDS THE END OF THE INSTALLATION!**

On inserting the LithoCAM Lite CD, the LithoCAM installation menu will appear, as that shown below:



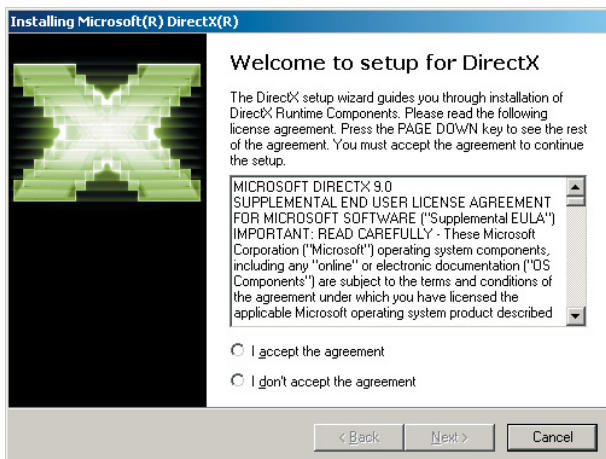
The Installer window offers a number of options.

The first Option opens the LithoCAM Installation and Operating manual.

You should print out the manual because it might be more up to date than the printed version you are currently reading.

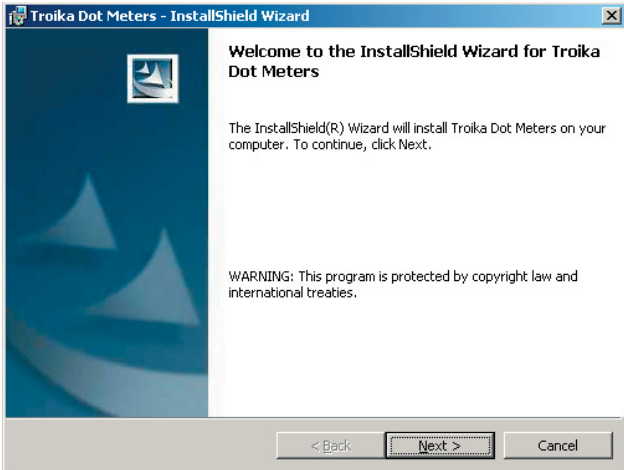
The second option installs the **DirectX** Software.

DirectX must be installed prior to installing the LithoCAM application. When installing DirectX, you will be presented with a dialog box similar to that shown. If DirectX has not been installed previously it will be necessary to reboot your PC, so make sure all other applications are closed and all work is saved. Once your PC has restarted, the installation menu will reappear on the screen.



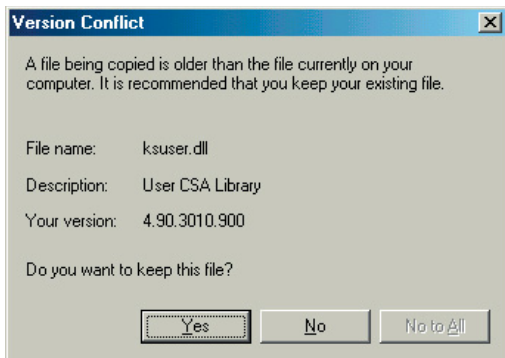
The next option installs the LithoCAM software and camera drivers

**Follow the onscreen instructions to install the software. The LithoCAM application is installed first, followed by the Camera drivers – see the figure below.**



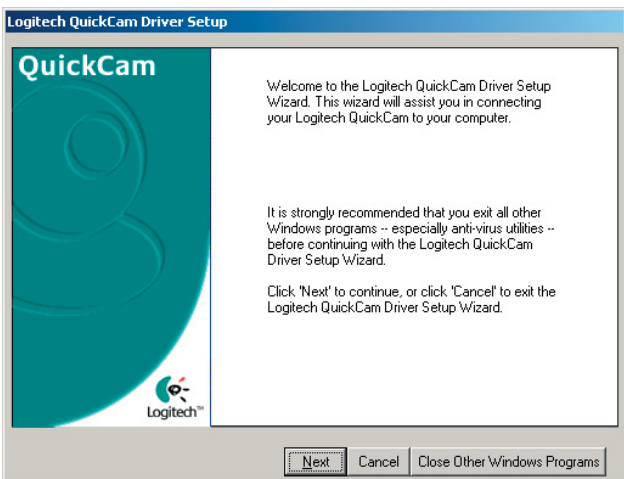
Read the terms and **continue** if accepted.

Follow the onscreen instructions to install the software – see the figure to the left. The LithoCAM application is installed first and the camera drivers second.

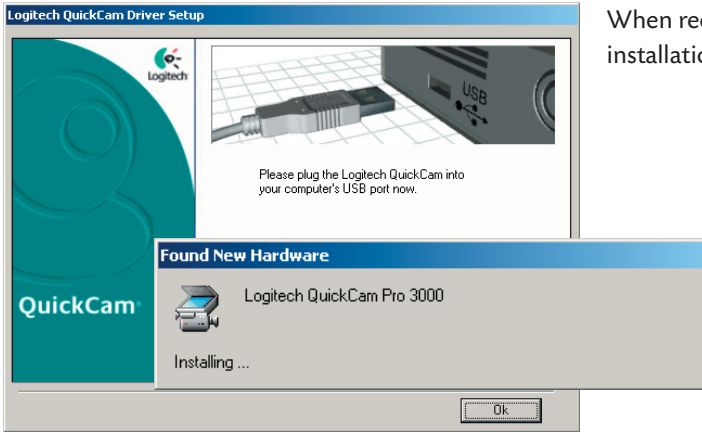


If a **Version Conflict** window, such as that shown left occurs during the installation, keep the existing file by clicking **Yes**.

After the requested reboot the Logitech install windows are activated, as can be seen in the figure below.



Ensuring all other applications are closed, and anti-virus utilities are switched off, press **Next**.



When requested, plug in the LithoCAM in order to complete the installation procedure – as shown in the figure left.

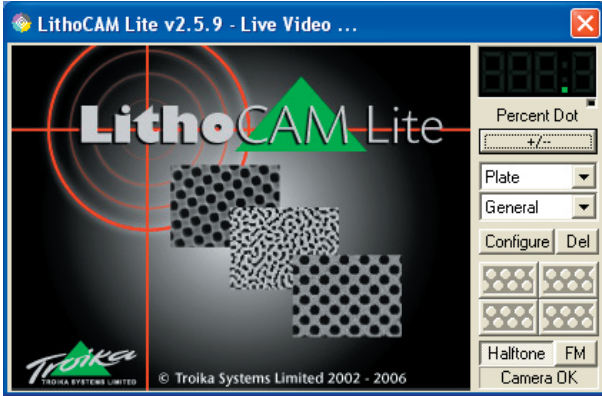
The Operating System will take a while to find the new hardware. Once it has done so, click **OK**. Reboot the PC again. Once the PC has rebooted and found the Logitech QuickCam Pro 3000, LithoCAM is ready for use.



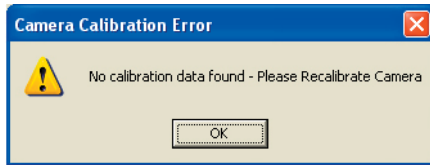
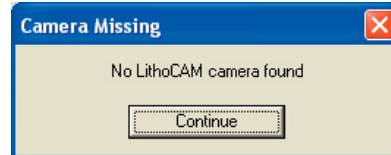
When finished, click on **Exit Installer** to close the installer.

# Operating

## Running the dotmeter for the first time

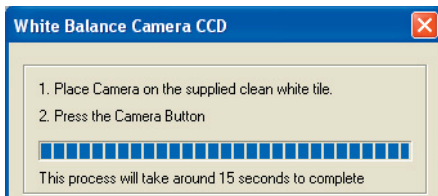


After starting the LithoCAM Lite application you will see the LithoCAM Lite Video window on your monitor (left screenshot). If the camera is not connected you will be prompted by the following message:

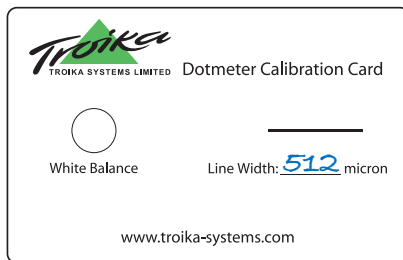


The first time the application is run, the **Camera Calibration** box will request that the camera is calibrated.

Calibration is used to linearise the light source for the dotmeter camera, *not to match the dotmeter to the media*, therefore this procedure is only required on installation.

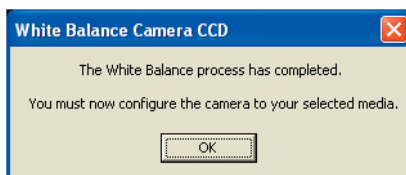


Clicking on **OK** will bring up the **White Balance Camera CCD** window, as shown left.



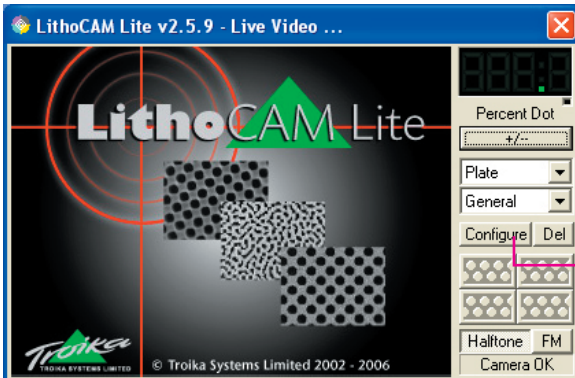
To calibrate place the LithoCAM Lite on the supplied WHITE calibration tile, and **Press the button** on the LithoCAM Lite.

The unit will calibrate in approximately 15 seconds.



Once the camera has been calibrated it is necessary to **Configure to the media** you wish to use (see next page).

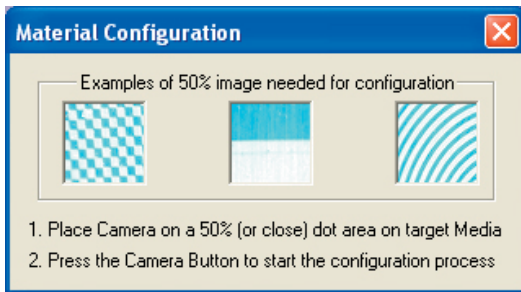
# Operating



## Configuring Media

To ensure the accuracy of readings it is essential to configure each type of substrate to be analysed. This procedure only needs to be done once when the media is first used.

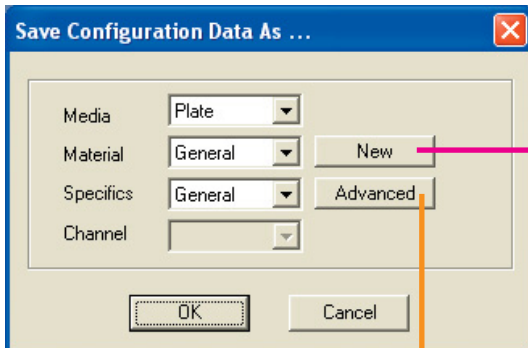
Once the type of material has been selected, such as *Plate* in the example shown, select *Configure*.



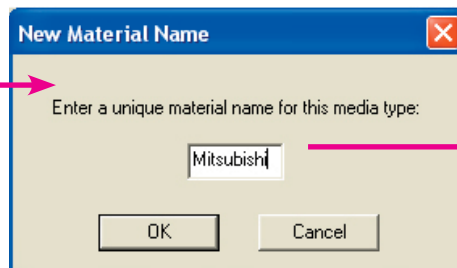
The window with *Material Configuration* instructions will then open, as shown left. Place the LithoCAM Lite on a 50% field (or close). The application searches for the lightest and darkest area to ascertain the contrast difference for the material being configured.

Click the button on the LithoCAM.

When configuring a material, the contrast of the image in the video window will change several times.

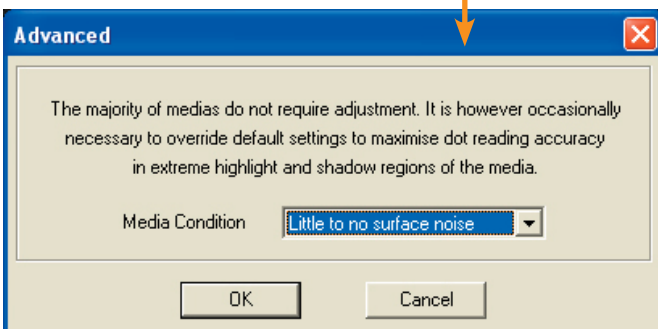


Once complete a *Save Configuration Data As...* window will appear.



Selecting **New** gives the user the opportunity to name that media for future selection when analysing a Plate or Film.

The example right shows that different types of plates have been configured and saved as *Kimoto and Mitsibishi* etc in this example.



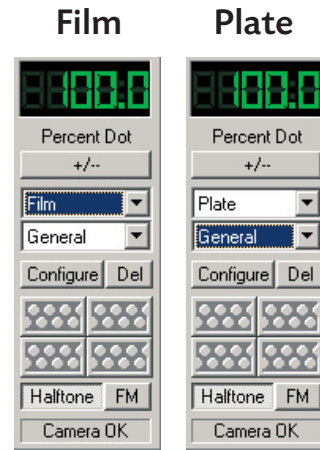
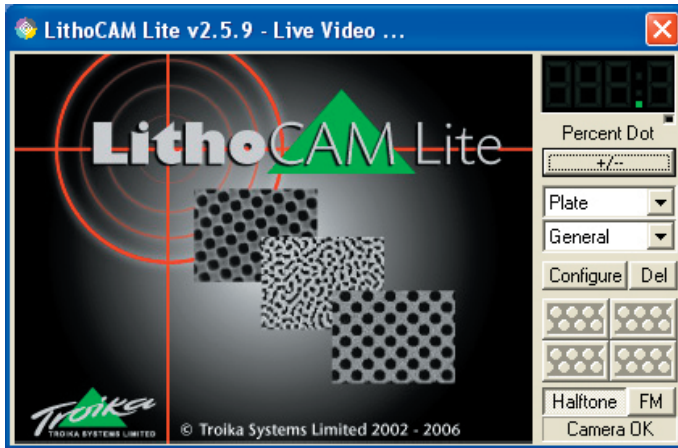
## Media: Surface Noise

The *Advanced* button is for materials that either have a high level of noise in the background, or materials that are particularly noise free. Polyester plates and newspaper printed copy would be examples of a material with high surface noise. The default is *Normal surface* noise

## LithoCAM User Controls

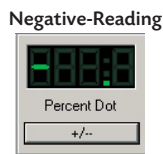
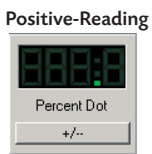
### Media Selection

Select the type of media to be analysed: Plate or Film and for screen type choose between Halftone and FM (Stochastic)



The selection will modify the application settings for an optimum reading on the media and type to be used.

### Positive or Negative Reading



Pressing this control will toggle between a Positive reading and a Negative reading. The negative reading mode is indicated by a leading “-” sign in the Percent Dot display as shown left).

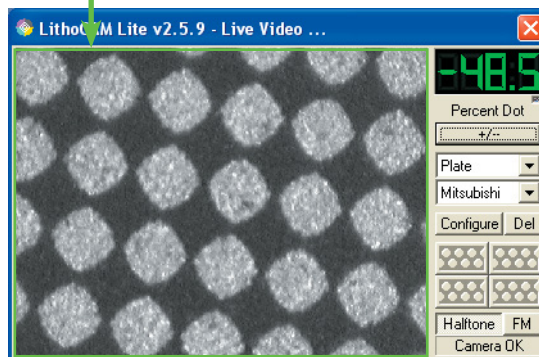
### Making a reading

LithoCAM is very simple to operate. Firstly place the target hole over the point to be measured. Then lower the top down onto the target area, and press the black button on the top of the LithoCAM to capture the image.



If the LithoCAM Lite splash screen is visible a first press of the button will be needed.

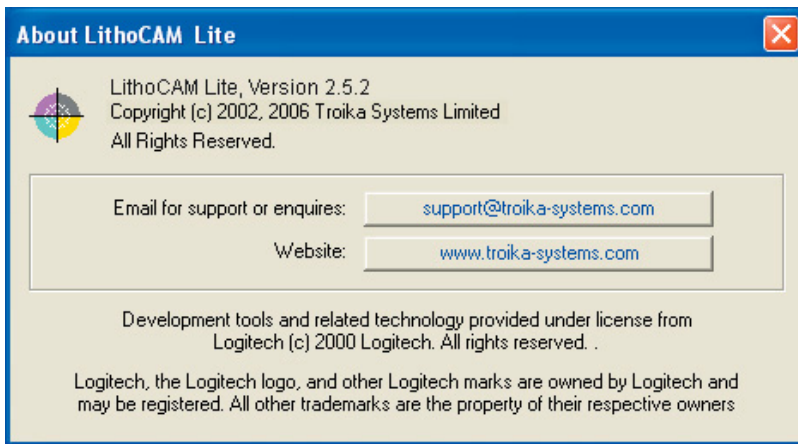
During capture **PROCESSING** will be displayed and an **AMBER** frame will be seen. Once captured, a **GREEN** frame will appear around the image with the correct reading.




The following points should be noted:

LithoCAM works as a surface microscope and has a narrow depth of field. Therefore, make sure that your plate is on a flat, firm surface to keep the image in focus. When measuring **FILM**, ensure the emulsion is uppermost, and the film is placed on a light box, however too much light will prevent the LithoCAM Lite from configuring.

### About LithoCAM Lite



The **About LithoCAM** information is accessible by right-clicking on the -symbol in the LithoCAM Lite window.

