



**BioCam2.0™**  
The new revolution in clinical diagnosis

VIDEO OTOSCOPE USER MANUAL



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Thank You for choosing

**BioCam2.0**<sup>TM</sup>  
The new revolution in clinical diagnosis

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# 1

## Introduction

### Welcome

Thank you for purchasing the BioCam2.0™ video otoscope. This revolutionary device brings clinical diagnosis to a whole new level. You can capture high resolution images and record video to enable more accurate diagnosis as well as keep better track of your patient's progress.

This guide explains the device, how to install the BioCam software and how to use the BioCam2.0™.

The BioCam 2.0™ is a digital otoscope with a USB video cable. Included with the BioCam2.0™ are three interchangeable speculums as well as a USB video cable designed for easy plug and play operation.

The BioCam2.0™ is compatible with any type of video display devices with USB 2.0 ports and Windows OS platform. The operation of this device is supported by the BioCam2.0™ Video Otoscope System software.

### System Requirements

- Runs on Windows XP or later operating system
- USB 2.0 port
- Viewing monitor

### Intended Use

The BioCam2.0™ is capable of being used for multiple diagnosis such as skin lesions, dental tartar, ear infection and more.

### User Profile

Can be operated by any trained professional.

### Warranty Information

Please register your BioCam2.0™ at [www.goldlinebiocam.com](http://www.goldlinebiocam.com) within a month from the date of purchase to be eligible for our limited parts and labor warranty.

# 1

## Introduction

### Warranty Information

#### BioCam2.0™ One Year Limited Warranty Protection

A BioCam2.0™ purchased new from Goldline, or any Goldline authorized distributor, is warranted to be free from original defects in the material and workmanship under normal use and service for the period of one year from the purchase date by Goldline.

Goldline will repair or replace any defected BioCam2.0™ device under the terms of this warranty.

Goldline will not be responsible for loss associated with the use of any BioCam2.0™ that :

- (1) Has had serial number defaced
- (2) Has been repaired by anyone other than Goldline
- (3) Has been altered, and/or
- (4) Has been used in a manner other than in accordance with this manual

Please register your BioCam2.0™ online at [www.goldlinebiocam.com](http://www.goldlinebiocam.com) within 30 days from the date of purchase to be eligible for our limited warranty. Those registering after 30 days from the date of purchase will not be entitled to any warranty protection.



# 1

## Introduction Cautions

1. In order to obtain optimum performance and ensure patient safety, please read this instruction manual thoroughly.
2. Do not use Biocam2.0™ if you notice any signs of damage or malfunction and contact a Goldline customer service representative immediately.
3. Other than speculum attachments, do not disinfect Biocam2.0™ by using oxide gas, steam or any liquid disinfectant.
4. This product complies with current required standards for electromagnetic interference and should not present any complications to other equipment or devices. Avoid using this device in close proximity of other equipment.
5. Do not connect BioCam2.0™ before you complete the BioCam2.0™ Video Otoscope System software installation on your system.
6. Check for USB 2.0 compatibility prior to installation and usage.
7. Usage of multiple USB ports may cause conflict in your system.
8. Keep out of reach of children. Only to be used by trained personnel.
9. Please turn off all running programs before installing the BioCam2.0™ software.



# 1

## Introduction Warranty Information

1. Do not use in the presence of flammable anesthetics.
2. Do not use any other attachments other than the attachments designed by Goldline exclusively for the BioCam2.0™.
3. Use caution when inserting speculum into the ear canal.

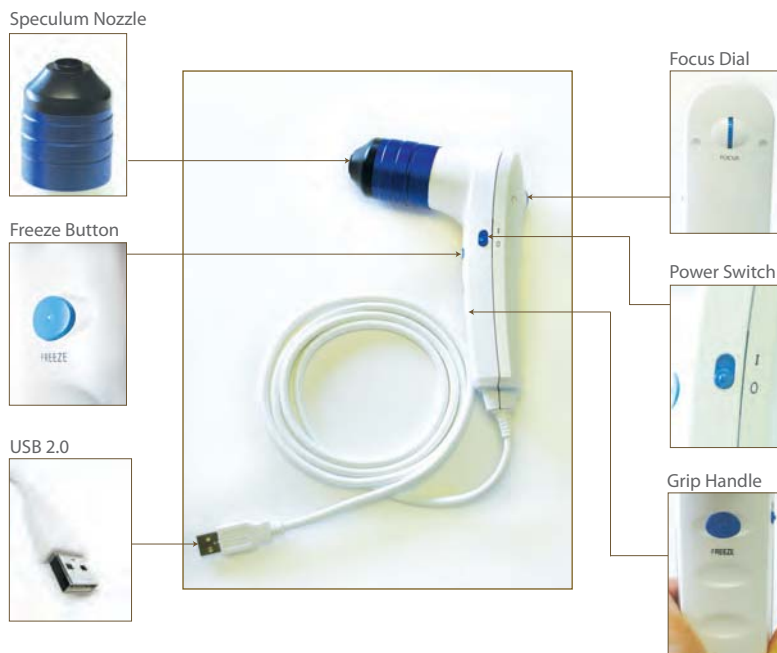
# 1 Introduction Specifications

| Parameter         | Typical Value                 |                                                   |
|-------------------|-------------------------------|---------------------------------------------------|
| Optical Format    | 1/4.5 inch VGA CMOS           |                                                   |
| Sensor Resolution | 660H x 507V, 334,620 pixel    |                                                   |
| Effective Pixels  | 640H x 480V, 307,200 pixel    |                                                   |
| Camera Function   | Live & capture, record, focus |                                                   |
| Sensor Pixel Size | 3.6 μm x 3.6 μm               |                                                   |
| RESOLUTION        | Quad VGA                      | 1280H x 960V, 15fps, USB 2.0 only [interpolation] |
|                   | XGA                           | 1024H x 768V, 15fps, USB 2.0 only [interpolation] |
|                   | SVGA                          | 800H x 600V, 15fps, USB 2.0 only [interpolation]  |
|                   | VGA                           | 640H x 480V, 30 fps                               |
|                   | CIF                           | 352H x 288V, 30fps                                |
| QVGA              | 320H x 240V, 30fps            |                                                   |
| CAMERA            | Lighting                      | 6EA White LED                                     |
|                   | Supply Voltage                | 5.0V, USB                                         |

## Introduction

### BioCam2.0™ Parts

The BioCam2.0™ is simple and ergonomically designed to optimize functionality and make video capture simpler and more accurate. It is lightweight and easy to operate. This device only accepts BioCam2.0™ speculums from Goldline.



**Speculum Nozzle**  
Only accepts BioCam2.0™ speculums

**Freeze Button**  
For video record and image capture

**USB 2.0**  
Compatible with any USB 2.0 ports

**Focus Dial**  
To focus the image or video

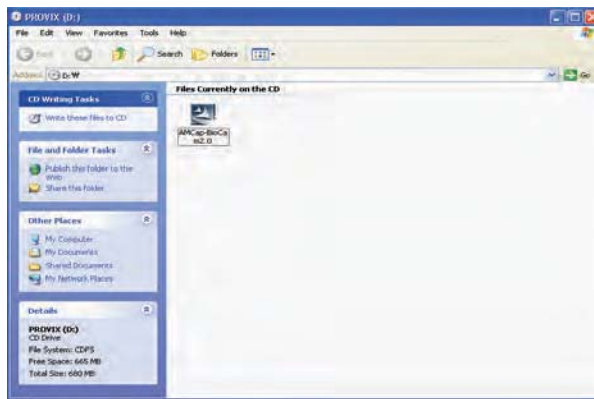
**Power Switch**  
Turn on/ off the video otoscope

**Grip Handle**  
For comfort and stable handling of the video otoscope

## How to Install the BioCam2.0™ Software

# 2

1. Insert CD into your computer CD player.  
The window below will automatically open.



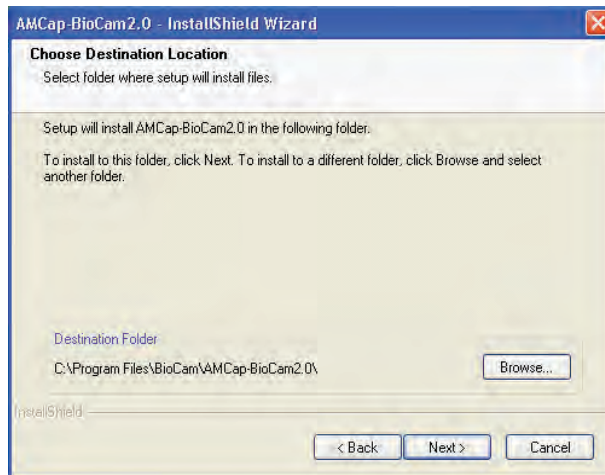
2. Double click on the **AMCap-BioCam2.0** icon to start the installation.



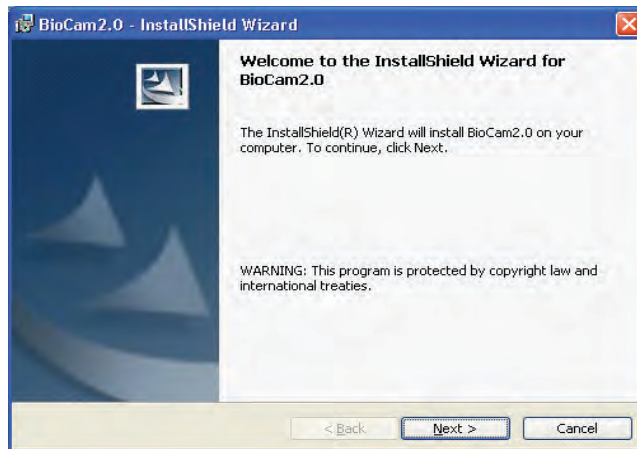
3. Click **Next**.

## How to Install the BioCam2.0™ Software

# 2

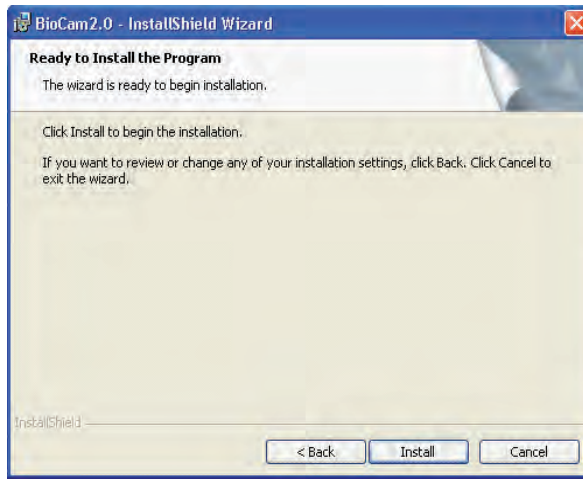


4. Choose your destination folder and click Next.

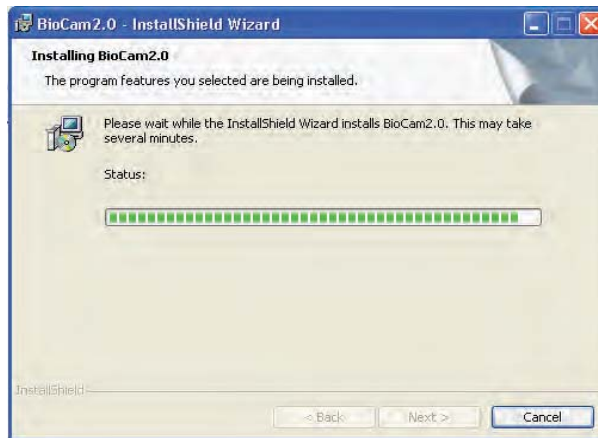


5. Click Next.

# 2



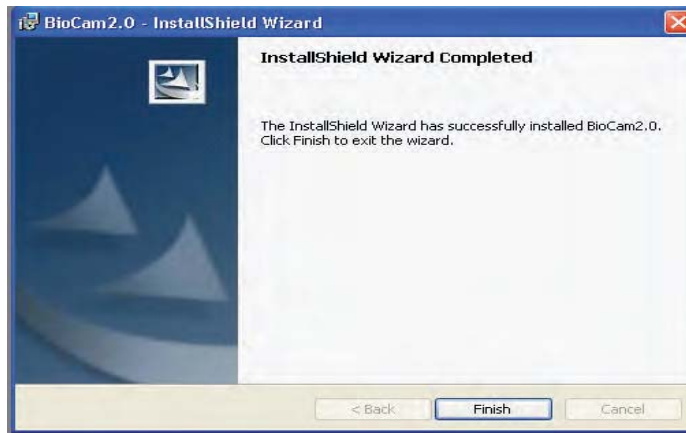
6. Click **Install**.



7. **Installation** in progress.



8. Click Continue Anyway if this window pops up.



9. Click Finish.

## How to Install the BioCam2.0™ Software

# 2

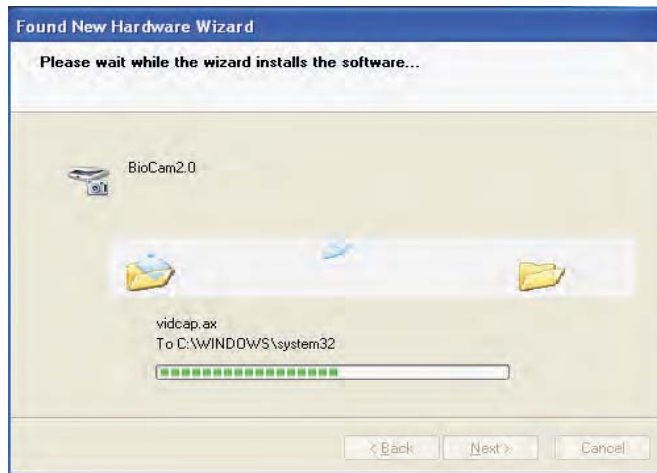


10. Select **Yes, I want to restart my computer now** and click **Finish**. Your computer will restart now.

**\*Do not plug in the BioCam2.0™ before you finish installing the software and restart your computer.**



11. **Plug in the BioCam2.0™ after restarting**. The window above will appear. Click **Next** after choosing **Install the software automatically (Recommended)**.



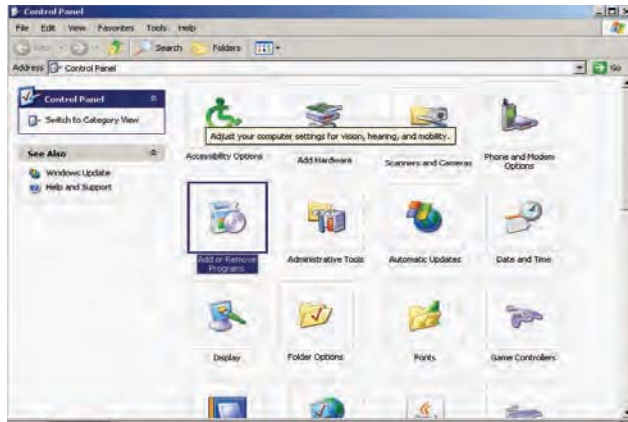
12. Wait until installation complete.



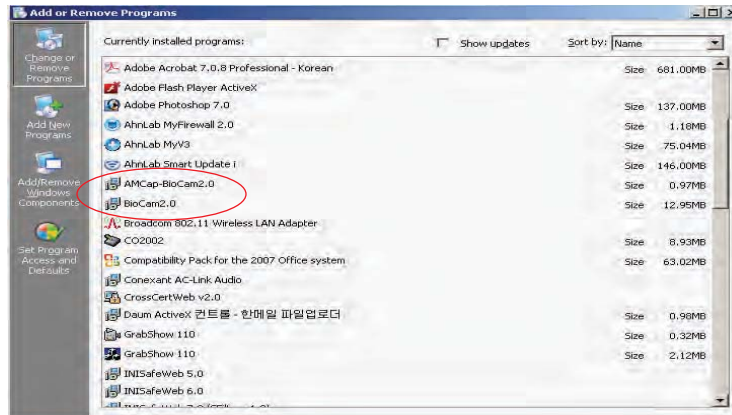
13. Click **Finish**. Installation is completed.

## How to Remove the BioCam2.0™ Software

\* Removal of the BioCam2.0™ software is only necessary upon upgrade or reinstallation.



1. Open Control Panel.



2. Remove AmCap-BioCam2.0 and BioCam2.0.

## Getting Started

Connecting & Using the Device

# 2

### Connecting the BioCam2.0™



Connect the **USB cable** to the computer system or any compatible viewing monitor. The computer gives an audible signal that the connection is complete.

### Attaching Speculums



The BioCam2.0™ is compatible with all Goldline speculum range.

1. Select the right **speculum** or accessory.
2. Screw onto the BioCam2.0™ and start using.

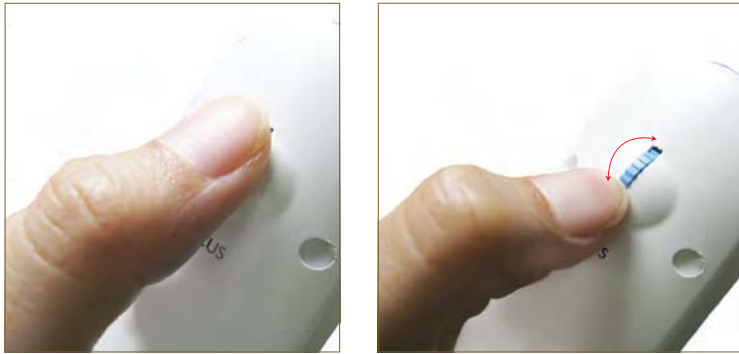
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# 2

## Getting Started

### Using the Freeze Button and the Focus Dial

#### The Focus Dial



Rotate dial **upwards** or **downwards** to fine-tune the image or video.

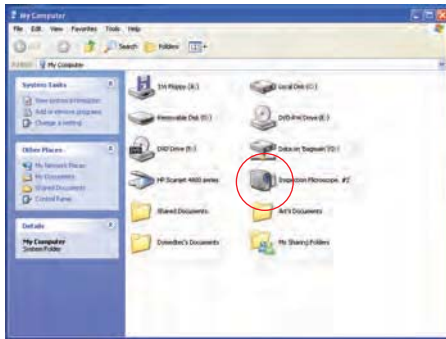
#### The Freeze Button



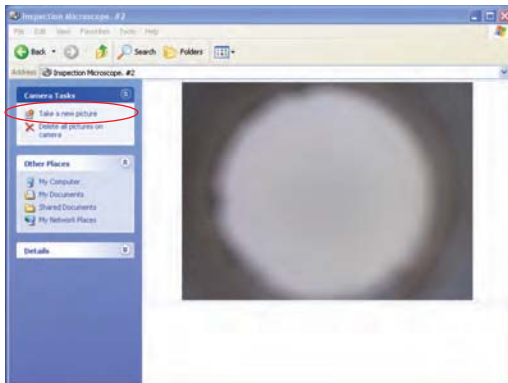
**Press and hold** the Freeze button for approximately **1 second**. Image freezes as a thumbnail on screen.

## Setting Up BioCam2.0™ and Capturing Image

1. Plug in the BioCam2.0™ and turn on the Power Switch.



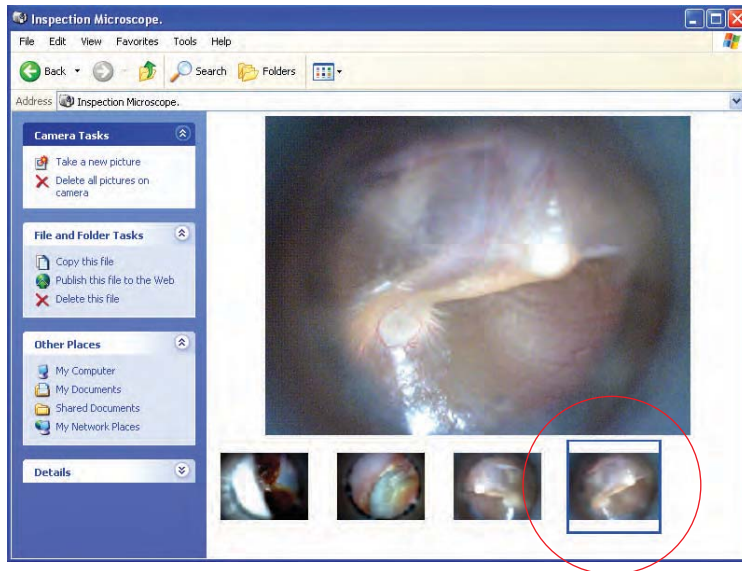
2. Go to My Computer and click on the BioCam2.0™ Inspection Microscope icon.



3. The BioCam2.0™ is ready to be used. Click the Freeze button or click Take a new picture on the window to capture an image.

## Viewing Captured Images

When you click **Freeze** the image will appear on the window. Thumbnails of images captured will appear at the bottom of the window.



**Double-click** on the **thumbnail** at the bottom of the screen to view the image on the main window.

## Using the BioCam2.0™ Capturing Images

# 3

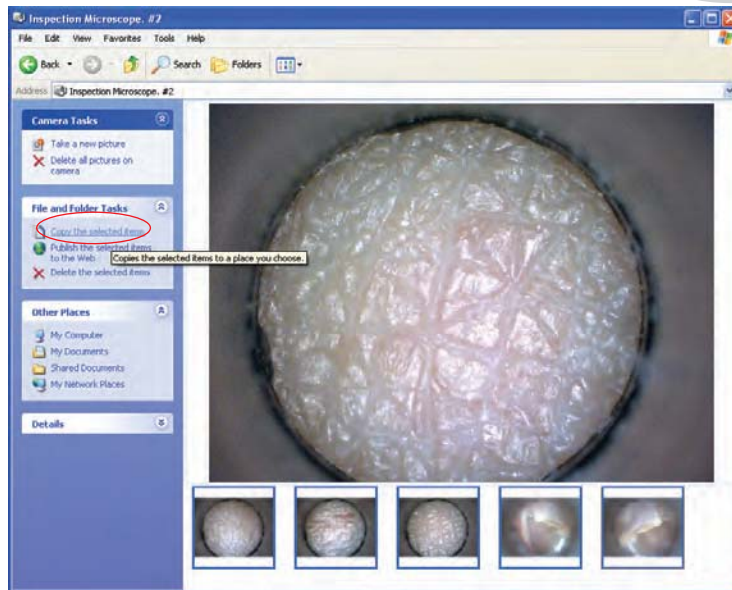
### Saving Captured Image



1. To **Save** image, double click on the **thumbnail** to preview.
2. Click on the **Copy to** icon and **Save** image in the selected destination.

## Using the BioCam2.0™ Capturing Images

### Saving All Images



1. To save all images, **select all** the thumbnails you want to save.
2. **Right click** on the selected thumbnails and select **Copy**.
3. Open your chosen folder, **right click** and select **Paste** into the folder.

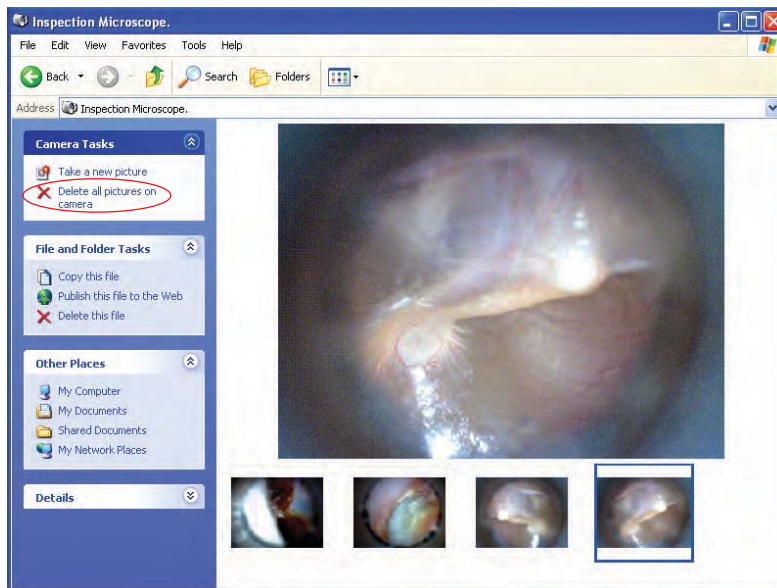
#### **You can also:**

1. **Select all** the thumbnails.
2. Select **Copy the selected items** and save all the images in your destination folder.

**\*User can rename, view or copy images within the destination folder.**

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### Clearing All Captured Images

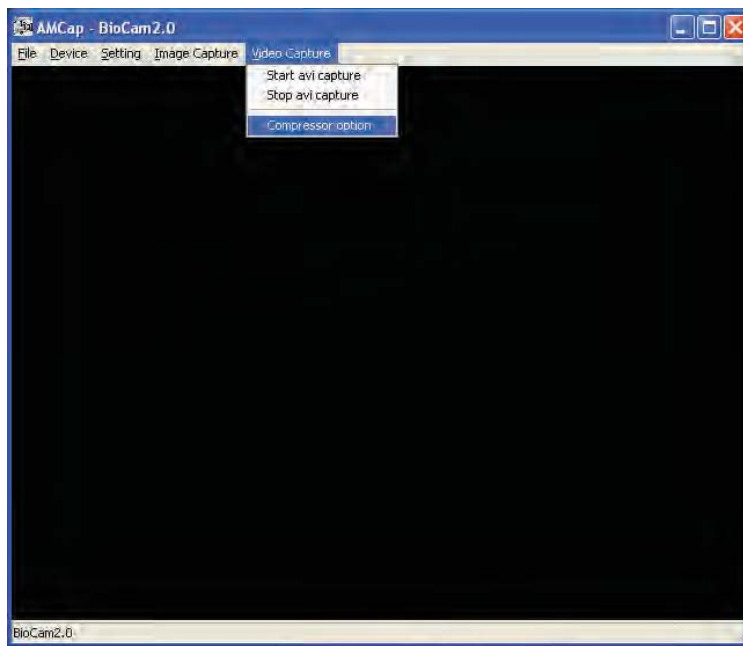


1. Click on **Delete All Pictures on Camera** to clear all capture images.

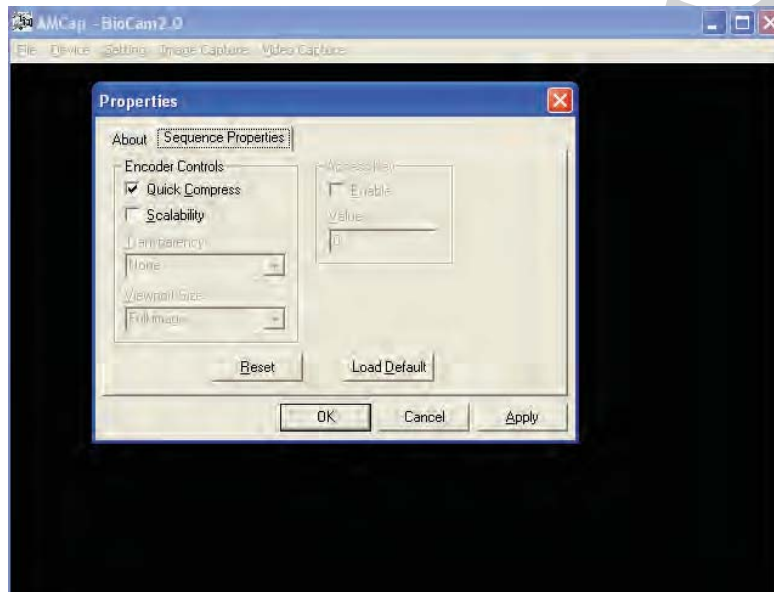
### Deleting a single captured image

1. **Select** the thumbnail of the image you want to delete.
2. Press the **Delete** button on your keyboard.

## Setting up Video Capture

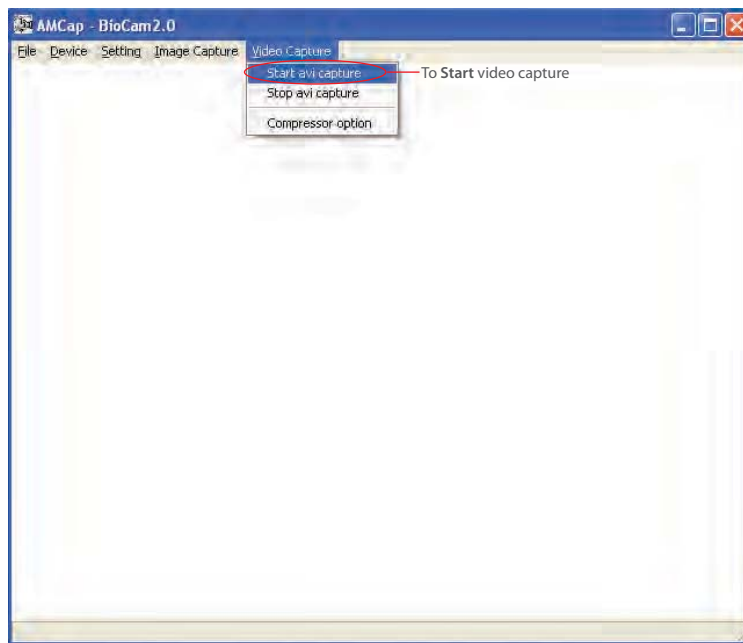


1. To start recording video, first go to **Video Capture**.
2. Choose **Compressor Option**.

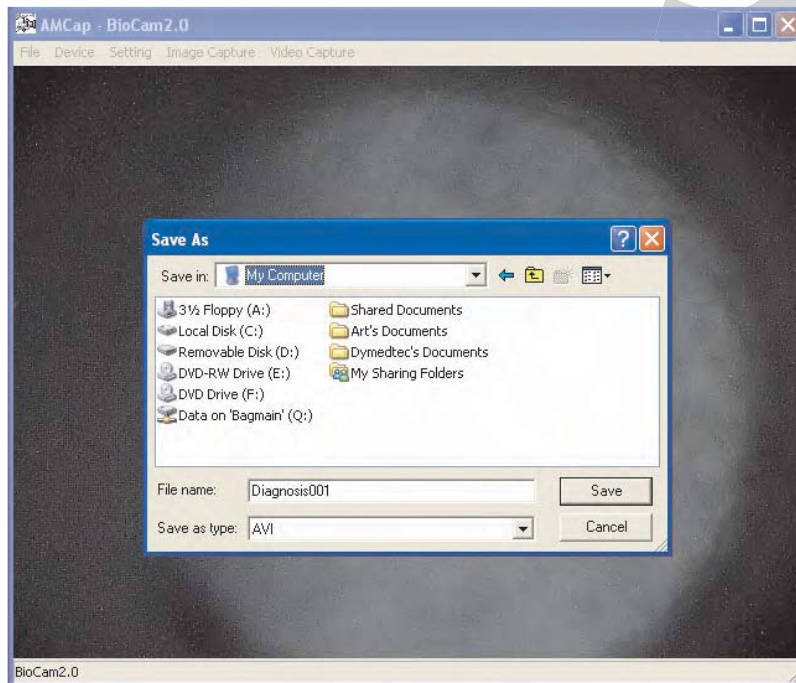


3. Choose **Sequence Properties**.
4. Check **Quick Compress**.
5. Click **Apply** to apply the option changes.
6. Click **OK** to close the **Properties** window, you may start your video capture now.

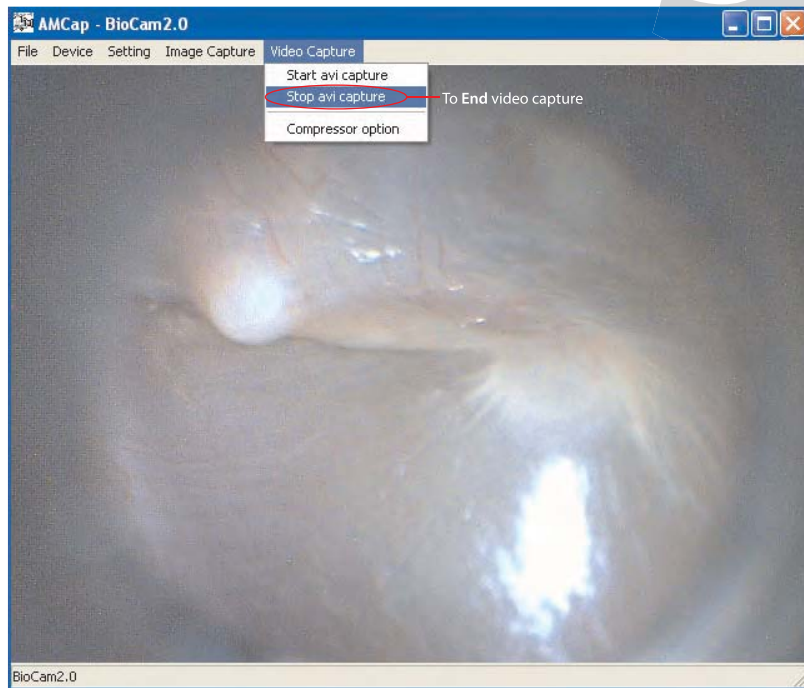
## Recording Video



1. Go to **Video Capture**.
2. Select **Start AVI Capture** to start video recording.



3. The **Save As** window will appear when you select **Start Video Capture**.
4. Choose your **destination** and click **Save** to save video.
5. The video record will start after this.

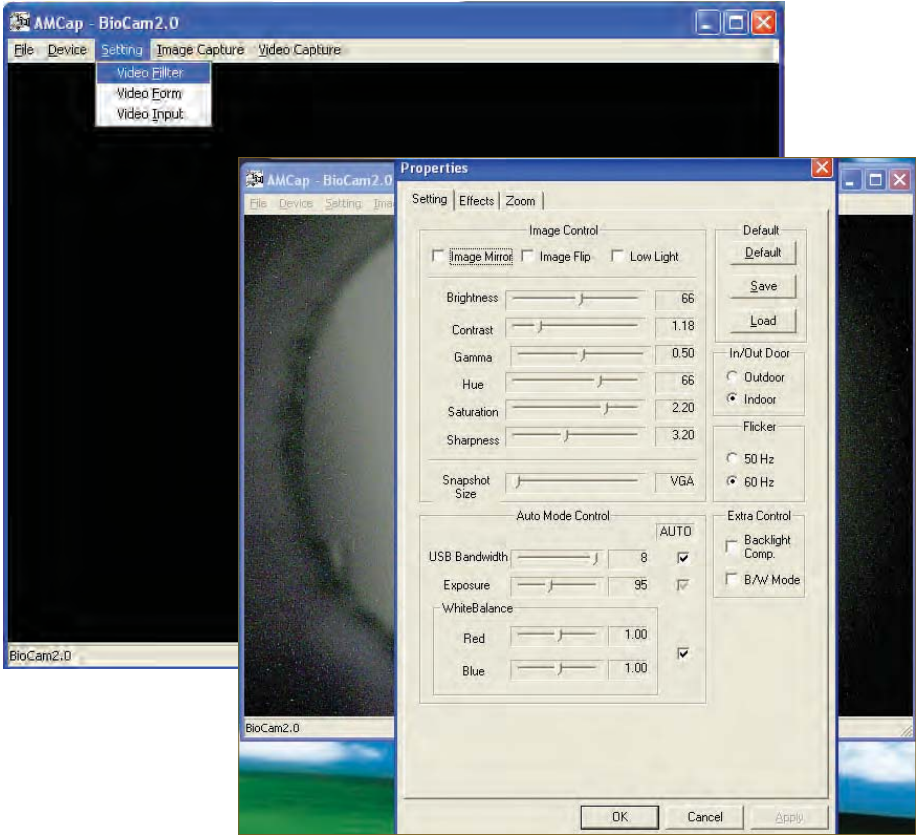


6. When you are finished recording go to **Video Capture** again.
7. Select **Stop AVI Capture** to stop recording.
8. Go to the **destination folder** and **view** your video .

# 3

## Using the BioCam2.0™ Recording Video

### Adjusting Video Image



1. Go to **Settings** on the menu bar and select **Video Filter**.
2. Adjust video accordingly.