

**BioCam 2.0**™  
The new revolution in clinical diagnosis

VIDEO OTOSCOPE USER MANUAL

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## 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 the 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

#### 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 from 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, 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		660HX507V, 334,620 pixel
Effective Pixels		640Hx480V,307,200 pixel
Camera Function		Live & capture, record, focus
Sensor Pixel Size		3.6 $\mu\text{m}$ x 3.6 $\mu\text{m}$
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



Freeze button



USB 2.0



Focus Dial



Power Switch



Grip Handle



#### 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

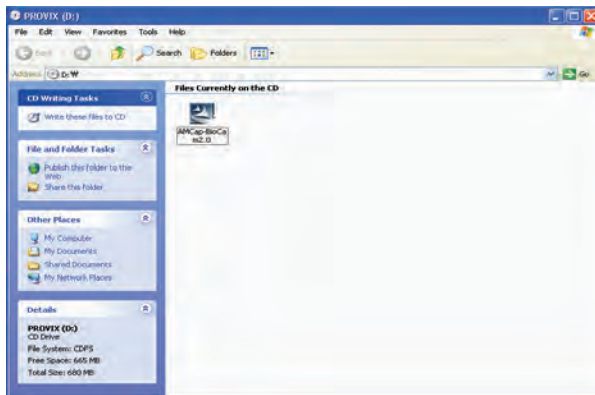
For comfort and stable handling of the video otoscope.



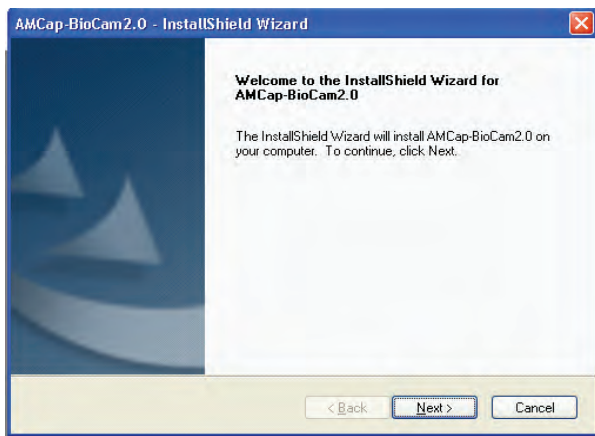
## Getting Started

### How to Install the BioCam2.0™ Software

1. Insert CD into your computer CD player.  
The windows below will automatically open.
2. Double click on the **AMCap-BioCam2.0** icon to start the installation.



3. Click Next

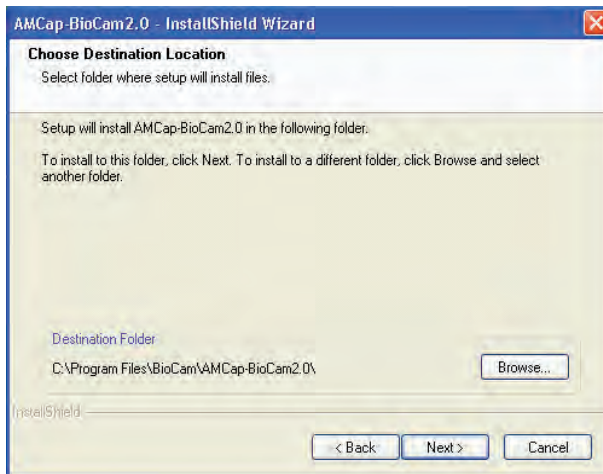


## Getting Started

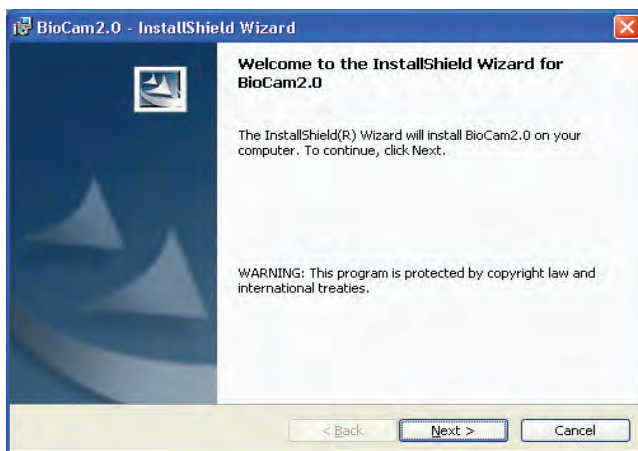
### How to Install the BioCam2.0™ Software

# 2

#### 4. Choose your destination folder and click Next



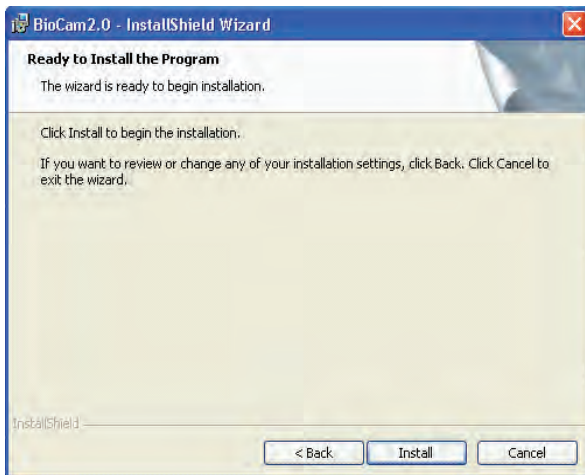
#### 5. Click Next



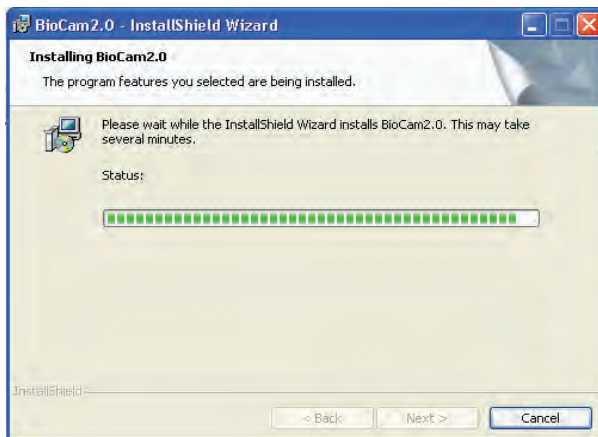
# Getting Started

## How to Install the BioCam2.0™ Software

### 6. Click Install



### 7. Installation in progress.



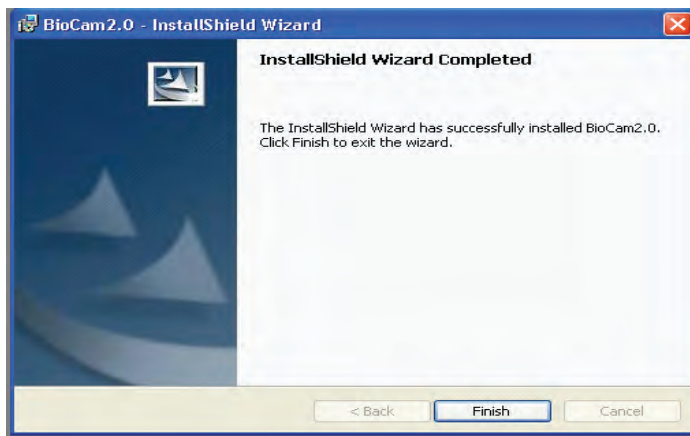
## Getting Started

### How to Install the BioCam2.0™ Software

8. Click **Continue Anyway** if this window pops up



9. Click **Finish**



## Getting Started

### How to Install the BioCam2.0™ Software

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 below will appear. Click **Next** after choosing **Install the software automatically (Recommended)**.



## Getting Started

### How to Install the BioCam2.0™ Software

12. Wait until installation complete.



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

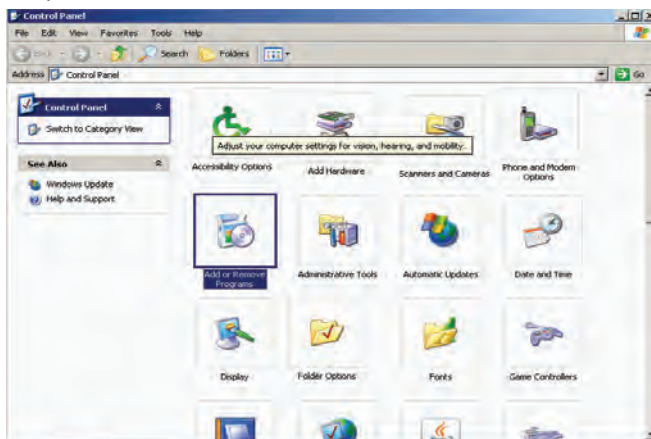


# Getting Started

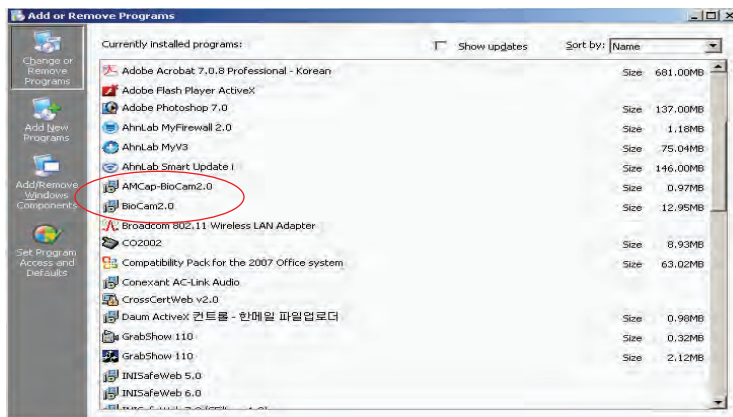
## How to Remove the BioCam2.0™ Software

\* 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





# 2

## Getting Started

### Connecting & Using the Device

#### 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. **Select** the right speculum or accessory, **Screw on** to the BioCam2.0™ and start using.



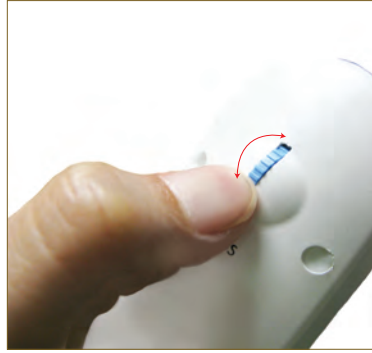


## Getting Started

### 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** and the image freezes as a thumbnail on screen.

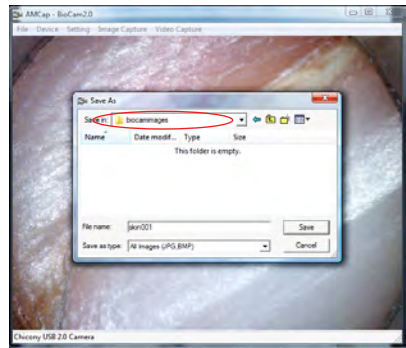
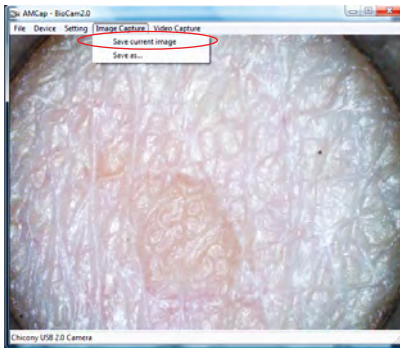


# Using the BioCam2.0™

## Capturing Images

### Setting Up BioCam2.0™ and Capturing Image

1. **Plug** in the BioCam2.0™.
2. Click on the **AmCapBioCam2.0 icon** on your desktop to start up the BioCam2.0 program.
3. Press the **Freeze** button on the BioCam2.0™ to capture an image. Image will appear on the AMCap-BioCam2.0 window. The image will also automatically appear and be saved on the **Capture folder** and be viewed and retrieved at anytime.



### SAVING YOUR IMAGES ON YOUR SELECTED DESTINATION FOLDER

4. You can also save your image to your selected destination folder by clicking on the **Image Capture** drop down menu to save the image. Select **Save As**.
5. Choose **destination folder** and click **Save** to save image. Image can now be viewed anytime in the destination folder.

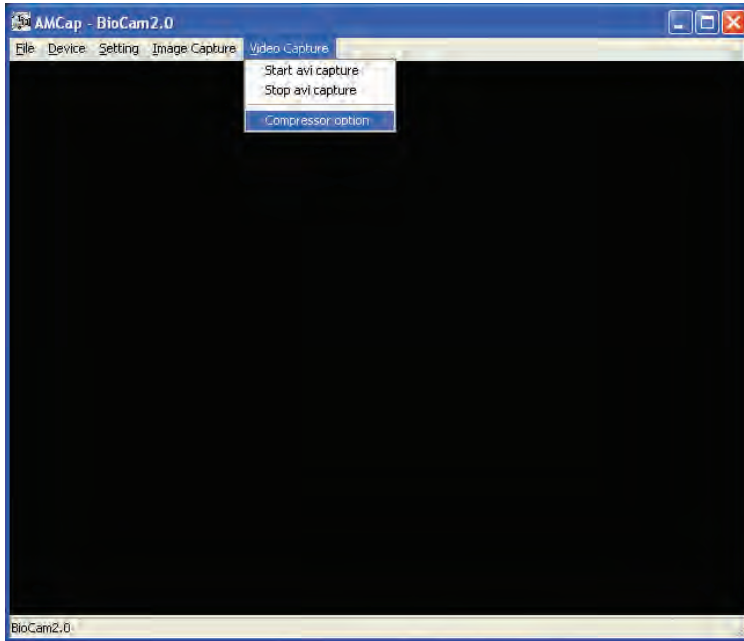
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## Using the BioCam2.0™

### Recording Video

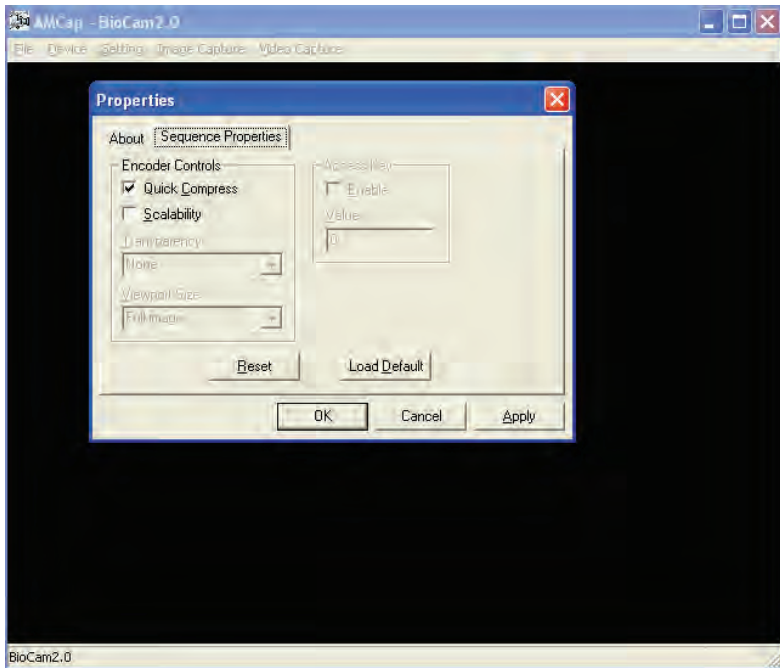
#### Setting up Video Capture

1. To start recording video, first go to **Video Capture** and choose **Compressor Option**.



## Using the BioCam2.0™ Recording Video

2. Choose **Sequence Properties** and check **Quick Compress**. Click **Apply**, then click **OK** to close the window and start using BioCam2.0™.



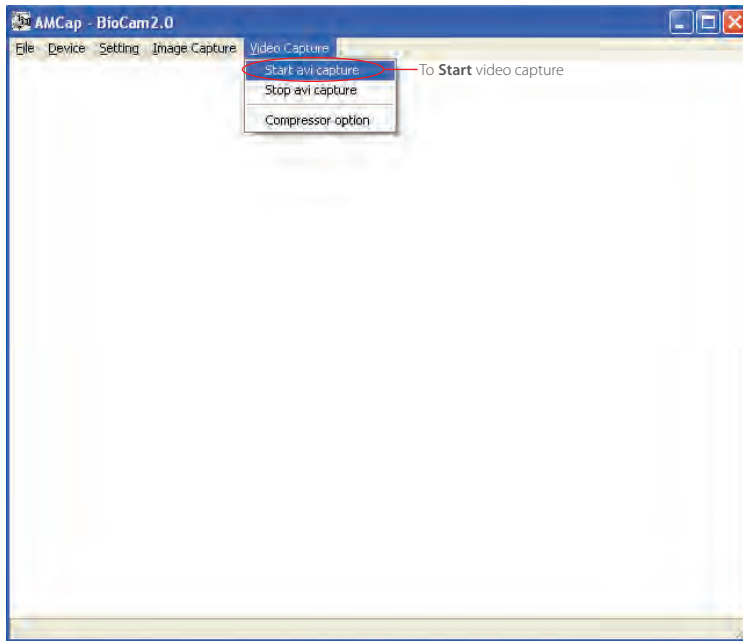
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## Using the BioCam2.0™

### Recording Video

#### Recording Video

1. Go to **Video Capture** and select **Start AVI Capture** to start recording video.

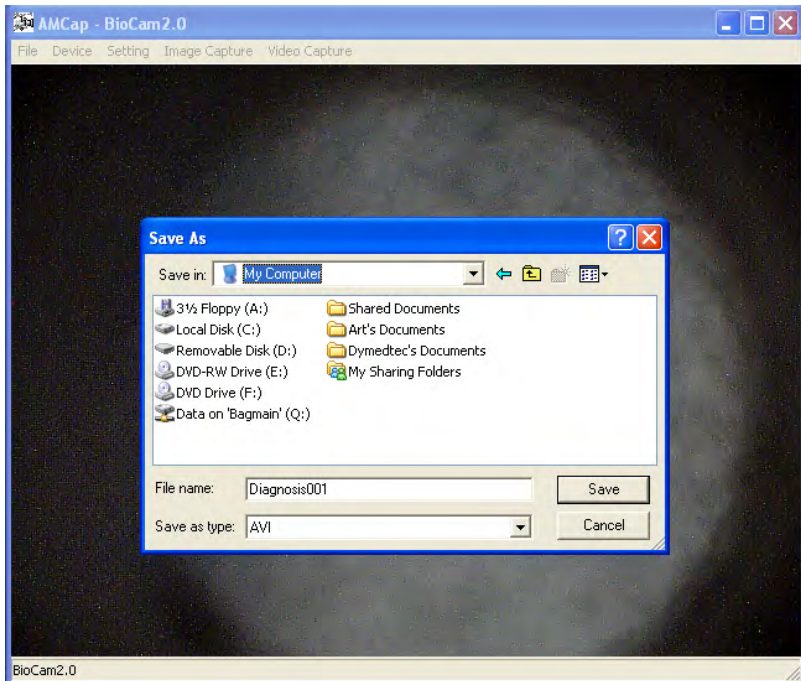


# 3

## Using the BioCam2.0™ Recording Video

### Recording Video

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

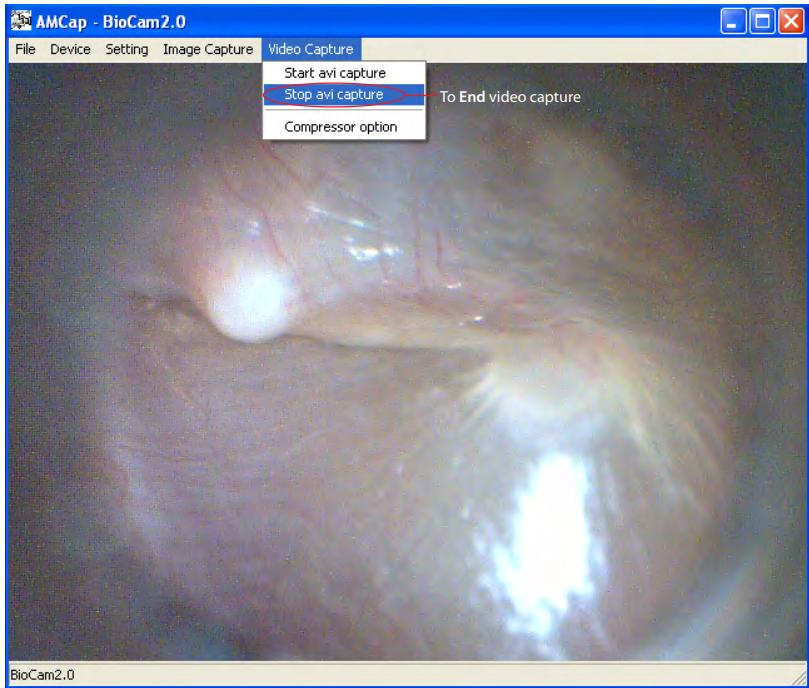


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## Using the BioCam2.0™ Recording Video

### Recording Video

3. When you are finished recording go to **Video Capture** again and select **Stop AVI Capture**. You can view your captured video now from the destination folder.

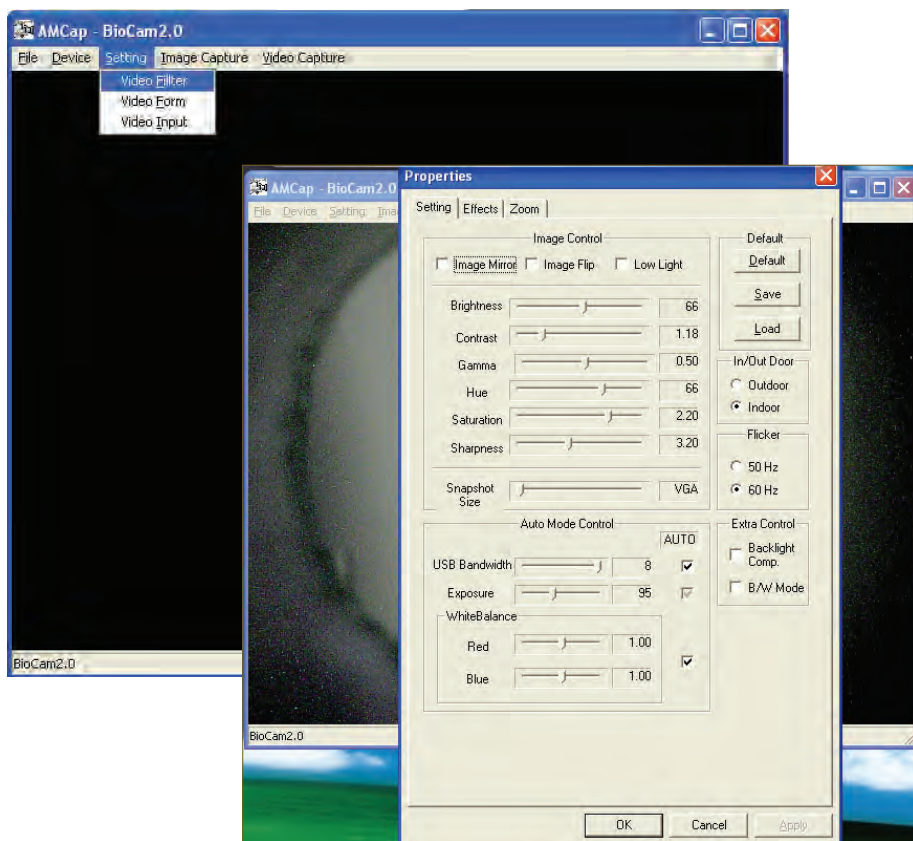


# 3

## 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





## Thank You for Choosing BioCam2.0™

Enjoy the flexibility and portability of BioCam2.0™. We hope that BioCam2.0™ made diagnosing easier and increased client's compliance.

If you have any inquiries or questions regarding the BioCam2.0™, please go to our web site at: [www.goldlinebiocam.com](http://www.goldlinebiocam.com) or contact one of our personnel at [info@goldlinebiocam.com](mailto:info@goldlinebiocam.com) or simply call us at: **1800 319 3880**