# CAMARA DIGITAL CON PANTALLA LCD MDC2000 Microscope Digital Camera ADVANCED OPTICAL



The MDC2000 Microscope Digital Camera is to be used in traditional microscope. By replacing eyepiece or connecting C-Mount with this LCD module, you can view specimens or objects on the LCD screen which are easy to see and to share the view with others. You can take snapshots or short videos with the flash memory or SD card. Also you can connect with PC or TV set for live viewing.

The MDC2000 Microscope Digital Camera is composed of optical system, image sensor, LCD module, operating keyboard and CD file.

- 1. Optical System: field lens and eyepiece lens
- 2. Image Sensor: 2.0MP CMOS and IC board
- 3. LCD Module: 3.6" TFT screen, 8M flash memory, SD card slot, USB receptacle, Video cable port and DC socket
- 4. Operating Keyboard: Power Button, Menu Key, Mode Key, Snap Key, Ok

#### and Direction Keys

# 5. CD: Driver software and Viewing software

#### Standard Accessories Included with MDC2000

- 1. USB2.0 cable
- 2. TV cable
- 3. AC adapter
- 4. Adapter for Stereo/ Microscope
- 5. CD of driver and viewing file

## **Specifications**

Image Sensor: 2.0Mega Pixel CMOS with Resolution: 1600x1200

Picture File Size: 12.0MP/8.0MP/5.0MP/3.0MP/2.0MP/1.3MP/0.35MP

Image Format: JPEG, AVI

Flash Memory: 8M

External Memory Slot: S.D

Optical Magnification: 10X

Digital Zoom: 8X

LCD for preview / playback: 3.6" TFT LCD with 320X240 Pixel

Power: DC5V Power Adapter

USB type: USB 2.0 full speed

TV System: PAL and NTSC

### **Setting up MDC2000**

- 1. Insert MDC200 to the eyepiece tube or fit on MDC2000 on the C-Mount.
- 2. Link AC Adapter.
- 3. Insert SD card, if necessary.
- 4. Turn on Power Button.
- 5. Chose the proper illumination.
- 6. Changing the" EV" (exposure value) to increases or decreases the brightness level by using the UP or DOWN arrow keys when suitable Mode is chosen.

#### Information of LCD screen and keyboard

- Use Menu key to find "Capture Image" and choose "EV" to set, and the "EV" is shown in the top of the LCD screen which adjusts the brightness level. The normal position is 0.0 and this can be adjusted between +2.0 to -2.0 by directional keys.
- 2. In the lower right of the screen is shown the remaining internal memory available for taking images.
- 3. In the lower left of the screen is shown an icon of a camera which indicates it is ready for snapshot
- 4. The numbers for the resolution to sue are also shown in the lower right of the screen.
- 5. By pushing the directional keys (up/down) you change the digital zoon shown by a magnifier icon when you pushing the keys, and meanwhile by pushing the directional keys (L/R) you can move the position of images.
- 6. By pushing the Menu Key and Mode Key, you can get all the settings you want.

### **Viewing Images**

- 1. Look at the LCD screen, while turning the focus knob until the specimen comes into view. You may need to adjust position to center the images.
- 2. With low power objective lens, you can also vary the power more high by using the digital zoom of the LCD module.

#### **Taking Images**

- Snapshots---to take snapshots make sure you are in the camera mode.
   Push the SNAP key when ready and the images will be stored in the internal storage memory.
- 2. Video --- change the settings to the DV record and then the movie camera icon will appear in the screen. Use the SNAP to begin the video and also to end it.
- 3. You can take images by using a SD card. When capturing images in this

way the images are saved on the SD card and not in the internal storage memory.

#### **Reviewing and Managing Images**

- By pushing the Mode key, you can enter the stored images. Use the directional keys to select the images you want to view and press the Ok key to view this image.
- 2. When you have and image with the border around it, you can manage it by pushing the Menu key.

## **Transferring Images**

You can transfer images from the internal storage or SD card to your PC by using USB cable. Please choose the setting of your MDC2000 as a movable hard disk by using the Menu and Set key when the power source is connected, unlink the connection of power source and link MDC2000 to USB port with a USB cable. If the linking is proper, your PC will recognize the new hardware, and then you can transfer the images easy.

Note: If the power source keeps linking, your PC can not find your MDC2000 as a movable hard disk.

#### **Showing Images on PC Alive**

- 1. Install the driver from the CD attached, Please install Setup1 and Setup2 in turn, MDC200 needs two files of driver to support its operation.
- 2. Install the viewing files from the CD attached.
- 3. Choose the setting of MDC2000 as a PC Camera, when the power source is linked
- 4. Un-link the power source cable, then connect your MDC2000 to PC with the USB cable.
- 5. Using the software to control operation of MDC2000 on your PC.
- 6. When view the images on PC, there is no message on LCD screen.

#### Showing Images on TV Alive

- 1. Choose the TV system with Menu key.
- 2. Plug the TV cable to the Video port of MDC200 and link with TV set.
- 3. No message is shown on your MDC2000

## **Using the Acrsoft**

## 一、CAMERA PREVIEW AREA

- 1. Click "Start"
- 2. Select "Programs -- ArcSoft WebCam Companion-- WebCam Companion"
- 3. The program is divided into two main sections: My Captures, and the camera preview area. You can adjust which section is larger by simply clicking and dragging the area in between the two sections.

Note: Folders may vary from version to version. Monitor the installation process to verify the location in the Start menu. Also, you may start the program by double-clicking the desktop icon (if available).



If your webcam does not start (the preview area on the right side does not display live video from your camera,) you can select "File | Start Web Camera".

- 4. Before capturing, please set up a folder to save images, and verify the webcam and capture settings to ensure the captured images match your expectations.
- 5. Click "Preferences | Media Folder" to open a dialog box so you can select the location to store captures. Click the "Browse" button to select a different folder. When ready, click the "Add" button to confirm; or click the "Cancel" button to exit without



- 6. Click to adjust your webcam settings/preferences. The options will vary depending on your device. Consult the device documentation for details.
- 7. Click to view and modify the capture preferences.



Select the resolutions for your image snapshots and video captures. The resolutions define the size of captured files. Generally speaking, the higher resolution you select the larger file size you will get.

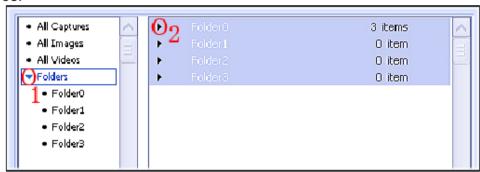
- 8. Adjust the position of your webcam to show the desired scene in the live preview area, then click the "Capture Image" button. The newly captured image will be saved to the destination folder you have selected and a thumbnail image will be added to My Captures.
- 9. Adjust the position of your webcam to show the desired scene in the live preview area, then click the "Record Video" button. The Record Video button will change to "Stop Recording" while recording. Click the "Stop Recording" button to end the recording. The newly recorded video will be saved to the destination folder you have selected and a thumbnail image will be added to My Captures.
- 10. Eject Disconnect your webcam. If you need to reconnect the webcam, select "File | Start Web Camera".
- 11. Full-Screen Display your webcam preview over the entire screen. Press ESC to exit full screen mode.
- 12. Hide/Show Left Panel Hide or display the My Captures

section, respectively. Hide the My Captures section if you'd like to focus more on your live webcam preview.

#### 二、MY CAPTURE

After capturing many images and videos, it can be difficult to find a specific file you're looking for. This application allows you to organize your files into meaningful groups that make it quick and easy to find just the file you're looking for.

1. This section in My Captures allows managing all your captured images and videos:



2. MANAGE FOLDERS By default, there are four folders in the folder list to help you manage your captures. They are:

All Captures - This folder shows all the captured images and videos.

All Images - This folder shows all the image files you have captured.

All Videos - This folder shows all the video files you have recorded.

NOTE: •These default albums manage original files. The operation taken to them will also apply to the original files. For example, deleting a thumbnail image will also delete the image file from your hard drive. Other normal albums operate as just a "link" or "shortcut" to the file and deleting the thumbnail would have no effect on the source image

- You cannot Cut files in these albums as well as Paste files to these albums.
- •You cannot rename these albums.
  - 3. Folders This folder is used to organize your captured files. Click "New Folder" icon to build a new folder under Folders. Double click the new folder to rename it to something meaningful. You can Copy files from one folder and Paste them into another to better organize them. (For example, copy all the images in All Images from a particular day into a folder you named with that date.)
  - 4. Select "Folders" and you will see all the folders in My Captures preview area. Click the arrow icon beside "Folders" (marked 1) and you will see the folders listed. Click the arrow icon beside each folder (marked 2) to display the files in it.

5. Click to view your images as a slide show.



Select the slide show duration from the pull-down list. Check the "Loop Slide Show" box to have the slide show automatically restart when it finishes. (Press ESC to exit a looping slide show.) When ready, click the "Start" button; or click the "Cancel" button to exit.

- 6. Select the unwanted file, and click the "Delete" icon to remove the file. You can also press the "DEL" key on your keyboard to delete a file.
- 7. Rotate Rotate the selected files 90 degrees left.
- 8. VideoImpression Start Video Impression to create and edit a movie or slide show if you have it installed.

Note: If you have not installed Video Impression, the icon will not appear in this program.