ARTCAM-036MI-REC: Recording software
designed for
USB2.0 VGA CMOS Camera
ARTCAM-036MI/022MINI

ARTRAY CO., LTD.

Summary

Thank you for purchasing "AR-REC_O36MI:Recording Software".

This booklet explains how to use the application software of "AR-REC_O36MI"

Regarding references to hardware, please refer to the exhibit or contact our marketing representative.

ARTCAM-036MI/022MINI Camera Setup

(1) Connect ARTCAM to USB2.0 port.
ARTCAM-036MI/022MINI is only compliant with embedded USB2.0 interface.(e.g. Intel)
USB2.0 of PCI/PCMCIA type is NOT supported.
System requirements: CPU=1.7 GHz or higher, OS=Windows2000/XP

(2) Insert the "Installation CD" and install device driver

(3) Specify "ARTCAM-036MI-DRV-V***" in the CD.
(Details of installation are explained in the following pages)

(4) To confirm installation, find ARTCAM-036MI in USB controller in device manager
(Start -> Control Panel -> System -> Hardware -> Device Manger -> USB Controller)
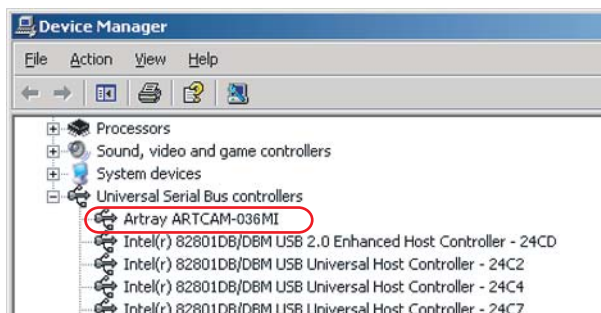

(5) Install USB key. Double-click "WkRuntime.exe" and follow the instruction.
(Details of installation are explained at page 6.)

(6) Copy "ARTCAM-036MI-REC-EXE-V****" folder to your hard-disk.
To start the Viewer Software,double-click "AR-REC_036MI.exe" in the folder.

USB2.0 Camera Driver Installation

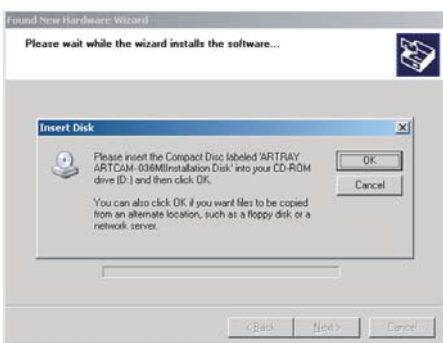Connect your camera to USB2.0, and following screen pops up

(1) Click "Next", and follow the screen.
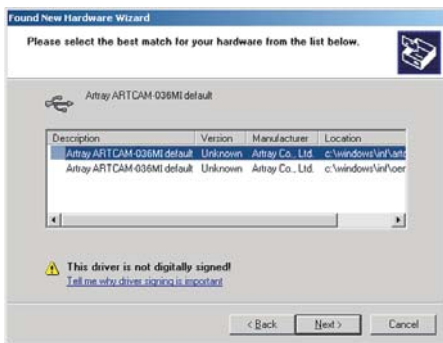
(2) Click "Next"

(3) Click "Continue Anyway"

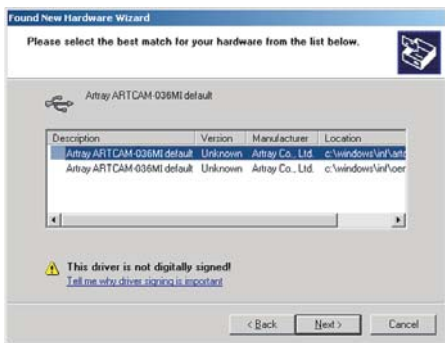(4) Please place ARTCAM CD-ROM into the CD-ROM drive then Click "OK"

(5) Click "Finish"

USB2.0 Camera Driver Installation

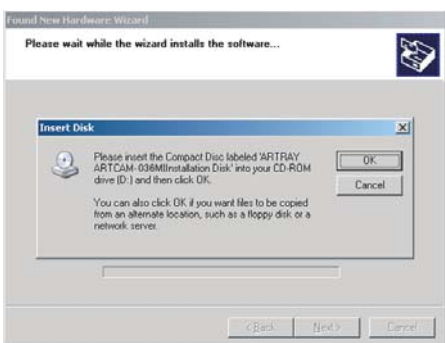Connect your camera to USB2.0, and following screen pops up

(1) Click "Next", and follow the screen.

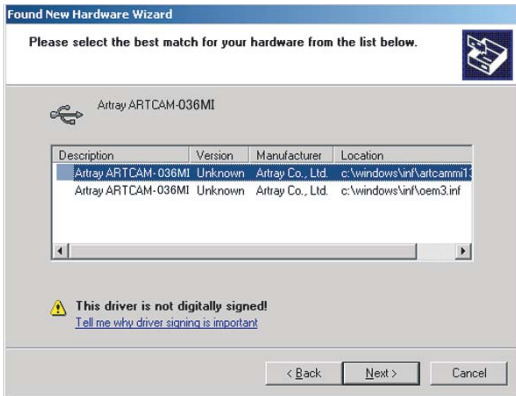(2) Click "Next"

(3) Click "Continue Anyway"

(4) Please place ARTCAM CD-ROM into the CD-ROM drive then Click "OK"
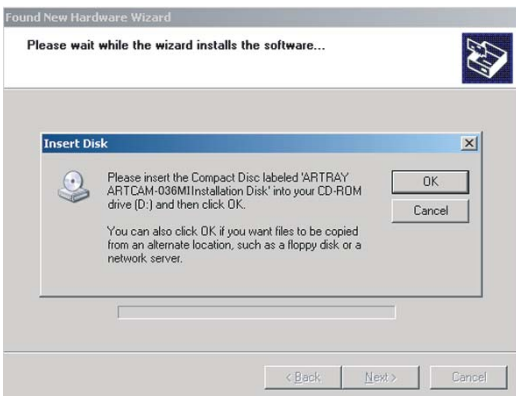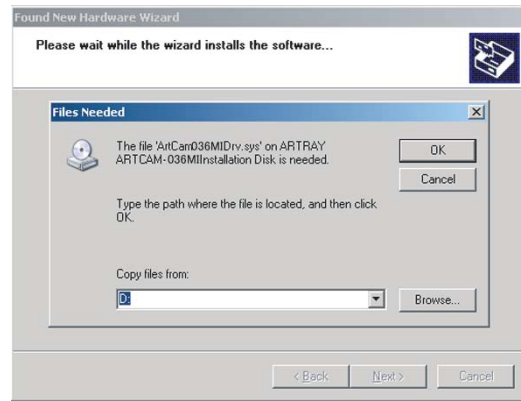
(5) Click "Finish"

(6) Click "Next"

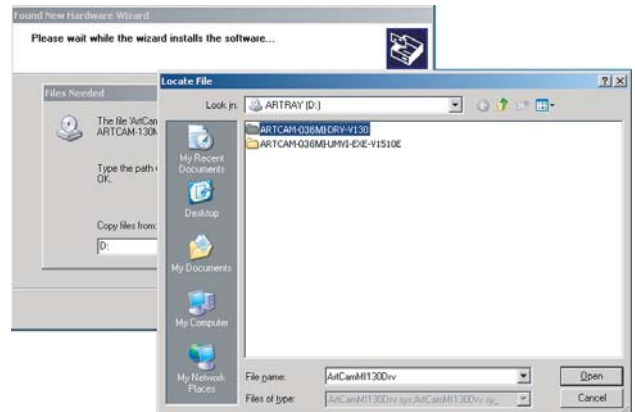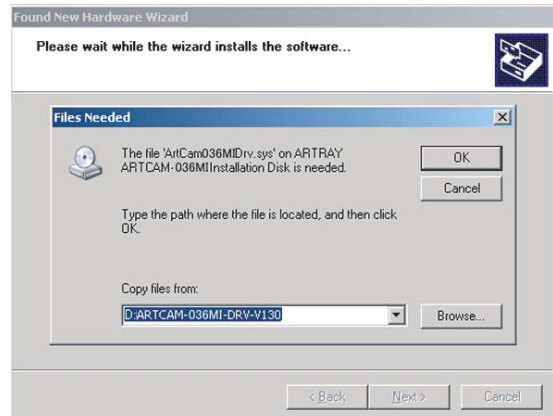(7) Click "Next"

(8) Click "Continue Anyway"

(9) Click "OK"

(10) Click "Brouse" and specify "ARTCAM-036MI-DRV-V***" folder from CD-ROM drive.
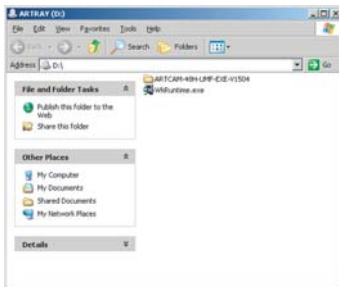

(11) Click "Open"

(12) Click "OK"

(13) Installation is now complete.
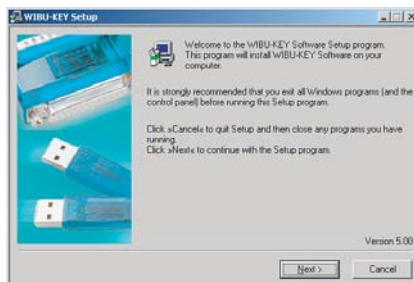Click "Finish" to close the installation wizard.

Software installation

1. Insert the "Installation CD"

2. Install USB key. Double-click "WkRuntime.exe" and follow the instruction.
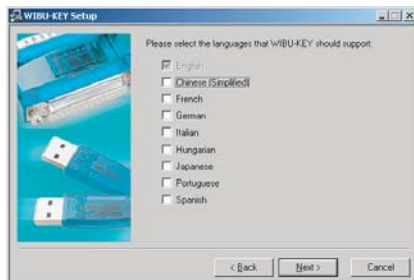   *Do not plug USB key at this stage.

USB key installation
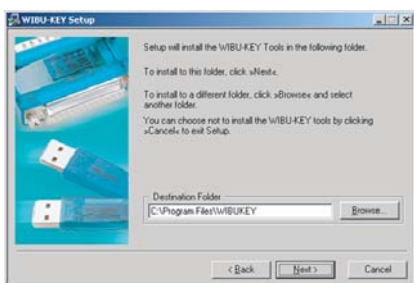

1. Double-click "WkRuntime.exe".
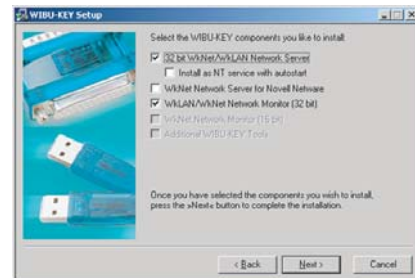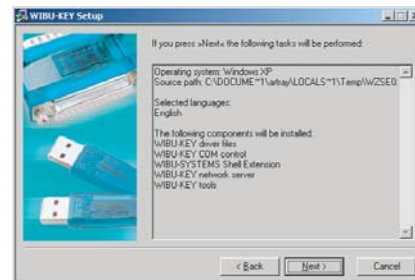

2. Click "Next".
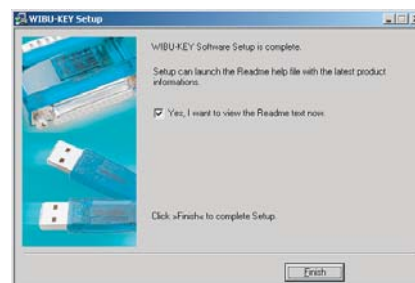

3. Select language.

4. Click "Next".

5. Click "Yes".
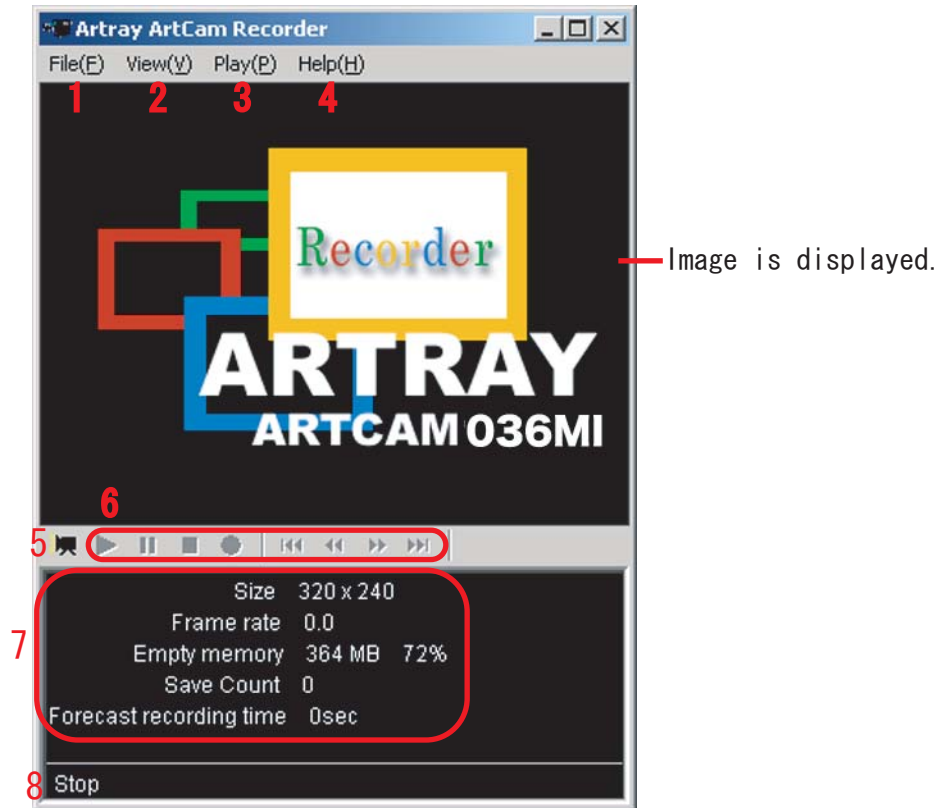

6. Click "Next".

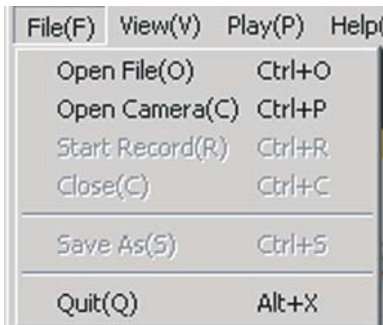7. Click "Next".

8. Click "Finish".

3. Plug USB key and start software.
   *Software will not operate unless USB key is plugged.

Window Display

Execute the application and the window below will pop up.
Menus and buttons in grey are not functional.

— Image is displayed.

1. Menus regarding files.

2. Menus regarding display.
   Settings for movie recording can be adjusted at "Option".
   (Refer to "Adjustment of Settings" on P.11).

3. Menus regarding playback.
   This menu is only functional
   when movie file is read
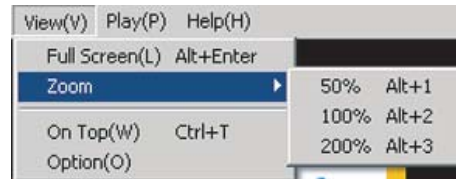
6. These buttons are equivalent to the playback menus.

Starting from left, the buttoms represent "Play",
"Pause", "Stop", "Record","Previous movie",
"Rewind" & "Fast-forward","Next movie" .
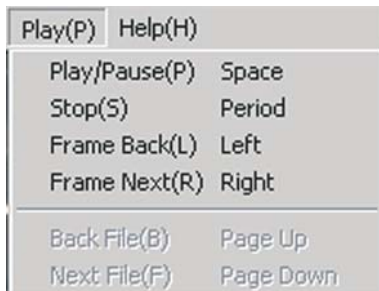
7. Starting from top,
   these menus represent "Size(Resolution of image)",
   "Frame rate of image (Frame number at playback mode)",
   "Empty memory", "Save Count(Number of frames saved") &
   "Forecast recording time".
   *"Forecast recording time" is automatically
   calculated at recording mode.

8. Status of application.

4. Version is displayed.

5. Switch to recording mode.

Operating Instructions

To stop "Recording" mode, click "File" then "Close" or click "Stop" button.
To play the video which has just been saved, click "Playback" after stopping "Recording" mode.
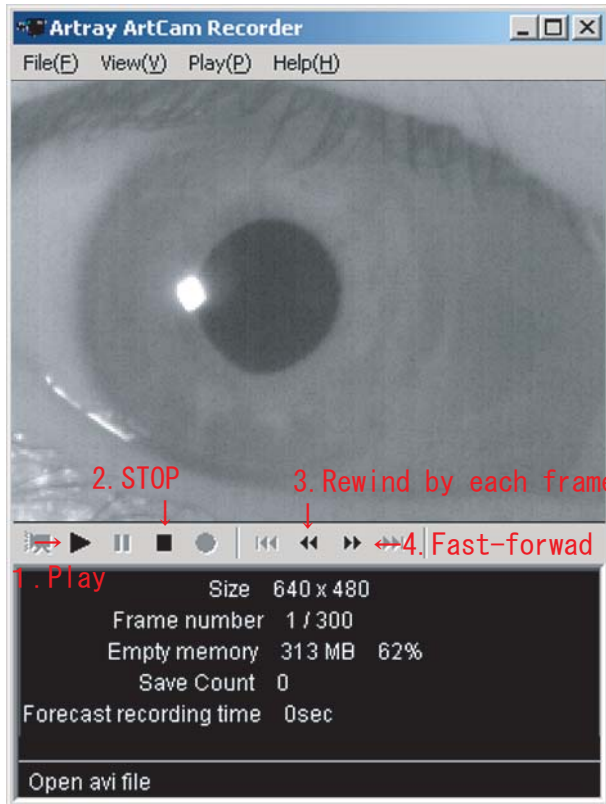
1. Play
   Shortcut: "Space" key
2. Stop
   Shortcut: "Period" key
3. Rewind by each frame
   Shortcut: "←" key
4. Fast-forwad by each frame
   Shortcut: "→" key

To play other video file, go to "File", "Open file" and select file.

Settings

①Open "Option" window by clicking "View" then "Option".
　Select menus from the left and display each settings.

Camera settings

1. Select color and compressibility
   For color cameras, select "Color 24 bit".
   For monochrome cameras,"Monochrome 8 bit".
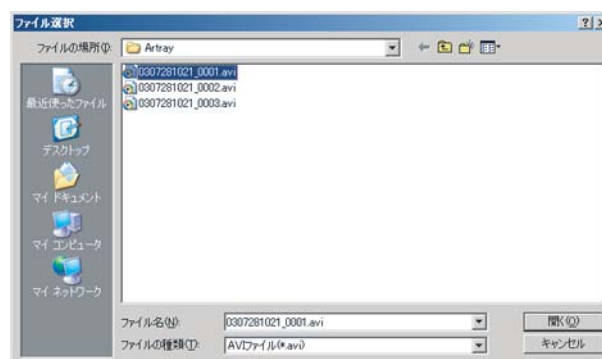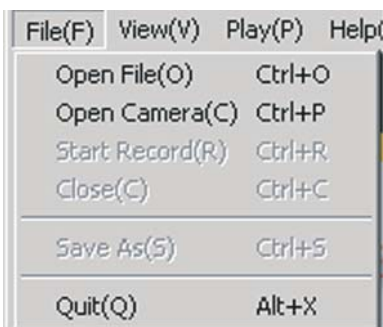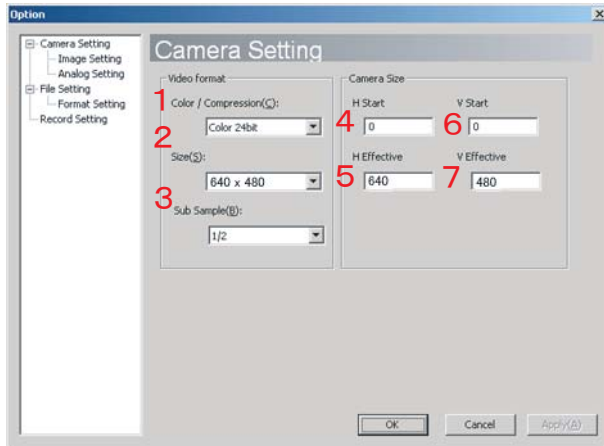2. Change output size of image.
   By selecting "Customization",
   the resolution can be set at customized size
   box on the left.Those values are saved.
   *Impossible to change size in horizontal(036MI)
3. Use sub-sampling function.
   Image size will remain same, but the image
   becomes rougher.Frame rate will increase.
   For 036MI camera,
   1/2,1/4 and 1/8 are available.
   (1/1=no sub-sampling)

4. Enter starting pixel of horizotal pixels
5. Enter horizontal pixels
6. Enter starting pixel of vertical pixels
7. Enter vertical pixels

Example

At this point,
horizontal cordinate
is 4 while vertical
cordinate is 6.
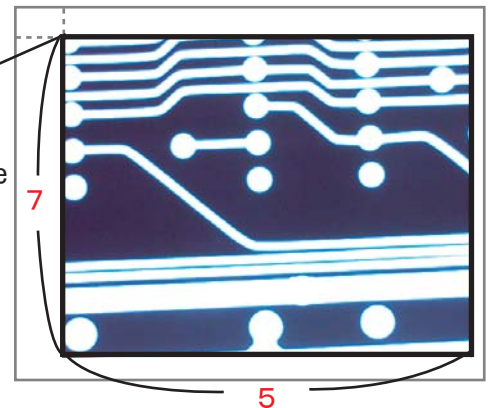
Image settings
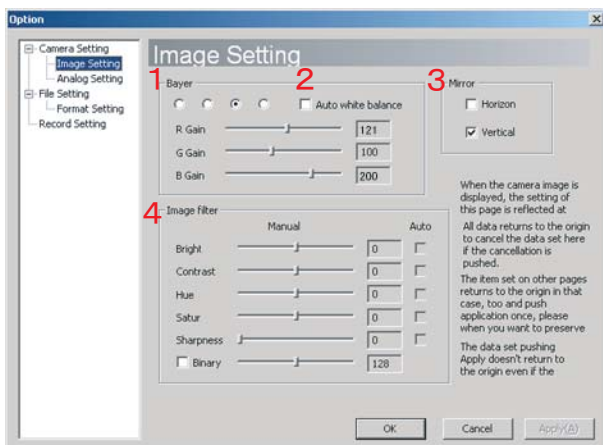
1. Change bayer settings.Bayer settings need to be
   adjusted depending on the location of object.
2. Adjust white balance.
3. Change aspect of image
   (Lengthwise is selected at default).
4. Adjust filter.Obtain digitalized image
   by checking "Digitalization".

*Note: Filter processing of filter adjustment is only processed within
software.Frame rate is therefore decreased. For normal use,
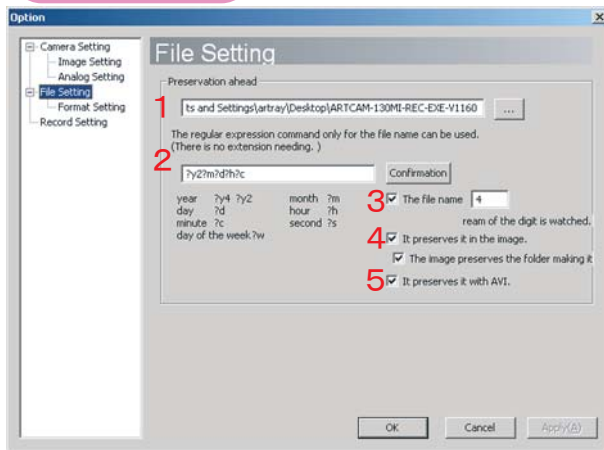set the value at 0 (no processing).

Settings

Analog Settings
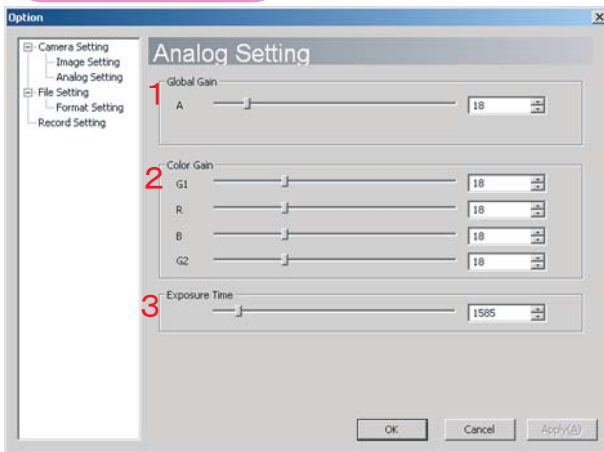
1. Adjust Global gain.(036MI default 32)
   Note: Global gain is correlated
   to each color gain of 2.
2. Adjust color gain
   (Not applicable for monochrome cameras)
3. Adjust shutter speed.(036MI default 1099)

   ※Note:In order to increase frame rate,
   you need to decrease the size of image as
   well as shutter speed.

File settings

1. Appoint the folder in which the files are saved.
   Click "Browse" and select folder.
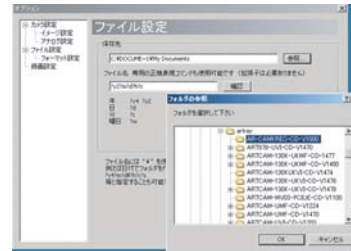
2. Specify file name.
   Click "Check" and confirm the file name to be saved.

Naming files:

You can either specify file name or name the file using date and time.

| year	?y4(4digits)	hour	?h	day	?w
	?y2(2digits)	minute	?c		
month	?m	second	?s		
date	?d				

At default, file name is appointed as "?y2?m?d?h?c".
If the image is saved at 15:20 on 1/8/05, the file name
is saved as "0308011520".

"¥" can be used in the file name.
For example, create a folder naming its date. To save the file under the
folder using time, appoint "?y4?m?d¥?h?c?s".

3. Check and enter number in the box, sequence number can be added to the end
   of file name.
4. Check this box, and video file will consist of each frame image (.bmp or .jpg).
   You can create a folder within the folder in which video files are saved.
   You can save still images (frames) in that folder.
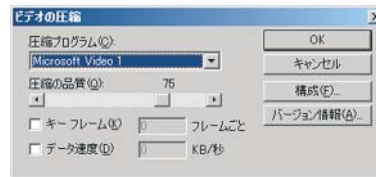5. Check this box and movie (.avi) can be saved.
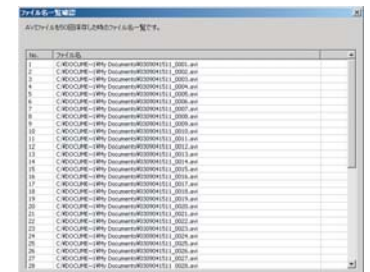
Settings

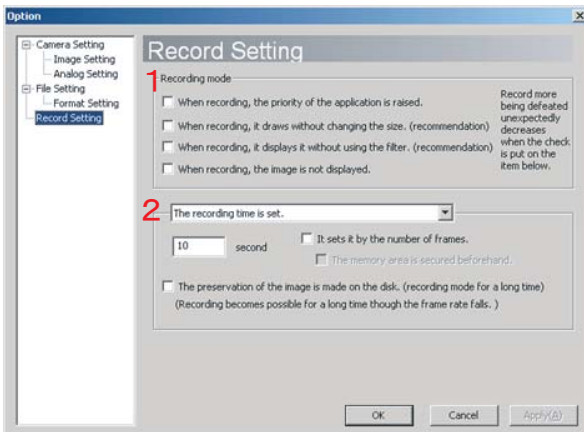## Format Settings
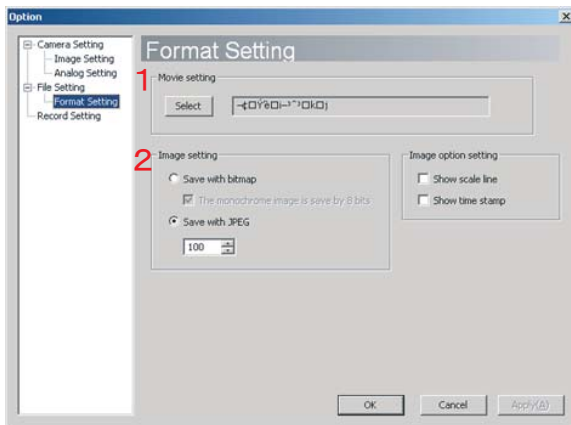
1. Change type of compression for video.
   Click "Change" and the window below will pop up.

   Select type of compression
   from pull-down menu.
   For normal use,
   select "All frames non-compressed".

2. Set file format for images.
   Checking this box creates folder
   that has same name as AVI file.
   Each frame is saved as .bmp or .jpg.

Record Settings

1. Set recording mode.
   Checking two boxes on top is recommended.

2. Settings regarding recording time:
   Select "Set recording time",
   "Set recording interval" & "Set recording time
   automatically" from pull-down menu.

   To set recording time or interval,
   enter time (in second) in the box under
   pull-down menu.
   You can also set number of frames by checking
   "Set number of frames".

If you select "Set recording time automatically",
recording time depends on speed of your PC.

ARTRAY
ARTCAM-036MI/022MINI Recorder
2008

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