Operation Manual

(MSX-500Di Viewer ver.2.0)

Sep. 2008
Moritex Corporation

1st edition

How to install Software

MSX-500Di Viewer is an application software which can be used with MSX-500Di CCD microscope, shows the same live image as MSX-500Di LCD screen and manages the live image within the software.

This software is USB Video Class compliant. There is no specific driver required for connection between the MSX-500Di and the PC if Windows XP Service Pack 2 or higher is used. Please contact the nearest Moritex office or its sales representative for use with Windows versions before WindowsXP SP2.

A. Installation

In order to install the MSX-500Di Viewer properly, you need an installation CD which is provided with MSX-500Di product.

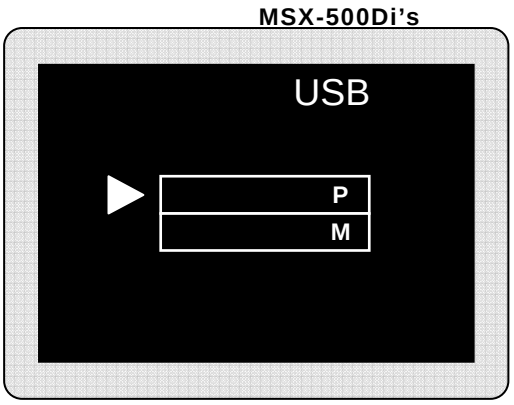
When installation CD is inserted into CD ROM driver of your PC, it will show the installation screen as below. In the case you can not see the installation screen, you can execute the 'Launch.exe' file in the installation CD.

1. Select the [MSX-500Di Viewer] to install the MSX-500Di Viewer software.
2. Select the [SCM Measure software] to install the SCM Measure program.
3. Select the [MSX-500Di Viewer manual] to see the pdf manual.
4. Select the [Browse CD] to see the contents within CD
5. Select the [Exit] to finish the installation

How to use MSX-500Di Viewer

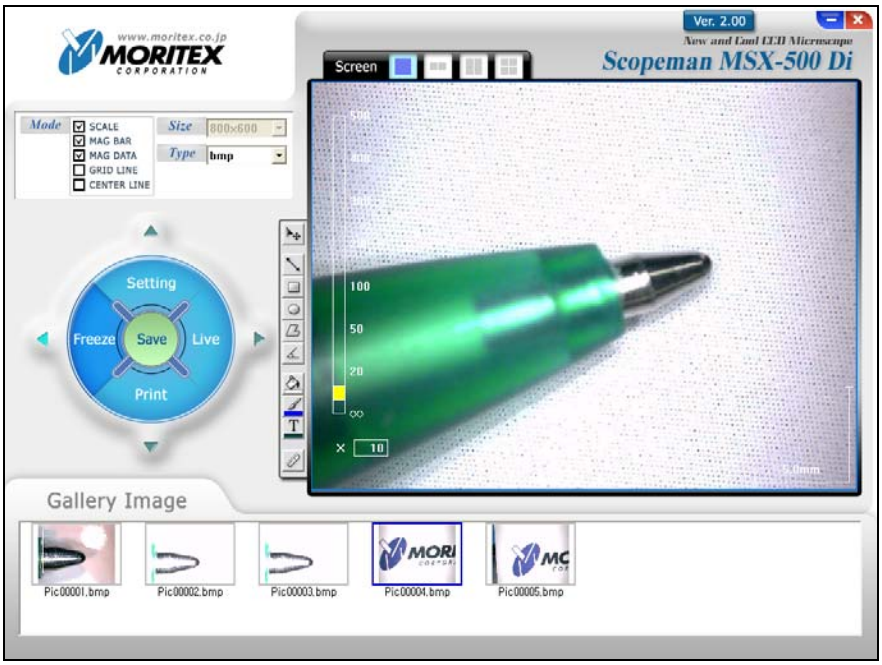
A. Start / Exit

1. Connect the MSX-500Di to the PC through the USB cable, and the following options will appear on the MSX-500Di's LCD screen. Select 'Preview' and press the Menu/Enter button. If 'Mass Storage' is selected, the MSX-500Di Viewer cannot be used.



2. To start the MSX-500Di Viewer program, execute the icon on desktop screen. Or click the [MSX-500Di Viewer] on [Start]-[Program Files]-[MSX-500Di]-[MSX-500Di Viewer] or execute the 'MSX-500Di.exe' file in the folder c:\Program Files\Moritex\ MSX-500Di\MSX-500Di Viewer using the explorer.

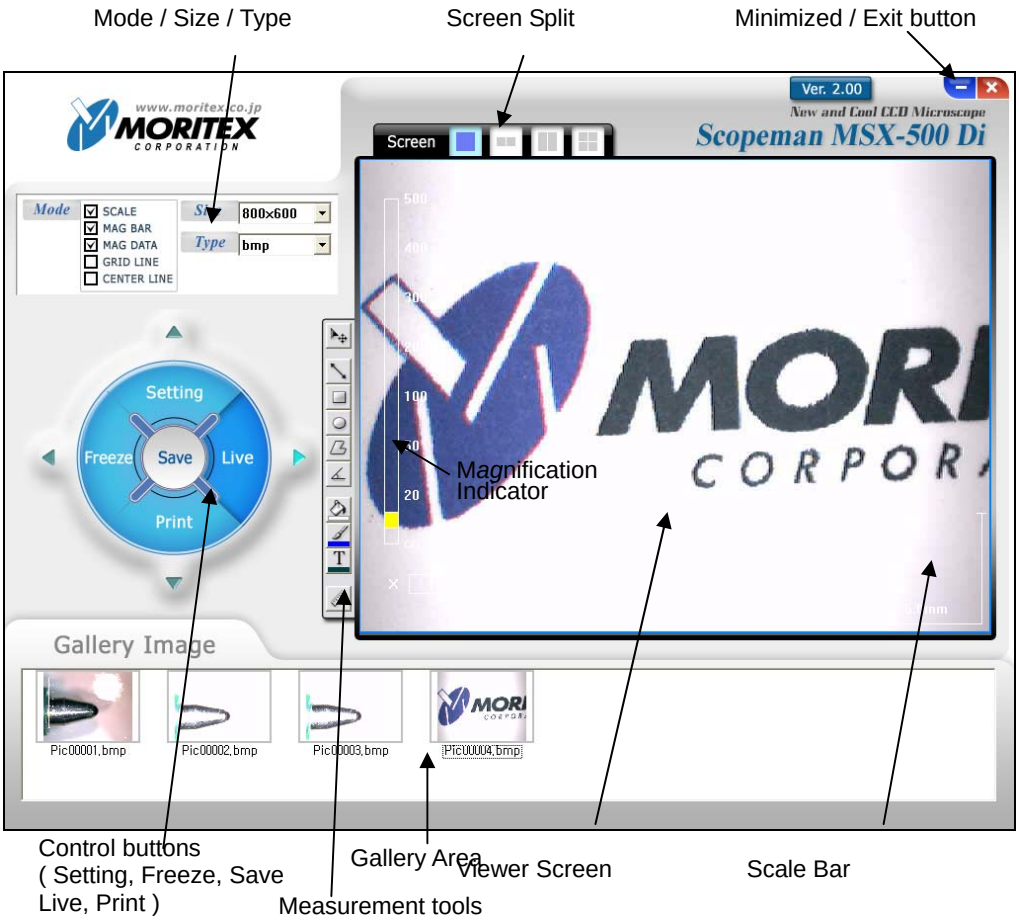
To exit the MSX-500Di Viewer program, click the [x] button on the right top of the screen. When the MSX-500Di Viewer is running, the following main screen will show up.



In the case the MSX-500Di CCD microscope is not connected to the PC, the following warning message will show up.

If this message appears even when the MSX-500Di and the PC are properly connected, please unplug the USB cable once and plug it again, then select 'Preview' on the MSX-500Di's LCD screen.

B. Structure of MSX-500Di Viewer



You can use the above functions as follows.

- Mode / Size / Type : check to Scale, Grid line or Center line information on screen
- Control Buttons : click to run each control button such as Freeze, Live, Save, Print or Setting.
- Screen Split : to slit the screen into one, two and four.
- Minimized / Exit button : to minimize the viewer screen or exit the program
- Viewer Screen : screen area to show the live image or one frame image
- Scale Bar : real scale value for predefined line (Can be moved with a mouse)
- Gallery Area : area for the saved image lists
- Magnification Indicator : magnification indicator same as MSX-500Di microscope
- Measurement Tools : to select, draw, change colors/fonts or do calibration

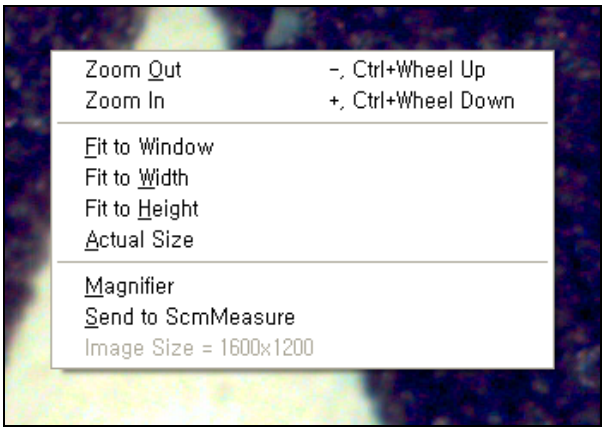
C. Detail functions of MSX500Di Viewer

1. Viewer function

When MSX-500Di is connected to PC properly, the live image will be shown on the viewer screen with 640x480 sized live image. The live image can be frozen by pressing the 'Freeze' button or mouse click on the live image. The frozen image can be live image again by pressing 'Live' button or mouse click on the frozen image.

On the viewer screen, you can use some menus by clicking the right mouse button as follows.

- Zoom out : to reduce the current image
- Zoom in : to enlarge the current image
- Fit to Window : to fit to window size
- Fit to Width : to fit to maximum width
- Fit to Height : to fit to maximum height
- Actual Size : to show the actual sized image
- Magnifier : to show the image in three times magnified pixels
- Send to ScmMeasure : to send the current image to ScmMeasure software
- Image Size : to show the current image size

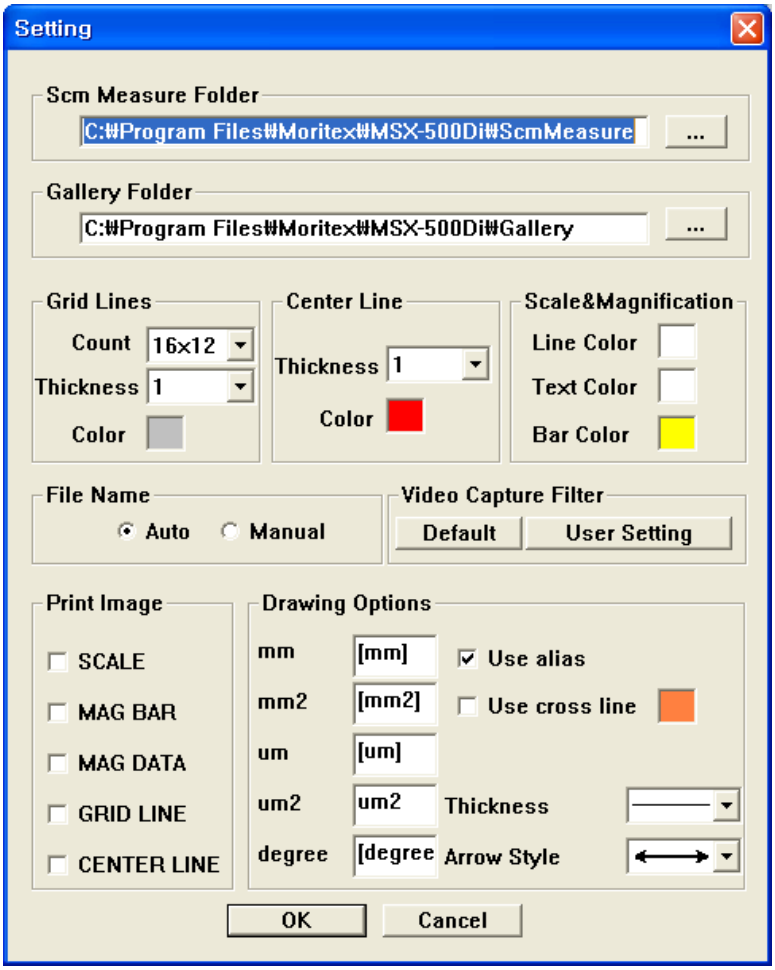


2. Capture function

To capture and save the image, press the 'Save' button on the live or frozen image, it will be saved on the Gallery Image area.

3. Setting function

Within ‘Setting’ menu, you can change the program and data folders and various settings as following picture.



a) Scm Measure Folder

You can change the default folder which ‘Scm Measure’ software is located in by using the explorer button.

b) Gallery Folder

You can change the default gallery folder which all saved images and mag files are located in by using the explorer button.

c) Grid Lines

Grid line is vertical and horizontal lines to divide the viewer screen.

You can select the number of grid line on Count for three different sets 4x3, 8x6 and 16x12.

You can select the line thickness between 1 pixel and 5 pixels.

And you can select line color in the color chart.

d) Center Line

Center line is vertical and horizontal line at the center of viewer screen.

You can select the line thickness between 1 pixel and 5 pixels.

And you can select line color in the color chart.

e) Scale & Magnification

In this menu, you can determine the color of line, text and bar in the color chart.

f) File Name

If you select the ‘Auto’, the saved file name will be given automatically, for example, Pic00015.bmp. Or you can select the ‘Manual’ to input the file name by manual.

g) Video Capture Filter

You can set all camera parameters as in MSX-500Di hardware by selecting ‘Default’ button. If you want to change any camera parameters, you can select the ‘User Setting’ button.

h) Print Image

You can select optional items of which information will be included when image is saved.

i) Drawing Options

You can set options for line, rectangle, circle, polygon, angle and other drawings such as Use alias, Use cross line, Thickness and Arrow Style in addition to assign units.

- Use alias : To change the units instead of mm, mm2, um, um2, degree.
- Use cross line : To show / hide the horizontal or vertical line with any selected color.
- Thickness : To select the line thickness.
- Arrow Style : To select the shape of arrow.

j) OK / Cancel

If you confirm all settings, you select the ‘OK’ button. If you don’t confirm them, you can cancel it by pressing ‘Cancel’ button.

4. Print function

If you want to print the current image on the viewer, you press the ‘Print’ button. And any printing dialog box will appear.

5. Mode setting

There are five different mode settings – SCALE, MAG BAR, MAG DATA, GRID LINE and CENTR LINE.

If the ‘SCALE’ is selected, the magnification scale bar will be shown on the viewer screen.

If the ‘MAG BAR’ is selected, the magnification bar will be shown on the viewer screen.

If the ‘MAG DATA’ is selected, the magnification data will be shown on the viewer screen.

If the ‘GRID LINE’ is selected, the grid lines will be shown on the viewer screen.

If the ‘CENTER LINE’ is selected, the center line will be shown on the viewer screen.

6. Size / Type

The size of live image on the viewer screen is 640x480 pixels. However when capturing the image, it will be saved with the size on ‘Size’ 800x600 or 1024x768.

And you can select the image format to be saved – bmp or jpg.

7. Measurement

a) Measurement tools

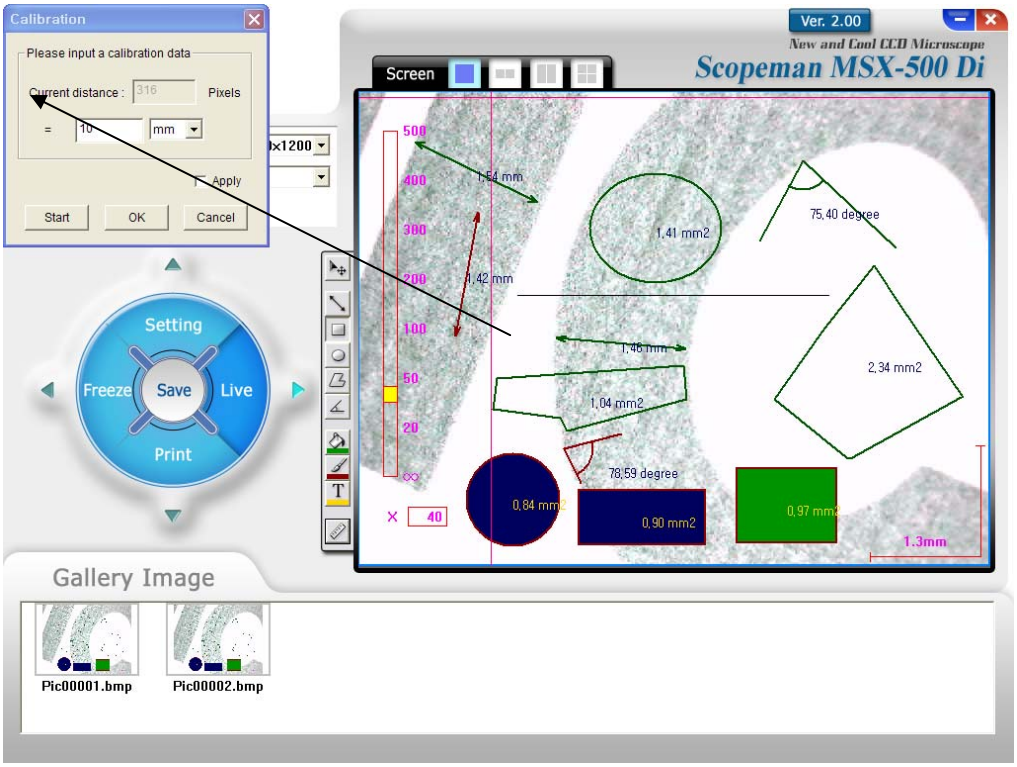
- Select : To change the property(color) for any object or to delete the object by right mouse click.
- Line : To calculate the line between two points
- Rectangle : To calculate the area of rectangle
- Circle : To calculate the area of circle

- Polygon : To calculate the area of polygon
- Angle : To calculate angle
- “Ctrl+Z “ to restore to the previous measurement

b) Color Selection

- Surface color : To fill in the area of rectangle, circle or polygon with the selected color
- Line color : To select the color of line, rectangle, circle or polygon.
- Font color : To select the color of font.

c) Calibration : To calibrate newly.



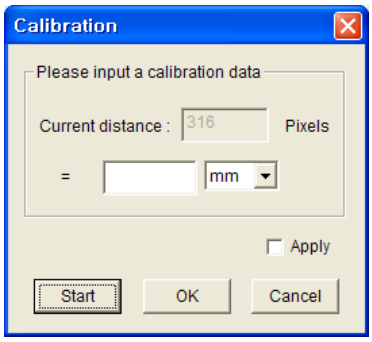
When calibration button is selected, calibration window will pop up.

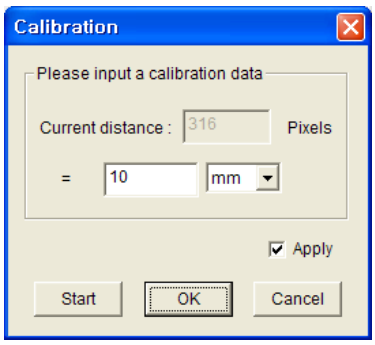
- When pressing the 'Start' button and selecting two points, 'Current distance' is updated as pixel numbers of the calibration line between those two points.

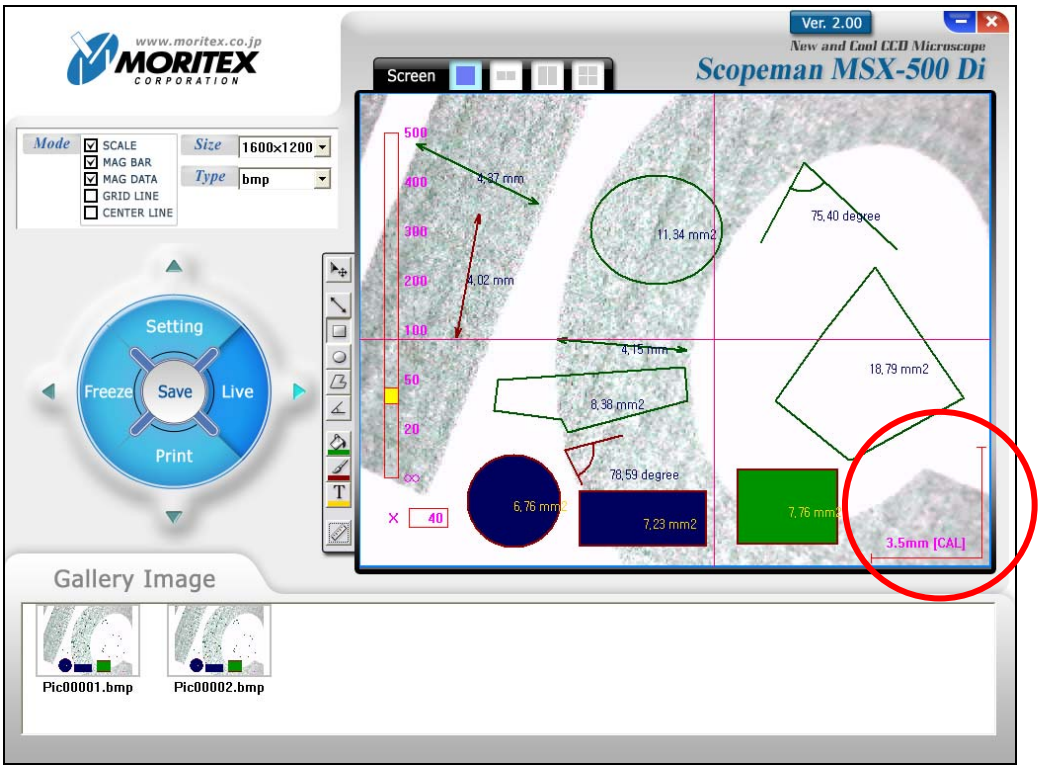
- After inputting the length for calibration and pressing 'OK' button, calibration will be done.

- When user wants to apply the calibration result to current live screen, check the 'Apply' and click the 'OK' button

- On the screen, the scale bar is changed 1.3mm to 3.5mm[CAL], which [CAL] means that new calibration data is used for measurement.



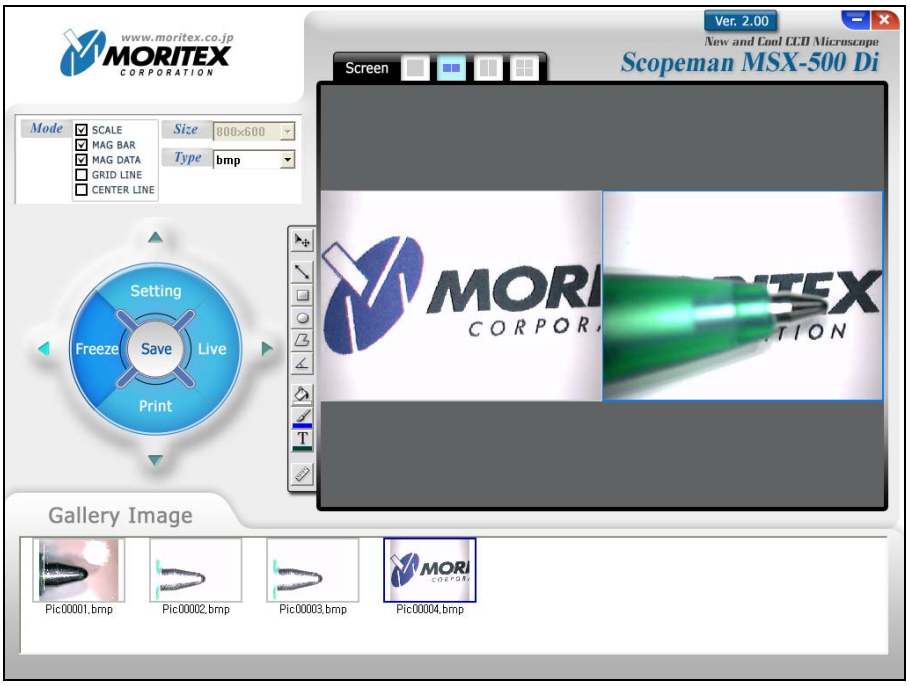




8. Screen split

You can split the screen into two and four.

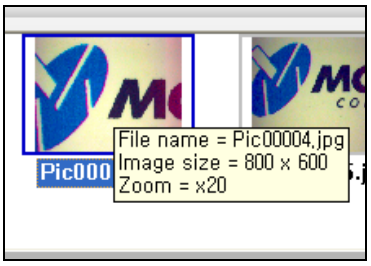
When Two-screen mode is running, you can see two images or one live and another loaded image. Image size can only be changed in the full screen mode.



9. Gallery

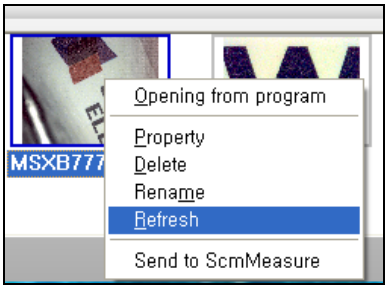
When you capture the current live image or frozen image, it will be saved on ‘Gallery’ area. You can load any image on Gallery to viewer screen by drag or double click.

Within the Gallery, you can see the image information such as ‘File name’, ‘Image size’ and ‘Zoom’ on tool tips which will be shown when mouse point is on the image.



If you click the right mouse button, you can see the following menus.

- Opening from program : to open by using other program
- Property : to show the image properties
- Delete : to delete the selected image
- Rename : to change the image name
- Refresh : to load recent images in Gallery again
- Send to ScmMeasure : to send the selected image to ScmMeasure software



You can also copy and see the saved image files from SD card of the MSX-500Di to this Gallery.

※ For each image file, there will be a magnification info file separately saved (.mag) and the file names slightly differ between the MSX-500Di unit and the Viewer.

Example)	MSX-500Di Viewer	Pic00001.bmp : Image file
		Pic00001.bmp.mag : Mag Info file
	MSX-500Di Unit	MSXB00001.BMP : Image file
		MSXB00001.MAG : Mag Info file

The magnification info files (.mag files) need to be copied/moved together with image files because they are used for magnification info indication in Gallery and for the SCM Measure.

D. Others

1. INI file

   For the proper operation, MSX-500Di Viewer needs the ‘MSX-500Di.ini’ file.
   Within the ini file, there are some important information for set up.
   User does not need to modify the ini file.

2. Web site

   If you double click the Moritex Logo area, you can go to Moritex web site.

3. SCM Measure Manual

   Operation Manual for the SCM Measure is included in the CD contents

- End of the manual -