

Micro Capture Software

User Manual

Ver2.0



CONTENT

CHAPTER 1 : SOFTWARE INSTALLATION	1 -
1.1Environmental Requirements for Software Installation	1 -
1.2 Installation	
CHAPTER 2: SOFTWARE INSTRUCTIONS	5 -
2.1 Software Operation Interface and Instruction	5 -
2.2 Title Panel	
2.3 Main Tab	7 -
CHAPTER 3: FUNCTION INTRODUCTION OF "SCAN"WORK MODE	8 -
3.1 Upper Toolbar	8 -
3.2 Left Toolbar	9 -
3.2.1 Standard	10 -
3.2.2 Video Parameter Adjustment	12 -
3.2.3 Draw	14 -
3.2.4 Insert	17 -
3.2.5 Calibration and Measurement	
3.2.6 Tool	20 -
3.2.6 Erase	21 -
3.3 Lower Toolbar	21 -
3.4 Add Wireless Device	24 -
3.5 Detailed Operation for Calibration Function	25 -
CHAPTER 4: "DOCUMENT MODE" FUNCTION INTRODUCTION	30 -
4.1 Upper toolbar	30 -
4.2 Left toolbar of Document	32 -
4.2.1 Standard	32 -
4.2.2 Draw	34 -
4.2.3 Insert	34 -
4.2.4 Calibration and Measurement	34 -
4.2.5Tool	35 -
4.2.6 Erase	35 -
4.3 Lower toolbar	36 -
4.4 Thumbnail display area	37 -



Chapter 1 : Software Installation

1.1Environmental Requirements for Software Installation

Compatible system: XPsp3, Win7, Win8, Win8.1

Note: Partial function of this software relies on the installation of the following softwares:

Microsoft Word 2003 or version above (with function of Word Export for calibration result)

Microsoft Excel 2003 or version above (with function of Excel Export for calibration result)

Microsoft Outlook 2003 or version above (with function of picture delivery by email)

Internet Explorer7.0 or version above (with wireless connection function of software)

1.2 Installation

Step 1. Activate the computer and insert the installation disk into the DVD.

Step 2. Double click the file "MicroCapture Install" under the disk catalogue. When the following window pops up, please select the installation guide language and press the button "OK".



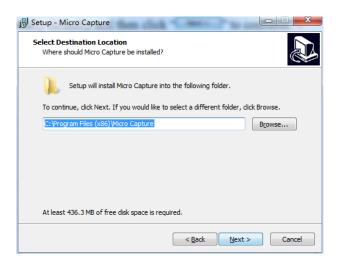
Note: The installation guide language is independent of the software interface language. If you need to change the software interface language, please refer to 2.2 - Modification of Language Function.



Step 3.When the window"Welcome to use MicroCapture Installation Guide" pops up, please click the button "Next > ".

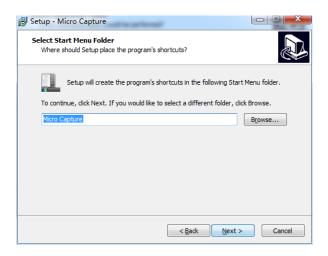


Step 4. When the window "Please select the target location" pops up, click "Browse" to choose the file path for installation (usually default), and then click "Next>" to continue.





Step 5. When following window appears, select the shortcut you need, and then click the button "Next>".



Step 6. Confirm information like "the target location" of software installation. After confirmation, please click the button "Install".



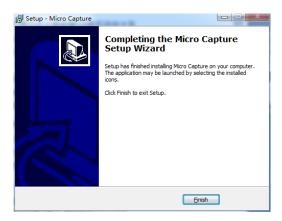
Step 7. An installation progress bar will appear during the softwareinstallation procedure. The software installation necessitates the registration of some runtime libraries, which might be intercepted by some antivirus software. If such interception pops up, please allow the procedure to continue.



Step 8. An installation progress bar will appear during the software installation procedure. When the following window appears, the software has been installed successfully. Then click the button

"Finish" to complete the installation. After closing the window, check the icon on your desk.

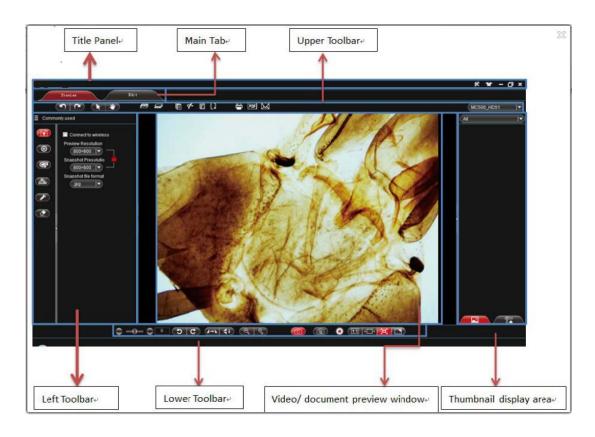
If you fail to find it, please find it from the path "Start" — "All programs".





Chapter 2: Software Instructions

2.1 Software Operation Interface and Instruction





2.2 Title Panel



*

Setup Menu

Click this button to display relevant menu bar.

Setting Language About

Setting

Setup

Set the photo shooting path, videofiles and save path of OCR files, as shown below.

X EIN-CRASSIS
C. Where All there Copture by other participations
THE FIRST
C. Where All there Copture hyd.
XIII ARREST
C. Where All there Copture hyd.

XIII ARREST
C. Where All there Copture hyd.

Language

Language

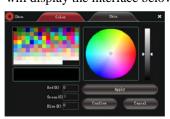
Set the software interface language. After successful setup, the software interface language and prompt language will be

changed.

¥

Skin

Set up the background color of the software. Clicking this button will display the interface below:



After change the tab" color or" skin ", select

"for confirmation, as shown below:

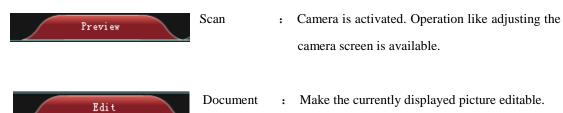




2.3 Main Tab



Function:





Chapter 3: Function Introduction of "Scan" Work Mode

Open the MicroCapture procedure. The default work mode is shown as "Freview". The software operation interface is displayed as above.



3.1 Upper Toolbar

2	Revoke Redo	:	Revoke the previous action, only valid for editing. Redo the previous action, only valid for editing.
Œ	Select object	:	Select an object in the picture, only valid for objects in the editing picture.
•	Drag	:	Drag the video screen randomly inside the preview area.
400) Galt	Opturn object	:	Upturn the selected object to a higher layer. Drop down the selected object to a lower layer.
		:	Copy the selected object.



Object Cut Cut the selected object. Object Paste Paste the object already beencut or copied. Object Delete Delete the selected object. Print Print the current preview and generate a photo. Convert the current preview to PDF and generate Convert to PDF a file. \bowtie Email forward the current preview and generate a Email OCR Process OCR for the current preview and generate Rapid OCR

M101 |▼

Select device

Display current operating devices. When the software searches out various video devices, several device names will be displayed for selection.

a photo (For detailed OCR function, please refer

to the notes below).

3.2 Left Toolbar



Standard

: For wireless device connection, resolution setup or photo type setup.



•	Video Parameter Adjustment	:	Basic parameter setup for the device camera, such as focusing, exposure and white balance.
	Draw	:	Draw lines for the current preview picture.
7 3	Insert	:	Insert words, specified pictures and screenshots into the current preview.

Measure : Execute measurement on current preview window

Tool : Cover the screen.

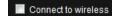
Erase : Erase the drawing object inserted into the current preview.

3.2.1 Standard

You can adjust relevant parameters according to your needs to achieve desirable effects for preview and photograph, as shown in image on the right:







Wireless Device

Connection

When this option is ticked, "Wireless Device" will display in the device selection window. Then a wireless device can be connected. For detailed operation information, please refer to "Wireless

Connection Operation".





Preview Resolution

You can select any desirable preview resolution under this drop down box for preview.

Note 1: The higher the preview resolution, the lower the frame rate.

Note 2: Resolution supported by different devices varies.



Save Resolution

This option is used to select photo resolution. The proportion of the preview resolution keeps consistent with that of the save resolution. When the preview resolution ratio is 4:3, the save resolution ratio can only be 4:3 and the default maximum save resolution is 2592×1944. When the preview resolution is 16:9, the save resolution can only be 16:9 and the default save resolution ratio for 16: 9 is 1280×720.

Note: The resolution supported by different devices varies.



Save Format

There are four save formats, namely pdf, bmp ,jpg and png. The default format for this procedure is jpg. You can choose any of the four save formats according to your need.

Lock:

Unlock:

unlock: Lock and

status

Under the status of Locking", the preview resolution keeps consistent with the photo resolution. The preview displays the same picture as that in camera. Under the status of Unlocking" ", the preview resolution is inconsistent with the photo resolution and the preview might show difference with the camera photograph.

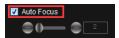


3.2.2 Video Parameter Adjustment

You can adjust relevant parameter for desirable preview and scan effects, as shown in image on the right:



Note: Function supported by different devices varies.



Auto Focus

: When this option is ticked, the preview changes and auto focus will be triggered if the connected device supports auto focus function. Then the "manual focus" function below is invalid.



Manual Focus

: Drag to adjust the focus distance of the device according to the service environment.



Auto Exposure

: When this option is ticked, the device will process auto exposure according to the service environment. This function is valid when the option is ticked. You can also apply "Exposure" for adjustment when this option is not ticked.



: Drag to adjust the exposure parameter of the device according to the service environment. This parameter is adjusted around the auto exposure and only valid when the "Auto Exposure" option is not ticked.





Auto White Balance

When this option is ticked, the device will process auto white balance according to the service environment. The "Manual White Balance" below can also be applied for adjustment when this option is not ticked.

Note: When shooting colorful objects, color abnormity might occur. Thus manual calibration needs to be made for auto white balance. Detailed operation method: align the device with white paper, remove the tick on "Auto White Balance" option, and tick it again, making the device process auto white balance once. After that, remove the tick on the "Auto White Balance" option.



Manual White Balance

: Drag to adjust the white balance parameter of the device according to the service environment. This parameter is adjusted up and down on the basis of auto white balance and only valid when the "Auto White Balance" option is not ticked.



Brightness Control

: Drag it to change the entire brightness of the screen. Brightness control usually coordinates with contrast control to achieve the best effect.



Contrast Control

: Drag it to change the contrast between the brightness and darkness of the screen.

Contrast control usually coordinates with brightness control to achieve the best effect.



Saturation Control

Drag it to change the color saturation of the screen to achieve the best effect.



Backlight Compensation

Drag it to raise the brightness of the preview environment when the device is used in relatively dark environment.

Note: Partial device doesn't support this function.





LED Illuminating

Auxiliary LED light has 6 levels of brightness. A tick on this option stands for the first level of brightness. You can also adjust the brightness of LED light by yourself. When this option is not ticked, the LED light will turn off automatically.

Note: Some product doesn't support this function.



Power Line Control

This function makes the voltage of the device under the same frequency with that of the service environment to reduce the "crinkle" jamming effect of the preview screen.

Note: Power supply frequency currently supports 50/60Hz. Please select it according to the supply frequency of your location.



Default

Back to default settings.

3.2.3 Draw

Making drawing in the editing panel according to requirements, as shown inimage on theright:





Pencil

: Draw with pencil.



Pen

: Draw with pen.



Writing Brush

: Draw withwriting brush.



Draw with chalk. (BEC) Chalk Brush Draw with brush. Texture Draw with texture pen. Fill Paint bucket tool for filling color to selected closed area. Upper layer Move the selected object to a higher layer Lower layer Move the selected object to a lower layer Straight Line Draw straight line. Draw straight linewith single head arrow. Straight Line with single head arrow Draw straight line with double-headed arrow. Straight LinewithDouble-headed arrow Curve Draw curve line. Arrow Curve Draw curve with an arrow. Broken Line Draw broken line. Draw broken line with single head arrow. Broken Line with single head arrow Draw broken line with double-headed arrow. Broken Line with double-headed arrow Rectangle Draw rectangle. Rounded Rectangle Draw rounded rectangle. Parallelogram Draw parallelogram. Rhombus Draw rhombus.

Draw polygon.

Polygon

(8)



Isosceles Triangle Draw isosceles triangle. Right triangle Draw right triangle. Concentric Circles Draw concentric circles. Ellipse Draw ellipse. Cylinder Draw cylinder. Cube Draw cube. Prism Draw prism. Arc Draw arch. Hollow Arc Draw hollow arch. Moon Shape Draw moon shape. Smile Face Draw smile face. Heart Shape Draw heart shape. Dog ear Draw dog ear. Forbidden Sign Draw forbidden sign. cruciform Draw cruciform. Tick Tick shapes without change in size. Cross Cross shape without change in size. Line Type Set line shape of drawing with five types available. Line Width Set pixel value of the drawing line width with pixel rangefrom 1 to 8. Transparency Set the transparency of the drawing line. Color Set the color of the drawing line.



3.2.4 Insert

Insert specified object according to requirements.



Hide current program : With this option ticked, current program will hide when screenshot happens. Otherwise the program will be shown as normal.

Trim : To trim the rectangular area.

Screenshot to Clipboard : Put screenshot on clipboard and cut the square area on the clipboard.

Random screenshot for any drawn area.

Rectangle Screenshot : Rectangle screenshot for drawn rectangle area.

Window Screenshot : Window screenshot for the whole window area.

Screenshot : Screenshot for the whole screen area.

Words : Insert words.

Random Screenshot

Picture : Insert pictures.

Font : Setup font, pattern, size and effects of inserted

characters.

Color : Setup the display color of inserted characters.



3.2.5 Calibration and Measurement

With calibration and measurement function, precise measurement can be made to video in the editing area.



Note: For precise measurement, first set calibration.

As shown in image on the right:

Straight Line Measurement : Measure the straight line distance between two points.

Broken Line Measurement : Measure the perimeter of the broken line.

Concentric Circles Measurement : Measure distance between concentric circles and area of two circles.

Arc Measurement : Measure the length of arc.

Angle Measurement : Measure angle degree with three points.

Quadri Angle Measurement : Measure angle degree with four points.

Rectangle Measurement : Measure the perimeter and area of the rectangle.

Polygon Measurement : Measure the perimeter and area of the polygon.



Two-point Circle Measurement : Measure the area, perimeter and radius of circle.

Center Circle Measurement

Three-point Circle Measurement

Oval Measurement : Measure the area, perimeter and radius of oval.

Parallel Line Measurement : Measure the distance between parallel lines.

Double Parallel Lines Measurement : Measure the distance between two parallel lines.

Calibration : Setup the calibration. Clicking this button will display the

calibration setup window, shown as "

Calibration can be set up in this window.

Simple Measurement Tool:

Ruler : Ruler measurement

Compasses : Compasses measurement.

Protractor : Protractor measurement.

Set square30° : Set square30° measurement.

Set square 45° : Set square 45° measurement.

Unit
 Measurement display unit for the current preview.

Line type : Set up the line shape of drawing with 5 line types

available.

Line width : Set up the pixel value of the drawing line width

with pixel scope from 1 to 8.

Transparency : Set up the transparency of the drawing line.

Color : Set up color of the drawing line.



3.2.6 Tool

Some tools can be used according to requirements, as shown in image on the right:



Keyboard : Click this button for displaying keyboard function.

Calculator : Click this button for displaying calculator function.

Random Number : Click this button for displaying the function of random number.

Clock Click this button for displaying clock function.

Black Screen : Black screen for covering the whole screen black.

Screen Salience : Screen salience for foregrounding the drawn area.

Screen Cover : Screen cover with covered area been draggable.

Spotlight : Display different spotlight effects.

Recorder : Record specified area or the whole screen. Effective coverage lies

inside the green flicker frame, as shown in the image:





3.2.6 Erase

Erase the "objects" in the video preview interface according to requirements, as shown in image on the right.



Erase : Erase objects in the video preview.

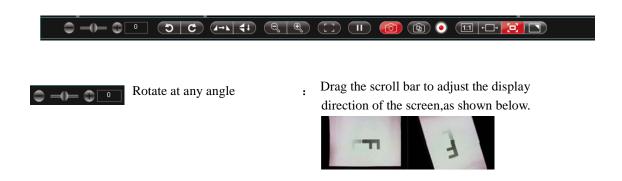
Rectangle Erase : Circle objects needed to be erased.

Random Erase : Randomly select objects needed to be erased.

Object Erase : Erase the entire selected object.

Erase all : Erase all objects in the video screen.

3.3Lower Toolbar







Rotate at anticlockwise 90°

Click this button to adjust the correct direction of the file, as shown below:







Rotate at clockwise 90°

: Click this button to adjust the correct direction of the file, as shown below:







Mirror Image

Click this button and pictures will show contrasts as below:







Flip

: Click this button and pictures will show contrasts as below:



 $\begin{array}{lll} Contrasts & from & flip & + & mirror & image \\ preview(equal \ to \ image \ flipped \ by \ 180^\circ) & & \end{array}$





Shrink

: Under the preview resolution 640×480, 800×600,1024×768, click the button"Shrink"or directly click the scrollbar with mouse to achieve the shrinkage of the preview screen. Note: Partial high resolution doesn't support shrinkage and magnification function of preview screen.





Magnify

: Under preview resolution 640×480, 800×600,1024×768, click the button "Magnify" or directly click the scrollbar with mouse to achieve the magnification of the preview screen.

Note:

- ①Partial high resolution doesn't support shrinkage and magnification function of preview screen.
- ②Shrinkage and magnification function applies to observing tiny objects during preview. Under this situation, once the button "Scan" activates, the shooting scope will be a full view image.



One-shot Focus

. Process one-shot focus to current screen.



Suspend preview

Suspend current preview screen.



Actual Size

: Click this button to display the preview screen according to the actual resolution of the picture. If the displayed picture exceeds the preview scope of the current software, you can click the left mouse button for dragging. Under the mode of actual size, the default display area lies in the picture center.



Adapt to Width

: Click this button to display the preview screen according to the maximum width. If the displayed picture exceeds the preview scope of the current software, you can click the left mouse button for dragging. Under the mode of Adapt to Width, the default display area lies in the picture center.



Adapt to Screen

: Click this button to display the preview screen to the maximum. If the size of the picture is smaller than the maximum display range, the picture will be displayed to its actual size.



Full Screen

: Click this button to fill the picture to full screen in proportion. Under this mode, click the right mouse button or ESC to return with no change for the picture location. If the previous status is



1: 1, the return status is also 1: 1. If the previous status is adapting to screen, the return status is also adapting to screen.



Scan

Click this button to scan the displayed picture in the preview window.



Continuous Time Shooting

If you want to process continuous time shooting, please click the button"Continuous Time Shooting" and a setup window will pop up as shown below: you can fill the block behind "Photo Intervals" with photo intervals, and also fill the blockbehind the "Photo Limit Numbers" with the photo numbers. After setup, click







Record

: Record the pictures shown in the preview window.

Note: The record resolution of partial high preview resolution during recording is 1280x960.

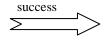
3.4 Add Wireless Device

The following shows steps for adding wireless devices:

First, make sure the computer has been connected with wireless device

Hardware equipment activates wireless mode. System searches for the name of the hardware WIFI and connects. Then enter the password. Successful connection is shown as below:









Second, Software Activates Wireless Device

Select the mode", click the "on the right toolbar, tick "connect to wireless" and then select

The result is shown as below:



3.5 Detailed Operation for Calibration Function

The following is the specific operation steps for calibration function

Step 1. Acquire benchmark picture. Under the same work mode with sample picture (the same objective lens and camera resolution. If shrinkage lens is used during the shooting of sample picture, then shooting micrometer picture also need shrinkage lens), shooting the picture with scales, which is called benchmark picture, as shown in the image at right:



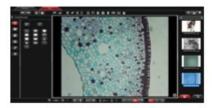


Finally you will get two pictures, namely target picture and benchmark picture.

Left: target picture.

Right: benchmark picture.





Step 2. Open the benchmark picture, click "Measure" on the left toolbar and then click "to display calibration setup, as shown below:



Step 3: Set scale label.

Draw a straight line on the benchmark picture, (When you set the scale length, the longer the scale length, the more precise the result is. For example, setting label with 10 scales will get much more precise result than label with only 1 scale.) as shown below: (pixel elements delineated will be updated into the block "pixel elements")





Step 4. Enter the name of the created calibration sheet and selected scale length.

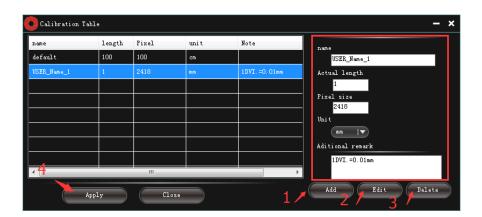
Suppose the unit of the calibrated scale in the benchmark picture is mm, relevant information should be filled in specified block, as shown below:



Step 5. Click "Add" to add the criterion defined in the benchmark picture to the calibration sheet of the software and save it for later use.



Note:



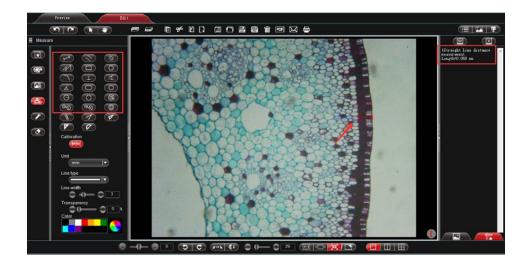


- 1. "Add", add the information inside the red box to the "calibration sheet"
- 2. "Edit", modify and edit the selected "calibration table" in the "calibration list" on the left.
- 3. "Delete", delete items in the selected "calibration table"in the "calibration list" on the left.
- 4. "Apply to picture", set the selected "calibration table"in the "calibration list" on the left as the current picture criterion.

Step 6. Insert target picture, click "on the left toolbar, then click "to set the criterion saved in the previous step as that of the current target picture, as shown below:



Step 7. Select relevant measurement tool to process actual measurement. Measured data will be shown in toolbar on the right, as shown below:



Note: The program offers measurement for straight line, parallel line, perpendicular, rectangle, circle, polygon and arc. Auxiliary marks can also be made from other functions of the program like "Draw", "Insert" etc.

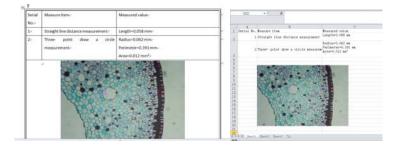


Step 8. Export the measurement result

Click the Word Export or Excel Export "on the right toolbar to export data to Word or Excel, as shown below: enter file name, path and then click "save".



Generate file like:



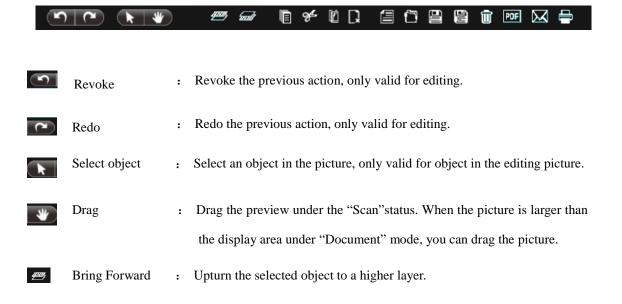


Chapter 4: "Document Mode" Function Introduction

Click "to enter document work mode-software operation interface, as shown in image on the right:



4.1 Upper toolbar





Send Backward : Drop down the selected object to a lower layer.

Copy : Copy the currently selected object.

Cut : Copy the currently selected object.

Paste : Paste object.

Delete : Delete selected object.

New : Create a blank picture.

Open : Open and import picture.

Save : Save the current picture.

Save as : Save as picture.

Print : Print picture.

PDF : Convert to and save as PDF

Email : Select file and send email.

Trash bin : Delete current picture.

List : Click this button to display pictures of the thumbnail in list.

Tile : Click this button to tile pictures of the thumbnail.

Slide show : Click this button to play pictures of the thumbnail.



4.2 Left toolbar of Document



Standard : Wireless device connection, resolution setup and photo type setup.

Draw : Draw lines for the current preview.

Insert : Insert words, specified pictures and screenshot into the current

preview.

Measure : Execute measurement on current preview window.

Tool : Cover the screen.

Erase : Erase the drawing object inserted into the current preview.

4.2.1 Standard

Practice operation to picture in document editing area according to requirements, as shown in image on the right:





Trim : Make proportional trim to the preview. Click it to show



Size control : Make adjustment to the size of the preview picture. Click it to



Invert color : Invert color for image.

Monochrome : Monochrome for image.

Gray scale : Gray scale effect for image.

: Shadow removal for image.

removal

Jitter effect : Jitter effect for image.

Embossment : Embossment effect for image.

effect

Add noisy : Add noisy point for image.

point

Corrosion : Corrosion effect for image.

Diffusion : Diffusion effect for image.

Sharpen : Sharpen the image.

: Remove red eye for image.

eyeremoval

Outline : Outline the image.

Swell : Swell the image.



4.2.2 Draw

Practice drawing in the editing picture according to requirements, as shown in imageon the right:



Note: for detailed function introduction, please refer to 3.2.3 Draw.

4.2.3 Insert

Insert specified object according to requirements.



Note: for detailed function introduction, please refer to 3.2.4 Insert.

4.2.4 Calibration and Measurement

Function of calibration and measurement can be applied for precise measurement of documentwithin the editing area.

Note: for correct measurement, first set the calibration.

Function is shown in image onthe right.





For detailed function, please refer to 3.2.7 Calibration and Measurement and 3.6 Detailed Operation for Calibration Function.

4.2.5 Tool

External tools can be used according to actual need, as shown in image on the right:



Note: for detailed function introduction, please refer to 3.1.5 Tool.

4.2.6 Erase

Erase "object" in the video preview interface according to requirements, as shown in image on the right:





Note: for detailed function introduction, please refer to 3.2.6 Erase.

Erase underpainting: When this option is ticked, background of the editing picture will be wiped altogether.

4.3 Lower toolbar



For function of "Rotate", "Flip", "Shrink" and "Picture Mode", please refer to the corresponding function introduction under "3.3 Lower Toolbar".

One split screen : Make the editing area in one split screen

Dichotomy screen : Make the editing area in two split screens

Quartered screen : Make the editing area in four split screens

One split screen: Dichotomy screen:Quartered screen:









4.4 Thumbnail display area

 $Normal\ status\ ,\quad under\ the\ status\ of\ the\ right\ mouse\ buttons witch\ to\ data\ measurement\ display$







Picture display type: select display types inside the picture list box, containing "All",

"Picture", "PDF",

and "Document", as shown

below:



Open : Open picture in default system method.

Open catalogue : Open catalogue of the selected pictures.

Copy : Copy currently selected picture.

Paste : Paste already copied picture (Note: only can be pasted inside the thumbnail)

Delete : Delete the selected picture and its source file.

Rename : Rename the selected picture.

Email : Add the selected picture to OUTLOOK as an attachment.

Refresh : Refresh current picture thumbnail.





Thumbnail

display pictures and files under specified path



Measurement

Displaycurrent measurement result data

data



Word Export

Export current displayed measurement data to Microsoft Office

Word.





EXCEL Export

Export current displayed measurement data to Microsoft Office Excel:





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