

DIGITAL CAMERA
MANUAL



Content

1. INTRODUCTION	1
1.1 SPECIFICATIONS	1
2. SAFETY	2
2.1 PRECAUTIONS.....	2
2.2 DISPLAYS AND ICONS FOR SAFE USE	2
2.3 ESCAPE CLAUSE	3
3. CONFIGURATION	4
3.1 STANDARD COMPONENT	4
3.2 OPTIONAL ACCESSORIES	5
4. INSTALLATION GUIDE	6
4.1 MAIN PARTS ASSEMBLY	6
4.2 SOFTWARE INSTALLATION.....	8
5. TOUR PHOENIX SOFTWARE INTERFACE	10
5.1 INFORMATION PANEL.....	11
5.2 PICTURE MANIPULATION SIDEBAR	12
5.3 MAIN MENU SIDEBAR.....	13
5.4 SYSTEM PREFERENCE.....	15
5.5 IMAGE EDITING INTERFACE.....	15
5.6 DIAGNOSTICREPORT PRINTING INTERFACE.....	16
6. SUPPORT SERVICE	18

1. Introduction

Thank you for purchasing IMAX-5 digital imaging system.

This system is a complete image capture and management system, which is developed to equip numerous popular brand slit lamps to realize good slit lamp imaging.

This digital imaging system has the following features:

- Easy connection
- Quick data transmission with USB 2.0 connector
- Intuitive software
- Image comparison of multiple sessions
- Diagnose report documentation and printing

This user manual covers an overview of the basic operation, troubleshooting, checking and maintenance of PIMAX-5 digital imaging system.

Keep this manual with the instrument for future reference.

1.1 Specifications

Digital imaging system:

Image sensor:	1/2.5 inch high speed & HD image sensor	
Image resolution:	2592 X1944	
Image format:	jpeg	
Video resolution:	1280 X960 (HD)	30fps
	1280 X720 (HD)	30fps
Image capture mode:	Wireless joystick, shutter pedal, mouse click, keyboard shortcut button.	
Exposure mode:	Auto exposure, auto gain & auto white balance.	
Data transmission interface:	USB 2.0, wireless	
Power supply:	USB 2.0, 5V/DC	

Software:

Base:	Developed under the Microsoft .Net environment using C # and specialized user interface and image manipulation libraries.	
Support OS:	Windows 7 (32 bits)/ (64 bits), Windows 8 (32 bits)/ (64 bits)/ Windows 10(32 bits)/ (64 bits)	
PC requirements:	CPU:	dual-core
	Memory:	1G or above
	Storage disk:	160G or above (Note: large storage space is required for setting the database.)
	Graphics:	independent is preferred

2. Safety

2.1 Precautions

- To prevent falling during use and movement, take care of each unit.
- To avoid electric shocks, do not attempt detaching, repairing the digital imaging system. Any question, please contact the authorized distributor for help.
- Protect this instrument from adverse effects caused by atmospheric pressure, temperature, moisture, ventilation, sunlight, dust, salt content, sulfur, etc.
- Do not touch the optical lens with hard objects.
- Shut the main power when the instrument is not in use.
- Deal with the waste disposal produced by the machine according to relevant laws and regulations.
- Read the safety signs and other figure explanation on the user manual for the safe use of this instrument.

Working environment

Temperature: 10°C-40°C
Humidity: 30%-75% (no dewing)
Atmospheric pressure: 700hPa-1, 060hPa

Storage environment

Environmental Conditions
Temperature: 10°C-40°C
Humidity: 30-75% (no dewing)
Atmospheric Pressure: 700hPa-1, 060hPa

Place of Storage

- (1) Protected from water splashes
- (3) Stable and free from slopes, vibrations, shocks (including transportation), etc.
- (4) Free from chemicals and gases






Permissible environmental conditions for transport

Temperature: -20°C-50°C
Humidity: 10%-95%

2.2 Displays and icons for safe use

In order to ensure the safe use of the product and to avoid any danger to operator or others, or damage to property, important warning displays and icons are placed on the product and inserted in this manual. It's suggested for all users to learn the meaning of following displays and icons.

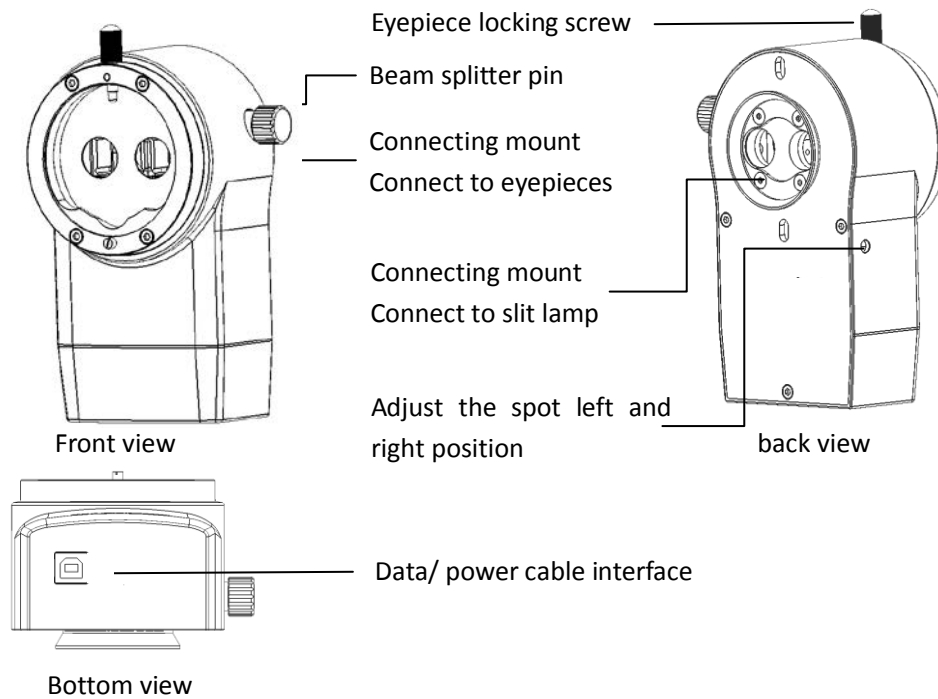
Displays/Icons

	Manufacture Date
	Manufacture information
	European certificate of conformity
PN	Part number
SN	Serial number
	Warning
	Authorized representative in European community

2.3 Escape Clause

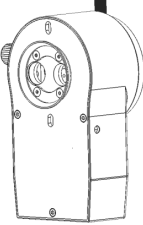
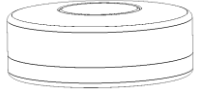

- Viewlight LLC shall not take any responsibility for damage due to fire, earthquakes, actions by a third party or other accidents, or the negligence and misuse of the user and use under unusual conditions.
- Viewlight LLC shall not take any responsibility for damage derived from the inability to use this equipment, such as a loss of business profit and suspension of business.
- Viewlight LLC shall not take any responsibility for damage caused by operations other than those described in this Instruction Manual.
- Diagnoses shall be made on the responsibility of pertaining doctors and Viewlight LLC shall not take any responsibility for the results of such diagnoses.




3. Configuration



3.1 Standard Component




Make sure all the following standard accessories are included.

No.	Items	Qty.
1	IMAX-5 digital imaging system mainbody 	1
2	Wireless capture button 	1
3	USB data cable 	1

4	Locking screw 	3
5	Allen wrench M2 	1
6	Silicon sticker 	6

3.2 Optional Accessories

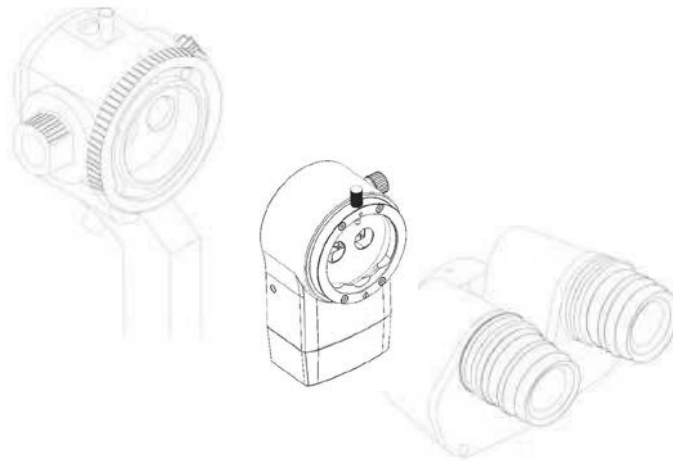
Items in this table are optional, which should be ordered separately according to user's preference.

No.	Items	Qty.
1	Backlit illumination (USB port) 	Optional
2	Shutter pedal (USB port) 	Optional
3	Long USB data cable (5m/16.4ft) 	Optional

4. Installation guide

4.1 Main parts assembly

1. Assembly IMAX-5 digital imaging system mainbody to the beam path of slit lamp.
 - Align the groove mark on slit lamp and IMAX-5 module to be connected.
 - Tighten by fastening the locking screws.



Notes: Everything is done to cut the weight of the IMAX-5 digital imaging system to ensure the lift and down adjustment on slit lamp joystick is still easy. At the same time, the well-known brands slit lamp (e.g. Haag-Streit) designs auxiliary system compensating the weight of accessories to achieve the same goal. Follow the detail in the instruction manual of slit lamp.

2. The wireless capture button introduce
The wireless capture button is used to trigger the camera to take pictures; It can be used alone or in combination with the shutter button which comes with the joystick of the slit lamp. After the wireless capture button connects to the shutter switch, both the shutter button and the wireless capture button can trigger the camera.



3. Install the battery for the Wireless capture button (Battery model:CR2032)

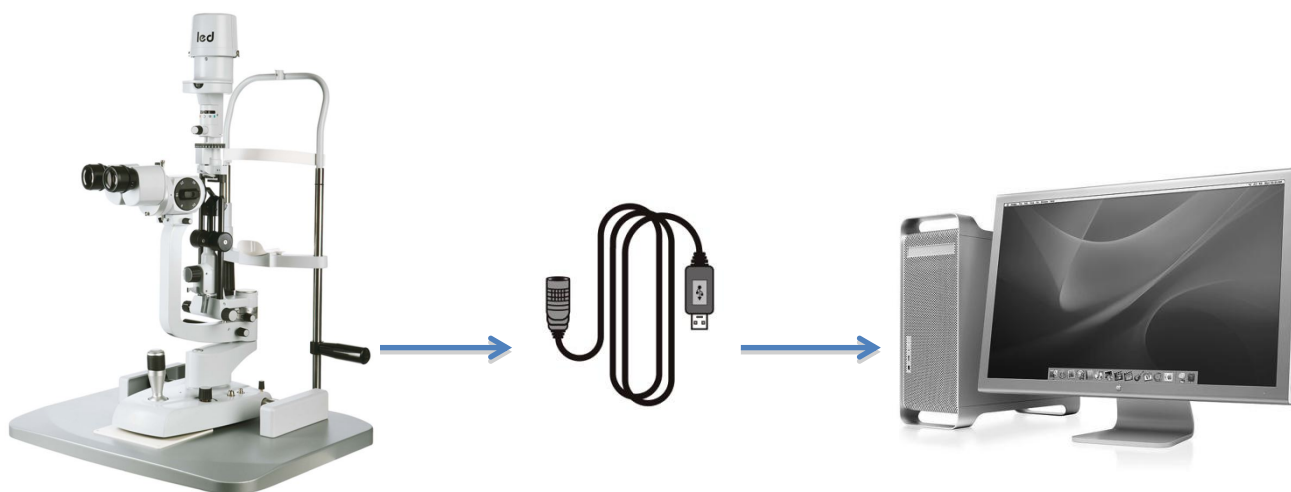


4. Attach the Wireless capture button to the slit lamp handle



Connect IMAX-5 digital imaging system to computer with standard USB data cable according to **Connection diagram** below.(It's recommended to connect the cable to module first)

Connection diagram:



Easy connection:

Use a PC: It's recommended to connect IMAX-5 to the back USB port of PC, which can provide stable voltage to IMAX-5. If the voltage provided by PC is lower than rated value, the **USB HUB** is a good complementary accessory.

Use a laptop: Always supply the equivalent voltage.

4.2 Software installation

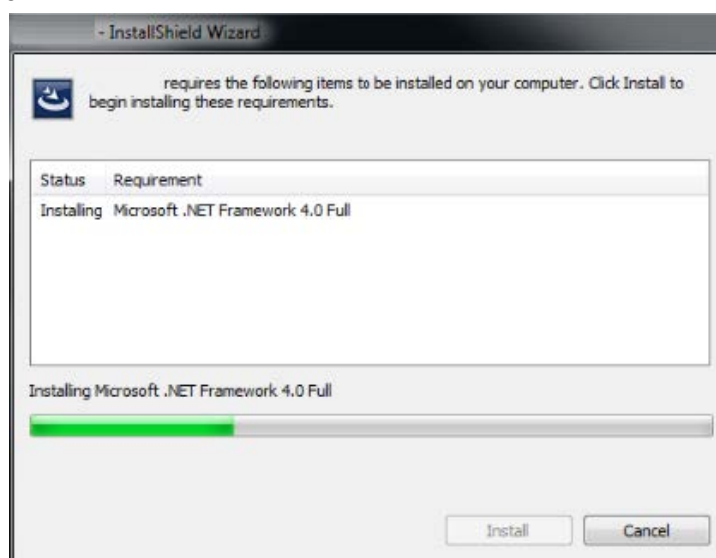
- Please make sure the module is already connected to a PC or laptop.
- Please make sure the other version software is already uninstalled.
- Please download the installation software with the link we provided.
- The software including:

 Drivers	2014/7/21 9:39
 setup.exe	2014/1/16 21:55

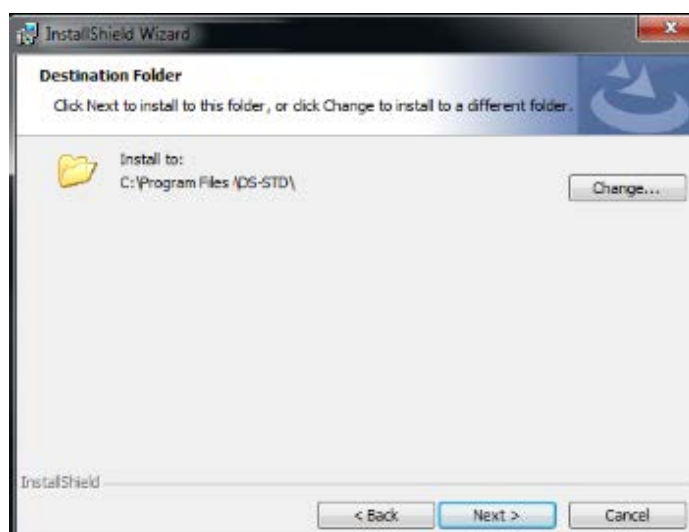
Driver folder: driver package

Setup.exe: software installation procedure

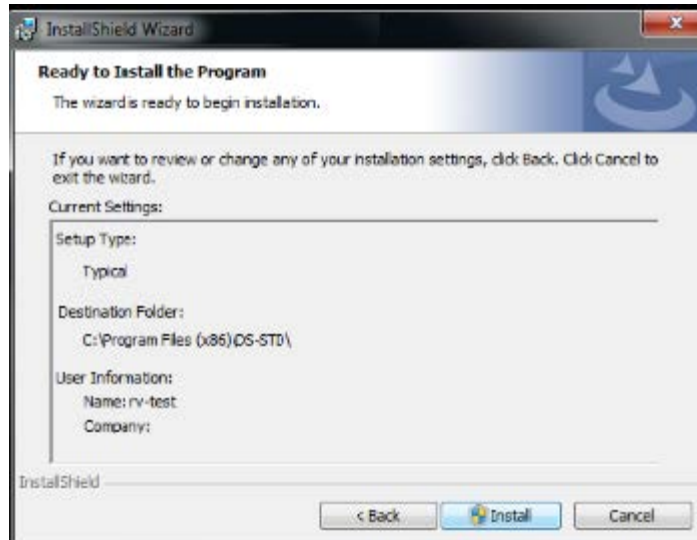
- Double click **setup.exe** and follow the guide to install IMAX software. It will take about 8 minutes to complete the installation.



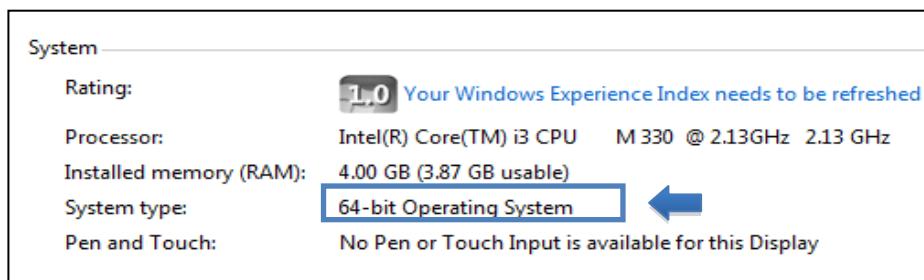
- The default destination folder is system disk. It's recommended to place the folder to a sole disk with large space for storing the database. Click Next to go to next step.



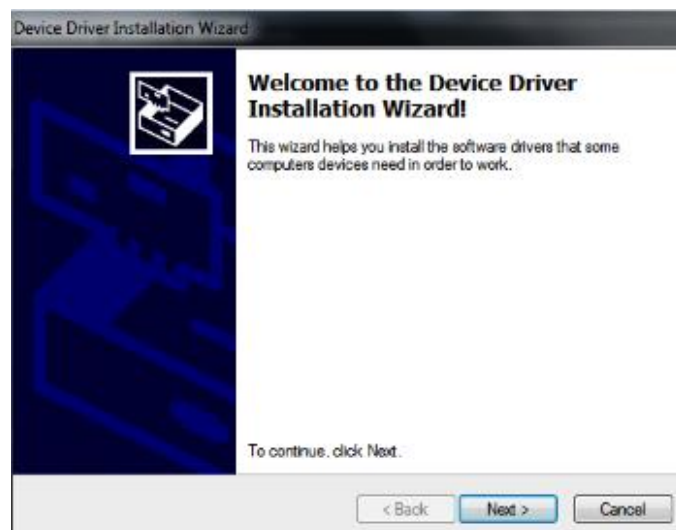
- Click install to start the installation. Tips: The system security windows may pop out to stop the software installing; click trust to move on.



- Select the equivalent device driver according to your computer system type.
How to check system type: Right click **Computer** icon on desktop, choose **System** to check the system type. And later choose the corresponding driver.



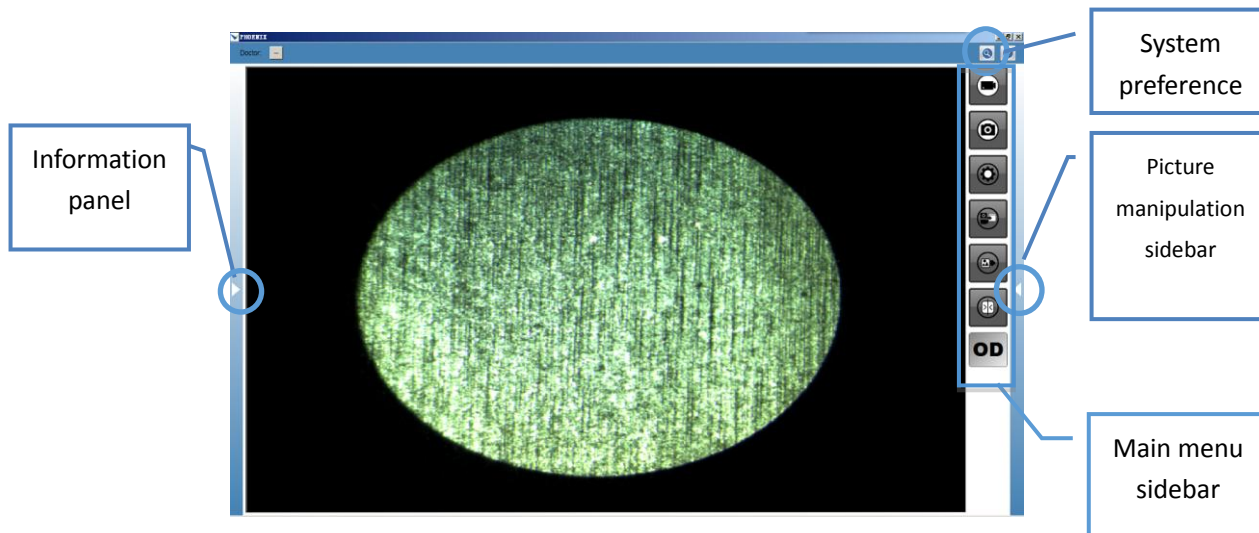
Tips: The system security windows may pop out to stop the software installing; click trust to move on.



- Click finish and reboot the computer.
- Shortcut icon will be generated on the desktop.

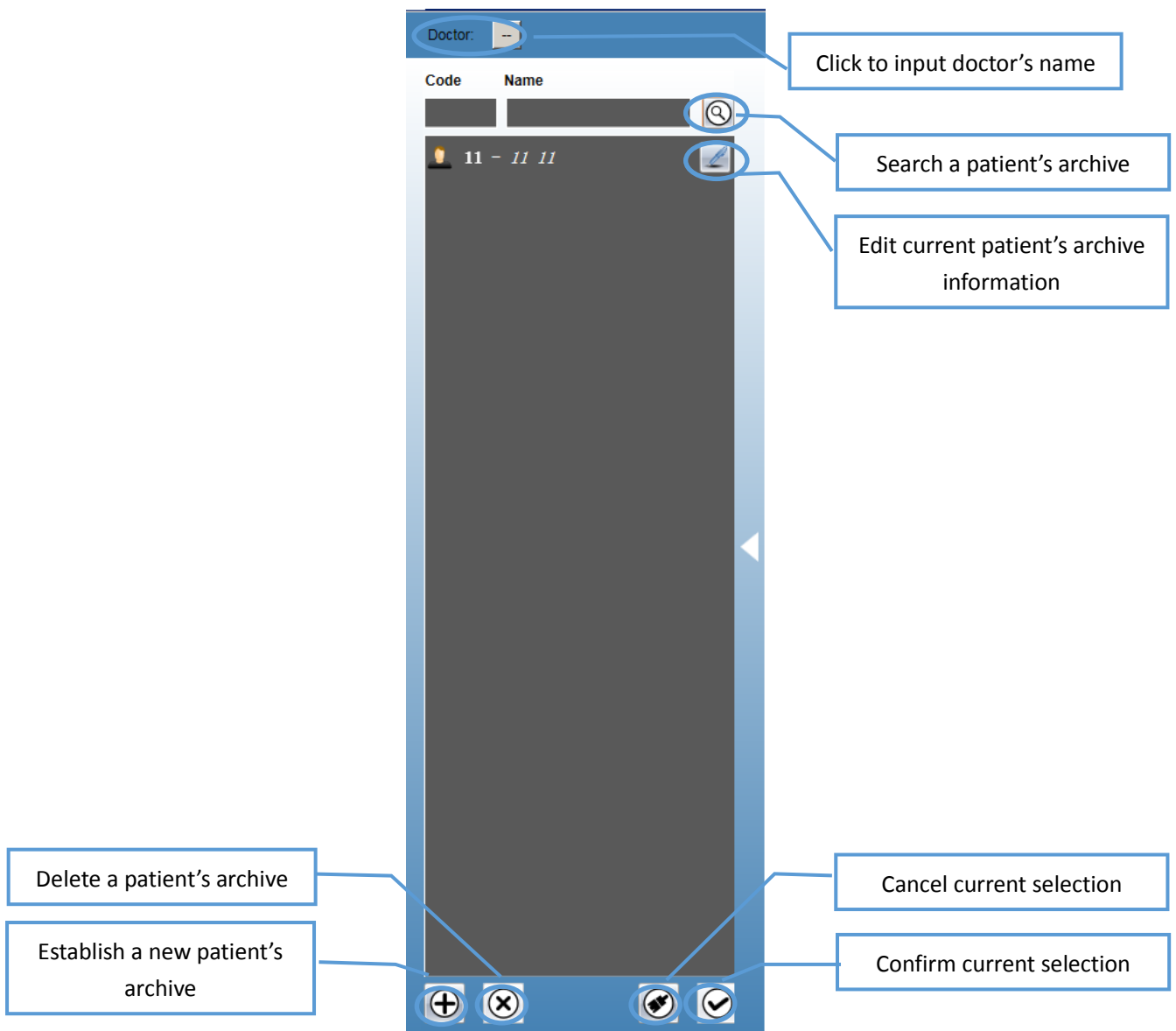
5. Tour IMAX-5 software interface

- Double click the IMAX-5 shortcut icon on desktop to start the software. A real time preview window will appear in the center screen.



- **Information panel:** Click the tiny white triangle icon to show or hide information panel.
- **Picture manipulation sidebar:** Click the tiny white triangle icon to show or hide sidebar.
- **Main menu sidebar:** Frequently used function menu of IMAX-5 .
- **System preference:** Click the button to set system preference.

5.1 Information panel



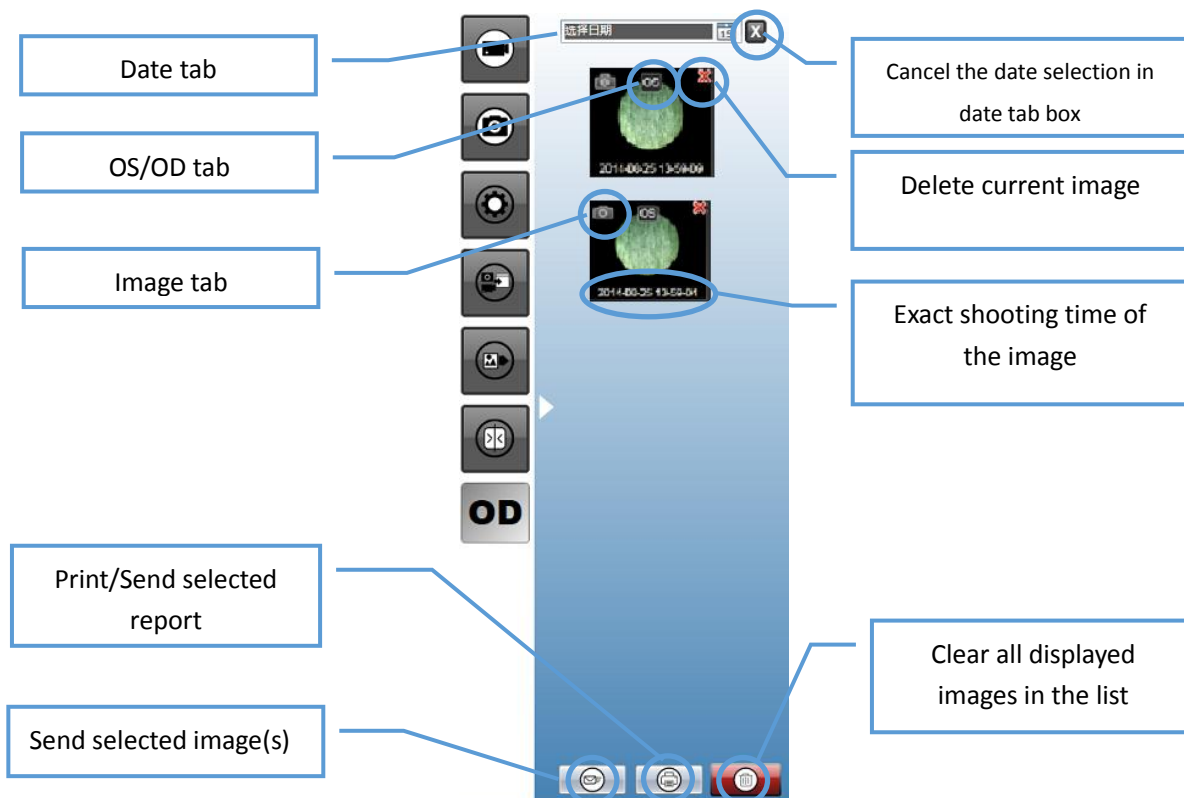
- Doctor's name inputting dialog:



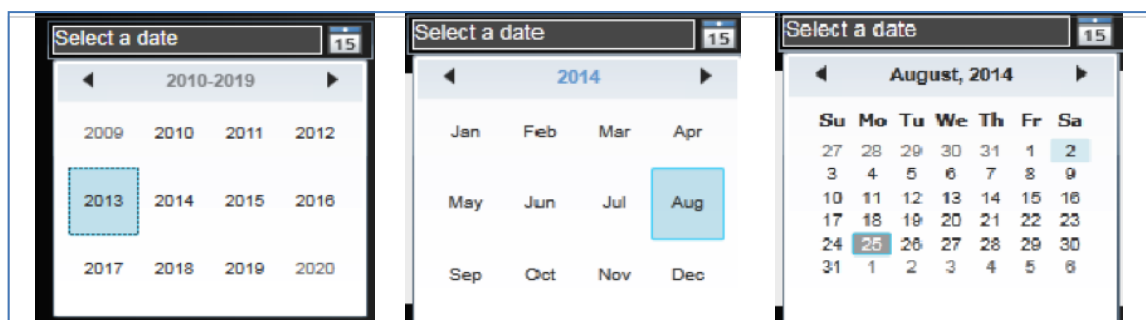
- Establish a new patient's archive dialog:

Note: the boxes marked with * are required information, which must be filled to establish a new patient archive.

5.2 Picture manipulation sidebar










- Date tab: select a date; the pictures shooting in the fixed date will be displayed below in the list.

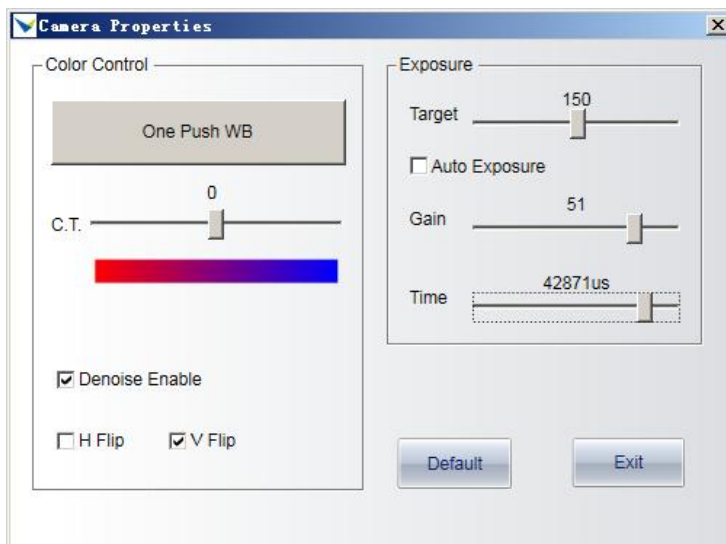


- Print selected pictures: see detail in chapter [Diagnostic Report Printing Interface](#).

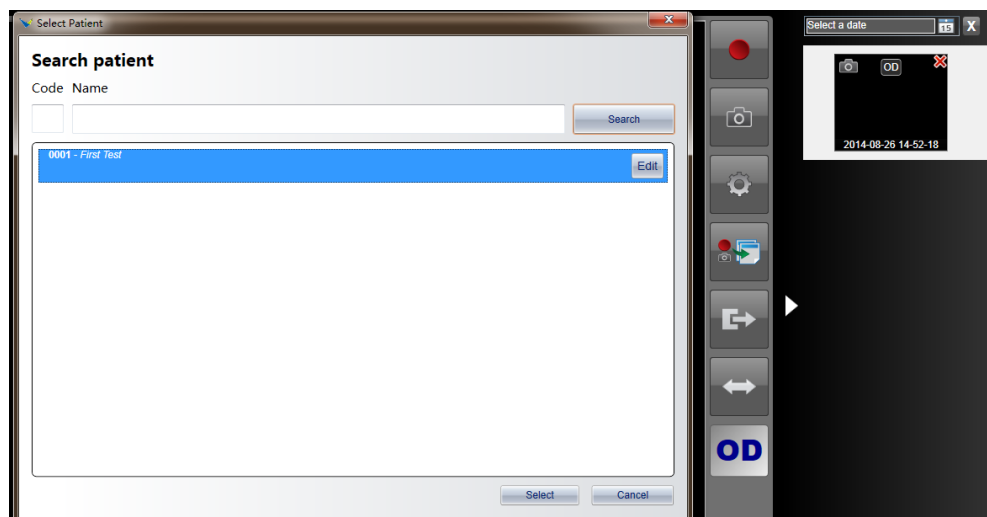
5.3 Main menu sidebar


	Capture video: Click to start/ stop a taking video.
	Capture photo: Click to shoot a photo.
	*Camera properties: Click to change the configuration of integrated camera.
	*Copy to patient: Add a selected picture to a patient's archive.
	Export the picture: Export selected pictures to a specified folder.
	*Compare pictures: Compare two selected pictures.
	OS/OD Shift: Shift between left and right eye.

**Camera properties dialog:* (It's suggested to modify the parameter following engineer's advice.)



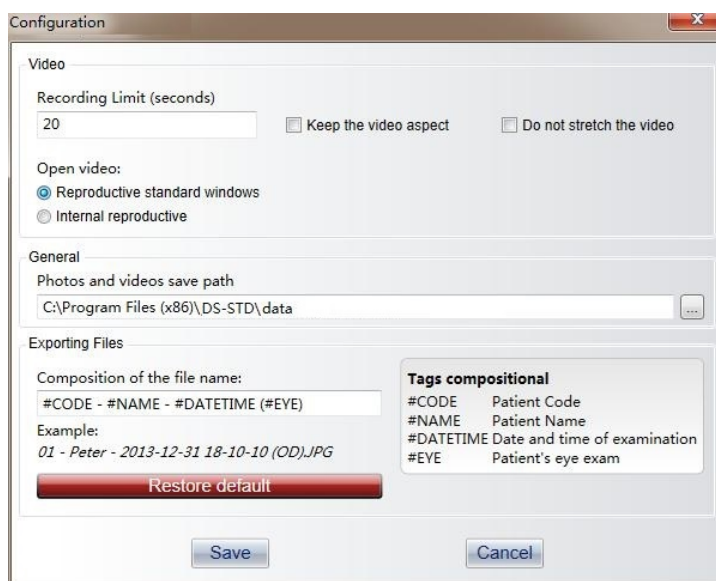
* *Copy to patient dialog:* (Choose a picture and click **select** button to confirm operation.)



Compare pictures dialog:* use **control key on keyboard to select two pictures and click  to do photo comparison.



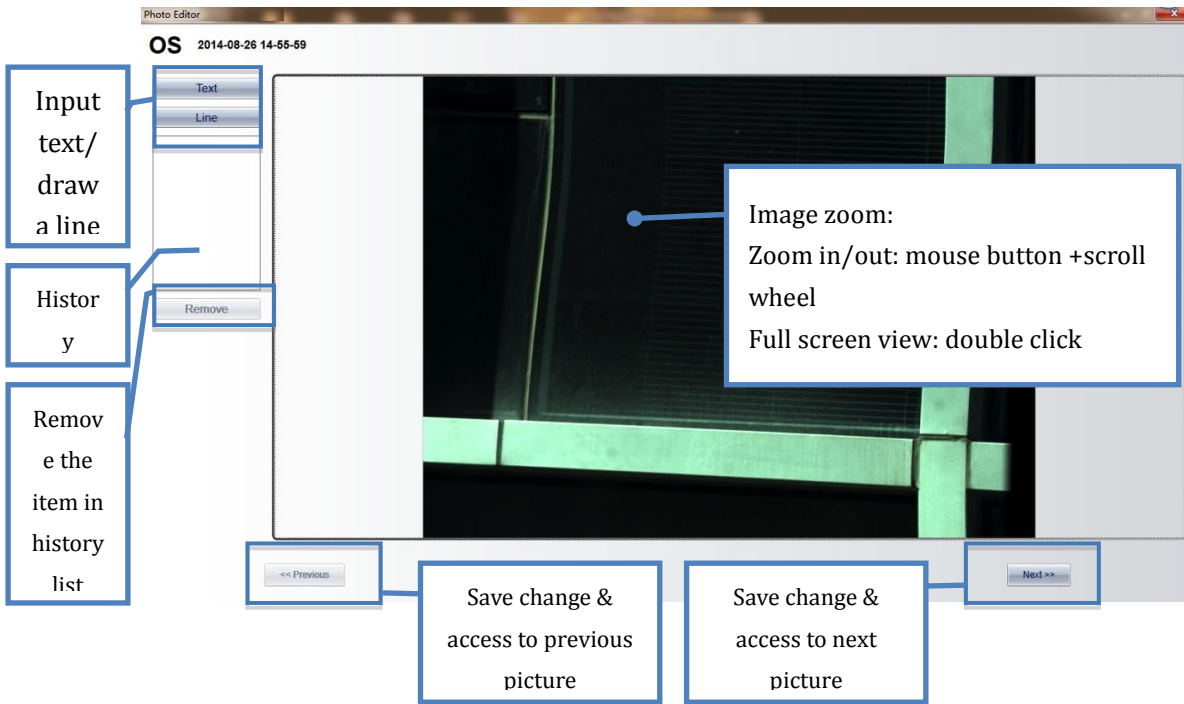
5.4 System preference



- **Video:**
Recording Limit (20''): IMAX-5 will stop recording at 20 second. Change the time limit according to your preference.
Open video: You may use the OS default video player, the software internal player or a third party application to play the video.
- **General:**
Photo and video save path: Change the destination folder of IMAX-5 database.
- **Exporting files:**
Composition: Uniform the files' name when exporting files to another folder.
- **Save:** Save the changes.
- **Cancel:** Cancel the changes.

5.5 Image editing interface

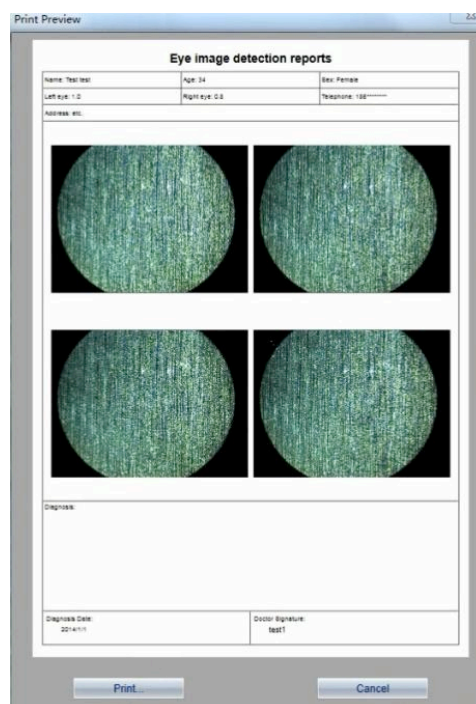
Double right click the picture listed in the **Picture Manipulation Sidebar** to edit the selected item.



More than one description text tabs or lines can be input and drew on the picture. These actions will be listed in the **History List**. Select from the list to make a change. Once an item is selected and become movable, its color will turn yellow from white.

5.6 Diagnostic report printing interface

- Print selected pictures: Single click for one picture diagnostic report printing. Long press **control+multi click** for multiple pictures (Maximum 4) diagnostic report printing. Click **Print** button in **Picture Manipulation Sidebar** to access preview window as below.



- Press **Print/ Cancel** to confirm/ cancel printing.
- Press send to send the report as an attachment.
- Please set the email information in control panel before sending pictures. Windows default information is Outlook.

6. Support service

When calling for support service, please provide the following information about your unit:

Mode type: IMAX-5 digital imaging system WITH SOFTWARE VERSION

Product Serial number (SN) (Shown on the label stick on IMAX-5 digital imaging system mainbody.)

Purchasing date

Detailed description of Problem

IMAX-5 DIGITAL IMAGING SYSTEM

INSTRUCTION MANUAL

Version1.2.2

Subject to change in design or specifications without advance notification.