

Mediview User Manual

Please read this user manual carefully before using the software.
Please keep this user manual for future reference.
Please use the software based on good understanding of the
content in this user manual.

Version: 2.0



contents

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Thank you for purchasing Mediview software .

1. General Introduction

➤ Mediview software is used for capturing image by slit lamp microscope, compiling, analyzing and archiving the images taken by slit lamp microscope and FC160 Hand-held Fundus Camera and generating diagnostic report.

1.1 Software Functions

- Image display, capture and restore
 - Still image capture (Not available for FC160 Hand-held Fundus Camera)
 - Image import, delete and export
- Video display, capture and restore
 - Video recording(Not available for FC160 Hand-held Fundus Camera)
 - Video import, delete and export
- Image measurement
 - Measurement of length
 - Measurement of the square perimeter and area
 - Measurement of the circle circumference and area
 - Measurement of angle
- Diagnostic report edit
 - Select diagnostic template
 - Input regular template
 - Input measuring data
 - Display and copy history record
- Medical record management
 - Create, edit, delete, search and print medical record
- Software setting
 - Report content setting
 - User account management

1.2 Software Operation Environment

Computer hardware configuration:

- CPU: Intel Core i3 Dual, 2.5Hz or above
- RAM: 4G or above
- Display: 1920 x 1080(recommend display size above 22inch), minimum resolution 1280*768 (if below 1280*768, Mediview interface will not display normally but the image display won't be affected)
- Graphic card: DirectX 9.0c or above
- Hard disk space: 200GB or above
- Data port: USB2.0
- Printer: A4 paper color printer (recommended) or the printer can compatible with other paper size of A5, B5 and US letter.

1.3 Computer Operating Software Configuration

Mediview software is running in Windows or Macintosh operating system with requirement below,

- Windows operating system: Windows 7, Windows 8.1, Windows 10, 64-bit, 32-bit
- Macintosh operating system: Mac OS X 10.9 Mavericks or above

1.4 Precaution

- Please make sure the software has been installed correctly
- Please make the initial setting according to popped up guide in the software when running the slit lamp microscope image capturing first time.

2. Software Installation

Mediview software adopts wizard installation, please install it according to the following steps.

2.1 Preparation before Installation

- Computer disk space division: As the disease diagnosis is a sustaining process, every patient's file might take up a relatively large space in computer, so before the installation, it is suggested to leave a large space over 200GB and install Mediview software in this division.
- Installation location: To ensure the safety of the data, please don't install the software in the same disk as computer operating system software (very important!!). Please leave a special division for MediView software and separate the division from other software.

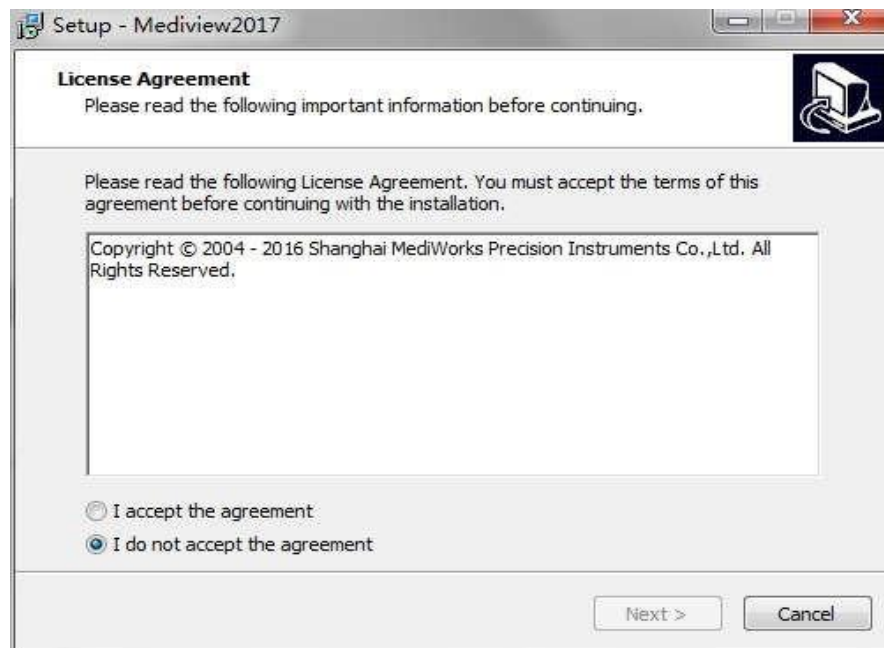
2.2 Mediview Setup Mediview

a) Run the "Mediview2017_Setup_XXXXXXXXX.exe" in CD disk. Please follow the instruction; the software setup will be completed conveniently.

b) The following is related information when running Mediview2017 program.
Please select setup language. If user want to switch to other language after installation, please refer to 3.6.4 in this manual.

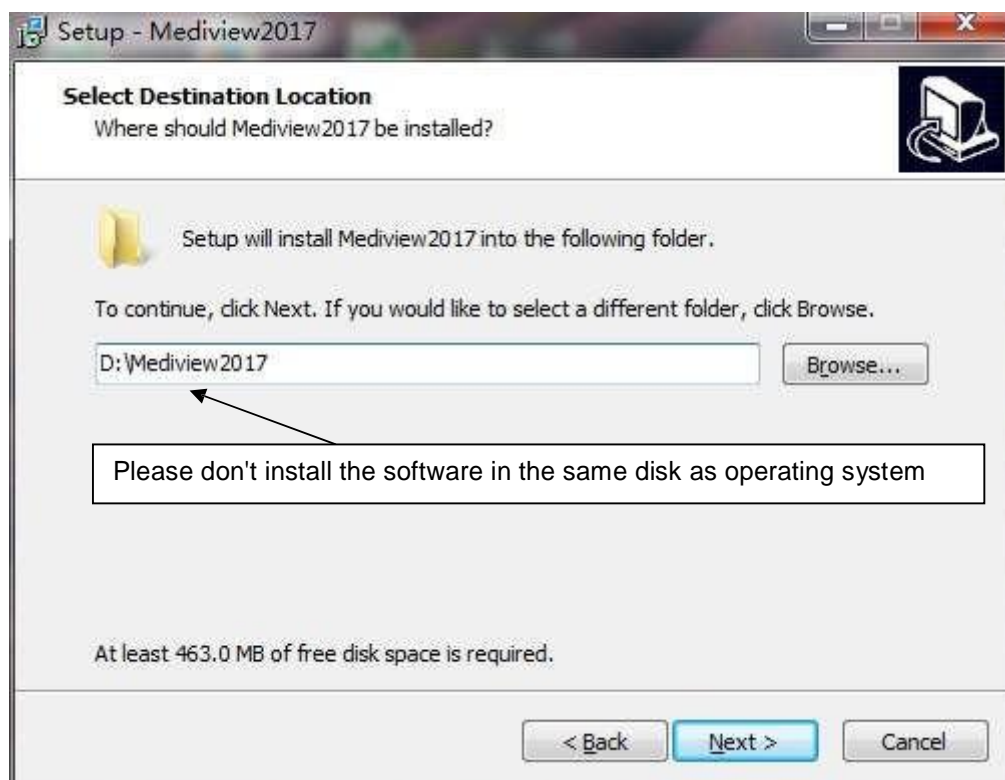


c) The following is a license agreement. Please choose "I accept the agreement" and click next to continue the installation.

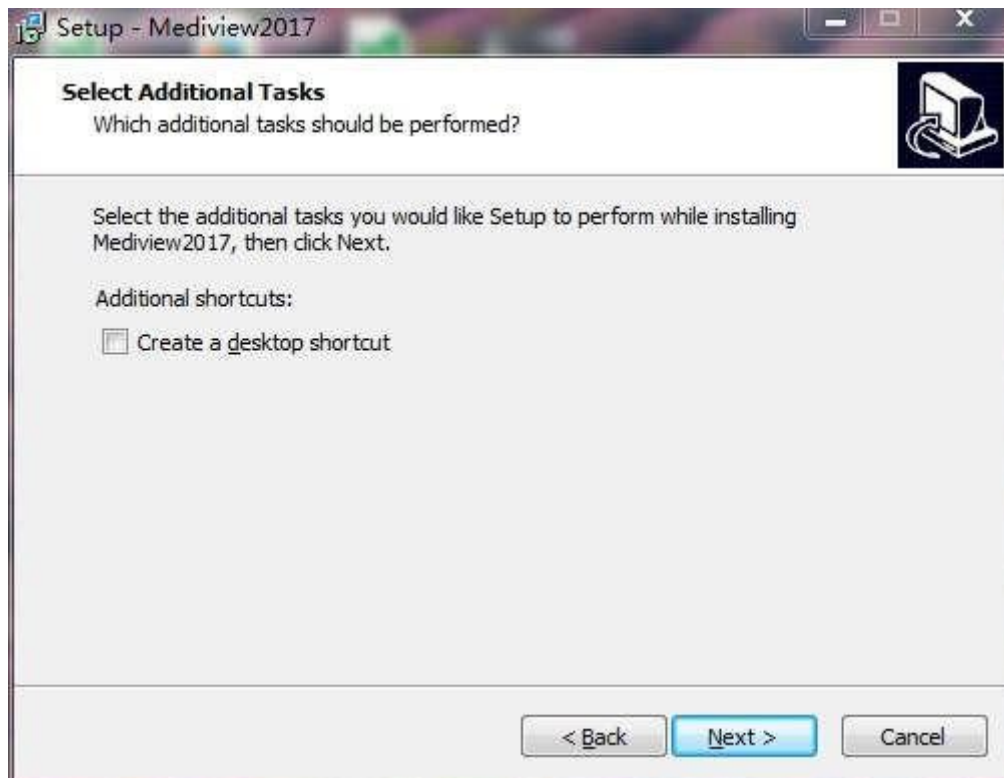


d) Please select a folder to install the software. Please don't install the software in the same disk as operating system which usually is located in disk C.

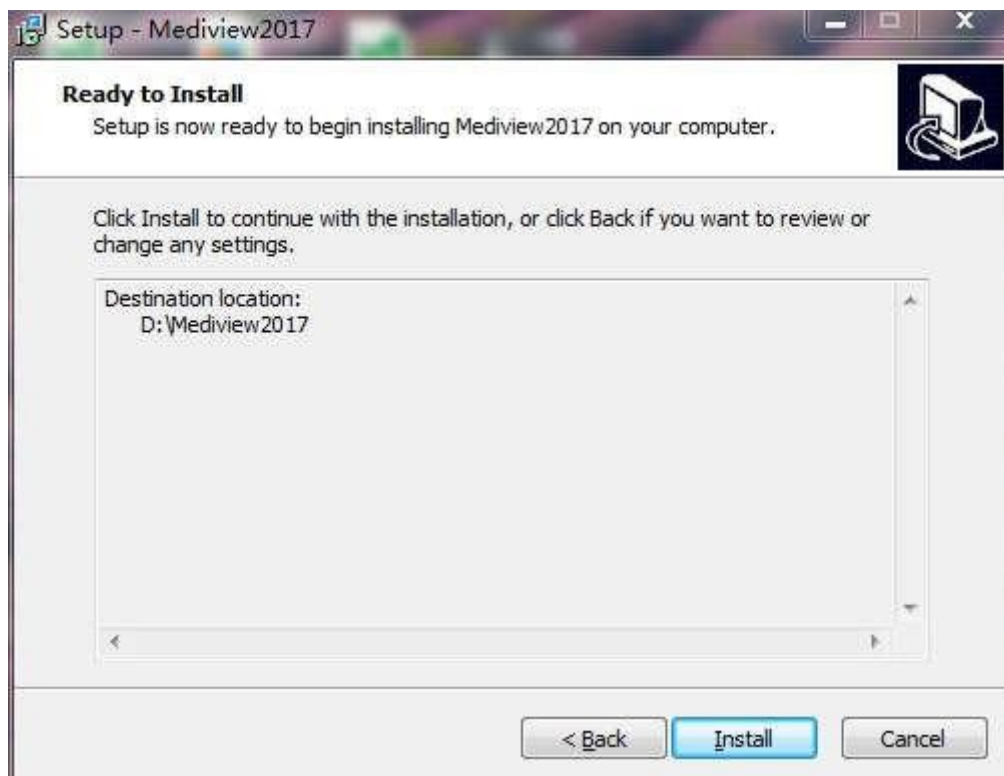
Noted: The installation path should all be English letters (can not include Chinese, space, special characters or punctuations). Otherwise, there might be error occurring after installation.



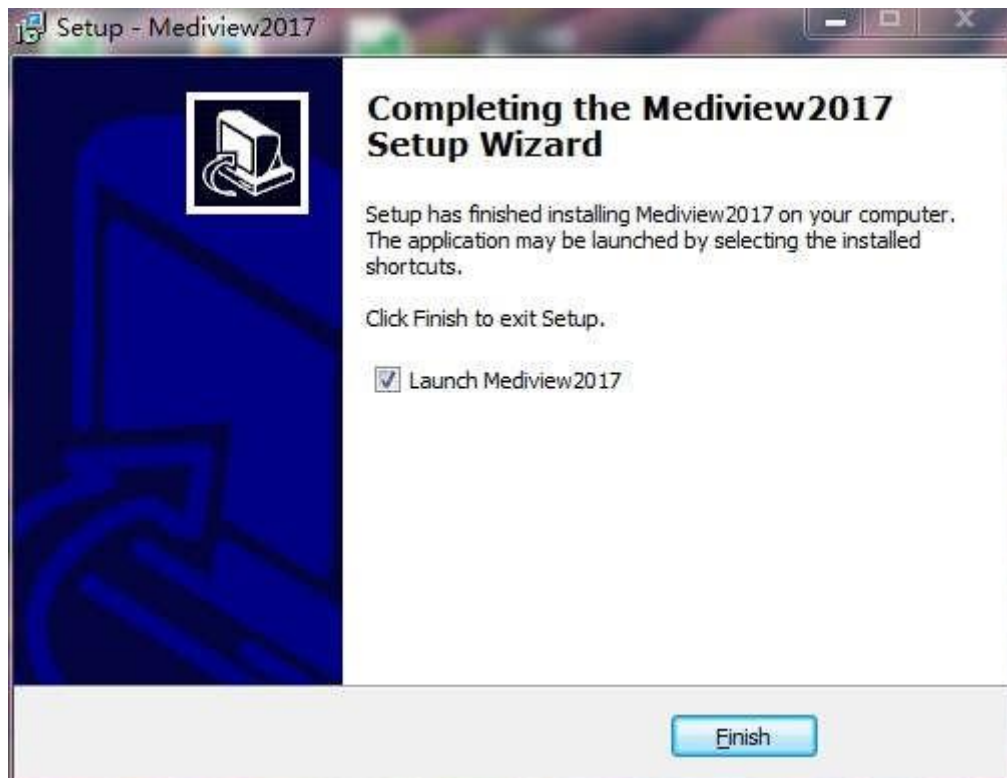
e) Select additional tasks. If "Created a desktop shortcut" is selected, Mediview shortcut icon will be created on desktop. You can click the Mediview desktop shortcut to start software. Click "Back" to return installation path selection. Click "Next" to go to installation interface.



f) On installation interface, the Mediview software will start installation automatically after clicking "Install". The whole MediView installation might take 1~2 minutes. Please don't click "Cancel" during installation. Otherwise, the software will not be installed successfully.



g) The Mediview2017 software setup is finished as showed below.



2.3 Setup MediView in Macintosh Operating System

- Run the “MediView2017_Setup_XXXXXXXX.dmg” in CD disk. The software setup could be completed conveniently following this instruction.

Step 1, Install HoRNDIS

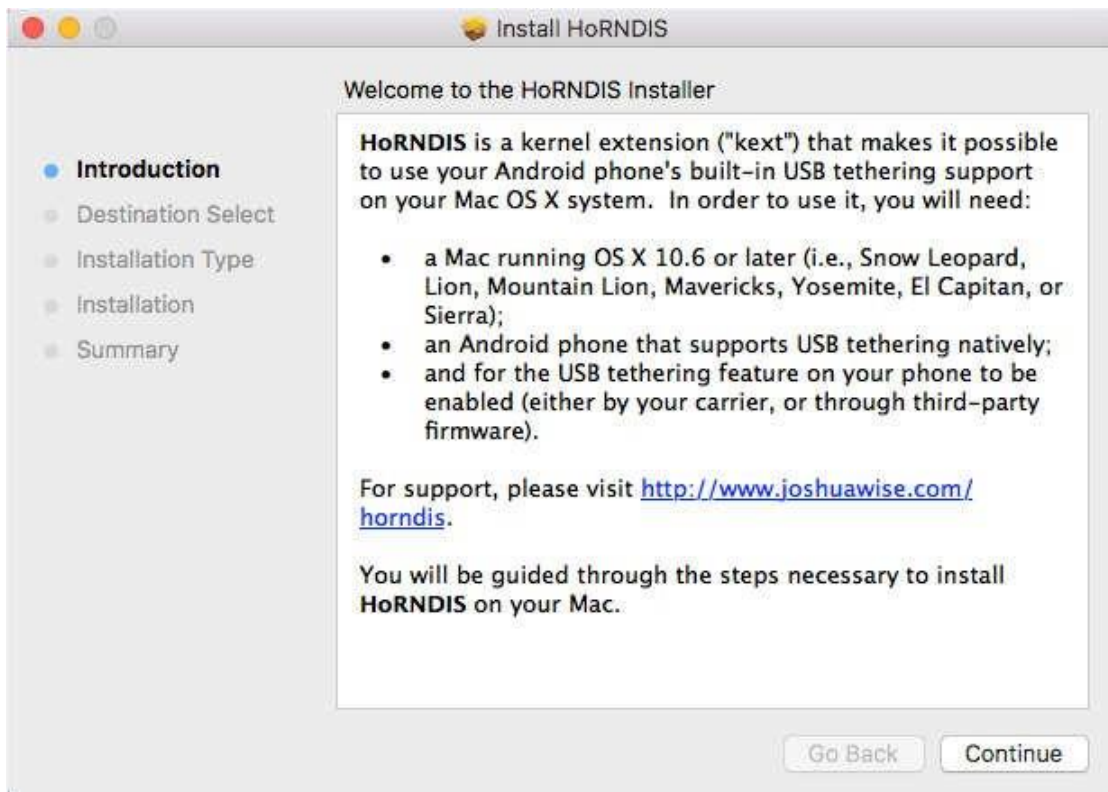
The setup interface of MediView2017 software in Macintosh operating system is showed as below:



HoRNDIS installation interface

Double click HoRNDIS-re18.pkg to open installation interface

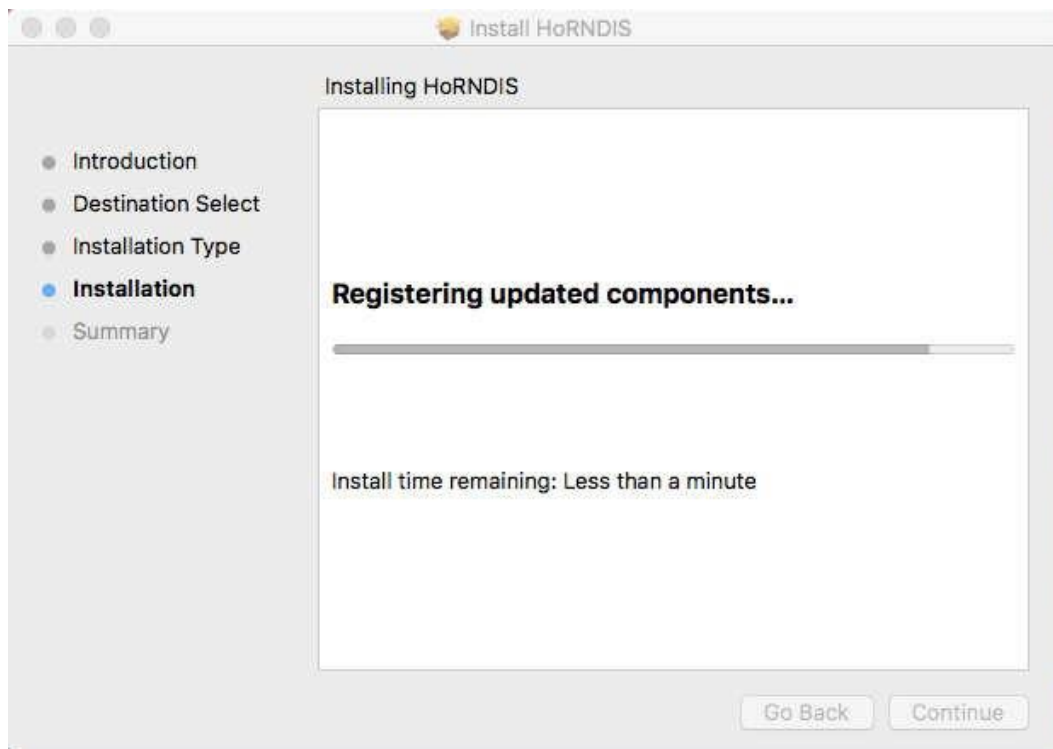
1. Introduction. Click “Continue” to go to next step



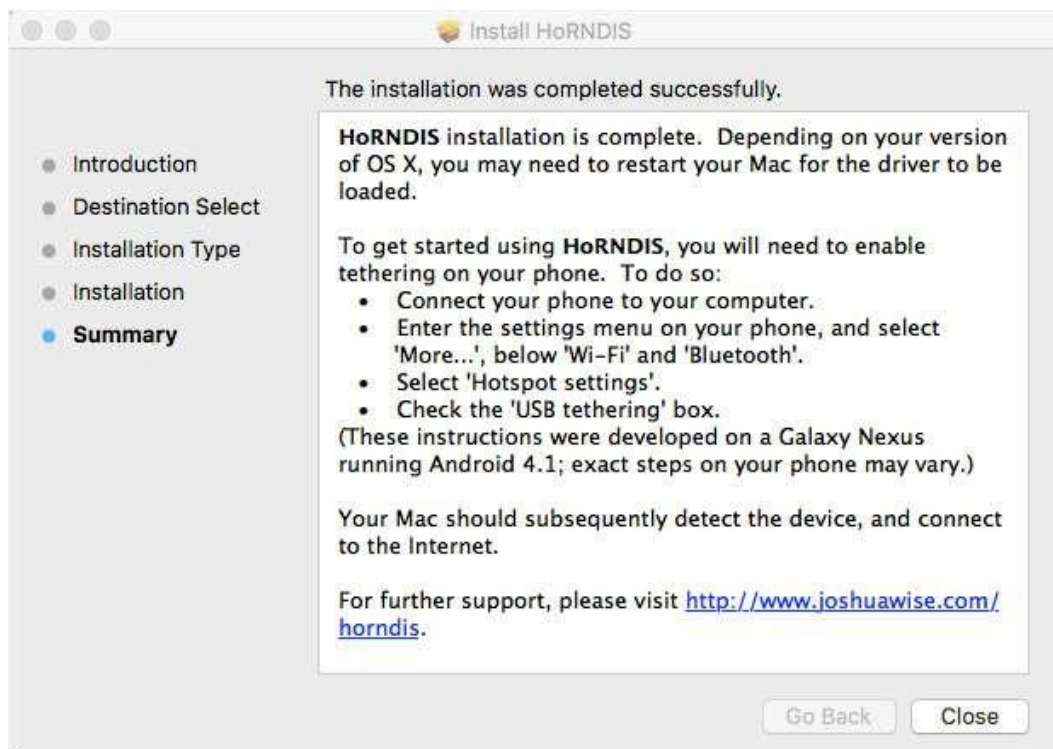
2. Click "Install", the software will be installed automatically.



3. Please wait during installing HoRNDIS



4. The installation of HoRNDIS has completed successfully.



Step 2, Install application
 Drag Mediview icon into Application to start automatic installation.



Drag Mediview icon into Application

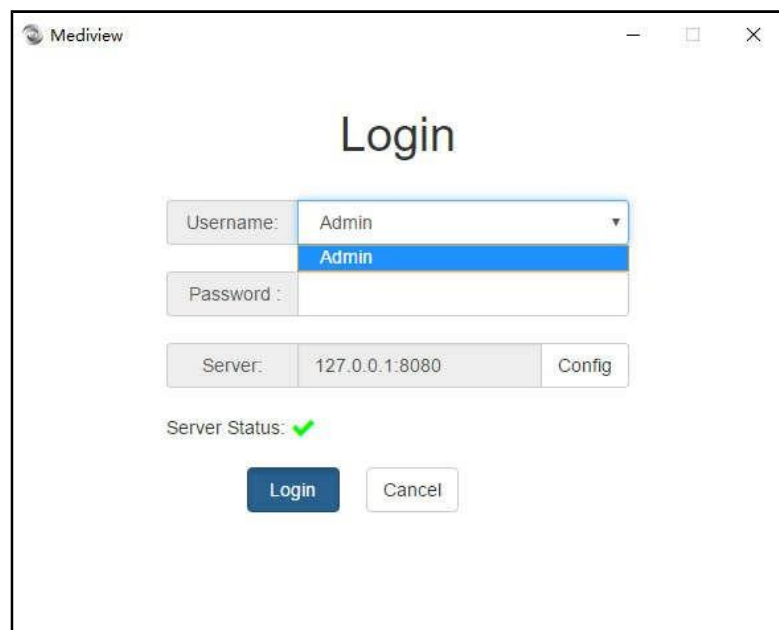
3 Software Operation and Configuration

3.1 Login

Mediview2017 allow users to add user account according to their needs. User can login Mediview with added accounts. Patients' cases in each user account could either be independent or be shared with different user accounts. Detailed user account settings can be referred to 3.9 in this chapter.

3.1.1 Normal Login

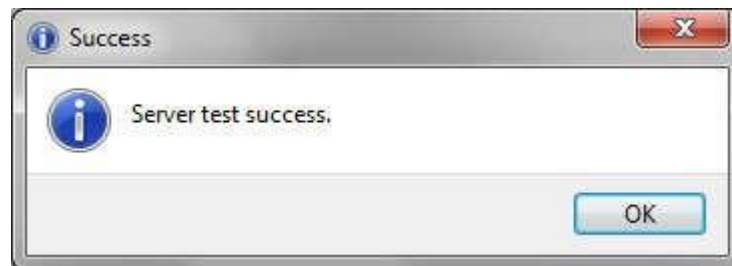
- Double click Mediview desktop shortcut. The program will start to run by displaying a login window (The default username is Admin and there is no password for this default account). In home interface in PC, double click the shortcut icon to run the program. There will pop up a login window (the default username is Admin and the password is empty). The user can input correct username and password to login the software.



- The login server can be set on login window by clicking "Config" to open Sever window. Input the Mediview software installed sever IP address in Server IP box, and input server port. (The default IP address is 127.0.0.1 (local PC), the default port is 8080). The data will be transmitted encrypted if "Encrypted Transport" is selected.



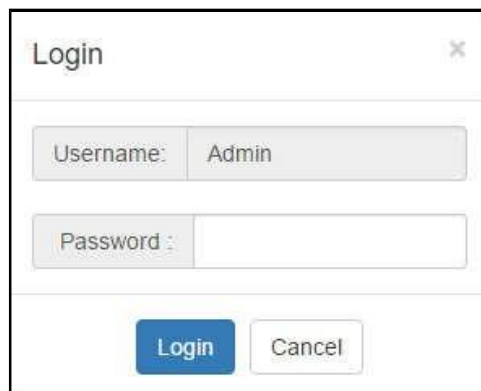
- Please input correct username and password to enter home interface.
- After inputting server IP address and server port and then click “Test” button, below message box will be popped up if the setting is correct.



- Click “OK” to continue
- If the below message box of “Server test error” popped up, it shows the server port is occupied by another software. Click “OK” and then contact your computer administrator for help.

3.1.2 Re-login

When the user login Mediview software, the system will assign an unique ID code to the user. When the PC run into sleep mode and the user did not use the computer for up to 20 minutes, the ID code will expire. When the user restart the software, there will pop up a login window for users to input username and password to relogin.

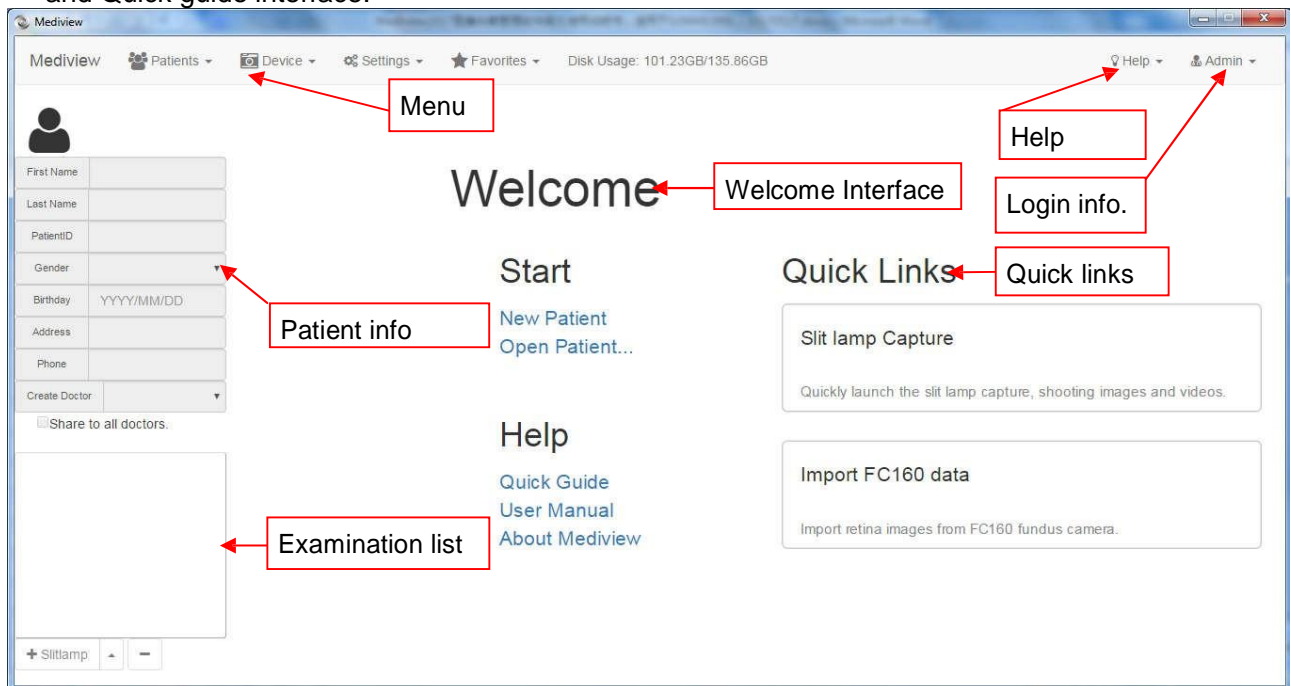


- Input password
- Click "Login".

After relgoin, the user will get new ID code which will again be valid within 20 minutes.

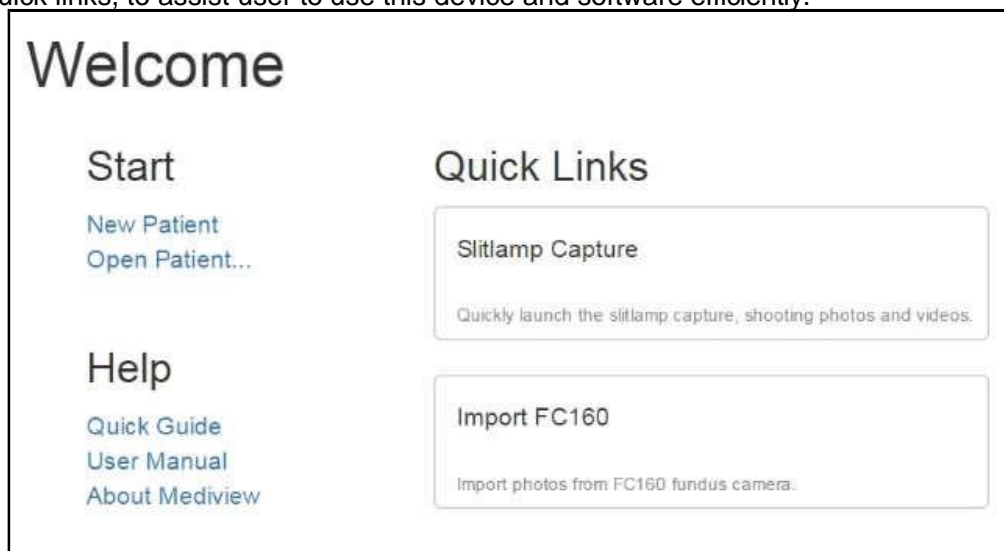
3.2 Home Interface

The Mediview home interface includes Menu, Patient info, Medical records, Examination list and Quick guide interface.



3.3 Quick Guide Interface

1. The quick guide interface covers the functions commonly used, including quick start, help and quick links, to assist user to use this device and software efficiently.



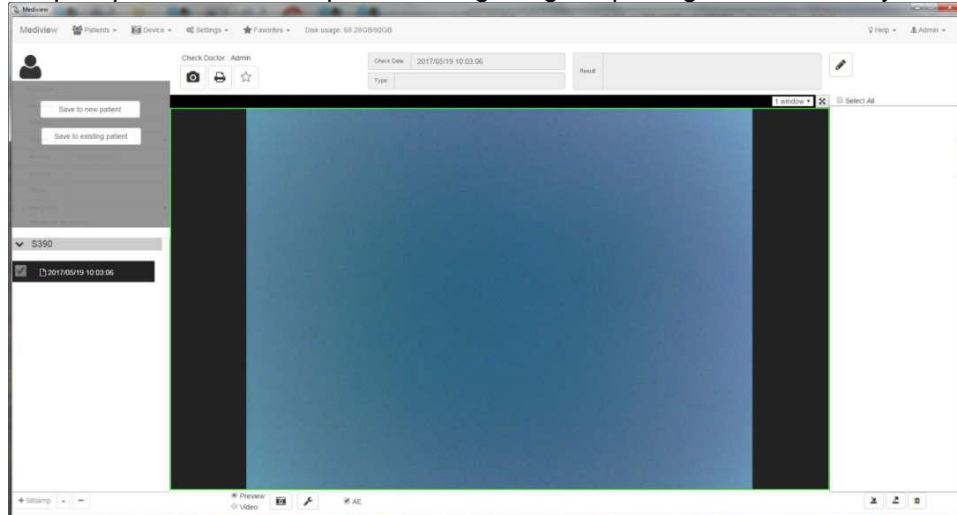
2. Start and Help

The "Start" includes two quick links which are "New Patient" and "Open Patient". Click "New Patient" to create new patient file quickly while click "Open Patient" to open an existing patient file. Detailed manual can be referred to 3.4.1 in this chapter.

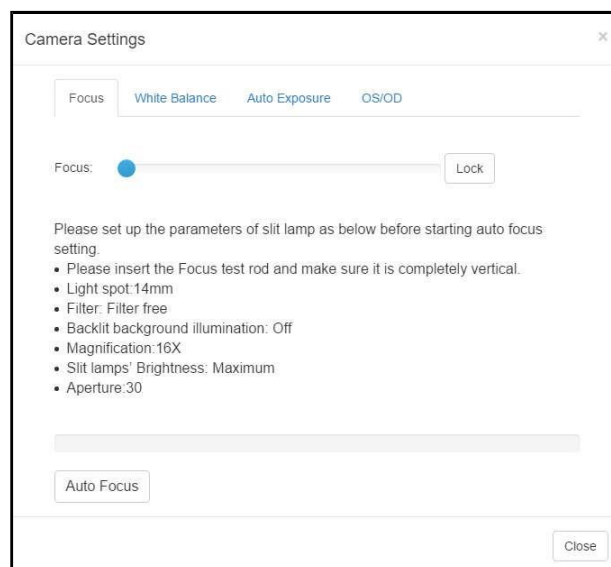
3. Quick Links

4. Slitlamp Capture

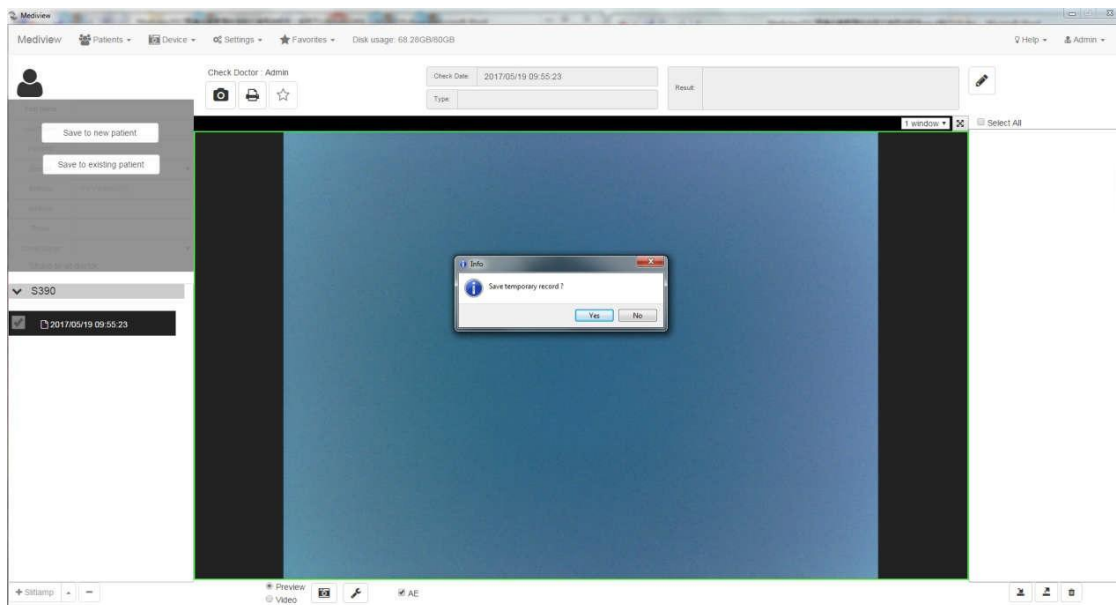
➤ Click "Slitlamp Capture", user will open following image capturing window directly:



➤ If the capturing window of Mediview is run for the first time, a camera setting interface is opened at the same time. User can click "Close" to exit this interface. Detailed camera settings can be referred to 4.2 in this manual.



➤ If user enters the capturing interface through quick start mode, user can capture image(s) but user cannot save the image(s) to any patient file. If user wants to save the image(s), please click "save to new patient" to open new patient creating interface, input patient's information and save. Or click "save to existing patient" on the left side to open patient list. User can only double click the patient to save image(s). If user closes the Mediview without saving the image(s), the info box of "save temporary record" will be popped up. Click "Yes" to back home interface, or click "No" to exit Mediview. About "New Patient" and "Open Patient", please refer to 3.4.1 in this chapter



5.Import FC160 Image

- Click “Import FC160” will quickly enter into interface of importing images of FC160 Hand-held Fundus Camera. Detailed image importing operation can be referred 5.1 in this chapter.

3.4 Menu Functions

3.4.1 Operation about Patient Information Editing

Operation about patient information includes create new medical record, open patient, examination record operation, patient information editing, diagnostic record editing.

1.Create New Medical Record

Click the “Patient” in the menu, select “new patient” will open a new patient creating interface as shown below:

New Patient

| New Patient | |
|---------------------------------------------------------------------------|------------------------|
| First Name | <input type="text"/> |
| Last Name | <input type="text"/> |
| PatientID | <input type="text"/> |
| Gender | <input type="text"/> ▼ |
| Birthday | YYYY/MM/DD |
| Address | <input type="text"/> |
| Phone | <input type="text"/> |
| Email | <input type="text"/> |
| <input type="checkbox"/> Share to all doctors. | |
| <input type="button" value="Cancel"/> <input type="button" value="Save"/> | |

- Name: The name has to be filled correctly or the software will not save the file.
- Patient Identification: Fill in the Patient Identification according to the hospital rules, can be number, letter and special characters.
- Gender: pull-down the menu, click the button at the right of the “Gender” to select “Male” or “Female”.
- Birthday: please input by YYYY/MM/DD
- Address: please input patient’s address
- Phone: please input patient’s phone number

➤E-mail: Input patient's e-mail address

When you click the "Save" button after finish inputting, the patient's information will be saved into the database. The patient's information will be showed at the information area at the left bar.

2. Open Patient (Non-administrator User)

| First Name | Last Name | PatientID | Gender | Birthday | Creation Date |
|------------|-----------|-----------|--------|----------|---------------|
| | | | | | |

If non administrator user selects "Open Patient", user will see the following window with a patient list created by user self or shared by other users. User can search the patient with first name, last name, patient ID in the searching box if there are too many patients in the list.

3. Open Patient (Administrator User):

The admin user can search patient by selecting doctors and search type from drop list. If the user types key word in the search column, the system will display matching information automatically.

| First Name | Last Name | PatientID | Gender | Birthday | Creation Date |
|------------|-----------|-----------|--------|------------|---------------------|
| Patient | One | 000001 | Male | 2000/01/01 | 2017/12/20 14:38:21 |

| First Name | Last Name | PatientID | Gender | Birthday | Creation Date |
|------------|-----------|-----------|--------|------------|---------------------|
| Patient | One | 000001 | Male | 2000/01/01 | 2017/12/20 14:38:21 |


The administrator user can select doctors and see the patients managed by each doctor. If Admin select "All", it will show all the doctors with their responsible patients' names and ID.

3.4.2 Examination Record Operation

After creating the patient's file, user can create examination record each time the patient is

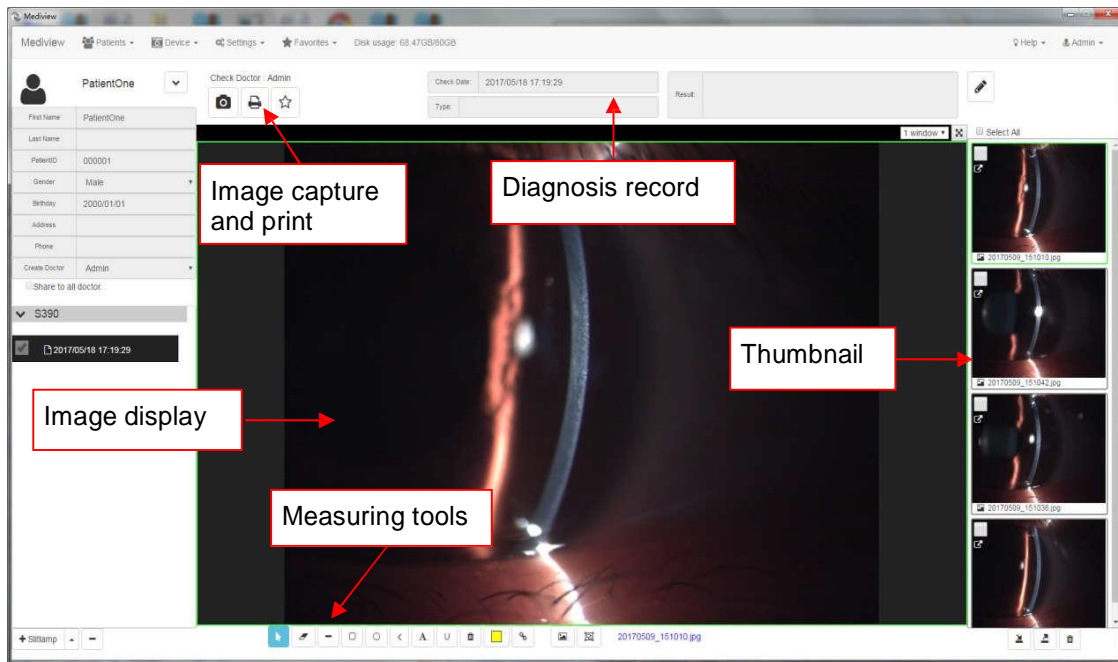
examined.

Create a new examination record, Delete examination record

- Click “


The screenshot displays a patient information form and a list of examination records. The form includes fields for First Name (Patient), Last Name (One), PatientID (000001), Gender (Male), Birthday (2000/01/01), Address, Phone, Email, and Create Doctor (Admin). There is a 'Share to all doctors' checkbox and 'Save' and 'Cancel' buttons. Below the form is a list of examination records, with one record selected: 'Slitlamp' with a timestamp of '2017/12/20 14:46:27'. At the bottom, there are buttons for '+ Slitlamp', an up arrow, and a minus sign.

- After opening the patient, patient's information and the examination record will be showed on the left side. The thumbnail is showed on the right side. Click the thumbnail in the list, then it will be showed in full size in image displaying window as below:

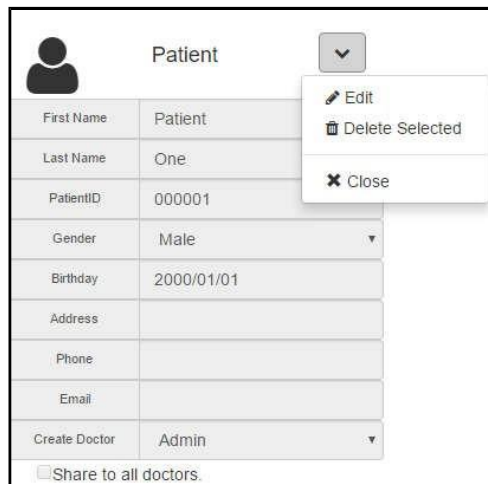


3.4.3 Patient's Information Editing

The existed patient's information can be editable in Medview software.

Click “” button aside the patient name and then Click “Edit”, the Patient's information will be turned into editable status

- User can edit patient's first name, last name, patient ID, gender, birthday, address, phone, create doctor and if share to all doctors.



- After editing, click “Save” button to save the edited information.
- After editing, click “Cancel” button to restore the status before editing.

| Patient | |
|---------------------------------------------------------------------------|------------|
| First Name | Patient |
| Last Name | One |
| PatientID | 000001 |
| Gender | Male |
| Birthday | 2000/01/01 |
| Address | |
| Phone | |
| Email | |
| Create Doctor | Admin |
| <input type="checkbox"/> Share to all doctors. | |
| <input type="button" value="Save"/> <input type="button" value="Cancel"/> | |

3.4.4 Delete Patient



➤ Click “Delete” button to delete the patient. After deleting, the patient file cannot be recovered.

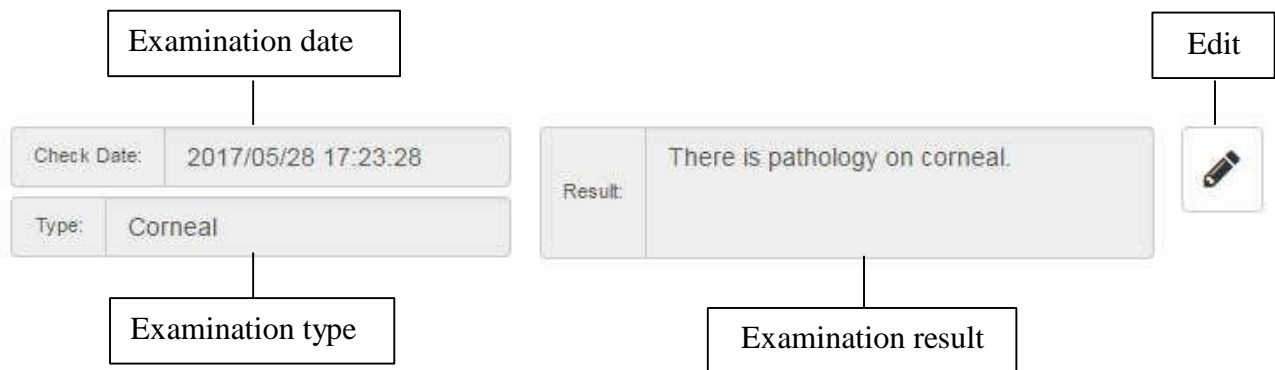
3.4.5 Close Patient

➤ Click “Close” button to close the current patient file and return to the software home interface.

3.4.6 Diagnostic Record Editing

The existed diagnostic record can be editable in Mediview software.

➤ Click “” to edit the examination type and examination result and click “” to save. Examination type and examination result will be showed on the printed report.



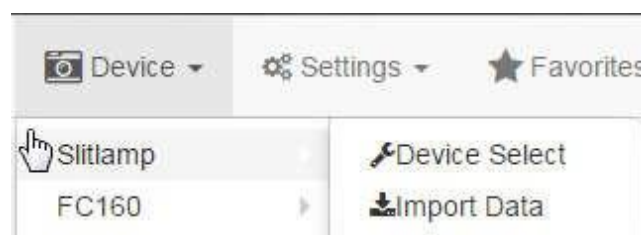
3.5 Device

3.5.1 Slit Lamps Operation

Currently, the software only supports slit lamps and FC160 Hand-held Fundus Camera.

Slit lamps operation includes device select and data import

➤ If user selects "Slitlamp" as device, user will be able to see the sub menu as showed below.



- Click "Device Select" in menu to open camera selection window. User can select "S390" or "Canon"



- Click "Import Data" to open below window of "Import Data From Device".

Import Data From Device

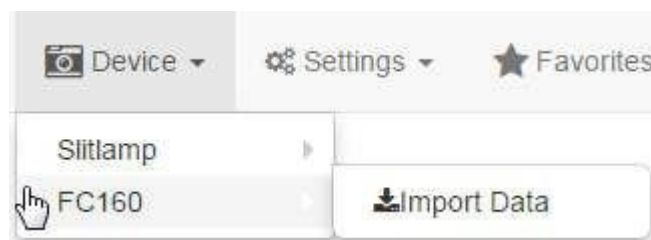


More information about the device, please refer to the chapter 4 in this manual.

3.5.2 FC160 Operation

Data can be import from the FC160

- If user selects "FC160" as device, user will be able to see the sub menu of Import Data.



- Click "Import Data" to open below window of "Import Data From Device".

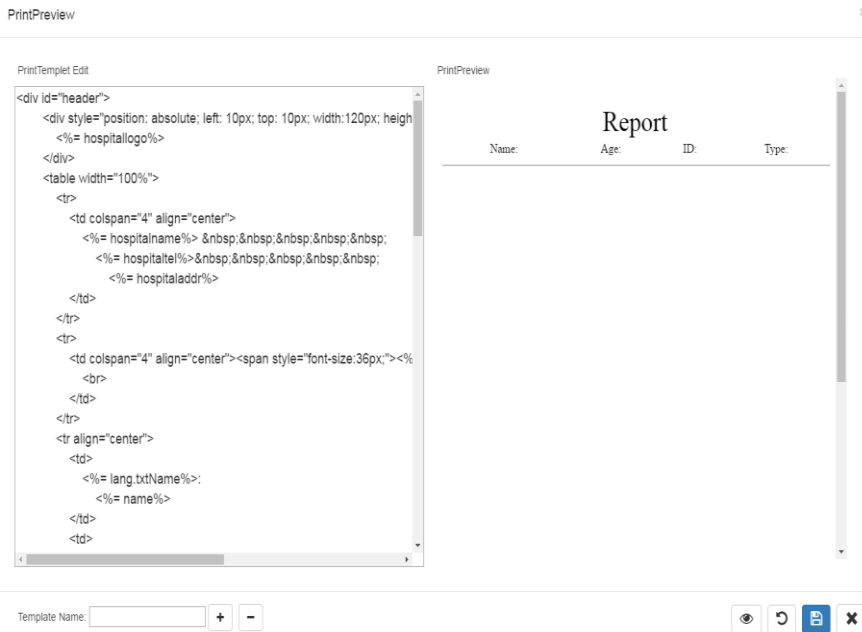
More instructions about device's functions please refer to chapter 5 in this manual.




3.6 Setting

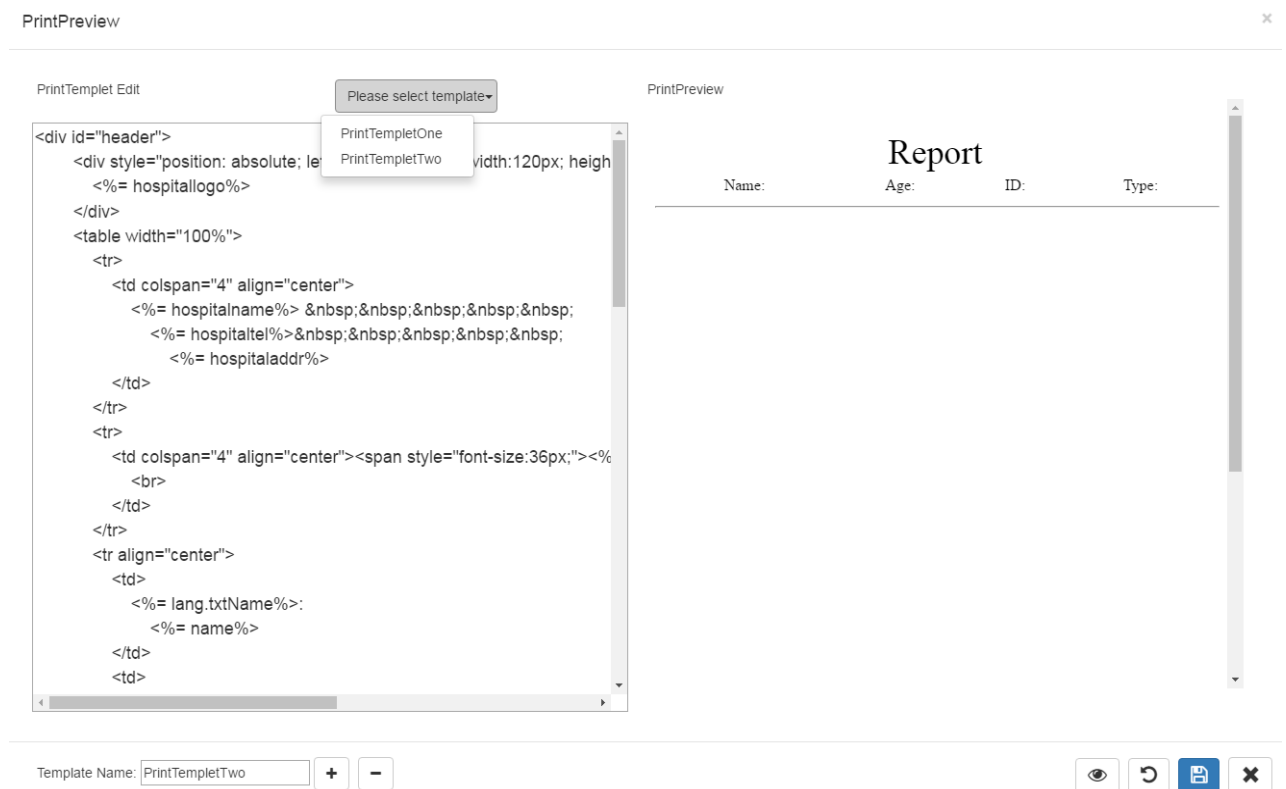
After entering into the home interface, click "Setting" menu, and user will see Print Settings, DICOM Server Settings, Database Settings, User, Language, Themes and Import Data. The "Setting" menu is only available to admin user. Details about user permission can be referred to chapter 3.9 in this manual.

3.6.1 Print Settings

- Please tick the "Show print settings" box to edit the settings:
- Print Title: The inputting will be the tile of medical report. The default title is "Report".
- Print Paper: Four types of printing paper are available of A4, B5, A5 and US Letter.
- Name: The inputting will be showed on medical report as hospital name.
- Telephone: The inputting will be showed on medical report as hospital telephone.
- Address: The inputting will be showed on medical report as hospital address.
- Logo: The selected picture (.jpg, .png) will be showed on medical report as hospital logo.
- Click "Printing Template Edit" to open the below printing template preview window,



- Printing template editing area shows the template source code, it is suggested to edit the template source code according to user's needs by IT professionals.
- Click “” after finishing editing to preview the new template at the right.
- Click “” to save the template
- Click “” to restore the default template
- Users can set up several printing templates and save them. Input the name of the template and click “+” to save it.
- Click “-” to delete the selected template.
-



3.6.2 DICOM Server Settings

DICOM Server Settings ×

Enable DICOM

DICOM Server IP: 127.0.0.1

DICOM Server Port: 3000

AE Title: OFFIS

Local AE Title: MediView

Modality: YD

Update Interval(s): 30

- Please tick "Enable DICOM" and user will be able to edit DICOM settings.

DICOM Server Settings ×

Enable DICOM

DICOM Server IP: 127.0.0.1

DICOM Server Port: 3000

AE Title: OFFIS

Local AE Title: MediView

Modality: YD

Update Interval(s): 30

- MediView software provides DICOM port. User can set up DICOM server IP, DICOM server port, AE title, local AE title, modality and update interval according to DICOM server structure.

3.6.3 Database Settings

Database Settings ×

| | | | |
|---------------|-----------------------------------------|---------------------------------------|--|
| Server Port | 8080 | | |
| Database Path | D:\MediView2017\MediView2017\MediView2C | <input type="button" value="Browse"/> | |

- Back up: To transfer the current patient's files and images to other location in the computer
- Restore: To import the backup data into the current software.
 Noted: If the backup data has a same user name as in the current software database, the two users' account (in same user name) will be merged into one user account.
- Transfer: Transfer current user's data into an appointed directory

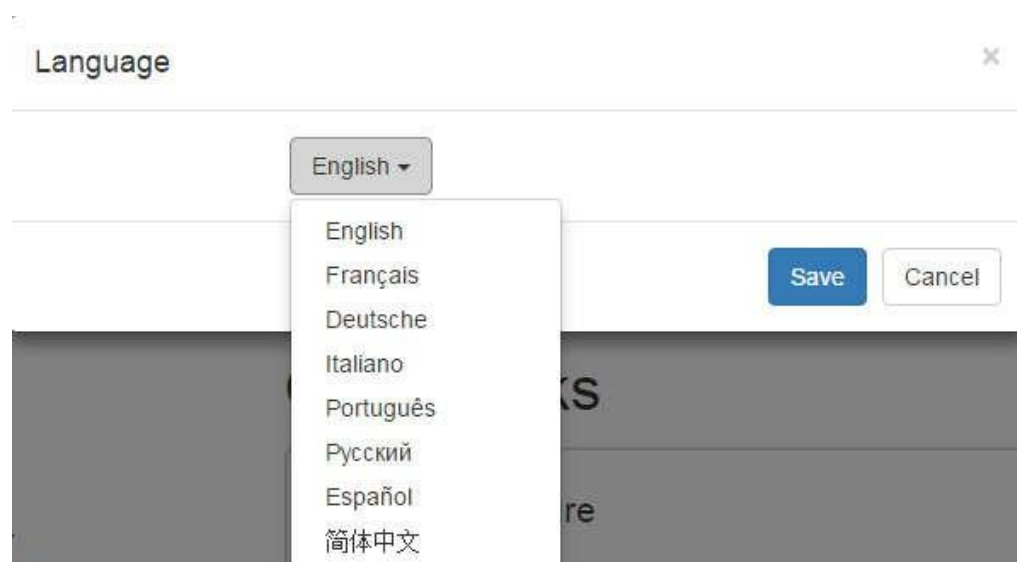
Noted: If user change the database location, there will pop up a info window below to double confirm the operation.



If user clicks "Yes", the data will be transferred while if user clicks "No", the data won't be transferred. But in this case, the database saving path will be updated as the newly set location. After rebooting the computer, the future data will be saved in the new location. If the data is not transferred, only Admin account has the access to the old data. The old data is still saved in the old location

3.6.4 Language Setting

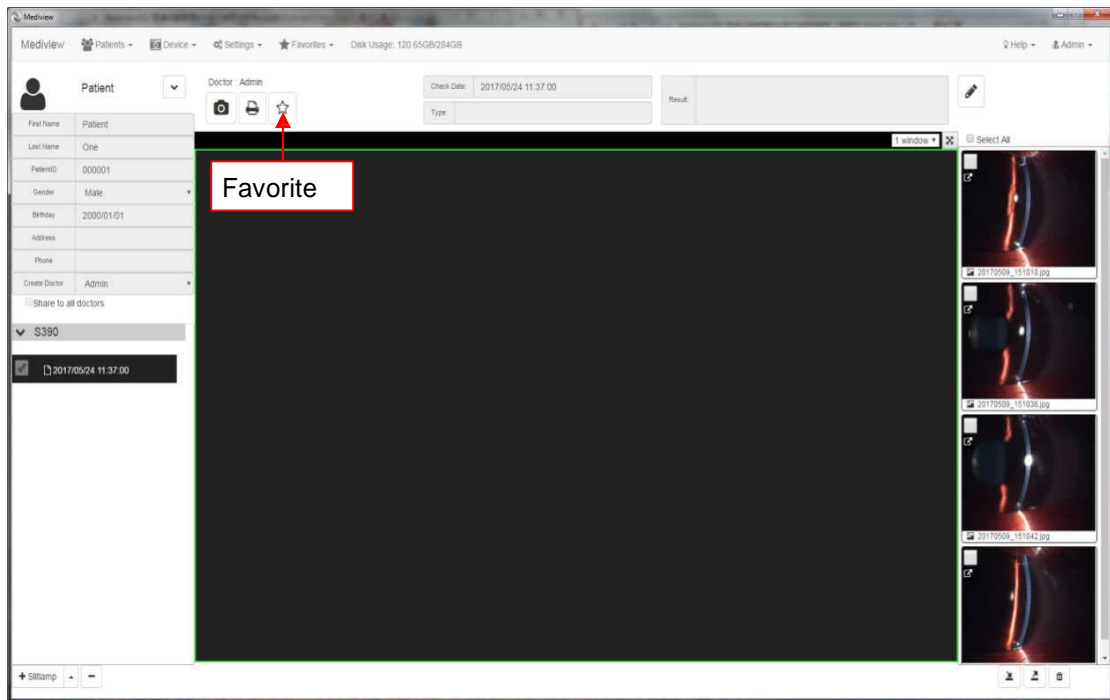
Mediview now provides 8 languages version for option: Chinese, English, French, German, Italian, Portuguese, Russian and Spanish. Please select the language according to user's need.



3.7 Favorites

Mediview2017 provides the function of favorite, user can save the medical record which offers the convenience to open some typical medical record without searching in the software.

➤ Users can save the special created medical record into favorite folder for future reference.



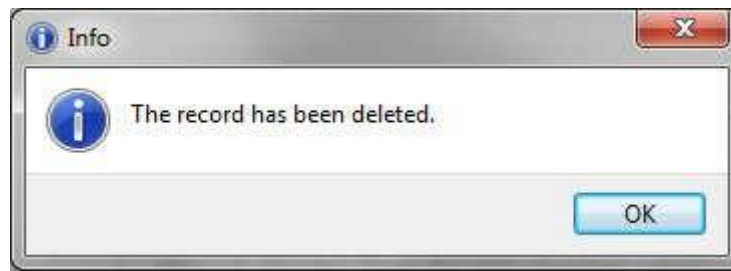
- Click “★” to enter the favorites window showed as below:



- Input file name to save the medical record into the favorite folder
- Click "Favorite" in menu and user will see saved file list. User can input keyword to search in the file list and find the desired file
- Click the file name in the file list in the favorite folder to open the medical record.

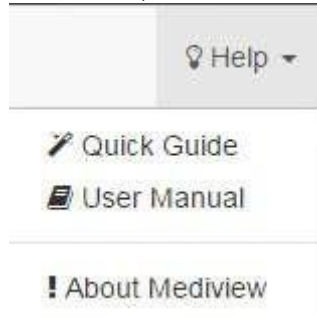


- If this medical record is deleted or it is not a shared patient, user will see info window below.
- Click "OK" and the file will be deleted from the file list in favorite folder.



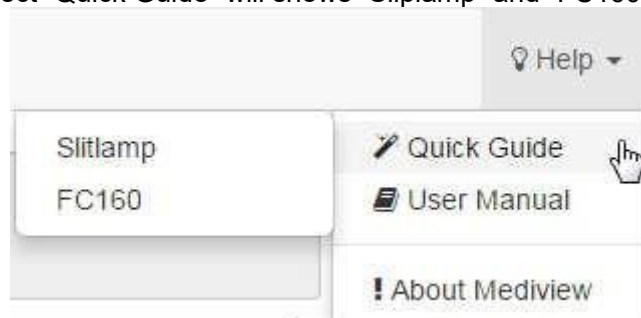
3.8 Help

Select "Help" menu and user will see "Quick Guide", "User Manual" and "About Mediview".



3.8.1 Quick Guide

- Quick Guide includes "Slit lamp" and "FC160".
- Click "Help" menu, select "Quick Guide" will shows "Slitlamp" and "FC160" two options.



- Select "Slitlamp" to open the slitlamp's quick guide.
- Select "FC160" to open the FC160's quick guide.

3.8.2 User Manual

- Click "User Manual" to open Mediview2017 software instructions

3.8.3 About Mediview

About Mediview includes Mediview2017 software version number and relevant information.

3.9 User Management

Mediview software has the complete user management system. Different user type has different permission to the software. It can be divided into admin user and non-admin user. The admin user has the permission to all the functions. Non-admin user can use the software but he/she could not make setting to the software. Please review the matrix below to learn about the individual permissions between admin ueser and non-admin user..

Mediview software provides comprehensive system for user management. For different user types, there are different accesses to all the functions. Only Admin user has the access to all the functions.Non-admin user has the access to use the software normally but can not change settings of the software. Only admin user can reset all users' password. The following is a detailed chart to illustrate accesses to different user types.

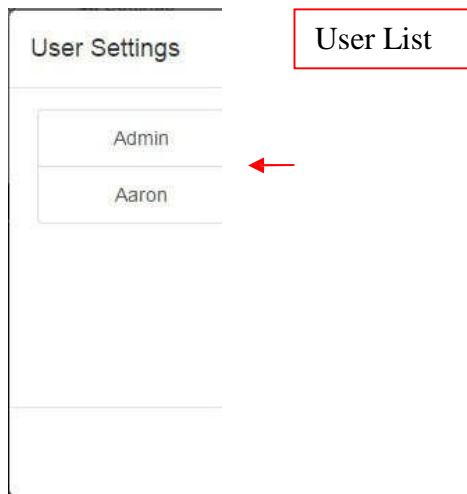
| | Admin | Admin User | Non-admin User |
|--|-------|------------|----------------|
|--|-------|------------|----------------|

| | | | |
|-----------------------------------------|---|---|---|
| Reset user's password | √ | × | × |
| Update user list | √ | √ | × |
| Create new patient | | √ | √ |
| Open created patient file | | √ | √ |
| Open patient file created by other user | | √ | X |
| Import patient worklist | | √ | √ |
| Create new examination record | | √ | √ |
| Print report | | √ | √ |
| Device select | | √ | √ |
| Import data | | √ | √ |
| Print settings | | √ | X |
| Printing template setting | | √ | X |
| DICOM server settings | | √ | X |
| Database setting | | √ | X |
| User setting | | √ | X |
| Language setting | | √ | X |
| Themes setting | | √ | √ |
| Favorites | | √ | √ |
| Quick operation guide | | √ | √ |
| User manual | | √ | √ |
| About Mediview | | √ | √ |
| Profile | | √ | √ |
| Regular diagnosis template | | √ | √ |
| Logout | | √ | √ |
| Slitlamp capture | | √ | √ |
| Image process | | √ | √ |
| Image comparison | | √ | √ |
| Quick links | | √ | √ |

User setting includes create new user, delete user and change password.

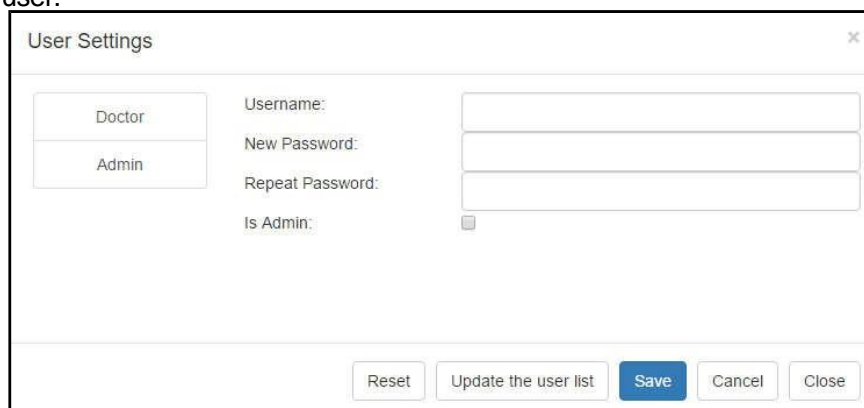
3.9.1 Create New User

- Click "Setting" in menu, select "User" to open the user setting interface



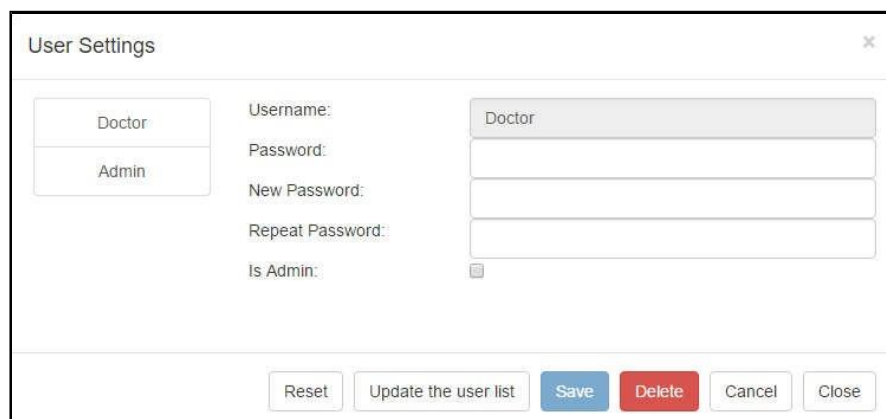
- Click “New User” to create a new user account
- Fill in the user name, new password, repeat password and select to be administrator or not.
- Fill new password
- Repeat the new password
- Choose whether to have the administrator permission
- Click “Save” to finish the new user creating and the new user will be showed in the user list.

Note: The user can not set "000000" as password as it's a default password for password reset by admin user.



3.9.2 2 Remove User Account

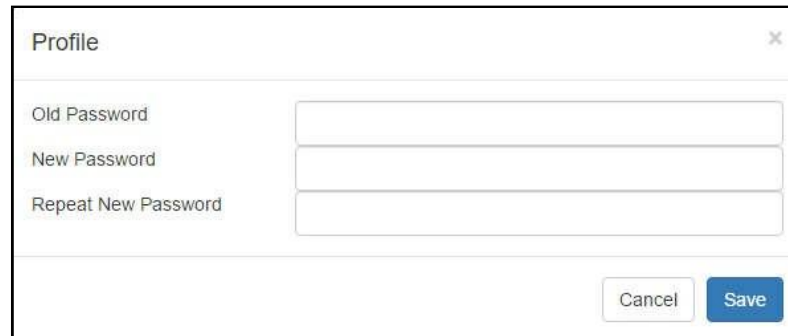
- Click user’s name to show the user’s information
- Click “Delete” to remove the user account. Deleted user account could not be recovered.



3.9.3 User Password Reset

1. Login Mediview with admin user account
2. Click the user need password resetting
3. Click "reset"
4. There will pop up a window informing the reset is complete. Please click "Yes".

After password resetting, the default password is "000000". The user need to set new password after login as showed below:



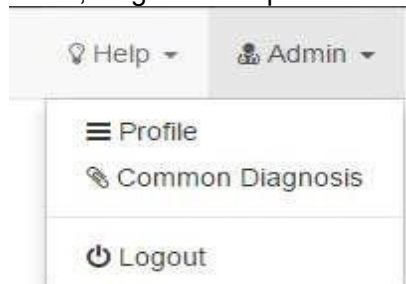
- Input old password as "000000"
- Input new password
- Repeat new password
- Click "Save" and back to login interface

3.9.4 Update user list

User list means the drop down list in login window. If there is no user name in the drop down list in login window, the user can let the admin user to update the user list. The admin user can enter into the user setting interface and click "update the user list" button, the updated list will match the current user accounts.

3.10 User's Option

User's option includes change password, diagnosis template and logout as showed below:



3.10.1 Change Password

- Change user information

Input the old password and new password twice, and click "Save" to change password.

Profile
✕

Old Password

New Password

Repeat New Password

Noted: In the situation that there is only one admin user using the Mediview2017, if the user forgets the password, the data could not be recovered. Please remember the password to avoid such accident.

3.10.2 Common Diagnosis

Select "Common Diagnosis" to create examination type template and diagnosis result templates and save.

Common Diagnosis
✕

Check Type(Template):

Type1
Type2

Check Result(Template):

Result 1
Result 2

When user inputs keyword in the examination type and diagnosis result, the matched saved template will pop out automatically and if user selects the template, the words will fill in the blank automatically.

Check Date: 2017/05/28 17:23:28

Result:

Type:

Type1

Type2

1 window

Select All



Noted: Examination type and diagnosis result use separate templates.

3.10.3 Logout

- Click “Logout” to exit the software, back to the login interface

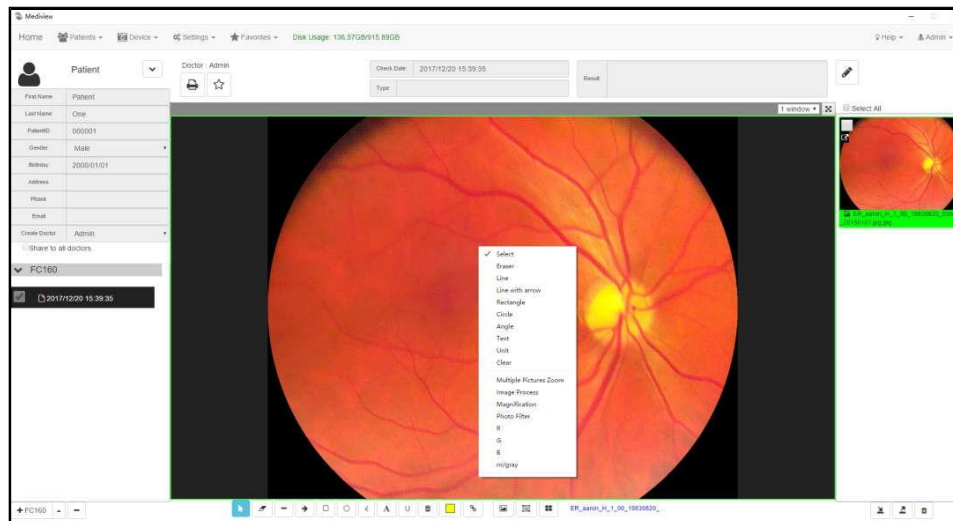
3.11 Context Menu

- 1.Right click in the image list will show the context menu as showed below:



- Compare Selected: Compare the images user selected, 4 images maximum, displayed in displaying window in the selected order.
- Delete Selected: Delete the image selected
- Export Selected: Export the image selected.
- Import: Import the image to Mediview software
- Rename: Change the name of the image
- Print Selected: Print the images selected.

2. When previewing the image, right click in image area, the user will see shortcut menu as below:



- Restore mouse: To exit current measuring status
- Eraser: To delete the area measurement result and refresh the image in the main window to restore the image to its original state
- Line: draw straight line
- Arrow: draw arrow
- Rectangular: draw rectangular
- Circle: draw circle
- Angle: draw angle
- Text: insert text on the image
- Unit: measuring unit
- Clear: clear all the measurements in the main window
- Color: when measuring the color, the user can change the color in measured area
- Synchronized zoom: During image comparison, the user can zoom in and zoom out images simultaneously.
- Image Processing: Set image contrast, brightness, saturation, hue
- Property: (1) magnification: the current magnification which the slit lamp is in use.
(2) OS/OD: The eye which the device is capturing
- Image filter: separate the RGB channel for the image and display image in different RGB channels.
- R: display image in R channel
- G: display image in G channel
- B: display image in B channel
- nr/gray: display image in red-free or gray

Note: The image filter function and RGB,nr/gray functions are only available in FC 160 images. If the user right click on slit lamp images, he will not see these functions.

4 Slit Lamp Microscope Operation

1. Specifications:

- Sensor 5Mega Pixel high speed and high resolution Sensor
- Photo Resolution 2592x1944
- Photo Format JPEG
- Video Resolution 1280x960

- Video Frame 25fps
- Video Format MP4 H.264
- Focusing Mode Motorized Focusing and Auto Calibration
- Exposure Mode Auto Exposure, Auto ISO
- Data Transfer Standard USB Port

2. Using Environment

- Temperature +5°C~+40°C
- Relative Humidity ≤90%
- Air Pressure 800hPa~1060hPa

3. Storage Environment

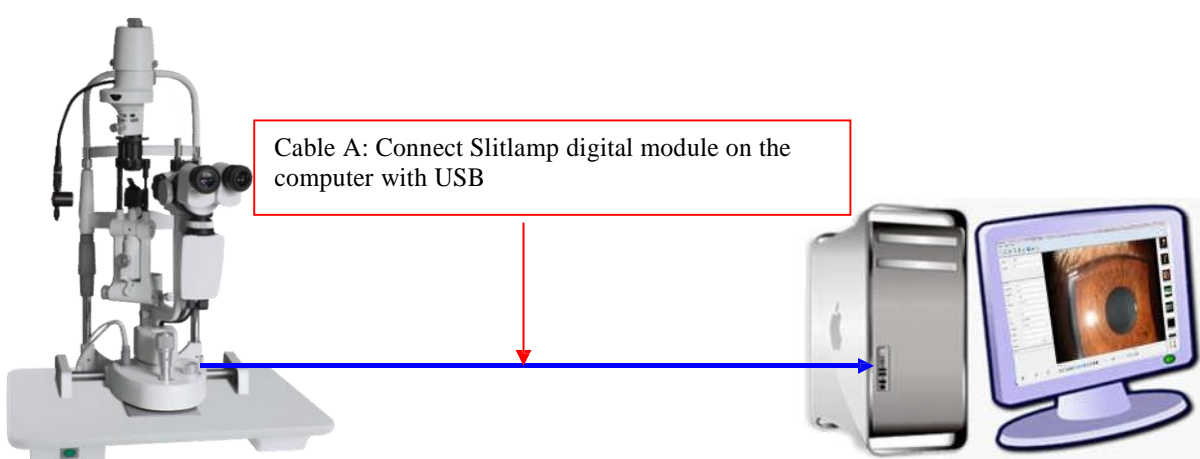
- Temperature -40°C~+55°C
- Relative Humidity ≤90%
- Air Pressure 800hPa~1060hPa

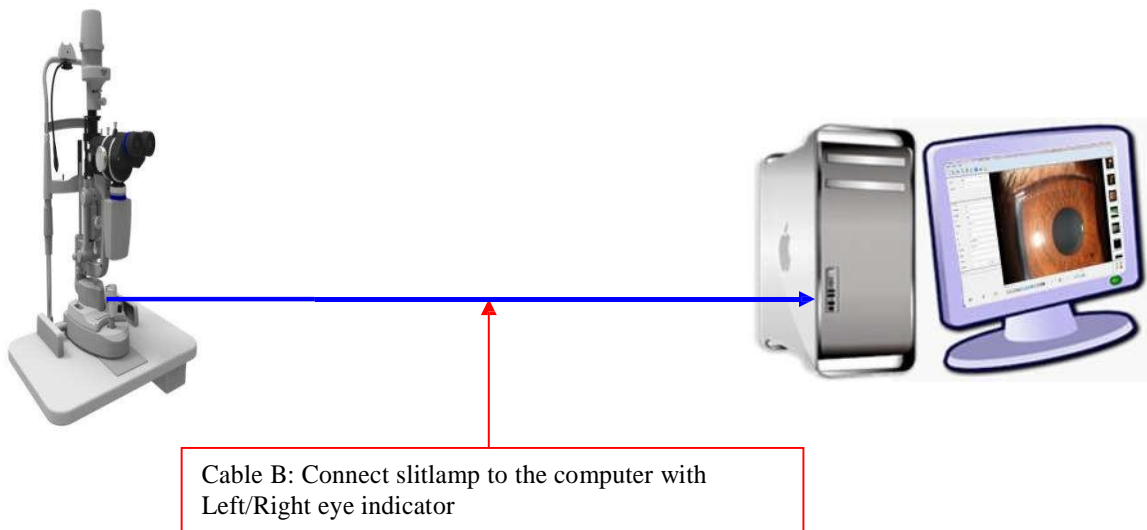
4. Transportation Environment

- Temperature -40°C~+55°C
- Relative Humidity ≤90%
- Air Pressure 800hPa~1060hPa

5. Installation Connection Demonstration

- Please refer to Slit Lamp user manual for installing the Firefly motorized focusing digital module

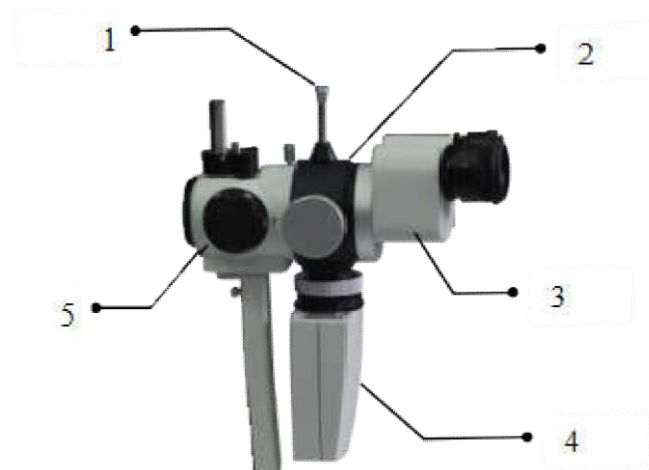




Caution: When use Mediview, please connect the USB cable showed above correctly. If the Mediview needs OS/OD indicator, please also connect the OS/OD indicating cable.

6. Illustration of Slit Lamps Digital Module

1. Beam Splitter Rod
Please make sure the rod is pulled up when using the digital module to capture image
2. Locking Screw
It is used to lock the digital module with the slit lamp binocular part.
3. Slit lamp eyepiece part
4. Firefly motorized focusing digital module
5. Slit lamp magnification rotation drum




7.Cautions

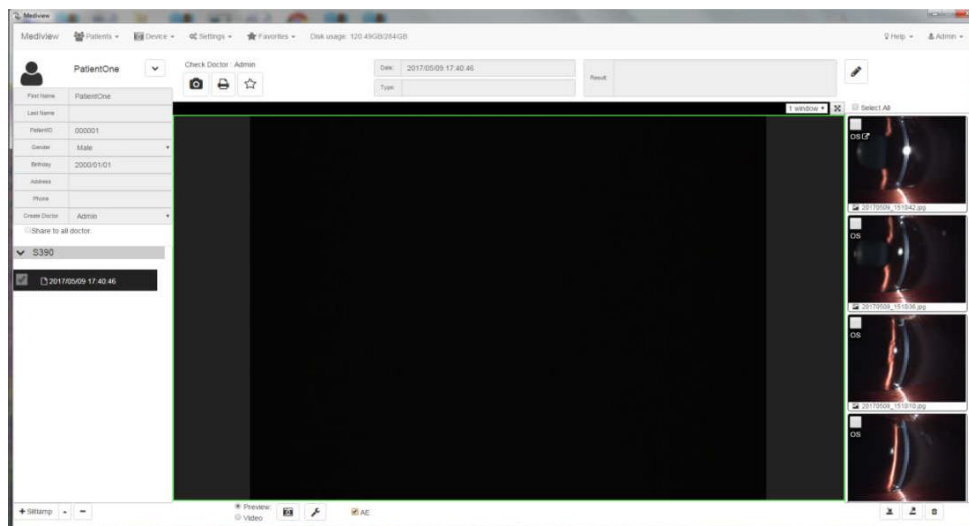
- When use the digital module to capture image, please make sure the beam splitter rod is pulled up. In this condition, the light go through the eyepiece will be decreased and the visual field brightness will be lowered as well.



4.1 Image/Video Capture

4.1.1 Image Capture Operation

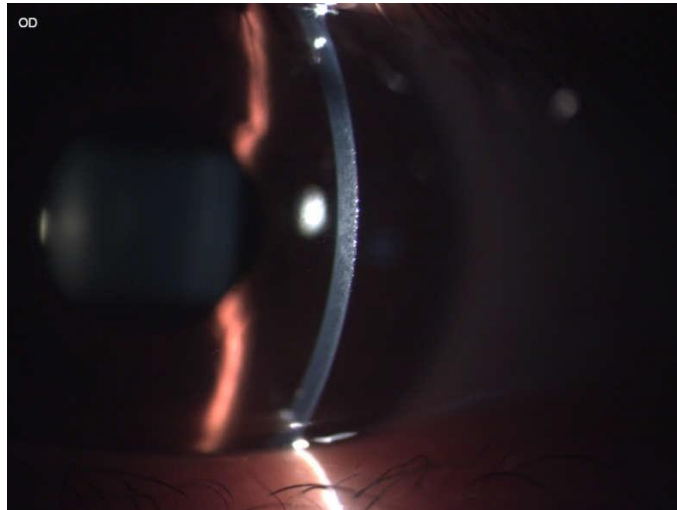
Select and open a patient file, choose an existed examination record or create a new record, user will see the current image information of this patient on thumbnail window. Click the camera icon  to enter into the capturing interface as showed below:



Before capturing image, please select right/left eye recognition setting. The default setting is "Automatic". Please move the slit lamps' base from right to left to check if the OS/OD will change correspondingly. If the device is not equipped with right/left eye indicator, please select "Manual" setting. In this case, user needs to select OS/OD manually before capturing image. For more instructions please refer to chapter 4.2.2 in this chapter.

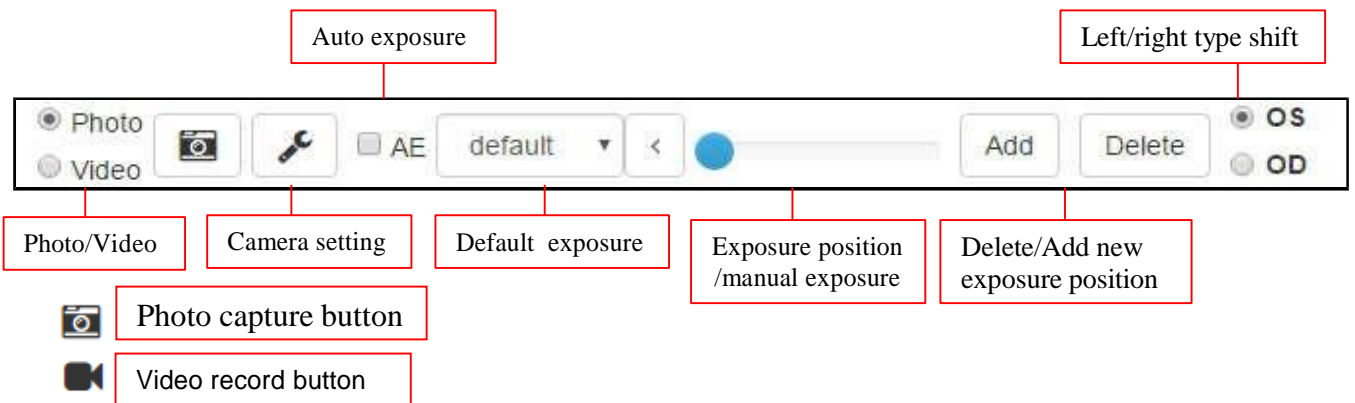
4.1.2 Interface Operation

Please select OS/OD before capturing image. In the medical report, it will also show the OS/OD as below.



The software will mark the image according to user's OS/OD selection. The OS/OD information will be showed in image name. OS means left eye while OD means right eye. If the image user imported is not captured by Mediview software, Mediview software will not be able to mark OS/OD automatically. The OS/OD information will also be showed on the selected image.

1. Operation Interface:



2. Focus Setting (Fig.1),White balance(Fig. 2), Auto exposure(Fig. 3), Eye Type(Fig. 4)

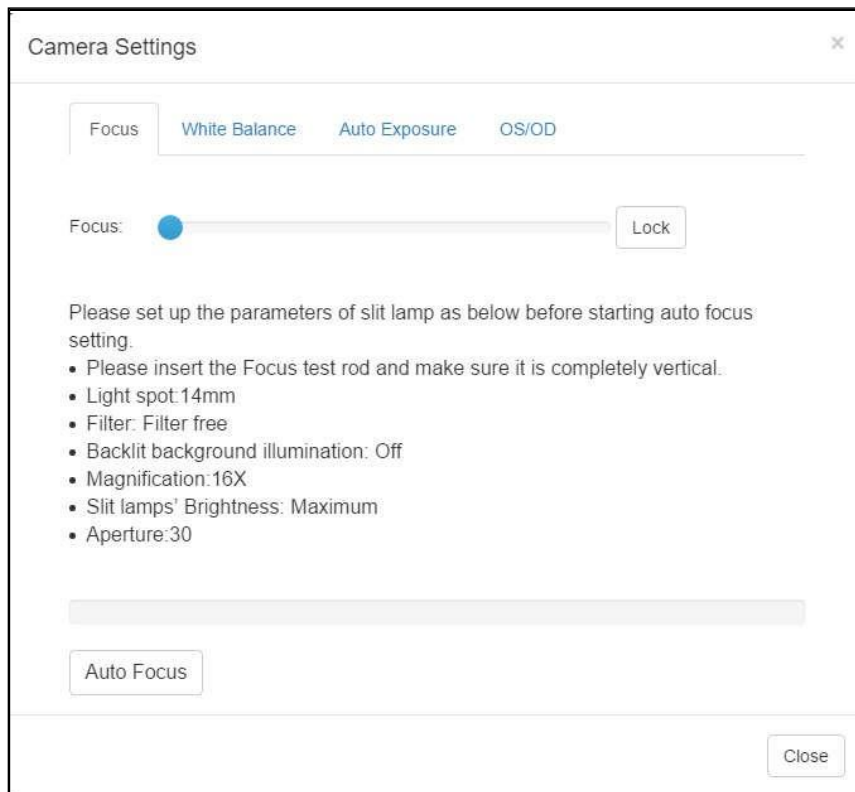


Fig. 1

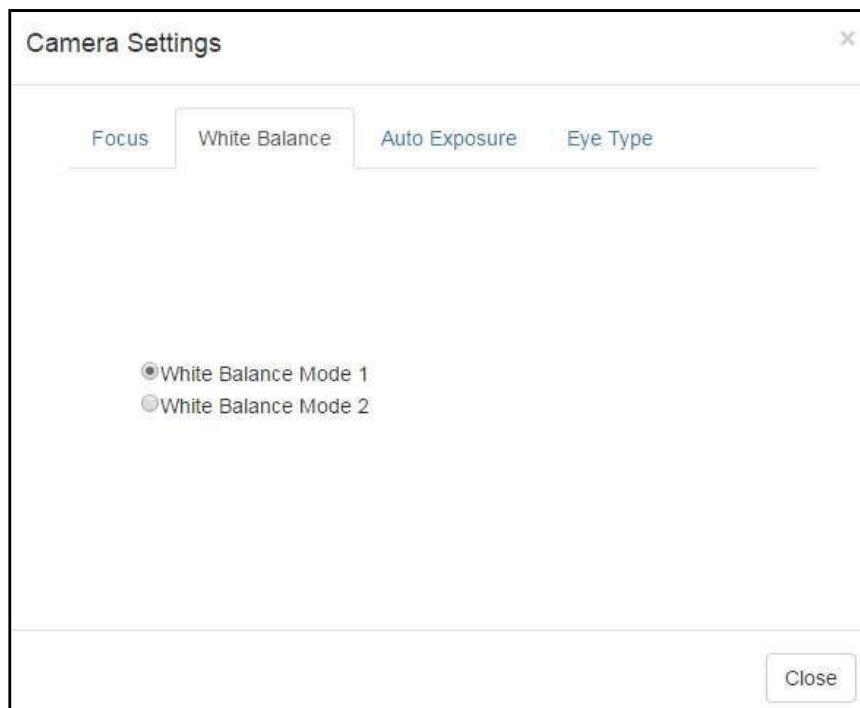


Fig. 2

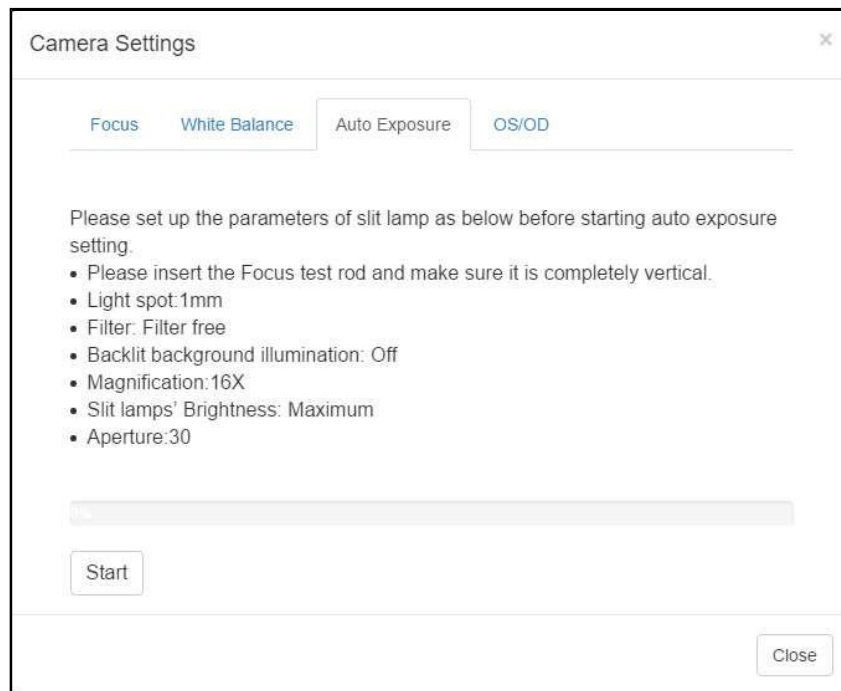


Fig. 3

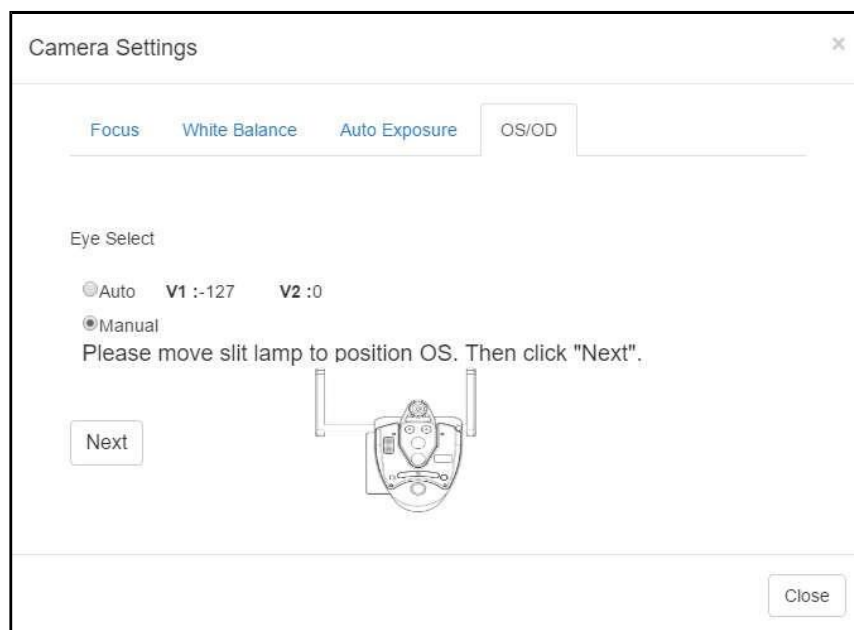


Fig. 4

3. Manual Focus Calibration: In addition to the auto focus calibration, manual focus calibration is available as well in Mediview software. When run Mediview for the first time, please calibrate the focus plane by dragging the bar in "Focus" menu. When you see the spot in the most clear status, click "Lock" to complete the calibration

4. Capture Button Function

Video Capture

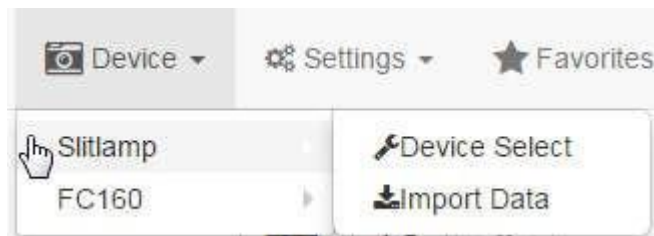
- Start: press the capture button over 4 seconds to start video record
- End: short press or long press the capture button
- Image Capture: Press capture button once to capture one image



Capture button

4.1.3 Data Import

1. Click "Device" in menu and user will see two device options as Slitlamp and FC160.



Click "Slitlamp" and sub-menu of "Import Data" to open "Import Data From Device" window showed as below.

Import Data From Device

| | |
|----------------------------------------------------------------------------|------------------------------------------------------|
| Device Select | Mediview2015▼ |
| Source | <input type="text"/> Browse |
| Destination | D:\Mediview2017\Mediview2017\Mediview2017_x64\resour |
| <input type="button" value="Import"/> <input type="button" value="Close"/> | |

- The interface is to import Mediview2015 data into Mediview2017. When the import is complete, the data from Mediview2015 will be merged into the current Mediview software.
- Click "Browse" to select the location of Mediview2015 installed and click "Import" to start import. The software will indicate the import process from a bar

Import Data From Device

| | | |
|---------------|-----------------------------------------------------|--------|
| Device Select | Mediview2015▼ | |
| Source | D:\Mediview | Browse |
| Destination | D:\Mediview2017\Mediview2017CloneWorkSpace\Mediview | |
| 100% | | |
| Import | | Close |

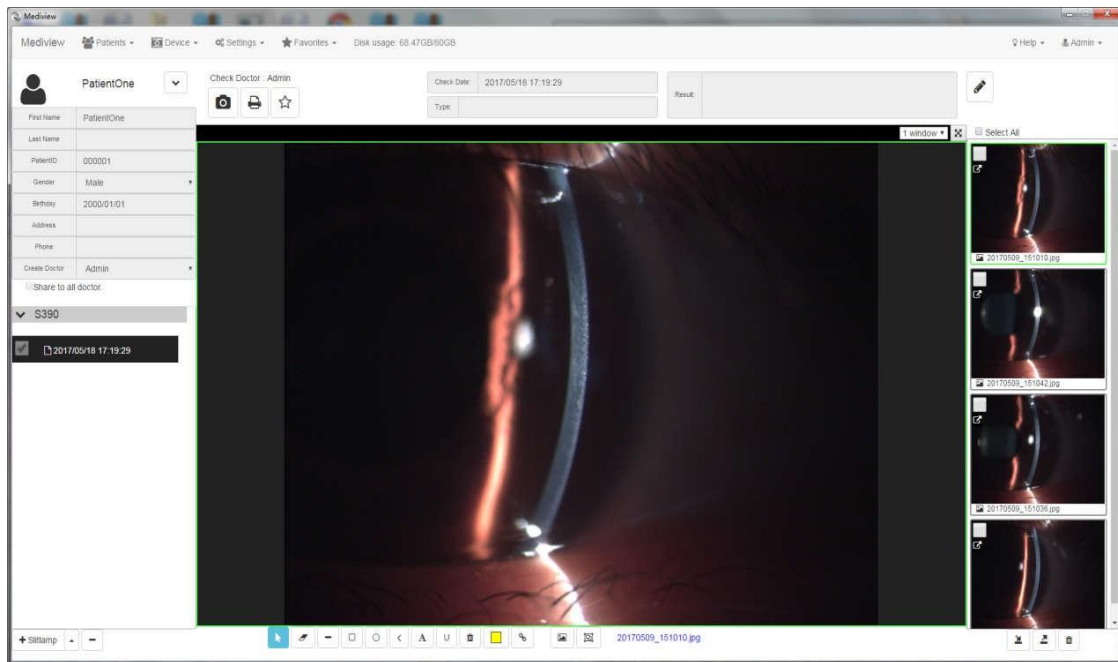
- After the import is complete, click "Complete" to finish the operation. Now, all the data, patient's information, medical records, images and videos from Mediview2015 software have been imported to the database of Mediview2017. User can check the imported patient's information in Mediview2017.

Import Data From Device

| | | |
|---------------|----------------------------------|--------|
| Device Select | Mediview2015▼ | |
| Source Path | D:\Mediview | Browse |
| Target Path | D:\Mediview2017\resources\server | |
| Complete | | |

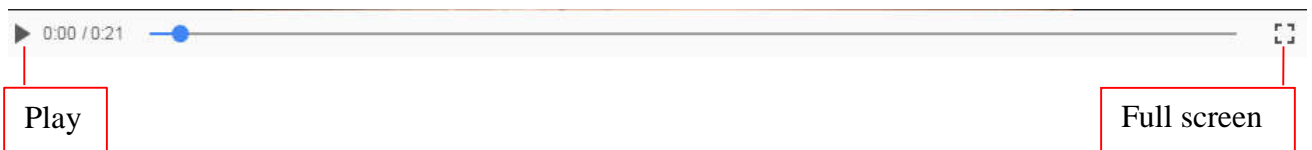
4.1.4 Images Review

- Select the images in the thumbnail window and the image will be displayed in the central displaying window.
- Full screen image: Click "⌕" in the upper right corner of image displaying window to review the image in full screen
- Image comparison: Click "1 window ▼" user will see options of "2 window", "4 window". If user choose "2 window", the displaying window will be divided into two displaying windows and user will be able to compare 2 images while choose "4 window", the displaying window will be divided into four displaying windows and user will be able to compare 4 images. Select the window and choose the image in the thumbnail window, the image will be showed in the selected displaying window



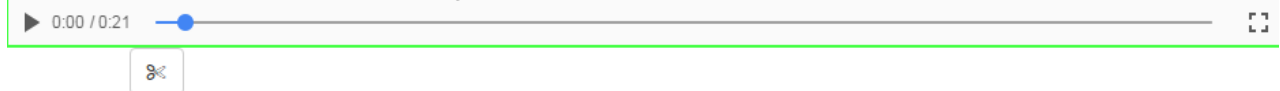
4.1.5 Video Review

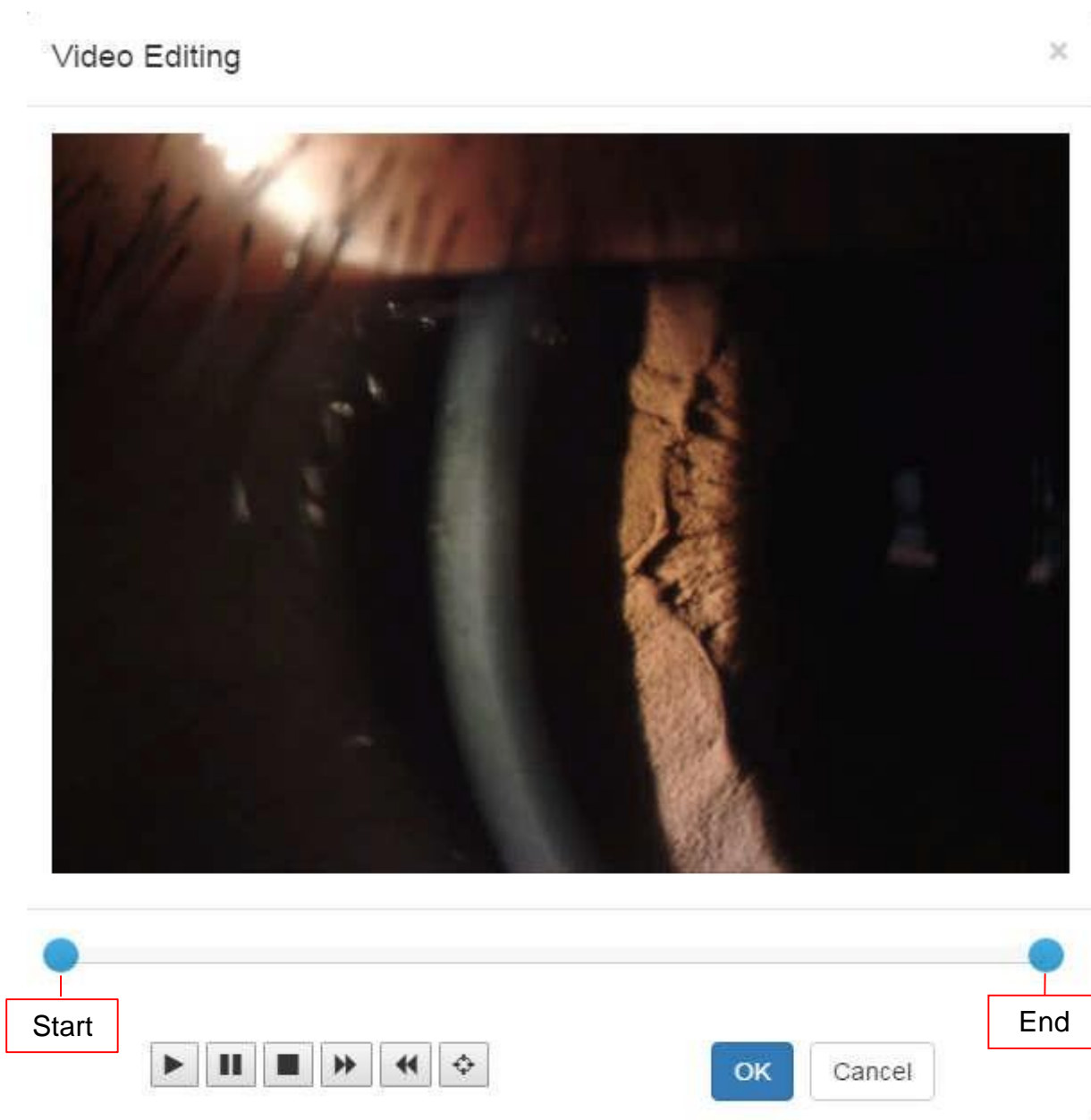
- Play: Play the selected video
- Play progress: Drag the progress bar to adjust the play progress




4.2.6 Video Edit

- Click “✂” to open video editing interface.



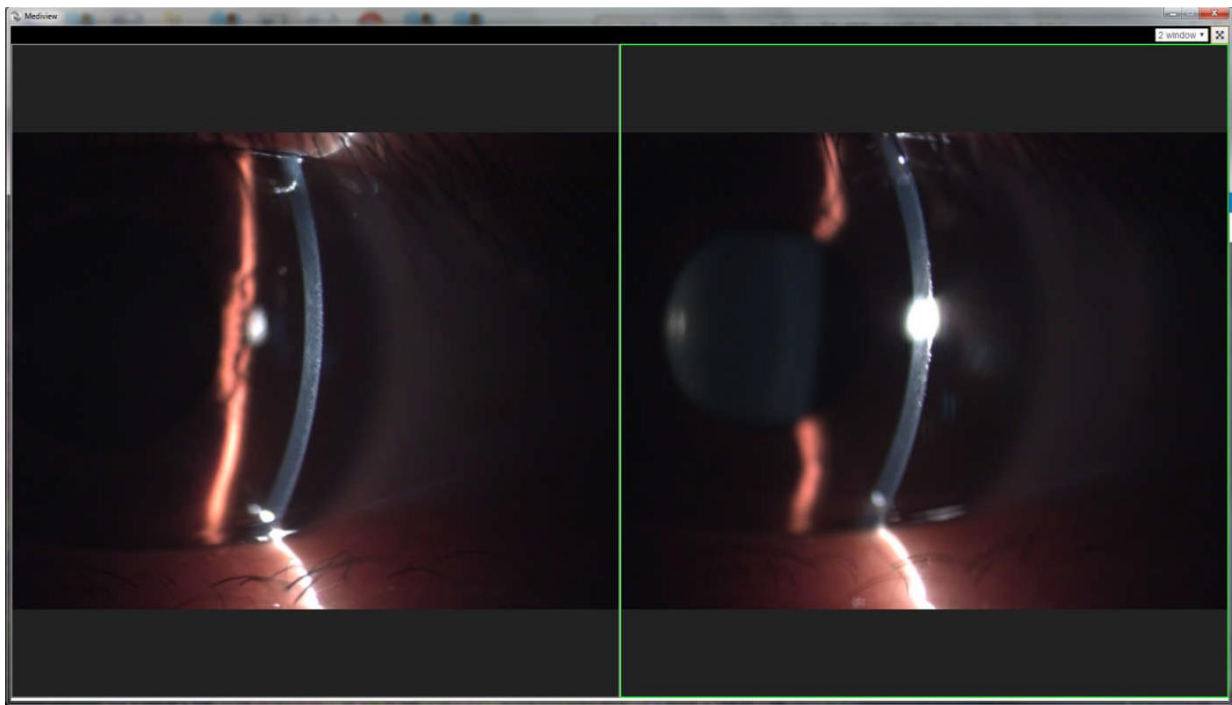


- Drag the start button and end button to capture the needed video clip
- Click "OK" to save the edited video into the image/video list
- Click “” to capture the image from the video

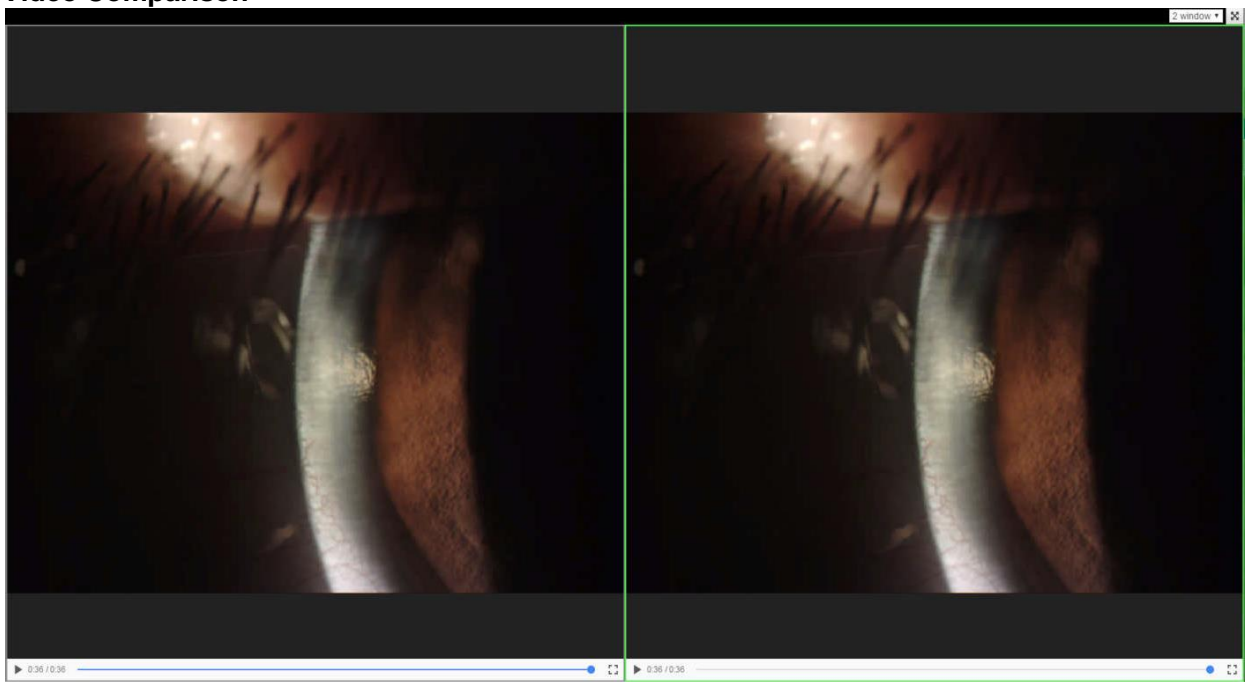
4.1.10.4 Image/Video Comparison

Click "2 window" or "4 window" to divide the displaying window to 2 windows or 4 windows. Select the images/video for comparison. Mediview software can compare 2 images/videos or 4 images/videos.

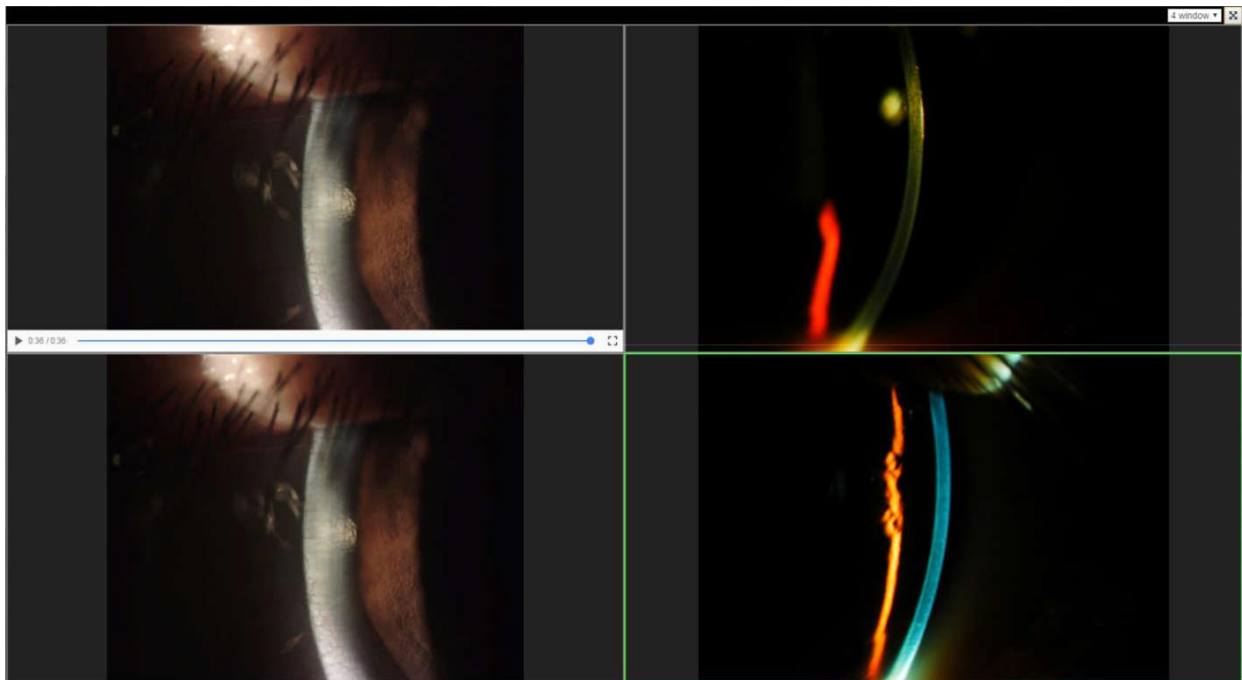
Image Comparison



Video Comparison

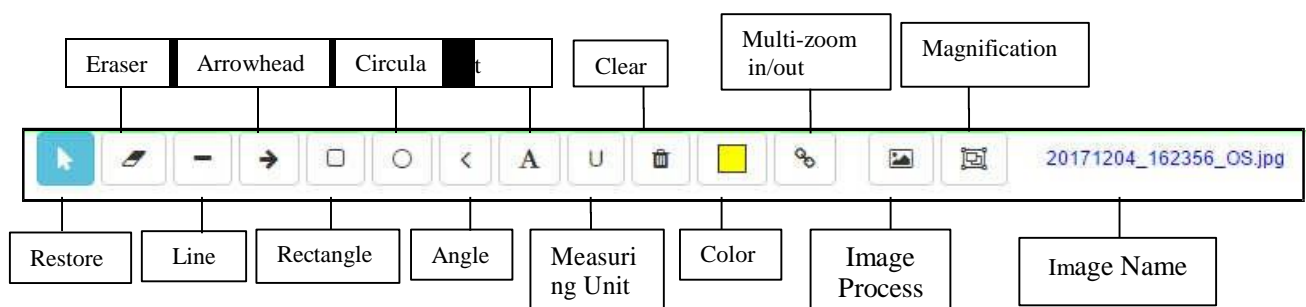


Video and Image Comparison



4.1.6 Image Measurement

Select the image to be measured. Click the measuring icon on the bottom of home interface to make measurement.




1. Measurements

- — Measurement of length.
- → Measurement of Arrowhead.
- < Measurement of angle.
- ○ Measurement of the circle circumference and area.
- □ Measurement of the square perimeter and area.

2. About Measurement Icon

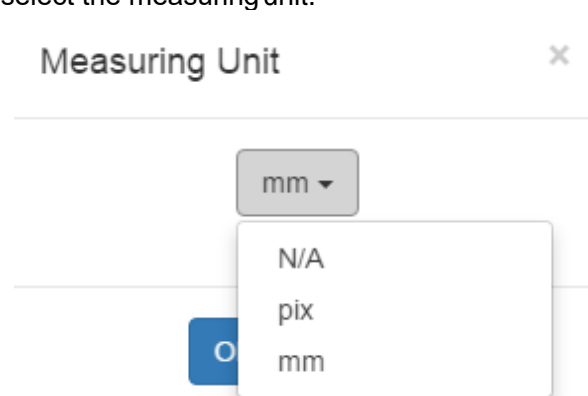
- Restore: Exit measurement interface.
- Eraser: remove the measurement.
- Text: input the text as remark on image
- Measuring Unit: set the measuring unit
- Clear: clear all measurements on image.
- Color: change the color of measurement and text.
- Multi-zoom in/out: During image comparison, the images can be zoomed in or zoomed out simultaneously.
- Image Processing: Set the contrast, brightness, saturate and hue of image.

-  Image Property: (1) Magnification: Select the magnification of slit lamps when this image was taken. (2) Eye type: Select eye type of OS/OD when this image was taken.
3. Image Measurement Calibration
- If this image will be measured, the magnification of slit lamps when this image was taken should be calibrated correctly.
 - Click “Image Property” button on measurement interface to select the magnification of slit lamps when this image was taken.

Caution: Although the measured image is calibrated with magnification, there is error in measuring result. The measuring result is for diagnosis reference only, and cannot be used as diagnosis evidence.

4.1.7 Image Measurement Example

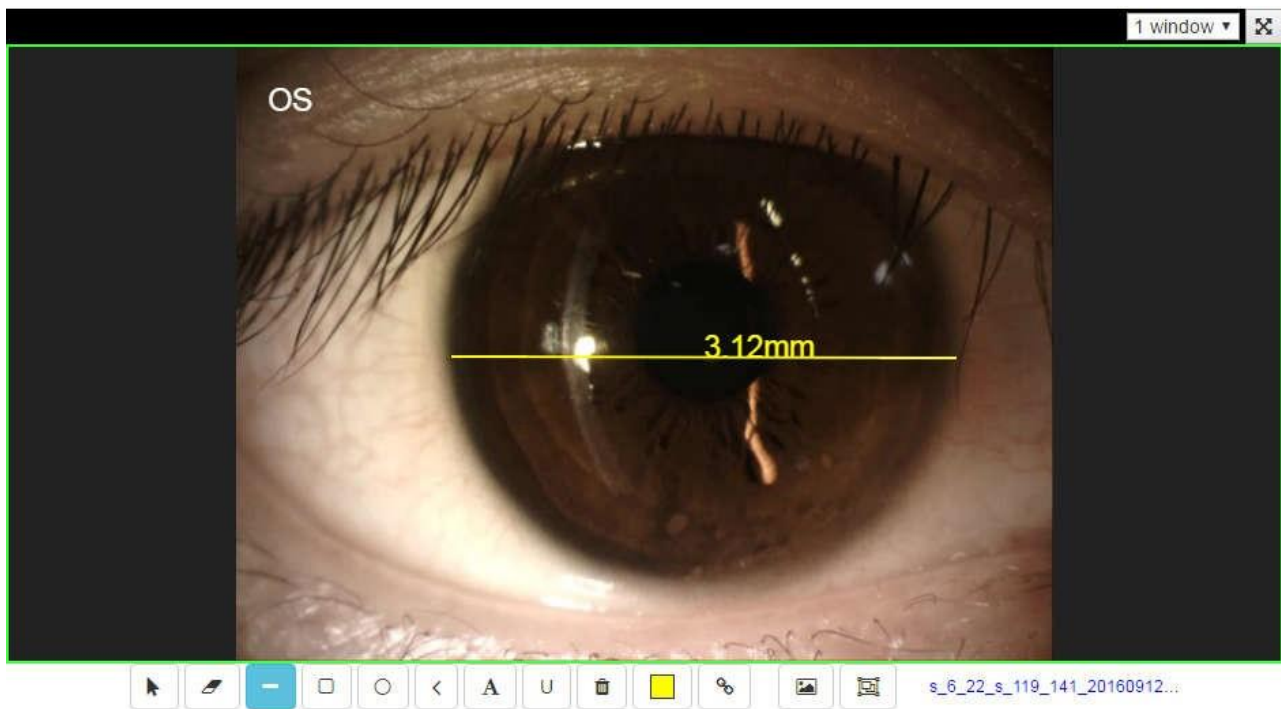
1. Click “U” button to select the measuring unit.



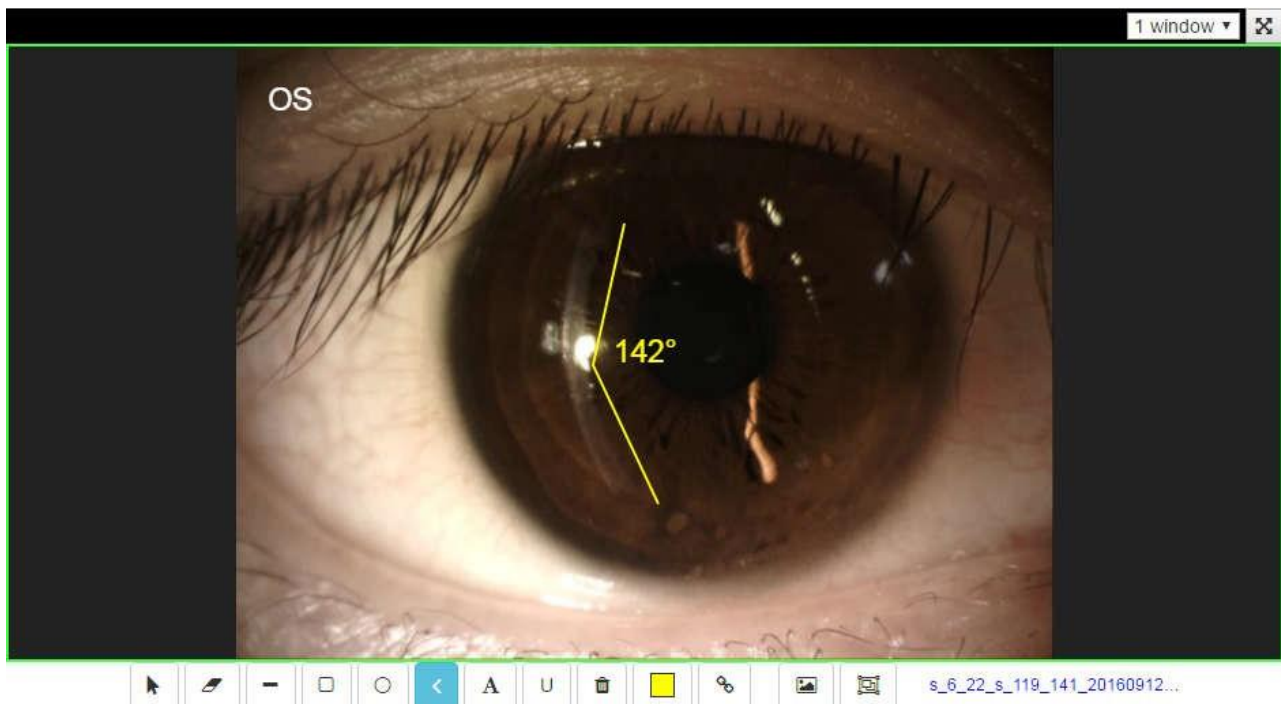
- N/A: Not available of measuring unit. There is no value showed on image after measuring.
- Pix: The measuring unit is pixel after measuring
- Mm: The measuring unit is millimeter after measuring

Noted: The measuring unit of pix or N/A is available only on the images imported from FC160 Hand-held Fundus Camera

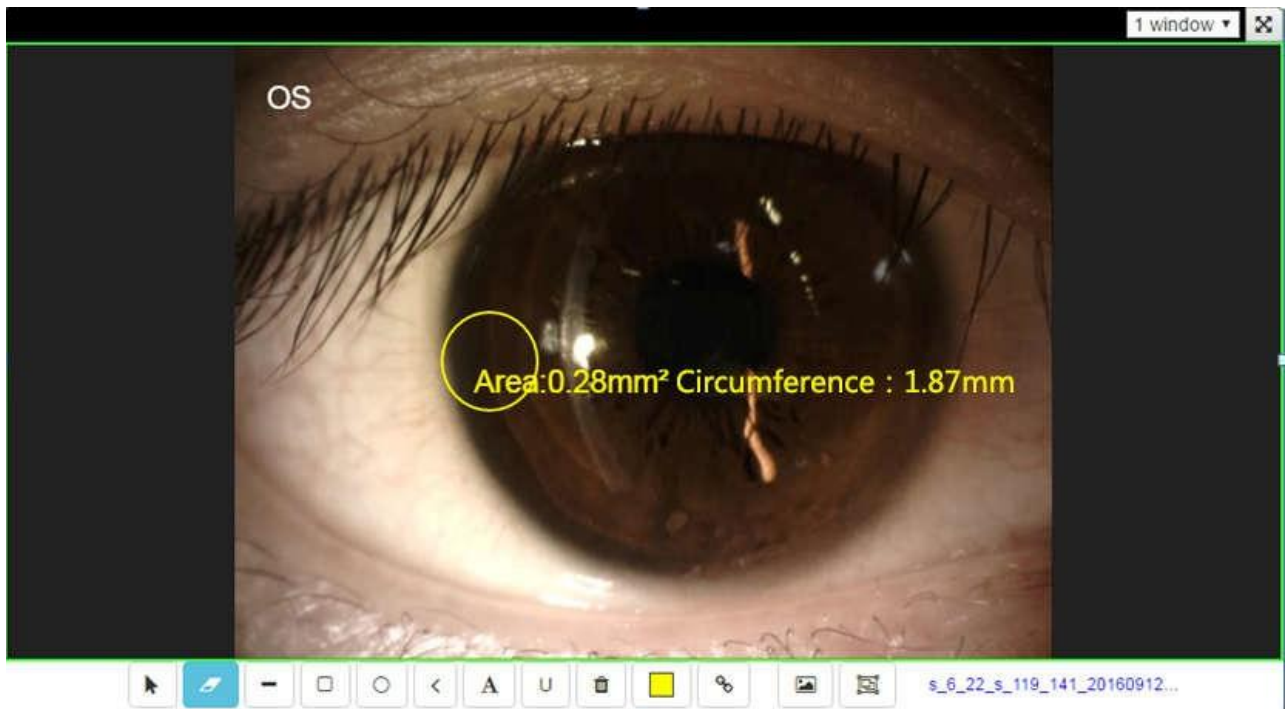
2. Click “—” button. Drag the mouse to draw a line on image. The length value is showed accordingly as below.



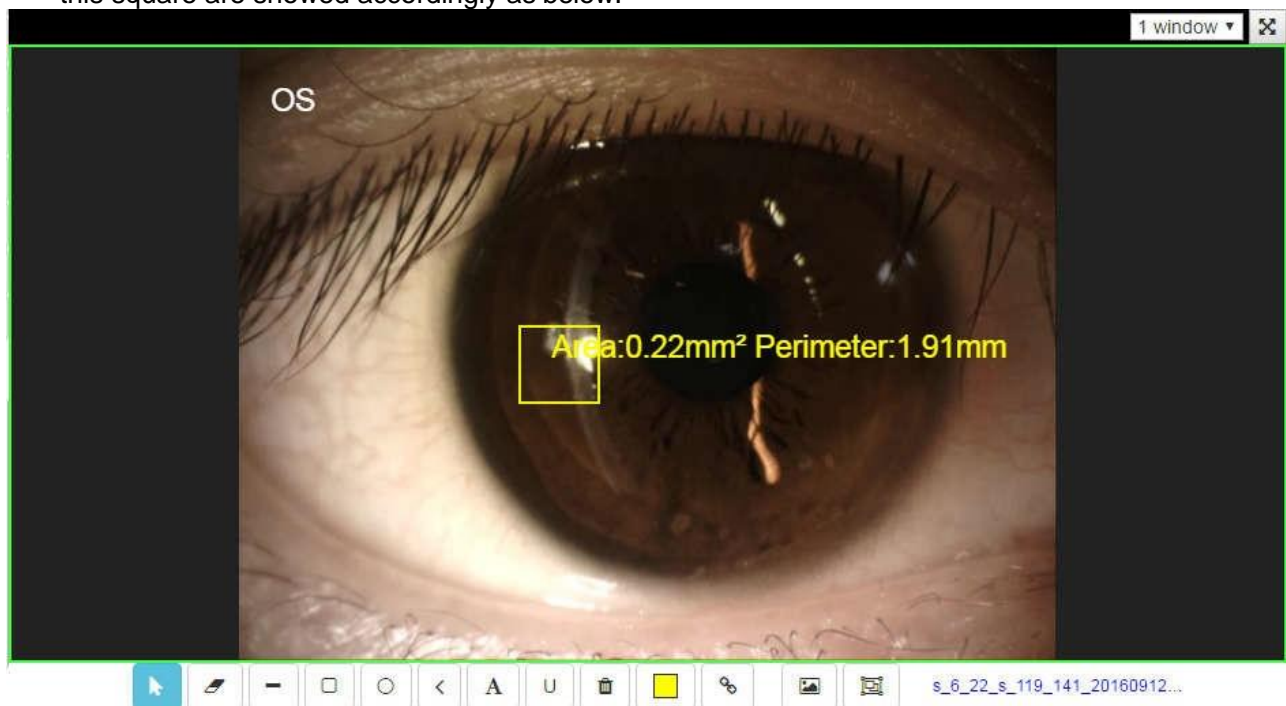
3. Click "◀" button for measuring angle on image. Long press the left mouse and drag to draw one line of the measuring angle, and then release the left mouse and drag another line of the measuring angle, and short press the left mouse to finish this processing. The angle value will be showed after finish drawing.



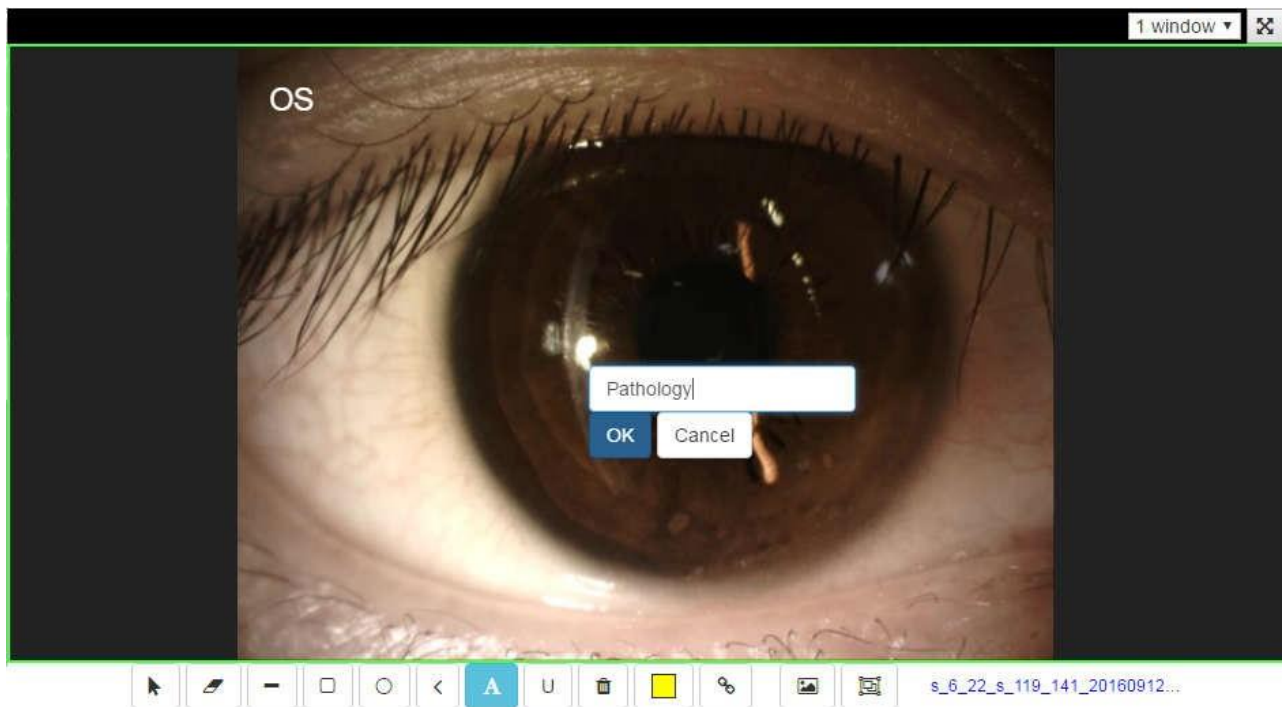
4. Click "○" button. Drag the mouse to draw a circle on image. The circumference and area value of this circle are showed accordingly as below.



5. Click “□” button. Drag the mouse to draw a square on image. The perimeter and area value of this square are showed accordingly as below.



6. Click “A” button and click on image to text remark as below.

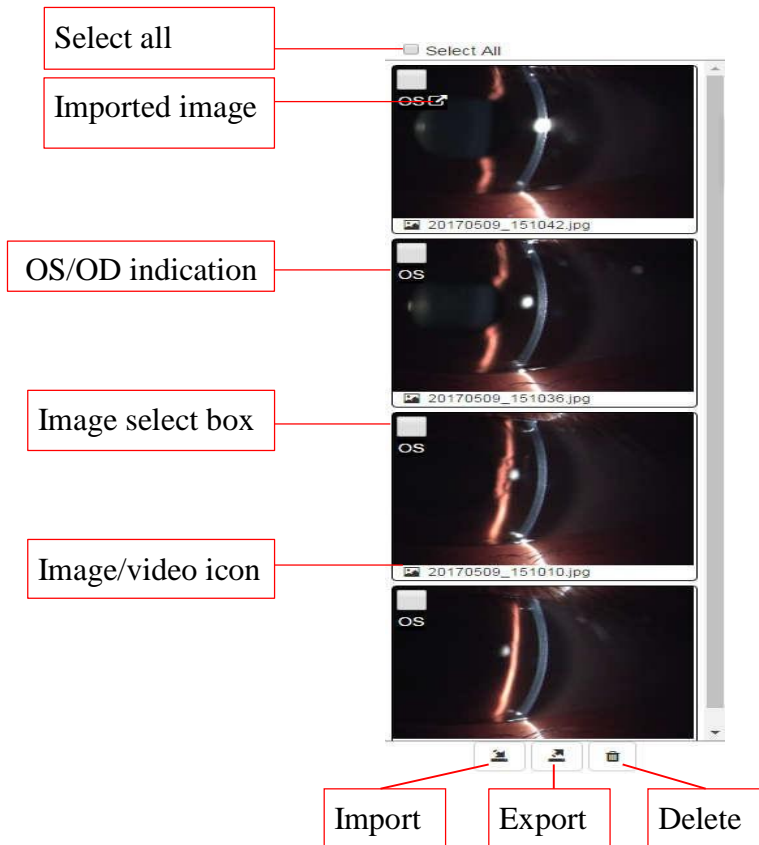


7. Click “ → ” button. Drag the mouse to draw a square on image. The perimeter and area value of this Arrowhead are showed accordingly as below.





8. Click “ 🔗 ” button to zoom in or zoom out the compared images simultaneously during image comparison,

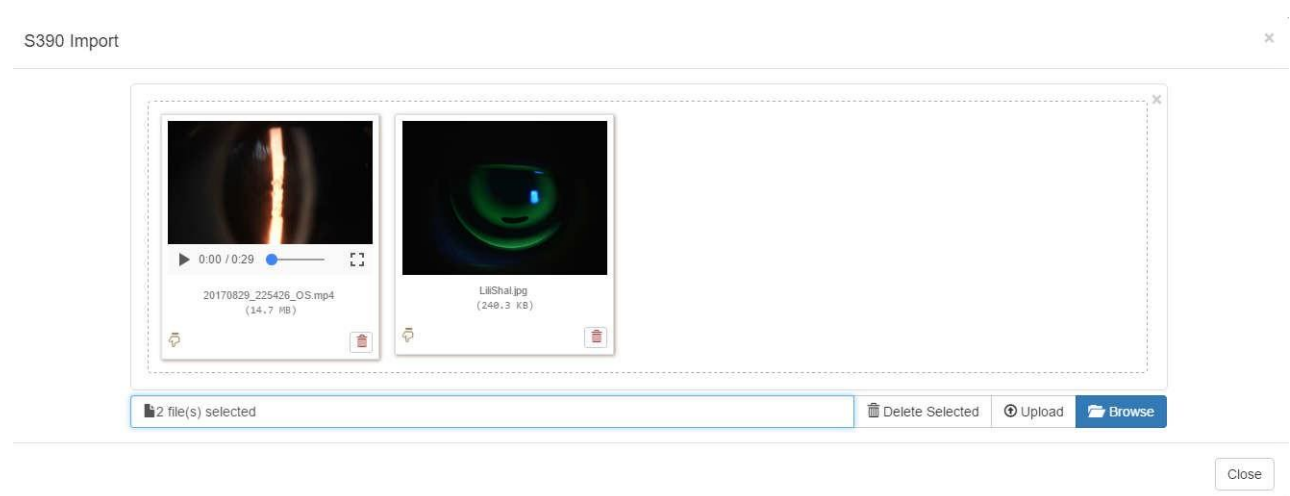
4.1.8 Image and Video Management

User can manage images and videos in the right bar list in home interface as showed below:





4.1.9 Image/Video Import

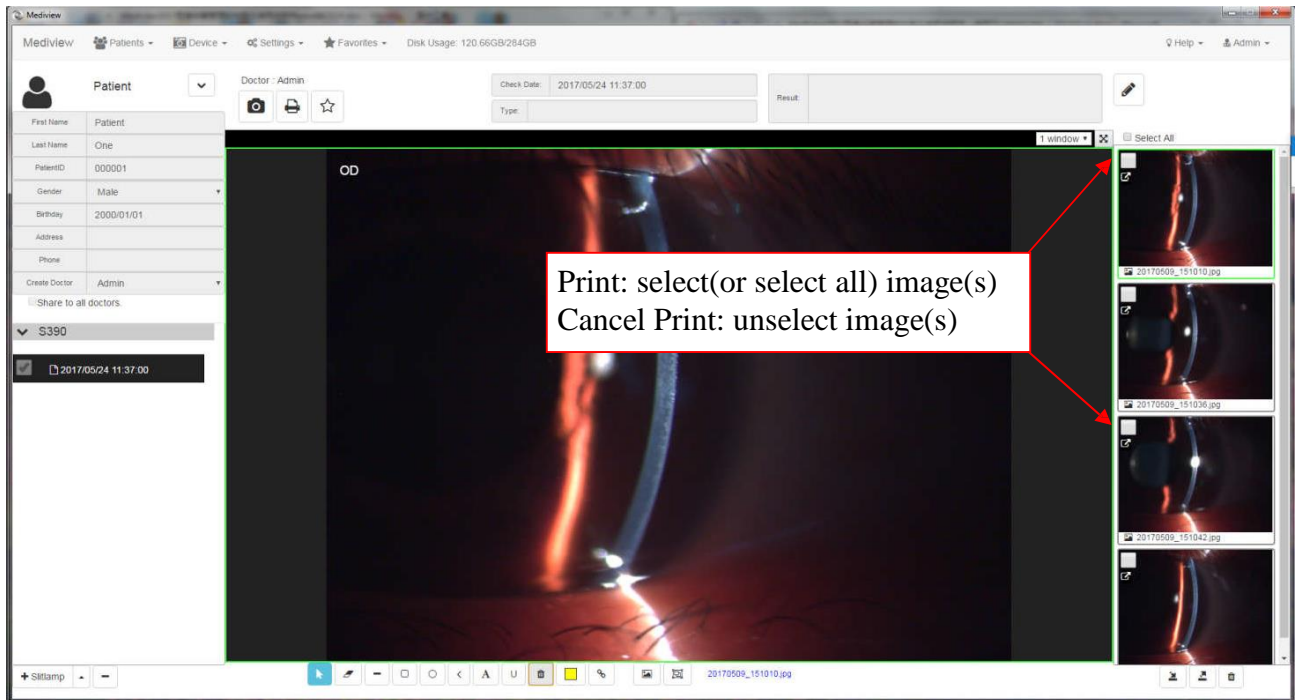
Click import icon, click “  Browse ...”, select the images and videos user wants to import into MediView and they will be showed in the import list. Now MediView support import image and video format in JPG and MP4. Click  Upload and the software will upload all the images and videos in the import list and showed in small icon in the right bar. Click “  ” to delete selected images or videos while click “  Remove ” to delete all the images and videos in the import list.



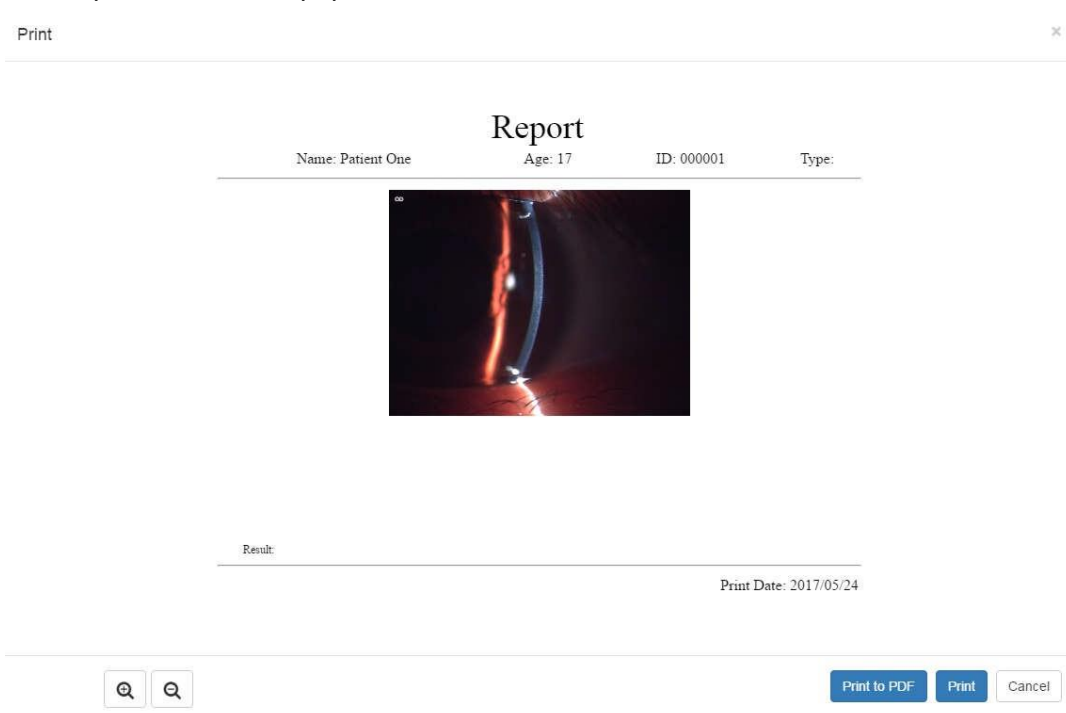
4.2 Report Print

Please make sure the printer is switched on. Select the images to be printed. Click  and user will see the report preview. Click "print" to print the report or "Export to PDF" to export the report in PDF

format. Click  to zoom in print preview. Click  to zoom out print preview. Zoom in or zoom out the print preview will not change the content proportion in report.



The OS/OD will be showed on the upper-left corner of the image when printing the report. User can print the report with normal paper size.



Noted: Video in the image/video list can not be printed. But it will take up space of printing report if it has been selected. Please unselect the video before printing.

5. Trouble Shooting

| Trouble | Possible Reason | Solution |
|------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| The software cannot read user data | The user changed the database saving path but did not transfer data base. | The user data is saved in the path before changed. Change the data base path to the original location. |

| | | |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Click "capture" but cannot capture image or video | There is Chinese characters, space, special characters or punctuations, etc. in the software installation path. | Reinstall the software and change the saving path without using Chinese characters, space, special characters or punctuations, etc. |
| Image in the eyepiece and screen are not in the same clear level | The user hasn't used focus plane rod to calibrate. | Please refer to Chapter 3.1 in this manual to calibrate the eyepiece with focus plane rod. |
| In the capture interface, the software indicates it cannot connect with camera. | The USB cable is not inserted firmly with the port. | Check USB cable and if there is RNDIS. If there is not RNDIS, it means the digital module is broken. Please contact distributor to repair. If there is RNDIS, the camera should be able to connect with PC normally. If there is RNDIS and the camera still cannot be connected with PC, please reinstall Windows system as it is not installed correctly. |
| Sometimes RNDIS appears and sometimes it disappears | USB cable is not inserted firmly causing unstable power supply | Please check USB cable connection and its extension cable, HUB, to see if hardware is normally powered. |

Subject to change in design or specifications without advance notice

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