SEE CLEARLY
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Patient Information Management Component

User Manual

ACUVU

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1. Read before use

1.1. About this manual

This user manual provides guidance on how to set up and use the PIMC (Patient Information Management Component), an accessorial software that runs on the user's personal computer and helps access and manage patient data from the HTx disposable hysteroscope system.

1.2. Intended use

HTx disposable hysteroscope system enters the uterine cavity through the cervix for observation and treatment of uterine cavity lesions. HTx disposable hysteroscope system is mainly used to diagnose diseases in the uterine cavity (i.e., uterine polyps, uterine fibroids, endometritis, endometrial cancer, Intrauterine adhesions, etc.). HTx disposable hysteroscope system can also be used in conjunction with surgical instruments as part of a simple procedure, such as endometrial biopsy, IUD removal, and hysteroscopic embryo removal.
AcuVu HTx disposable hysteroscope system is used to permit viewing of the adult cervical canal and uterine cavity for the purpose of performing diagnostic and operative procedure. The HTx disposable hysteroscope system will be used mainly in gynecology, reproductive surgery outpatient operating rooms (day operating rooms), inpatient operating rooms, and doctor's offices. The main population operating HTx disposable hysteroscope system are doctors trained in hysteroscopy and induced abortion.

1.3. Contraindications

The AcuVu HTx disposable hysteroscope system is contraindicated for use in:
- Inability to distend the uterus
- Cervical Stenosis
- Cervical/Vaginal infection
- Uterine bleeding or menses
- Known pregnancy
- Known carcinoma of the cervix and/or the uterus
- Recent uterine perforation
- Known Pelvic Inflammatory Disease (PID)
- Medical contraindication or intolerance to anesthesia

1.4. User qualifications

The operator of the PIMC software must be trained medical personnel.

1.5. Precautions

- During operation of the HTx disposable hysteroscope system and the PIMC software, the joint use of any other software not acknowledged by AcuVu on the same computer shall be at the discretion and responsibility of the user.
- Ensure that the version of PIMC software installed on the external PC is compatible with the IPC on the HTx1000 Image Processing System.
- Exercise caution with any USB memory stick. Don't use any memory stick that might have been compromised, e.g., previously inserted into a computer lacking proper cyber security safeguards.
- Test and inspect the device prior to use to verify adequacy for the planned procedure.
  - Please test and inspect the HTx image processing system according to the system user manual.
  - Make sure the cable connection between the HTx image processing system and the external computer is reliable.
  - If any software or image artifact appears on the screen, try unplugging and re-plugging the imaging

cable between the hysteroscope and the HTx image processing system, or the Ethernet cable between the external PC and the HTx image processing system.

- If at any time during the procedure the live video on the computer screen turns off, experiences image freezing, strip artifacts or image is distorted in anyway, one must carefully withdraw the device from the patient body in the first place before any troubleshooting is performed.

1.6. Signal words

The following signal word(s) are used throughout this manual:

WARNING! Indicates a potential hazardous situation which, if not avoided, could result in personal injury, software/hardware damage, or property loss.

NOTE Indicates additional helpful information but is not safety related.

1.7. Acronyms & definitions

Acronyms	Description
HTx60	Model of the disposable hysteroscope with a cannula's outer diameter of around 6 mm.
HTx60s	A variant of HTx60 but with a shorter cannula.
HTx40	Model of the disposable hysteroscope with a cannula's outer diameter of around 4 mm.
HTx1000	Model of the desktop Image Processing System that works with the HTx hysteroscopes.
ID	Identification
IPC	Image Processing Component (the on-board software that runs on HTx1000).
IPS	Image Processing System (Model#: HTx1000)
LAN	Local Area Network
PIMC	Patient Information Management Component (the software that runs on user's PC).

2. Introduction

2.1. System overview

PIMC is an optional software component that runs on user's own computer for convenient access to the patient data on the HTx1000 Image Processing System. As indicated in the graph below, there're a couple of facts users shall be aware of when it comes to the system setup for PIMC, as summarized in the notes below.

NOTE

- To run the PIMC, a proprietary USB dongle provided by AcuVu must be attached to the user's computer. For more information about the PIMC dongle, please contact your local sales representative of AcuVu.
- The user's computer can only communicate with the Image Processing System within a LAN (Local Area Network) or through direct cable connection. In other words, communication between the two devices across a network gateway is not supported by the software.
- The HTx1000 Image Processing System is only capable of wired connection through an Ethernet cable, but a wireless connection between the user's computer and the router in the LAN is still viable for the PIMC.

Where the PIMC is operating
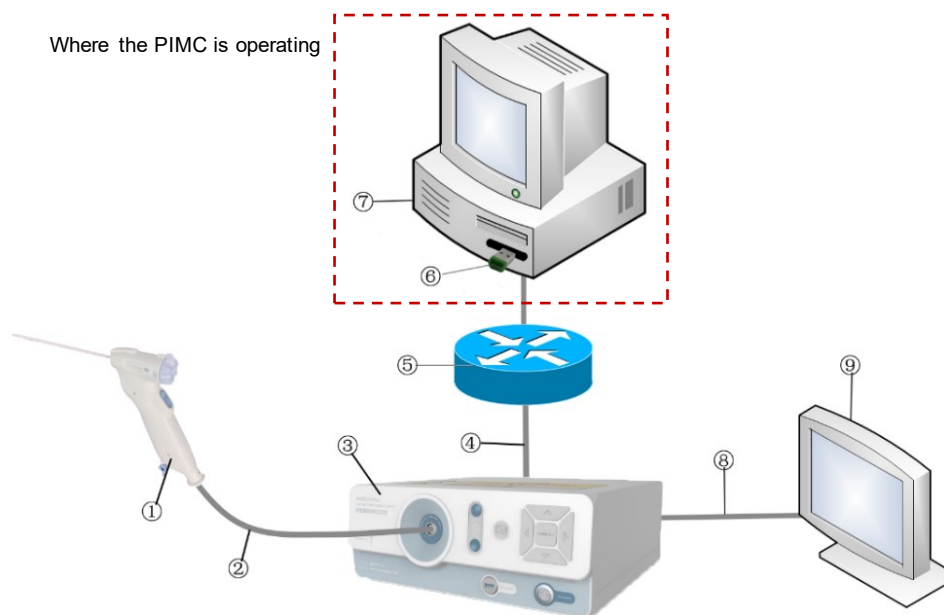
Figure 1: HTx Disposable Hysteroscope System

#	Component	#	Component
①	HTx Disposable Hysteroscope	⑥	Dongle for PIMC
②	Image cable	⑦	User's computer running the PIMC
③	HTx1000 Image Processing System	⑧	DVI cable
④	Ethernet cable	⑨	External monitor
⑤	Network router or switch		

2.2. Function overview

Unlike the IPC software on HTx1000, the PIMC is based on GUI (Graphical User Interface) and runs on the user's computer allowing easy access and management of patient data generated by the HTx1000 Image Processing System. The PIMC comes with the following functions and features described in the table below:

#	Function category	Function description
1	User management	Allows the administrator to create, edit or delete multiple user accounts, each with a separate password for authentication control. NOTE the first registered user will become the administrator of PIMC with the authorization to control all other users' accounts.
2	Live video control	Displays live video of the hysteroscope streamed from the Image Processing System. Additional image control functions such as image zoom in/out and illumination intensity adjustment are also supported on PIMC.
3	Patient profile management	Allows the user to add, edit or delete personal profile of each patient he/she has treated. The administrator, however, has the right to visit patient profiles created by all users.
4	Patient data management	- Allows recording of live images and videos and playing back the media files afterwards. - Allows importing / exporting / printing saved images and videos. - Allows copying images and videos from IPC to PIMC (synchronization).
5	Patient report management	Generate, edit, delete, print or export patient reports based on associated patient profile and saved image/video data. Also allows the user to tailor the report template according to his/her own preferences.

NOTE For details of the PIMC features and functionalities, please refer to Chapter 4 and Chapter 5.

2.3. Version information

The current PIMC software version is V1.0 which is compatible with any version of IPC ever released to the customer. Compatibility between different versions of PIMC and IPC will be clarified upon each release.

3. Getting started

3.1. System requirements

Before installing the PMIC on your computer, please verify that the following minimum system requirements are met, otherwise the successful installation or smooth running of the PIMC cannot be guaranteed.

- **Hardware environment**
  - CPU: at least 2.00 GHz, x64, dual cores
  - Memory: at least 2GB available space
  - Hard disk: at least 8GB available space
  - Display: 1080p resolution or higher
  - Accessories: PIMC dongle (must have)
  - Interfaces:
    - USB2.0/3.0 (for the PIMC dongle)
    - 100/1000 Mbps Ethernet card

- **Software environment**
  - Operating System: 64-bit Windows 10 / Windows 11
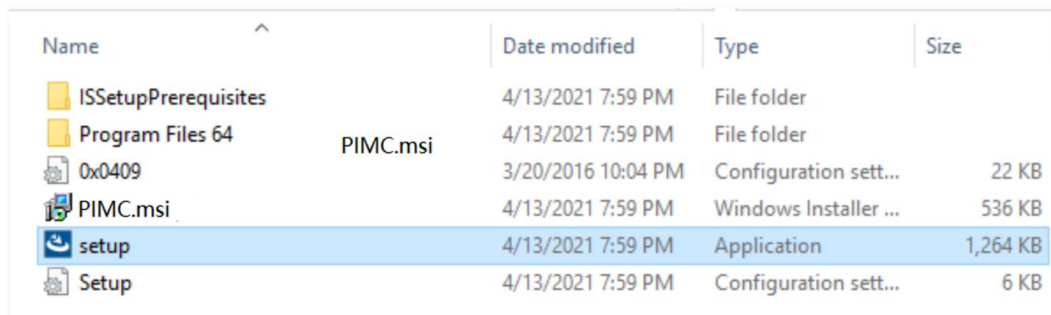 - Net Framework v4.7.2 or higher version installed

3.2. Installing PIMC

1) Download the PIMC installation package from the AcuVu website as specified in Section 7.
   WARNING!
   It is recommended to perform an antivirus check on the downloaded package before installation.

2) Find the "setup.exe" file in the installation package and double click to execute it.

Name		Date modified	Type	Size
ISSetupPrerequisites		4/13/2021 7:59 PM	File folder	
Program Files 64	PIMC.msi	4/13/2021 7:59 PM	File folder	
0x0409		3/20/2016 10:04 PM	Configuration sett...	22 KB
PIMC.msi		4/13/2021 7:59 PM	Windows Installer ...	536 KB
setup		4/13/2021 7:59 PM	Application	1,264 KB
Setup		4/13/2021 7:59 PM	Configuration sett...	6 KB

Figure 2: The setup.exe file in the installation package

3) The subsequent installation steps are self-explanatory and pretty simple to follow, you won't get confused. By default, the PIMC will be installed at the destination folder below:

"<system disk>:\Program Files\AcuVu Medical\PIMC\"

4) After the installation is completed, restart your computer.

3.3. Network setting

After the PIMC is successfully installed, it is essential to do some network settings before the IPC and PIMC can finally communicate with each other, and this involves both hardware and software configurations. As explained in Section 2.1, the user's computer and the HTx1000 Image Processing System (IPS) shall either be directly connected via an Ethernet cable or both be connected to a network router/switch within the same LAN. Either case, the HTx1000 Image Processing System and the user's computer must be configured with private IP addresses within the same network segment, e.g., 192.168.1.x, as illustrated in the figure below.
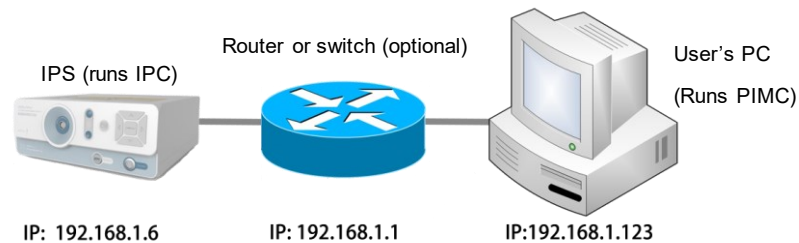
Figure 3: Example of allocating the private IP addresses within a LAN

NOTE

- The Image Processing System accepts wired connection only, preferably with a CAT6 or higher-grade Ethernet cable.
- Direct cable connection between the Image Processing System and the user's PC without involving the router/switch in between is also acceptable.
- The PIMC and IPC interact with each other in a client-server mode where PIMC acts as the client and initiates a request for connection with the IPC (server). Accordingly, the IP address of IPS has to be manually input in the PIMC configuration since currently there's no protocol for PIMC to automatically detect the existence of IPS and figure out its IP address.
- Only IPv4 address format is supported by the current AcuVu software.
- The IP address of IPS and user's computer shall only differ by the last segment and have the first three segments exactly the same, e.g., 192.168.1.x where "x" is the varying segment for different devices within the LAN.
- To avoid network conflict between different devices, make sure that the information of IP address allocation is well described and approved by your local IT administrator.

1) **Configure IP address of IPS**

Note that IPC is the operation software on IPS, therefore the two terms are sometimes used interchangeably when it comes to network setting. Press the Menu button on the front panel of the Image Processing System and in the popped-up Settings Menu of IPC, select Network settings.
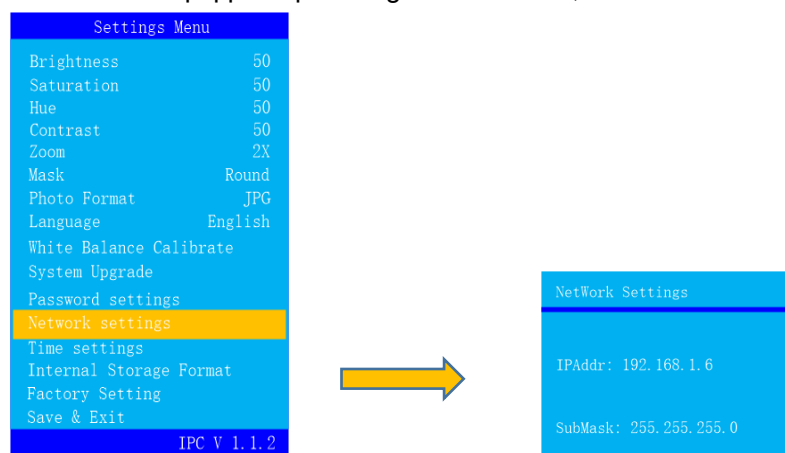

Figure 4: Setting IP address of the IPC

In this example above, IPAddr (IP address) is configured as 192.168.1.6 (other private IP addresses are also OK, please consult your IT administrator if necessary), and the subnet mask is set as 255.255.255.0, as illustrated below.

NOTE

- A keyboard attached to the IPS will be needed for entering the IP address.
- Since the IPS doesn't need to communicate with devices outside the LAN, the gateway address in the IPC is irrelevant, you can just leave it unconfigured.

2) Configure the IP address of the user's computer

Configuring the IP address of your PC is super easy, just refer to the link below for detailed instructions.

Change TCP/IP settings - Microsoft Support

As usual, you can either configure your PC to automatically acquire an IP address from the router (see left figure below), or you can manually set the IP address (right figure below as an example).

NOTE

Obtaining an automatic IP address is only possible when the computer is connected to a router that has DHCP capability.
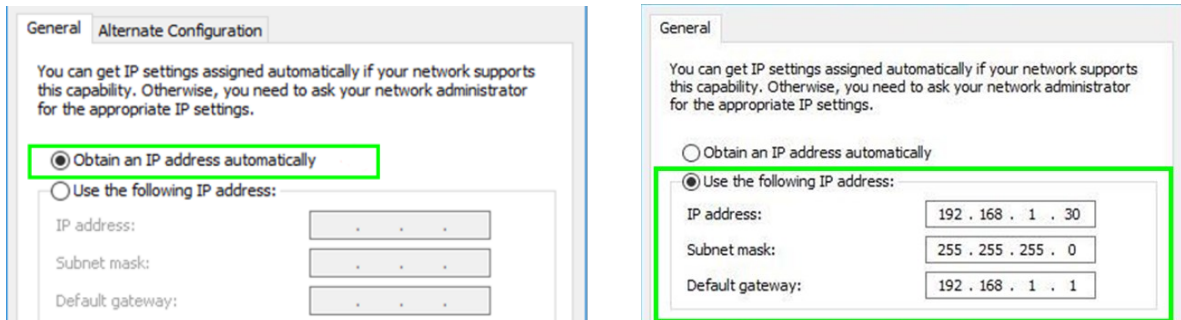

Figure 5: Setting IP address of the user's PC

You can then check your PC's IP address using the *ipconfig* command in the Command Prompt or PowerShell window (this webpage gives the details: How To use the IPConfig Command and Options Explained — LazyAdmin).
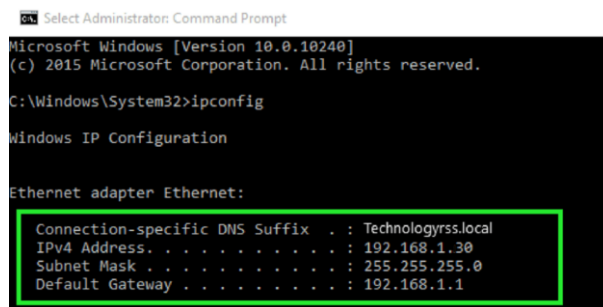

Figure 6: Double check the IP address in effect using ipconfig

After setting the IP addresses of the computer and IPC, you can then test the connectivity by pinging the IPC address in the PC's Command Prompt or PowerShell window. If the PC receives a reply from the IPS (like the one as shown below), then the connection is successfully established. Conversely, if the Command Prompt shows 'Request time out', then the connection is failed.
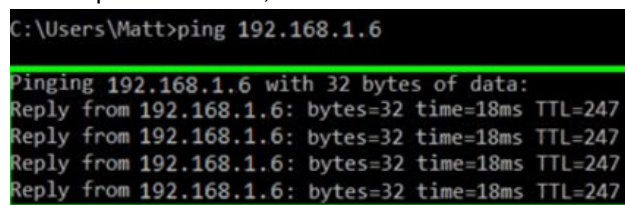

Figure 7: Check connectivity of IPS by pinging its IP

3) Register the IPC address in the PIMC software

To make the PIMC software fully aware of the existence of the IPC, additional setting in the PIMC Configuration screen has to be made. To achieve that, one has to login the PIMC with the administrator privilege in the first place.

If PIMC is freshly installed and no existing user account has been created, then the first registered user will automatically become the administrator of PIMC. If that's the case, click the button highlighted by the red circle in the figure below to create an administrator account and then login, otherwise just directly enter the current administrator's name and password and click the "Next" button (right arrow).
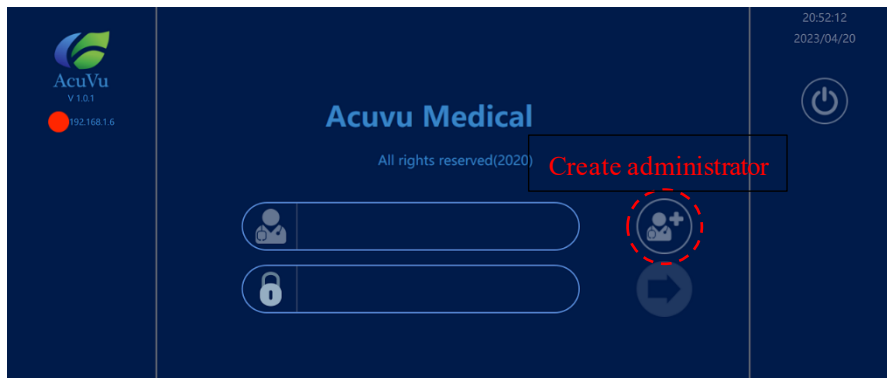
Figure 8: Create the administrator account in PIMC at first use

After login as the administrator, click the Configuration Management icon on Home screen (see figure below).
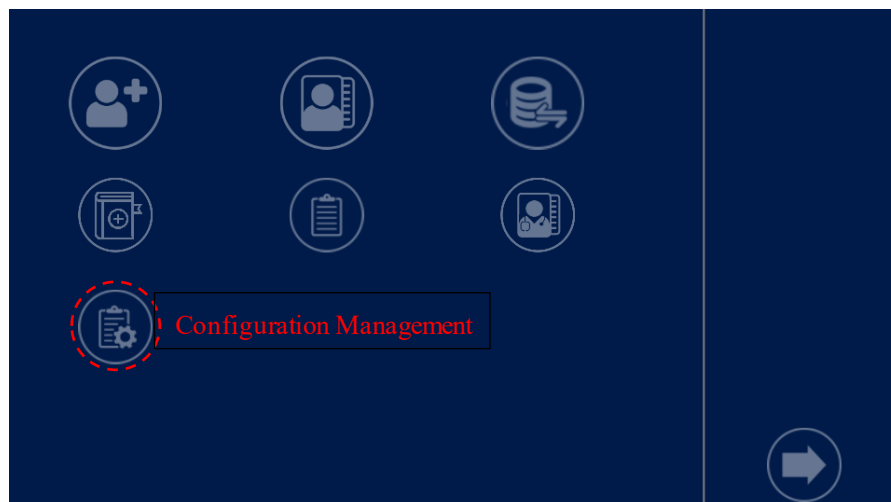
Figure 9: Configuration Management icon on Home screen of PIMC

On the Configuration Management screen, as illustrated in Figure 10, enter the IP address of IPS where the IPC is operating, and then click the "TEST" button (numbered with 2) on the right. A pop-up box with the message "This IPC address is available" means the two applications can finally communicate with each other successfully. Lastly, save the setting and return to the Home screen by clicking the "Next" button (the right arrow numbered with 3).

NOTE In the Configuration Management screen of PIMC (Figure 10), the IPC address you key in is **NOT** the IP address of the user's PC but that of the HTx1000 Image Processing System.

Figure 10: Inform PIMC of the IP address of IPC

4. Understanding PIMC screens

4.1. Login screen

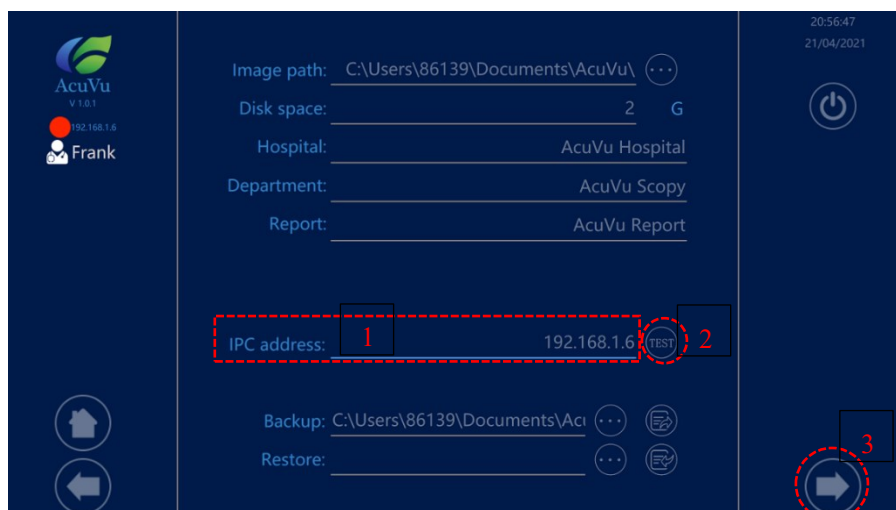After successful installation, double click the icon "PIMC.exe" on the desktop to launch the program and the following Login screen will show up.
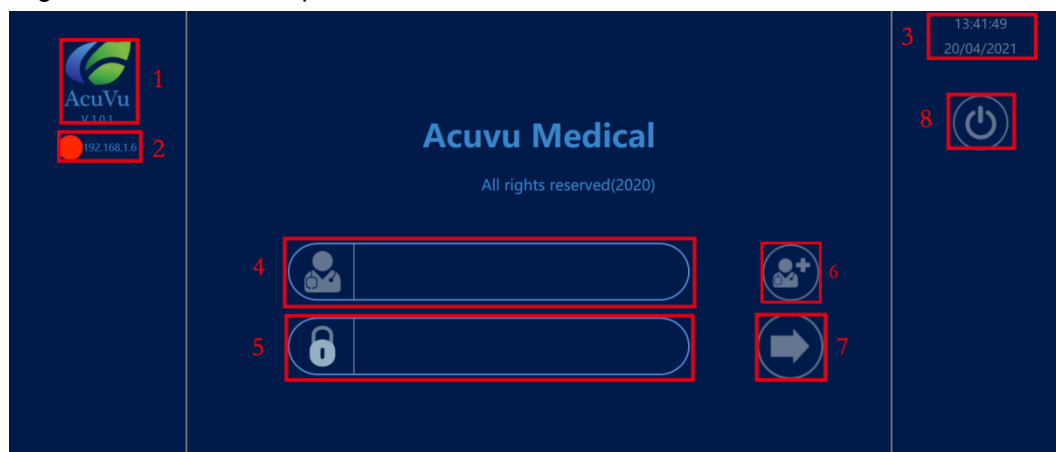

Figure 11: Login screen

Control elements and icons shown in Figure 11 are described as follows:

#	Name	Description
1	Logo and version #	Logo of AcuVu and the PIMC version number.
2	IPC connection status	1) Indicator of connection status: 🟢: green indicator denotes successful connection with IPC 🔴: red indicator means connection with IPC is not established 2) 192.168.1.6: example of IP address on the IPC side (HTx1000) NOTE Only IPv4 address is supported by IPC and PIMC.
3	Date and time	The date and time shown on PIMC are synchronized to the system time. NOTE The date format is DD/MM/YYYY when the English language is selected, and YYYY/MM/DD when the language is Chinese.
4	User name	This edit box is for inputting the user's name. NOTE • This field only accepts English alphabets, Chinese (simplified) and numerical characters. Blank space and underscore "_" are also supported, but should not be the initial. • The input letters are case sensitive. • The total length must be 4~20 characters.
5	Password	Input the password in this edit box. NOTE • This field only accepts English alphabets and numerical characters. • The input letters are case sensitive. • The total length of the password must be 8~20 characters. • All input characters will appear as "*" on the screen for peep-proof.

6	Add user	This icon is only displayed when there is no user account created on the PIMC yet. Clicking on it will switch to the Add User screen. **NOTE** The user thus created becomes the first user and administrator of the PIMC.
7	Next	Click the "Next" button to start the login authentication. If successful, the Home screen will then show up.
8	Exit	Click it to exit the program. **NOTE** This is not shutting down the computer or the image processing system.

NOTE

- If a logged-in user keeps inactive for more than 2 minutes, the PIMC will automatically log out and return to the Login screen.

A dongle from AcuVu must be inserted on the computer to ensure successful login. The dongle is also required throughout the operation of PIMC, otherwise the program will automatically log out shortly after the dongle is removed.

4.2. Home screen

Figure 12: Home Screen

The Home screen is the default screen displayed right after successful user login. Starting from the Home screen, you can launch different icons that allow you to achieve different functions, as described below：

#	Name	Description
1	User name	Displays the name of logged-in user.
2	Log out	Log out the current user and return to the Login screen.
3	Add patient	Switch to Edit Patient screen to add a new patient.
4	Patient management	Switch to the Patient Management screen where you can manage various patient information.
5	Synchronization	Switch to Synchronization screen where you can synchronize the patient data in PIMC with that in IPC, which actually means copying the entire IPC data to PIMC with a few mouse clicks.

| 6	Template management	Switch to Report Template screen where you can create, edit, or delete a number of templates of patient reports.
7	Report management	Switch to Report Management screen where you can review the previously saved patient reports.
8	User management	Switch to User Management screen where you can add, edit or delete users. NOTE this icon is only available to the administrator.
9	Configuration	Switch to the Configuration screen where you can configure the default parameters of the PIMC. NOTE this icon is only available to the administrator.
10	Next	Switch to the Add Patient screen where you can quickly add a new patient and then view the live video output.

4.3. Edit User screen
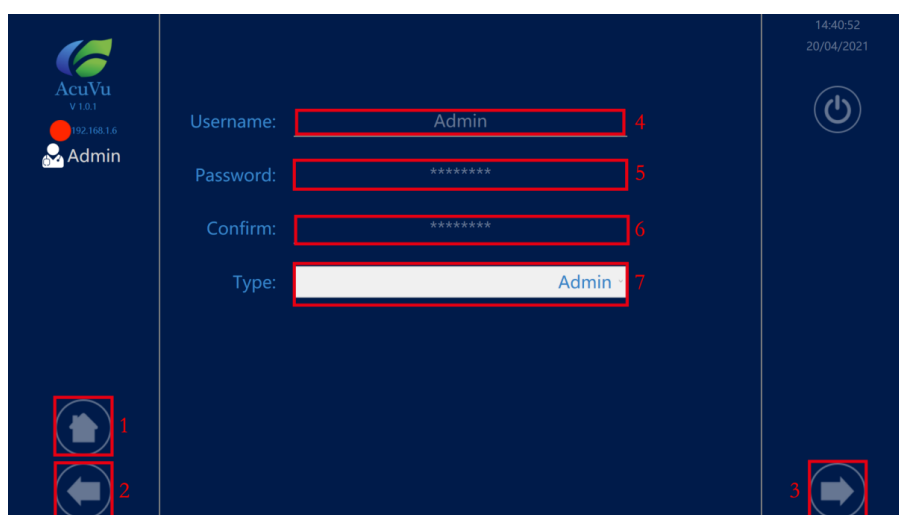
Figure 13: Edit User screen

The items on the Edit User screen are described as follows:

#	Name	Description
1	Home	Click to abandon current editing and switch to the Home screen.
2	Previous	Click to abandon current editing and switch to the previous screen.
3	Next	Click to add/modify the user being edited and return to the previous page.
4	User name	This edit box is for inputting the user's name. NOTE • This field only accepts English alphabets, Chinese (simplified) and numerical characters. Blank space and underscore "_" are also supported, but should not be the initial. • The input letters are case sensitive. • The total length must be 4~20 characters.
5	Password	Set the user password here. NOTE • This field only accepts English alphabets and numerical characters. • The input letters are case sensitive. • The total length of the password must be 8~20 characters.

6	Confirm password	Make sure the input password here is identical to the above one.
7	User type	The following user types can be selected from the drop-down list: • Administrator: has full access to settings and archived data of all users. • Doctor: can only access settings or data of his/her own. <mark>NOTE</mark> • The first user created in the PIMC will automatically become the Administrator and cannot be deleted unless the PIMC is uninstalled. • There should be only one Administrator for PIMC.

4.4. Edit Patient screen

Figure 14: Edit Patient screen

As shown in Figure 14, the items in Edit Patient screen are as follows:

#	Name	Description
1	Home	Return to Home screen.
2	Previous	Switch to the previous screen.
3	Next	Click it to save the current patient profile and switch to Live View screen or Patient Management screen: • If the previous screen was Home Screen, clicking the Next button will switch to Live View screen. • If the previous screen is Patient Management screen, clicking the Next button will switch to Patient Management screen.
4	Patient ID	Enter the unique identification for a patient in this field. <mark>NOTE</mark> • Contents in this field are only limited to English alphabets and numbers. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 4~40 characters.
5	Patient name	Enter the full name of the patient. <mark>NOTE</mark> • This field is only limited to English alphabets and numbers. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 4~40 characters.

#	Name	Description
6	Bed number	Bed number of the patient. NOTE • This field is only limited to English alphabets and numbers. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 4~40 characters.
7	Department	Clinical department in which the patient is treated. NOTE • This field is only limited to English alphabets and numbers. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 4~40 characters.
8	Patient age	Age of the patient in year. NOTE • This field is only limited to integers ranging 0~150. • Will be updated automatically when the patient's Date of Birth is modified.
9	Date of Birth	Date of Birth of the patient. NOTE • Format is either DD/MM/YYYY (English) or YYYY/MM/DD (Chinese) depending on the language of the Operation System. • Will be updated automatically when the patient's age is modified.

4.5. Edit Report screen

Figure 15: Edit Report screen

Elements on the Edit Report screen are described as follows:

#	Name	Description
1	Media list	1) If the previous screen is Patient Management screen, this list contains all images of the selected patient. 2) If the previous screen is Live View screen, this list only contains images captured in this operation. Images selected in this list will be added to the patient report.

2	Home	Click to return to Home screen.
3	Previous	Click to return to the previous screen.
4	Save	Click to save the current report. NOTE Patient reports saved in PIMC are encapsulated, i.e., they can only be accessed from within PIMC. The user cannot export or view the patient reports outside the PIMC.
5	Print	Click to preview the current report, and then print it if deemed good.
6	Report editing area	In this area, users are allowed to edit the information in all input fields as explained below (in a top-to-bottom, left-to-right order):
	Report title	*Should be a string of 0~40 characters*. By default, it is the Report Title in the Configuration screen.*
	Hospital name	*Should be a string of 0~40 characters. By default, it is the Hospital name in the Configuration screen.*
	Department name	*Should be a string of 0~40 characters. By default, it is the Department name in the Configuration screen.*
	Report number	*Should be a string of 0~40 characters. By default, it is numbered using the current date and time.*
	Patient name	*Should be a string of 0~40 characters. By default, it is the name of the current patient.*
	Patient age	*Should be an integer between 0~150. By default, it is the age of the current patient.*
	Bed number	*Should be a string of 0~40 characters. By default, it is the bed number of the current patient.*
	Patient ID	*Should be a string of 0~40 characters. By default, it is the ID of the current patient.*
	Procedure date/time	*Denotes the date and time at which this patient is treated. By default, it is filled with the current date and time.*
	Procedure name	*The name of the procedure in which the media files are recorded. This is a drop-down list containing all the templates created on the Template Management screen. When a certain template is selected from the list, other input fields may be automatically populated according to the preset parameters of that template, thus saving much time for the user.*
	Pre-procedure diagnosis	*Should be a string of 0~1024 characters. By default, it is automatically filled by the contents of the selected template in the Procedure Name field.*
	Indication	*Should be a string of 0~1024 characters. By default, it is automatically filled by the contents of the selected template in the Procedure Name field.*
	Preparation	*Should be a string of 0~1024 characters. By default, it is automatically filled by the contents of the selected template in the Procedure Name field.*
	Anesthesia	*Should be a string of 0~1024 characters. By default, it is automatically filled by the contents of the selected template in the Procedure Name field.*
	Image display	*Shows all selected images for generating this patient report.*
	Impression & recommendation	*Should be a string of 0~1024 characters.*
	Physician	*Name of the attending physician or referring physician. Should be a string of 0~40 characters.*
	Physician assistant	*Name of the physician assistant, if any. Should be a string of 0~40 characters.*
	Drafter (Signature)	*This field is for the signature of the report drafter.*

	Report date	Denotes the date on which this report is drafted. The format is DD/MM/YYYY in English and reversed sequence in Chinese. By default, it is filled with the current date.
	Anesthesiologist	Name of the anesthesiologist, if any. Should be a string of 0~40 characters.
	Signing date	Denotes the date on which this report is signed with the format of DD/MM/YYYY in English and reversed sequence in Chinese. By default, it is filled with the current date.

* This applies to characters like English letters or digits. However, for characters of other languages (e.g., Chinese) which takes up 2 bytes each, the maximum number of characters containable in each field will be half as many. The same can be said for other input fields throughout this user manual.
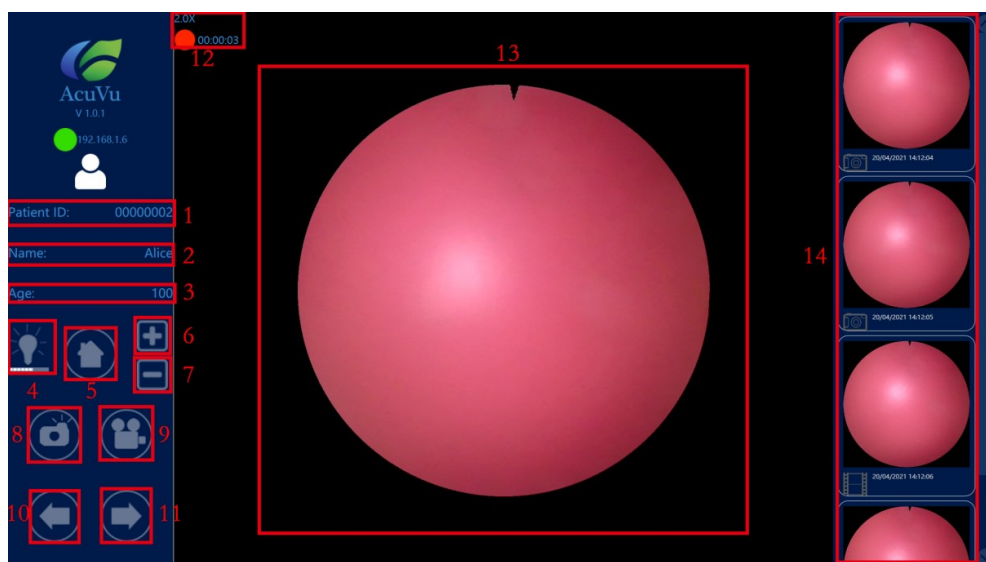
4.6. Live View screen

Figure 16: Live View screen

The items in the Live View screen are explained as follows:

#	Name	Description
1	Patient ID	Displays the ID of the current patient.
2	Patient name	Displays the name of the current patient.
3	Patient age	Displays the age of the current patient.
4	LED intensity	The bottom progress bar indicates the current LED light intensity. NOTE Tap the left/right side of this icon will decrease/increase the LED intensity of the hysteroscope, and the progress bar will change accordingly.
5	Home	Switch to the Home screen
6	Zoom in	Zoom in the image, i.e., raise the magnification. The allowed image magnification levels are 1.0x, 1.5x, 2.0x, and 2.5x. NOTE The live image cannot be zoomed when its being recorded.
7	Zoom out	Zoom out the image, i.e., lower the magnification. The allowed image magnification levels are 1.0x, 1.5x, 2.0x, and 2.5x. NOTE The live image cannot be zoomed when its being recorded.
8	Capture image	Capture an image and save it in PIMC. NOTE Capturing an image or recording a video in PIMC doesn't have any effect on the IPC data, i.e., the data won't be saved in the Image Processing System.

| 9	Record video	A single clicking on this icon will start video recording, and a second clicking will stop the recording.
10	Previous	Switch to the previous screen.
11	Next	Switch to Edit Report screen.
12	Information area	1) Displays the current image magnification. 2) Displays the duration of an ongoing video recording. 3) Displays warnings or other prompted messages in some cases.
13	Live video	Displays the live view of the hysteroscope
14	Media pane	Displays thumbnail and creation time of each media file (photo or video) that is lately captured for the current patient. The user can select multiple files in this pane. NOTE The icon at the bottom left of the thumbnail denotes the type of media file: 📷 means image file, while 🎞 means video file.

4.7. User Management screen
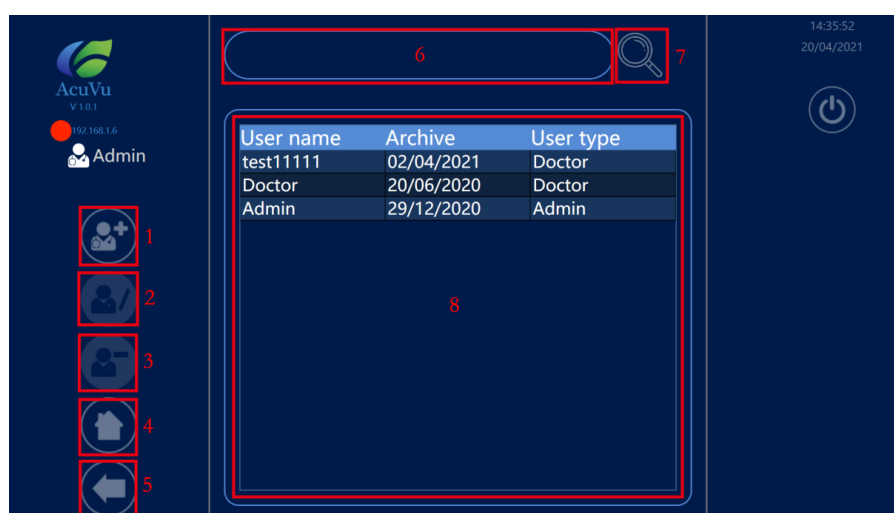
Figure 17: User Management screen

The items in User Management screen are explained as following:

#	Name	Description
1	Add user	Add a new user, and the PIMC will switch to the Edit User screen. NOTE Only the administrator has the privilege to add or delete user accounts.
2	Edit user	Edit a selected user in the user list. The Edit User screen will show up with preset data in accordance with the selected user.
3	Delete user	Delete a selected user in the user list. NOTE The patient data previously managed by that deleted user will now be in the direct charge of the administrator.
4	Home	Return to the Home screen.
5	Previous	Return to the previous screen.
6	Search box	Search for the user according to the input information in the search box. NOTE • This field is only limited to English alphabets and numbers. Blank space and underscore "_" are also supported, but should not be the initial. The total length must be 4~40 characters.

| 7	Search button	Click it to start the searching.
8	User list	Displays users that match the searching condition. NOTE The list can be sorted in ascending/descending order by clicking each column header. By default, users are sorted by archiving date.

- User with any piece of information (name, archiving date, or user type) that matches the input string in the search box will be displayed.

4.8. Patient Management screen
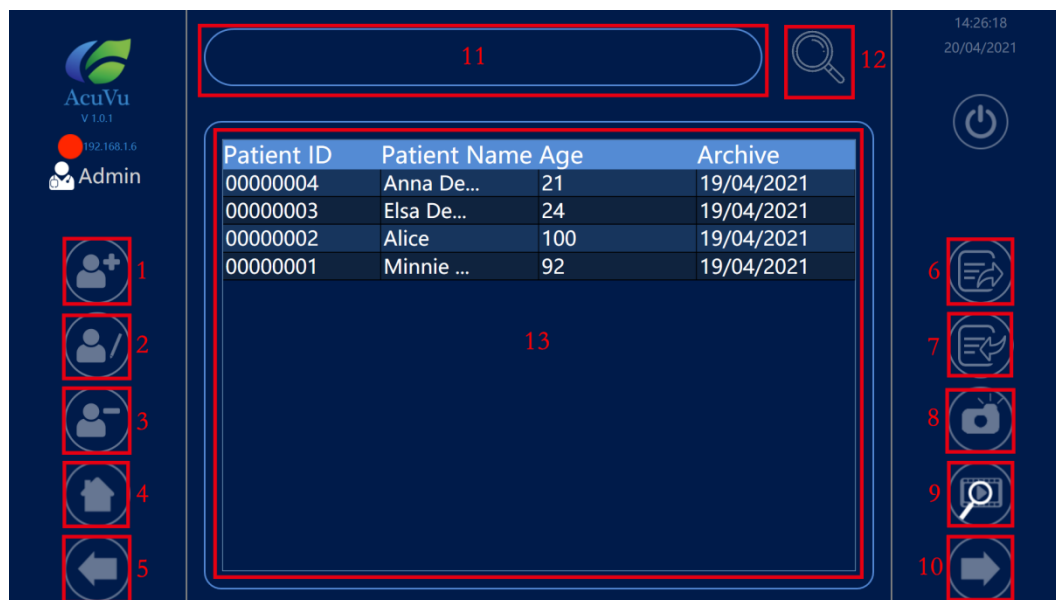
Figure 18: Patient Management screen

As shown in FIG，the items in Patient Management Screen as following:

#	Name	Description
1	Add patient	Click it to add a new patient, and the PIMC will switch to Edit Patient screen.
2	Edit patient	Edit a selected patient in the patient list. The Edit Patient screen will show up with preset data in accordance with the selected patient.
3	Delete patient	Delete the selected patients from the patient list. WARNING! Deleting a patient will permanently and irreversibly remove all data associated with that patient!
4	Home	Return to the Home screen.
5	Previous	Return to the previous screen.
6	Export data	Export all the data of selected patients in the patient list. NOTE • Exporting patient data is just copying the data to the destination folder, and it doesn't clear the existing data. • Multiple patients can be selected at a time for data exporting.
7	Import data	Import patient data that has been exported previously, e.g., from a different user. Click it to pop up the file selection box and select the *.xml file containing the patient information, then all data including the patient profile, images, videos and reports will be imported under the charge of the current user.
8	Live view	Start the live streaming and video display on Live View screen. NOTE This button becomes active only when one or more patients are selected,

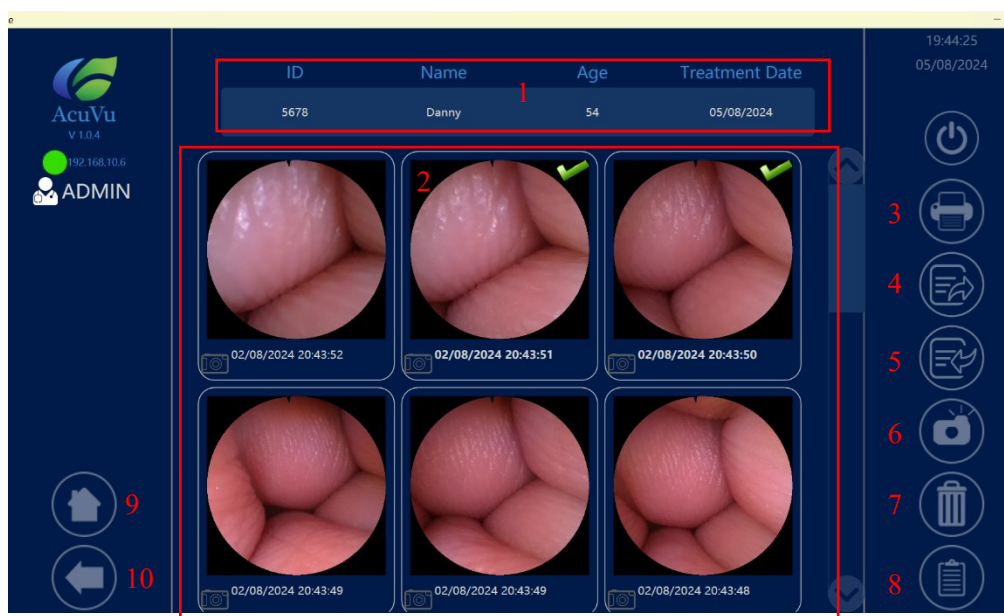| #		Description
		and the topmost selected patient will be the current patient in the Live View screen.
9	Media management	Click it to switch to the Media Management screen. NOTE This button becomes active only when one or more patients are selected, and the topmost selected patient will become the current patient with the related data displayed.
10	Next	• If there is at least one selected patient, clicking the Next button shall switch to the Media Management screen where patient information and media files of the first selected patient will be displayed. • If there is no selected patient, clicking the Next button shall switch to the Edit Patient screen where you can add a new patient from scratch.
11	Search box	Search for the patient according to the input information in the search box. NOTE • This field is only limited to English alphabets and numbers. Blank space and underscore "_" are also supported, but should not be the initial. The total string length must be 4~40 characters. • Patient with any piece of information (ID, name, age, or archiving date) that matches the input string in the search box will be displayed.
12	Search button	Click it to start the searching.
13	Patient list	Displays all available patients to the current user according to the search condition. NOTE The list can be sorted in ascending/descending order by clicking each column header. By default, users are sorted by archiving date.

4.9. Media Management screen

Figure 19: Media Management screen

The items in Media Review screen as following:

#	Name	Description
1	Patient profile	Displays profile of the topmost selected patient.
2	Media gallery	Shows the thumbnail and creation date of each media file of the topmost selected patient.

2		NOTE The icon at the bottom left of the thumbnail denotes the type of media file: 📷 means image file, while 🎞 means video file.
3	Print	Print selected images.
4	Export	Export selected media files
5	Import	Import media files
6	Live View	Click it to switch to Live View screen. NOTE If Live View screen is triggered in this way, then the topmost selected patient in the Patient list will become the current patient of the live video.
7	Delete	Click it to delete all selected media files
8	Report	Generate a patient report based on selected media files.
9	Home	Click it to switch to the Home screen.
10	Previous	Click it to switch to the previous screen.ddd

4.10. Report Management screen

The Report Management screen provides an overview of all the existing patient reports available to the user.
NOTE Patient reports created in PIMC are encapsulated, i.e., can only be accessed from within PIMC. The user cannot export or view patient reports outside the PIMC.
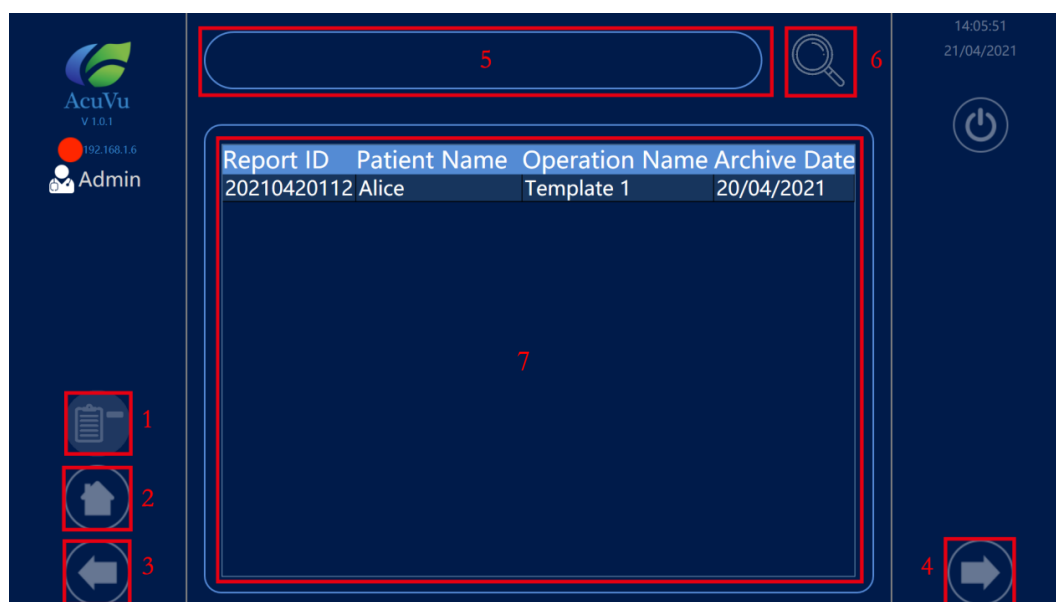

Figure 20: Report Management screen

The items in Report Management screen are described as follows:

#	Name	Description
1	Delete	Click it to delete the selected reports in the report list. Multiple reports can be selected at the same time.
2	Home	Click it to return to Home screen.
3	Previous	Click it to return to the previous screen.
4	Next	Click it to switch to the Edit Report screen and the topmost report selected in the report list will be edited.

5	Search box	Allows the user to enter the keywords such as report number, patient name, procedure name, or archiving date to search for reports in the report list. NOTE • This field is only limited to English alphabets and numbers. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 4~40 characters.
6	Search button	Click it to start the report searching.
7	Report list	Displays all available reports to the current user according to the user type and search condition. NOTE • The list can be sorted in ascending/descending order by clicking each column header. By default, reports are sorted by archiving date. • Note that the administrator has the right to see all reports created by all users, while the ordinary users can only see reports of his/her own.

4.11. Template Management screen

The user can create templates of patient reports in the Template Management screen. As shown in the figure below, the Template Management screen has two sub screens: one is Template Type sub-screen, and the other is Report Template sub-screen. These sub-screens can be selected by directly clicking on the corresponding tab.
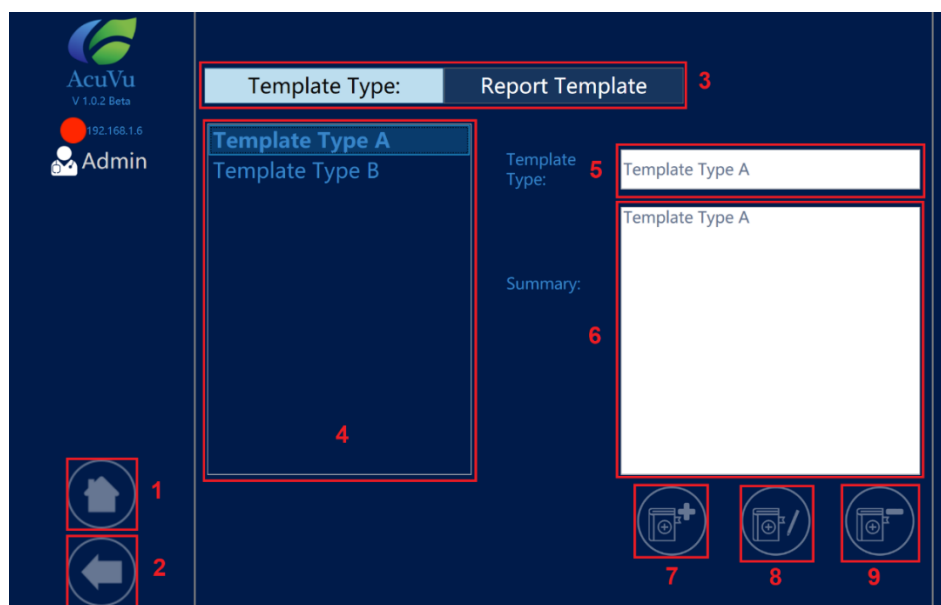

Figure 21: Template Type sub-screen

NOTE
• For better understanding of the report templates, here's an analogy we can make:
    • Every template type can be defined in terms of a particular indication of the hysteroscope;
    • Every template corresponds to a specific procedure performed to an applicable indication;
    • Every indication may require various procedures, likewise, every template type may contain a group of templates.
• The Template Type sub-screen is for creating template types, while the Report Template sub-screen is for creating specific report templates after the template type in defined.

As explained above, the first step for creating templates is to define a template type. As illustrated in Figure

21, the items in the Template Type sub-screen are as follows:

#	Name	Description
1	Home	Click to return to Home screen.
2	Previous	Click to return to the previous screen.
3	Sub-screen tab	Click the corresponding tab to quickly switch to the sub-screen of interest.
4	Type list	Lists all template types available to the current user. NOTE • Each template type contains two pieces of information: the name of the template type and a paragraph of descriptive summary. Clicking each template type in the list will display the associated information in the edit boxes on the right side of the sub-screen; • Unlike the administrator who can see the report templates of all users, the normal users can only view template types and report templates defined by themselves.
5	Type name	Edit the name of the template type here. NOTE • This field is only limited to English alphabets, numbers and Chinese characters. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~20 characters. • Characters are case sensitive.
6	Type summary	A summary describing the template type. NOTE • Any characters or symbols can be entered in this box. • The length of the field is limited to 0~1024 characters.
7	Add type	Save the current editing as a new template type. NOTE The added template type must have a different name than existing types.
8	Edit type	Save the editing to the currently selected template type (including the change to the name of the template type).
9	Delete type	Delete the selected template type from the list. NOTE A template type can only be deleted when there's no template under that template type.

Once the template type has been created, we can go on with the process by creating the report template under that template type. This is done in the Report Template sub-screen, as shown in Figure 22 below.
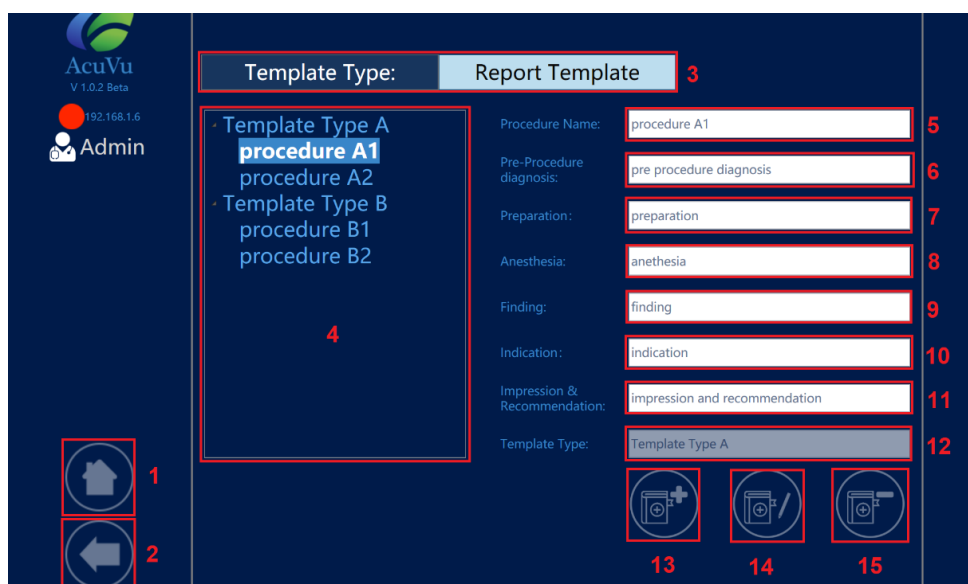
Figure 22: Report Template sub-screen

The items in Report Template sub-screen are described as follows:

#	Name	Description
1	Home	Return to Home screen.
2	Previous	Return to the previous screen.
3	Sub-screen tab	Click the corresponding tab to quickly switch to the sub-screen of interest.
4	Template list	List all report templates and template types in a hierarchical structure. NOTE • Depending on the user's privilege (administrator or normal user), only templates available to the current user will be displayed. • Each template type can have multiple report templates hanging on it. • Clicking each template in the list will display the associated parameters in the edit boxes on the right side of the sub-screen so that users can edit according to their latest preferences.
5	Procedure name (Template name)	Enter the template name here. Note that each template, by definition, corresponds to a particular procedure, hence this field is also denoted as "Procedure name" on the screen. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~20 characters. • Characters are case sensitive.
6	Pre-procedure diagnosis	Enter the diagnosis performed prior to the hysteroscopic procedure. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~1024 characters. • Characters are case sensitive.

7	Preparation	Specify the preparation work performed prior to the hysteroscopic procedure. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~1024 characters. • Characters are case sensitive.
8	Anesthesia	Specify the anesthesia prior to the hysteroscopic procedure. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~1024 characters. • Characters are case sensitive.
9	Finding	Specify the findings (observations) in the hysteroscopic procedure. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~1024 characters. • Characters are case sensitive.
10	Indication	Specify the indication which this hysteroscopic procedure is for. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~1024 characters. • Characters are case sensitive.
11	Impression and recommendation	Specify the impressions and follow-up recommendations as final conclusions of this hysteroscopic procedure. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~1024 characters. • Characters are case sensitive.
12	Template type	Displays the template type to which this template belongs. Note that this field is greyed out and not editable.
13	Add template	Save the current editing as a new template type. NOTE The added template must have a different name than existing templates.
14	Edit template	Save the editing to the currently selected template (including the change to the template name).
15	Delete template	Delete the selected template from the list. NOTE • To delete a template type in the Template Type sub-screen, one has to go to the Report Template sub-screen and delete all templates hanging on that template type. • You cannot delete a template type in the Report Template sub-screen. A template type can only be deleted in the Template Type sub-screen.

4.12. Synchronization screen

The Synchronization screen is used to export all patient data recorded by IPC on the Image Processing System to the archive database of PIMC.

NOTE

- The synchronization procedure will not remove the data on IPC, but just copy it to the PIMC database;
- The synchronization procedure doesn't allow the user to selectively copy data of interest but copy the entire dataset as a whole.
- The destination location of the synchronized data on PIMC is specified in the Configuration screen, see Section 4.13 for details.
- Make sure the communication between IPC and PIMC are well established before synchronization. Refer to Section 3.3 for detailed guidance on setting the network connection.
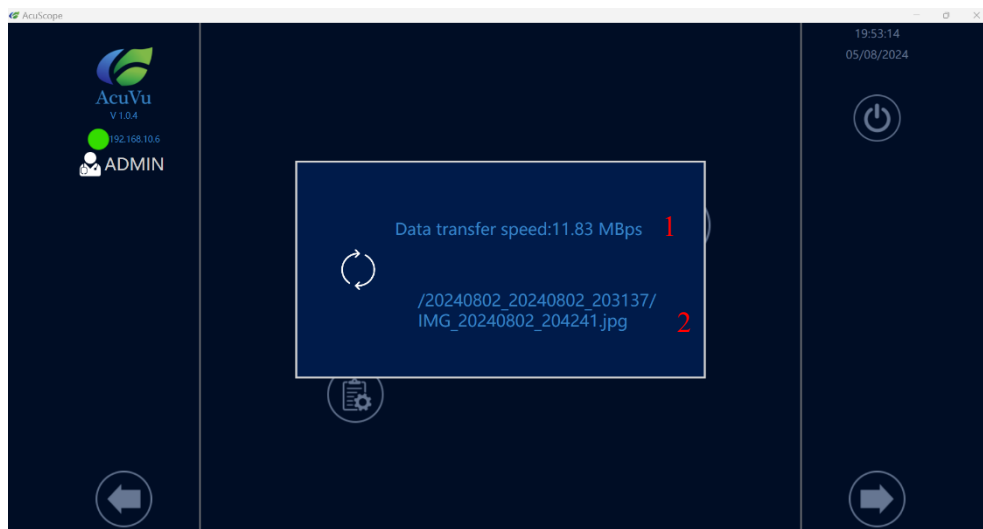

Figure 23: Synchronization Screen

The items in Synchronization screen are as follows:

#	Name	Description
1	Speed	Displays the real time speed of data transfer.
2	File name	Displays the name of the file being transferred.

4.13. Configuration screen

The Configuration screen allows the user to configure and store PIMC software settings as well as some of the most frequently used parameters. In addition, the Configuration screen also provides interfaces for data backup and restorations.

NOTE Only the administrator is authorized to access the Configuration screen. The Configuration icon on the Home screen is invisible to the ordinary users (user type: Doctor)
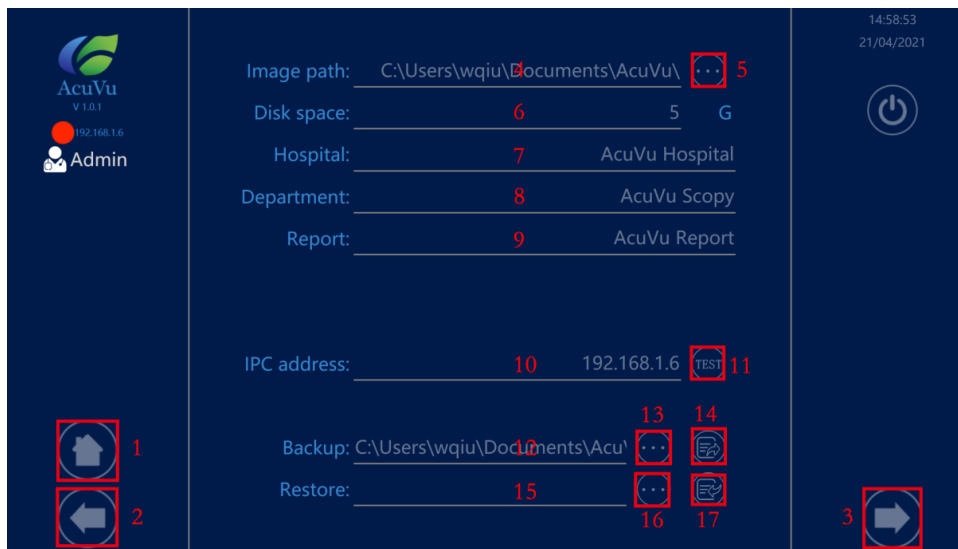
Figure 24 Configuration screen

The items on the Configuration screen are as follows:

#	Name	Description
1	Home	Click to return to the Home screen.
2	Previous	Click to return to the previous screen.
3	Next	Click to save the configuration and return to the previous screen.
4	Image path	Gives the file path to save images/videos, reports, and configuration files. NOTE The total length of the path is limited to 260 standard characters.
5	Image path selection	Click to pop up a file path selection dialog box. In this way, the user doesn't have to manually key in the file path. NOTE Must be a local file path on the user's computer.
6	Space limit	Sets the warning threshold of hard disk free space available to the PIMC, in unit of GB (Gigabytes). NOTE • When the available free space is less than the set threshold, a warning message will be displayed to prompt the user to clean up the hard disk. • Only an integer between 4~99 will be valid for this field.
7	Hospital name	The Hospital name set here will be used as the default hospital name when creating a new patient report. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~40 characters. • Characters are case sensitive.
8	Department name	The Department name set here will be used as the default department name when creating a new patient report NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial.

		• The total length must be 1~40 characters. • Characters are case sensitive.
9	Report title	The Report title set here will be used as the default report title when creating a new patient report. NOTE • This field is only limited to English alphabets, numbers and Chinese. Blank space and underscore "_" are also supported, but should not be the initial. • The total length must be 1~40 characters. • Characters are case sensitive.
10	IPC address	The IP address of Image Processing System, as set in the IPC. NOTE Must comply with the IPv4 format.
11	Test connection	Click to test whether the IPC address can be connected.
12	Backup path	Specifies the destination path for storing the backup data. NOTE The total length of the path is limited to 260 standard characters.
13	Backup selection	Click to pop up the backup path selection dialog box so that the user doesn't have to manually key in the file path.
14	Start backup	Click to start backing up all archived files to the backup path. NOTE • The entire PIMC database will be backed-up. • The backed-up files will be packed as a single file in the destination path.
15	Restoration path	Specifies the source path and file that contains the data to be restored. NOTE • Do not mistake restoration path for the destination path. For data restoration, the destination path is always the above-mentioned "Image path" of the PIMC. • The total length of the path is limited to 260 standard characters. • The patient data exported from the Patient Management screen cannot be used for restoration here. Only backup files are eligible for restoration.
16	Restoration selection	Click to pop up the path selection dialog box so that the user doesn't have to manually key in the restoration source path and file name.
17	Start restoration	Click to start the restoration process. All files encapsulated in the backup file will be extracted and merged with the PIMC archiving database.

5. Quick guide for frequent operations

5.1. Create new user

Please follow these steps to create a new user:

1) Make sure you have logged in the PIMC as Administrator, otherwise you don't have the permission to create a new user. Refer to Section 4.1 for login instructions.
2) On any screen, click the Home button to return to Home screen (Figure 12);
3) On the Home screen, click the User Management icon to enter the User Management screen;
4) On the User Management screen (Figure 17), click the Add User button to add a new user.
5) On the Edit User screen (Figure 13), edit the user profile and then click the Next button.

5.2. Modify password

Please follow these steps to modify the password of a user:

1) On any screen, click the Home button to return to Home screen (Figure 12);
2) On the Home screen, click the User Management icon to enter the User Management screen;
3) On the User Management screen (Figure 17), select the user whose password you would like to modify, and click the Edit User button on the left pane.
4) On the Edit User screen (Figure 13), edit the user password and then click the Next button.

5.3. Add new patient

There're a couple of common methods to add a patient.

■ Method 1:

1) On any screen, click the Home button to return to Home screen (Figure 12);
2) On the Home screen, click the Add Patient icon to enter the Edit Patient screen;
3) On the Edit Patient screen (Figure 14), edit the patient information and then click the Next button.

■ Method 2:

1) If current screen is Patient Management screen (Figure 18), just click the Add Patient icon on the left side;
2) On the Edit Patient screen (Figure 14), edit the patient information and then click the Next button.

5.4. View live image

Three different ways to launch the live view:

■ Method 1: After adding a new patient by clicking the Next button (see above Section 5.3), Live View screen (Figure 16) will automatically appear;

■ Method 2: From Home screen (Figure 12), switch to the Patient Management screen (Figure 18), then click the "Live View" button, the screen will switch to Live View (Figure 16).

■ Method 3: From Home screen (Figure 12), switch to the Media Management screen (Figure 19), then click the "Live View" button, the screen will switch to Live View (Figure 16).

5.5. Record image/video

1) Switch to the Live View screen (Figure 16), as instructed in Section 5.4 above;
2) Click the Capture Image or Record Video button on Live View screen.

5.6. Review image/video

■ Method 1:

1) From Home screen (Figure 12), switch to the Patient Management screen (Figure 18);
2) Select the patient whose image/video you want to watch, then click the Media Management button on the right side, the screen will switch to Media Management screen (Figure 19);

3) In Media Management, directly double-click on any video or image thumbnail to review/replay it.

■ Method 2:
1) Switch to the Live View screen (Figure 16), as instructed in Section 5.4 above.
2) If you recorded an image or a video on this screen, it will directly appear in the Media pane on the right side. Just double-click the recorded file to replay or review.

5.7. Generate patient report

■ Method 1:
1) From Home screen (Figure 12), switch to the Patient Management screen (Figure 18);
2) Select the patient for whom you want to create a report, then click the Media Management button on the right side, the screen will switch to Media Management screen (Figure 19);
3) On Media Management screen, select any images that you may need to include in the patient report, and then click Next button to enter the Edit Report screen (Figure 15);
4) Make any changes to those input fields on the Edit Report screen, and then click Save to finally save the new report.

■ Method 2:
1) Switch to the Live View screen (Figure 16), as instructed in Section 5.4 above.
2) Select any images you want to add to the report and then click Next button to switch to Edit Report screen (Figure 15).
3) Make any changes to those input fields on Edit Report screen, and then click Save to finally save the new report.

5.8. Create report template
1) From Home screen (Figure 12), click the Template Management icon and switch to the Template Management screen (Figure 21 & Figure 22);
2) Follow the step here if you want to create a new template type or change an existing template type (e.g., when a new indication is to be covered): in the Template Type sub-screen (Figure 21), enter the contents of the new template type you wish to create, and click the Add Type button at the bottom, then the new template type will be added to the list; or you may want to change the name or summary of an selected template type, and then click the Edit Type button to implement the changes to that template type.
3) Once the required template type is created, switch to Template Management screen (Figure 22) by clicking the sub-screen tab;
4) On the Template Management screen, select a template type and then enter all the necessary contents in various input fields, finally click the Add Template button to add a new template or click the Edit Template button to save the re-editing to that existing selected template.
5) The final step is to go to the Configuration screen (Figure 24) and set the Hospital Name, Department Name, and Report Title. These parameters will also be used to fill the patient reports by default.

5.9. Export patient data
1) From Home screen (Figure 12), switch to the Patient Management screen (Figure 18);
2) From the patient list, select the patient whose data you would like to export;
3) Click the Export button on the right side of the screen.

5.10. Print patient images
1) From Home screen (Figure 12), switch to the Patient Management screen (Figure 18);
2) From the patient list, select the patient whose images you would like to print;
3) Click the Print button on the right side of the screen.

6. Uninstalling PIMC

Just follow the usual procedure (click the link below) for uninstalling the PIMC in Windows.

[Uninstall or remove apps and programs in Windows - Microsoft Support](#)

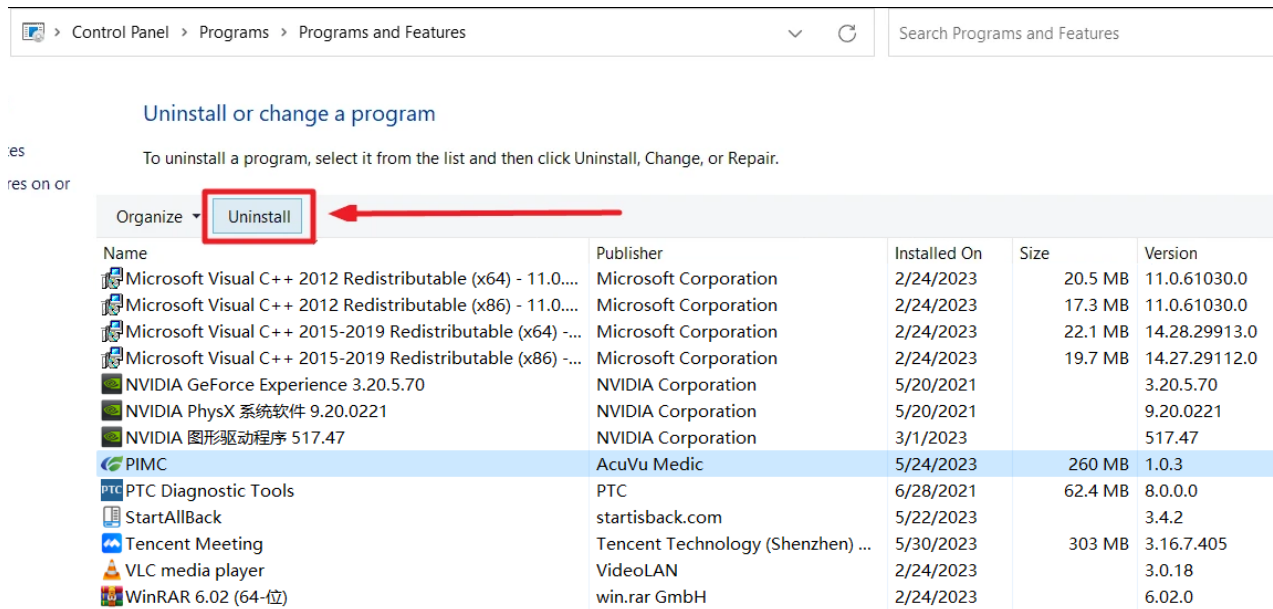The figure below illustrates an example of uninstalling PIMC in the Control Panel.

Figure 25 Uninstall PIMC in Control Panel

7. Upgrade information

The PIMC is subject to future revisions on an irregular basis. To check the historical and latest releases of PIMC, please visit this webpage: https://www.acuvuinc.com/support

8. Technical support

This instruction manual contains essential information on using this system safely and effectively. Before use, thoroughly review this manual and use the system as instructed. If you have any questions or comments about any information in this manual or if you have any unsolved issues with the product operation, please contact the local customer support of AcuVu, or you can directly reach us at:

- **Phone:** +86 512 65358635
- **E-mail:** info@sz-acuvu.com
- **Address:** B1-212, Bio-Nano Park, No.218 XingHu Street, Suzhou Industrial Park, Jiangsu Province, China.

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