

VSPlayer Software
User Manual

User Manual

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This Manual is applicable to VSPlayer Software.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website

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Chapter 1 Introduction

1.1 Overview

The VSPlayer software is a media player designed for Windows OS. With user-friendly GUI, the software provides an intuitive, convenient way for playing media file and video control, and supports multiple audio and video formats.

1.2 Version History

V7.4

Added New Features:

- Support clipping multiple video files.
- Play the PanuVo camera's video file in original mode or PTZ mode.
- Convert the encrypted video files.

V7.3

Added New Features:

- RTMP protocol for media streaming.
- View the live video of device via HLS protocol.
- Display picture, temperature and fire source information on the display window.
- Support hardware decoding for live view.
- Convert the video files from H.265 format to other formats.
- The VCA information does not display when starting playing the video by default.

V7.2

Added New Features:

- Support fisheye expansion for playing video files of fisheye camera.
- Support setting the location modes including by timestamp and by frame in basic settings.
- Support media streaming to share the local video file, live view of device, and desktop to others in the same LAN.

V7.1

Added New Features:

- Filter the files by file name or accurate time, and locate the video by accurate time.
- New UI for video clipping and file format converting.
- The user manual is packaged into the software.
- Optimize the digital zoom, audio control and repeat A-B segment function.

V7.0.0

Support playing the video files of the various kinds of devices, such as DVR, encoder, decoder,

compression card, network camera, network speed dome, etc.

- Support multiple video file formats, including Hikvision H.264, standard H.264 and standard MPEG4.
- Support 1, 4, 9, 16-window division.
- Multiple languages GUI are provided.
- Capture pictures and continuous capture during playing.
- Get the file information.
- Support file clipping, file merging and file converting.
- Support watermark.
- Digital zoom.
- Accurately position the playback point by frame or time.
- Synchronous playback.
- Reverse playback.
- Display the VCA information on the video.
- Support playing encrypted file.
- Repeat between the configured two points.
- Live view via URL mode with RTSP.
- Support motion flow to provide fluent video.

1.3 System Requirements

Operating System: Windows 7 (32 / 64-bit) / Windows 8 (32 / 64-bit) / Windows 10 (32 / 64-bit)

RAM: 2GB or above

1.4 Conventions

In order to simplify the description, we define the "VSPlayer software" as "software" in the following chapters.

Chapter 2 Getting Started

2.1 Running Software

After installing the software, click on the desktop to run the software.

The main page of the software is shown below. For the descriptions of the icons and buttons on the page, please refer to *Table 2.1 Main Page Introduction*.

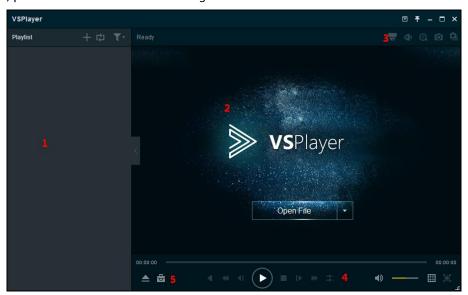


Table 2.1 Main Page Introduction

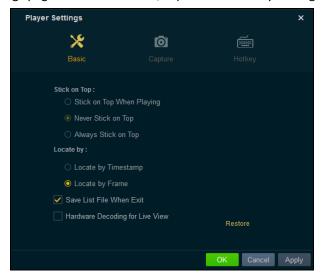
No.	Icon/Button	Description	
	+	Add the local media file to the software.	
	⇒ / ⇄	Set the playing mode for the file as single, order, repeat one	
1		or repeat all.	
_		Select to filter the files by file name or accurate time.	
	₹-	Filtering by accurate time can search the video files of the	
		configured time point.	
2	Open File	Display window area. You can click Open File to select the	
	Орентие	file for playing.	
	□	Select file, set language, configure player settings, view the	
		user manual, and check the software information.	
	*	Click and select whether to keep the window on top of all	
,		other windows.	
3		Minimize the software.	
		Maximize the software.	
	×	Exit the software.	
	Switch the PanuVo mode.		

		Enter fisheye expansion mode.		
		Enable digital zoom. Use the mouse to draw a yellow		
		rectangle and the image within it will be enlarged. A		
		navigation window will show and you can drag the yellow		
	€.	rectangle to adjust its position. Click the icon again to disable		
		digital zoom.		
		You can also use the mouse wheel to zoom in or zoom out.		
		Capture the playing video. Refer to Chapter 3.4 Capture and		
	0	Continuous Capture for details.		
		Start continuous capture of the playing video. Refer to		
		Chapter 3.4 Capture and Continuous Capture for details.		
		Note: It is not available after hardware decoding enabled.		
		Play the video reversely.		
		Note: It is not available for the live view which accessing via		
		URL mode or after hardware decoding enabled.		
		Set playback speed as 1/2, 1/4, 1/8 or 1/16.		
	≪	Note: It is not available for the live view which accessing via		
		URL mode or after hardware decoding enabled.		
		Enable reverse playback frame by frame. Click it once to go		
	I I	backward by one frame.		
	N	Note: It is not available for the live view which accessing via		
		URL mode or after hardware decoding enabled.		
		Play or pause the video.		
		Stop playing.		
		Enable playback frame by frame. Click it once to go forward		
		by one frame.		
	D	Note: It is not available for the live view which accessing via		
4		URL mode or after hardware decoding enabled.		
		Set the playback speed as 2X, 4X, 8X or 16X.		
	>>	Note: It is not available for the live view which accessing via		
		URL mode or after hardware decoding enabled.		
		URL mode or after hardware decoding enabled. Start synchronous play under multi-window mode. The files		
		-		
	EI .	Start synchronous play under multi-window mode. The files		
	H	Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration.		
	Ð	Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration. Refer to <i>Chapter 3.3 Synchronous Playback</i> for details.		
_	Ħ	Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration. Refer to <i>Chapter 3.3 Synchronous Playback</i> for details. <i>Note:</i> It is not available for the live view which accessing via		
_		Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration. Refer to <i>Chapter 3.3 Synchronous Playback</i> for details. <i>Note:</i> It is not available for the live view which accessing via URL mode or after hardware decoding enabled.		
	3	Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration. Refer to <i>Chapter 3.3 Synchronous Playback</i> for details. <i>Note:</i> It is not available for the live view which accessing via URL mode or after hardware decoding enabled. Turn off/on the audio. Drag the slider bar to adjust the		
		Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration. Refer to <i>Chapter 3.3 Synchronous Playback</i> for details. <i>Note:</i> It is not available for the live view which accessing via URL mode or after hardware decoding enabled. Turn off/on the audio. Drag the slider bar to adjust the volume. You can also press the Up or Down key on your		
		Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration. Refer to <i>Chapter 3.3 Synchronous Playback</i> for details. Note: It is not available for the live view which accessing via URL mode or after hardware decoding enabled. Turn off/on the audio. Drag the slider bar to adjust the volume. You can also press the Up or Down key on your keyboard to increase or decrease the volume. You can		
		Start synchronous play under multi-window mode. The files for synchronous play should have overlapped time duration. Refer to <i>Chapter 3.3 Synchronous Playback</i> for details. Note: It is not available for the live view which accessing via URL mode or after hardware decoding enabled. Turn off/on the audio. Drag the slider bar to adjust the volume. You can also press the Up or Down key on your keyboard to increase or decrease the volume. You can increase the volume up to 200%.		

	\square	Display the playing window in full-screen mode.	
_		Open files, open directory or open live view via URL mode.	
)	4	Activate the window of clip, convert, merge or streaming.	

2.2 Player Settings

Click and select **Settings**, or select **Settings** on the right-click menu of the playing window to enter the Player Settings page. You can set basic, capture and hotkey settings for the player.



2.2.1 Basic Settings

Steps:

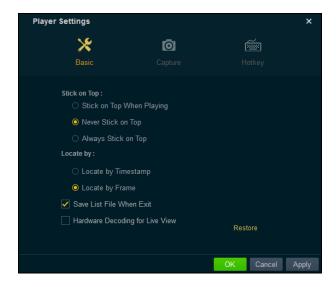
- 1. Click **Basic** to enter the Basic Settings page.
- 2. Set the option for Stick on Top.

Stick on Top When Playing: Keep the window on the top of all other windows when playing the file.

Never Stick on Top: Never keep the windon on the top of all other windows at any time.

Always Stick on Top: Always keep the windon on the top of all other windows.

- 3. Set the location method during playing.
 - **By Timestamp:** Click on the timeline to locate the image according to the timestamp.
 - By Frame: Click on the timeline to locate the image according to the frame.
- 4. Check **Save List File When Exit** checkbox to keep the playlist when you exit and you can get the playlist next time you open the software.
- (Optional) Check Hardware Decoding for Live View checkbox to enable decoding by hardware for live view.
 - It provides better decoding performance and lower CPU usage.
- 6. You can also click **Restore** to reset the parameters to the default values.
- 7. Click **Apply** to apply the settings. Or click **OK** to save the settings and exit.



2.2.2 Capture Settings

Steps:

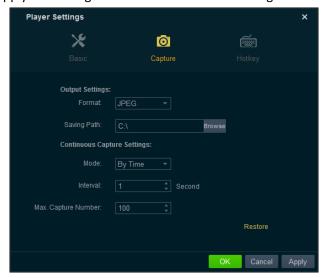
- 1. Click Capture to enter the Capture Settings page.
- 2. Select the Format for the captured picture.
- 3. Click **Browse** to set the saving path for captured pictures.
- 4. Set the continuous capture.

Mode: Select the mode as by time / by frame.

Interval: Set the time / frame interval in the range of 1 to 100 seconds / frames.

Max. Capture Number: Configure the maximum capture number in the range of 1 to 200.

- 5. You can also click **Restore** to reset the parameters to the default values.
- 6. Click **Apply** to apply the settings. Or click **OK** to save the settings and exit.



2.2.3 Hotkey Settings

Steps:

- Click Hotkey to enter the Hotkey Settings page.
 You can view the keyboard hotkeys for the common functions of the software.
- 2. Click the text field, and you can change the hotkey as desired.
- 3. You can also click **Restore** to reset the parameters to the default values.
- 4. Click **Apply** to apply the settings. Or click **OK** to save the settings and exit.



Chapter 3 Playing Video Files

3.1 Adding the Video Files

The software provides two ways for adding the local video files, including adding files of the selected folder and adding files directly. And you can also open live view of device via URL mode. After adding the video files, you can view the thumbnails of the video on play list.

Note: If the video file is merged by multiple video streams, you cannot view the thumbnails of the added video.

Adding Files

Steps:

- 1. Click **■** in the playlist area, or click **Open File** on the playing window, or click **■** and select **Open File**, or click **■** and select **Open File** under **Open**.
 - **Note:** The **Open File** on the playing window is only available when no video is playing and the window-division is 1.
- In the pop-up window, select the file for adding.You can also hold Shift or Ctrl key to select multiple files.

Adding Folders

Steps:

- 1. Click besides **Open File** on the playing window and select **Open Directory**, or click and select **Open Directory**, or click and select **Open Directory** under **Open**.
- In the pop-up window, select a folder for adding.
 You can add the supported files under the folders to the software.

URL Mode

Steps:

- 1. Click besides **Open File** on the playing window and select **Open URL**, or click and select **Open URL**, or click and select **Open URL** under **Open**.
- 2. In the pop-up window, input the URL of the video.

Note: Only RTSP and HLS protocol are supported for URL mode.

- For RTSP protocol, *Format:* rtsp://admin:12345@172.10.7.157/Stream/Channels/101. admin: The user name of the camera.
 - **12345:** The password to log in to the camera.
 - **172.10.7.157:** The IP address of the camera.
 - 101: The main stream of camera 01.
- For HLS protocol, *Format:* http://10.20.37.12:9086/8ch06la25569d.m3u8.

 You can generate the HLS URL when creating network media streaming task. For details, refer to *Chapter 3.8 Media Streaming*.

You should select the connection mode according to actual needs.



Right-click the file in the Playlist and the following items are available on the right-click menu. For details, refer to *Table 3.1 Right-Click Menu on Playlist Description*.

Note: The right-click menu varies according to different file types.

Table 3.1 Right-Click Menu on Playlist Description

Name	Description
Play/Pause	Play/pause the file.
Delete File	Delete the selected file(s) from the software.
Remove Invalid File	Delete the all the invalid file of the playlist. The invalid files are marked
	with Invalid .
Clear Playlist	Delete all the files of the playlist.
File Location	Open the folder of the file.
Enter Key	Enter the key of the file which is encrypted.

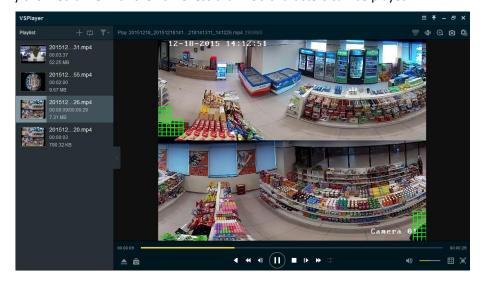
3.2 Playing Control

After adding the video files to the playlist, you can play the file and achieve the related functions to control the video playing.

The successfully added files list on the playlist panel and you can drag the file to the display window or double-click it for playing.

Notes:

- For the encrypted files, you should enter the key in the pop-up window to play it.
- Only the media file with the name less than 256 characters can be played.



You can control the video playing by clicking the provided icons. For details, refer to *Table 3.2 Playing Control*.

Or you can right-click on the playing window to access the play control menu. For details, refer to *Table 3.3 Right-Click Menu on Display Window Description*.

Note: By default, VCA information does not display when starting playing the video.

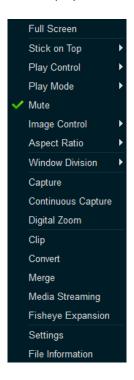


Table 3.2 Right-Click Menu on Display Window Description

Name	Description		
Full Screen	Display the playing window in full-screen mode.		
	Stick on Top When Playing		
Stick on Top	Never Stick on Top	Select whether to keep the window on the top of all other windows	
	Always Stick on Top	of all other windows	
	Locate by Timestamp: Input the time and the video will be played back from		
	that time.		
	Locate by Frame: Accurately position the playback point by frame.		
	Locate by Accurate Time: Locating by accurate time to play back the video of		
	the configured time point.		
	First Frame: Go to the first frame of the video.		
Play Control	Last Frame: Go to the last frame of the video.		
Tray Control	Drop Frame: Drop the frame to reduce the CPU usage.		
	Motion Flow: Enable the function to get the fluent video, especially for motion		
	image.		
	Repeat A-B Segment: Click to enable this function, and drag the A and B point		
	on the timeline to adjust the position. Then the video can repeat between the		
	configured two points.		
	For other items, please refer to the description of the related icons.		
Play Mode	Set the playing mode for the fi	le as single, order, repeat one or repeat all.	

Mute	Turn off the audio of the file.		
	Rotate the image during playing.		
	Color Adjustment	Set the parameters of saturation, hue, contrast	
	Color Adjustinent	and brightness	
	Watermark	Check the watermark information of the video.	
		VCA: Display the VCA information.	
		Note: You should configure the VCA	
		information for the live view which accessing	
		via URL mode. For details, refer to the <i>User</i>	
		Manual of the device.	
		Motion Detection: Highlight the motion of the video.	
		Note: You should configure the motion	
		detection for the live view which accessing via	
		URL mode. For details, refer to the <i>User Manual</i>	
		of the device.	
		POS Text Overlay: Display the POS text.	
		Note: This function should be supported by the	
Image Control		device and the device should be configured	
		with POS text overlay. For details, please refer	
	VCA Info.	to the <i>User Manual</i> of the device.	
		Temperature: Display the detected	
		temperature.	
		Note: This function is only available for thermal	
		camera. For details, refer to the User Manual of	
		the thermal camera.	
		Picture Overlay: Display the picture on the	
		display window.	
		Note: You should configure the picture information for the live view which accessing	
		via URL mode. For details, refer to the <i>User</i>	
		Manual of the camera.	
		Fire Source: Display the file source information.	
		Note: This function is only available for thermal	
		camera. For details, refer to the User Manual of	
		the thermal camera.	
Aspest Batia	Set the video size as original size, 4:3, 16:9 or Fill Window. You can also set the		
Aspect Ratio	window size as 2X, original size	e, 1/2 or 1/4.	
Window Division	Set the 1/4/9/16-window division	on.	
	Capture the playing video. Refer to Chapter 3.4 Capture and Contin		
Capture	Capture for details.	200000000000000000000000000000000000000	
		laying video. Refer to Chapter 3.4 Capture and	
Continuous	Continuous Capture for details.		
Capture	·		
	Note: It is not available after hardware decoding enabled.		

Digital Zoom	Enable digital zoom of the video.	
	Clip the file to get the required video footage. Refer to Chapter 3.5 Clipping File	
Clin	for details.	
Clip	Note: It is not available for the live view which accessing via URL mode or after	
	hardware decoding enabled.	
Convert	You can convert the files or real-time streams to other format. Refer to <i>Chapter</i>	
Convert	3.6 Converting File for detailed configuration.	
Morgo	Merge multiple files (>=2) into a single large file. Refer to Chapter 3.7 Merging	
Merge	Files for details.	
Media	Create local, network, or desktop media streaming and generate URL to share	
	the videos to other computers and devices in the same LAN. Refer to <i>Chapter</i>	
Streaming	3.8 Media Streaming.	
	Play the video files in fisheye expansion mode. Refer to Chapter 3.9 Fisheye	
Fisheye	Expansion.	
Expansion	Note: It is not available for the live view which accessing via URL mode or after	
	hardware decoding enabled.	
Cattings	Configure the player settings, including basic, capture and hotkey settings.	
Settings	Please refer to Chapter 2.2 Player Settings for detailed information.	
File	Check the detailed information of the file, such as file name, video length, file	
Information	size, file type and resolution, etc.	

3.3 Synchronous Playback

Purpose:

You can play the video files in synchronization if they have overlapped time duration.

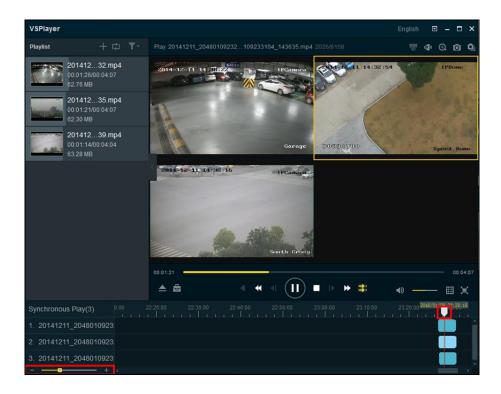
Note: This function is not available for the live view which accessing via URL mode or after hardware decoding enabled.

Steps:

- 1. Click and select a multi-window (2x2, 3x3 or 4X4) division.
- 2. Select a window and double-click a video file to play it.
- 3. Repeat step 2 to start playing multiple video files.
- 4. Click to start synchronous play.

Note: The files for synchronous play should have overlapped time duration.

5. (Optional) Drag the \square to zoom in or zoom out the timeline bar. Click \square to adjust the playback position.



3.4 Capture and Continuous Capture

You can take pictures of the playing video and save them to local PC.

There are two ways available for capturing pictures, including Capture and Continuous Capture.

Capture: During the video playing, click to take a picture for the video. Refer to *Chapter 2.2.2*Capture Settings for the saving path and picture format of the captured pictures.

Continuous Capture: During the video playing, click to start continuous capture of the playing video to take pictures continuously. You can click to stop the continuous capture manually. Otherwise, the continuous capture stops after the number of captured pictures has reached the configured maximum capture number. Refer to *Chapter 2.2.2 Capture Settings* for the saving path of the captured pictures and the related parameters.

Note: Continuous capture is not supported after hardware decoding enabled.

3.5 Clipping Files

Purpose:

During playback, you can clip one or more files to get the required video footages.

Notes:

- This function is not available for the live view which accessing via URL mode or after hardware decoding enabled.
- Only the media file with the name less than 256 characters can be clipped.

Clipping Single Video File

Steps:

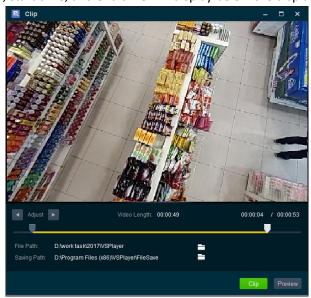
1. During the video playing, click and select not not select Clip on the right-click menu of the playing window to enter the Clip page.

Note: For selecting **Clip** under , you should click **Open File**, or click to select a video file for clipping.

2. Drag \square to set the desired start and end position of the video footage.

You can also click ■ and ▶ to adjust the position.

The video length, start time, and end time will display below the display window.



- 3. (Optional) You can click **Preview** to view the video to clip.
- 4. Click to set a saving path for the clipped file.
- 5. Click **Clip** to clip the file.

Clipping Multiple Video Files

Note: The video files should have overlapping time period.

Steps:

- 1. Click and select to enter the Clip page.
- 2. Click and select multiple video files for clipping.

Note: The window division will change according to the number of selected files.



- Drag ☐ to set the desired start and end position of the video footage.
 You can also click ☐ and ☐ to adjust the position.
 The video length, start time, and end time will display below the display window.
- 4. (Optional) You can click **Preview** to view the video to clip.
- 5. Click to set a saving path for the clipped file.
- 6. Click **Clip** to clip the files.

3.6 Converting File Format

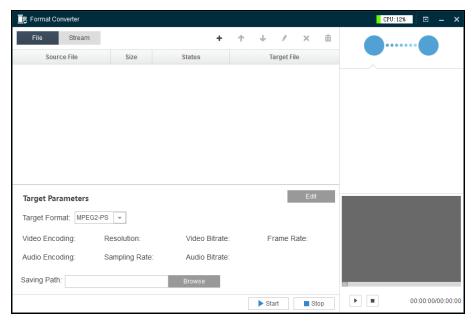
Purpose:

You can convert the files or real-time streams to the target formats, and the parameters are configurable, such as format, encoding type, resolution, bitrate, and so on.

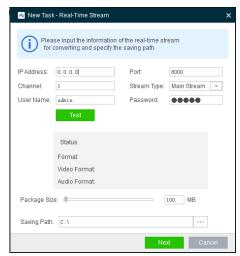
Note: Only the media file with the name less than 256 characters can be converted.

Steps:

1. Click and select on select **Convert** on the right-click menu of the playing window to pop up the Format Converter window.



- 2. Add file(s) or real-time streams.
 - For adding file(s), select **File** tab, click **1** and select file(s).
 - For adding real-time stream, select **Stream** tab and click **!** to add the real-time stream.



For detailed configuration about format converting, please refer to the *User Manual of the Format Converter* (click and select **User Manual** on the Format Converter window).

Note: You can convert the video files from H.265 format to other formats, but converting video files from the other formats to H.265 is not supported.

3.7 Merging Files

Purpose:

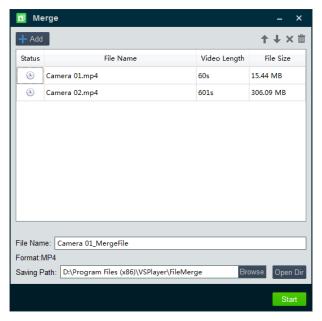
You can merge multiple files into a single large file to view all the needed files continuously.

Notes:

- This function is not supported by the live view which accessing via URL mode.
- Only the media file with the name less than 256 characters can be merged.

Steps:

- 1. Click and select nor select **Merge** on the right-click menu of the playing window to enter the Merge page.
- 2. Click Add to select the files from local PC.



- 3. (Optional) Edit the selected files.
 - Select one file and click ↑ or ↓ to move the file up or down to adjust its merging position.
 - Select one file and click 🗶 to remove it from the merging list.
 - Click and select Clear Invalid File or Clear File List to delete the invalid files in list or delete all the files.
- 4. Input the file name for the merged file.
- Click Browse to set a saving path and file name for the merged file.
 You can click Open Dir to open the directory.
- 6. Click **Start** to start merging the files. You can click **Stop** during the merging process.

3.8 Media Streaming

Purpose:

You can create local, network, or desktop media streaming task and generate URL to share the videos of local files, live view of device, or desktop to other users in the same LAN.

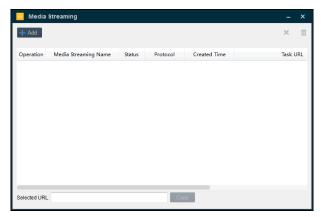
Note: Only the media file with the name less than 256 characters supports media streaming.

Steps:

1. Right-click on the display window area and select **Media Streaming** to open the Media Streaming tool.

Or you can click and select to open the Media Streaming tool.

Note: The Media Streaming tool should keep running during the whole process of media streaming.



- 2. Click **Add** button and select the media streaming type as Local, Network, or Desktop.
 - Local: Share the local video/audio file to others

For creating the media streaming of local video/audio files:



- (1) Input the media streaming name in the Name field as you want.
- (2) Click **Add** button to browse and select the video/audio file from local PC.
- (3) Select the protocol type as RTSP, HLS or RTMP.

Note: Table 3.4 Supported Encoding Format shows the supported video/audio file encoding formats under RTSP, HLS and RTMP protocol.

Table 3.4 Supported Encoding Format

Protocol Package Format	RTSP	HLS	RTMP
PS	Video: H.264, H.265; Audio: G711a, G711u, G722, AAC, MPEG;	Video: H.264; Audio: AAC;	Video: H.264; Audio: G711a, G711u, AAC;
RTP	Video: H.264, H.265;	Video: H.264;	Video: H.264;
	Audio: G711a, G711u, G722, AAC;	Audio: AAC;	Audio: G711a, G711u, AAC;
TS	Video: H.264;	Video: H.264;	Video: H.264;
	Audio: G711a, G711u, G722, AAC	Audio: AAC;	Audio: G711a, G711u, AAC;

- (4) Click Create to create the task and generate the media streaming URL.
- Network: Share the live view of the device to others

For creating the media streaming of live view of device:



- (1) Input the media streaming name in the Name field as you want.
- (2) In the Source URL field, input the address of the device.

Note: The source URL should be a valid URL address with user name, password of the device and the corresponding protocol.

For example, the source URL can be:

rtsp://10.16.6.113:8487/live/ubp2195t78674q6

(3) Select the protocol type as RTSP, HLS or RTMP.

Note: Table 3.4 Supported Encoding Format shows the supported video/audio file encoding formats under RTSP, HLS or RTMP protocol.

- (4) Click Create to create the task and generate the media streaming URL.
- Desktop: Share the live image of the desktop to others

For creating the media streaming of the current desktop:

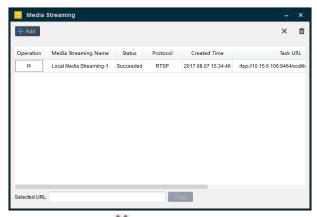


- (1) Input the media streaming name in the Name field as you want.
- (2) Select the protocol type as RTSP, HLS or RTMP.

Note: Table 3.4 Supported Encoding Format shows the supported video/audio file encoding formats under RTSP, HLS or RTMP protocol.

(3) Click Create to create the task and generate the media streaming URL.

The created task with details, including name, status, protocol type, create time and URL, will display in the media streaming list as follows.



- 3. (Optional) Select the task and click to delete it. Or you can right-click on the target task and select **Delete** to delete it.
- 4. (Optional) Select the task and click to clear all the tasks. Or you can right-click on the task and select **Clear** to clear all the tasks.
- 5. (Optional) Select the media streaming task with status as *Succeeded* and click **Copy** to copy its URL. Or you can right-click the target task and select **Copy** to copy the URL. You can send the URL to others to share the local video, the live view of the device, or the desktop view. Other users can open the URL with the player which supports media streaming function to view the shared video.

3.9 Fisheye Expansion

Purpose:

You can play the fisheye camera's video files in fisheye expansion mode.

When playing the video files of the fisheye camera, you can click button to enter the Fisheye Expansion page. Or you can right-click on the display window area and select **Fisheye Expansion** to enter the Fisheye Expansion page.

Notes:

- This function is not available for the live view which accessing via URL mode or after hardware decoding enabled.
- The video files should be larger than 4K.
- The image will not display if the play performance of fisheye video exceeds the limit of memory and video card performance.



For the introductions of play control buttons, pleases refer to *Table 3.2 Playing Control*.

Steps:

- Select the mounting type.
 Select ceiling mounting, wall mounting, or table mounting according to the actual mounting type you adopted for your camera.
- 2. Select the display mode.

You can select a display mode for the layout of the live view window.

• **Fisheye View:** In the Fisheye view mode, the whole wide-angle view of the camera displays. This view mode is called Fisheye because it approximates the vision of a fish's convex eye. The lens produces curvilinear images of a large area, while distorting the perspective and angles of objects in the image.



Fisheye View

 Panorama/Dual-180° Panorama View: In the Panorama view mode, the distorted fisheye image is transformed to normal perspective image by some calibration methods.

Panorama View



Dual-180° Panorama View



PTZ View: The PTZ view is the close-up view of some defined area in the Fisheye view or Panorama view, and it supports the electronic PTZ function, which is also called e-PTZ. Note: Each PTZ view is marked on the Fisheye view and Panorama view with a specific navigation area with different colors. You can drag the navigation area on the Fisheye view or Panorama view to adjust the PTZ view, or drag the PTZ view to adjust the view to the desired angle.

Fisheye+3PTZ View



Panorama+3PTZ View



3. (Optional) For PTZ view, you can perform the PTZ control in the PTZ Control panel.



- Click the arrow button to adjust the image.
- Click + or to zoom in or zoom out the view.
- Click to start auto-scan.
- Drag in the PTZ view and scroll the mouse wheel to realize the PTZ movements.
- Drag I to set the auto-scan speed, pan speed, and tilt speed for better PTZ control.
- 4. (Optional) Click to enter the Circle Center Calibration page to calibrate the circle center of the fisheye and make the fisheye expansion more accurate.



- 1) Drag the on the fisheye circle to adjust the red circle close to the fisheye view.
- 2) Click **OK** to save the calibration.

3.10 PanuVo Mode

Purpose:

You can play the PanuVo camera's video files in PanuVo mode.

Two modes are available: Original Mode and PTZ Mode.

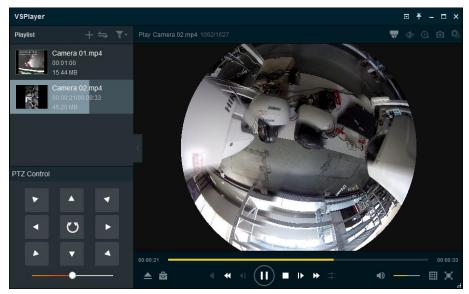
- Original Mode: The video files will be played in original mode. You can see eight separate images in the display window.
- PTZ Mode: The video files will be played in PTZ mode. You can see a completed image in the display window.

Note: The PanuVo mode should be supported by the video card. The minimum requirement of video card: Intel: Graphics HD 4600/4700 or above, or Nvidia: GTX970 or above. The recommended requirement of video card: I7 with 8G memory, Graphics HD 4600 or GTX970.

Steps:

- 1. Click to add the PanuV camera's video file to the software.
- 2. Double-click the video file to play.

Note: By default, the PanuVo camera's video files are played in PTZ mode.



- 3. Perform PTZ control in the PTZ Control panel.
 - Click the arrow button to adjust the image.
 - Click to start auto-scan.
 - Drag to set the auto-scan speed.
- 4. (Optional) Switch to original mode.
 - 1) Click on the upper-right corner of the display window.
 - 2) Select **Original Mode** to switch to original mode.

