

# Intruduction of Multimedia function for DOP-112MX / DOP- 115MX

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Detail description for new functions for DOP-112MX and DOP-115MX.

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DOP-100 series provide 12 inch and 15 inch, incould DOP-112MX, DOP-112WX, DOP-115MX and DOP-115WX mode type. M means have Multimedia function, W means Narrow border standard model, X means XGA TFT resolution.

Multimedia function provide Analog Camera, IP Camera, VGA in, Video play and event trigger.

In this manual have introduce Multimedia function, if choose DOP-112MX and DOP-115MX model that could refer to this document. Otherwise, it will not have Multimedia function to use.

Internal Memory increase to 200000 from \$0 ~ \$199999. This function support all model.

## 1. Analog Camera display

What is Analog Camera? For HMI, Analog camera only supports CVBS signals in PAL or NTSC format. Its connector is BNC Connector. This CVBS signal is different from AHD, TVI and CVI signal input formats.

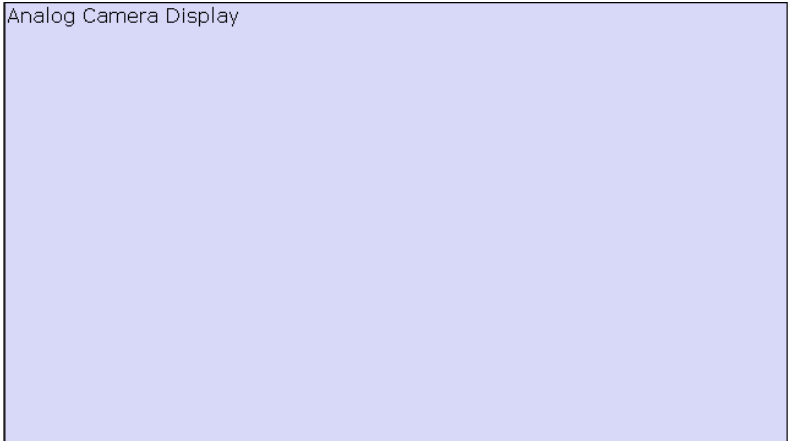

PAL (Phase Alternation Line) is an alternating phase scan. Generally, the 8 MHz bandwidth is used, and the color signal transmission can accept a large phase offset error.

The NTSC (National Television System Committee) is the earliest developed television system. It generally uses a 6MHz bandwidth and can express the widest range of colors.

What is the CVBS signal? CVBS (Composite video baseband signal) is a composite video broadcast signal, which is commonly known as the Video terminal of the AV terminal. CVBS is the most original Video signal format. This signal line contains brightness (Y), color (C), horizontal sync signal (H.Sync) and vertical sync signal (V.Sync).

After the initial introduction to the concept of Analog Camera, please refer to the following table for the Analog camera example.

Table1.1 Analog Camera display example

Analog Camera									
Camera display element	<p>Create Camera display element and set as below parameter.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #cccccc;">Camera display element</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Camera Type</td> <td style="text-align: center;">Analog Camera</td> </tr> <tr> <td style="text-align: center;">Camera Name</td> <td style="text-align: center;">CH1</td> </tr> <tr> <td style="text-align: center;">Show size</td> <td style="text-align: center;">640x360</td> </tr> </tbody> </table>	Camera display element		Camera Type	Analog Camera	Camera Name	CH1	Show size	640x360
	Camera display element								
	Camera Type	Analog Camera							
	Camera Name	CH1							
Show size	640x360								
<p>Analog Camera Display</p> 									
Result	<ul style="list-style-type: none"> <li>■ After create all element, please execute compile and then download program to HMI.</li> <li>■ It will show the video screen at camera display element after download.</li> </ul>								
									

Double-click the Camera Display element Properties screen as shown below.

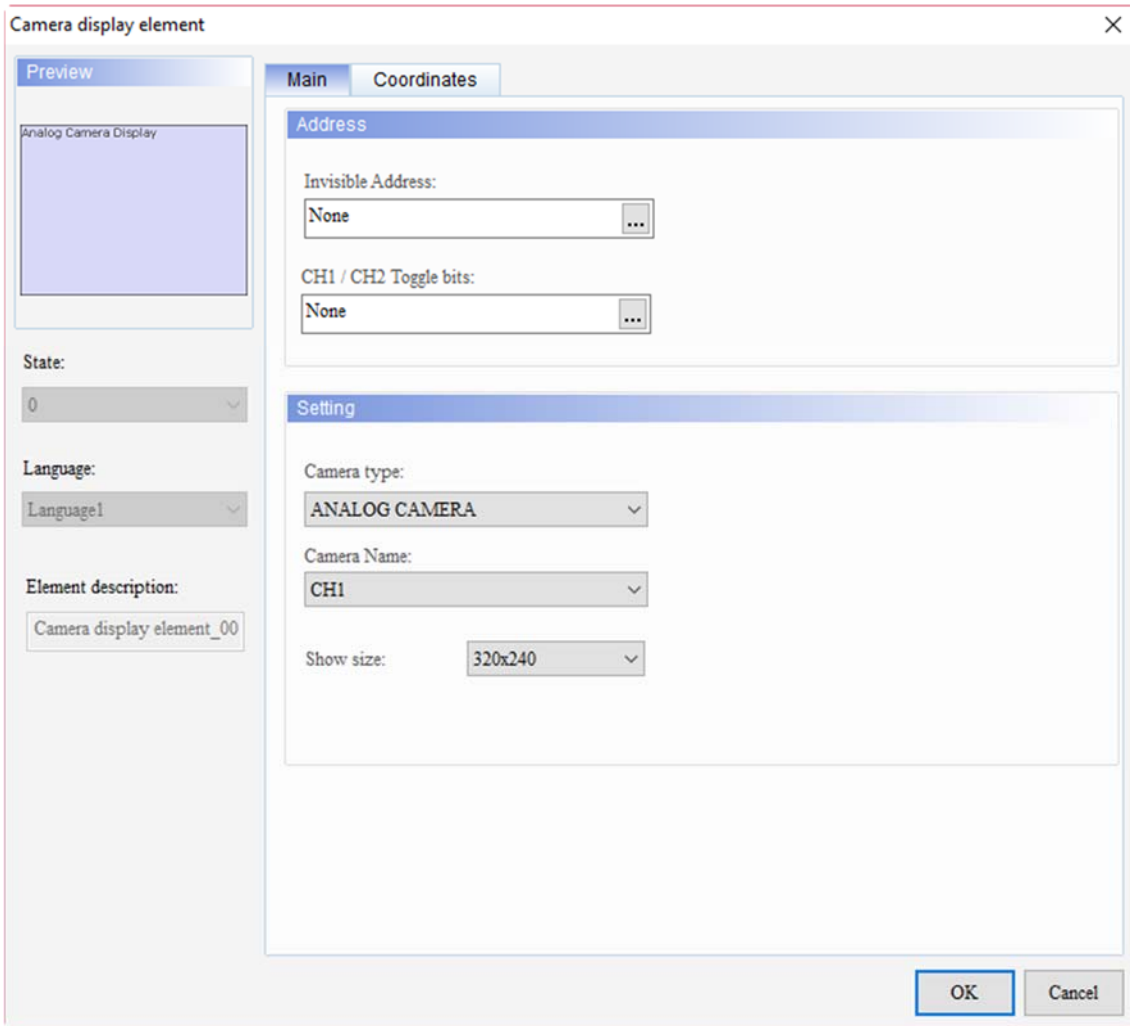


Figure 1.1 Camera Display Element Properties

Table 1.2 Camera Display Element Function Page

Camera Display Element	
Function Page	Content Description
Preview	Cannot view Multilanguage data and multistate data.
Main	Sets Invisible address, CH1/CH2 toggle bits. Sets Camera type, Camera Name, and Show size.
Coordinates	Sets the X-Y coordinate, width, and height of elements.

■ Main

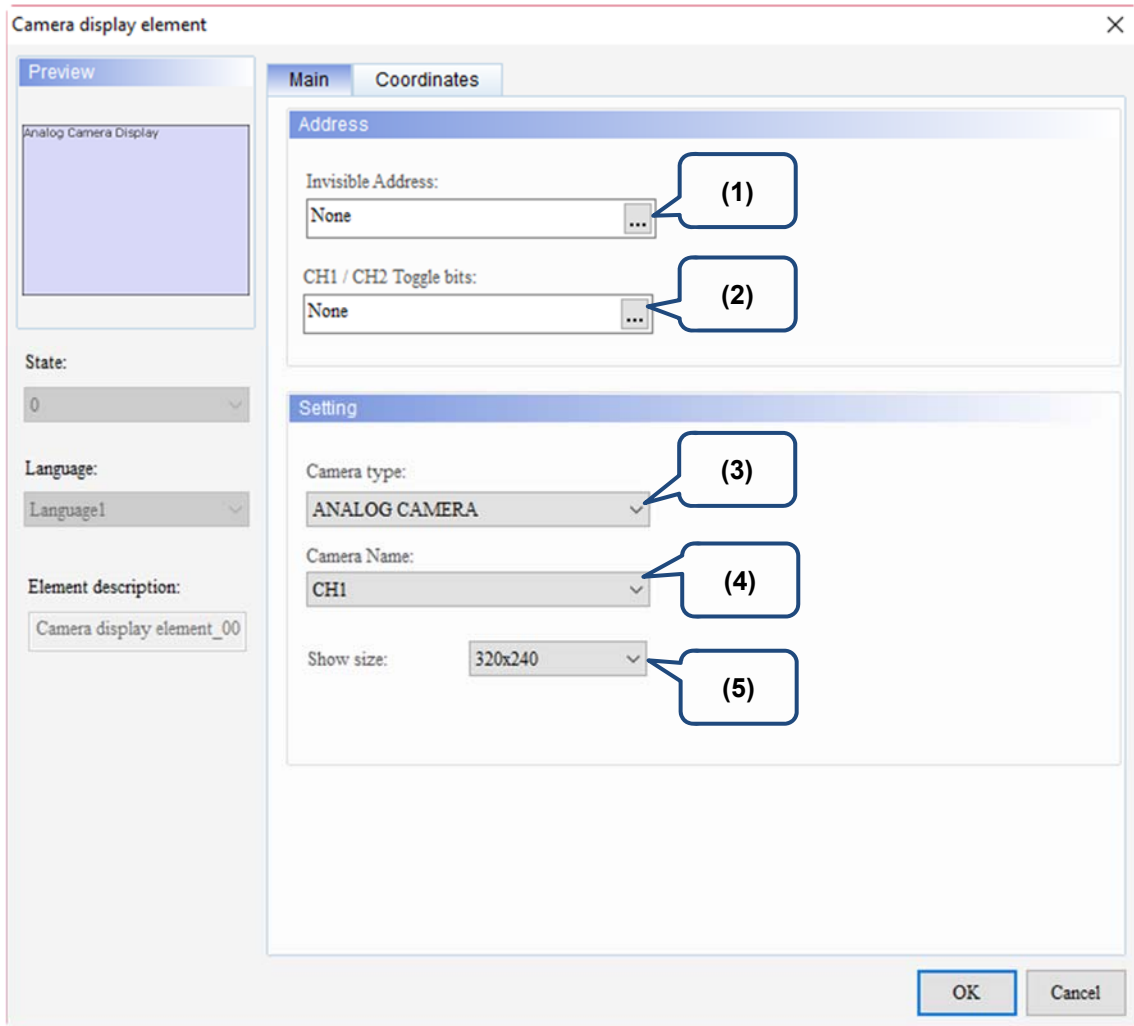
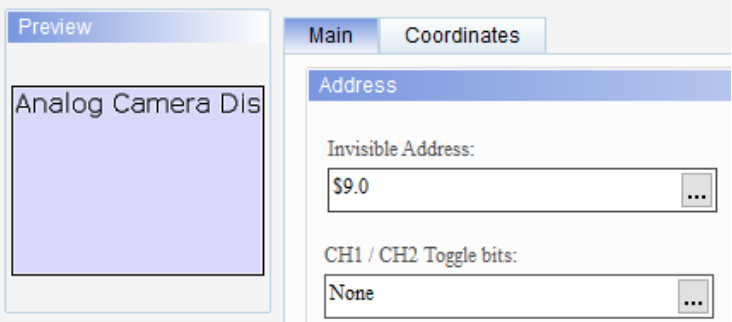


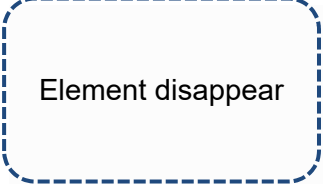
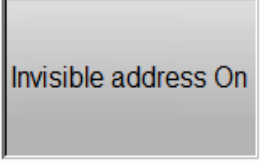


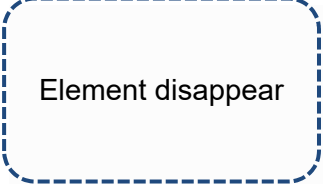
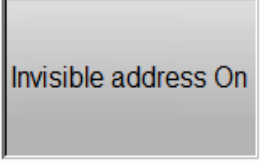


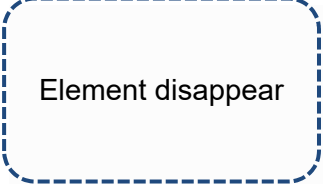
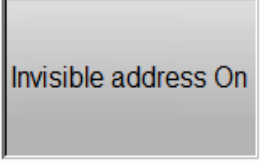
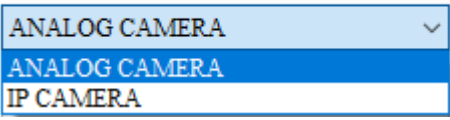
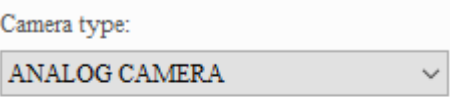



Figure1.2 Camera display element Main Properties Page

No.	Property	Function						
(1)	Invisible address	<ul style="list-style-type: none"> <li>When the Invisible Item is "On", camera display elements are hidden, and the corresponding button functions are disabled.</li> </ul> <p>Camera display element</p>  <table border="1" data-bbox="501 640 1361 1084"> <tr> <td data-bbox="501 640 655 864">Invisible address OFF</td> <td data-bbox="660 640 1050 864">  </td> <td data-bbox="1054 640 1361 864">  </td> </tr> <tr> <td data-bbox="501 871 655 1084">Invisible address ON</td> <td data-bbox="660 871 1050 1084">  </td> <td data-bbox="1054 871 1361 1084">  </td> </tr> </table>	Invisible address OFF			Invisible address ON		
Invisible address OFF								
Invisible address ON								
(2)	CH1/CH2 Toggle bits	<ul style="list-style-type: none"> <li>Trigger on CH1 or CH2 toggle bit, channels will be switch.</li> </ul>						
(3)	Camera type	<ul style="list-style-type: none"> <li>Select Camera type for Analog Camera or IP Camera.</li> </ul> <p>Camera type:</p> 						
(4)	Camera Name	<ul style="list-style-type: none"> <li>Will display corresponding camera name after select camera type.</li> <li>If select Analog Camera, camera name will be CH1 or CH2. Please use BNC connector to connect CH1 or CH2 port of back cover.</li> </ul> <p>Camera type:</p>  <p>Camera Name:</p>  <ul style="list-style-type: none"> <li>If select IP Camera, camera name will be show up by Camera device setting (example is CAMERA1 or CAMERA2). Please set IP address of IP camera at the same domain with HMI.</li> </ul>						

No.	Property	Function
		<p>Camera type:  <input type="text" value="IP CAMERA"/> ▾</p> <p>Camera Name:  <input type="text" value="CAMERA1"/> ▾  <input type="text" value="CAMERA1"/> <b>CAMERA1</b>  <input type="text" value="CAMERA2"/></p>
(5)	Show size	<p>■ Show size diplay resolution of element.</p> <p>Show size: <input type="text" value="320x240"/> ▾  <input type="text" value="800x600"/>  <input type="text" value="640x480"/>  <input type="text" value="320x240"/> <b>320x240</b>  <input type="text" value="160x120"/>  <input type="text" value="64x48"/>  <input type="text" value="1024x600"/>  <input type="text" value="640x360"/>  <input type="text" value="512x300"/>  <input type="text" value="256x150"/>  <input type="text" value="128x75"/></p>



■ Coordinates

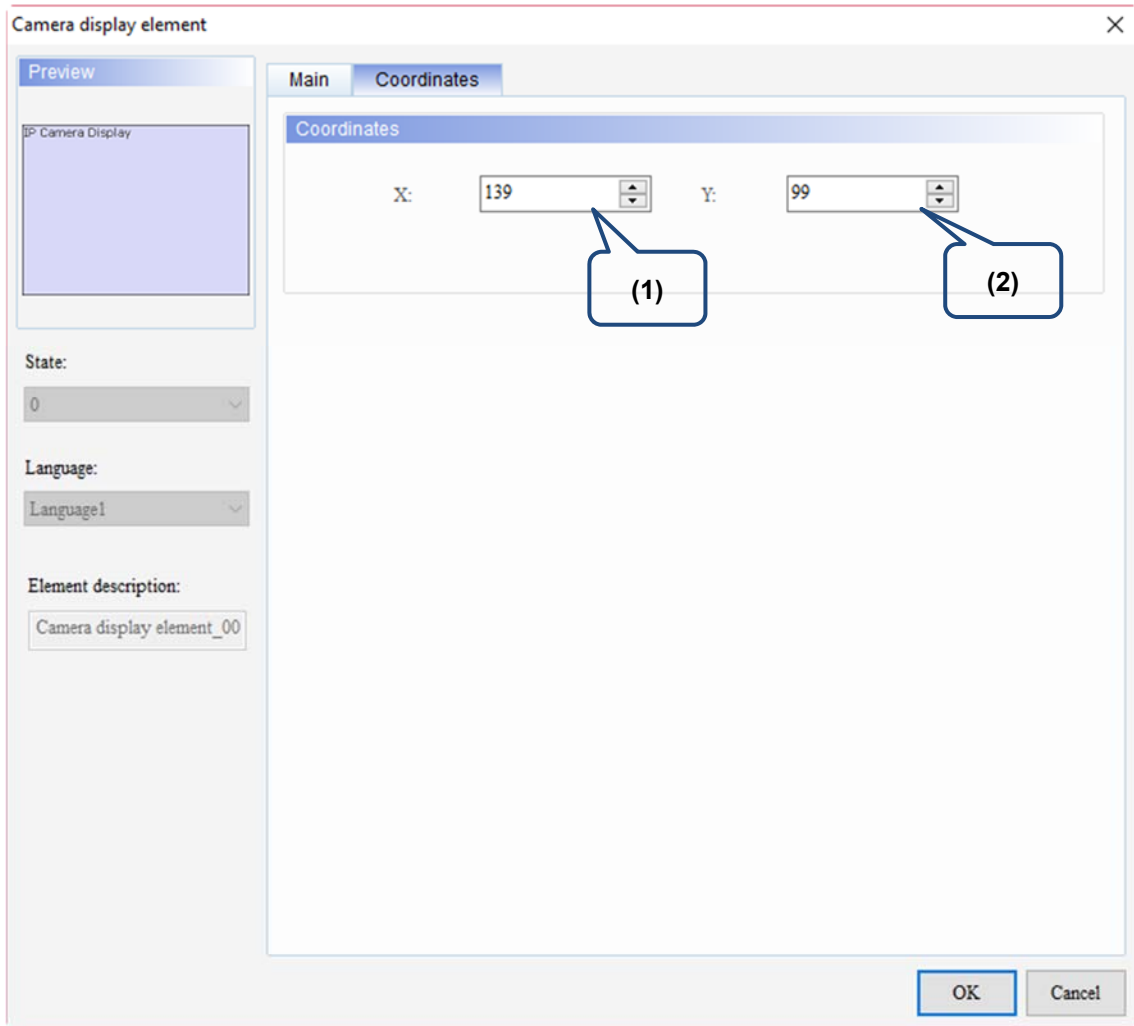


Figure 1.3 Camera display element Coordinates Properties Page

No.	Property	Function
(1)	X-value and Y-value	Sets the upper left X-coordinate and Y-coordinate of elements.

## 2. IP Camera display

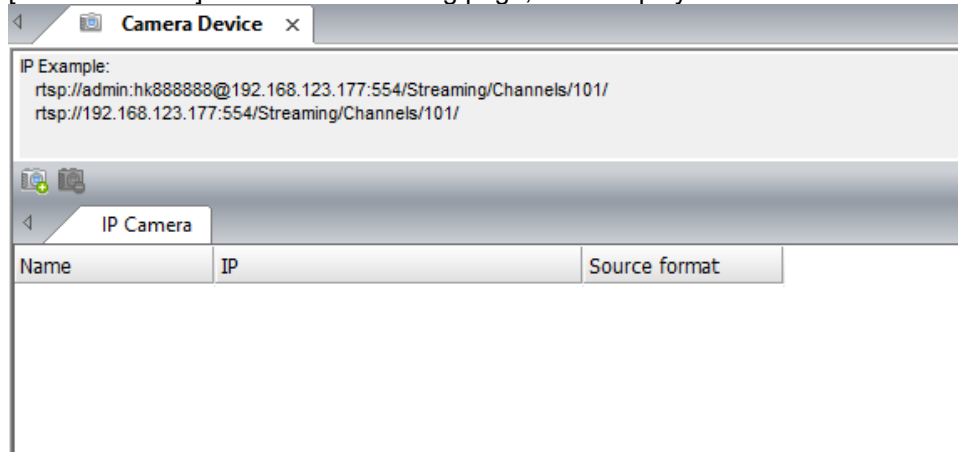
IP Camera is a network camera, a new generation of cameras that combines traditional camera and network technologies. It is a digital transmission device based on network transmission. It has a network output interface and can be used for remote network connection through Ethernet. The IP Camera supported by the HMI only provides the RTSP (Real Time Streaming Protocol) protocol, which is called real-time streaming. It is an application layer protocol in the TCP/IP protocol system. It is designed for use in entertainment and communication systems to control Streaming server.


Please refer to the following table for the IP camera example.

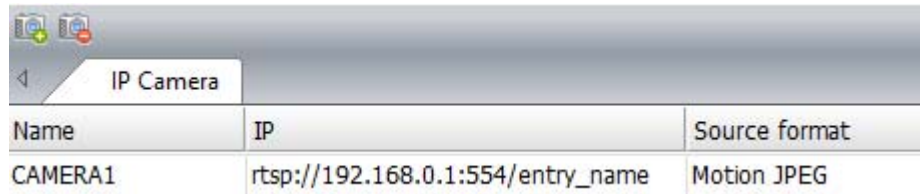
Table 2.1 IP Camera example

**IP Camera**

Before use IP camera, it must be set camera device. Please go to [Options] → [Camera device]. After into this setting page, it will display as below.



Please click  to add camera. Default IP display as below  
 【rtsp://192.168.0.1:554/entry\_name】°

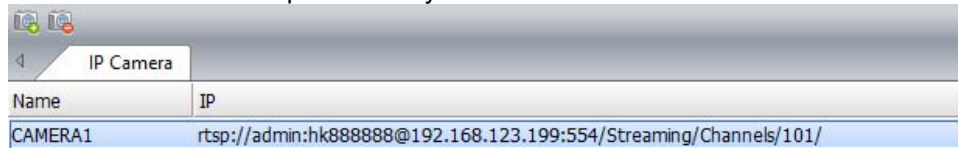


Camera Device

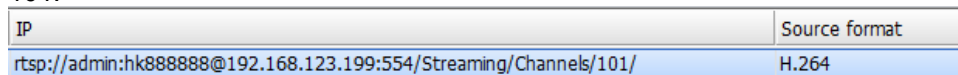
Above has IP example, this example is for HIKVISION used with Account, password, IP address, port and entry name.

rtsp://admin:hk888888@192.168.123.177:554/Streaming/Channels/101/	
Account	admin
Password	hk888888
IP address	192.168.123.177
Port	554
Entry name	Streaming/Channels/101/ Streaming/Channels/102/

Please refer to IP example to modify as below.



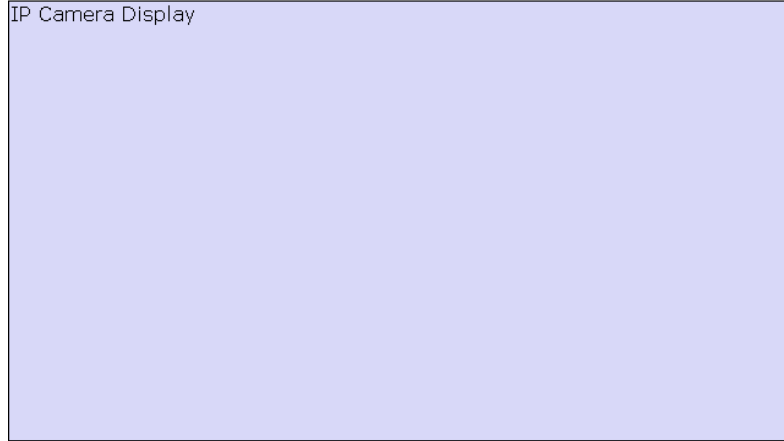
After set up IP, please select source format. Example here is H.264 for channel 101.



Camera display element

Create Camera display element and set parameter.

Camera display element	
Camera Type	IP Camera
Camera Name	CAMERA1
Show size	640x360



Result

- After create all element, please execute compile and then download program to HMI.
- It will show the video screen at camera display element after download.



The content configurations of Camera Device will be described below.  
Please select 【Options】 → 【Camera Device】 .

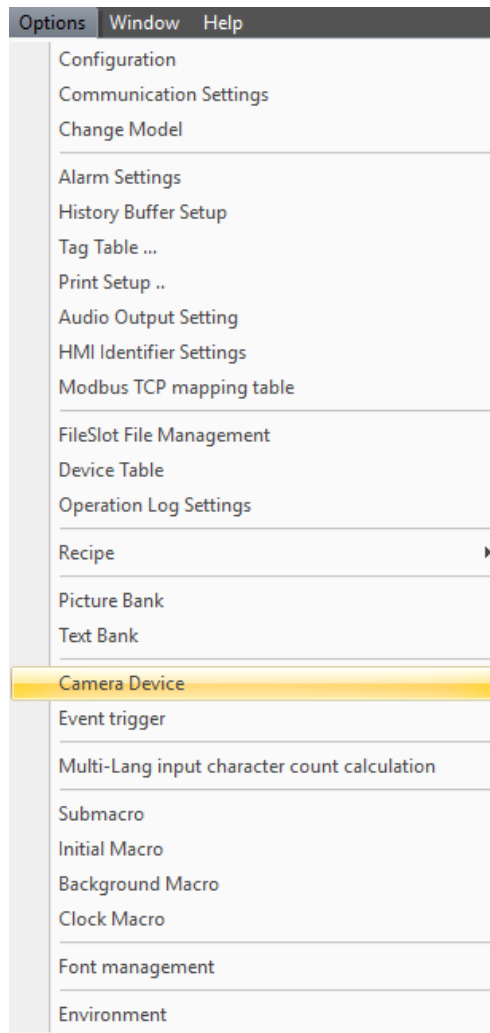


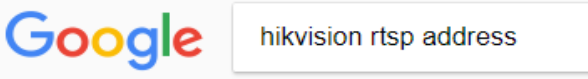


Figure 2.1 Camera device

■ Click add camera icon .

IP Camera		
Name	IP	Source format
CAMERA1	rtsp://192.168.0.1:554/entry_name	Motion JPEG

Add Camera 

Name	Users could customize camera name.								
IP	IP format is fixed. Please refer to your IP camera setting to modify. According to the format, it can be divided into the following parts to illustrate.								
	<table border="1"> <tr> <td>Account</td> <td>Please refer to your brand of IP camera to input account.</td> </tr> <tr> <td>Password</td> <td>Please refer to your brand of IP camera to input password.</td> </tr> <tr> <td>IP address</td> <td>Please refer to your brand of IP camera to input IP address.</td> </tr> <tr> <td>Port</td> <td>Default port is 554.</td> </tr> </table>	Account	Please refer to your brand of IP camera to input account.	Password	Please refer to your brand of IP camera to input password.	IP address	Please refer to your brand of IP camera to input IP address.	Port	Default port is 554.
	Account	Please refer to your brand of IP camera to input account.							
	Password	Please refer to your brand of IP camera to input password.							
	IP address	Please refer to your brand of IP camera to input IP address.							
	Port	Default port is 554.							
<p>Each brand have different entry name, please search by following format [brand name rtsp address] at google, for example [HIKVISION rtsp address].</p>  <p>After search will get following result.</p> <p><u>Main Stream</u>  rtsp://192.168.1.100:554/Streaming/Channels/101/  rtsp://admin:examplepass123!@192.168.1.100:554/Streaming/Channels/101/</p> <p><u>Sub Stream</u>  rtsp://192.168.1.100:554/Streaming/Channels/102/  rtsp://admin:examplepass123!@192.168.1.100:554/Streaming/Channels/102</p> <p>101 means main stream of HIKVISION, 102 means sub stream of HIKVISION.</p> <p>Please input correct entry name as below.</p> <p>IP</p> <p>rtsp://admin:hk888888@192.168.123.199:554/Streaming/Channels/102/  rtsp://admin:hk888888@192.168.123.199:554/Streaming/Channels/101/</p>									
Entry name									

Source format

Please follow IP camera setting to select source format.  
 For example we use IP camera of HIKVISION, it could log in with as below IP address.

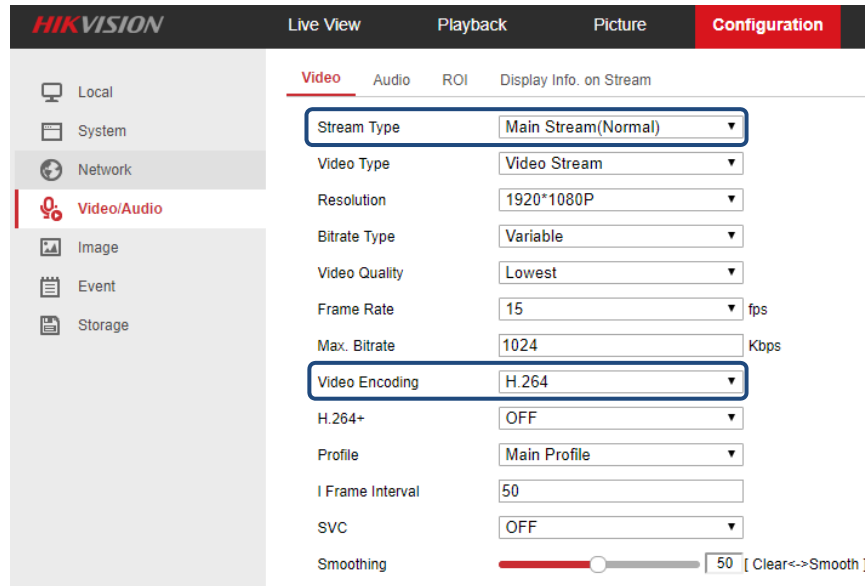
<http://192.168.123.199/doc/page/login.asp? 1534130000127>】

Enter account and password will log in to HIKVISION.

Account	admin
Password	hk888888



Enter 【 Configuration 】 → 【 Video/Audio 】 to check video encoding. In the case of HIKVISION, video encoding of main stream support H.264 and H.265, video encoding of sub stream support H.264, H.265 and Motion JPEG. Due to HMI only support Motion JPEG and H.264, if select main stream (channel 101), please select H.264 of source format, otherwise if select sub stream (channel 102), please select Motrion JPEG of source format.



HMI setting as below.

IP Camera		
Name	IP	Source format
CAMERA1	rtsp://admin:hk888888@192.168.123.199:554/Streaming/Channels/101/	H.264
CAMERA2	rtsp://admin:hk888888@192.168.123.199:554/Streaming/Channels/102/	Motion JPEG

Remove Camera



Click remove camera icon  will delete camera setting.

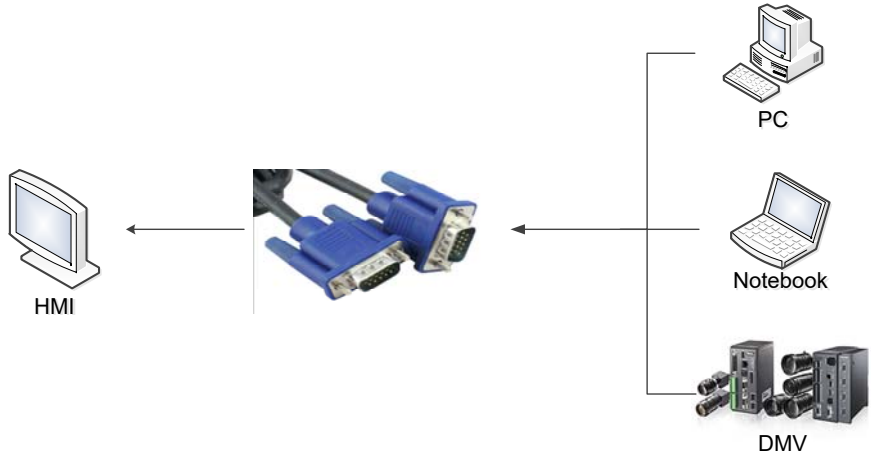

Scence camera display element is share with Analog Camera and IP Camera, please refer to element property description for P.5 ~ P.9.

### 3. VGA Display

HMI provide VGA port to display image from external device like DMV, PC or notebook. Please refer to the following table for the VGA display example.

Table 3.1 VGA display example



VGA display							
VGA display element	<p>Create VGA display element and set parameter.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #cccccc;">VGA display</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Source Resolution</td> <td style="text-align: center;">1024 x 768 60Hz</td> </tr> <tr> <td style="text-align: center;">Show Size</td> <td style="text-align: center;">640x360</td> </tr> </tbody> </table> <div style="border: 1px solid black; height: 150px; width: 100%; background-color: #e0e0ff; margin-top: 5px;"> <p>VGA IN Display</p> </div>	VGA display		Source Resolution	1024 x 768 60Hz	Show Size	640x360
	VGA display						
Source Resolution	1024 x 768 60Hz						
Show Size	640x360						
Connection	<p>Please use VGA cable to connect between HMI and device like PC, Notebook or DMV.</p> 						
Result	<ul style="list-style-type: none"> <li>■ After create all element, please execute compile and then download program to HMI.</li> <li>■ It will show the image from PC at VGA display element after download.</li> </ul> 						

Double-click the VGA display element Properties screen as shown below.

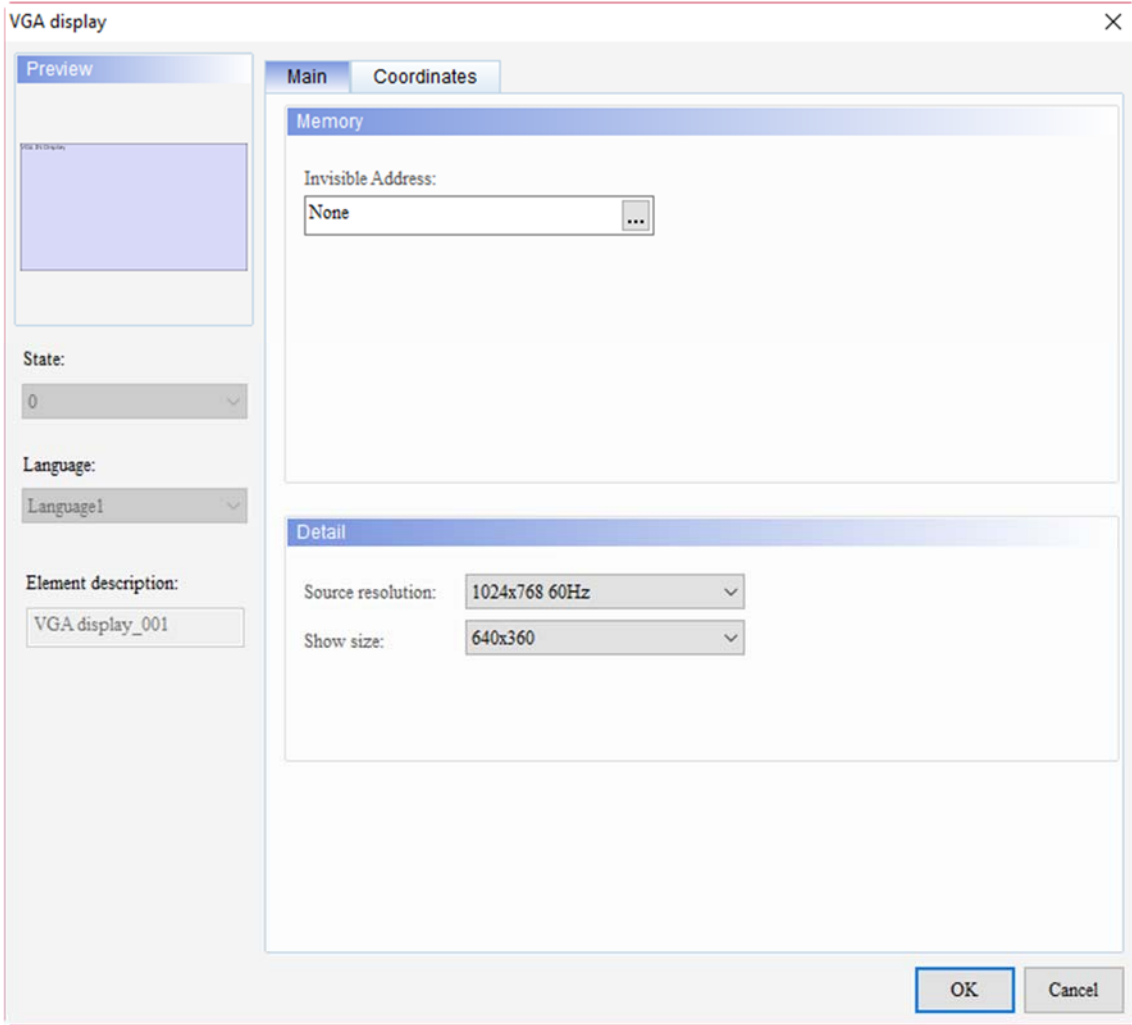


Figure 3.1 VGA Display Element Properties

Table 3.2 VGA Display Element Function Page

VGA display	
Function page	Content Description
Preview	Cannot view Multilanguage data and multistate data.
Main	Sets Invisible address. Sets Source resolution and Show size.
Coordinates	Sets the X-Y coordinate, width, and height of elements.

■ Main

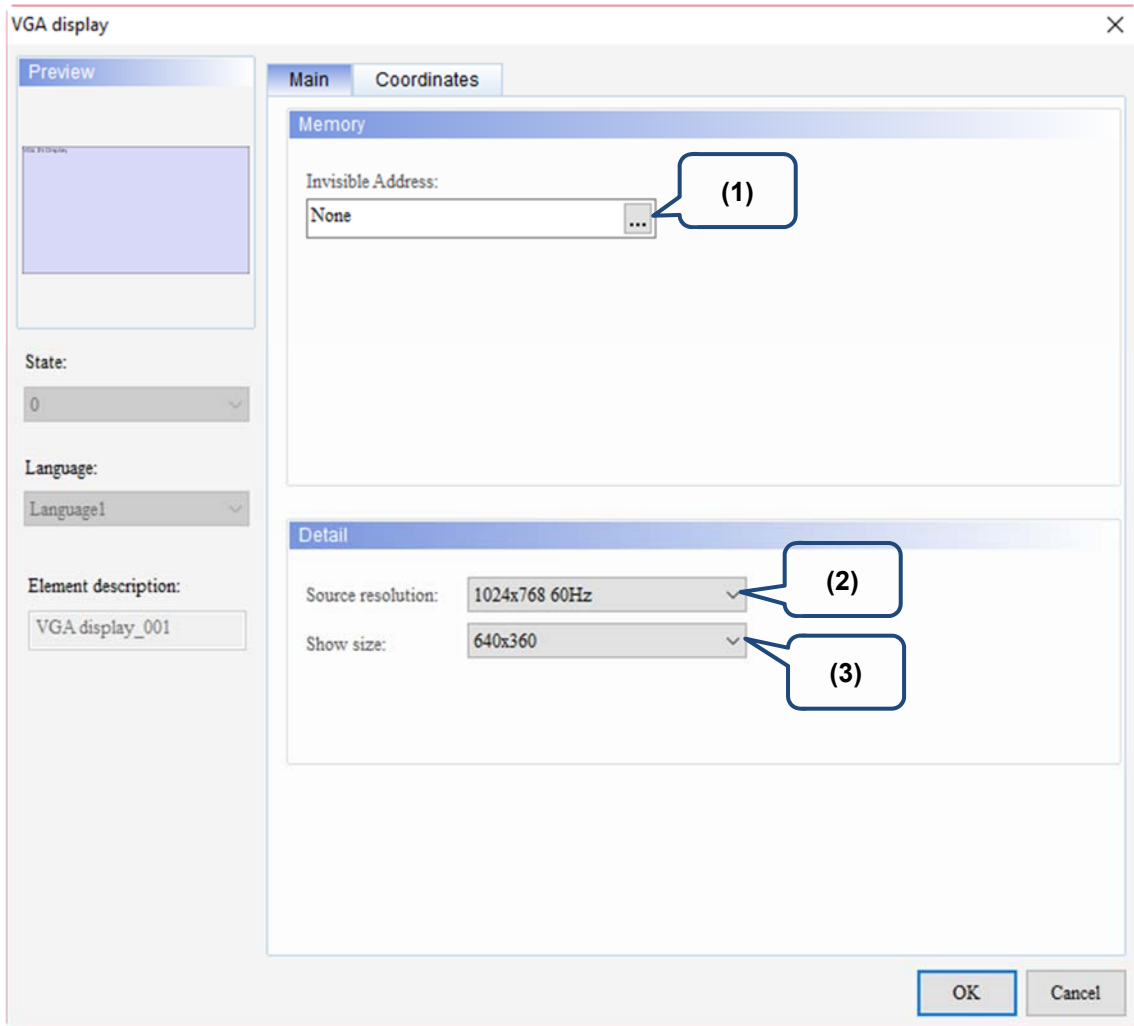
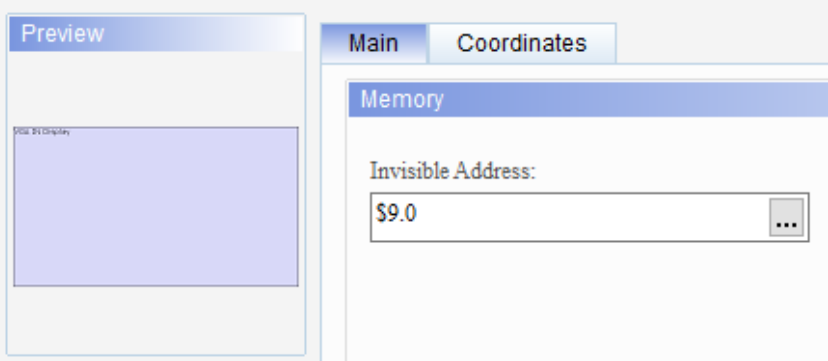



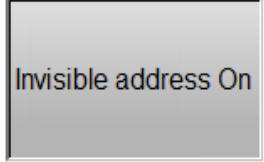



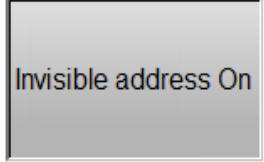



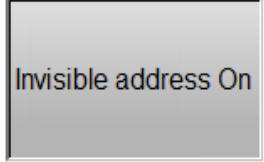
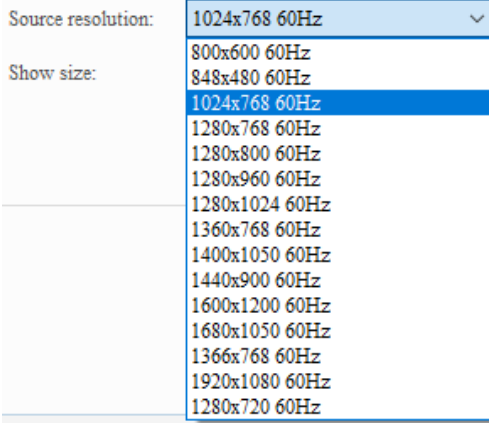
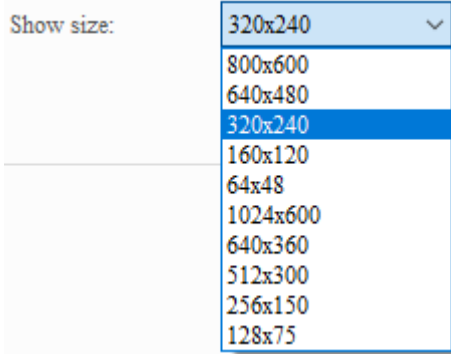


Figure 3.2 VGA display element Main Properties Page

No.	Property	Function						
(1)	Invisible address	<p>■ When the Invisible Item is "On", camera display elements are hidden, and the corresponding button functions are disabled.</p> <p>VGA display</p>  <table border="1" data-bbox="501 680 1361 1122"> <tr> <td data-bbox="501 680 655 904">Invisible address OFF</td> <td data-bbox="660 680 1050 904">  </td> <td data-bbox="1054 680 1361 904">  </td> </tr> <tr> <td data-bbox="501 911 655 1122">Invisible address ON</td> <td data-bbox="660 911 1050 1122">  </td> <td data-bbox="1054 911 1361 1122">  </td> </tr> </table>	Invisible address OFF			Invisible address ON		
Invisible address OFF								
Invisible address ON								
(2)	Source resolution	<p>■ Please follow output device resolution to choose source resolution.</p> 						
(3)	Show size	<p>■ Show size display resolution of element.</p> 						

■ Coordinate

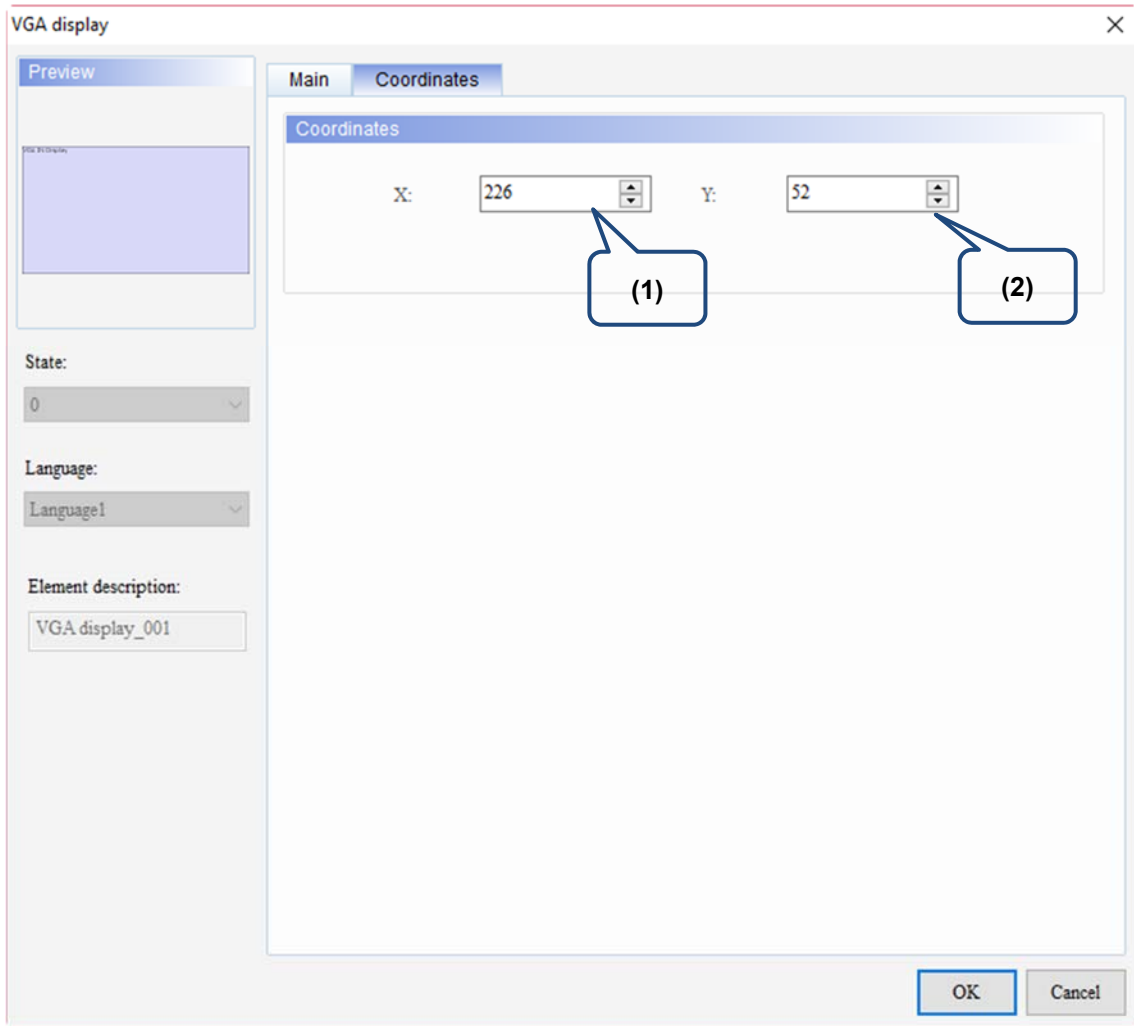


Figure 3.3 VGA display element Coordinates Properties Page

No.	Property	Function
(1)	X-value and Y-value	Sets the upper left X-coordinate and Y-coordinate of elements.

## 4. Video Play

Video play element provide users could view mpeg4 file regardless via Analog camera and IP camera saved to HMI or located at USB disk and SD card.

The file format located at USB disk and SD card must be mpeg4 with H.264 video encoding if it does not save via Analog camera and IP camera.

Please refer to the following table for via Analog camera and IP camera saved to HMI or located at USB disk and SD card example.

Table 4.1 Video play example (Via Analog camera and IP camera saved to HMI)

**Video play**

Create video play element and set up parameter.

**Video play**

Please choose **【Play】** , **【Pause】** , **【Stop】** , **【Delete】** , **【Export to USB】** , **【Export to SD】** and click Set as default description button.

File list of left side

Video Play

Preview

- Dir: 0
  - File: 0
  - File: 1
- Dir: 1
  - File: 0
  - File: 1

State:  
0

Language:  
Language1

Element description:  
Video Play\_001

Main Main-2 **Function Buttons**

Function Description	Default Description	Display Element
<input type="checkbox"/> Display		
<input type="checkbox"/> Scroll up a interval		
<input type="checkbox"/> Scroll down a interval		
<input type="checkbox"/> Scroll up one page		
<input type="checkbox"/> Scroll down one page		
<input checked="" type="checkbox"/> Play	Play	
<input checked="" type="checkbox"/> Pause	Pause	
<input checked="" type="checkbox"/> Stop	Stop	
<input checked="" type="checkbox"/> Delete	Delete	
<input checked="" type="checkbox"/> Export to USB	Export to USB	
<input checked="" type="checkbox"/> Export to SD	Export to SD	

Set As Default Description

Video play element

Please set Loop as Yes.

File display of right side

Video Play

Preview

Main

**Detail**

Loop: Yes

After finish will list as below.

- Dir: 0
  - File: 0
  - File: 1
- Dir: 1
  - File: 0
  - File: 1

Play Pause Stop Delete Export to USB Export to SD

Create Camera display element and set up parameter.

Camera display element

Camera display element

**Preview**

Analog Camera Display

**State:**  
0

**Language:**  
Language1

**Element description:**  
Camera display element\_00

**Main** | **Coordinates**

**Address**

Invisible Address:  
None

CH1 / CH2 Toggle bits:  
None

**Setting**

Camera type:  
ANALOG CAMERA

Camera Name:  
CH1

Show size:  
320x240





Create Camera display element and set up parameter.

Camera display element

Camera display element

**Preview**

IP Camera Display

State:

Language:

Element description:

**Main** | **Coordinates**

**Address**

Invisible Address:

CH1 / CH2 Toggle bits:

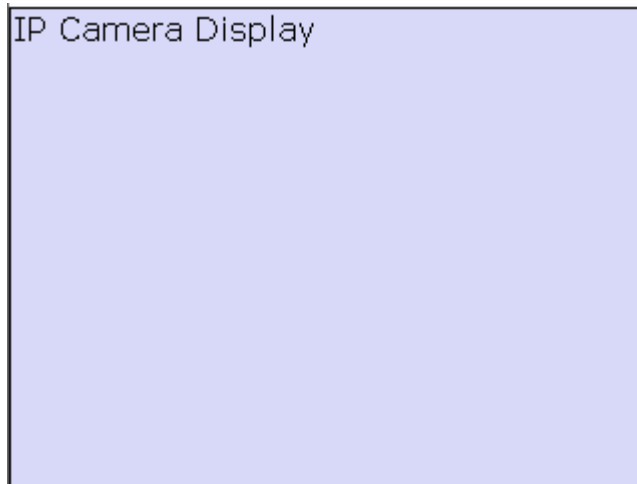
---

**Setting**

Camera type:

Camera Name:

Show size:



Camera device

Enter Options → Camera device to set name, IP and source format.

IP Camera		
Name	IP	Source format
CAMERA1	rtsp://admin:hk888888@192.168.123.199:554/Streaming/Channels/101/	H.264

Enter Options → Event trigger to set condition and action to save video file. Details description please refer item 5 Event trigger function. Add two trigger evnet, set parameter as below.

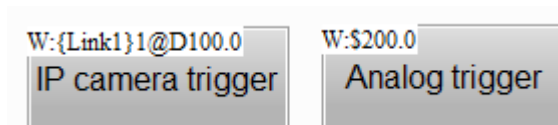
Event trigger

After finish setting, list as below table.

Event triggered		
No.	Condition	Action
1	BIT-{Link1}1@D100.0	錄影-IP CAMERA-CAMERA1
2	BIT-\$200.0	錄影-ANALOG CAMERA-CH1

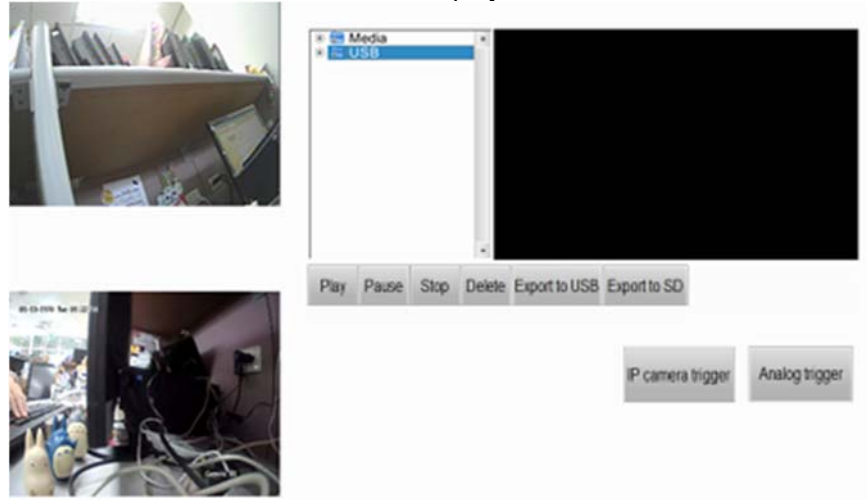
Momentary button

Create two momentary button and set write address as D100.0 and \$200.0.



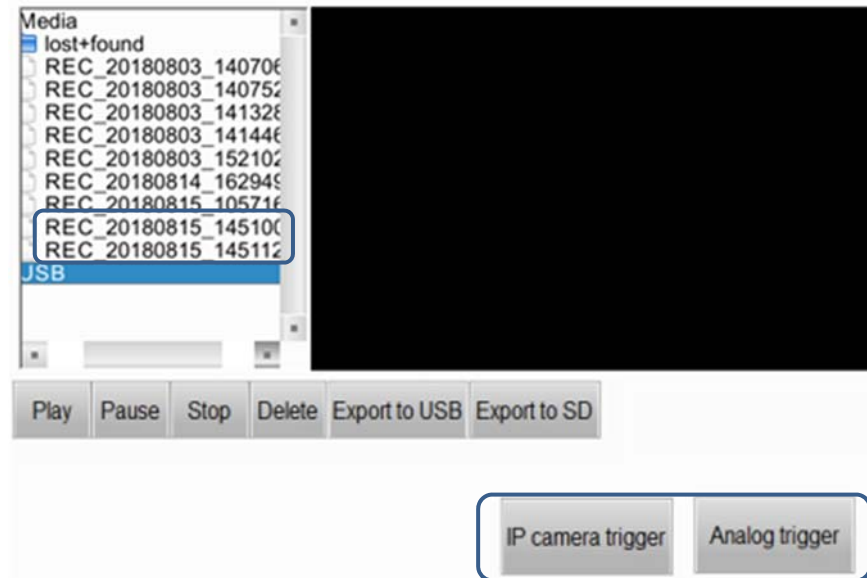
After create all element, please execute compile and then download program to HMI.

It will show the video from camera display element after download.

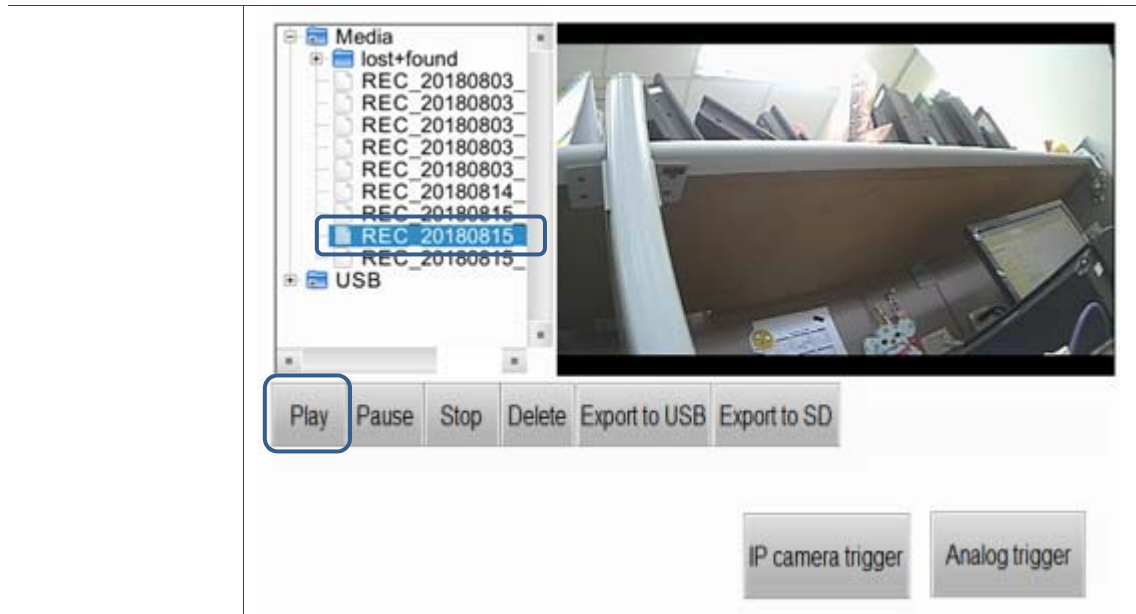


Result

After trigger D100.0 and \$200.0, it will append two video file under Media path.



Select video file and click play button, file display of right side will show the video.



Please refer to the following table for located at USB disk and SD card example.

Table 4.2 Video play example (located at USB disk and SD card)

**Video play**

Create video play element and set up parameter.

**Video play**

Please choose **【Play】** , **【Pause】** , **【Stop】** , **【Delete】** , **【Export to USB】** , **【Export to SD】** and click Set as default description button.

File list of left side

Video Play

Function Description	Default Description	Display Element
<input type="checkbox"/> Display		
<input type="checkbox"/> Scroll up a interval		
<input type="checkbox"/> Scroll down a interval		
<input type="checkbox"/> Scroll up one page		
<input type="checkbox"/> Scroll down one page		
<input checked="" type="checkbox"/> Play	Play	
<input checked="" type="checkbox"/> Pause	Pause	
<input checked="" type="checkbox"/> Stop	Stop	
<input checked="" type="checkbox"/> Delete	Delete	
<input checked="" type="checkbox"/> Export to USB	Export to USB	
<input checked="" type="checkbox"/> Export to SD	Export to SD	
<b>Set As Default Description</b>		

Video play element

Please set Loop as Yes.

File display of right side

Video Play

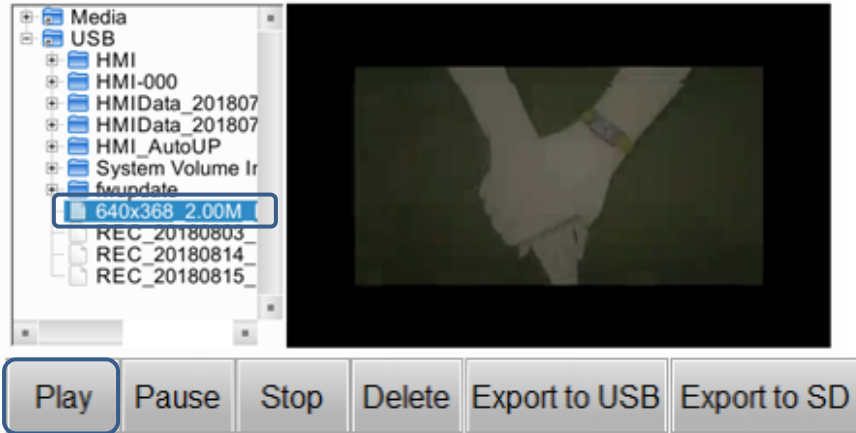
Preview	Main
	Detail
	Loop: Yes

After finish will list as below.

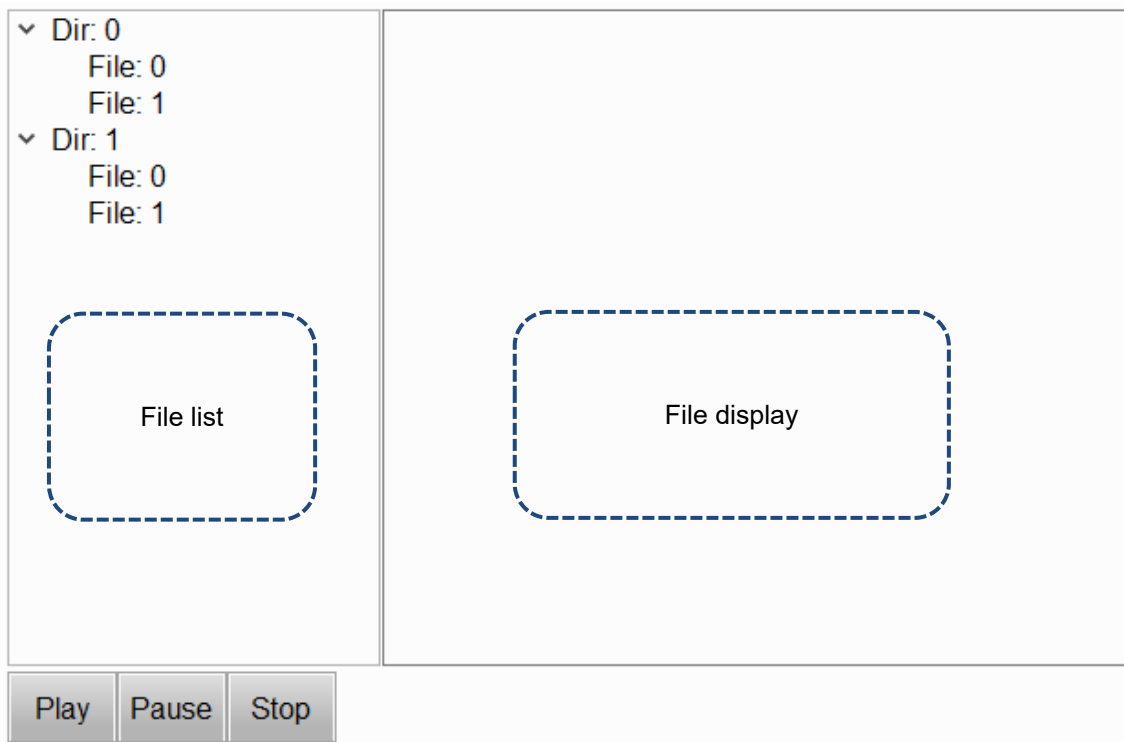
<ul style="list-style-type: none"> <li>▼ Dir: 0                     <ul style="list-style-type: none"> <li>File: 0</li> <li>File: 1</li> </ul> </li> <li>▼ Dir: 1                     <ul style="list-style-type: none"> <li>File: 0</li> <li>File: 1</li> </ul> </li> </ul>							
<table border="1" style="margin: auto;"> <tr> <td>Play</td> <td>Pause</td> <td>Stop</td> <td>Delete</td> <td>Export to USB</td> <td>Export to SD</td> </tr> </table>		Play	Pause	Stop	Delete	Export to USB	Export to SD
Play	Pause	Stop	Delete	Export to USB	Export to SD		

Result

After create all element, please execute compile and then download program to HMI.  
 Please put mpeg4 with H.264 video encoding file to USB disk or SD card at PC side.  
 Insert USB disk or SD card to HMI, select video file and then click play button.



Video play element divided two part, one is file list of left side, and another is file display of right side.



Double-click the left side of video play element Properties screen as shown below.

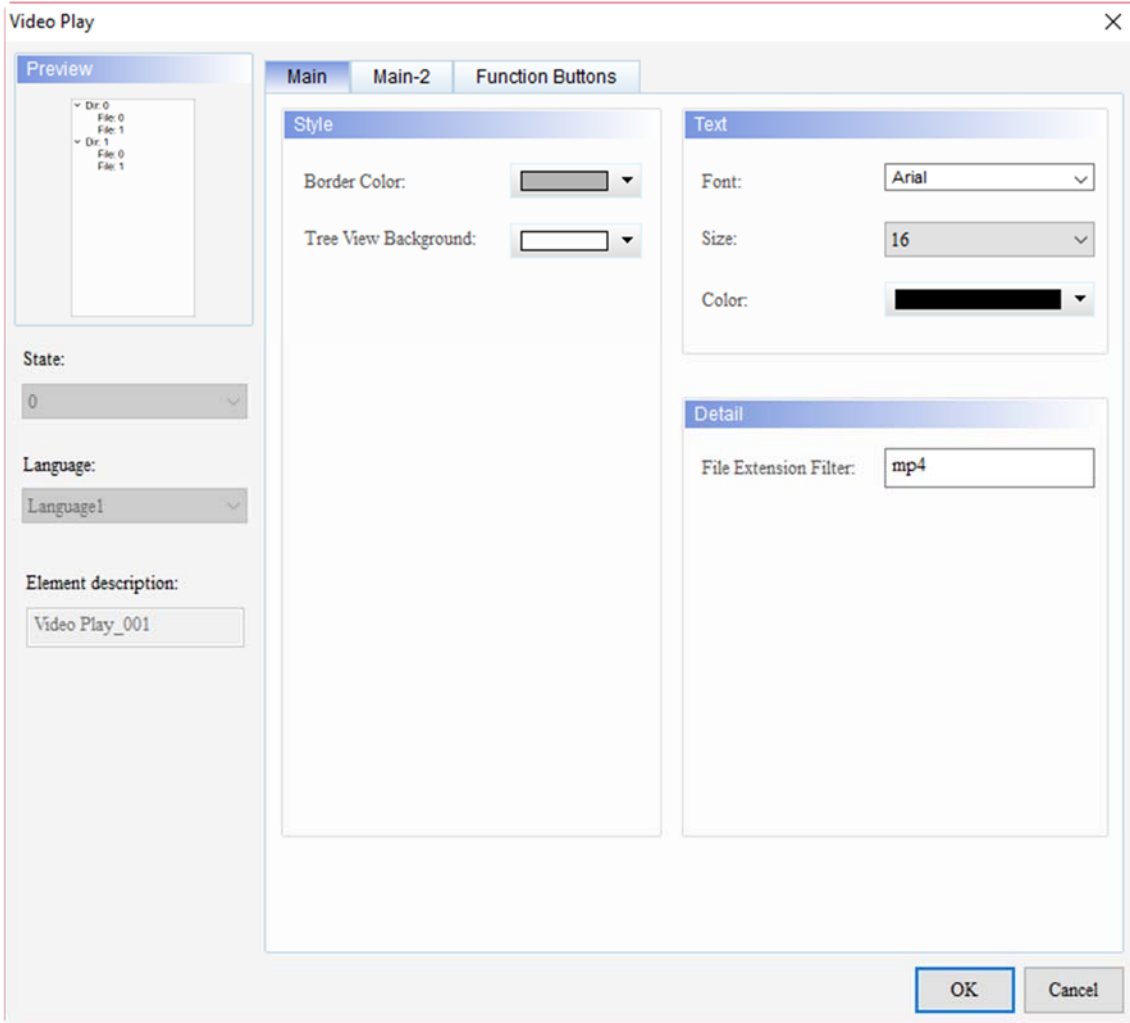


Figure 4.1 Left side of Video Play Element Properties

Talbe 4.3 Left side of Video Play Element Function Page

Video Play (File list of left side)	
Function page	Content Description
Preview	Cannot view Multilanguage data and multistate data.
Main	Set Border Color, Tree View Background Color. Set Font of text, Size of text, Color ot text.
Main-2	Set File Extension Filter.
Function Buttons	Set Transparent, Smooth animation, Anti-aliasing. Set Scroll up a interval, Scroll down a interval, Scroll up one page, Scroll down one page, Play, Pause, Stop, Delete, Export to USB, Export to SD. Set Default Button width and height.

■ Main

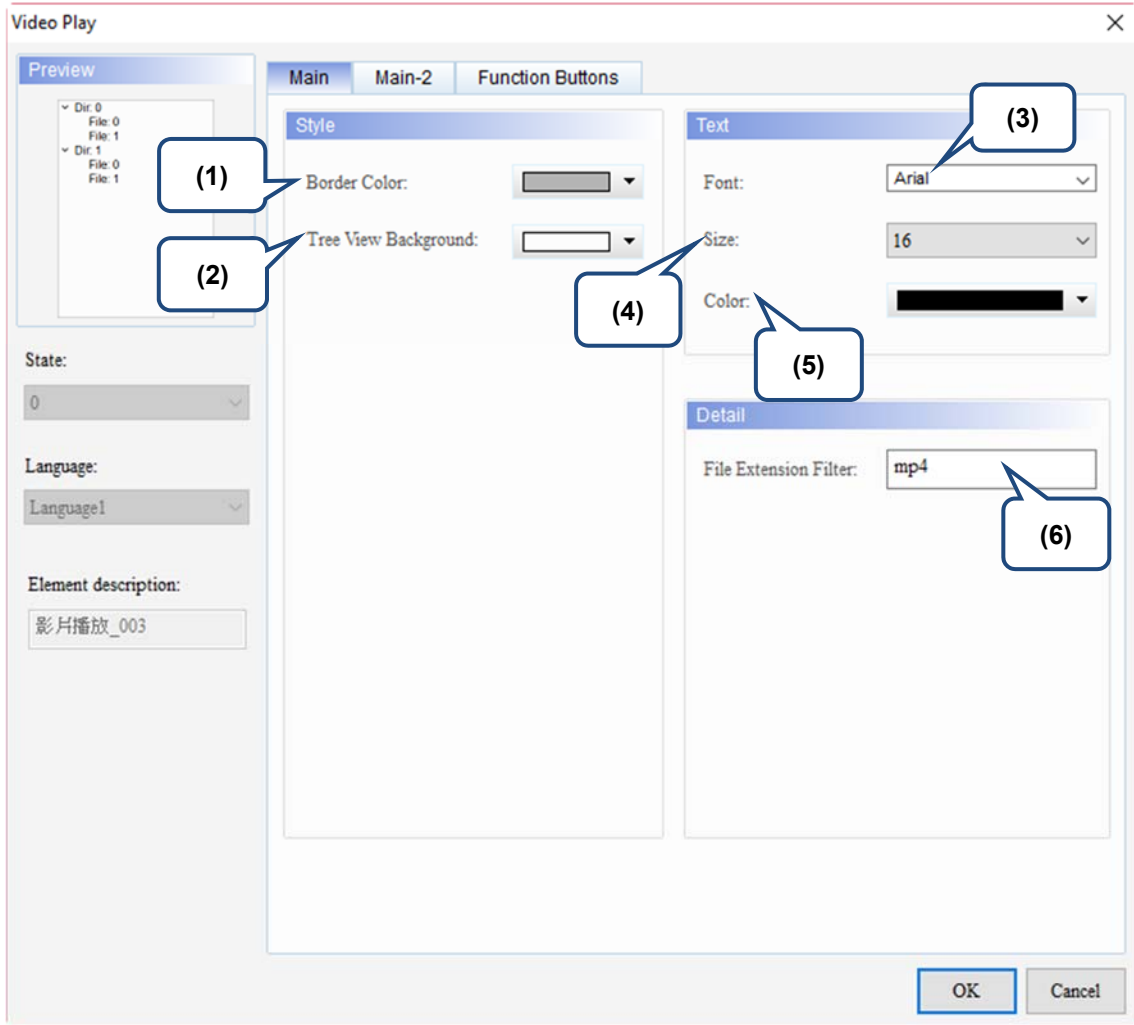
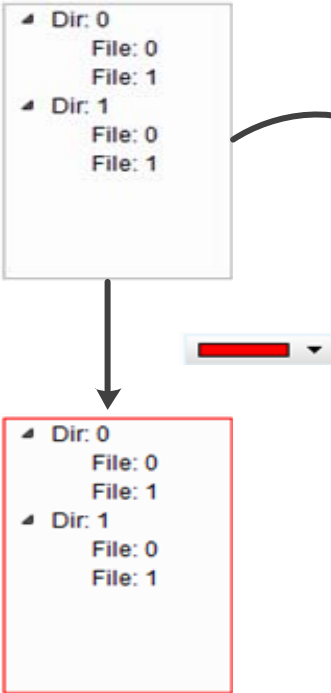
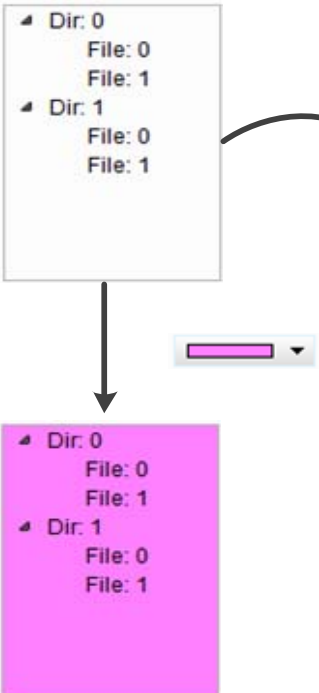


Figure 4.2 Left side of Video Play Element Main Properties Page



No.	Property	Function
(1)	Border Color	<p>Set border color.</p> 
(2)	Tree View Background	<p>Set Tree view background color.</p> 
(3)	Font	Set font of text.
(4)	Size	Set size of text.
(5)	Color	Set color of text.
(6)	File Extension Filter	<p>Set the name of the extension to be displayed on the left file list. The default is mp4. Only the file with the mp4 file name will be displayed in the root directory of the external disk. If changed to *, the files in all root directories are displayed.</p>

■ Main-2

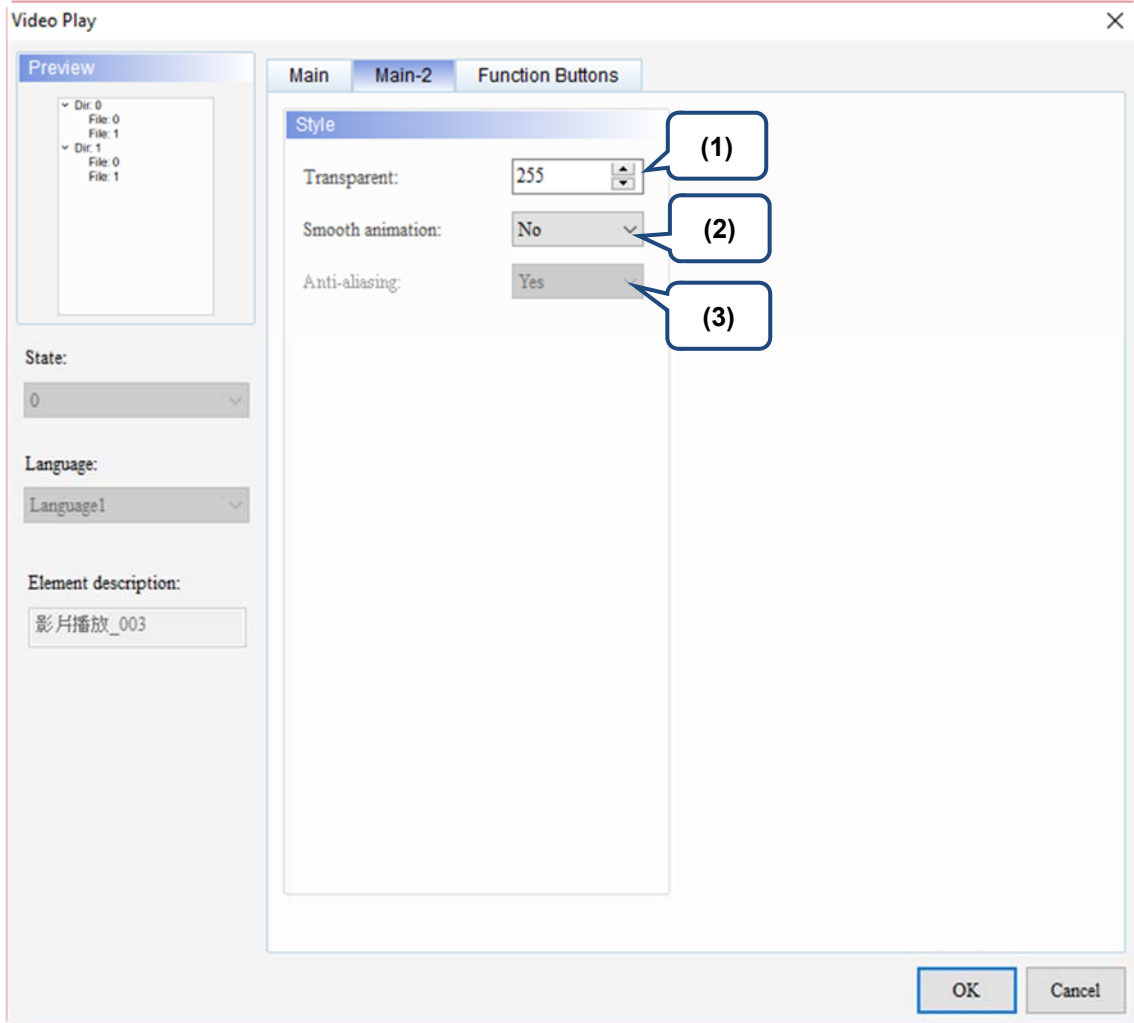


Figure 4.3 Left side of Video Play Element Main-2 Properties Page

No.	Property	Function
(1)	Transparent	Transparent default value is 255, minimum value is 50, maximum value is 255, user could customize this value. The smaller the value, the higher the transparency of the component.
(2)	Smooth animation	The left file list after opening the animation will have a sliding effect when it is expanded or retracted.
(3)	Anti-aliasing	This element cannot turn on anti-aliasing.

■ Function Buttons

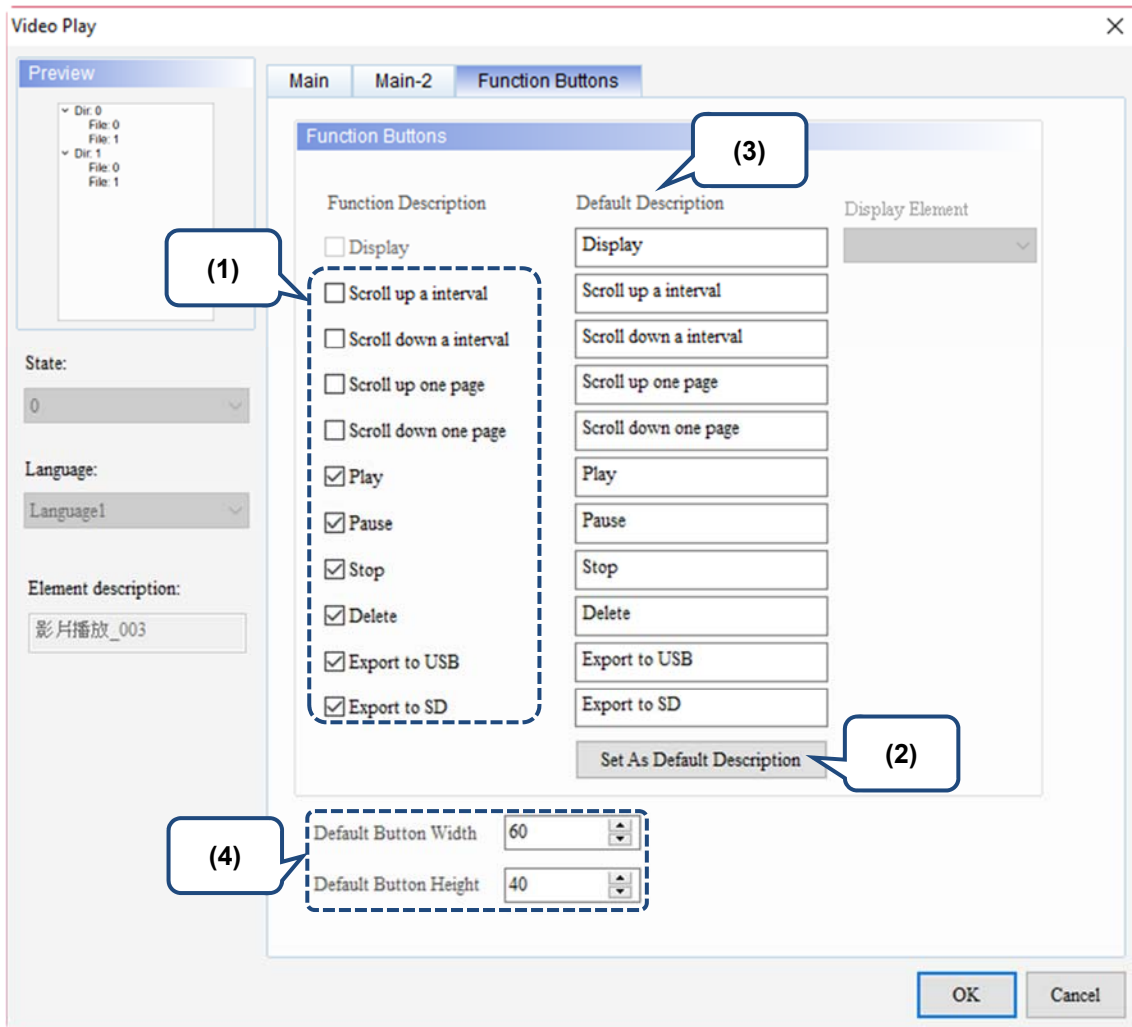


Figure 4.4 Left side of Video Play Element Function Buttons Properties Page

No.	Property	Function
(1)	Function buttons	<ul style="list-style-type: none"> <li>■ Provide Scroll up a interval, Scroll down a interval, Scroll up one page, Scroll down one page to scroll through the list of files and determine the extent of scrolling.</li> <li>■ Play, Pause, Stop, Delete to control video file.</li> <li>■ Export to USB and Export to SD to export the video file originally stored in the HMI to USB or SD.</li> </ul>
(2)	Set As Default Description	Click this button will fill default description.
(3)	Default Description	Click Set as default button will fill default string to default description. User could customize string.
(4)	Default Button Width and Height	User could customize button of width and height.

Double-click the right side of video play element Properties screen as shown below.

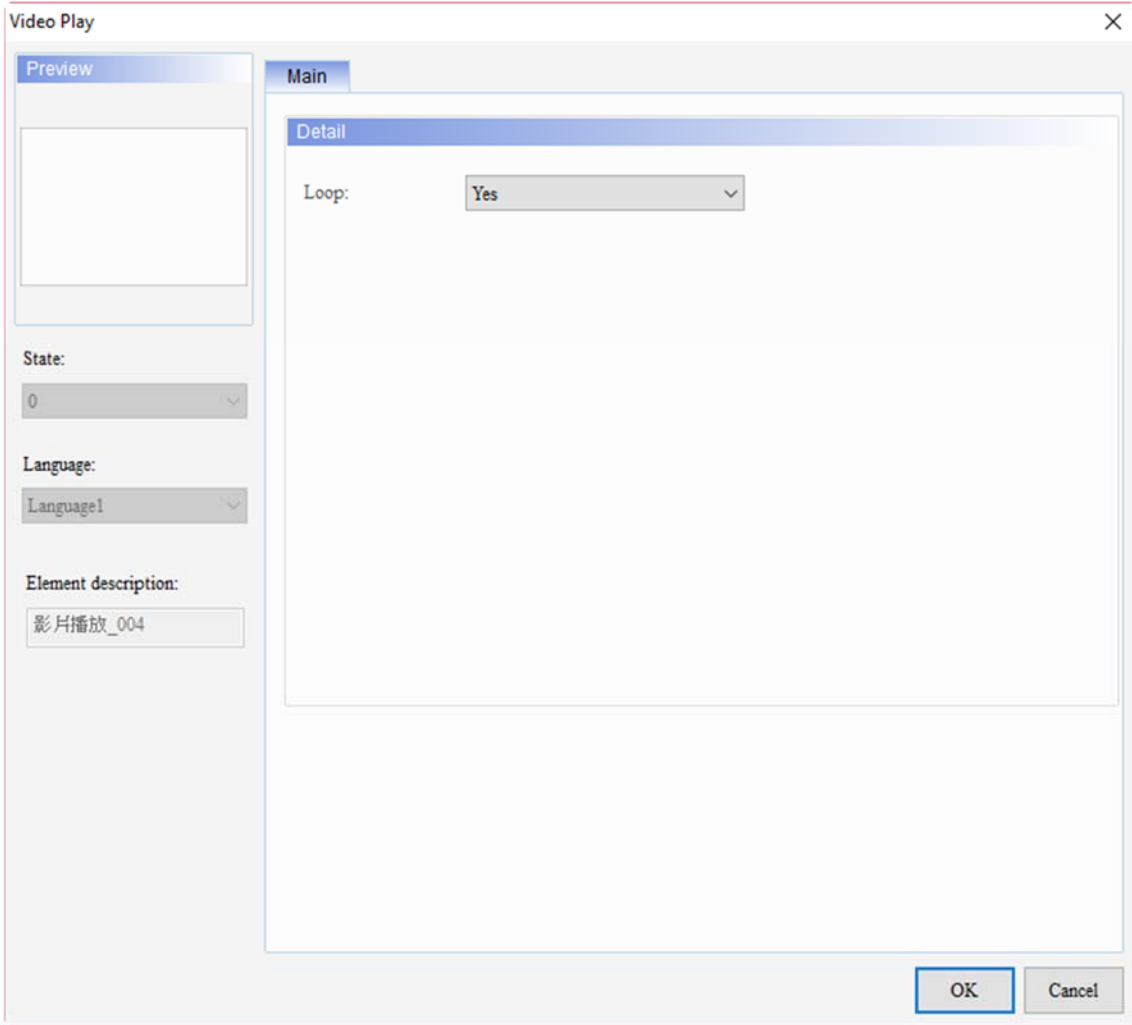


Figure 4.5 Right side of Video Play Element Properties

Table 4.4 Right side of Video Play Element Function Page

Video Play (File display of left side)	
Function Page	Content Description
Main	Set Loop.

■ Main

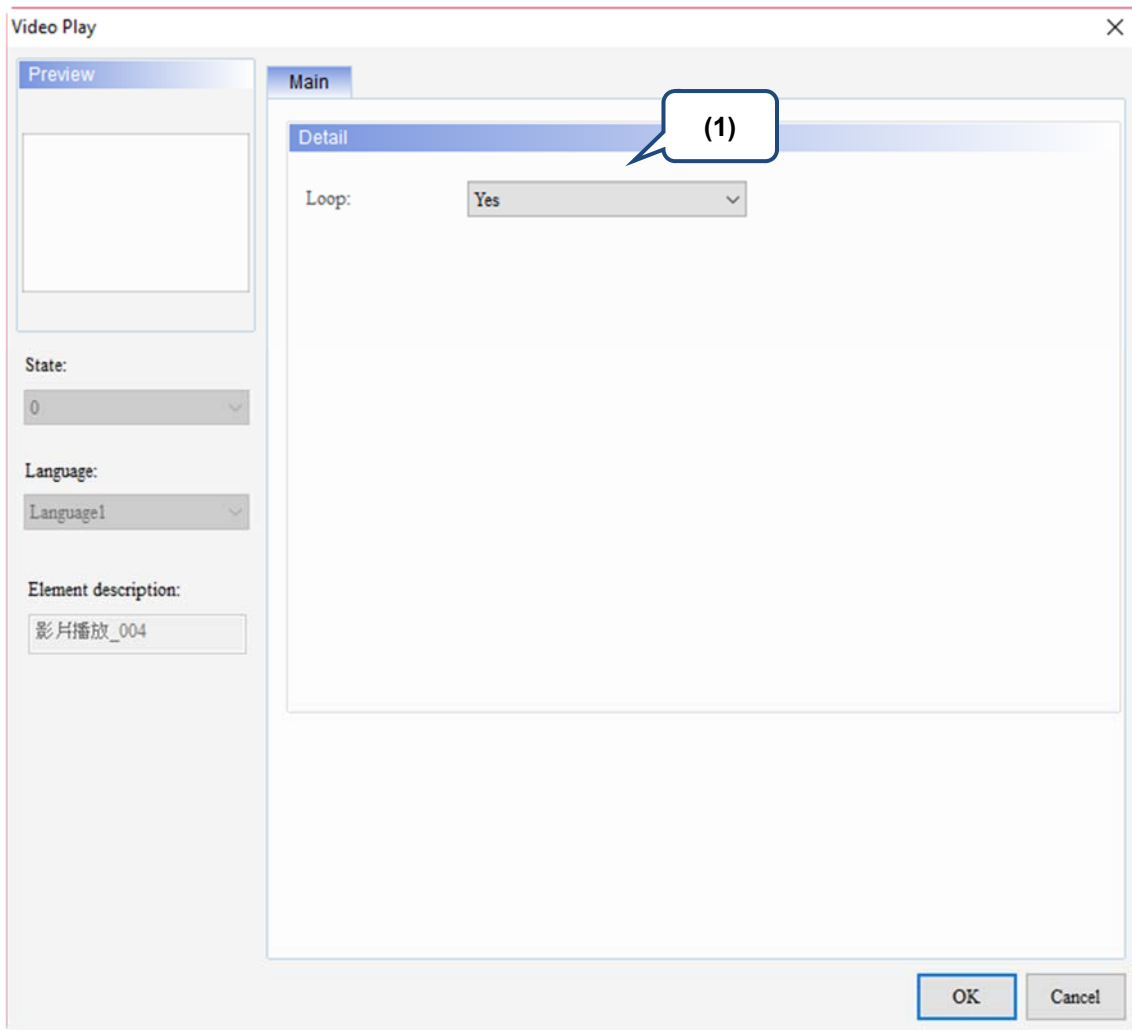


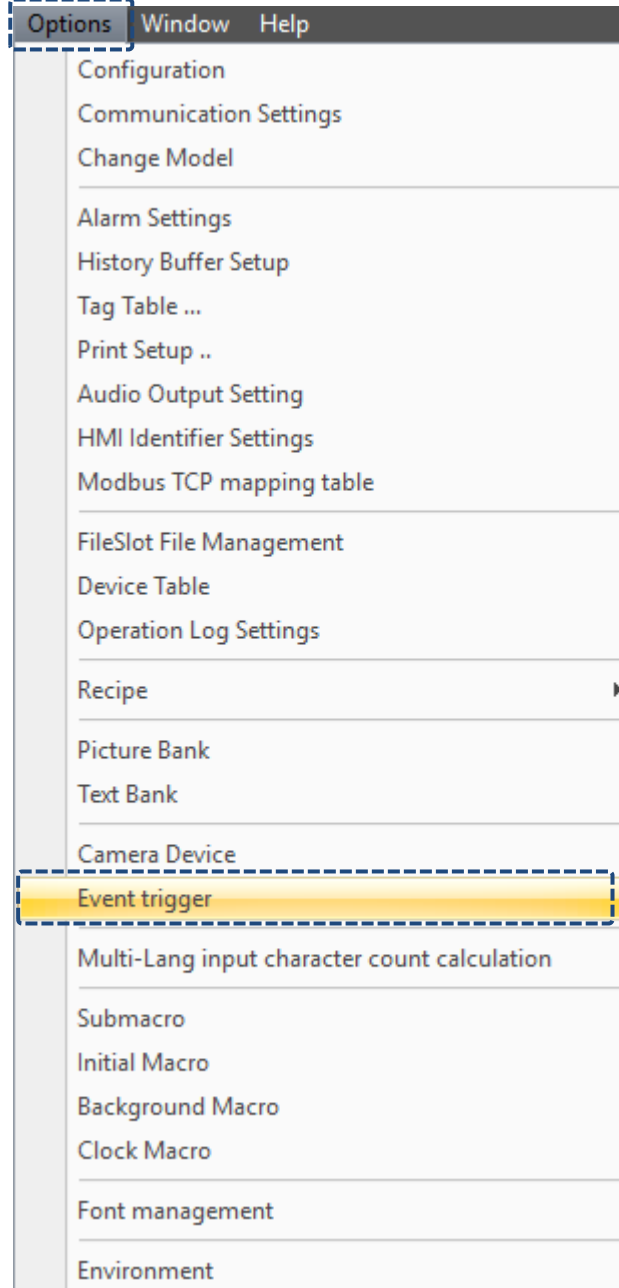
Figure 4.6 Right side of Video Play Element Main Properties Page


No.	Property	Function
(1)	Loop	The default is Yes, and the video file will continue to replay after it has finished playing.

## 5. Event trigger

The event trigger is mainly used to match the Camera display element. After the conditions set by the event trigger are met, the content captured by the camera at that time can be archived into an mpeg4 video file.

Enter 【Options】 → 【Event trigger】 to add event.



Click  to add trigger event.

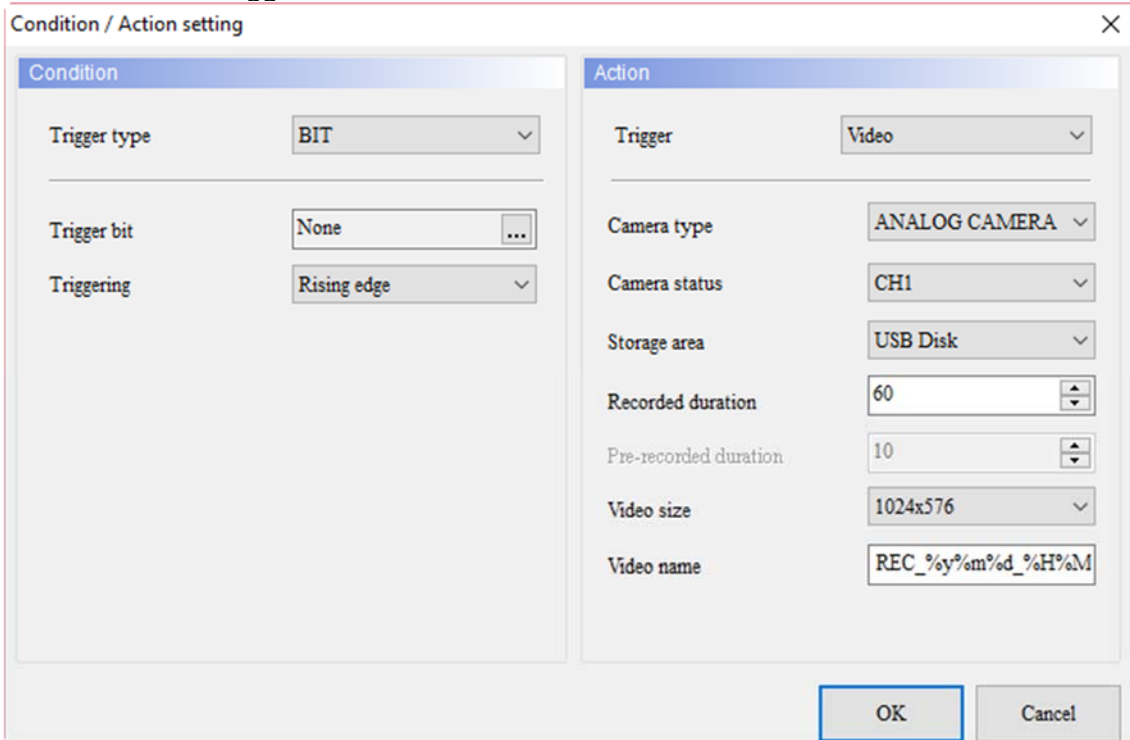
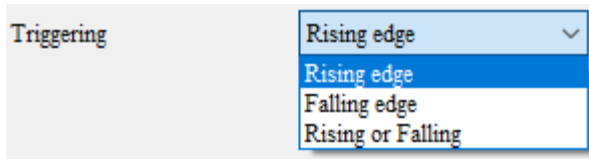
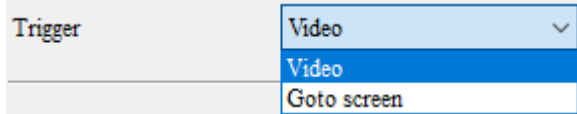
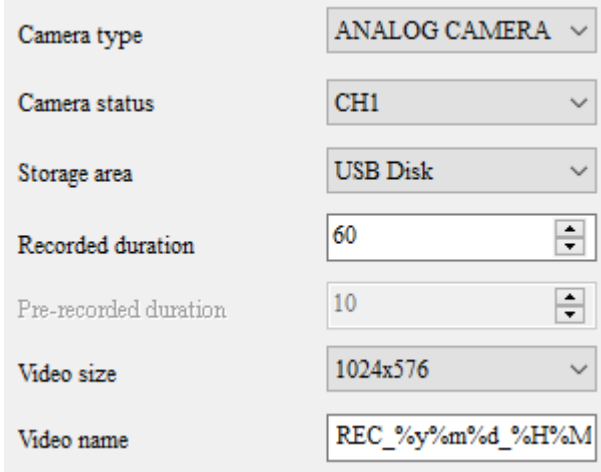
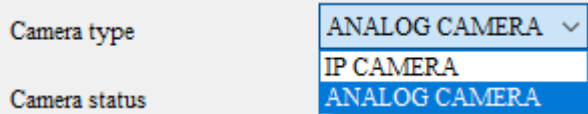
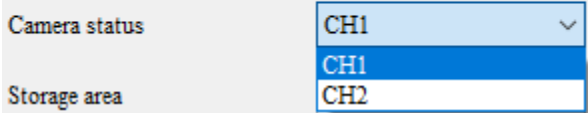
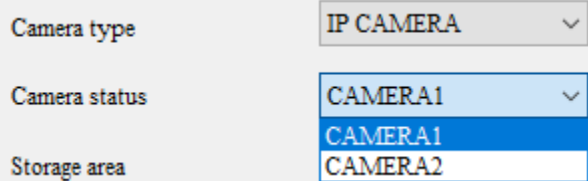
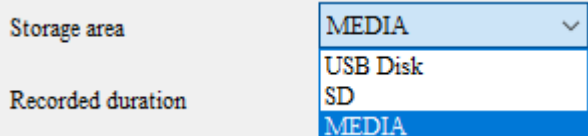


Figure 5.1 Event trigger

Condition	
Trigger type	Only have bit type.
Trigger bit	Set bit address, could be PLC address or internal memory address.
Triggering	<p>Trigger have Rising edge, Falling edge and Rising or falling.</p>  <p>Rising means bit status from On to Off. Falling means bit status from Off to On.</p>
Action	
Trigger	<p>Trigger have Video and Goto screen.</p>  <p>If select Video, interface as below.</p>

													
Camera type	<p>Camera type have Analog Camera and IP Camera.</p> 												
Camera status	<p>The camera status will depend on the camera type. Select Analog Camera, status only list for CH1 and CH2.</p>  <p>Select IP camera, status will depend on Name of Camera device setting. Enter 【Options】 → 【Camera device】 to create IP Camera name for Camera 1 and Camera 2.</p> <table border="1" data-bbox="574 1234 1342 1386"> <thead> <tr> <th colspan="3">IP Camera</th> </tr> <tr> <th>Name</th> <th>IP</th> <th>Source format</th> </tr> </thead> <tbody> <tr> <td>CAMERA1</td> <td>rtsp://admin:hk888888@192.168.123.1</td> <td>H.264</td> </tr> <tr> <td>CAMERA2</td> <td>rtsp://admin:hk888888@192.168.123.1</td> <td>Motion JPEG</td> </tr> </tbody> </table> 	IP Camera			Name	IP	Source format	CAMERA1	rtsp://admin:hk888888@192.168.123.1	H.264	CAMERA2	rtsp://admin:hk888888@192.168.123.1	Motion JPEG
IP Camera													
Name	IP	Source format											
CAMERA1	rtsp://admin:hk888888@192.168.123.1	H.264											
CAMERA2	rtsp://admin:hk888888@192.168.123.1	Motion JPEG											
Storage area	<p>Storage area have Media, USB DISK and SD.</p>  <p>Media is located at HMI, if select this area, only provide 2G capacity to save video file.          USB or SD stores the movie according to the selected capacity.          The supported format is FAT32.</p>												
Recorded duration	The number of seconds to start recording after the trigger bit condition is met.												
Video size	Video size only support 1024x576 and 640x480.												



	<div style="display: flex; justify-content: space-between;"> <div style="text-align: right;">Video size</div> <div style="border: 1px solid black; padding: 2px;">1024x576 <span style="font-size: 0.8em;">▼</span></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="text-align: right;">Video name</div> <div style="border: 1px solid black; padding: 2px;">1024x576 640x480</div> </div> <p>If choose video size of 640x480 and recorded duration of 120 seconds, a file will occupy 30MB. ◦ #</p>
Video name	<p>Video name default is REC_%y%m%d_%H%M%S.          %y is year, %m is month, %d is date, %H is hour, %M is minute, %S is second.          User could customize video name.</p>
<p>Select action to Goto screen, interface as below.</p> <div style="display: flex; justify-content: space-between; align-items: center; margin: 10px 0;"> <div style="text-align: right;">Change the</div> <div style="border: 1px solid black; padding: 2px;">Screen_1 <span style="font-size: 0.8em;">⋮</span></div> </div> <p>If choose goto screen, after the trigger bit on, will be changed to the specified screen number.</p>	

## 6. Internal Memory increase to 200000 from \$0 ~ \$199999

The internal register is the memory in the human-machine available for free reading and supporting different configurations, such as the element communication address. As the internal register does not support the non-volatile function, when the human-machine is disconnected from the power supply, data in the register cannot be maintained. The human-machine increase internal register to 200000, each 16-bit.

Access Type	Element Type	Access Range
Word	\$n	\$0 ~ \$199999
Bit	\$n.b	\$0.0 ~ \$199999.15

Note: n is Word (0-199999); and b is Bit (0-15)

Internal memory increase to 200000 from \$0 to \$199999 only apply on elements. Macro command still can use 65536 from \$0 ~ \$65535.