ANTIK
technology

IPTV MULTI VIEWER

USER MANUAL

2019/10 v2.0

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Chapter I Overview

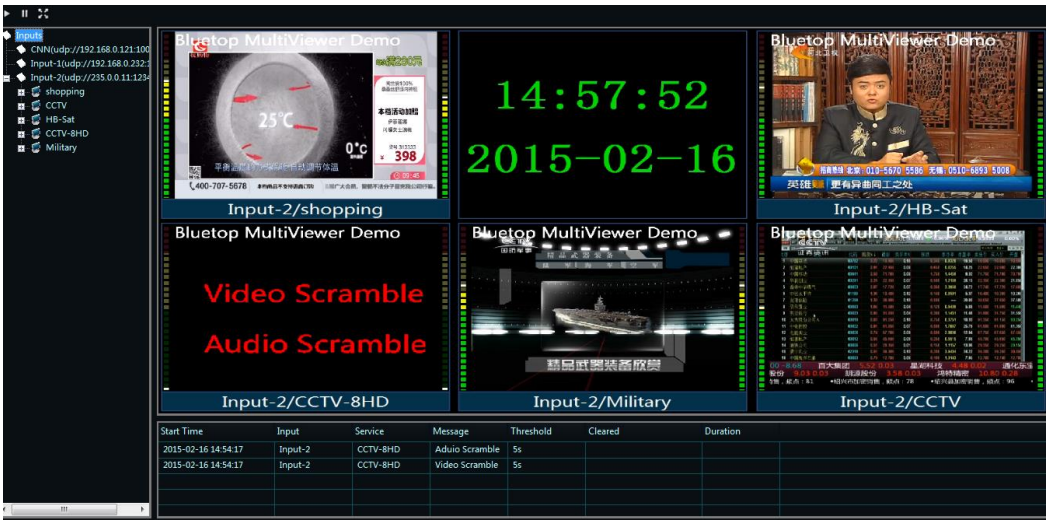
1.1 System introduction

Antik MultiViewer can receive TSoverIP stream via Ethernet adapter in real time, then decode and display them. It can also monitor audio and video alarms, display monitoring results on monitoring wall.

1.2 Screenshots of Monitoring Wall

Commercial Version:

DEMO version with watermark



Chapter II Running Environment

Antik could provide full package including hardware and software license. MVS-213 is model of Multiviewer server, which handle multiple services with customized license. Also customer could build their own system to meet BOM configuration as below.

2.1 MVS-213 Hardware & License Package

Model	Description
HawkEye DG MVS-213	2RU Industrial Chassis; CPU：Inter (R) Core(TM)i7-6700 3.4GHz RAM：16GB Graphics card: Inter(R) HD Graphics 530 (version:21.20.16.4664) Network card:1000M *2 HDMI output *2 redundant power *2
BMV-16	Support 16 CH Service decoding license
BMV-32	Support 32 CH Service decoding license
BMV-48	Support 48 CH Service decoding license
BMV-64	Support 64 CH Service decoding license
BMV-80	Support 80 CH Service decoding license
BMV-96	Support 96 CH Service decoding license
BMV-112	Support 112 CH Service decoding license
BMV-128	Support 128 CH Service decoding license
BMV-ULT	Support unlimited Service decoding license

* Order would be delivered with Software plus USB Key;

*No limitation of SD or HD service counting;

*License might be customized according to request;

*Hardware might be changed without notice.

2.2 Benchmark

MVS-213					
Service Type	MPEG2 SD	MPEG2 HD	H.264/AVC SD	H.264/AVC HD	H.265 4K
Max. amount	35CH	24CH	45CH	25CH	1CH

Source counted as:

- MPEG-2 SD 3.5Mbps 720*576
- MPEG-2 HD 18Mbps 1920*1280
- H264 SD 1.2Mbps 720*576
- H.264 HD 8Mbps 1920*1280
- H.265 25Mbps 3840*2160

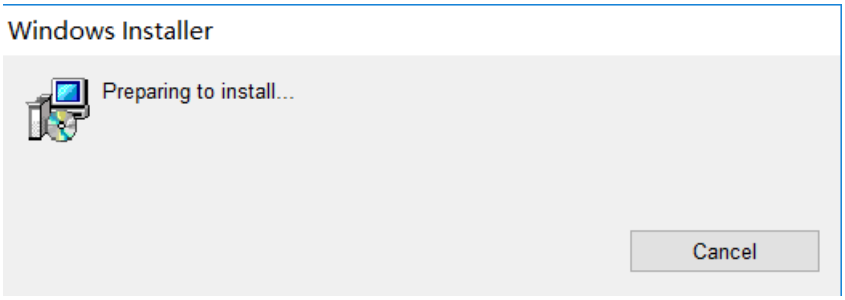
Chapter III Installation Instruction

3.1 Installation of MySQL Database

Please purchase MySQL directly for any commercial use.

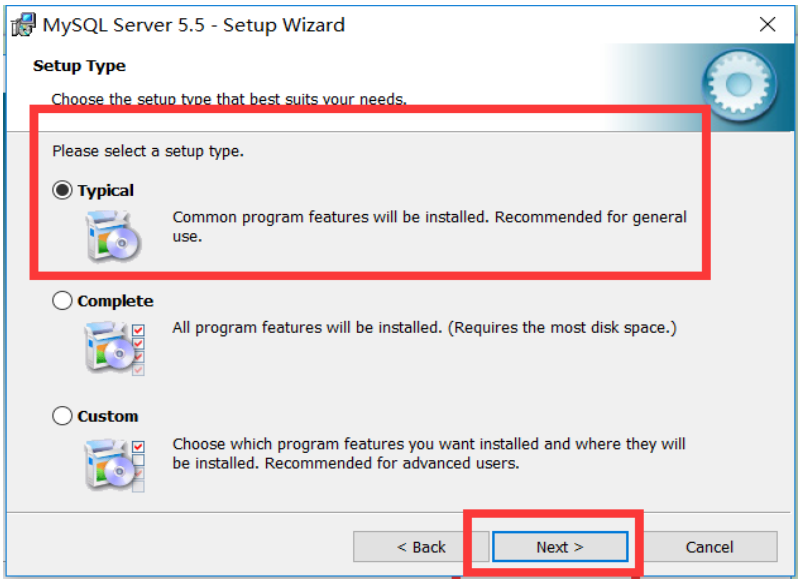
Notices for installation of MySQL database:

Step-1: Double click Mysql【5.5.0】_Setup_X86.msi ,open the database installer.Please wait for the prompt.

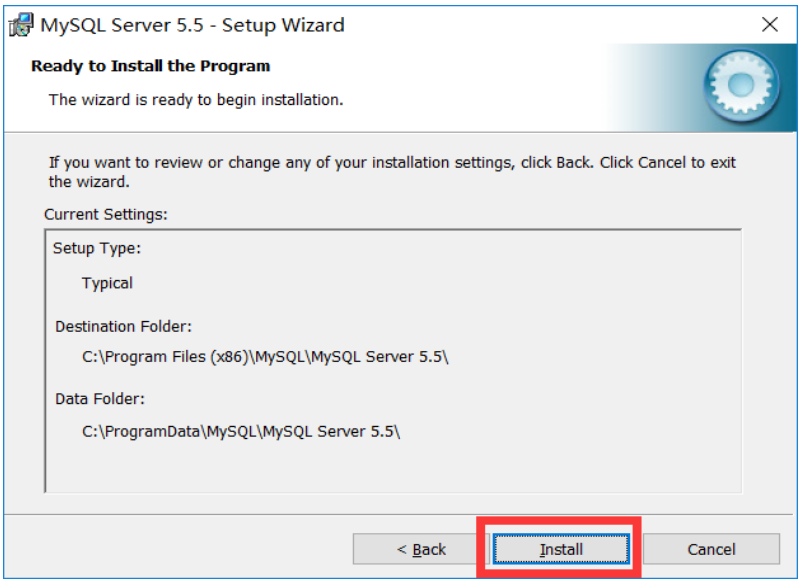


Step-2: Install as shown below.

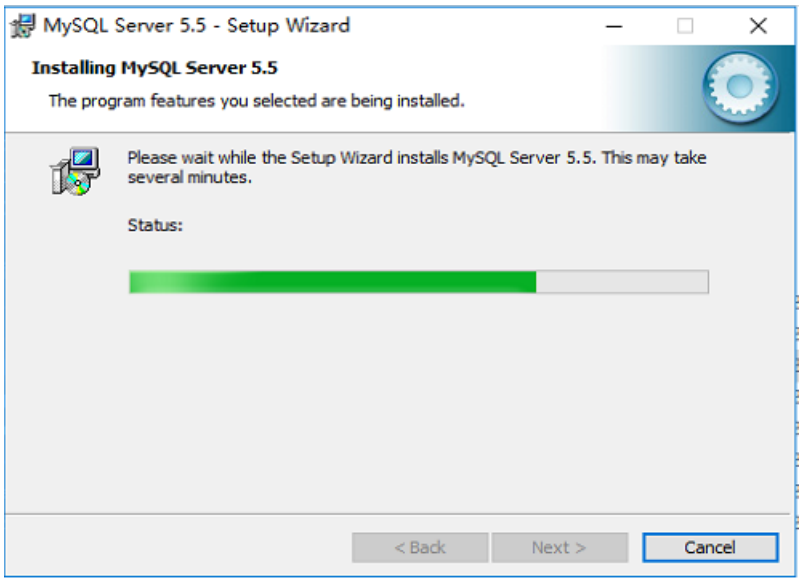
Click “Next”.



Select “Typical” and click “Next”.



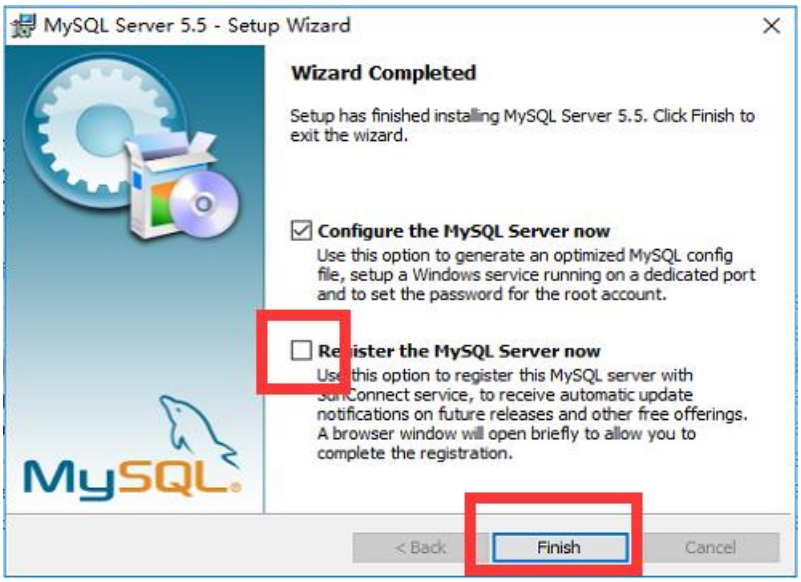
Click “Install”.



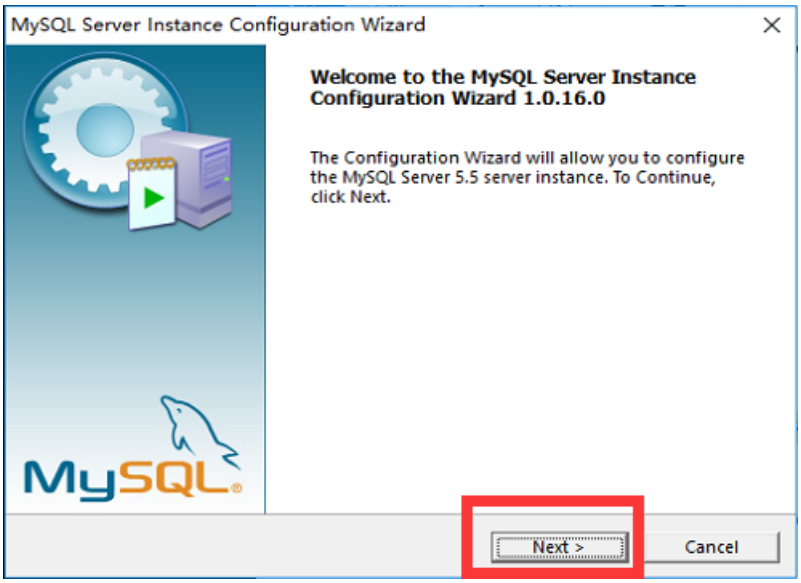
Please wait.

Click “Next”.

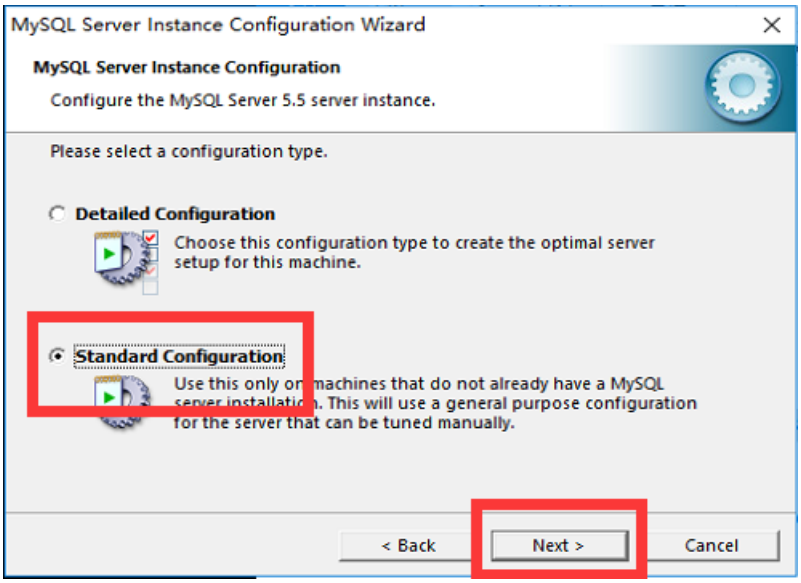
Click “Next”.



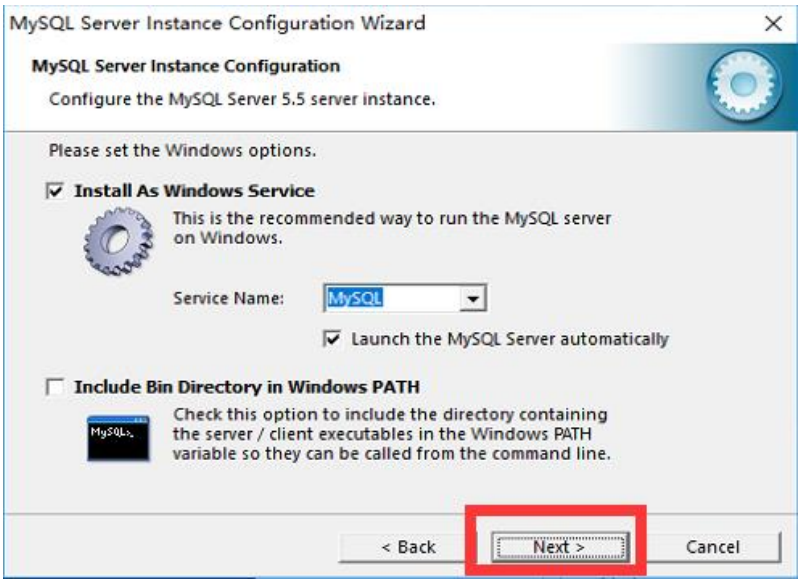
Remove the checkmark in front of "Register the MySQL Server now"and click “Finish”.



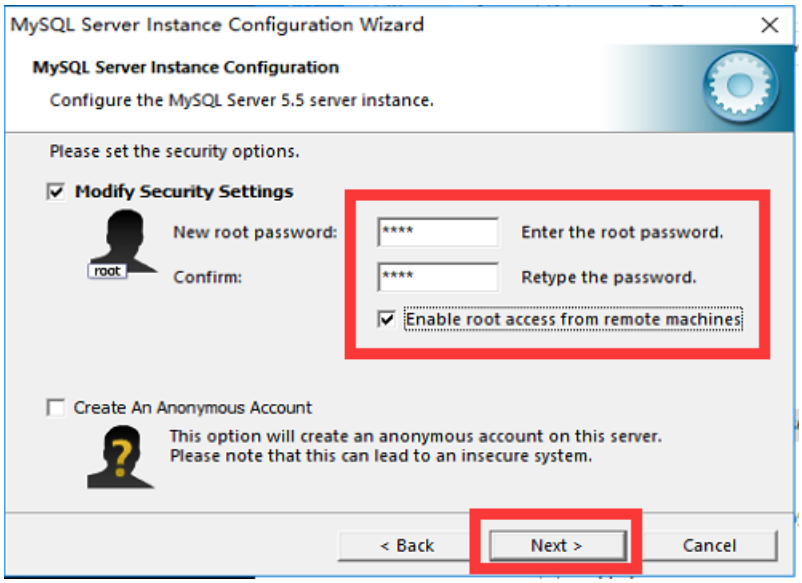
Click “Next”.



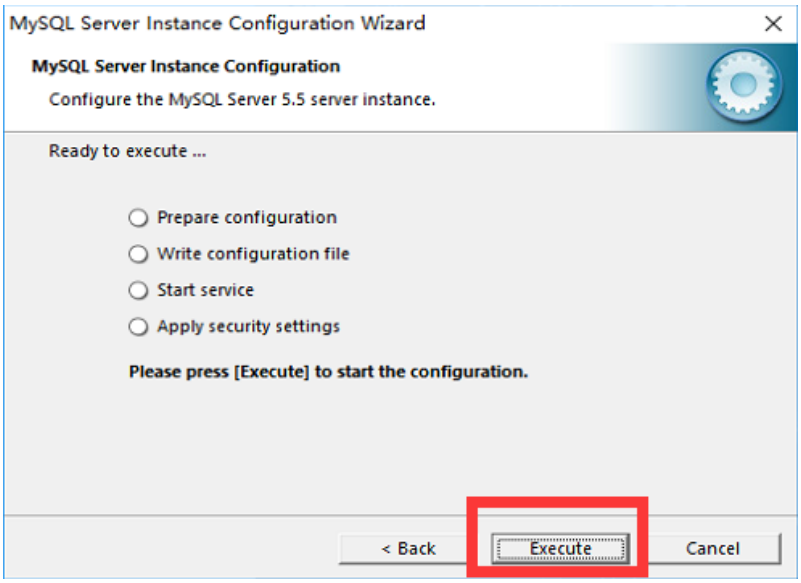
Select “Standard Configuration” and click “Next”.



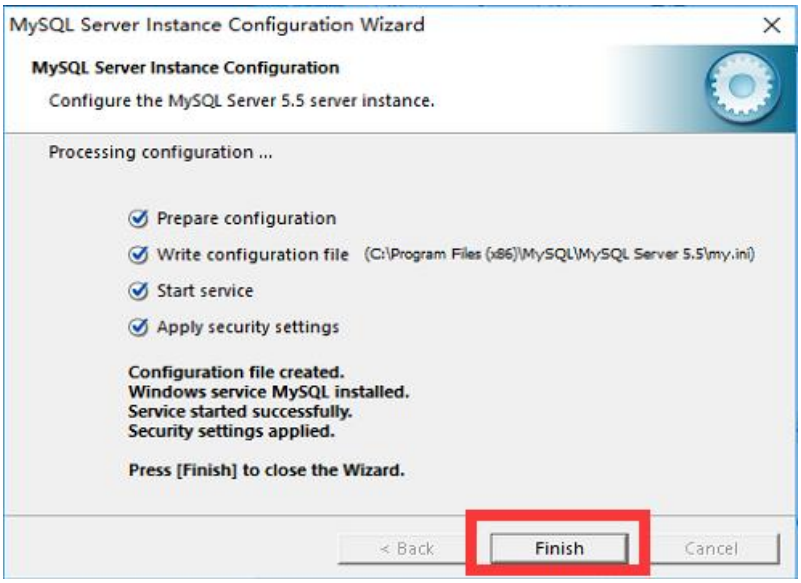
Click “Next”.



Enter “root” 【New root password】 in the following figure, enter “root” after the below “Confirm” and check the below “Enable root access from remote machines”



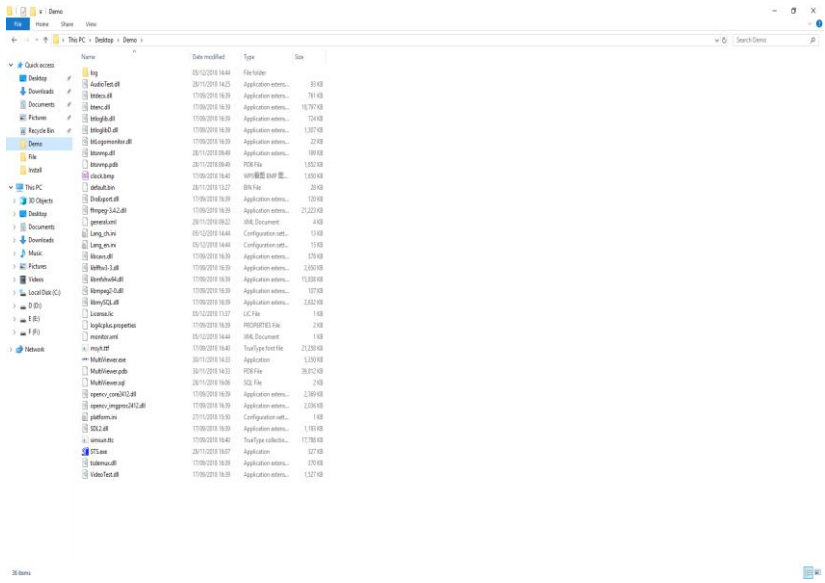
Click “Execute”.



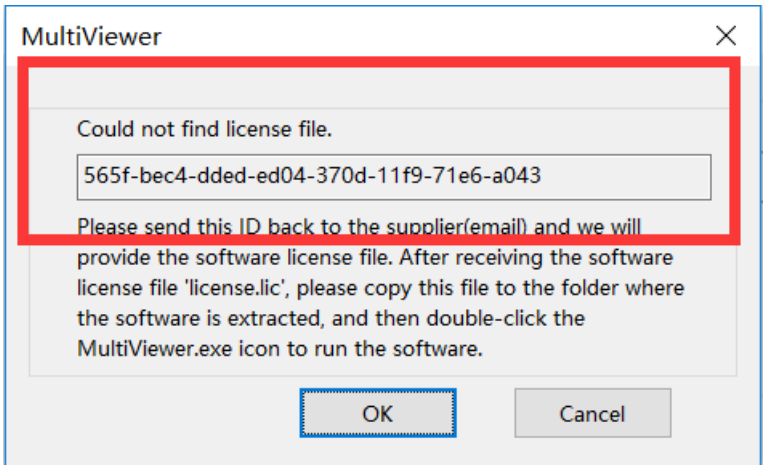
Click “Finish”.Complete database installation.

3.2 Installation of Antik MultiViewer Software

Extract Multiverwer into an empty folder BluetopDemo.zip



Double click MultiViewer.exe and run Antik MultiViewer Software for the first time, the following dialog pops up.



Please send the contents of the red box back to the supplier and we will provide the software license file. After receiving the software license file 'license.lic', please copy this file to the folder where the software is extracted, and then double-click the MultiViewer.exe icon to run the software.

3.3 Un-installation of Multiviewer

Remove the unzipped folder completely.

Chapter IV Operation Instruction

4.1 Main User Interface

The main interface of the Antik MultiViewer Software includes tool bar, channel information, playing window and system information. The software main interface is shown as the figure 4-1:

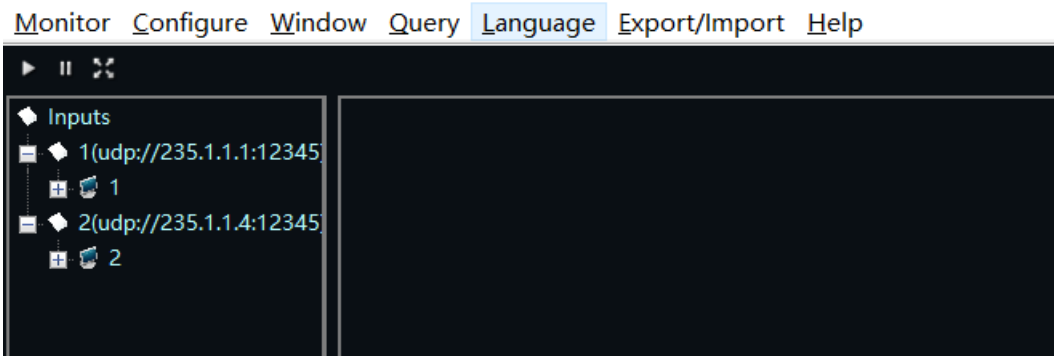
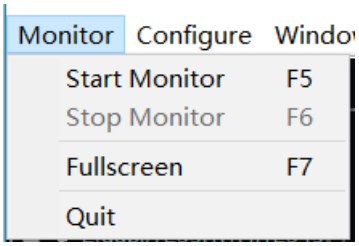
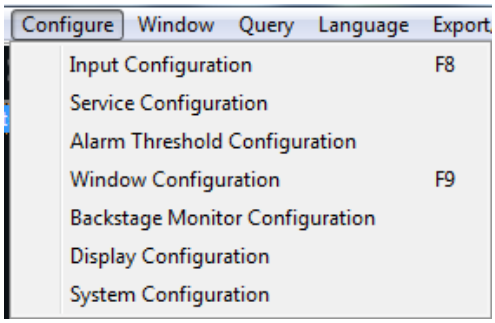


Figure 4-1

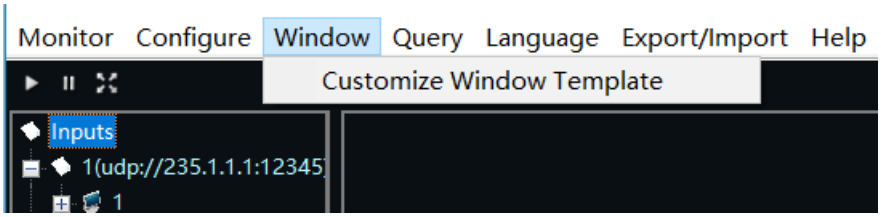
① Monitor: This button is to start monitor after configuration



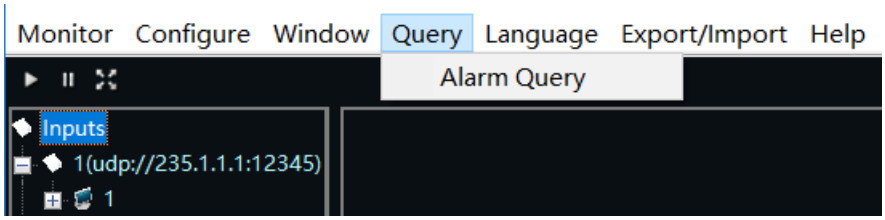
② Configure: This button is most important function to configure the stream source



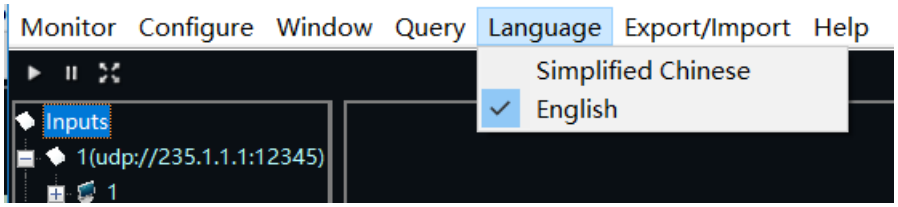
③ Window: This button is to start window(screen) layout, where provide template and customization



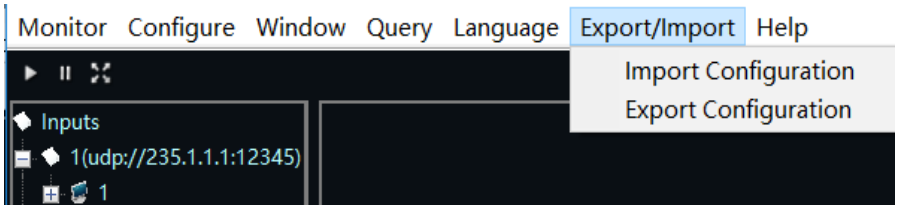
④ Query: This button is to query alarm history



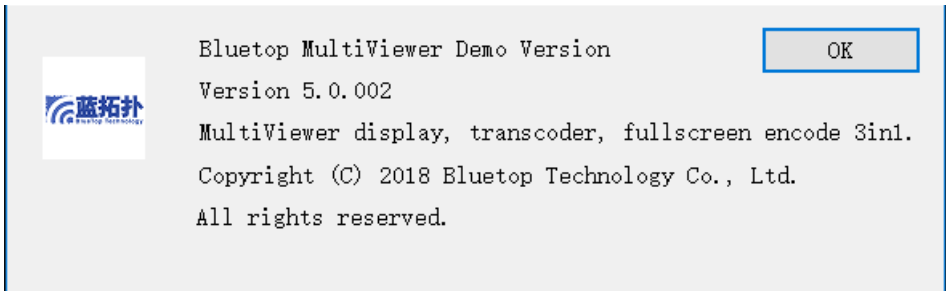
⑤ Language: Multiviewer provide English and Chinese switch



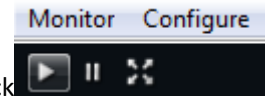
⑥ Export/Import: Save and load the configuration history



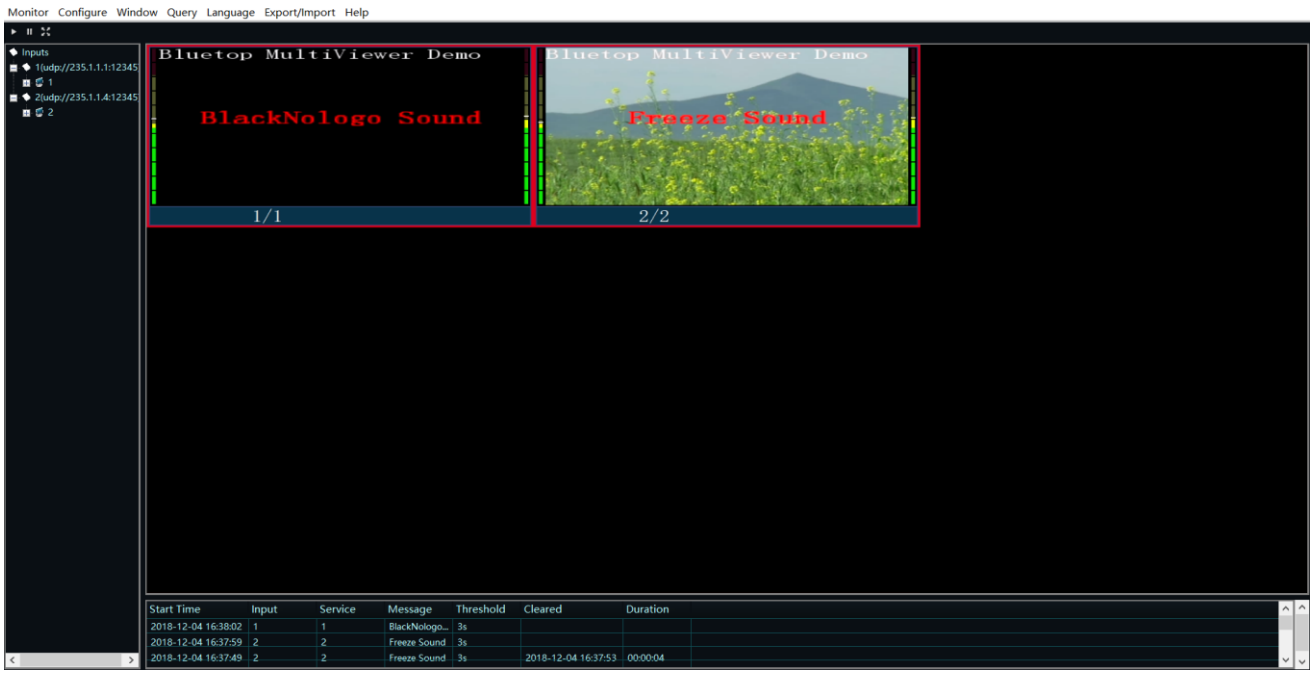
⑦ Help: User Manual and software version information

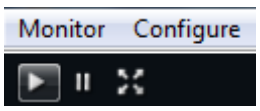


4.2 Tools bar (play, pause, full screen)

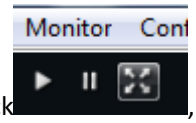
Click 

button, the play window will display the program image and monitoring starts, shown as below. To double click the program image in playing, this program will zoom out to the full playing window. To double click it again, the image will restore to the original size. To click the program image in playing, you can play accompanied sound of this program.



【Pause】: To click 

button, the software will not decode the program and pause monitoring.

【Full Screen】To click 

, the playing window will zoom out to the full screen. Double click the window will restore to original size, shown as below:

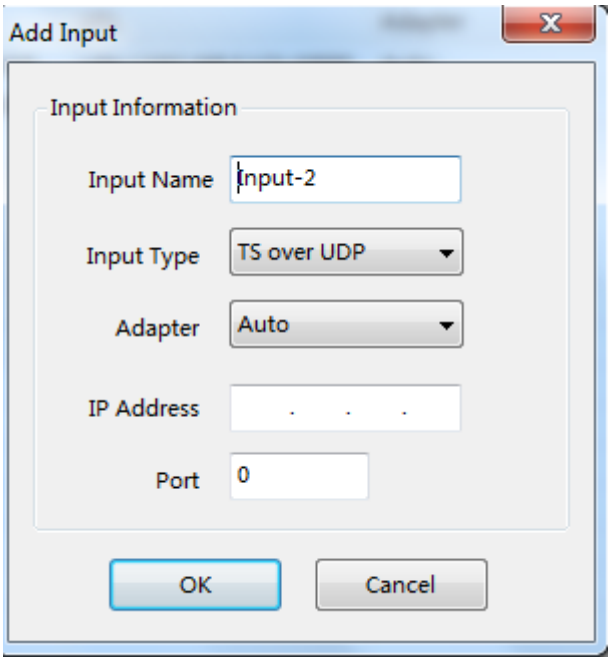
Double click program image under full screen state, the program will display on the full screen.

4.3 Configure

Launching the Antik MultiViewer, user needs to configure and run monitoring via the following steps and instructions of each functional tab.

4.3.1 Input Configuration

Click Configure, setup input sourcing step by step and then click **Analyse All**, the software will decode and all feeding streams.

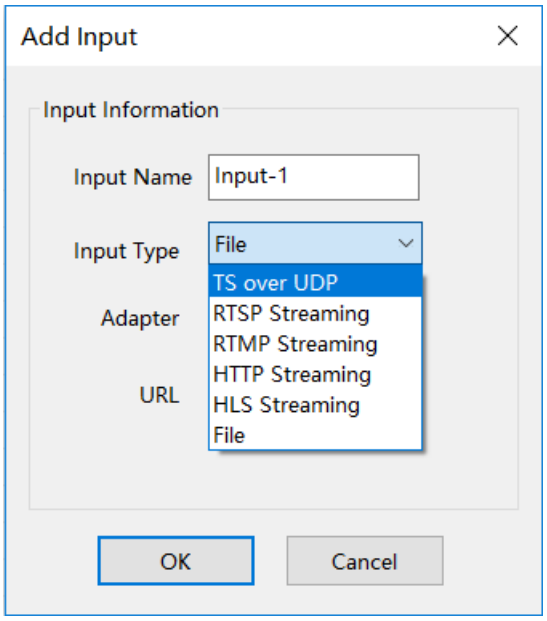


*Note:

IP addresses and port number: enter the IP address and port number of code stream. The multicast addresses range from 224.0.0.0 to 239.255.255.255

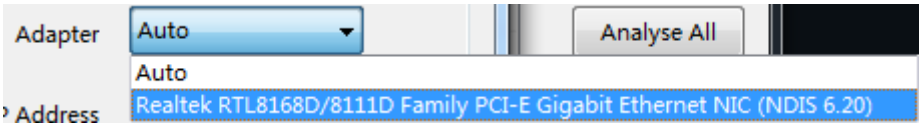
Step-1: Input signal name, user can input a text to mark or name the stream. The default is Input-x and user can customize signal name.

Step-2: Input type, user can select the type of feeding streams from TSoverUDP, RTSP streaming, RTMP streaming, Http Streaming,HLS Streaming,File.

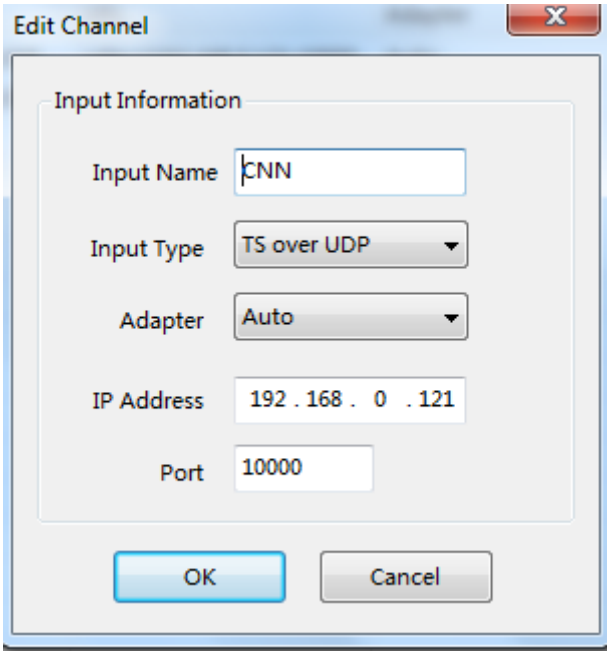


Step-3: Select the right NIC as Adapter:

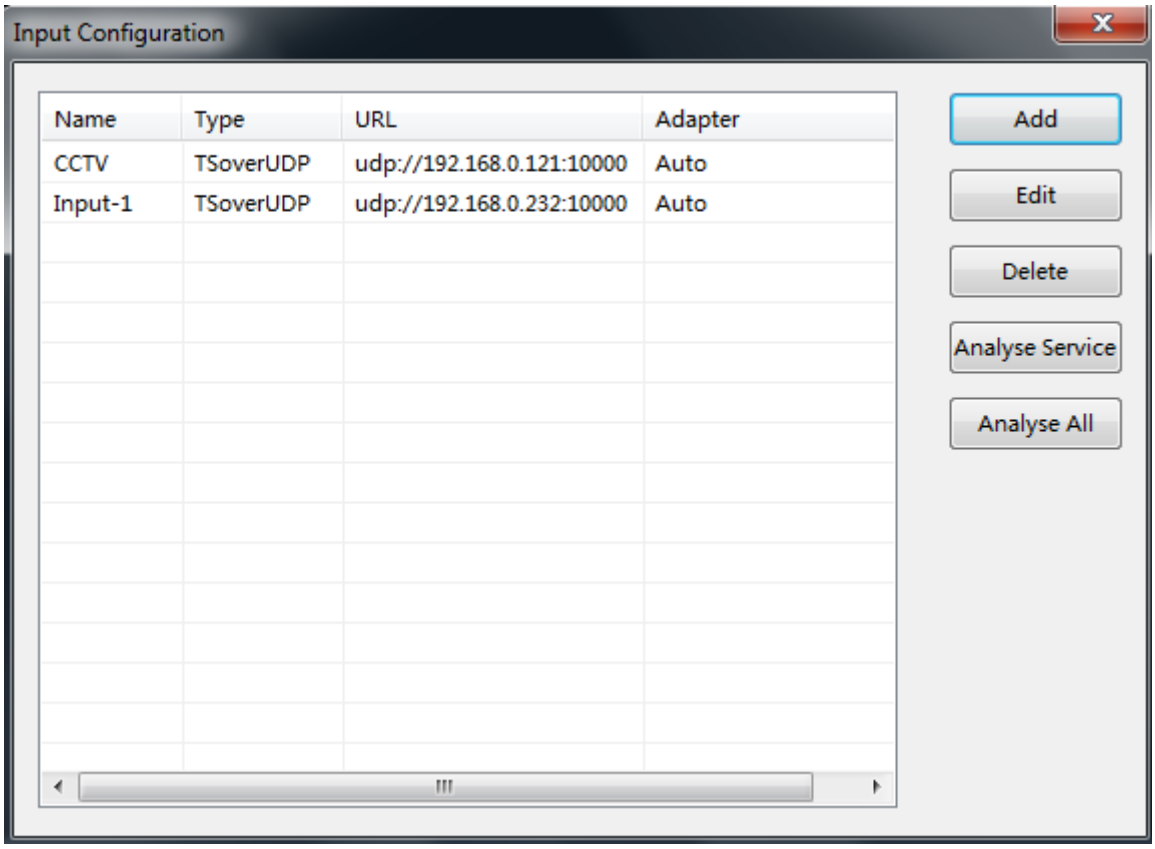
Allocate network adapter: when two Ethernet interfaces are available, you can receive data by using two Ethernet interfaces.

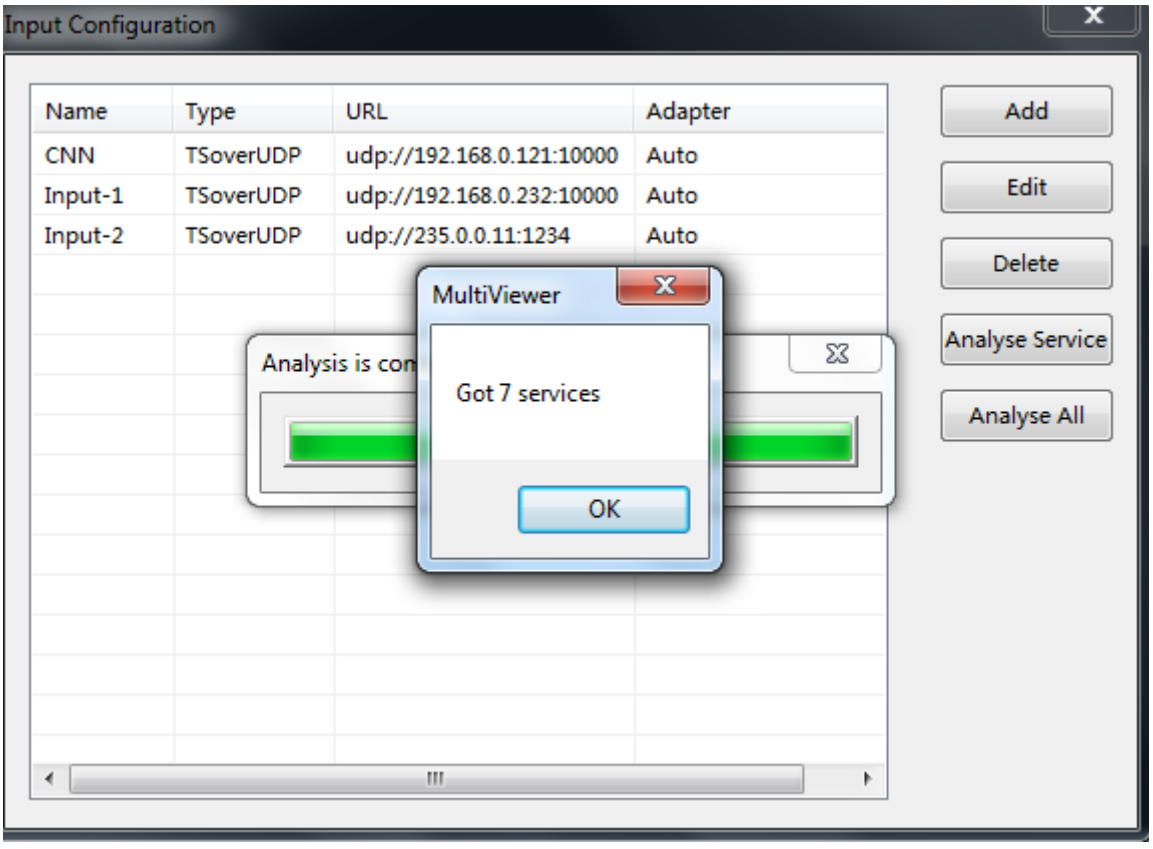


Step-4: Click Edit button to modify the selected service information and click OK.

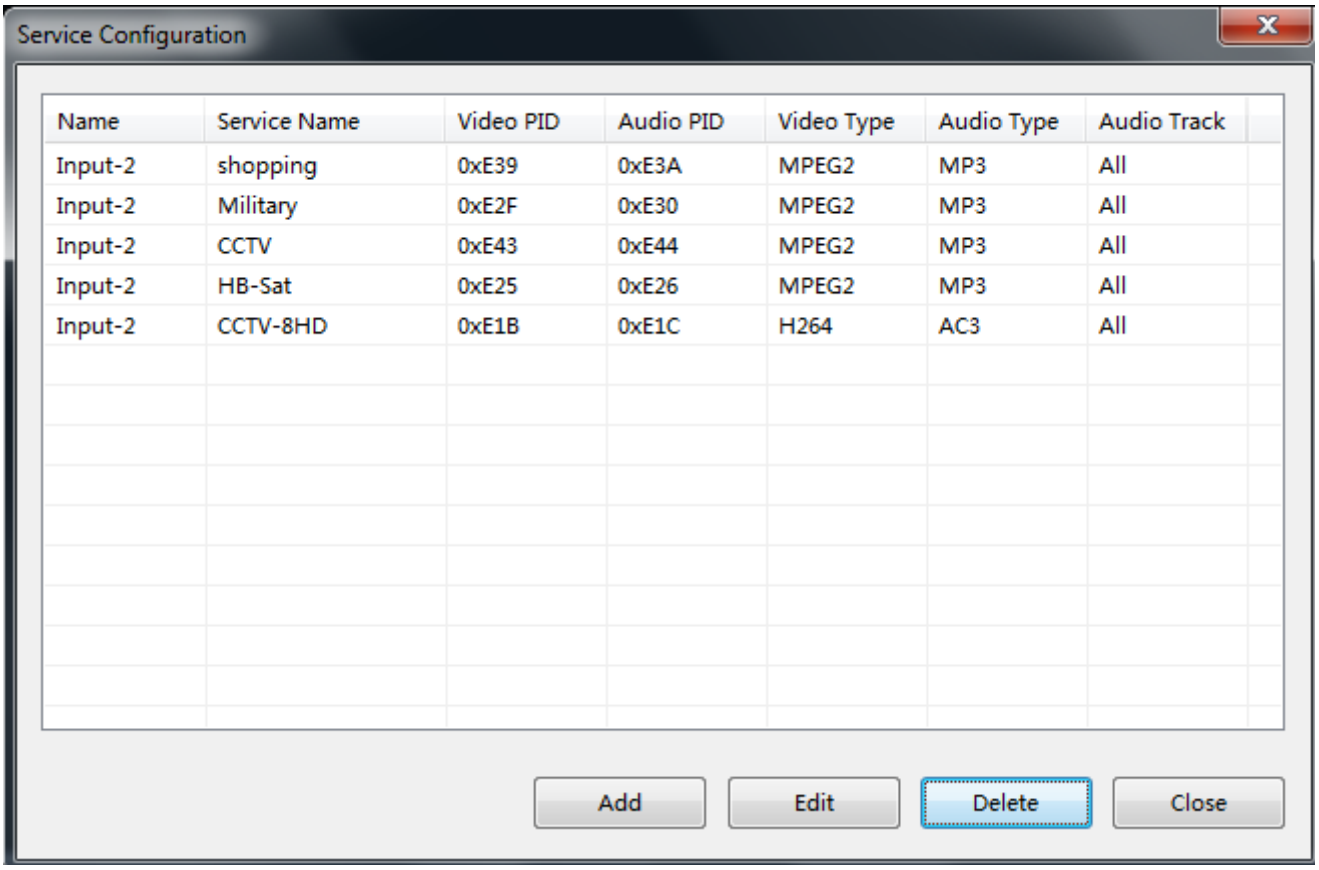


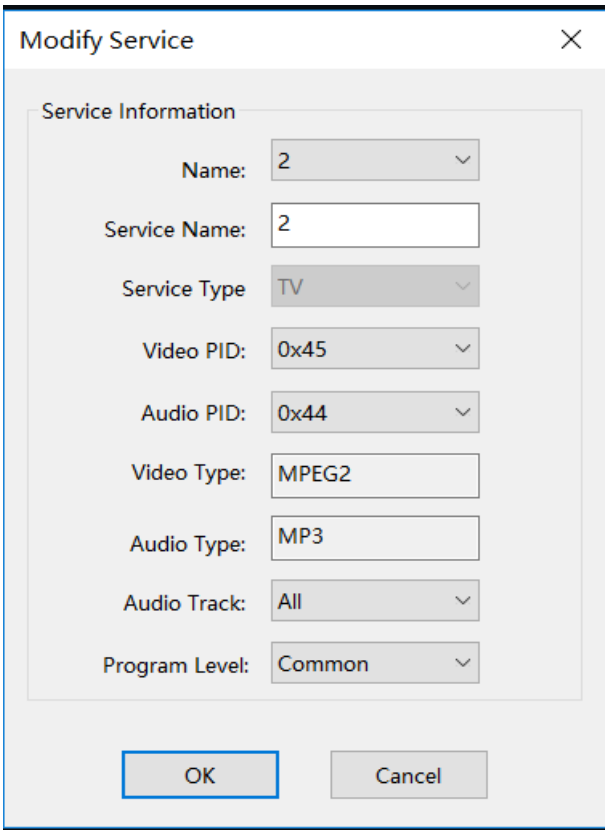
Step-5: Analyse service:select one service to click Analyse Service, or select All to Analyze all input services. Waiting for the process bar and a pop-up window will indicate how many service approched.

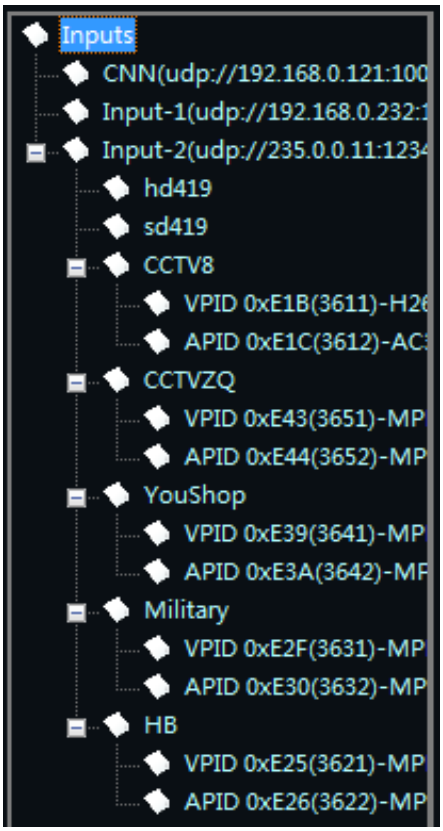

Input Configuration
Name
Type
URL
Adapter
CCTV
TSoverUDP
udp://192.168.0.121:10000
Auto
Input-1
TSoverUDP
udp://192.168.0.232:10000
Auto
Add
Edit
Delete
Analyse Service
Analyse All


Input Configuration
Name
Type
URL
Adapter
CNN
TSoverUDP
udp://192.168.0.121:10000
Auto
Input-1
TSoverUDP
udp://192.168.0.232:10000
Auto
Input-2
TSoverUDP
udp://235.0.0.11:1234
Auto
MultiViewer
Got 7 services
OK
Add
Edit
Delete
Analyse Service
Analyse All

4.3.2 Service Configuration

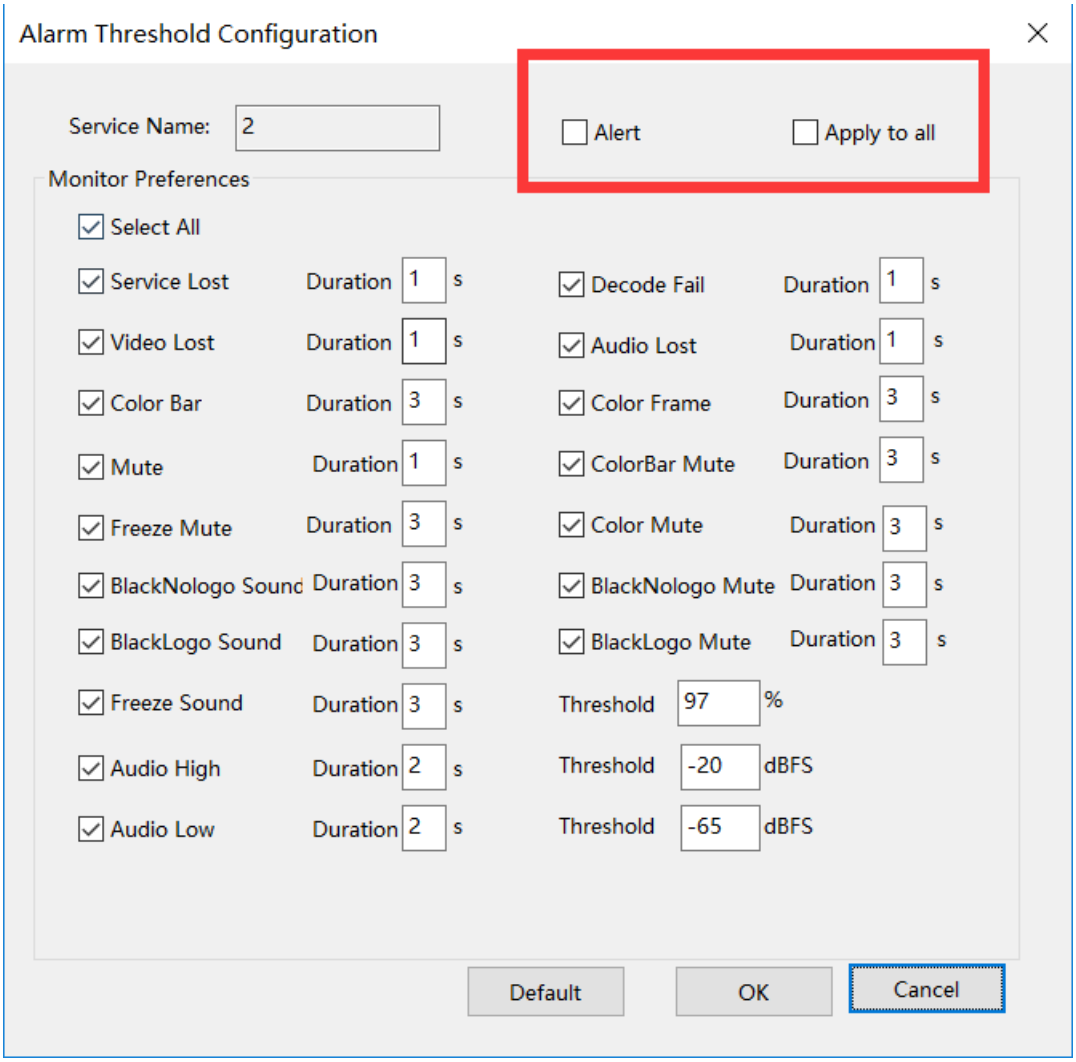






4.3.3 Alarm Threshold Configuration

This option is for Alarm type selection or enabling also duration time setting:



Service lost: if the feeding streaming receiving rate keeps zero for 3s, it will generate signal break alarm. When the signals break, no other alarms are generated.

Video lost: when the code rate of the service video PID keeps zero for a period (namely user-set “alarm time” parameter) in the network code stream receiving, it will generate video loss warming. When a video is lost, the system will not generate static frame, black image, color stripe and decoding failure alarm.

Audio lost: when the code rate of the service audio PID keeps zero for a period (namely user-set “alarm time” parameter) in the network code stream receiving, it will generate audio loss warming. When an audio is lost, the system will not generate high volume, low volume and decoding failure alarm.

Freeze: when the program video image keeps static for a period (namely user-set “alarm time” parameter), it will generate the freeze alarm.

Black: when the program video image keeps black for a period (namely user-set “alarm time” parameter), it

will generate the black image alarm.

Color bar: when the program video image keeps color stripe for a period (namely user-set “alarm time” parameter), it will generate the color stripe alarm.

Audio High: when the program volume keeps higher than a threshold for a period (namely user-set “alarm time” parameter), it will generate the high volume alarm.

Audio Low: when the program volume keeps lower than a threshold for a period (namely user-set “alarm time” parameter), it will generate the low volume alarm.

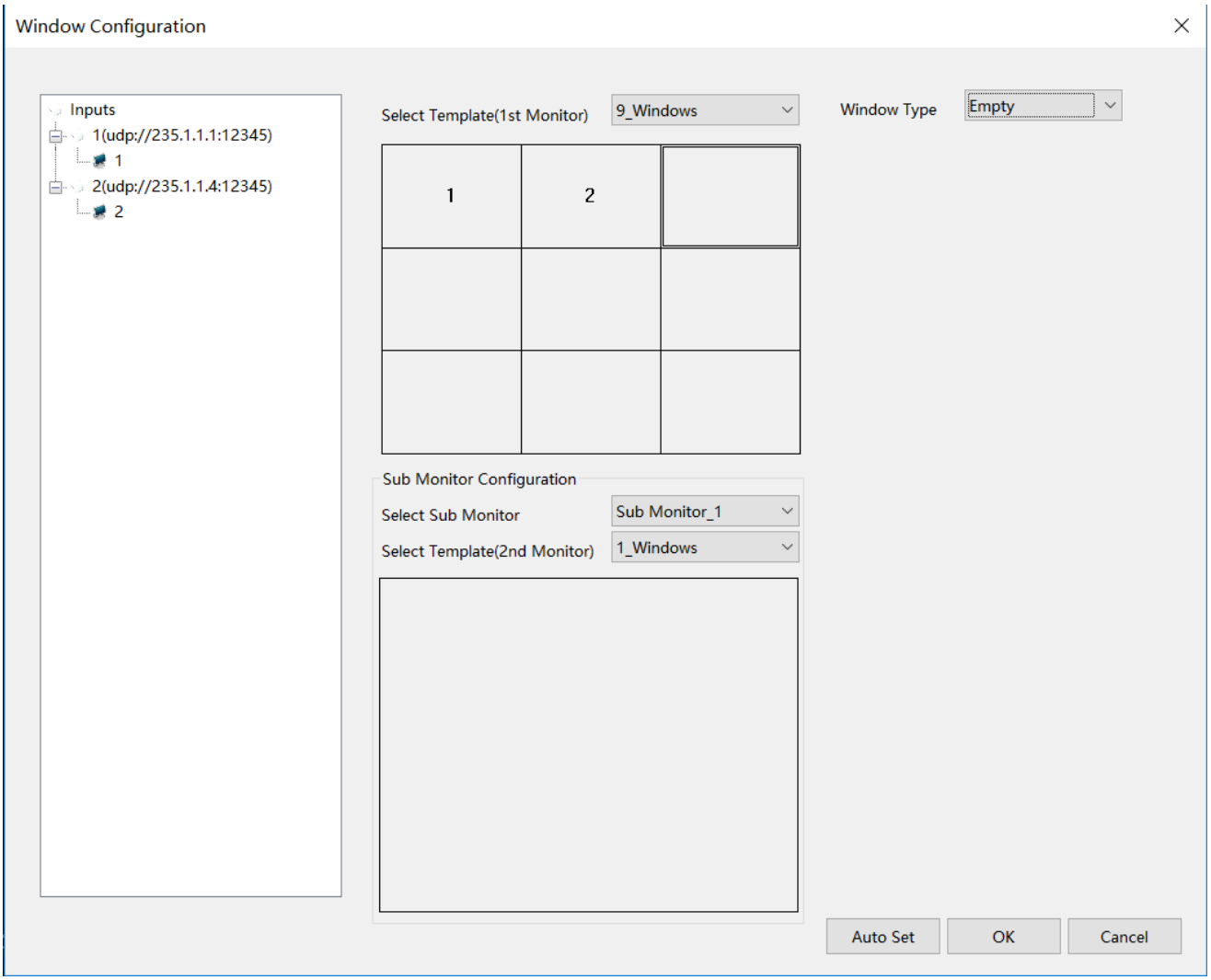
Decode fail: when the video keeps for 10s or the audio decoder cannot decode the input data, it will generate decoding failure alarm. When the input code stream is the scrambled stream or includes incorrect format, it will generate decoding failure alarm.

Video Scrambled: when feeding stream are encrypted, the Bluetop Multiviewer software couldn’t decode.

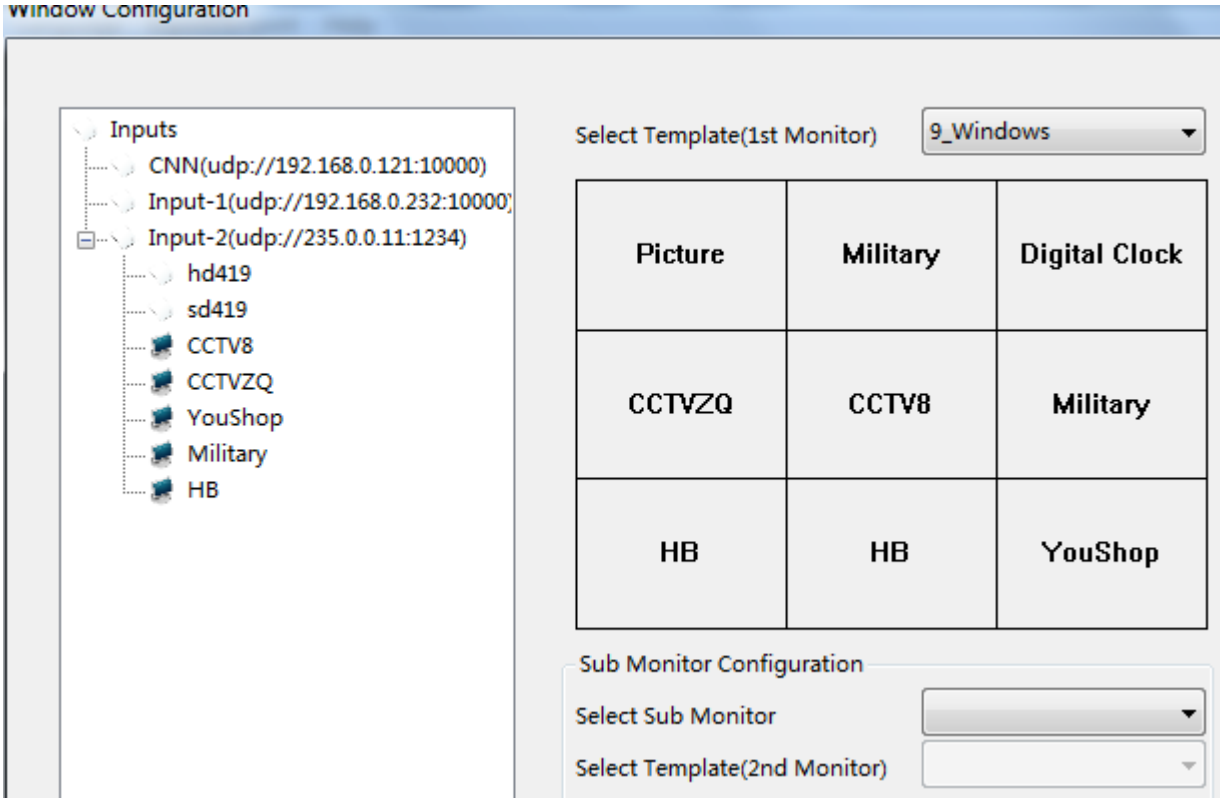
Audio Scrambled: when feeding stream are encrypted, the Bluetop Multiviewer software couldn’t decode.

4.3.4 Window Configuration

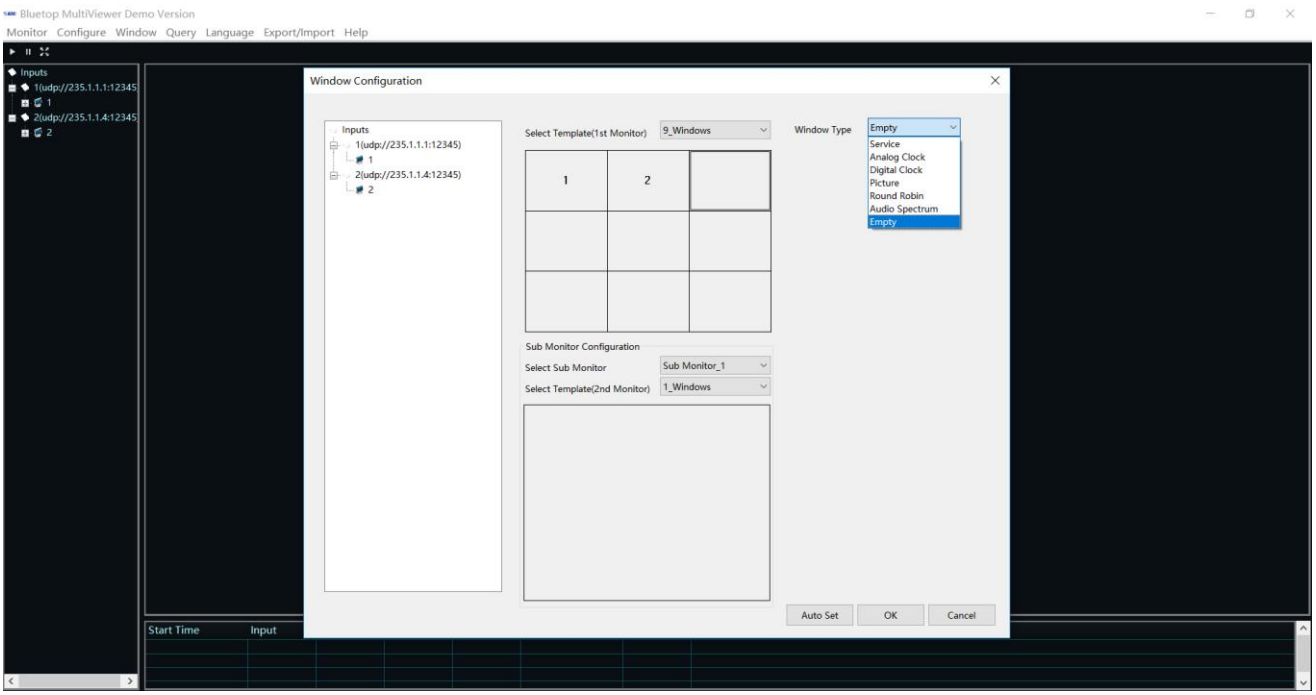
A user can set main screen and save screen image division mode. Besides common audio and video program, the Antik MultiViewer Software can display analog clock, digital clock, static image ,carousel,Audio spectrum. The fixed templates include single image, two images, four images, nine images, twelve images, thirteen images, sixteen images, twenty images, twenty five images, thirty six images. To select a template from the right drop-down of the “Select main screen template”, the following window will display schematic diagram of this template.



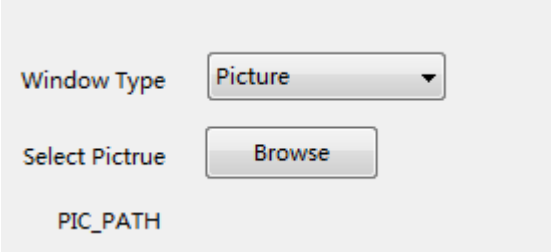
Drag the input service directly into rectangler, or select service type to set

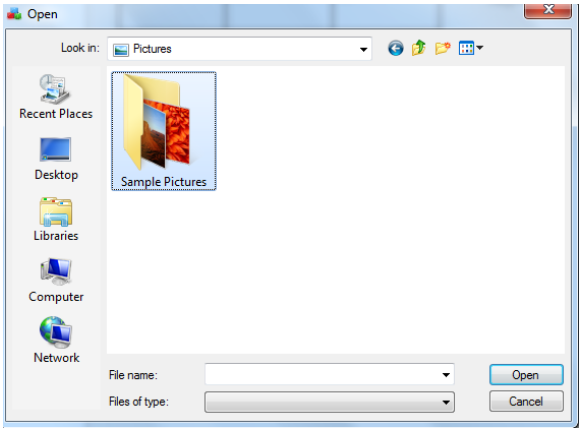


Also support real-time digital or analog clock to window by selecting the digital or analog clock type

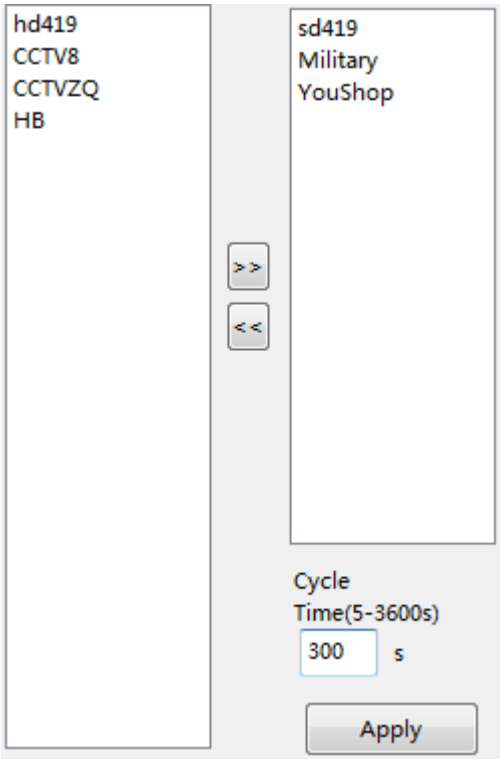


Also support picture shown in window by selecting picture type (bmp, jpg, jpeg, gif and png image)



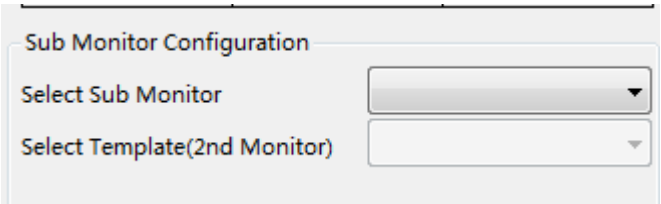


Round Roubin option is also available by selecting service and set thereshold between 5 to 3600secs



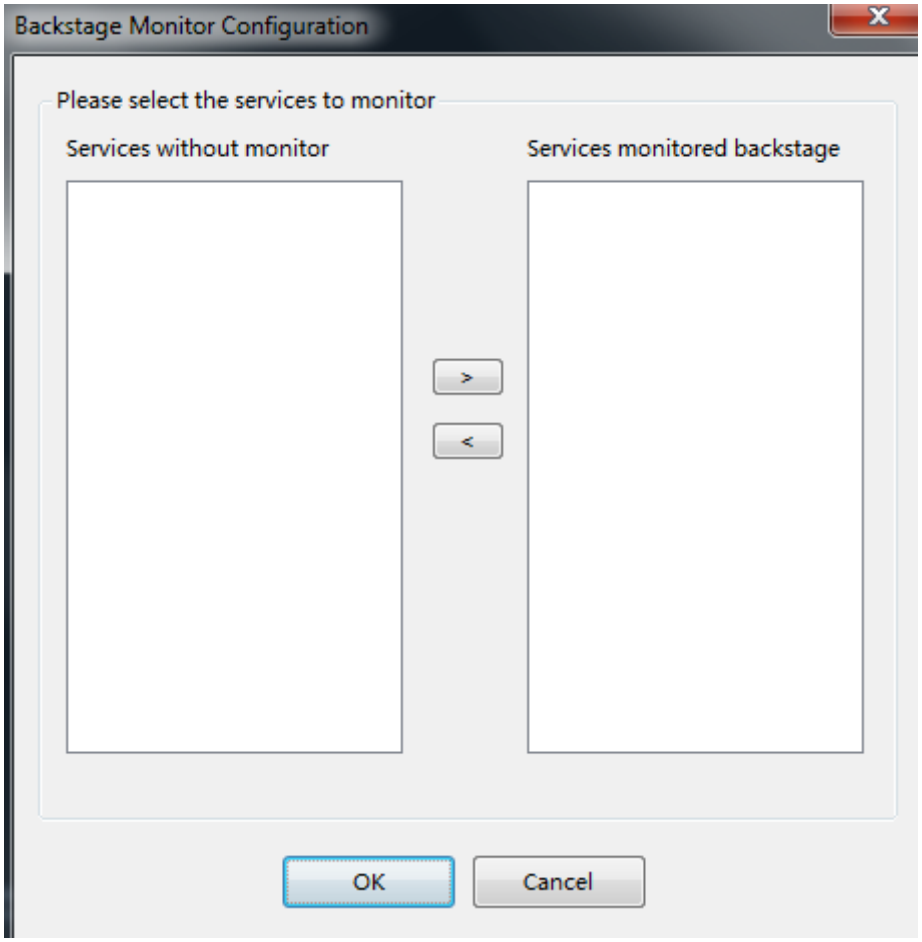
Picture	Military	Digital Clock
CCTVZQ	CCTV8	Military
HB	HB	Round Robin

Split the decoding impages into two different monitors by selecting or dragging services into main monitor and sub monitor (it only enable when server connect with two monitors)



4.3.5 Backstage Monitor Configuration

This option enabled for some service which are not needed to be decoded on window monitor.

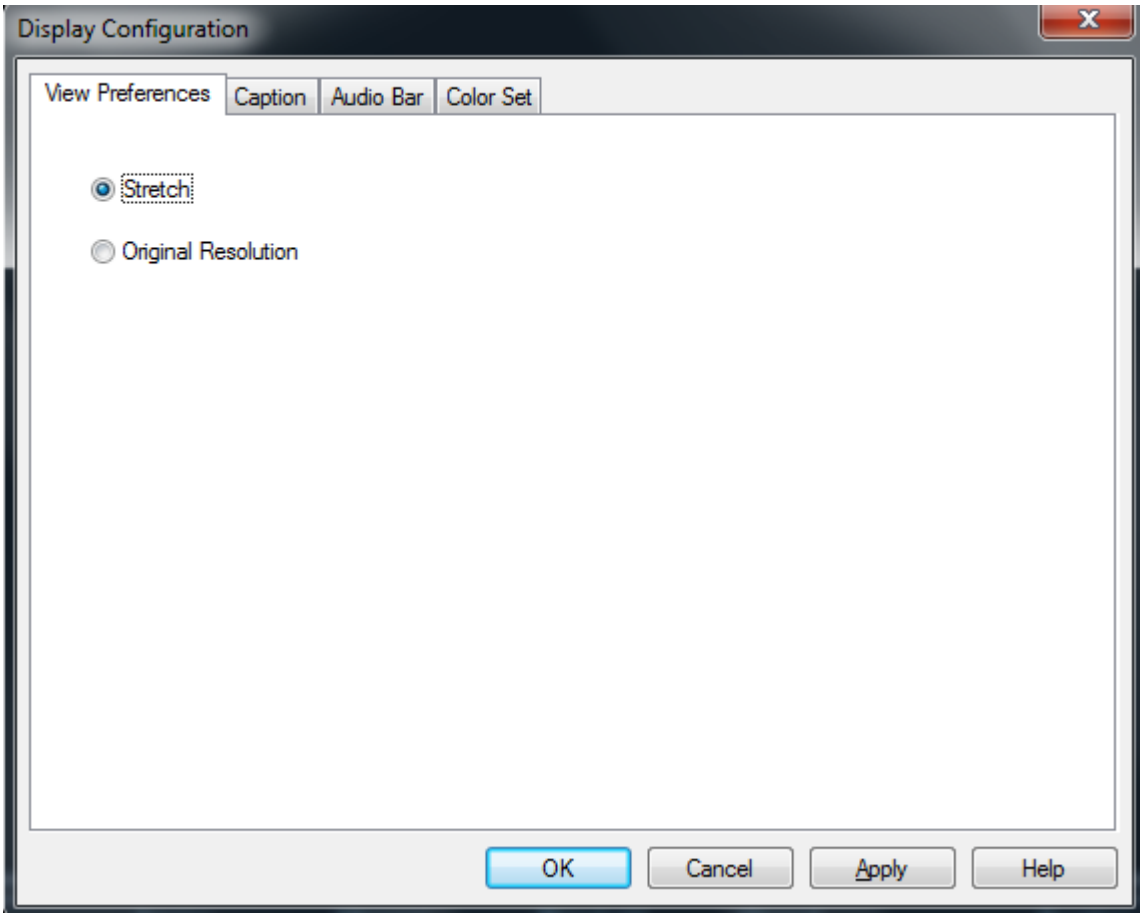


4.3.6 Display Configuration

View Preferrence Tab:

There are two options: Stretch and orignal resolution,

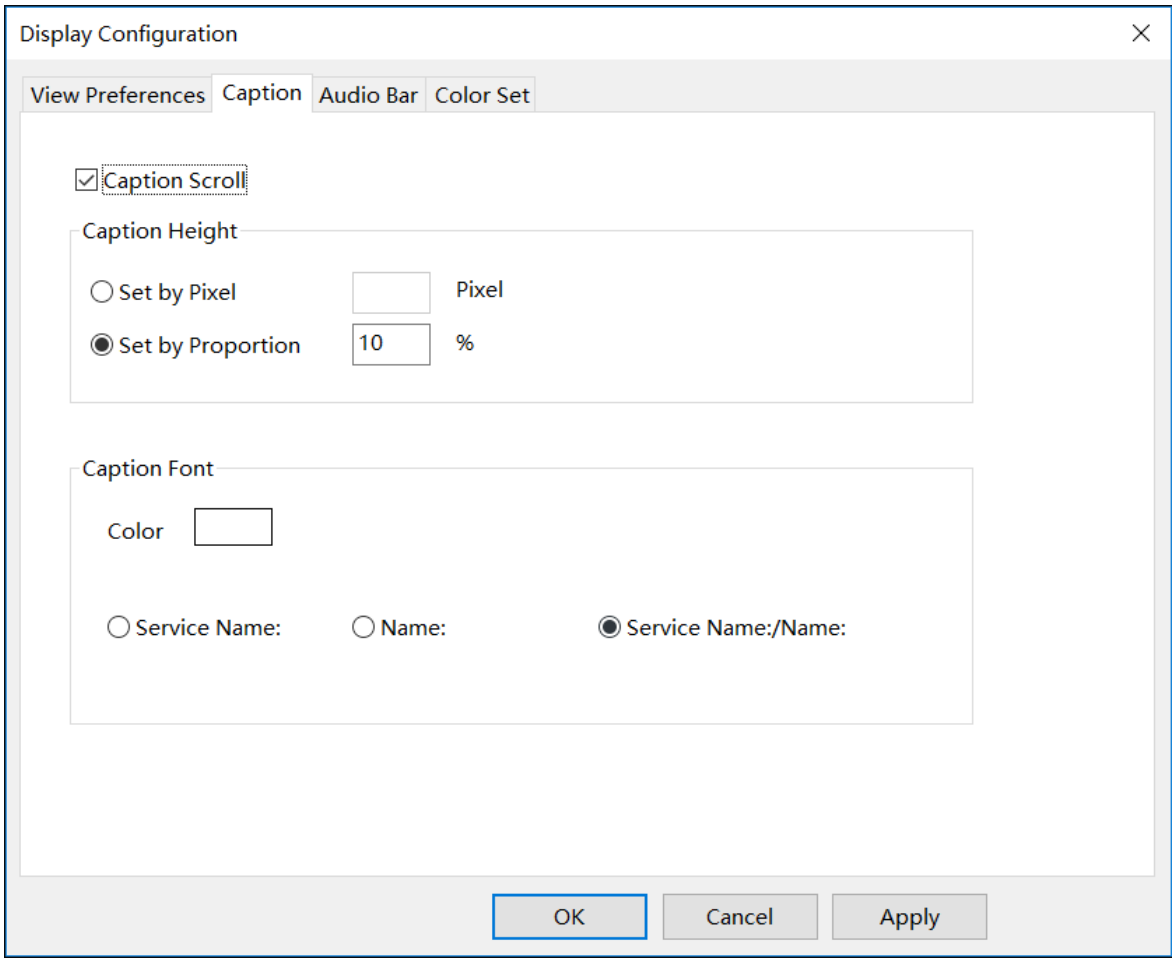
- stretch service to fit 16:9
- Original resolution: use service orginal resolution, if 4:3 would have black aspect border corlor, and set **edge color** in color set tab

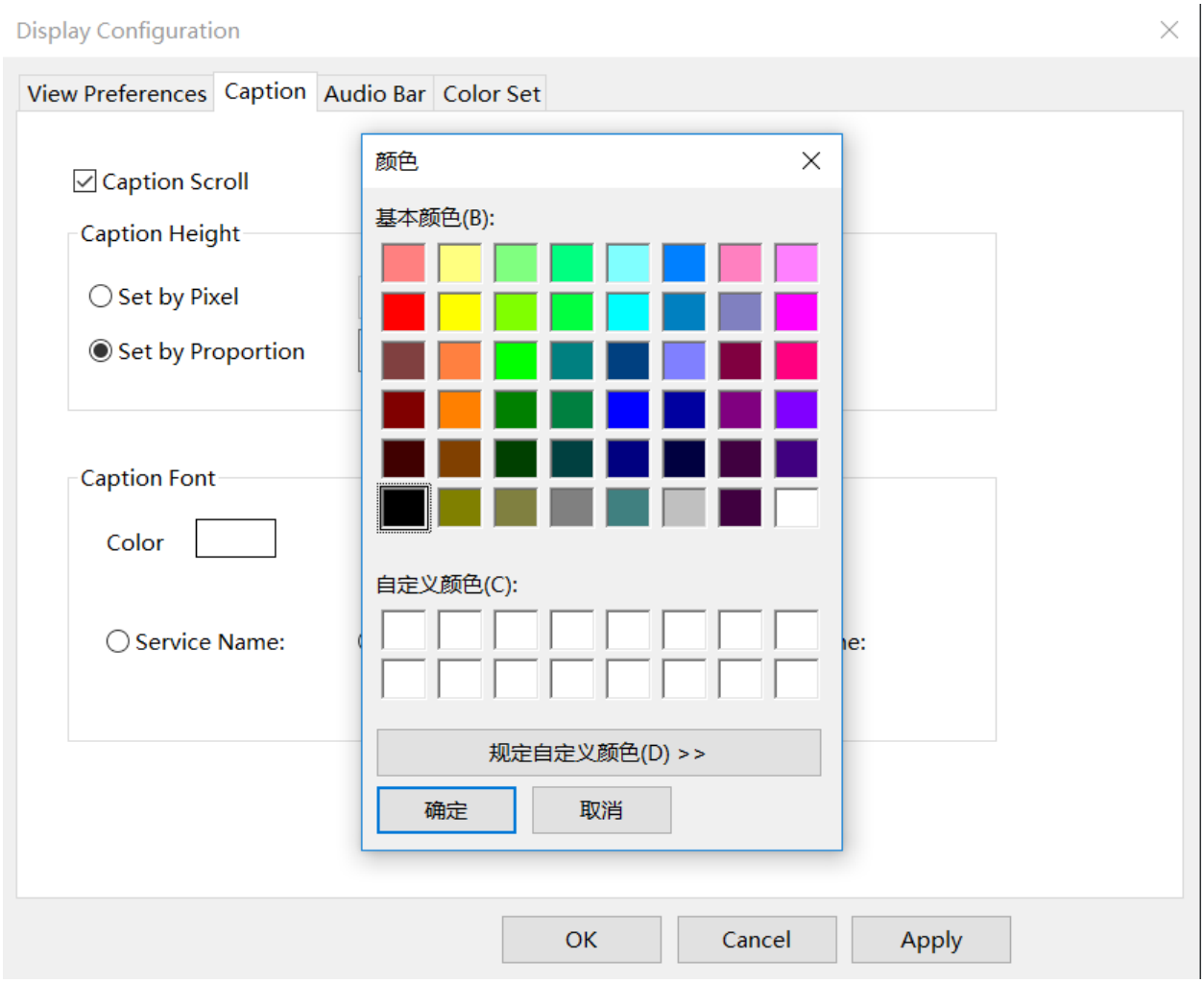


Caption Tab:

Set service name display color, style, font as preferrence

- Caption scroll: the service name text would scrool when tick this box;
- Caption height: set the height by pixel or proportion;
- Caption font: set the color ot service name or just name;

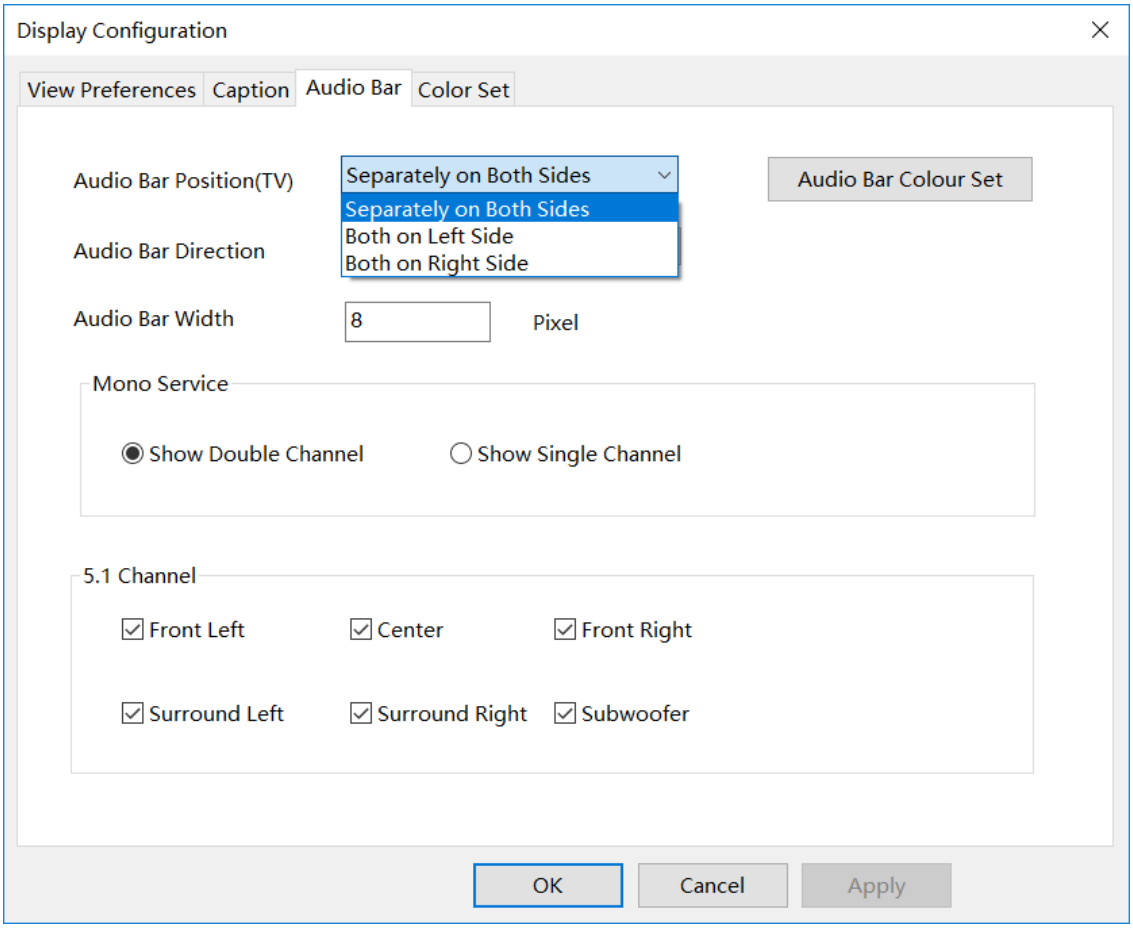

Display Configuration
View Preferences
Caption
Audio Bar
Color Set
Caption Scroll
Caption Height
Set by Pixel
Pixel
Set by Proportion
10
%
Caption Font
Color
Service Name:
Name:
Service Name:/Name:
OK
Cancel
Apply

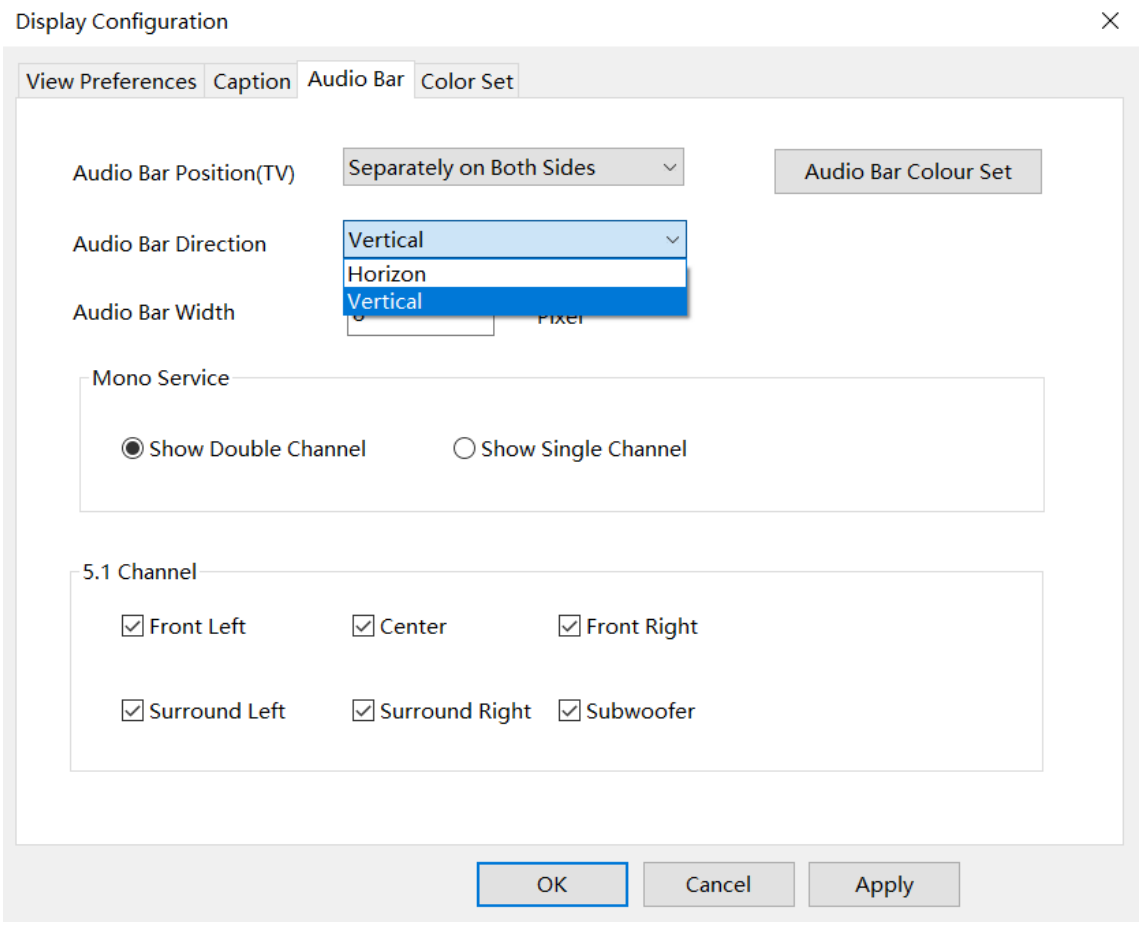


Audio Bar Tab

This tab provide options for audio bar and 5.1 Dobly setting:

- Audio bar postion: set audiobar to bothside, or both on left side,both on right side
- Audio bar direction: set audiobar to horizion or vertical
- Audio bar width: default as 8 pixel, also set 0 to hide
- Mono Service: some service contain two audio PIDs, set decode type by ticking
- 5.1 channel: set the posistion of 5.1 dobly

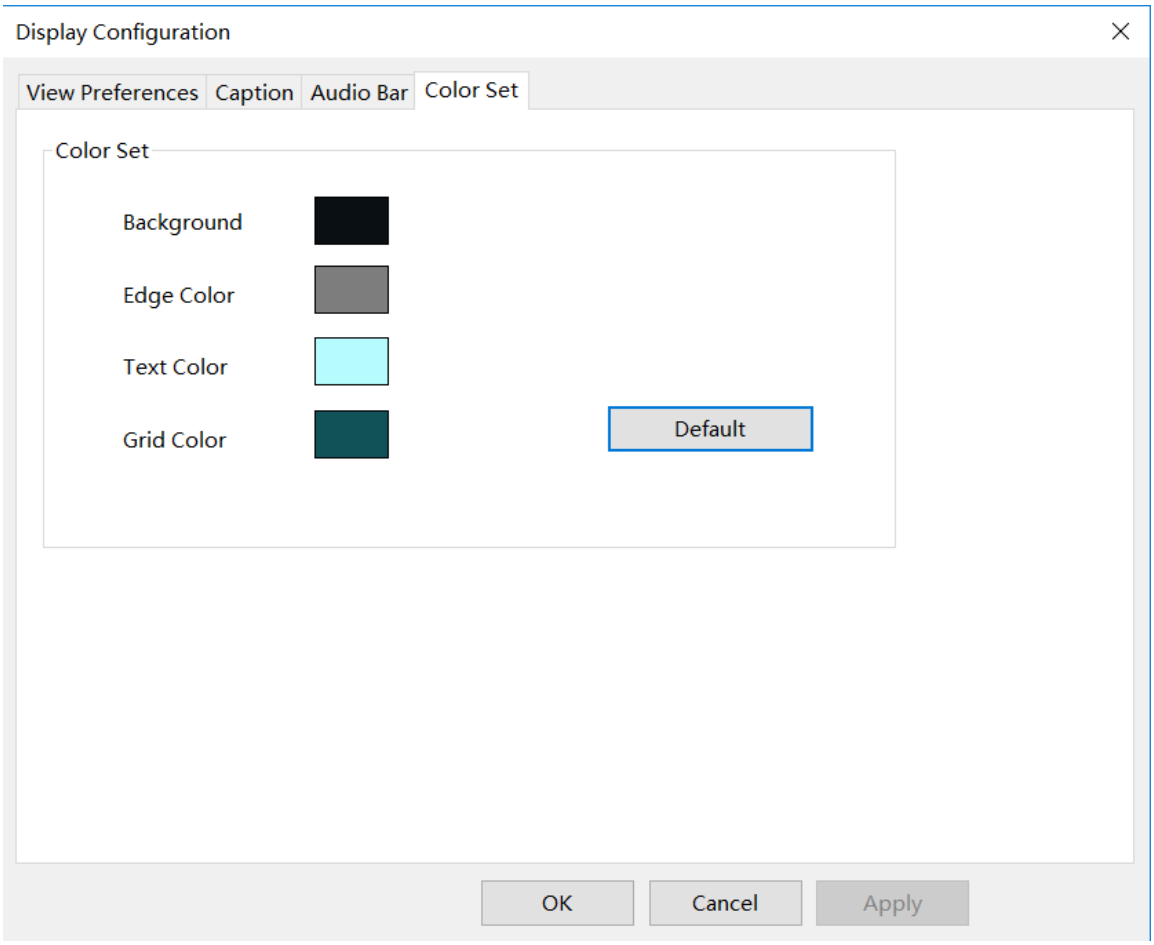

Display Configuration
View Preferences
Caption
Audio Bar
Color Set
Audio Bar Position(TV)
Separately on Both Sides
Separately on Both Sides
Both on Left Side
Both on Right Side
Audio Bar Colour Set
Audio Bar Direction
Audio Bar Width
8
Pixel
Mono Service
Show Double Channel
Show Single Channel
5.1 Channel
Front Left
Center
Front Right
Surround Left
Surround Right
Subwoofer
OK
Cancel
Apply



Color Set Tab:

This tab support color setting for decoding service on window:

- Background: default as black
- Edge: default as grey
- Text:default as blue
- Grid: default as green

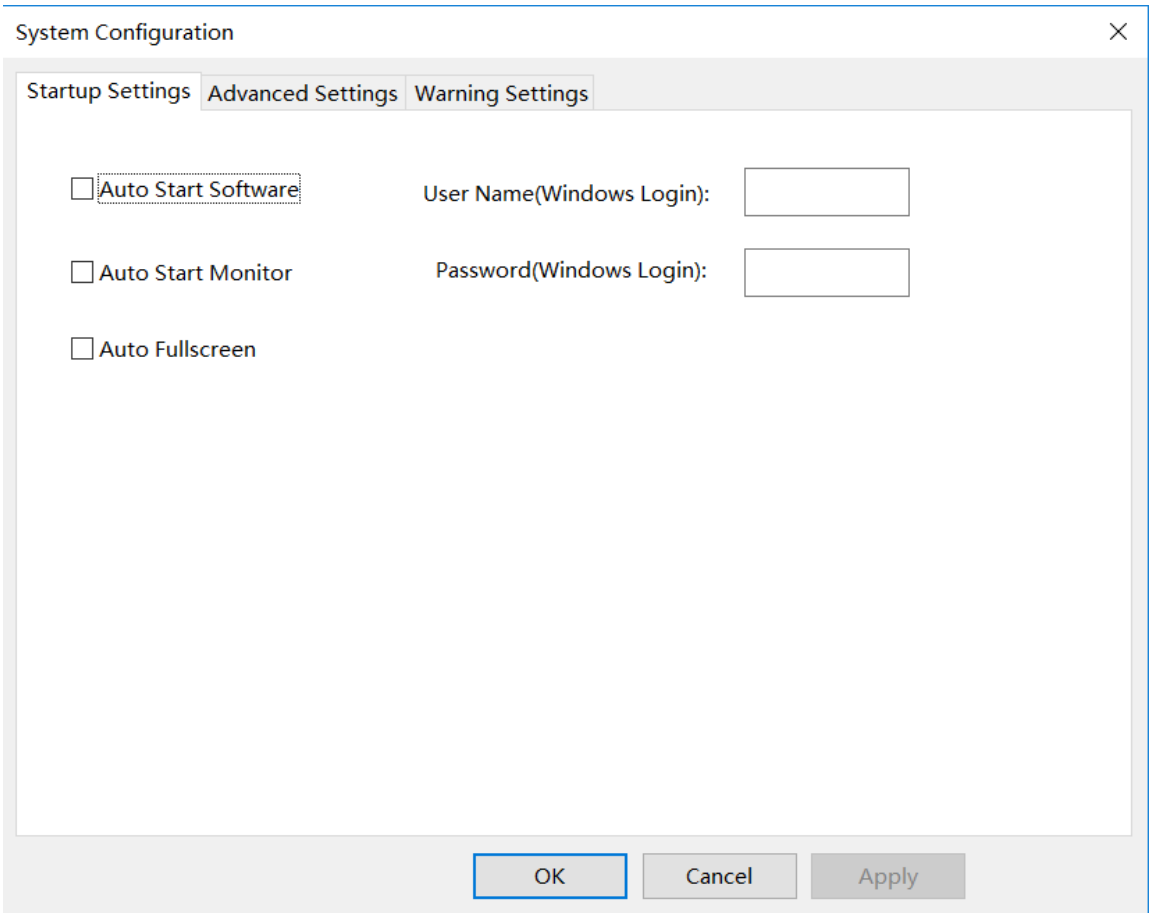


4.3.7 System Configuration

Startup Settings Tab

This tab provide customized launching style of software:

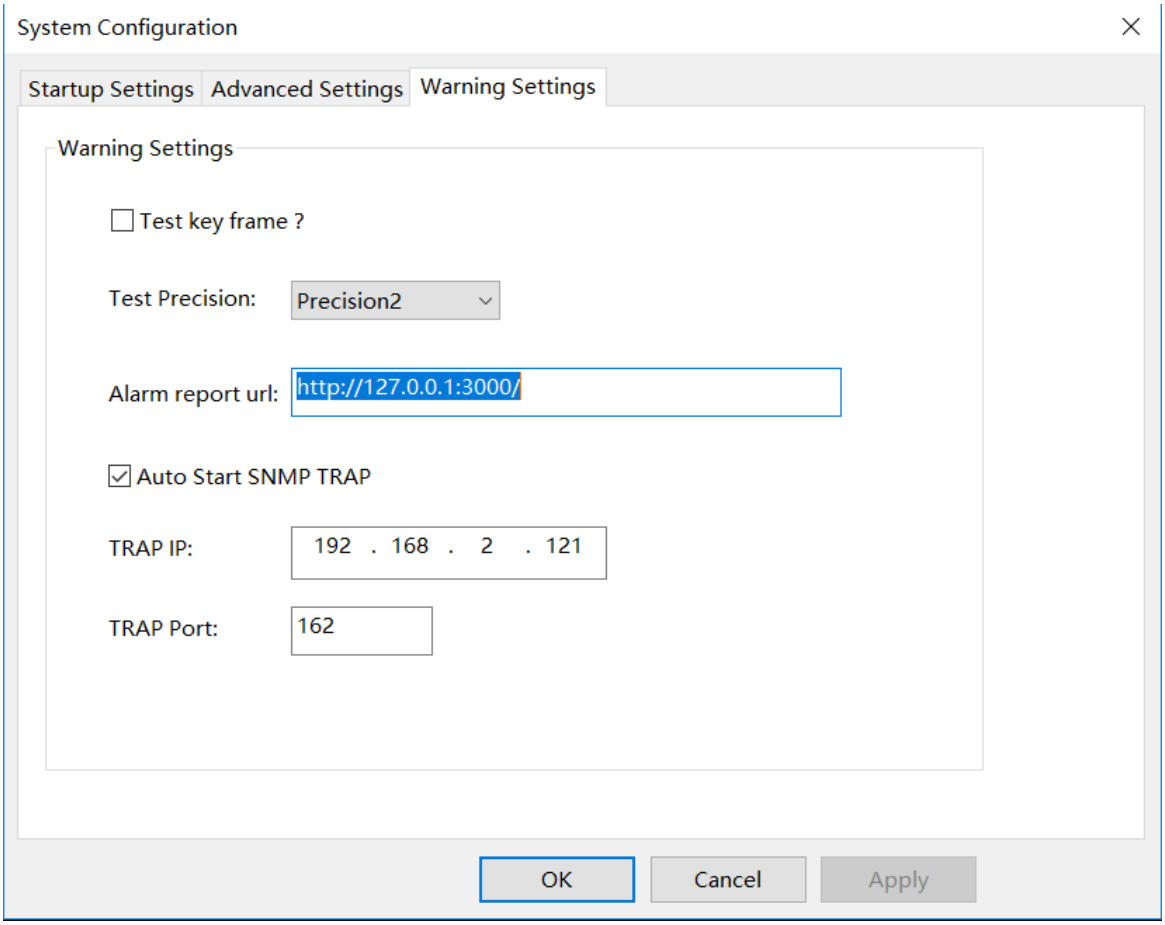
- Auto Start Software
- Auto Monitor
- Auto Fullscreen
- User Name and Password



Alarm Settings Tab

This tab provide alarm log interface with SNMP or HTTP to 3rd party

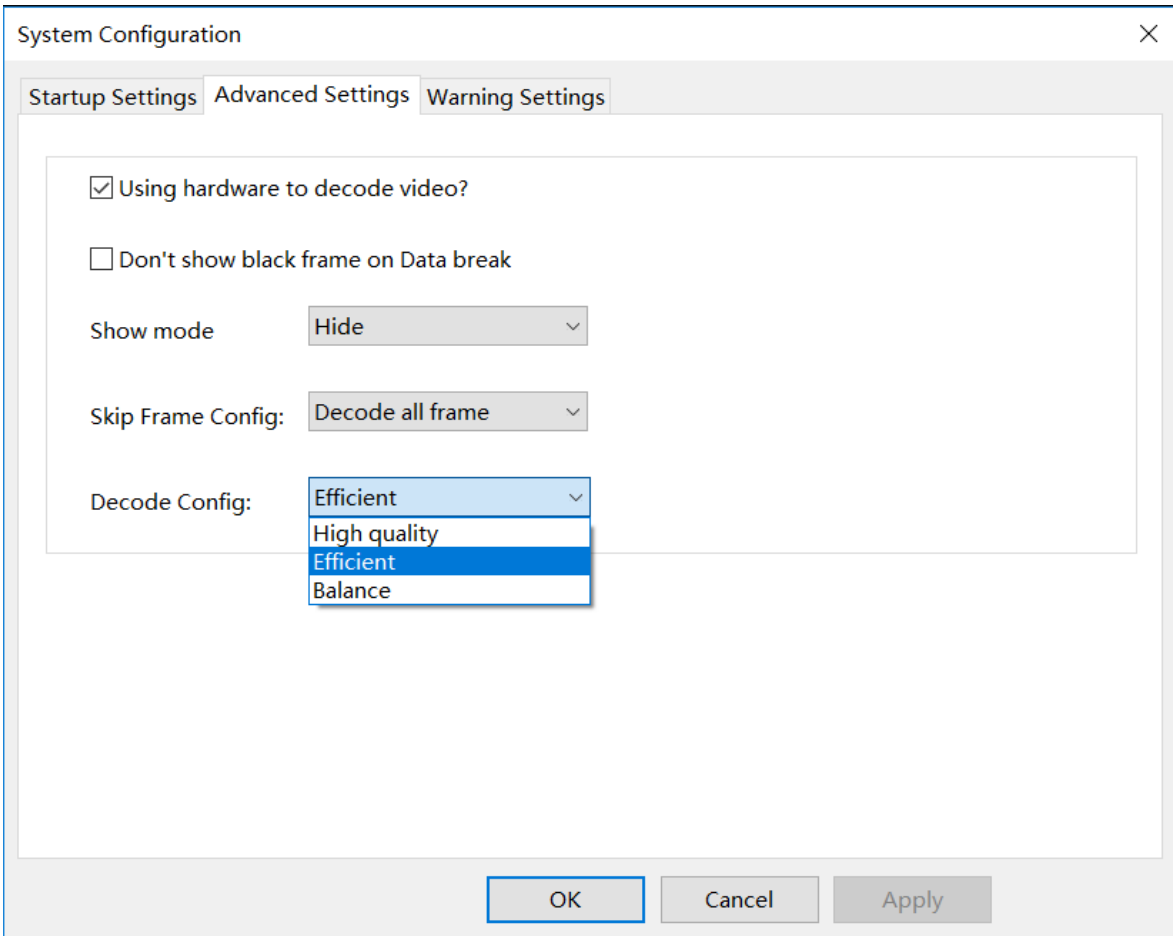
- Whether to monitor only key frames
- Video monitoring accuracy： Default precision 2
- HTTP
- SNMP trap



Advanced Settings Tab

This functional tab provide H.264 format service's decode efficiency in order to save CPU capacity:

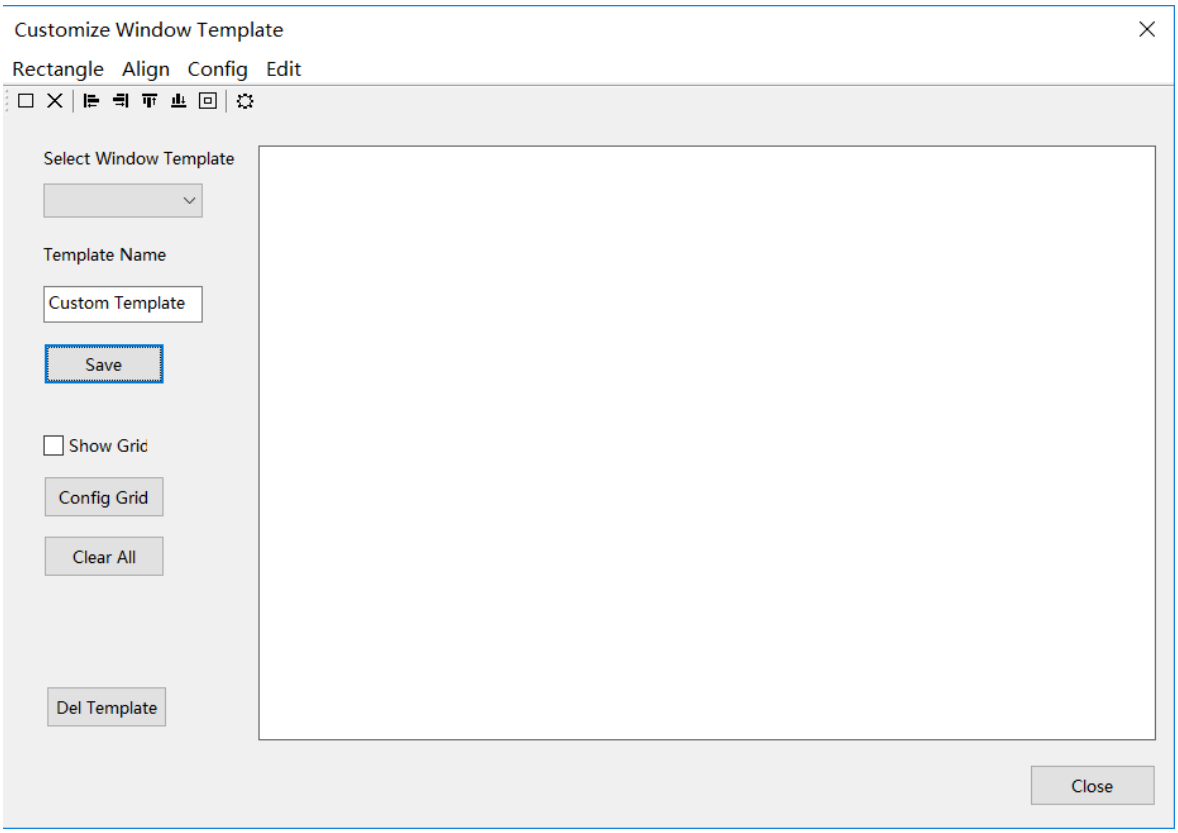
- Using hardware to decode video?---Decoding method: hardware or software.
- Don't show black frame on Data break---Display the last frame when the signal is interrupted.
- Show mode---How child processes are displayed:Hide,Mini,Max.
- Skip Frame Config:Decocde all frame,Decode I frame only.
- Decode Config:High quality,Efficient,Balance



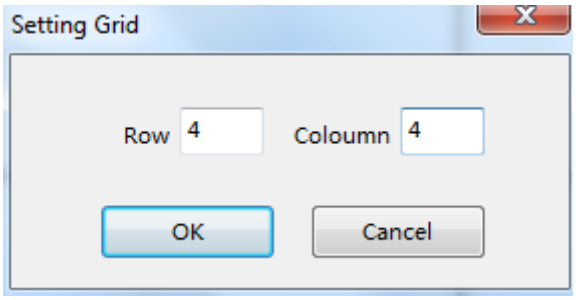
4.4 Window

4.4.1 Customize Window Template

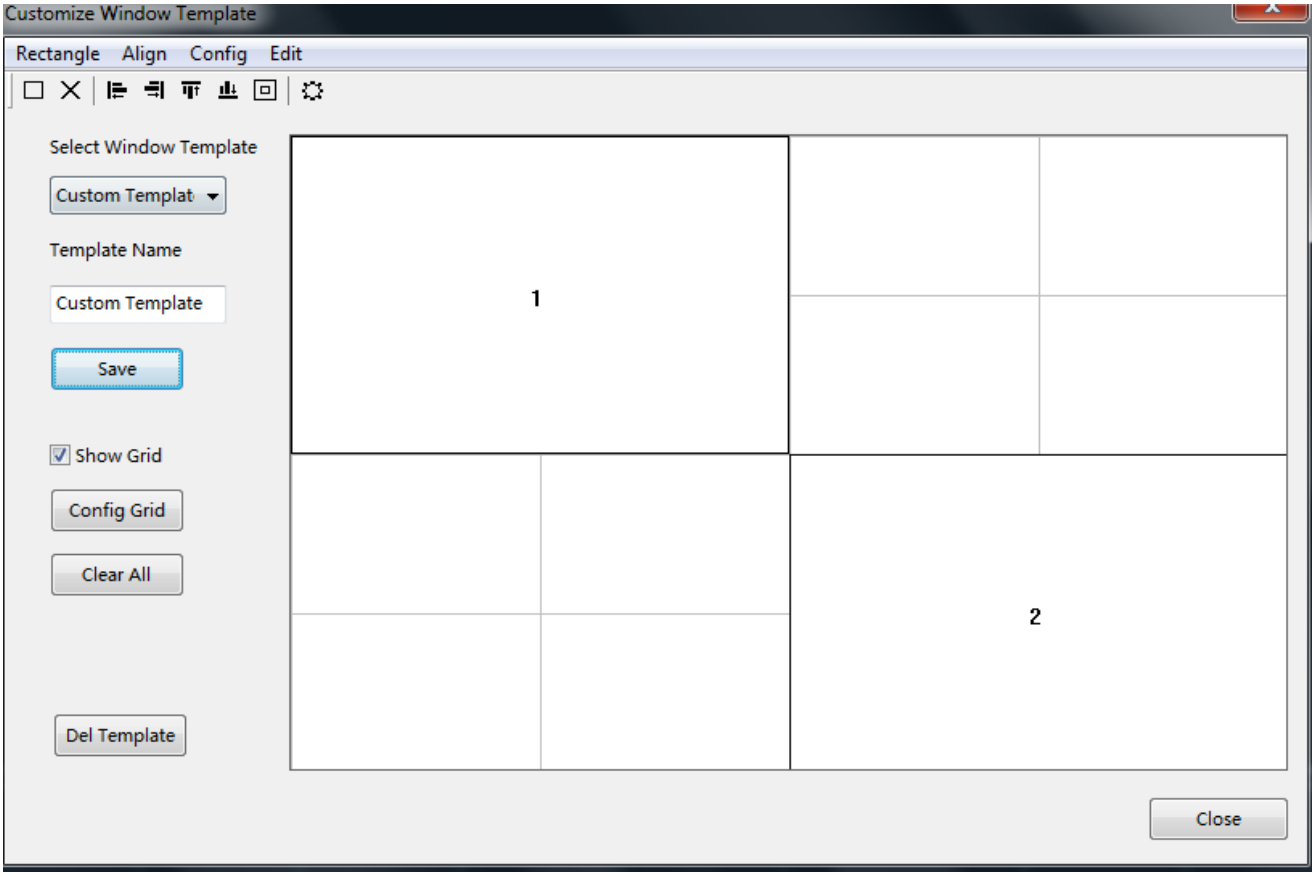
Layout Tool: This tool could support draw window much more easier and flexiable.



A user can draw the image template at will on demand. Select a customize template from the right drop-down of the “Select customize template”(The template name cannot use the number in the existing template name alone: for example, if there is a template with 9 screens, the new template cannot be named 9), set grid’s row and column and shown as below:

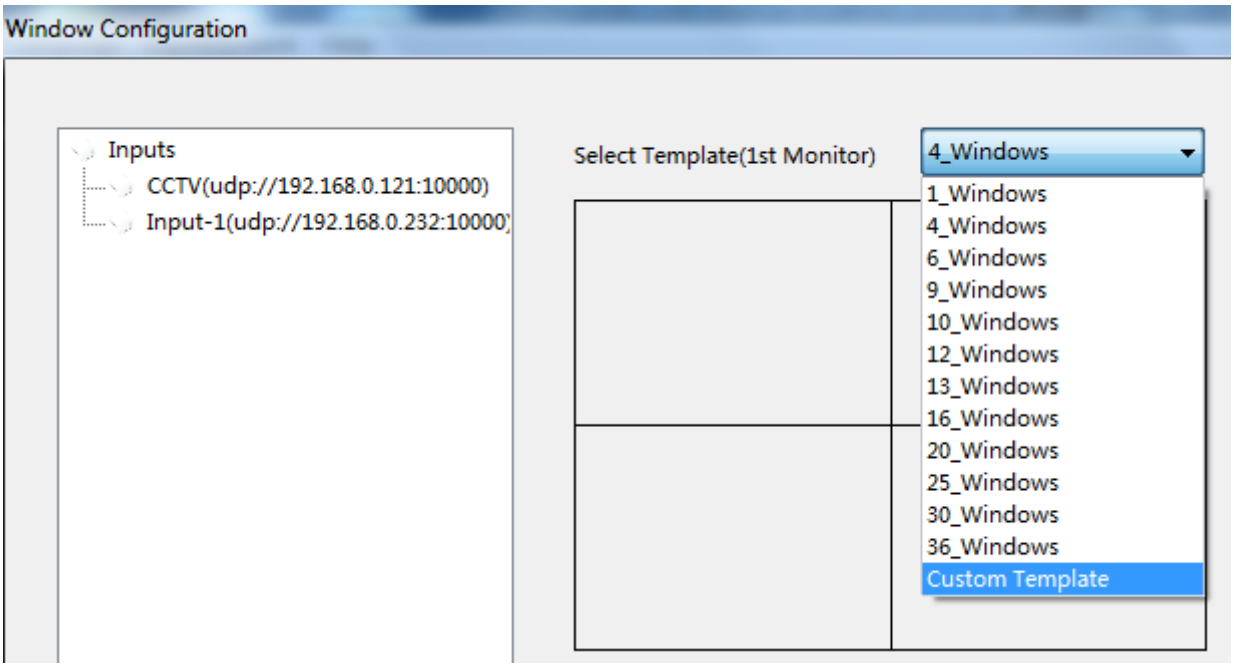


Click to define rectangular:



To click butotn, you can start to draw a template. To click and drag the mouse, you can draw the image rectangle.

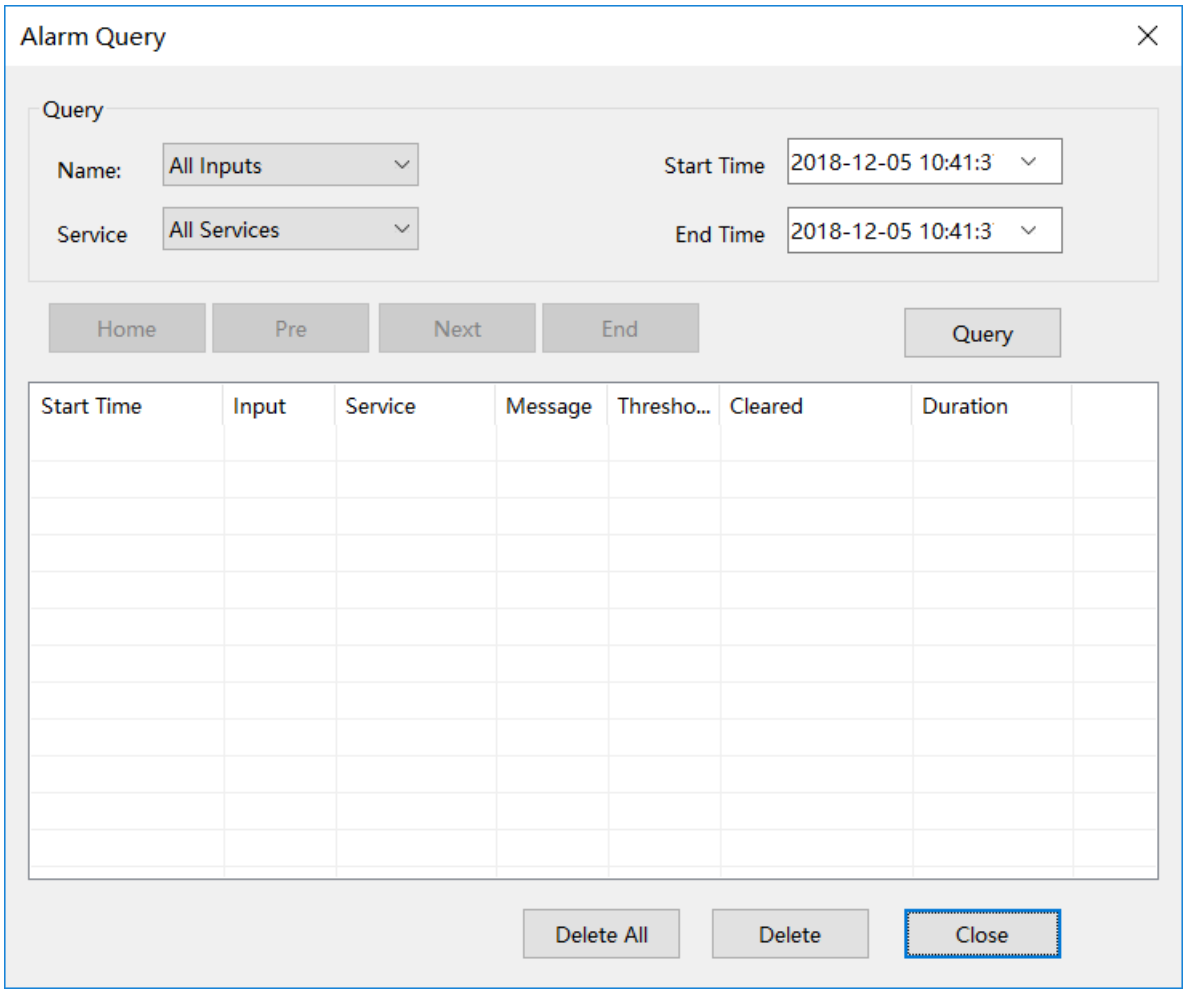
To click button, the customized template would be saved and auto shown in window configuration:



4.5 Query

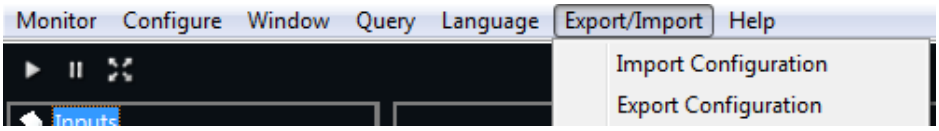
4.5.1 Alarm Query

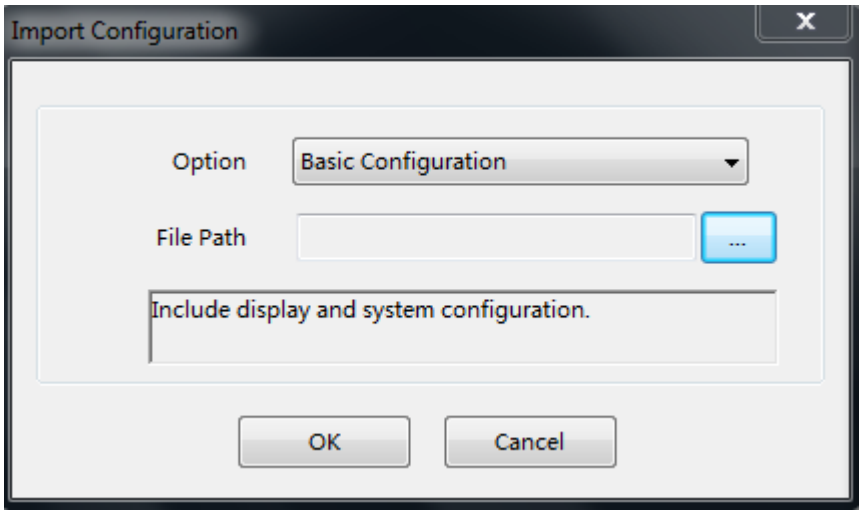
Click Query button and search the alarm by service, name, in a certain period time, shown as below:

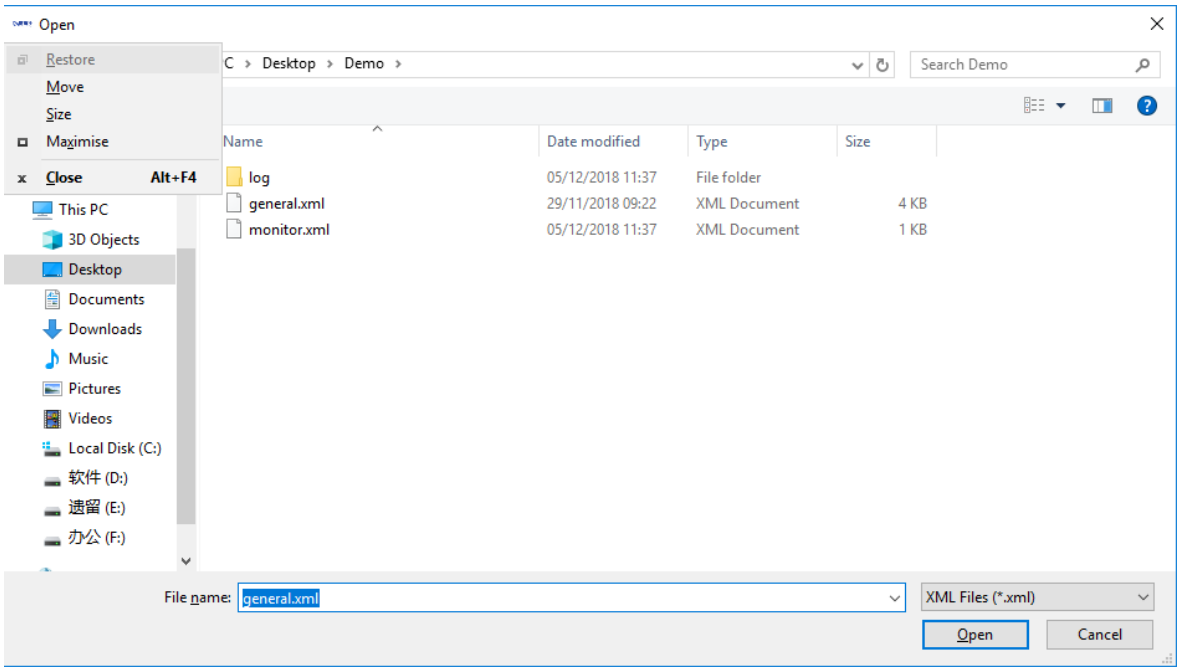


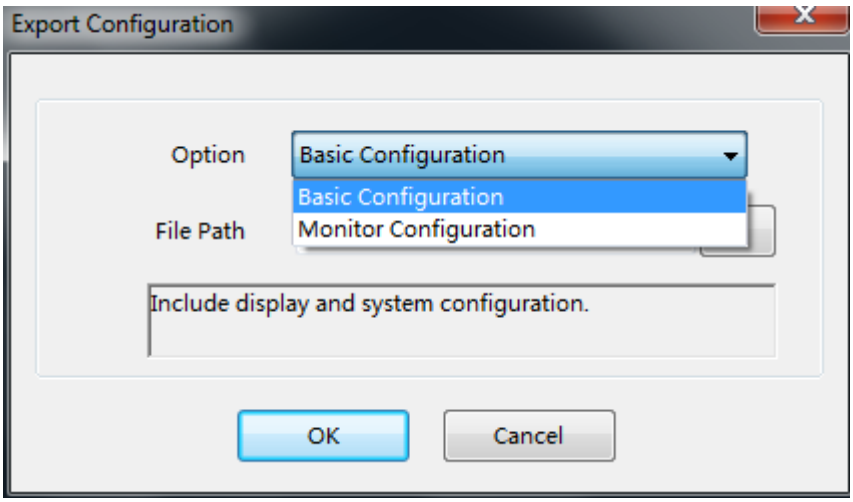
4.6 Import/Export

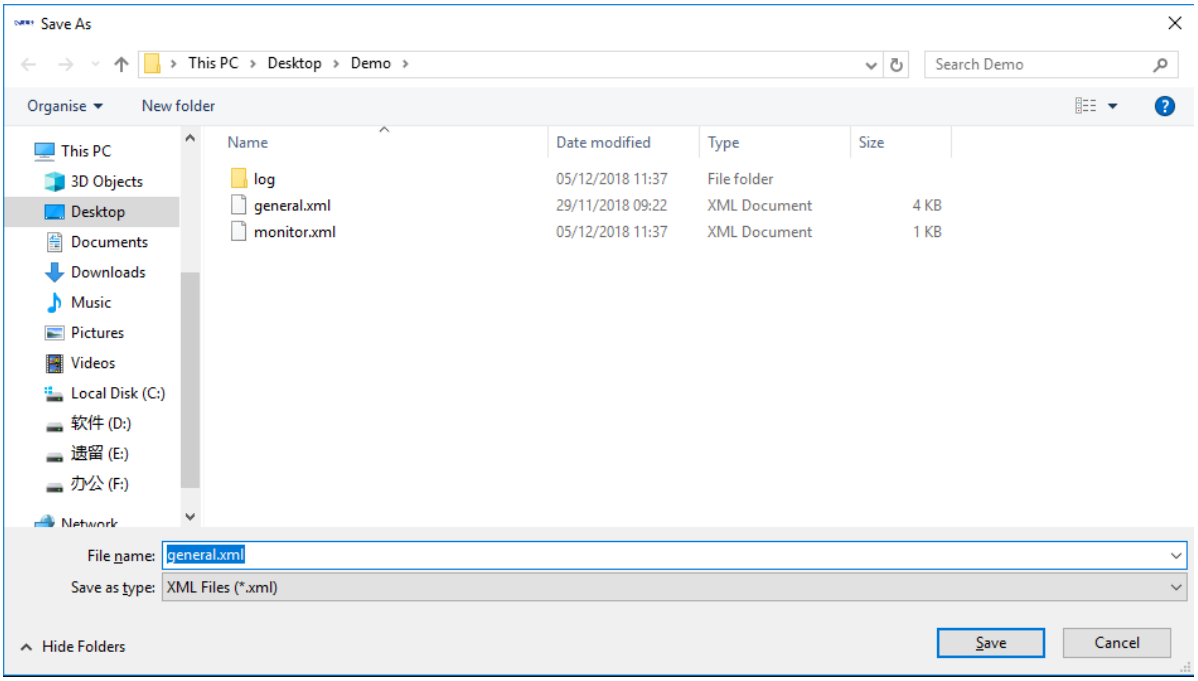
Import/export page is designed for saving “basic configuration”, “monitor configuration” into XML files, or import/load these configurations from XML file, shown as below:




Import Configuration
Option
Basic Configuration
File Path
...
Include display and system configuration.
OK
Cancel


Open
Restore
Move
Size
Maximise
Close Alt+F4
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
软件 (D:)
遗留 (E:)
办公 (F:)
C › Desktop › Demo ›
Search Demo
Name
Date modified
Type
Size
log
05/12/2018 11:37
File folder
general.xml
29/11/2018 09:22
XML Document
4 KB
monitor.xml
05/12/2018 11:37
XML Document
1 KB
File name: general.xml
XML Files (*.xml)
Open
Cancel


Export Configuration
Option
Basic Configuration
Basic Configuration
Monitor Configuration
File Path
Include display and system configuration.
OK
Cancel

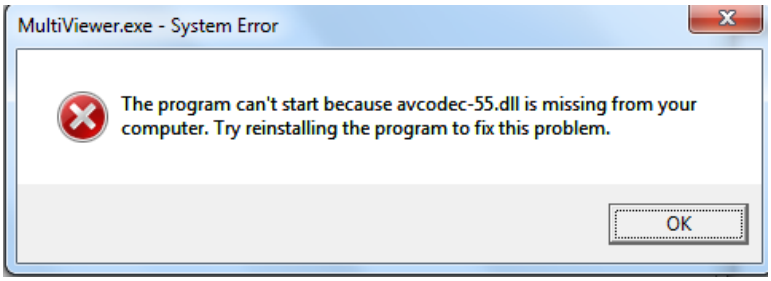
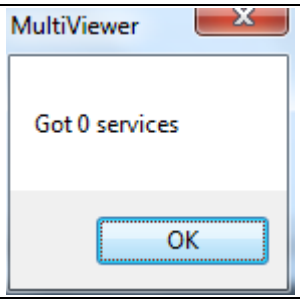

Save As
This PC › Desktop › Demo ›
Search Demo
Organise
New folder
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
软件 (D:)
遗留 (E:)
办公 (F:)
Network
Name
Date modified
Type
Size
log
05/12/2018 11:37
File folder
general.xml
29/11/2018 09:22
XML Document
4 KB
monitor.xml
05/12/2018 11:37
XML Document
1 KB
File name:
general.xml
Save as type:
XML Files (*.xml)
Hide Folders
Save
Cancel

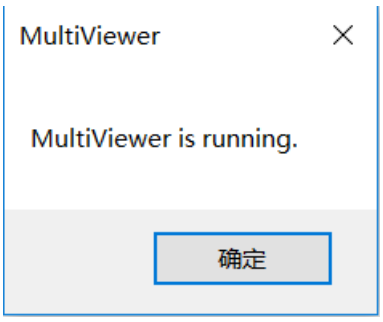
Chapter V Radio Program Monitoring

5.1 Radio program monitoring

Antik MultiViewer Software also supports radio program monitoring. When “Analyze All”, the MultiViewer Software will automatically analyze whether the program is a radio program in the stream. For a radio program, the software will display left and right volume bar and can monitor the audio loss, high volume and low volume, shown as below:

Chapter VI Troubleshooting

Error Pop-Up Window or Message	Solution
	Installation not successful, please uninstall the software and reinstall.
	No valid Video PID or Audio PID detected from feeding stream
	Seriously Mosaic might be caused by CPU capacity overloaded, check the hardware configuration of Mosaic server
	Black window might be caused by encrypted stream, please confirm the stream is free or not
Error Message: “Cannot connect to database”	Please refer MySQL database installation steps
Error Message: “Invalid License”	Please contact Bluetop or reseller to renew the license file.

	The software has been opened, please do not open it again. If you can't find the software that has already been opened, please close the MUltiViewer process and re-open it in the task manager in the windows system.

ANTIK Technology

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