

Chapter1 Appendix B: Manual of Virtual Matrix

1.1 Introduction

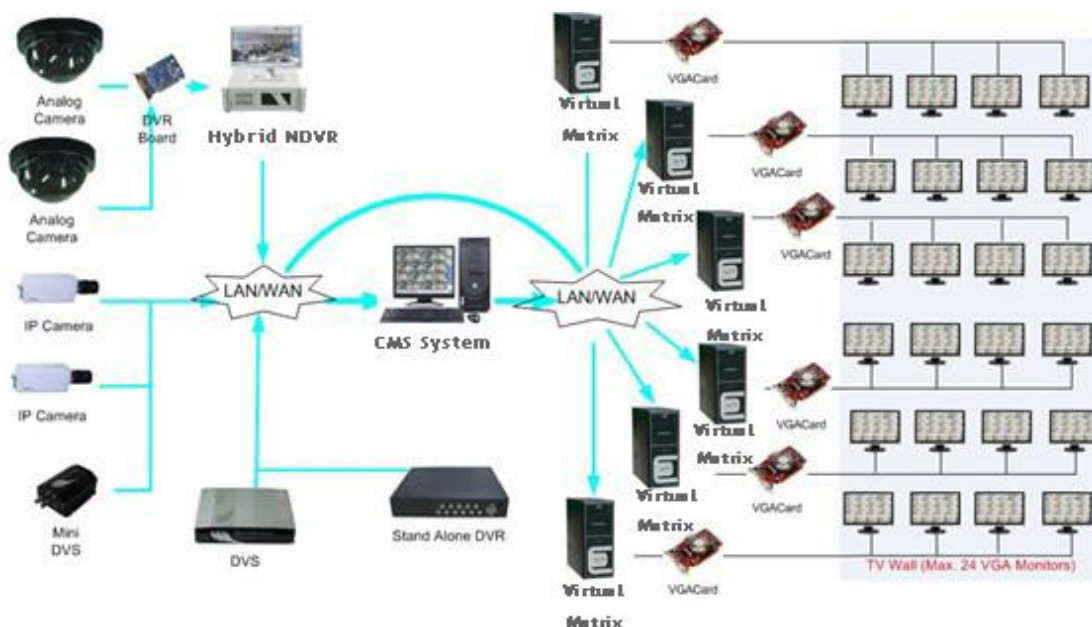
1.1.1 Virtual Matrix Introduction

Virtual Matrix, a pure IP based network Decoding & Matrix platform, is integrated to support multi-monitor for TV wall function. By using this platform, user can decode all IP videos, such as video from HYBRID NDVR, stand alone DVR, DVS and IP cameras (any brands supported by our software).

Virtual Matrix is made up of server end and client end. Its sever is added into CMS to support centralized management, including setting connection port, setting matrix output and display for each TV client and controlling PTZ etc. Its client ends run on independent computers.

User can connect as many as 24 monitors to TV clients. Of course, it needs your video card in TV client system supports multi-monitor when you want to connect more than one monitors on a PC.

The frame diagram of application is as below:



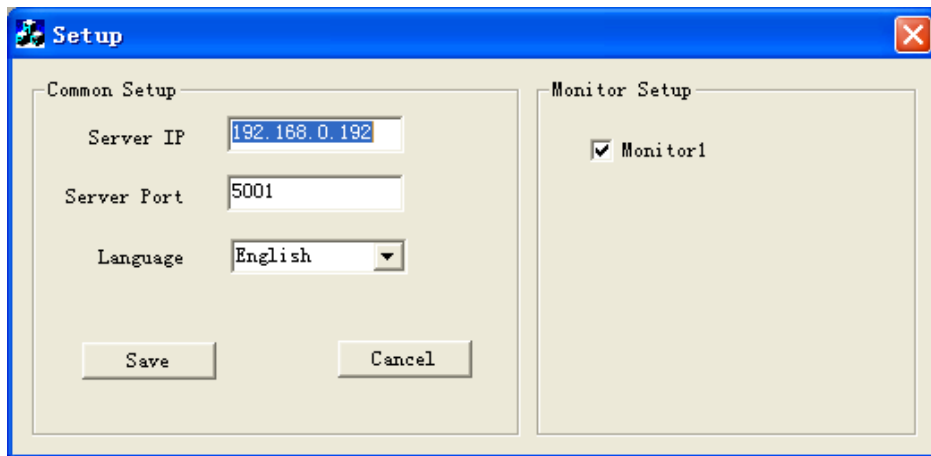
1.1.2 Preparation

Installation

You have to install CMS Client (the sever end of Virtual Matrix) and TV client (the client end of Virtual Matrix) on different PC.

The way to install CMS is the same as before. So we will only introduce how to install TV client here.

Double click shot icon to run TV client installation program. And then, follow the prompt to continue the installation. When the GUI shown as below displayed, fill the CMS IP in "Server IP". Take "192.168.0.192" as example. Select your desired language between "English" and "Chinese". "Server Port" here should be the same with "Listen Port" in CMS Virtual Matrix Setup. It's 5001 by default. Then, press "Save" to finish the information filling. At last, press "Finish" to complete the installation.



When it's done, this icon will be displayed on the desktop. Double click it to run the program.

Also, you can fill the server IP later after you finished the installation.

When you want to change the sever IP to others, you have to run "TVsetup.exe" in installed folder to change the IP.

Multi-monitor Setup

Please refer to Dual Monitor Manual for details.

So far, the operations at TV client side are done.

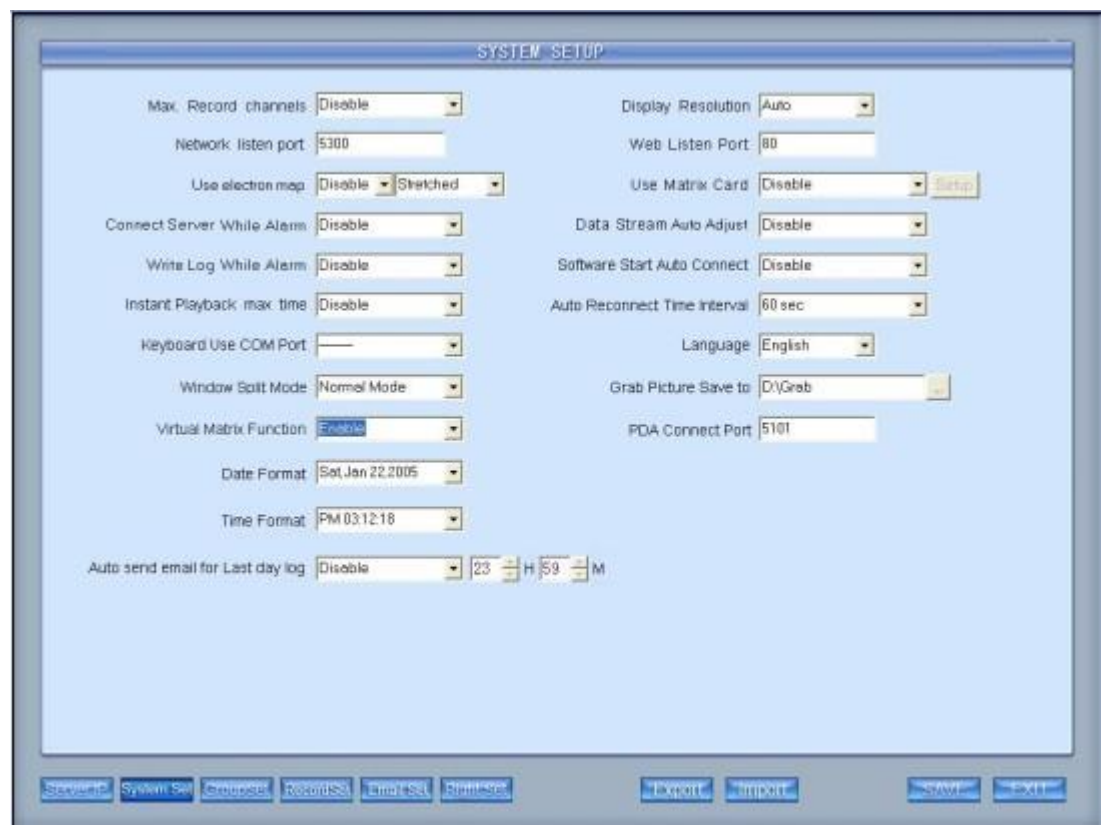
By default, there will be four black windows on each monitor when you run TV client the first time.

1.2 Setup

All the settings can be done in CMS Client, the sever end of Virtual Matrix Client end is mainly used to view videos.

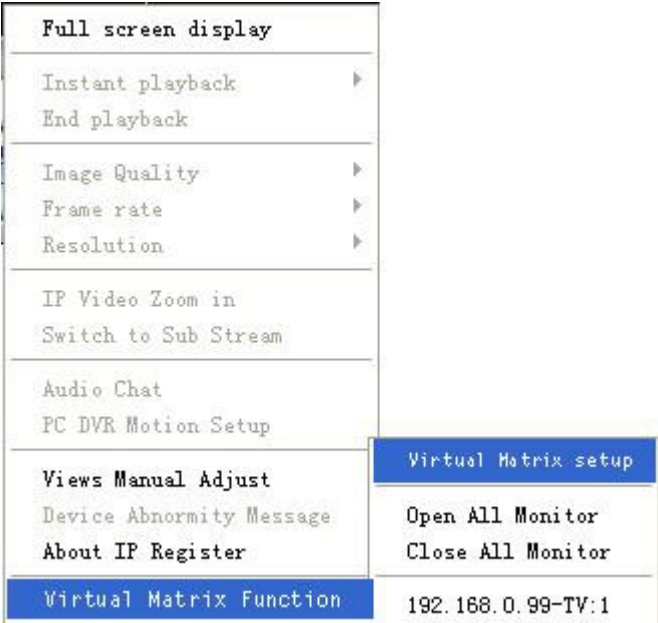
First of all, user has to enable Virtual Matrix Function in CMS system

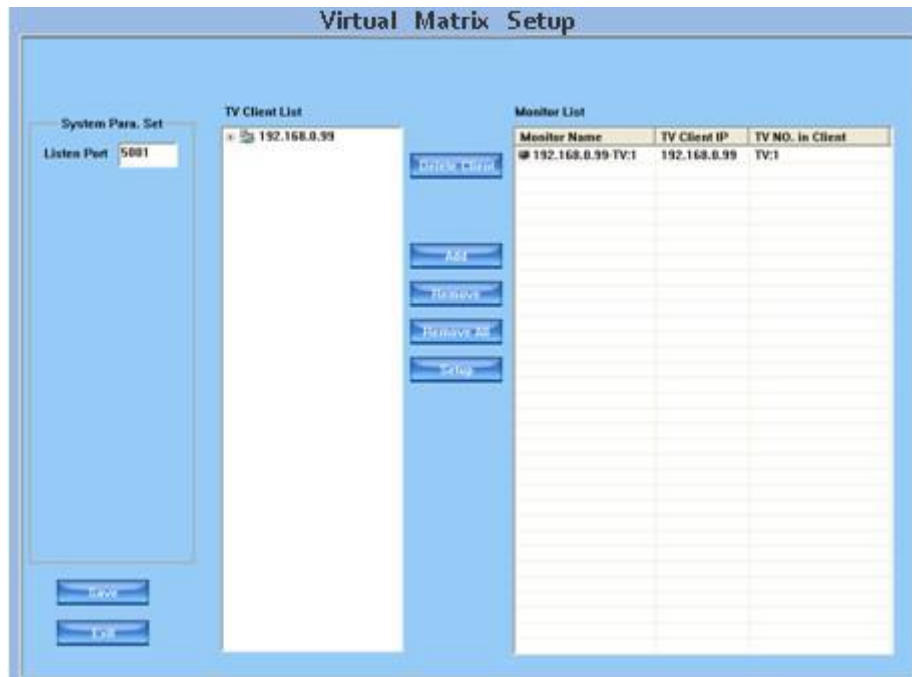
setup. Shown as below:



1.2.1 Monitor Setup

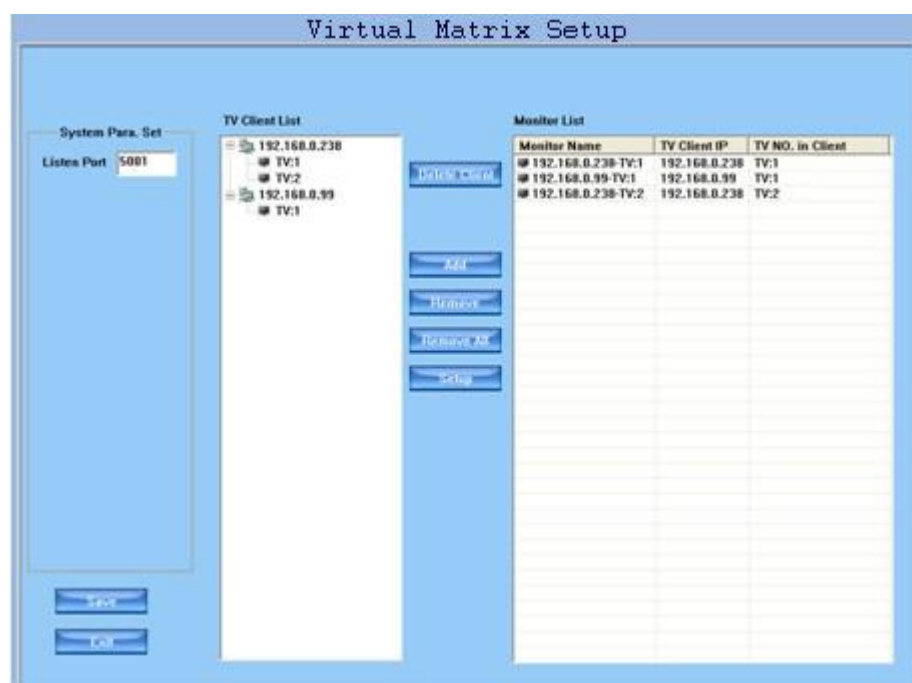
Single-Right-Click in any window, the menu as below will be displayed. Click “Virtual Matrix Function”→ “Virtual Matrix Setup” to enter Virtual Matrix Setup.





The IP “192.168.0.99” here is one of the PC you installed TV client on. After you filled the CMS IP “192.168.0.192” (the sever end, mentioned before) in login interface when running TV client, its IP will be displayed here automatically.

“TV: 1” is the main monitor in TV client. When there are dual monitors, the second monitor will be shown as “TV: 2” here.



Group Setup

Double click one TV monitor in the “Active Monitor List” to enter “Monitor

Setup” displayed as below.

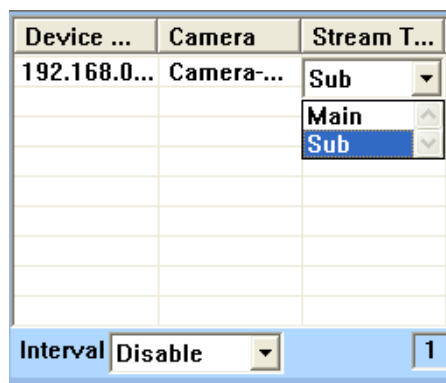
You can set as many as 16 groups for each TV monitor.



Select a group from the drop-down list to set it. You can define its name and partitions. The changed group name will be activated after software restarted. There are 1, 4, 9 and 16 partitions modes.

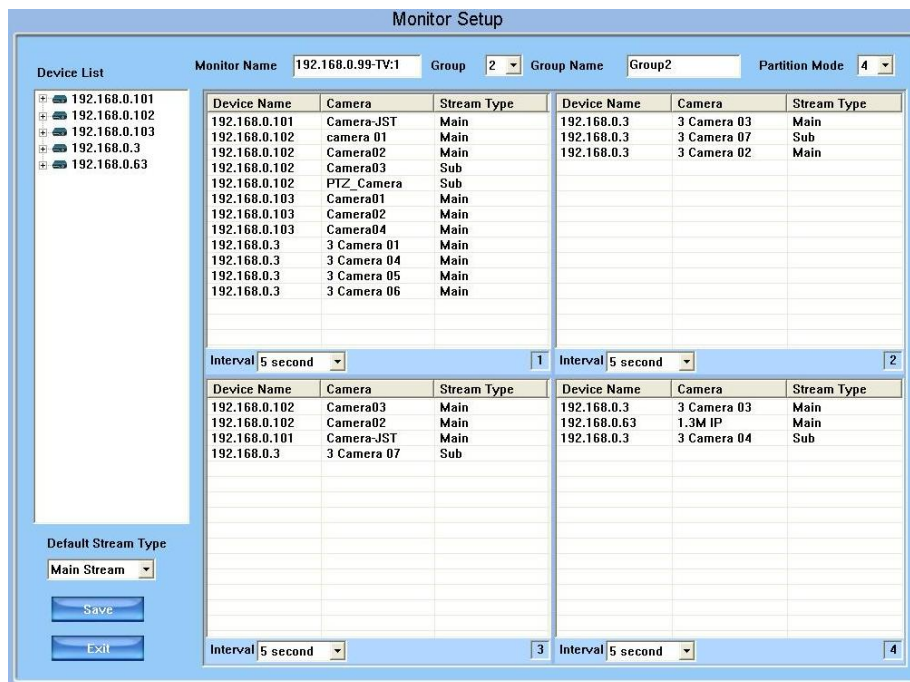
You can drag any cameras' name to the display window. Default stream type can be selected between "Main Stream" and "Sub Stream". After that, all the cameras in this group will display their main stream or sub stream in TV client. When you want to cancel the display of one camera in one window, double click it to remove. For example, you can double click "1.3M IP" to remove it from the 7th window.

Also, you can change the stream type of some cameras, not all. Move mouse to the stream type, then, there will be a drop-down list displayed. Select one stream type from the list to display. The other cameras you didn't change their stream type will be displayed as "Default Stream Type".

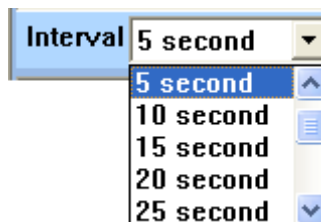


Loop Setup

You can display more than one cameras in a window.

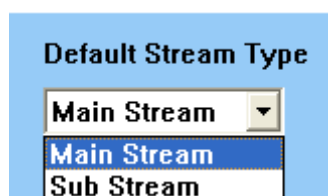


The only thing you have to do is setting the interval. You can set it as 5, 10, 15 and 20 seconds etc. The greatest interval here you can set is 60 seconds.



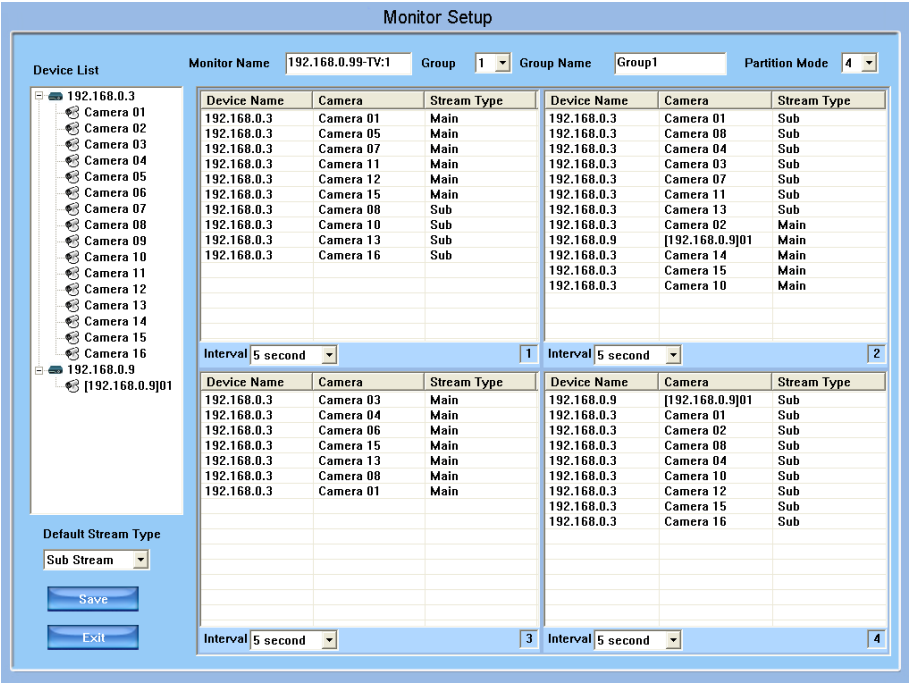
When all the settings are done, don't forget to click "Save" button on the left. You should click "Save" in both "Monitor Setup" and "Virtual Matrix" interface. Then, click "Exit" to exit setup.

Default Stream Type Setup



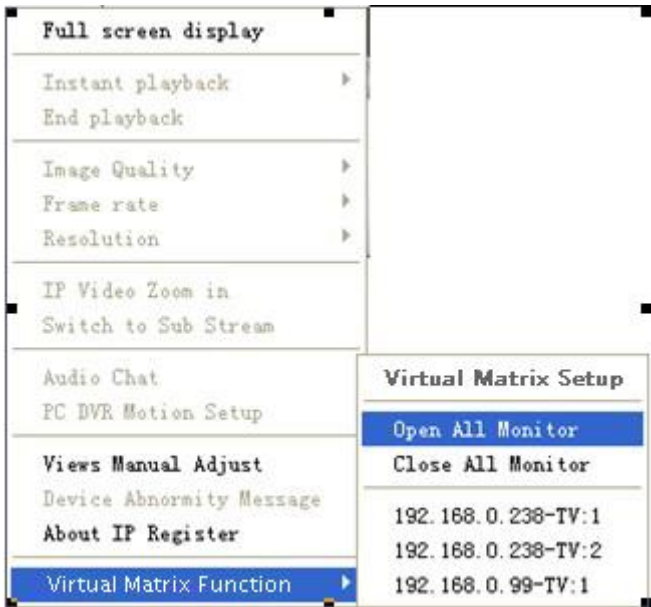
Select a default stream type from "Main Stream" and "Sub Stream". If main stream is selected, then, all the cameras you drag to the window will be displayed as main stream until you select "Sub Stream" from the list. If you don't want to set main stream or sub stream for your cameras one by one, this

is a good choice.



1.3 Monitor Control

1.3.1 Monitor Status Display

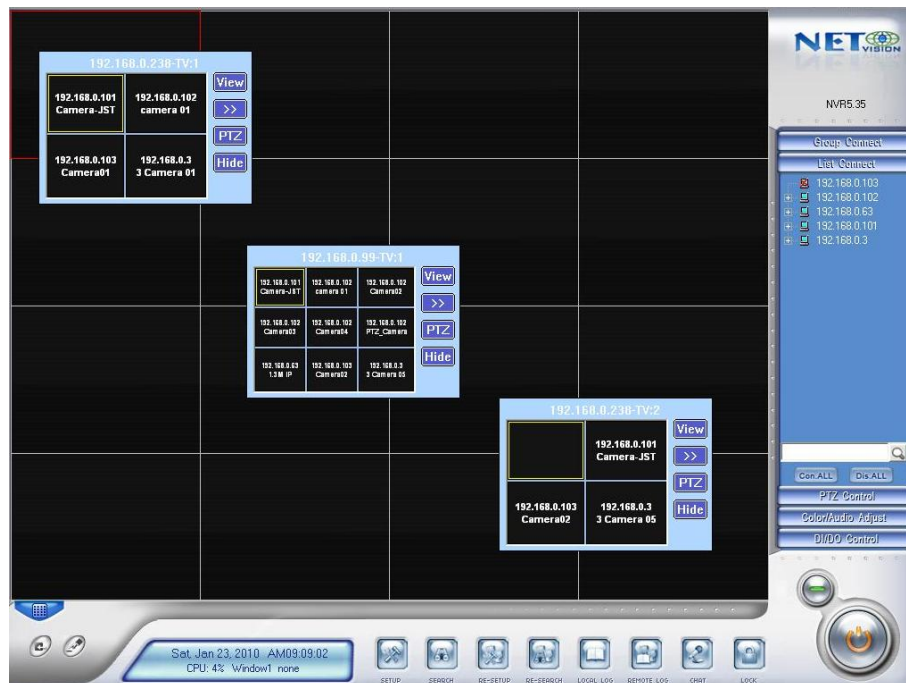


Select "Open All Monitor" in right click menu to view all the monitors connected in the system. You can drag them to anywhere. The names of current display cameras on TV client will be shown in the monitor window.

Also, you can open only one monitor at a time via selecting it in the

monitor list below “Close All Monitor”. For example, click “192.168.0.99-TV: 1” to open the third monitor in the list shown as above.

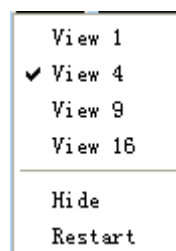
You can adjust the view mode, select cameras or groups to display and control PTZ on the monitor you opened just now. For more details, please refer to 8.3.2.



1.3.2 Monitor Control

View Adjust

Click  on monitor to enter this menu:




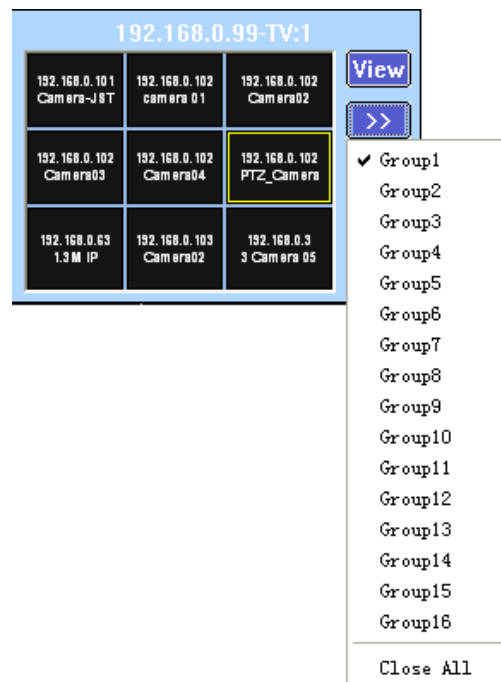
User can adjust the window split mode to 1, 4, 9 or 16 views mode.

When you select “Hide”, the windows on TV client will be hidden. Also, select “Show” to show up the TV client windows.

When you select “Restart”, TV client will stand by.

Display Groups

Click  on monitor window to open the group name list. Select one group to display on the TV client. And the corresponding cameras' names will be displayed in the monitor window.



When you select “Close All”, you will close all the groups. At that time, there will be no camera displayed on TV client. And the monitor windows will turn to black. But you can drag cameras from “List Connect” panel to monitor window to display. Also, you can select a group name again to display.

PTZ Control

Click  on monitor window to enter PTZ control menu.

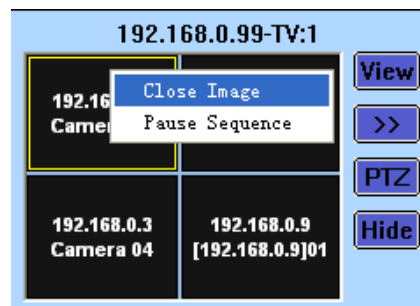


PTZ can only be controlled when PTZ camera is selected. It's nearly the same with the operations on PTZ control panel. But you can only call the preset you have set. You can't set the preset here.

When there are more than one cameras displayed in a window, you can't control PTZ. But you can drag PTZ camera to this window to stop loop in the

window and then control PTZ.

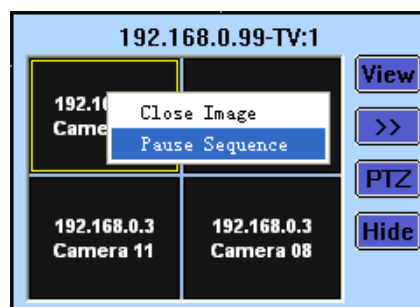
Close Image



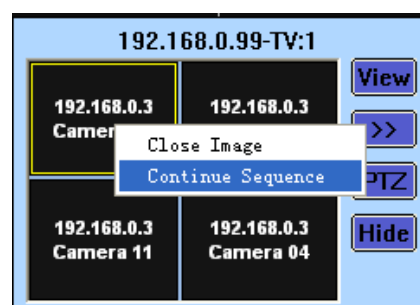
Single-right-click in any window you like and then press “Close Image” to not display any video in that window. Of course, even there are more than cameras loop in that window, they will all be closed.

Pause/Continue Sequence


Single-right-click in any window you like and then press “Pause Sequence” to stop loop in that window.



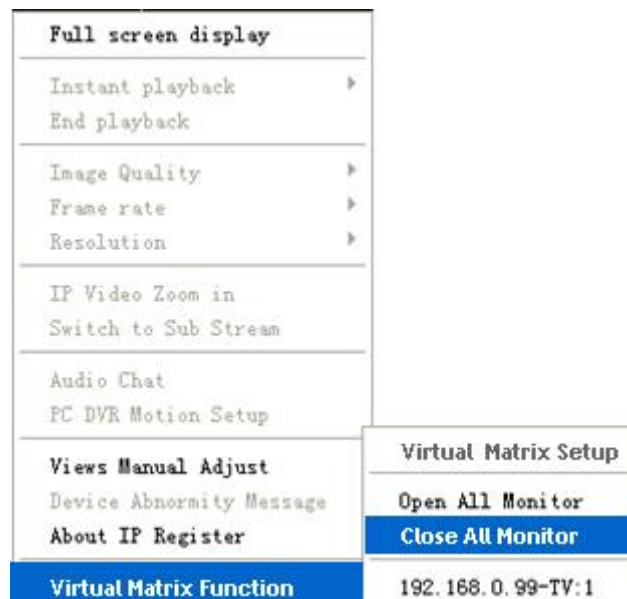
After “Pause Sequence” is pressed, it will turn to “Continue Sequence” when you enter the menu again. Press it to continue the loop in the window.



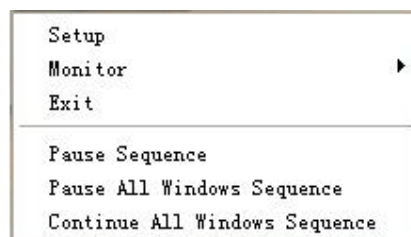
Close/Hide Monitor

Click  on monitor window to hide the window when you finished the settings.

Also, you can select “Close All Monitor” in right click menu to close all the monitors you opened.

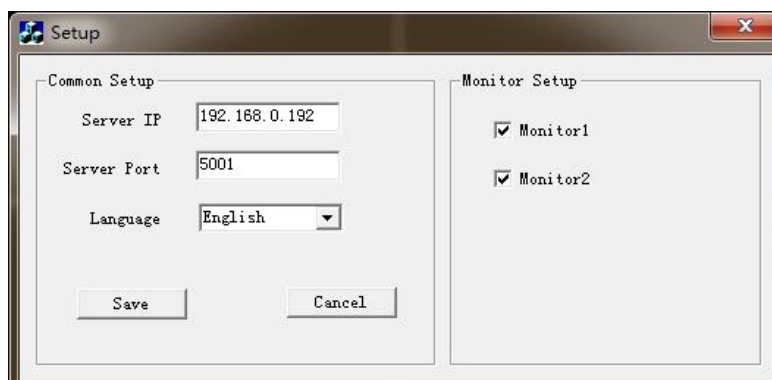


1.4 Operations on TV Client



1.4.1 Setup

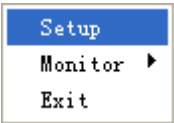
Click “Setup” to enter the interface shown as below. Please refer to 8.1.2 for details.



All the monitors connected to the TV client will be listed here. They are all checked as default so that they can be displayed. If you want to hide one

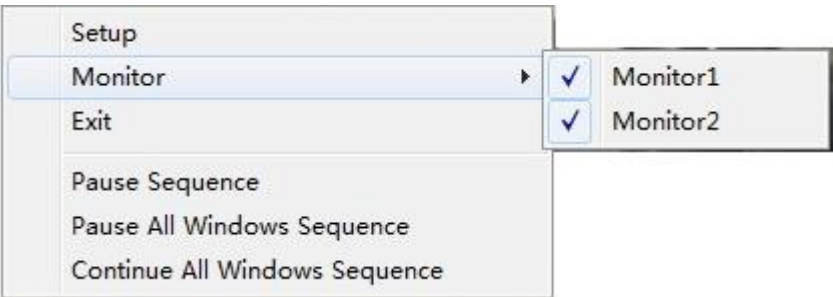
monitor, don't check it please. Refer to 1.4.2 for details.

Also, you can single-right-click the small icon on the task bar and then select "Setup" to enter the setup interface.



1.4.2 Monitor Control

Display/Hide the Monitor



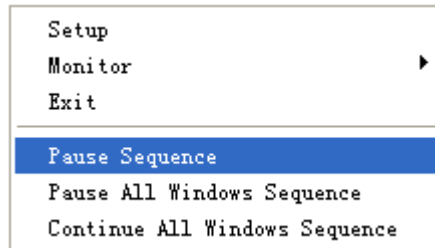
All the monitors connected on the TV client PC will be listed there if you click "Monitor". Select one monitor to hide it. If you don't check "Monitor 2" here, then, the monitors will turn to like this (The second monitor displays the desktop only.):



If you want to display it again, single-right-click the small icon on the task bar and then check it from the monitor list.



Pause/Continue Sequence



Pause/Continue Sequence will only pause or continue the loop in the window you selected.

Pause/Continue All Windows Sequence will pause or continue loop all windows in the display group.

Exit

Click "Exit" on the context menu to exit the monitor.

Also, you can single-right-click the small icon on the task bar and then select "Exit" to exit the monitor.