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Notice

Product Manual Classification

In order to assist in the use of this product, huperLab has categorized the user manual in the following:

- For detailed product information and specifications, please carefully read the "Product User Manual".
- For detailed information related to Huperlab's unique features, please go to "Technology Guide" section on Huperlab's website to read or download the information you need.

For more product details, please click onto huperLab's website at www.huperlab.com

huperVision 4000 v1.56

Quick Start Guide

Published on October 2011

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				16	8	6	4	8	6	4	1	4	2
4716U	●	●		●									
4704U	●	●					◎			◎			◎
4716Q-480 4716Q-240 4716Q-120 4716Q-60	●	●		●									
4708Q-240 4708Q-120 4708Q-60 4708Q-30	●	●			●			●					
4704Q-120 4704Q-60 4704Q-30 4704Q-15	●	●					◎			◎			◎
4704Q-Me-120 4704Q-Me-60 4704Q-Me-30 4704Q-Me-15	●		●				○				○		
4604U-PCIe	●	●					●			●			
4606Q-PCIe	●	●				●			●				
4604Q-PCIe	●	●					●			●			
4604Q	●	●					○				○		
4416SL^{+}-PCIe (Flex-Channel)	●	●		●						●			
4416SL^{+} (Flex-Channel)	●	●		●						●			
4404SL^{+}	●	●											
4404S-M	●	●	●				○				○		
4464IP	●	●											
4432IP	●	●											

Product Model	Product CD & Quick Guide	Watchdog Cable	Internal Cable Assembly	Video Ports Connector				Audio Ports Connector				TV-out	
				16	8	6	4	8	4	2	1	4	2
4416IP	●	●											
4408IP	●	●											
4404IP	●	●											
4064IP-UI/UE	●												
4032IP-UI/UE	●												
4016IP-UI/UE	●												
4008IP-UI/UE	●												
4004IP-UI/UE	●												

Note:

1. ◯ *It stands for designed as integrated cable assemblies for Video and Audio Ports Connector.*
2. ◎ *It stands for designed as integrated cable assemblies for Video, Audio and TV-Out Ports Connector.*
3. *The items listed above are subject to change without notice.*
4. *The 16CH audio connector of 4716U/4716Q series requires extra purchase.*
5. *The 8CH integrated cable assemblies for Video, Audio and TV-out Ports Connector of 4708Q series requires extra charge.*

System Requirements

The System requirements depend on the total performance of display and recording frame rates. Please refer to the configuration chart below.

Resolution	CH	Display FPS	Recording FPS	VGA	Min. CPU	Min. RAM
720x480	4	120	120	On-Board VGA	E2180	1GB
320x240	16	480	480			
640x480	16	480	64	On-Board VGA	E2180	1GB
640x480	16	480	120	nVidia GeForce 6200	E4500	1GB
640x480	16	480	240	nVidia GeForce 6600	E4500	2GB
640x480	16	480	320	nVidia GeForce 6600	E6850	2GB
720x240	16	480	480	nVidia GeForce 6200	E4500	1GB
				On-Board VGA	E4500	1GB
720x480	16	480	64	nVidia GeForce 6200	E2180	1GB
				On-Board VGA	E4500	1GB
720x480	16	480	120	nVidia GeForce 6200	E4500	2GB
720x480	16	480	240	nVidia GeForce 6600	E6850	2GB
720x480	16	480	480	nVidia EN 8500	Q6600	2GB
IP License Card System Requirement						
4CH / 8CH IP License				nVidia GeForce 6600	E6850	2GB
16CH IP License				nVidia GeForce 6600	E6850	2GB

Note:

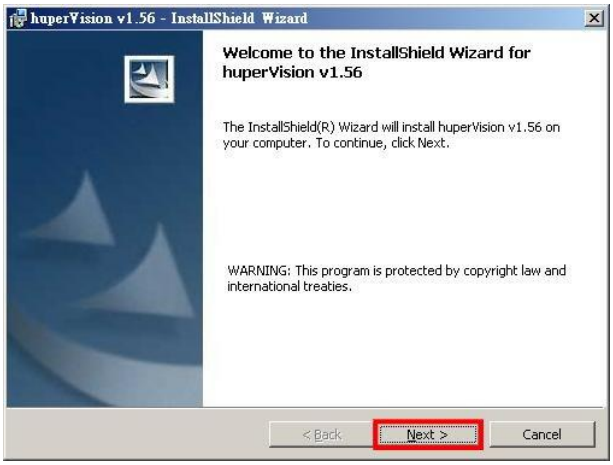
1. *The System requirement is measured based on HM-Mpeg-4 Like Fast compression. If you use higher quality, more intelligent detection or H.264, please increase the CPU specification.*
2. *For 16CH D1 480FPS recording system, we strongly suggest you can choose Intel Core 2 Quad CPU.*
3. *The stability of the DVR system may be affected by the type or brand of motherboard and chipsets used.*
4. *The VGA card we chose for suggestion is only for reference. Although most of the VGA card with 256MB on-board memory will fit the need for most situations.*
5. *The information provided is subject to change without notice.*

Installation

1. Insert CDROM You will see the Auto Run start up like following Picture

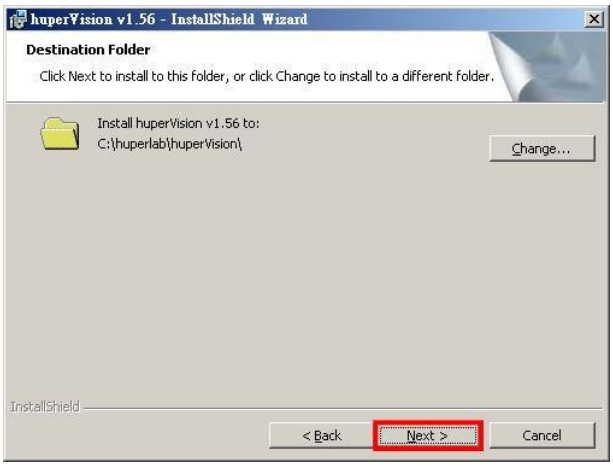
2. Press [**huperVision**] Button
   Now start huperVision installation program, The first dialogue box pop-out and please select your installation languages and press [**OK**] button

   Please wait until the following dialogue appears. Please press [**Next**] button to proceed.



3. Now you see the License agreement, Please take a look if you want, or directly select [**I accept the terms in the license agreement**] then press [**Next**] button to proceed.

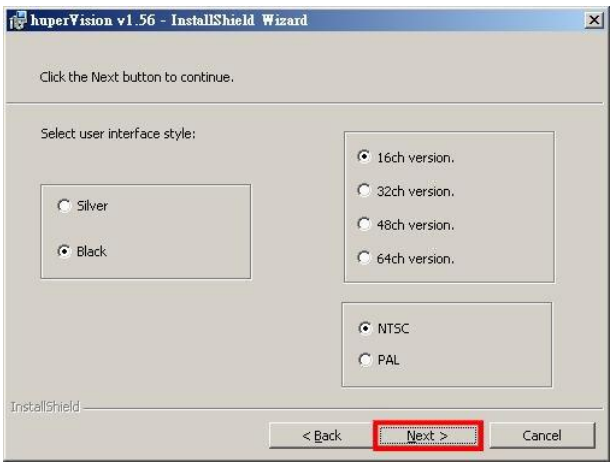
4. The destination folder selection appears. Please directly press [**Next**] button to use the default folder.



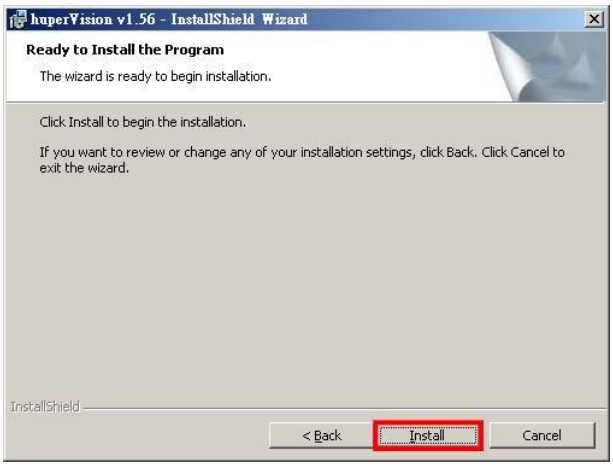
5. Selection of interface type and channel version.
   Select black (default) to use huperVision new interface style or silver to use huperVision traditional interface style.

   Please select 16ch version to fit all series of huperVision capture cards. If you want to setup a 32CH machine, please select 32ch version which will use dual VGA output.

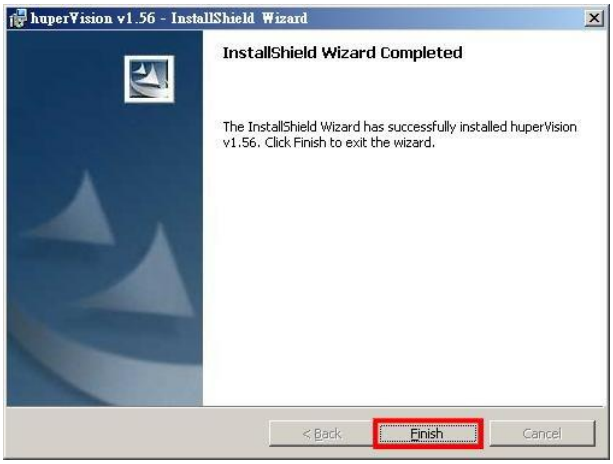
   Meanwhile, select correct Video standard (NTSC/PAL) and press [**Next**] to proceed. (This option can be adjusted after setup)



6. Now Press the [**Install**] button to start full installation with capture card driver setup.



7. Press [Finish] to end installation. Please press [Yes] to initial huperVision site server program when the installer asking for a reboot.



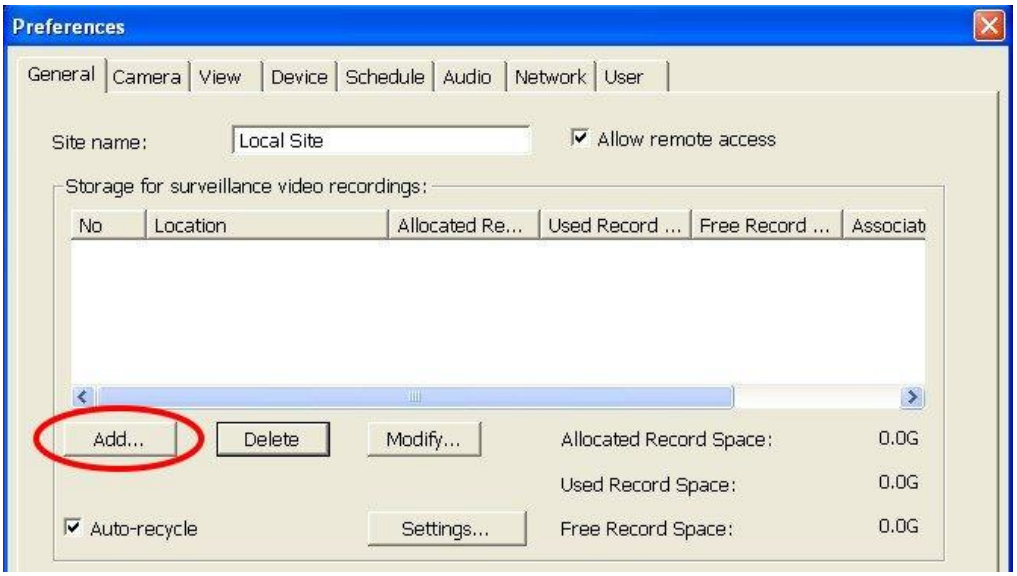
Simple Steps to Start Recording

Please follow the steps below to start recording.

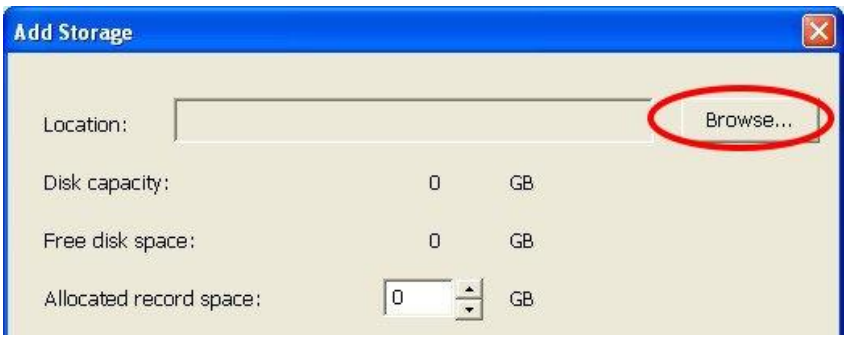
1. After reboot (Manually), huperVision site server program is launching. You will see a pop-up warning message; this is a notification that you have not specified a recording path to record.

2. You can press the [**Hammer**] Button  to display the general page of preference.

3. Press the [**Add…**] button to add a new folder to store your recording data files.



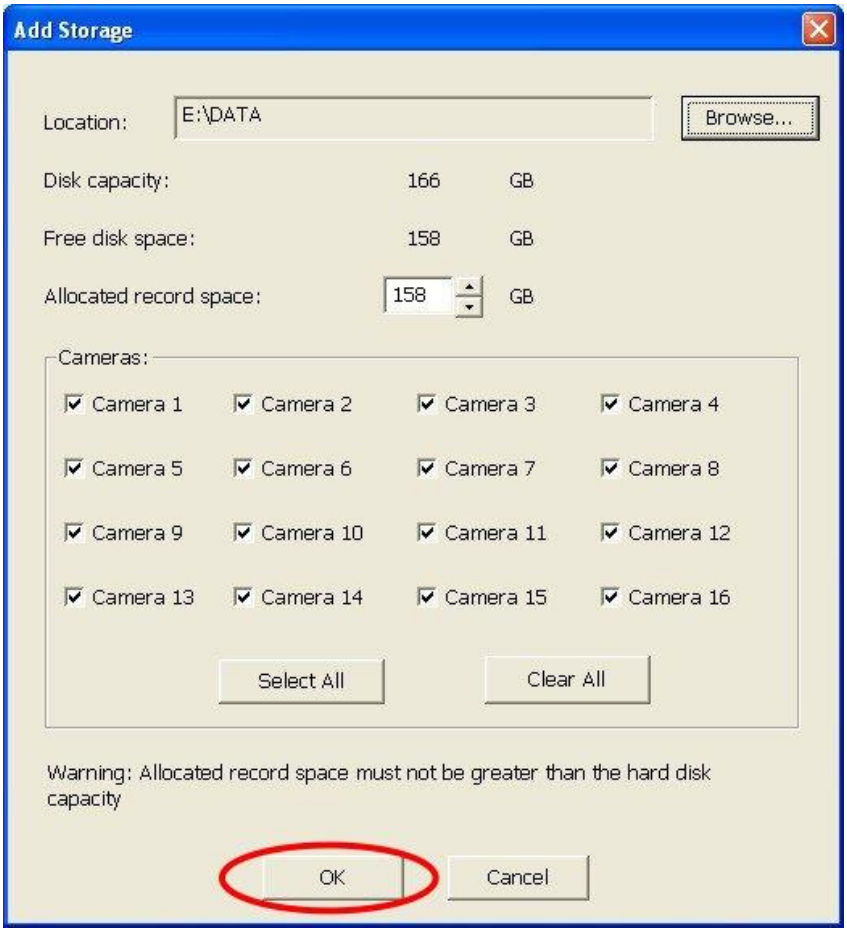
4. Press [**Browser…**] button in the Add Storage dialogue box.



5. You can create a new folder in drive E; e.g. E:\DATA (D:\DATA indicates there is a DATA folder under Drive D.)

   So, you select the Drive E icon and press the button [**Make New Folder**] And input the new folder name “DATA”, then press [**OK**].

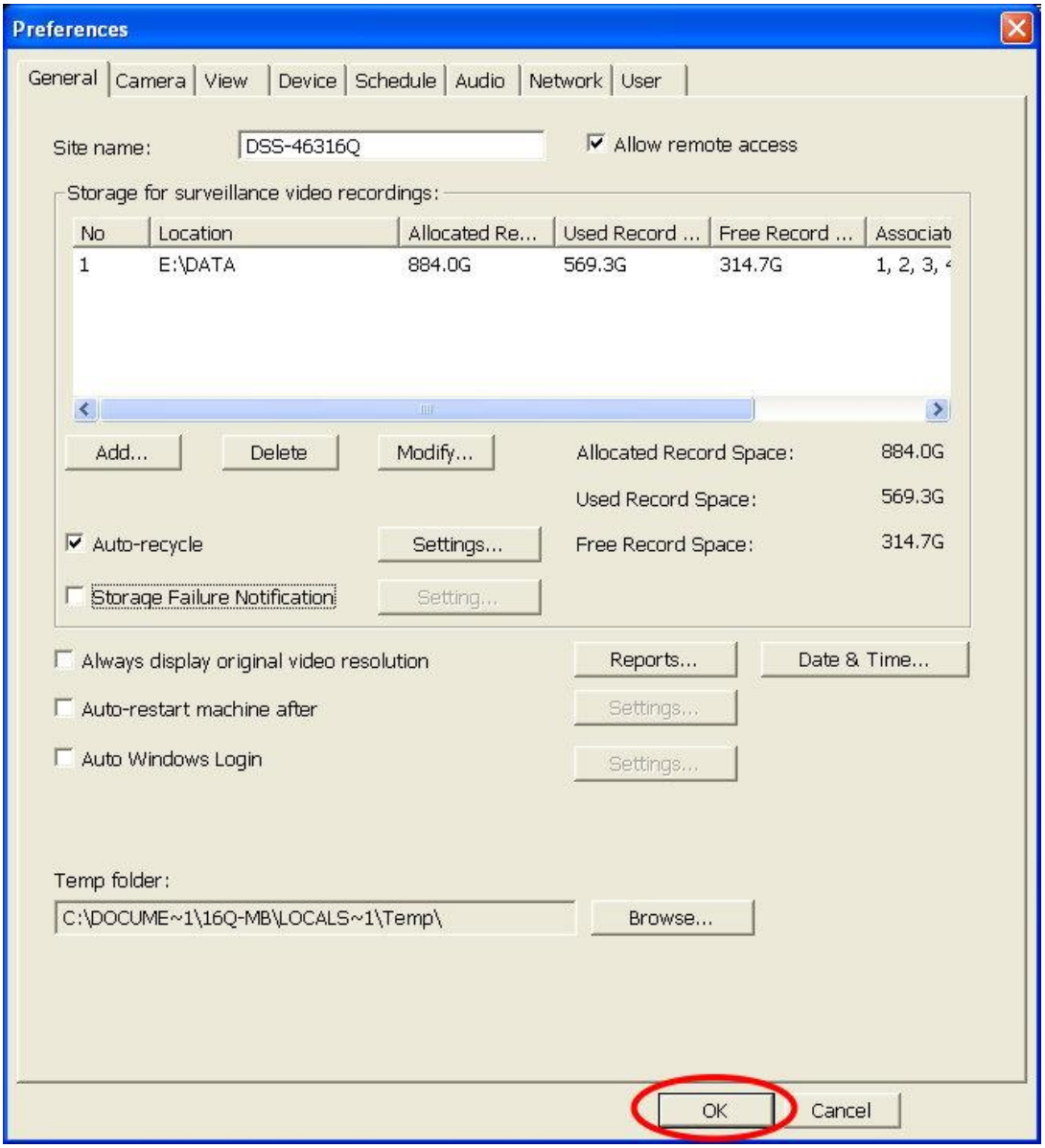
6. The result will be shown when back to the Add Storage dialogue box. Please press [**OK**] button to save the decision.



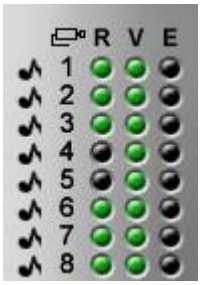
Note: *Please keep the all 16 cameras be checked even if you don't have that much cameras.*

Please also do NOT change the Allocated record space value by its automatic decision.

7. After Create the folder and press the [**OK**] button of the Preference page. Congratulations! You start to record videos.



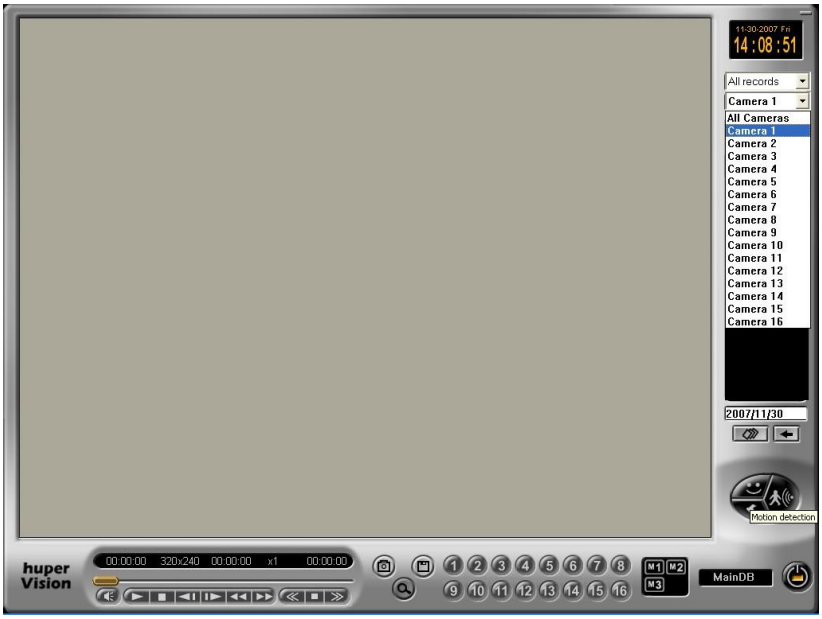
8. The R LED turns green at upper right side, indicates that available channels are recording now.



Simple Steps to Playback Recordings

1. Launch the huperVision Record Player program by clicking the icon 

2. You will see the following full screen program to cover the current huperVision Live view. Don't worry. The Live View and recording task are still working at the background.



3. You have to select which channel you want to playback with, or select All Channels to playback all available channels at the same time.

4. After you select the channel you want to playback, it shows a list of time mark for today's recording. Please select a Time mark to load the Video records.

5. All the video available channels will show the first Image in the Video split area, after the video load progress bar running to the end.

   You can now press the Play Button to start playback selected channel recordings.

6. If you want to select different Channel to playback, please repeat from Step 3 to Step 5.

7. You can press the [**Power off**]  button to Exit this Playback program any time.

Note: *Press this Power off button will NOT close the running huperVision site server. There is also a protection for accident press the huperVision site server power button, a Confirm dialogue box will show before it really shut down the huperVision site server main program.*

Now you are ready to use huperVision IVS system, for more operation guide on Intelligent Video Functions, please refer to full Users Manual.

Press the [**Document**] on the Installation CDROM autorun program.

You will be able to open the Document. Before you load this document, please ensure your system have already Acrobat Reader program installed.

The Acrobat Reader program is included in the Installation CDROM E:\English\Doc\aar.exe

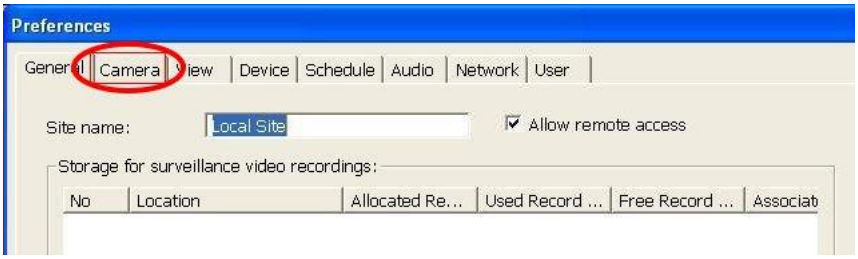
How to connect IP Cameras / Video Servers

To use IP cameras as video source for recording and intelligent analysis, press the [**IP Camera Plugin**] on the Installation CDROM autorun program.

You will be able to use IP camera related features after installation. Next, let's see How to connect IP cameras step by step.

1. Click the [**Hammer**] button  . Then select the [**Preferences…**].

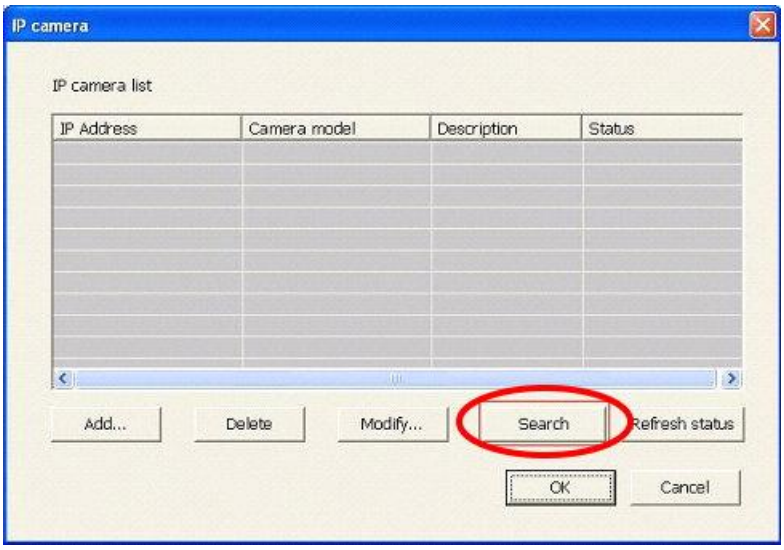
2. Click the [**Camera**] tab. Let's start connect IP cameras.



3. When you have Hybrid License card or Pure IP license card installed, the Camera setting page will show IP1, IP2, IP 3 instead of C1, C2, C3 to differentiate 2 different Camera type.

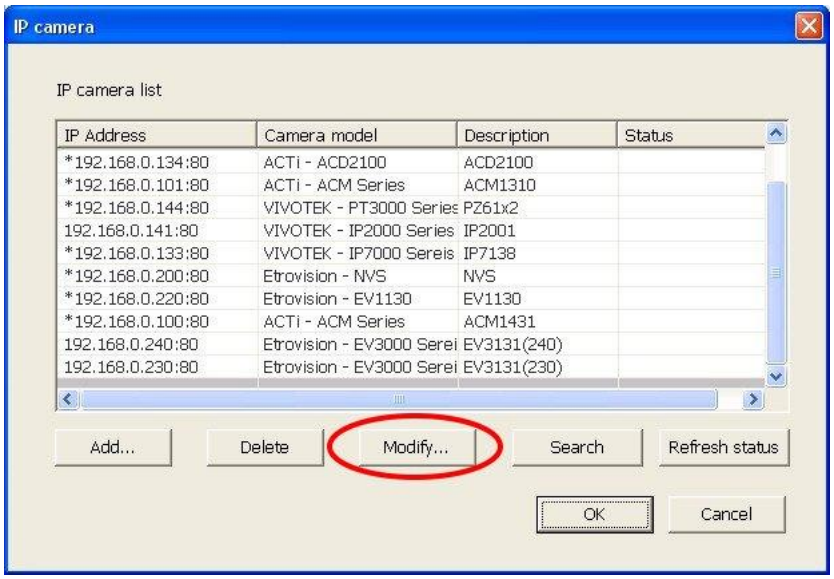
4. Let's select IP1 and Click the [**Setting…**] button.

5. The IP camera setting page pup-up now, please click [**Search**] button.

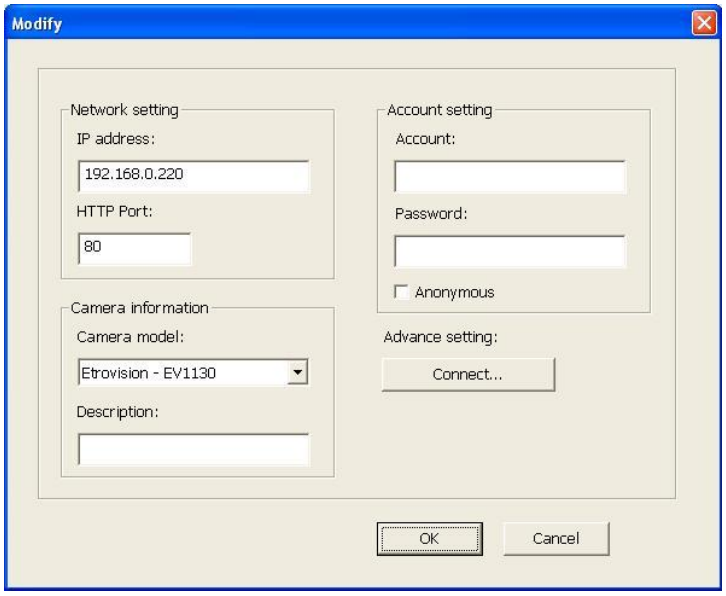


6. It will take a while to search all the supported-searchable IP cameras in the range of local network. Let's wait for the progress bar running to the end.

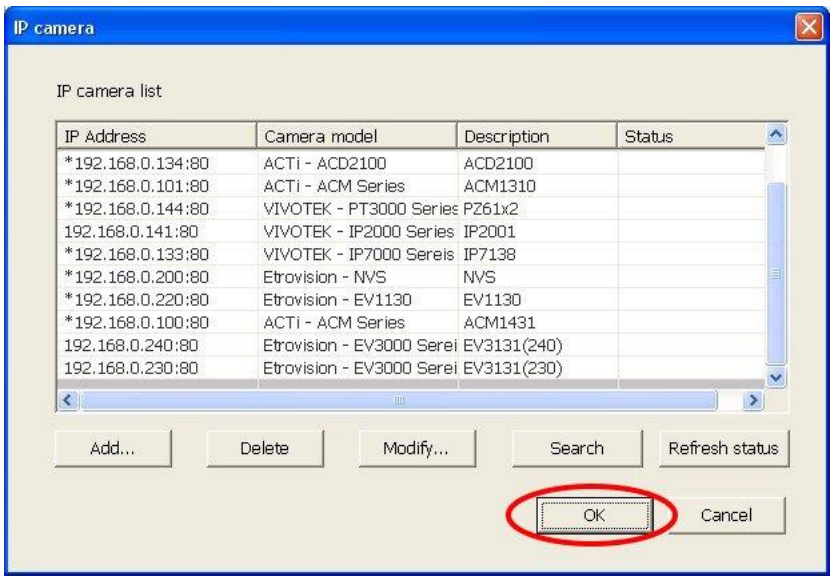
7. If you want to change setting of the IP camera, e.g. ID/PW for connection, please select the IP camera then click [**Modify**] button.



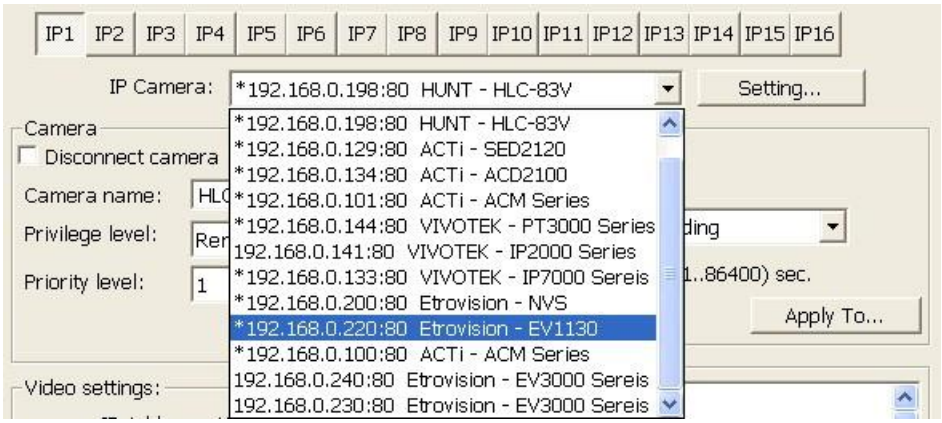
8. After input necessary information, please click the [**OK**] button to save the settings.



9. Press another [**OK**] button to finish this connection setting.



10. Back to the Camera page, click the down button to assign the IP camera for IP1 connection.



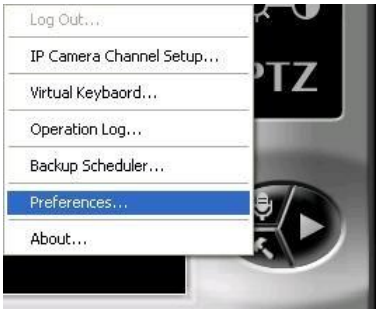
Note: *A Star Sign is marked leading the IP camera list to indicate this IP camera has already been assigned in huperVision system.*
huperVision system allows you to do multiple connection to one IP camera for different purpose, but please note that all IP cameras have it's connection limitations or bandwidth limitations. Over load a single IP camera / Video Server might cause unexpected result.

11. After IP camera assignment, please click [**OK**] button on this Camera page to save settings. It may take a few seconds to connect before you can see the video.

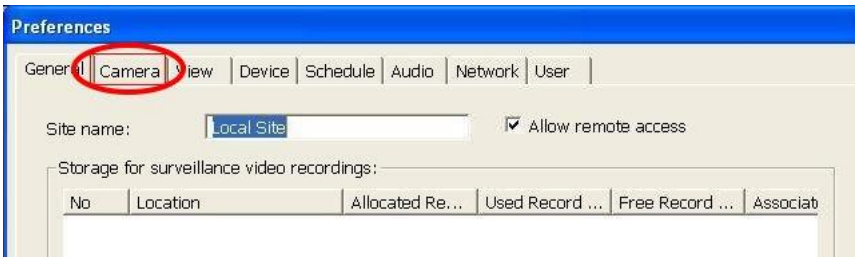
How to use Motion Detection

Motion Detection is the basic detection of huperVision, It works like a motion sensor but with more powerful parameters to control the precision of detection result.

1. Click the [**Hammer**] button  and select [**Preference…**] to open the Preference window.

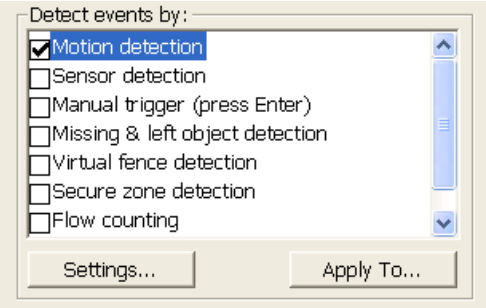


2. Click the [Camera] tab to bring up all the camera settings.



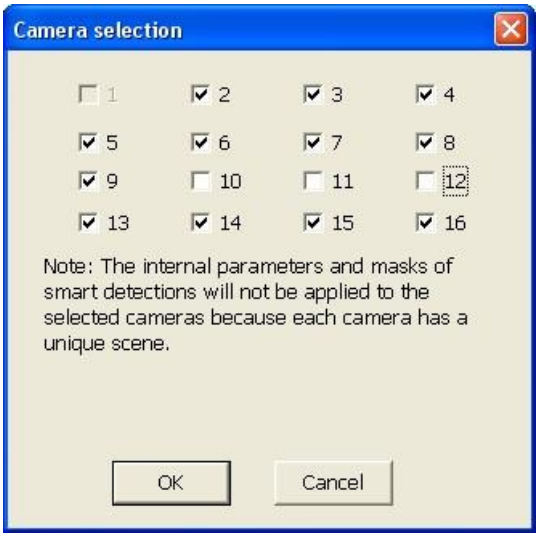
3. Select C1~16 or IP1~16 button to which camera you want to apply the motion detection.
   e.g. C4 for the 4th camera and it is an Analog camera, IP6 for the 6th camera and it is an IP camera or Video server.

4. You can find the Motion Detection feature in the list of "**Detect Events by:**"



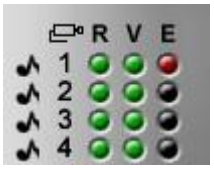
5. Check the Motion Detection feature and press [**OK**] button to take effect.

6. Or, you can press the [**Apply To…**] Button to select which other cameras you want to enable Motion Detection.
   In this case, de-select 10~12 means Motion Detection will apply to all camera except No.10, 11 and 12.



7. BTW, you can also press the [**Settings…**] Button to bring up the detailed Motion Detection settings, like Adjustment of Sensitivity and Noise Tolerance, Ignore Smaller or Larger objects and mask out some area which you don't want to detect motion. For Detail Motion Detection settings, please refer to our users manual Motion Detection settings.

8. On the main screen of huperVision, upper right corner have a list of LED indicator. When motion has been detected on a camera, it's "**E**" will turn Red.



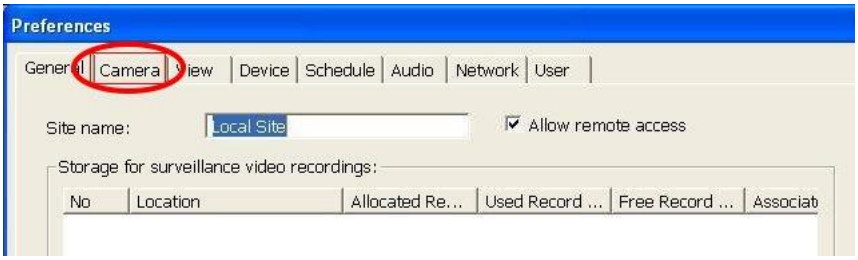
How to use Missing & Left Object Detection

Missing & Left Object Detection is the other way against Motion Detection. Motion Detection detects movement in a Video, but Missing & Left Object Detection monitor all the moving object in the video and only alarm when the moving object stops moving in the video for a while (Left Object). And it also alarms when still objects been moved or disappeared from the video for a period of time; e.g. 5 seconds.

You can use Missing & Left Object Detection to guard important property be stolen or unattended package left in unauthorized area.

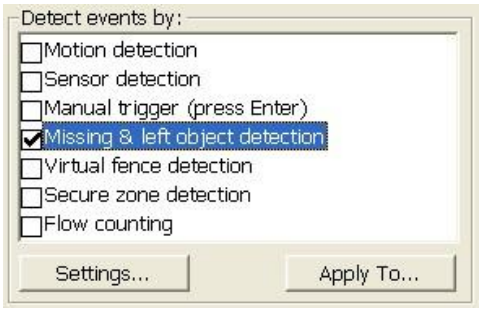
1. Let's start from click the [**Hammer**] Icon  and select [**Preference…**] to open the Preference page.

2. Click the [**Camera**] tab to show all the camera settings.



3. Select C1~16 or IP1~16 to which camera you want to apply the Missing & Left Object detection.
   e.g. C4 for the 4th camera and it is an Analog camera, IP6 for the 6th camera and it is an IP camera or Video server.

4. You can find the Missing & Left Object Detection feature in the list of "**Detect Events by…**"



5. Check the Missing & Left Object Detection feature and press [**OK**] to take effect.

6. If you want to change the time to alarm when an object been detected, you can press the [**Settings…**] button to bring up the settings dialogue page.

7. The timer to trigger an alarm is shown in the Picture below, and you can change the time in a range of 5~3600 seconds, which is described as [**Minimum halt duration…**]

8. After input the Detection time, please press  (**OK** button) to take effect.

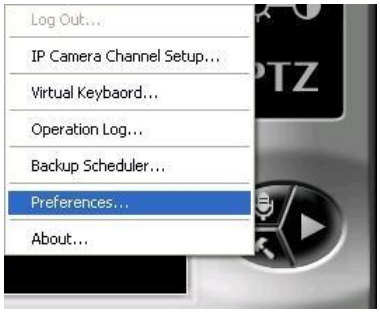
9. If you want to do some Mask to avoid some area been detected, please refer to the "**How to do Masks in Detection Features**" session in this Quick Start Guide.

10. If you want to set the Object size range been detected, please refer to the "**How to Ignore Smaller / Larger Object Size in detection**" session in this Quick Start Guide.

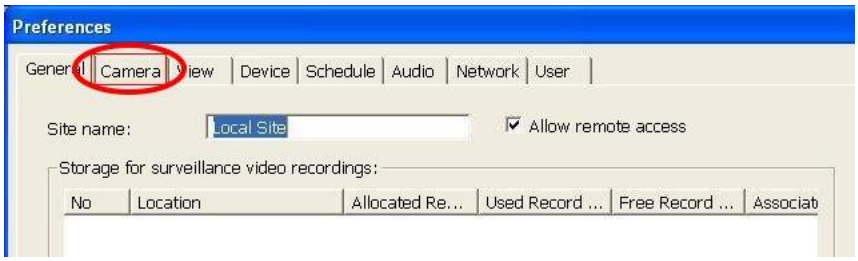
How to use Secure Zone Detection

Secure Zone Detection is the Advanced Object Based version of Motion Detection. Motion detection use an algorithm to analyze the changes / difference area in a video, it has some limitation of precision when multiple objects existed on the video. Secure Zone Detection improves the precision by doing object analysis first then decides to trigger event or not. We specify several region of Secure Zone for detection and trigger alarm only when objects intrude these Zones and fit our expected conditions.

1. Click the [**Hammer**] Icon  and select [**Preference…**] to open the Preference window.

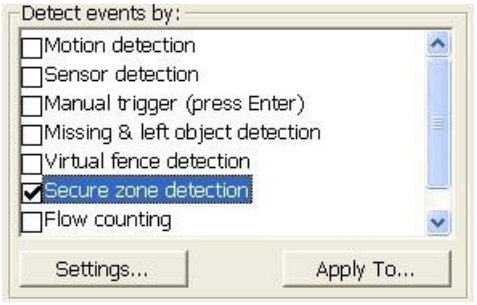


2. Click the [**Camera**] tab to show all the camera settings.



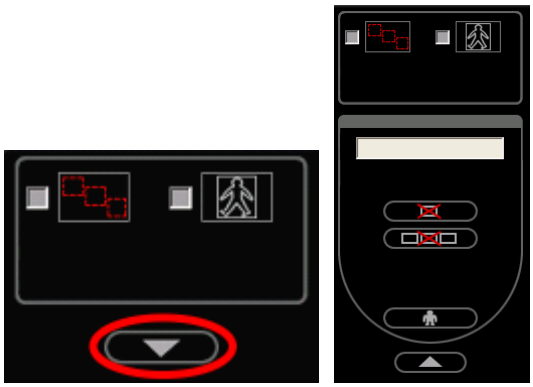
3. Select a Camera button which you want to enable Secure Zone Detection. e.g. C4 for the 4th camera and it is an Analog camera, IP6 for the 6th camera and it is an IP camera or Video server.

4. You can find the Secure Zone Detection feature in the list of "**Detect Events by:**"



5. Check the Secure Zone Detection and press the [**Settings…**] button to get in the settings page.

6. On the right hand side, press the pull down button to extend the settings menu.



7. Now you can use your mouse to drag an area or multiple areas in the Video.

8. Check this item  to show the detection area in Live Video, No matter you check it or not, the Secure Zone detection still works unless you disable this feature in camera page.

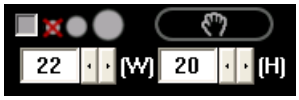
9. Check this item  to show the object which been identified by detection on the Live Video, No matter you check it or not, Secure Zone detection still works unless you disable this feature in camera page.

10. If you want to remove the area you drawed in the video, you can simply click the middle of the area to select it and press this button 

to delete it.

11. If you want to remove all the area in the video, you can press this button 

to remove them all

12. 

Check this function to enable ignore smaller object, you can either adjust the value against object's width and height counted by pixel, or you can click the hand icon to drag the size directly on video by mouse. After mouse operation, press hand icon again to stop selection.

13. 

Check this function to enable ignore larger object, it's the same operation like ignore smaller object. Please note that if your ignore smaller size is larger than ignore larger size, you know that it's not logical and cannot work.

14. 

This number is the intrusion time to alarm, usually 1 second is good for most cases, if you switch to 0, probably it will be too sensitive for general purpose.

15. 

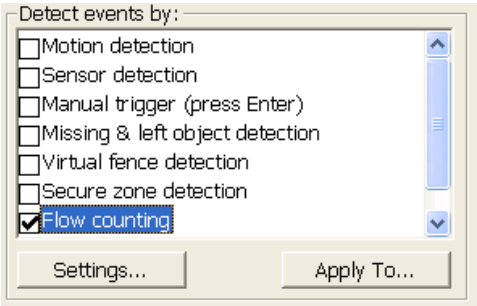
Sensitivity set to 3 fit most requirements, drag lower value to avoid too much false alarms or drag higher value for special scenario.

16. Finally, press  OK button to take effect or  cancel button to leave this page discard all the settings change here.

How to use Flow Counting feature

Flow Counting is designed to count moving object cross user defined line, 2 lines can be applied on 1 video / camera. Since this detection should really detect object touch the line, so, at least 7 FPS video should be used to fit most situation, otherwise, frame interval might cause object jump over the counting line and not be counted.

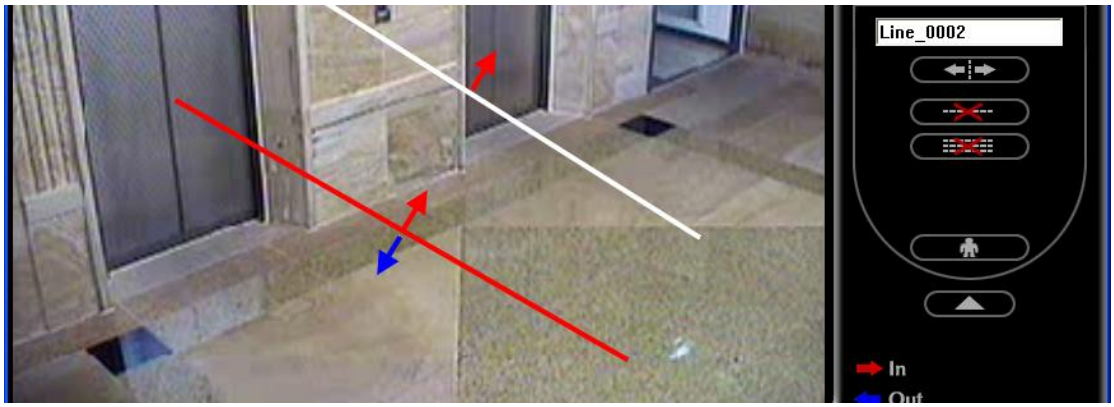
1. Like the other detection settings, you can enable and call up the Flow Counting setting pages.



2. Press [**Settings…**] button to call up the Flow Counting settings window.

3. On the right hand side press this  button to extend the Criteria settings.

4. After extend this Criteria settings, you can use mouse to drag detection lines on the video area.



5. For example we draw 2 lines on the video area for flow count detection. Click to select the line on video and click this  button to toggle detect direction, you can either detect single direction or both in/out directions.

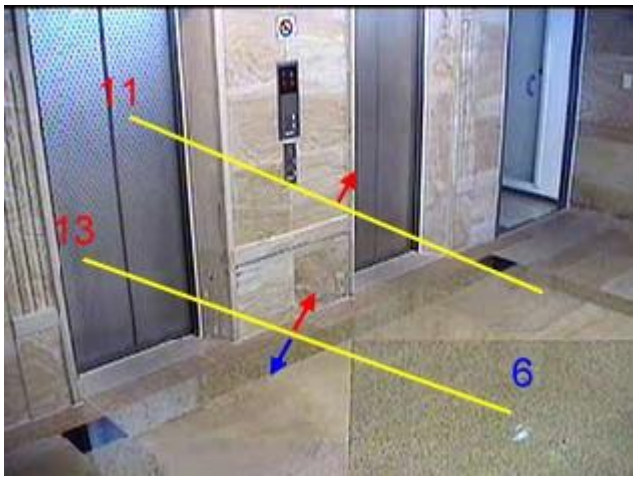
6. Click this  button to delete the line you selected. Or, Click this  button to delete all detection lines on video.

7. Check this  button to show the Flow Count Line and numbers if you want to see it on Live Video.

8. Check this  button to show tracking block of objects been found on Live video.

9. Finally, click this  OK button to finish the settings and take effect. If you want to discard your settings, you can click this  cancel button to leave without saving settings.

10. As the result of Flow Counting feature, you can see the 2 detection lines with count numbers on the Live video.

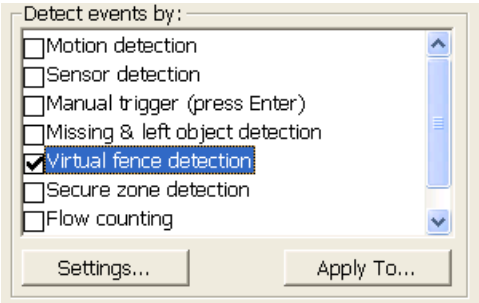


11. You can refer to the "**How to Ignore Smaller/Larger Objects in detections**" session to build a size filter for your Flow counting feature.

How to use Virtual Fence Detection

Virtual Fence Detection is the detection to alarm when objects cross a forbidden line. Maximum 5 lines can be defined in this detection.

1. Like the other detection settings, you can enable and call up the Virtual Fence Detection setting pages.



2. Press [**Settings…**] button to call up the Virtual Fence settings window.

3. On the right hand side press this  button to extend the Criteria settings.

4. It's very like Flow Counting Criteria settings, because it also needs to draw lines for detections.
   After extend this Criteria settings, you can use mouse to drag detection lines on the video area.

5. For example we draw 2 lines on the video area for Virtual Fence detection.
   Click the line on video to select it and click this  button to toggle detect direction, you can either detect single direction or both directions.
   When an object crosses the line as the direction arrow, it will trigger the alarm.
   Both direction arrow means the alarm will be triggered once an object cross the line no matter in which direction.

6. Click this  button to delete the line you selected. Or, Click this  button to delete all detection lines on video.

7. Check this  button to show the Flow Count Line and numbers if you want to see it on Live Video.

8. Check this  button to show tracking block of objects been found on Live video.

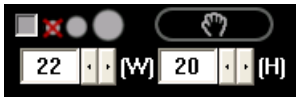
9. Finally, click this  OK button to finish the settings and take effect.

   If you want to discard your settings, you can click this  cancel button to leave without saving settings.

10. You can refer to the "**How to Ignore Smaller/Larger Objects in detections**" session to setup a size filter for your Virtual Fence feature.

How to Ignore Smaller / Larger Object Size in detection

Ignore Smaller Object and Ignore Larger Object function exists in most huperVision's detection settings. Ignore smaller object like mice, cockroaches or smaller animals if you want to detect and alarm human or vehicles. Ignore larger object like a hand over camera lenses or camera shaking situation. Both size filter settings can improve a better alarm precision when proper value applied.

1. 

Check this function to enable ignore smaller object, you can either adjust the value against object's width and height counted by pixel, or you can click the hand icon to drag the size directly on video by mouse. After mouse operation, press hand icon again to stop selection.

2. 

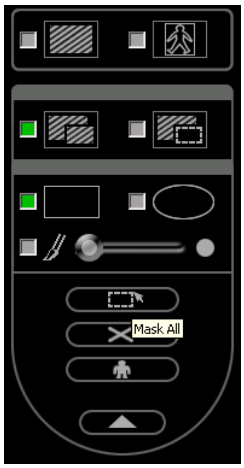
Check this function to enable ignore larger object, it's the same operation like ignore smaller object. Please note that if your ignore smaller size is larger than ignore larger size, you know that it's not logical and cannot work.

3. Please note that when the hand Icon is pressed, the only thing you can do is use mouse to drag the size of object on the video, you cannot do anything else when this button is pressed again.

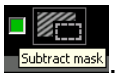
How to do Masks in Detection Features

Mask feature exist in some detection e.g. “Motion Detection” and “Missing & Left Object detection”. You can either set a full Video detection or mask out some unwanted area to prevent false alarms.

Let’s take Motion Detection for example. When you opened the Motion Detection settings page, press the  pull down button to extend the Mask menu, and you are ready to do a mask on video.



There are 2 type of mask can be applied, “**Add Mask**” 

or “**Subtract Mask**” 

. “Add Mask” button allow you to block out some area from detection, but “Subtract Mask” button help you to recover some area for detection from Mask. Combine both kind of Mask you can easily do a complicated mask to form a precise detection area.

There are 3 types of Mask shapes can be used when doing “Add Mask” and “Subtract Mask”:

Rectangle shape  , Circular shape  , Free hand sketching  .

Let's try to do Add Mask and Subtract Mask example here.

1. Check the "Add Mask" 

Mode.

2. Check the Rectangle Shape  .

3. Drag a Rectangle shape by Mouse to block out the Flashing screen from Motion Detection.

4. Check the Circular Shape  .

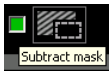
5. Drag a Circular shape on the Video, you can find that the over lapped area between the circle and rectangle is auto merged together.

6. Check the Free hand sketching  . Drag the size control bar right will let you draw with a bigger pen tip.

7. Click and hold to draw mask area on the video.

8. You will see my mask as the picture below. Masked area is marked in green color, which means these areas I don't want to do Detection.

The other way to do Mask: Full Screen mask  .

When you need to block out most of the area and only detect several regions on video, you can use this button to block out the entire video, and the system will also switch to “Subtract Mask” 

mode let you to remove some Mask area for detection.

1. Press the “Mask all”  button

You can see the entire Video is masked in green color.

2. Check the Rectangle Shape  .

3. Dig a rectangle shape in the mask for your detection.

4. Check the Circular Shape  .

5. Dig a circular shape in the mask for detection.

6. Check the Free hand sketching  .

7. Use free hand sketching to wipe out Mask areas.

8. Now you know how to do masks. And hope the mask can help you to a precise detection area.

If you feel the moving video disturb your mask task, you can press this 

Freeze Video button to freeze the video for your convenience.