



360/180° Panoramic Camera User Manual

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Product Overview

Pano360 is a wide-angle surveillance system to record panoramic cameras.















The Pano360 includes all of the necessary components for recording, viewing and perform digital PTZ.

Features and Benefits

- Each camera's video runs on its maximum resolution. All in High Quality Jpeg/Motion Jpeg compression.
- With 360 degree (Cell-Mount) 180 degree (Wall/Surface Mount), the system provides entire viewing without blind spot.
- Full featured PTZ control; no moving parts.
- Easy to install.
- Works with all WIN32 platform Windows 98, ME, XP, NT 4.0, 2000, 2003, Vista and Windows 7.
- High performance motion detection and motion recording to save your disk space.
- Create portable DVR/Snapshot files, not required to install panoramic software.
- User friendly control panel, easy learning and operation.
- Individual Dual Screen supported, maximized you monitoring area.
- Real-Time PTZ control.
- 360/180° vision around the camera without blind areas.

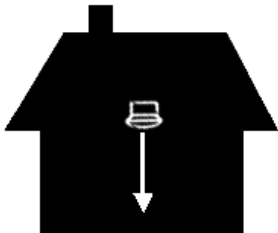


Getting Started

Description of interface	
	Start Monitoring: Double click to start Pano360 System Program.
	Camera Configuration: Insert/Delete/Modify Camera Configure Information.
	About: About Pano360 system information.
	DVR Setup: Edit DVR operation configuration.
	DVR Playback: Play the local DVR video.
	Snapshot File Viewer: Open the recorded snapshot files.
	WebPages Publish: Create Panoramic PTZ web page, allows viewing from remote IE browser.
	Remote Pack: Pack the camera configuration to WIN32 portable EXE file for remote viewing, without install Pano360 system program.
	Setup Root password: Maintain the root password. Pano360 has only 1 administrator account accept.
	NVR Backup: Backup DVR file into remote storage.
	Remote NVR playback: This is a remote DVR file player.
	User Manual: Open this document.
	Installation Guide: Open this document and jump to camera configuration hyper link.
	Quit: Quit the Program.

Introduction to Pano360, 360-Degree Surveillance

Source Image: This image shows 360 Degree Source Image format.

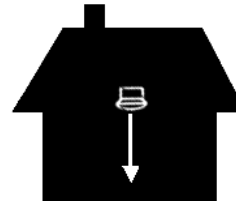
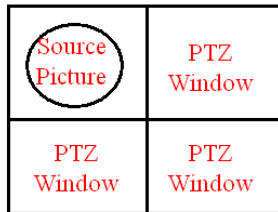


360-Degree Camera Layout

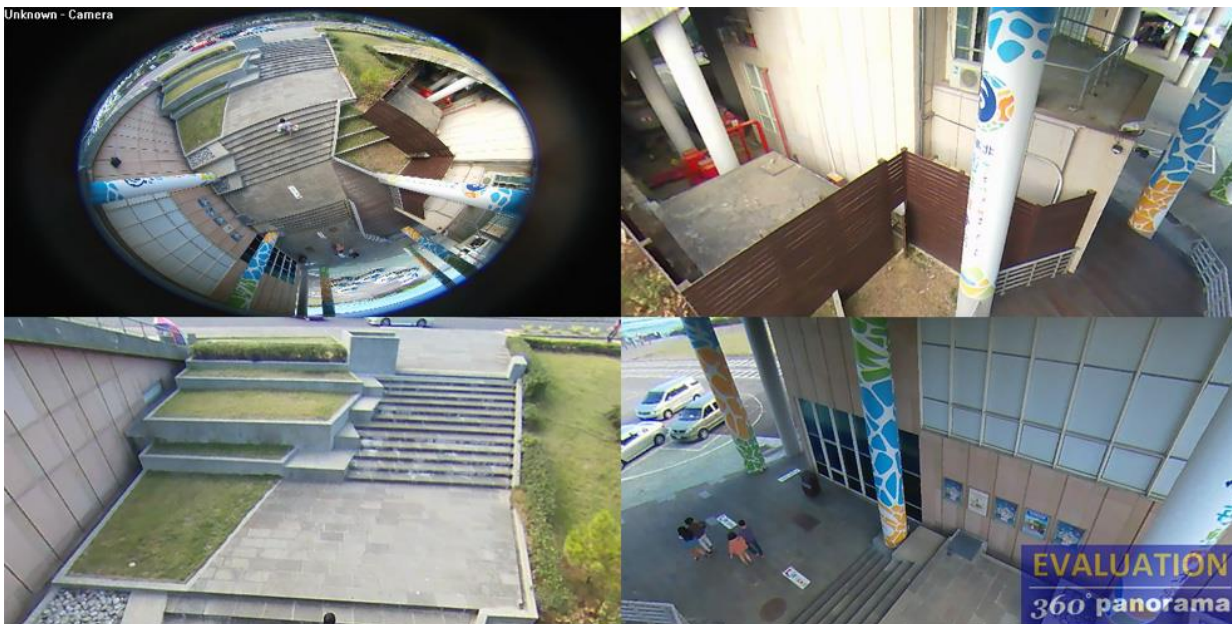


Pano360 Provides Various Showing Method, Press Mouse Right Button on Screen Select Showing Method you want.

Quad View with Source Image: One Source Image and 3 PTZ Controllable Sub-Windows

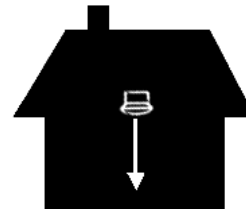


Object Video Screen Layout.



Quad View with 4 PTZ Controllable Sub-Window: Four PTZ Controllable Sub-Window, with Top-Left Sub-Window can be defining has AUTO-PAN property.

PTZ with Auto-PAN	PTZ Window
PTZ Window	PTZ Window

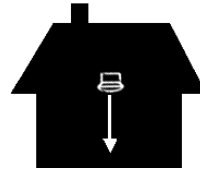


Object Video Screen Layout.



Cylindrical 360: Two 180 X 90 Sub-Window, The viewing area cover entire scene.

180 x 90 Rectangle No PTZ
180 x 90 Rectangle No PTZ

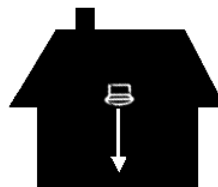


Object Video Screen Layout.

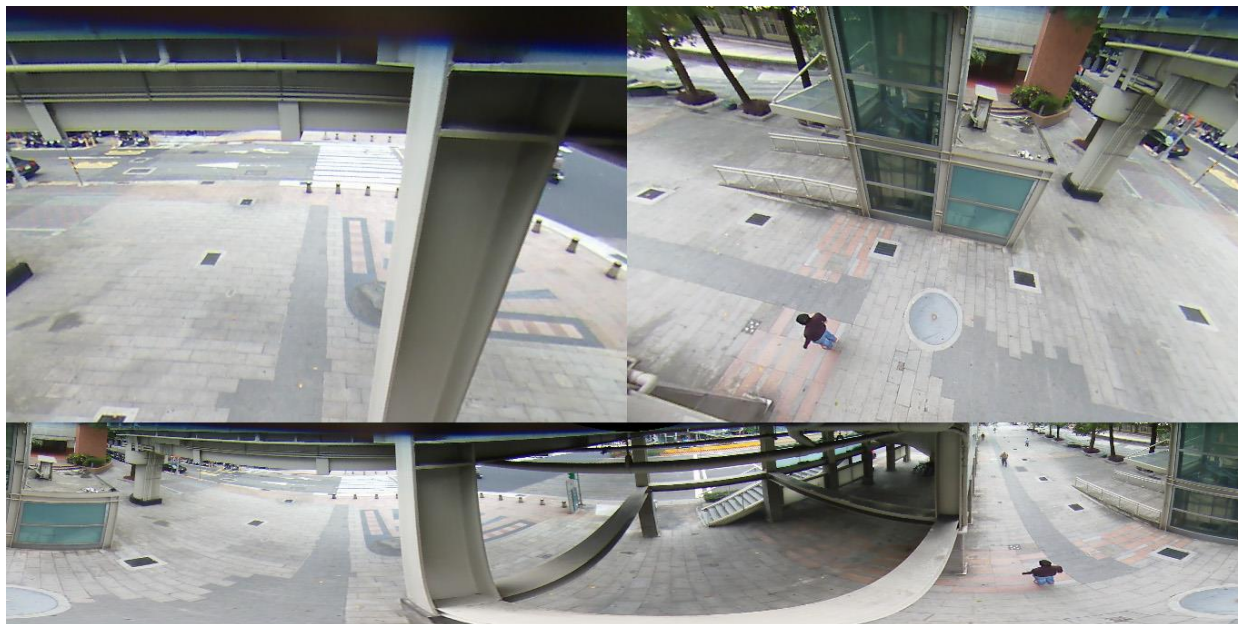


Global + Two 3D PTZ: A 360 X 90 Entire Scene and Two PTZ controllable Sub-Window, with Top-Left Sub-Window can be defining has AUTO-PAN property.

PTZ Window Auto-PAN	PTZ Window
360 x 90 Rectangle Entrée View.No PTZ	

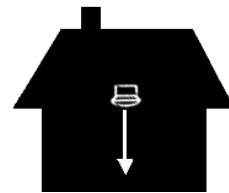


Object Video Screen Layout.

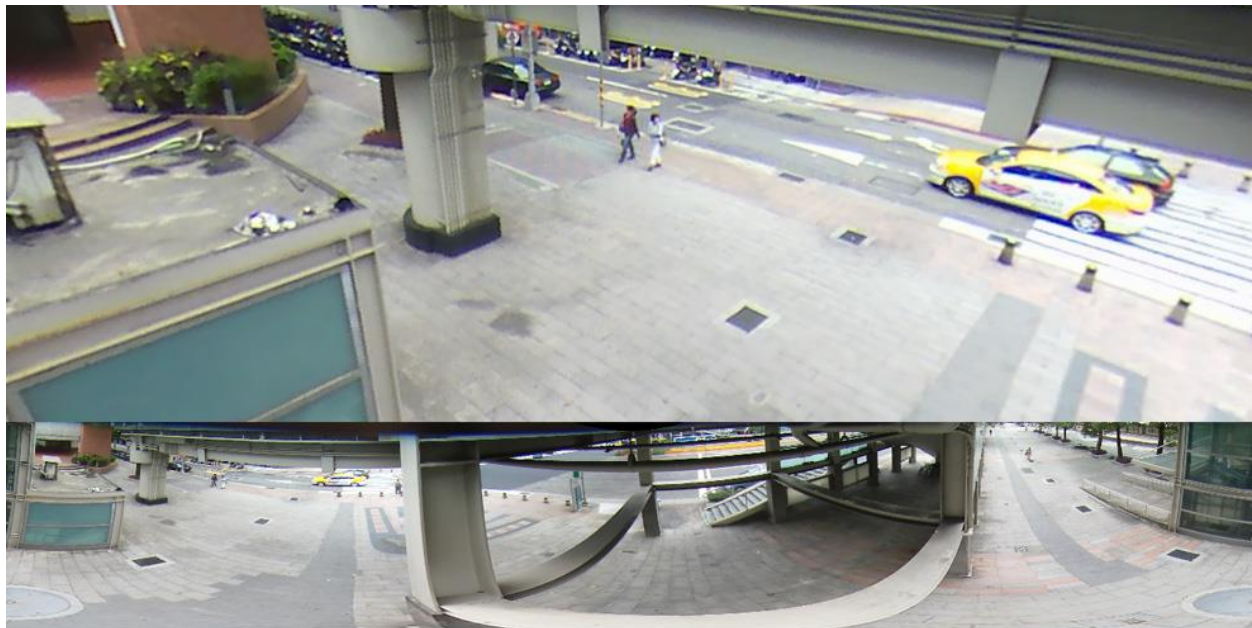


2D Global + One 3D PTZ: A 360 X 90 Entire Scene and Two PTZ controllable Sub-Window. The Upper Sub-Window can be defining has AUTO-PAN property.

PTZ Window Auto-PAN
360 x 90 Rectangle Entrée View, No PTZ

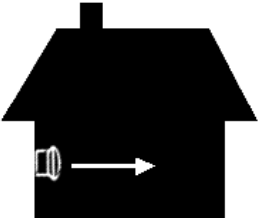


Object Video Screen Layout.



Introduction to Pano360 180 Degree Surveillance

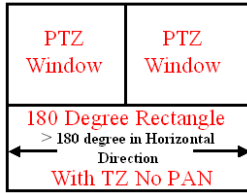
180-Degree Surface-Mount Source Image(Surface Mount)



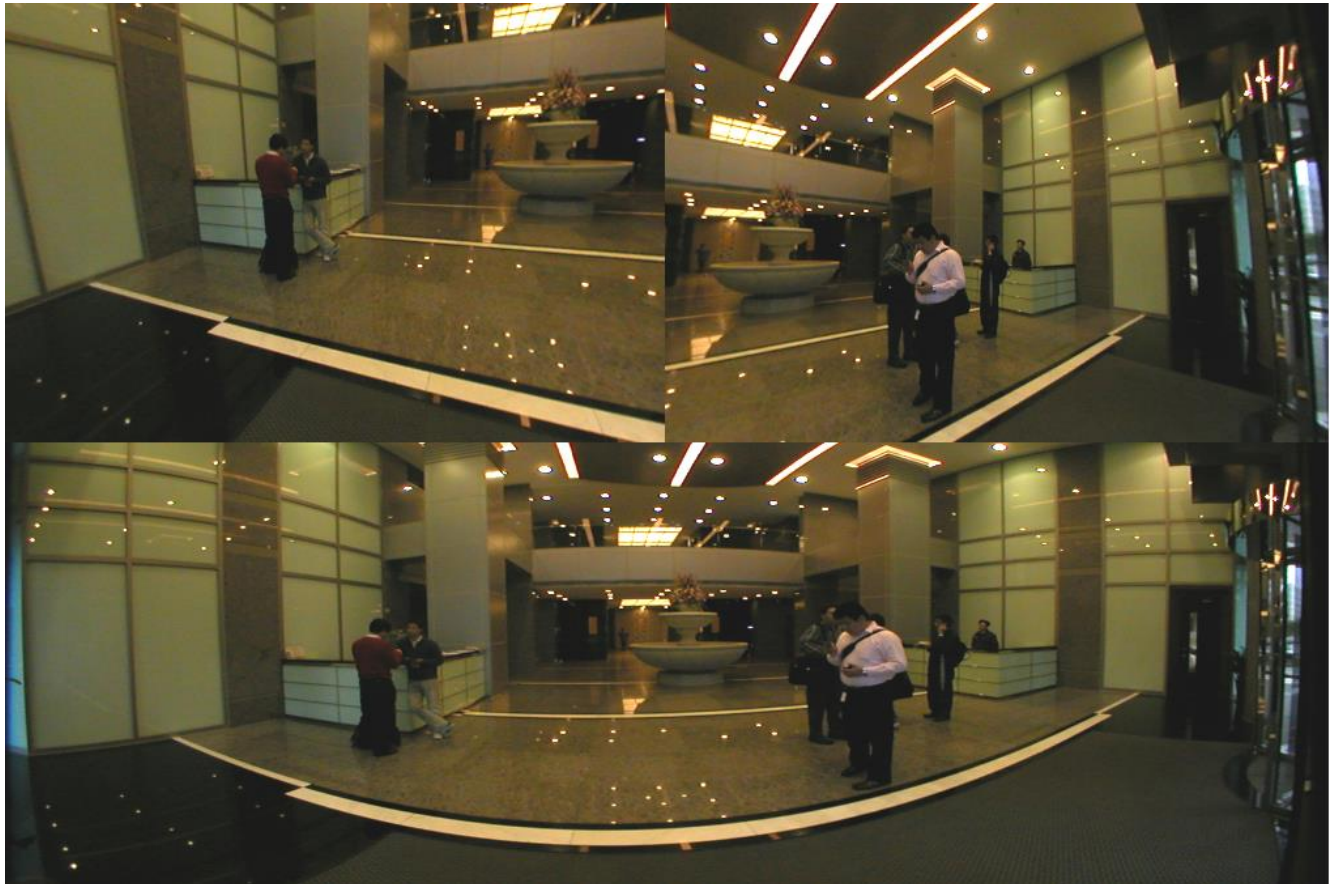
180-Degree Surface-Mount Camera Layout



180-Degree Surface-Mount: (Strip View, 2 PTZ Sub-Windows)



Object Video Screen Layout.



180-Degree Surface-Mount: (Single Undistorted Object Image)

Create Perspective
Corrected Window as
Output Video
With PTZ

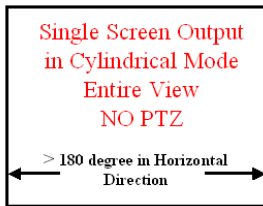
Horizontal Field View Angle
Can up to 150 Degree



Object Video Screen Layout.



180-Degree Gallery: (Surface-Mount, Single Cylindrical Output)



Object Video Screen Layout.



This Picture shows 180 Degree Cylindrical Object Image Generated by Pano360.

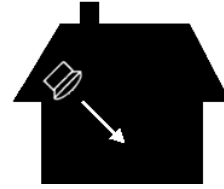
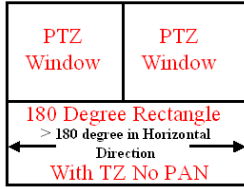
180-Degree Source Image: (Wall-Mount)



Camera Layout.



180-Degree Wall-Mount: (Strip View, 2 PTZ Sub-Windows)



Object Video Screen Layout.



180-Degree Wall-Mount: (Quad View, 3 PTZ + 1 Cylindrical Entire Viewing)

Cylindrical Entire View	PTZ Window
PTZ Window	PTZ Window



Object Video Screen Layout.

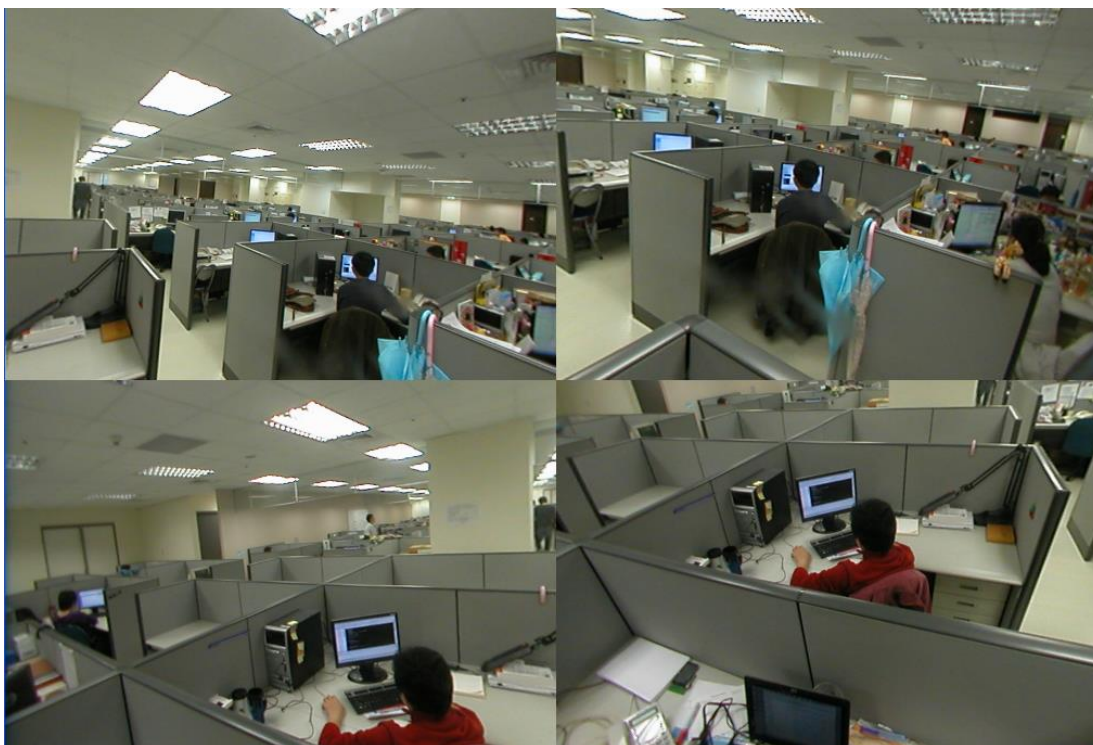


180-Degree Wall-Mount: (Quad View, 4 PTZ Sub-Windows)

PTZ Window	PTZ Window
PTZ Window	PTZ Window



Object Video Screen Layout.



180-Degree Gallery: (Wall-Mount, Single Cylindrical Output)

Single Screen Output
in Cylindrical Mode
Entire View
NO PTZ
← > 180 degree in Horizontal
Direction →



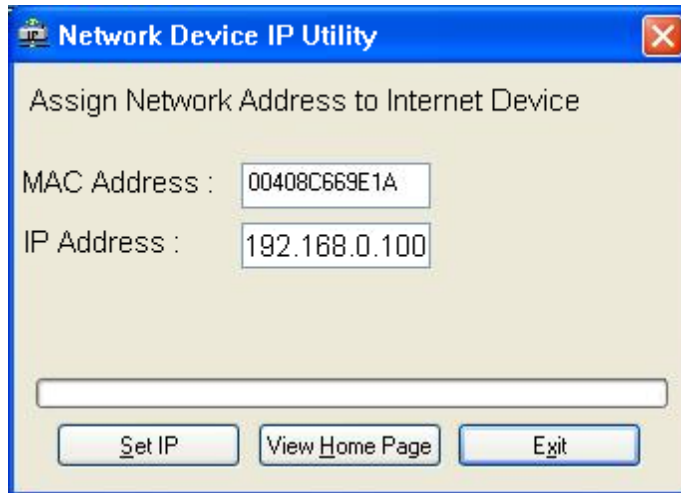
Object Video Screen Layout.



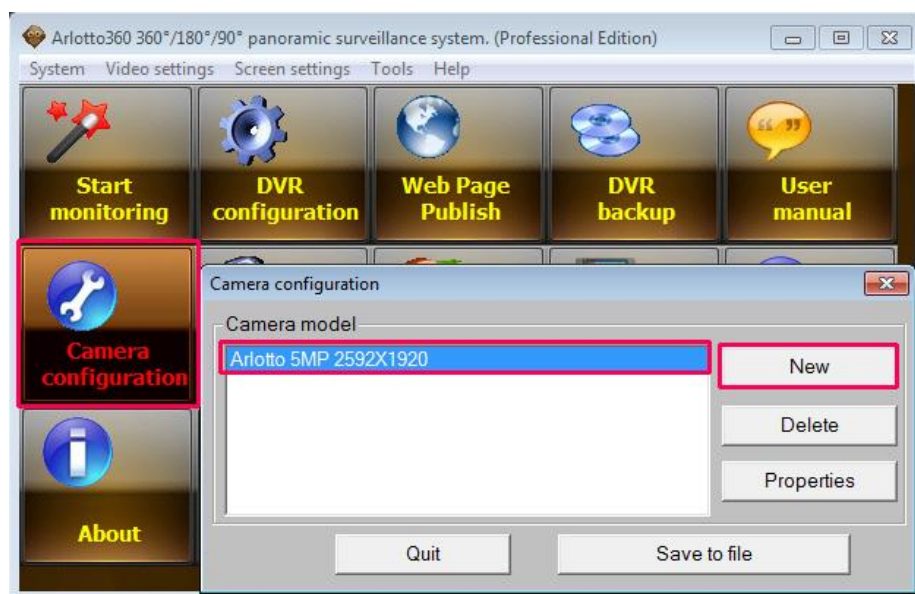
Camera Configuration and Panoramic Image Alignment

Before you using Pano360 You must add IP Camera into this system and Install your Video/Camera Servers with specified IP Address.

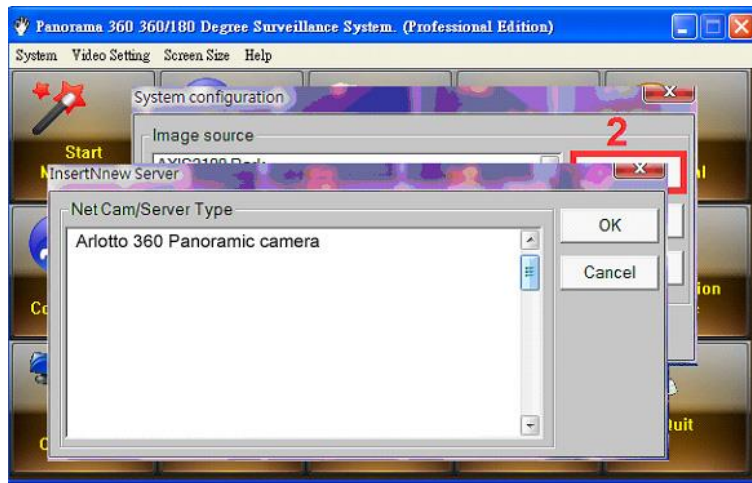
Configure You Network Camera with specified IP



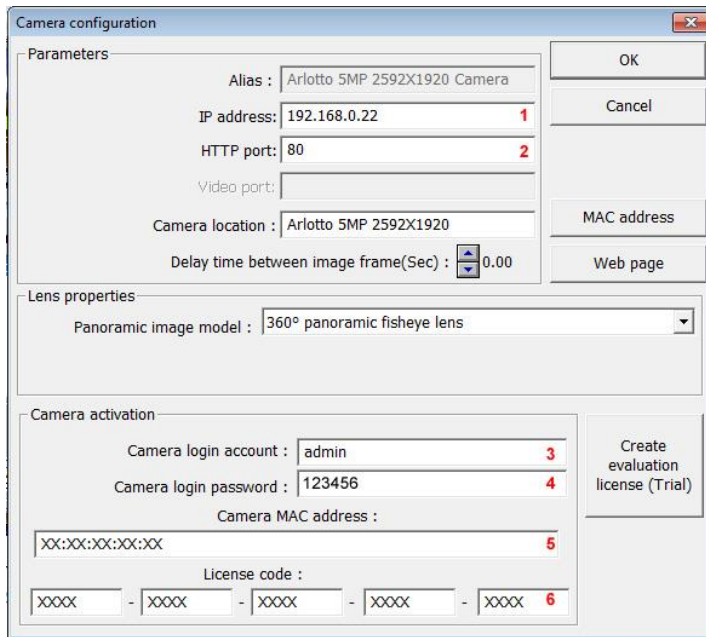
Add Arlotto camera



Press "New" Button To insert new Camera / Video server into Pano360



Step 3: Select Arlotto camera, then press “OK” button.



Where :

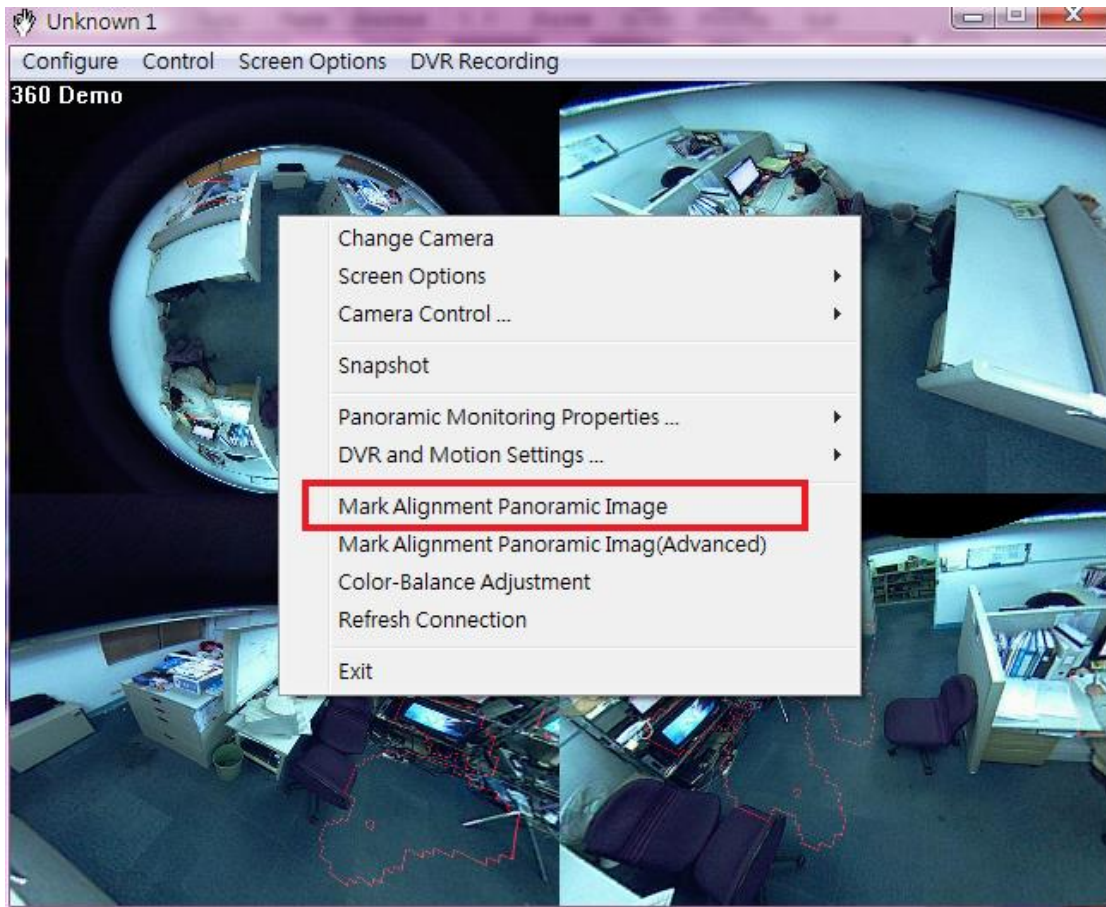
- (1) Camera's IP Address.
- (2) Camera Web Streaming Port. (Default is 80)
- (3) Camera login account and password, by default user: admin / password: 123456
- (4) Select 360° panoramic fish eye viewing type.
- (5) Camera MAC Address.
- (6) Camera License Code.

Panoramic Image Alignment

Start Pano360 system program, Then press "Start Monitoring" button.

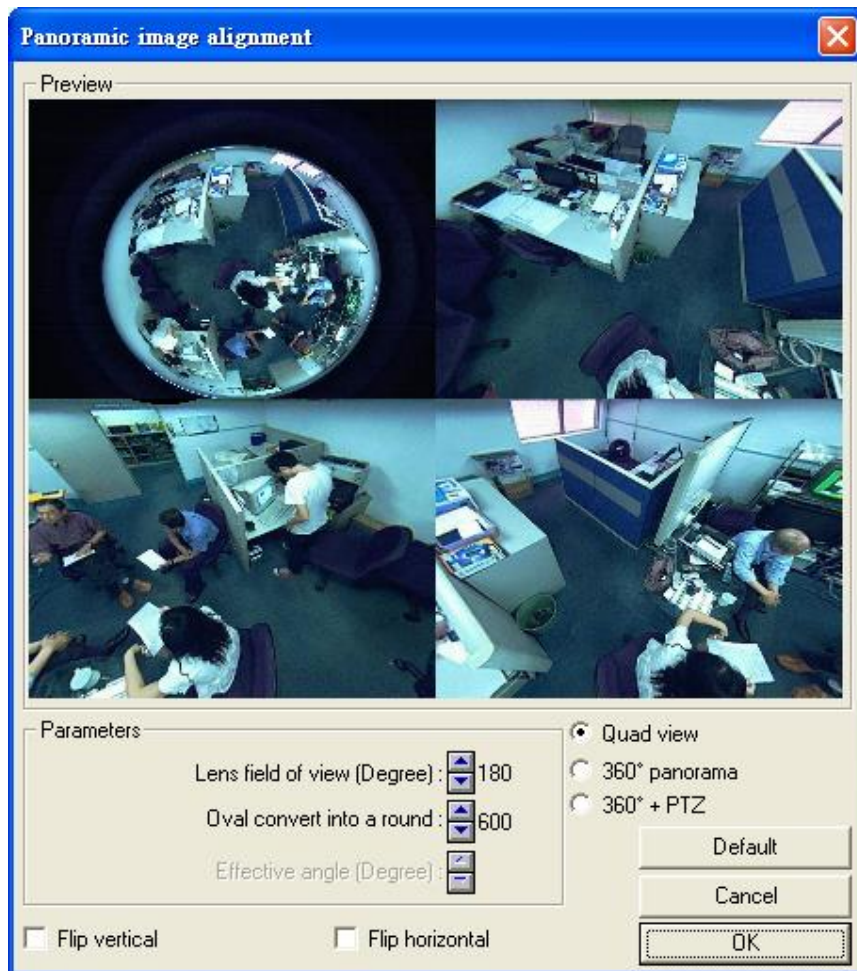


Press the mouse right button on screen below, Click the right mouse then execute the "Mark Alignment Panoramic image" menu item.

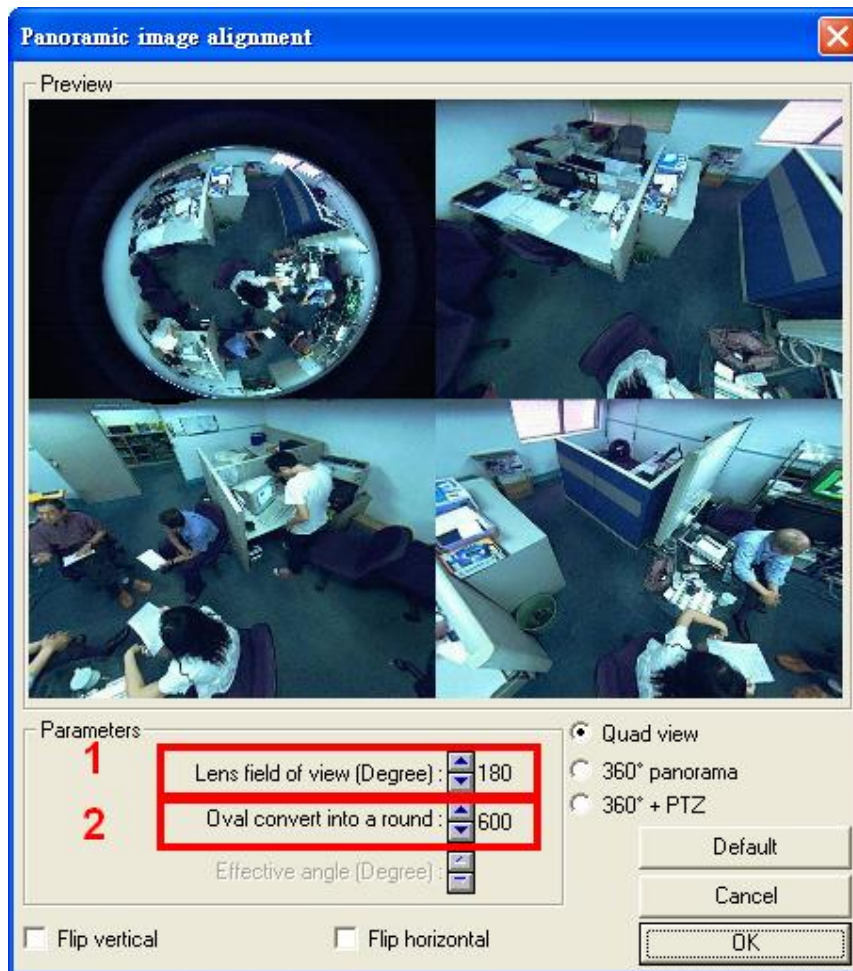


Align the circle to fit the Panorama Images.





When the marked circle fit the panorama image, press right mouse button, Select OK Menu and exit the mark image program.



Where,

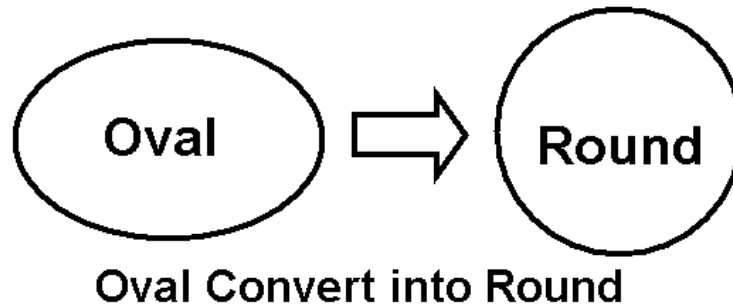
Fish eye Lens Field of View Angle.

Convert Oval style (Some camera output oval Image, not rounded region) into rounded Image.

Two Parameters Align the Panoramic image

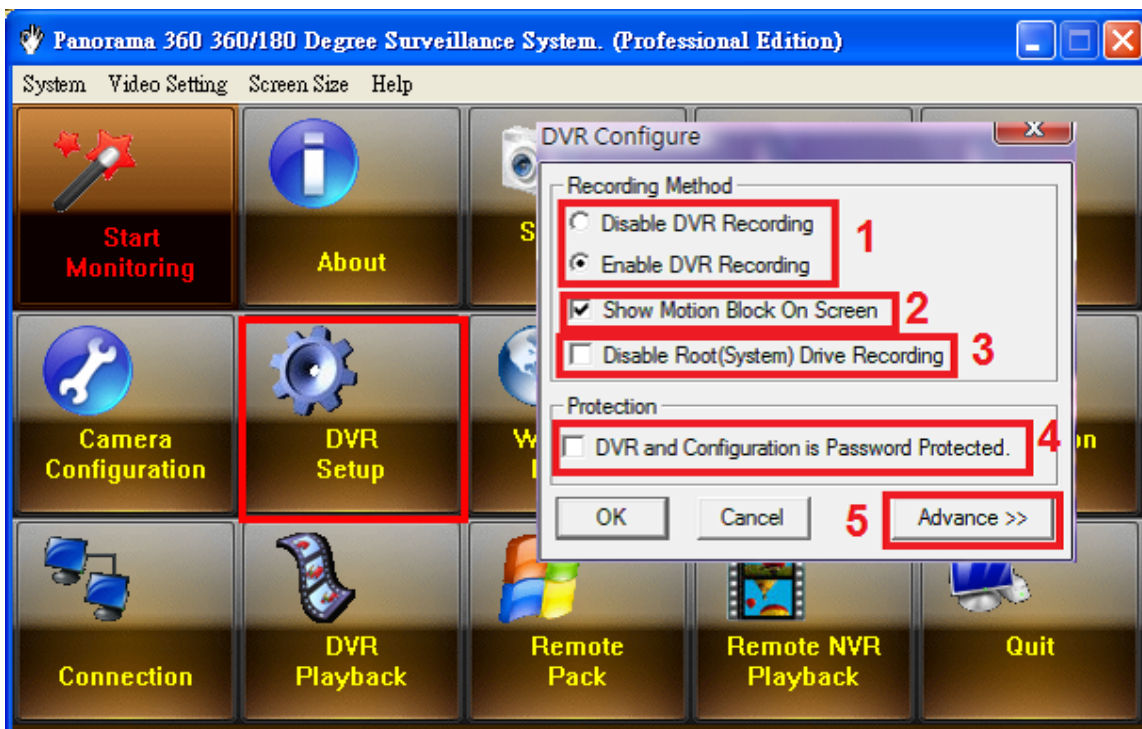
(1) Lens Degree of View: Input the Fisheye Lens Field of View Angle (in degree).

(2) Ellipse/Circle Adjustment: Adjust parameter could convert Ellipse Fisheye Image into Circular Image, and can be exact match the Alignment White Circle.



DVR Setup and Configuration

Press "DVR Setup" Entering DVR configuration dialog:



Where:

1. Enable/Disable All Video Channel Recording.
2. If Video is set to "Motion Trigger Recording", system will show a motion block mark with red color when motion detected.
3. Pano360 will skip recording on Windows system drive, and recording on another drive, this function could protect Windows system.
4. When Password Protected flag is on, system will prompt a dialog for input root password, when DVR, Snapshot file, System configuration is to be change of to be delete.
5. Advance setting for NAS configuration.

Advance DVR Setting For NAS configure:



Turn On/Off NAS Recording. And give subdirectory for NAS recording.

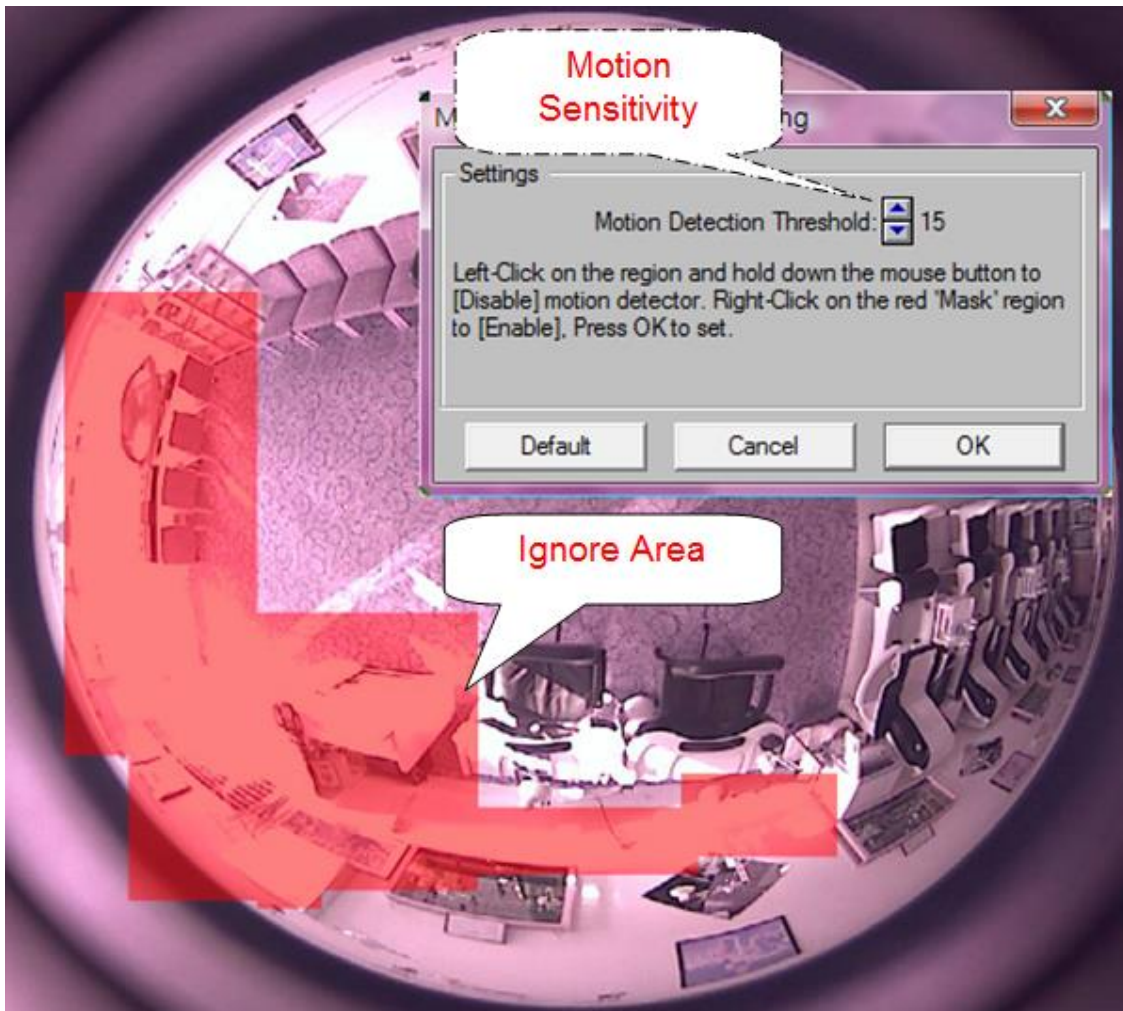
Input NAS start up command, this command will let Windows system connect to NAS device. And "Auto connect NAS On System Startup" flag is on, Pano360 will run this script while Pano360 is start up.

Running NAS script on (7) right now.

Edit Motion Mask

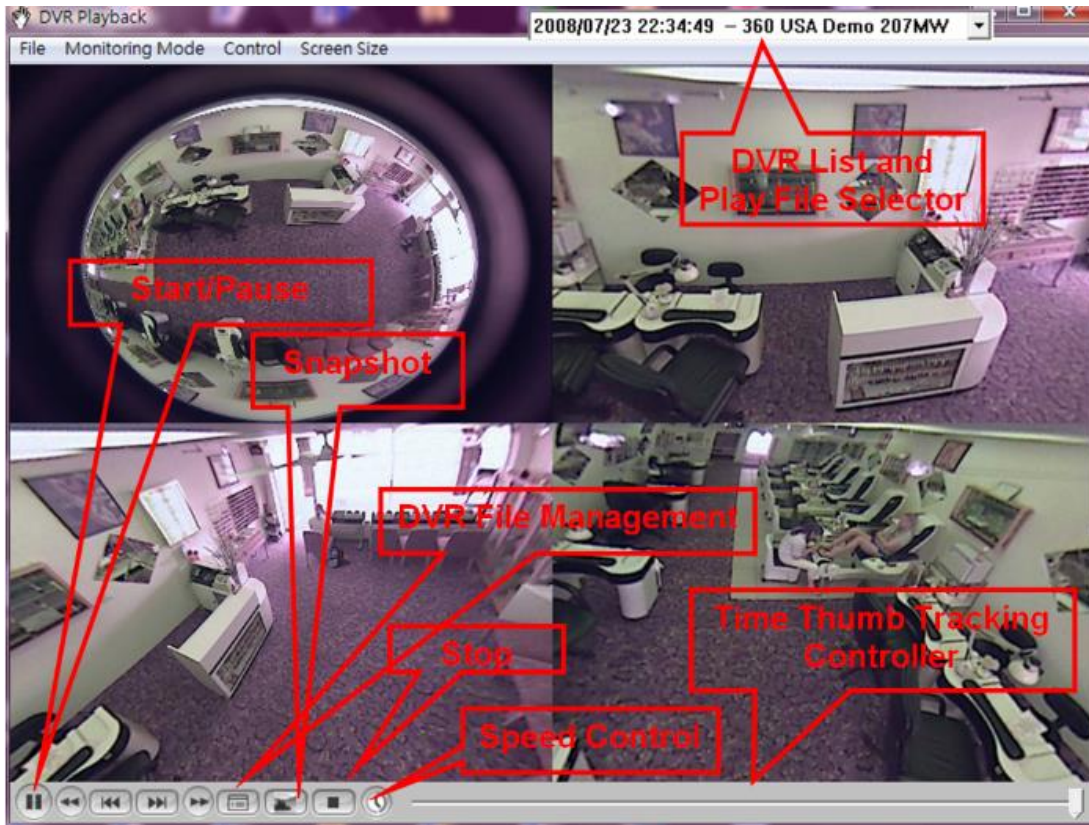
Motion Sensitivity: There are 10 levels of sensitivity for motion detection. The higher the value, the more sensitive the system is to the motion.

Mask Filter: Mask instructs the system to ignore movement under masked area. Mask could be applied to repetitive motion that should be ignored within the surveillance area, such as street trees.



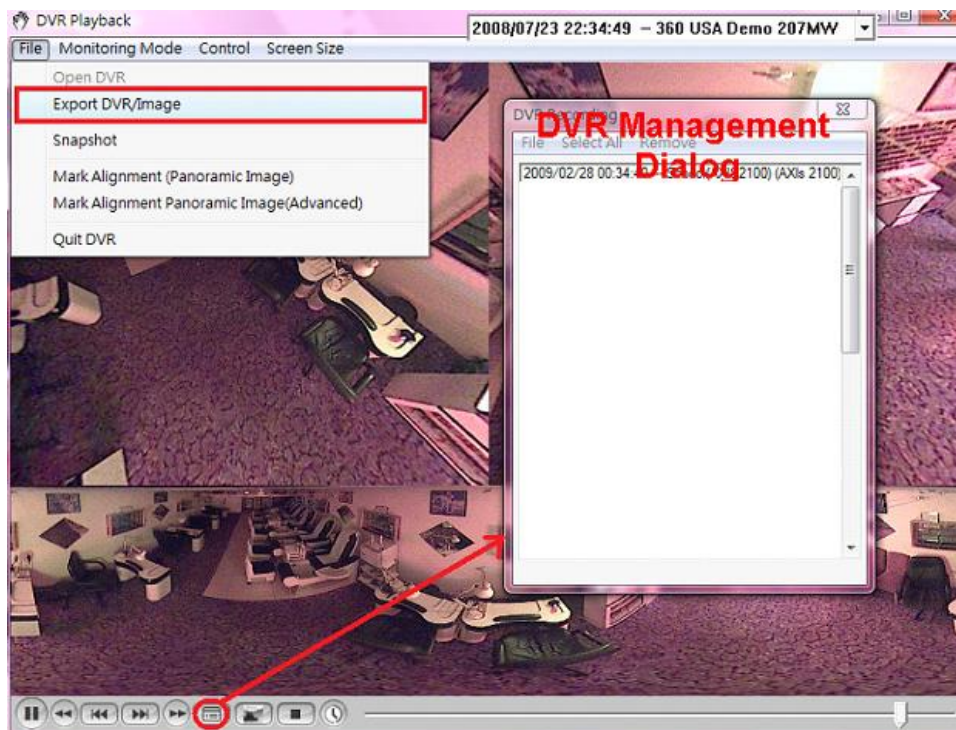
P.S.: Disable title annotate text from camera site, you should turn of the title annotates text from your camera site, before you using motion trigger recording. Annotate text will cause motion alert all the times.

DVR Playback




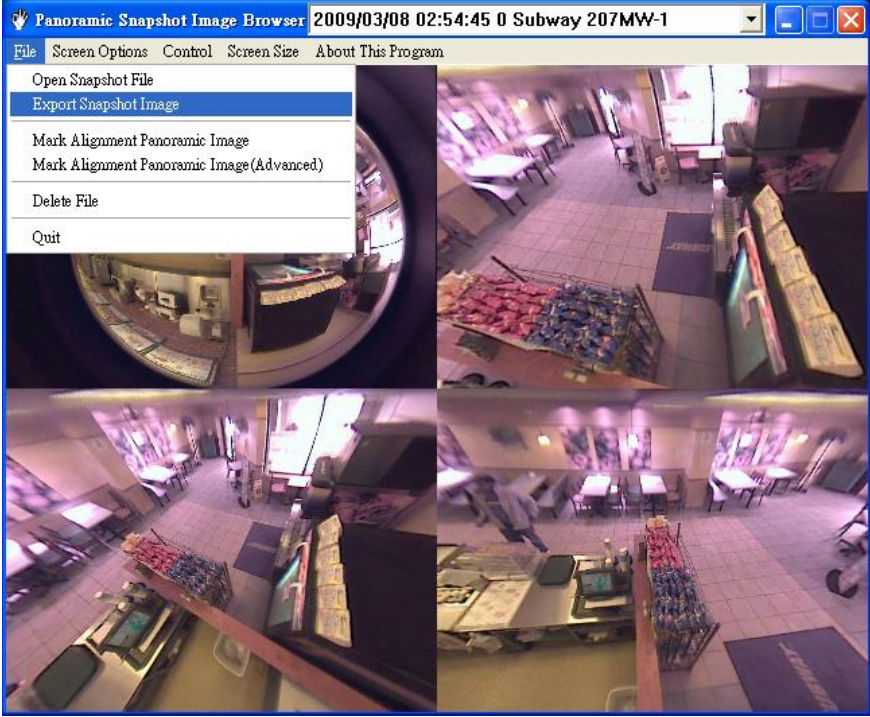
Export DVR File and Snapshot to Portable Executable

DVR Exporting: Launch “DVR Playback” Then Open DVR Management Dialog, Select “File -> Export DVR/Image” Menu. You may Export DVR File to Single EXE file (All Win32 Platform Portable Executable File), The Executable file is Auto-decompress Auto-Expand Auto-Run without install Pano360 System Program and Any other Pluggings or filters.



Snapshot File Export

Open Snapshot Viewer  on Main UI Screen, Select "File -> Export Snapshot Image".



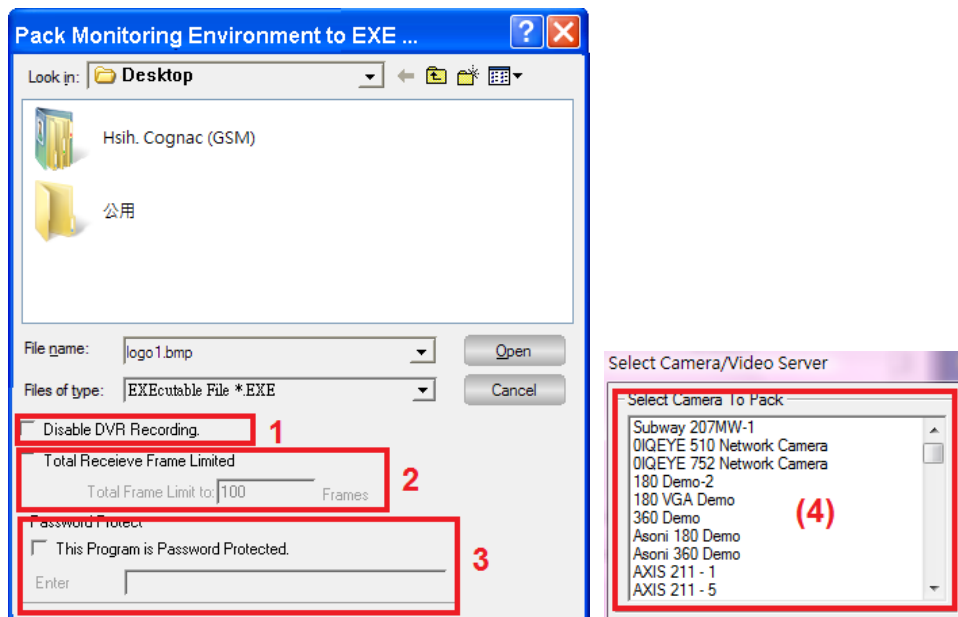
Remote Pack and Web Publish

Share Your Monitoring to Internet.



Pano360 Provides two methods, Share your Monitoring Environment to Internet.

Remote Pack

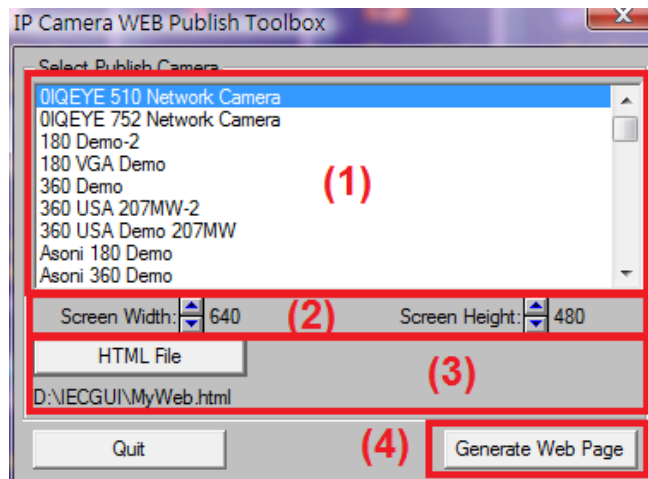


Descriptions for Remote Pack:

1. Disable DVR recording on remote site,
2. Total receive frames Limitation (Most case this is useful for demo purpose)
3. Ask for password before monitoring, (Security purpose)
4. Select Cameras to Pack from Installed Camera list (Can do Multiple Selection).

Remote Pack generated EXE file is a Compressed EXE file in ZIP format and an Auto Decompress and Auto Expand, Auto Run engine also includes in this EXE file. Remote site could run this program in all WIN32 Platform, without install Pano360 System Program.

Web Publish:



Descriptions for Web Publish:

1. Installed Camera List (Select One).
2. Client Area on Web Page with specified width and height.
3. Output directory and HTML file name. (Suggest create a blank folder before create HTML page).
4. Start To create Web Page.

Important Notes:

Web Publish creates 3 files,

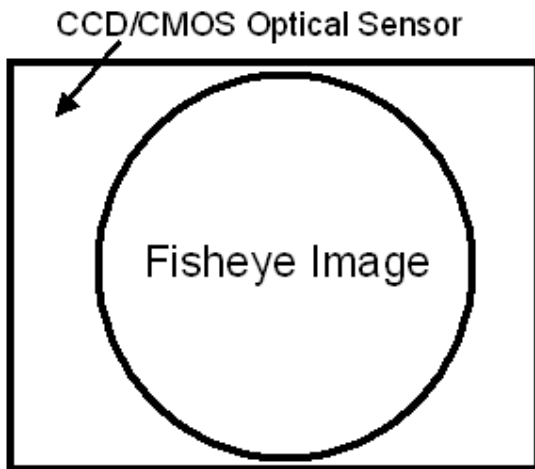
(a) HTML file (*.html): An Editable HTML text file. (b) Ocx360.cab: The CAB file is an Activex Control file, allows you view camera from remote web page. (c) Camera configure file (*.cctv). You should move 3 file in same directory or give CAB with global path.

The generated files can run on MSIE only, not running on other secure internet browser e.g. Firefox, Opera, Chrome, Safari, Netscape ...

Lens Selection and Lens Mounting for Various Types Panoramic Lens and Mirror: Pano360 Supported Most All Types of Panoramic Images, to Produce 360/180 Degree Panorama. This includes.

360 Degree Panorama:

a. Ordinal Fisheye Image (With $DOV \geq 180$ Degree) (DOV: Lens Degree of View). With lens Projected Area should completed inside CCD/CMOS Sensor. See Figure Below:

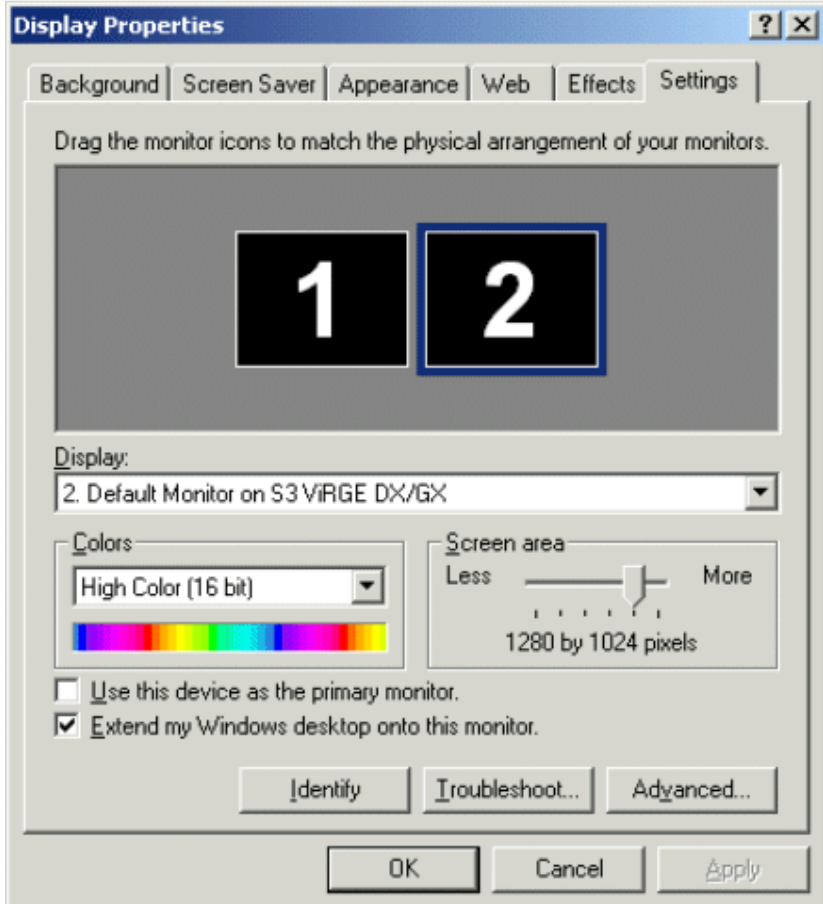
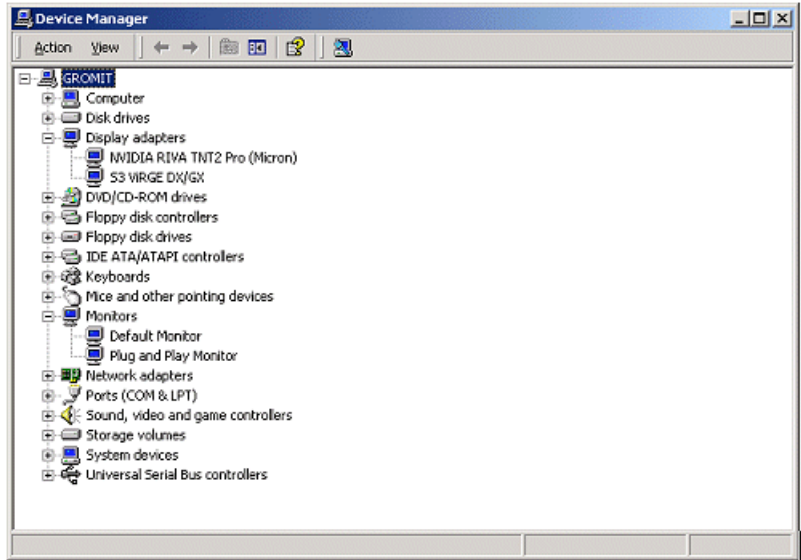


360 Degree Camera Mounting: Pano360 is camera cell-mount system, but you may also put camera direction upside-down (Camera put on the ground toward to Sky).

Using Dual Monitor in Single PC

Getting dual monitors to work correctly seems to be a hit or miss affair. In many cases, it's just a matter adding a second video card and monitor and rebooting the computer. In other cases, you need to do some cyber gymnastics to get things working correctly.

Once the drivers are installed, check the Device Manager to make sure that the display adapter is properly detected:



When Dual Monitor worked, In main windows, select “Screen Size -> Dual Monitor -> Channel”, You can run dual monitor in single PC now.



System Requirement:

Hardware Requirement

Pano360 do not asked for special requirement in software and hardware.

CPU: Pentium IV class and higher.

RAM: 256 MB for WIN2K, 512 MB and above for WINXP, 1G for Vista.

HDD: 60 MB Free disk space (For monitoring only). 200 G and above for DVR recording.

VGA Card: 16 bit high color mode or above.

Monitor: Color VGA Monitor and above.

Ethernet: 10 / 100 / 1000 Base Ethernet.

Software Requirement

WIN95, WIN98, WINNT, WIN2K, WINME, WINXP, WIN2003, Vista, Windows 7, Windows 8.
(Suggested Platform WIN2k, WINNT, WINXP, Vista)