

# 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.				
<u>کې</u>	Camera Configuration: Insert/Delete/Modify Camera Configure Information.				
0	About: About Pano360 system information.				
<u>ون</u>	DVR Setup: Edit DVR operation configuration.				
8	DVR Playback: Play the local DVR video.				
01	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.				
<u>88</u>	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.				
9	User Manual: Open this document.				
0	Installation Guide: Open this document and jump to camera configuration hyper link.				
<b>V</b>	Quit: Quit the Program.				

Introduction to Pano360, 360-Degree Surveillance

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





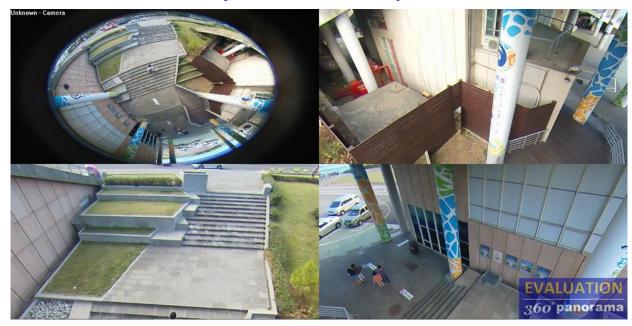
Pano360 Provides Various Showing Method, Press Mouse Right Button on Screen Select Showing Method you want.

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

Source	PTZ
Picture	Window
PTZ	PTZ
Window	Window



**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	PTZ
Auto-PAN	Window
PTZ	PTZ
Window	Window





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





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.

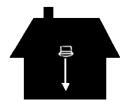
PTZ Window Auto-PAN	PTZ Window
360 x 90 R Entrée Viev	0

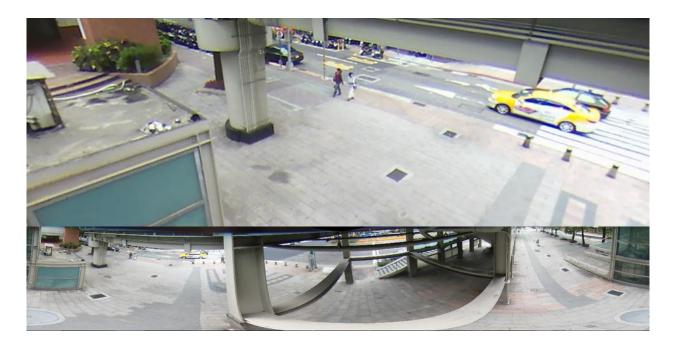




2D Global + One 3D PTZ: A 360 X 90 Entire Scene and Two PTZ controllable Sub-Window. The Upper Sub-Window can be defining has AUTO-PAN property.







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)

PTZ	PTZ
Window	Window
Dire	e Rectangle in Horizontal ection Z No PAN

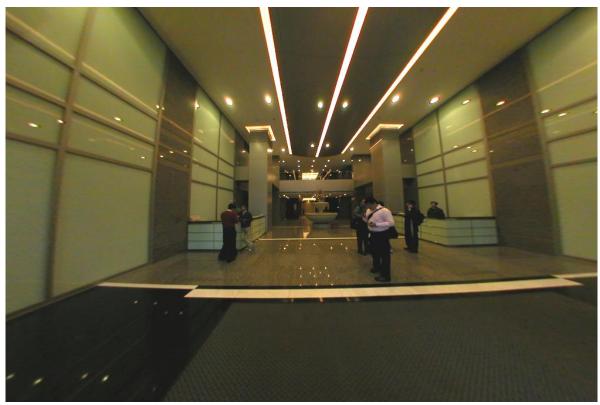




180-Degree Surface-Mount: (Single Undistorted Object Image)







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)







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

Cylindrical	PTZ
Entire View	Window
PTZ	PTZ
Window	Window





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

PTZ	PTZ
Window	Window
PTZ	PTZ
Window	Window





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







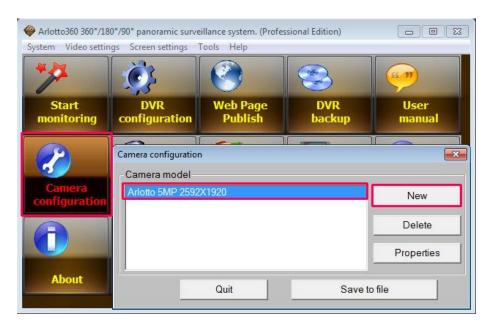
#### Camera Configuration and Panoramic Image Alignment

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

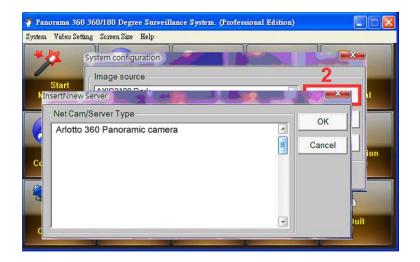
Configure You Network Camera with specified IP

🚔 Network Devic	ce IP Utility	×	
Assign Network Address to Internet Device			
MAC Address : IP Address :	00408C669E1A		
IF AUULESS .	192.168.0.100		
<u>S</u> et IP	View <u>H</u> ome Page Exit		

#### Add Arlotto camera



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



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

Parameters		_1	ОК
A <mark>l</mark> ias :	Arlotto 5MP 2592X1920 Camer	a	
IP address:	192.168.0.22	1	Cancel
HTTP port:	80	2	
Video port:			
Camera location :	Arlotto 5MP 2592X1920	_	MAC address
Lens properties	veen image frame(Sec) : 💼 0.0	0	Web page
Lens properties Panoramic image model : 30		0	Web page
Lens properties Panoramic image model : 36 Camera activation	50° panoramic fisheye lens		Web page
Lens properties Panoramic image model : 34 - Camera activation Camera login account	50° panoramic fisheye lens	3	Create evaluation
Lens properties Panoramic image model : 3 Camera activation Camera login account Camera login password	50° panoramic fisheye lens		Create
Lens properties Panoramic image model : 3 Camera activation Camera login account Camera login password	50° panoramic fisheye lens	3	Create

Where :

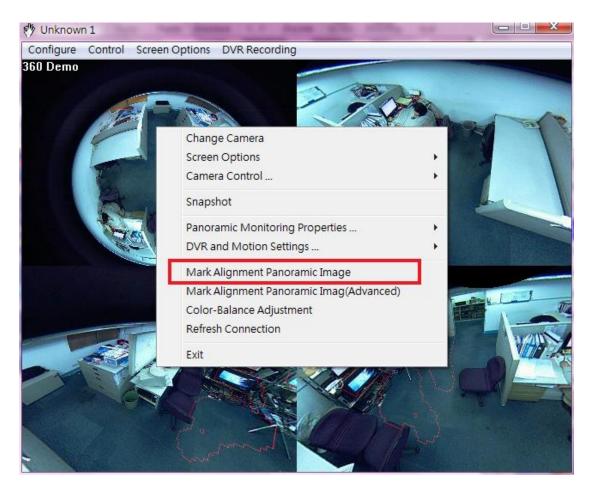
- (1) Camera's IP Address.
- (2) Camera Web Streaming Port. (Default is 80)
- (3) Camera login account and password, by default user: admin / password: 123456
- (4) Select 360° panoramic fish eye viewing type.
- (5) Camera MAC Address.
- (6) Camera License Code.

### Panoramic Image Alignment

🗳 Panorama 360 360/180 Degree Surveillance System. (Professional Edition) × System Video Setting Screen Size Help 01 55 99 Snapshot Set Root User About Viewer Password Manual NVR Camera DVR Web Page Installation Configuration Setup Publish Backup Guide Quit DVR Remote NVR Remote Connection Playback Pack Playback

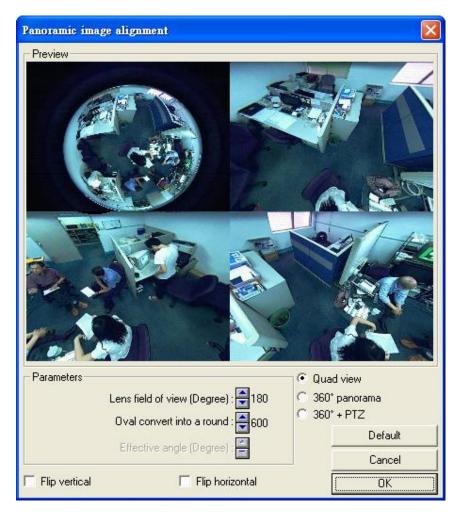
Start Pano360 system program, Then press "Start Monitoring" button.

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

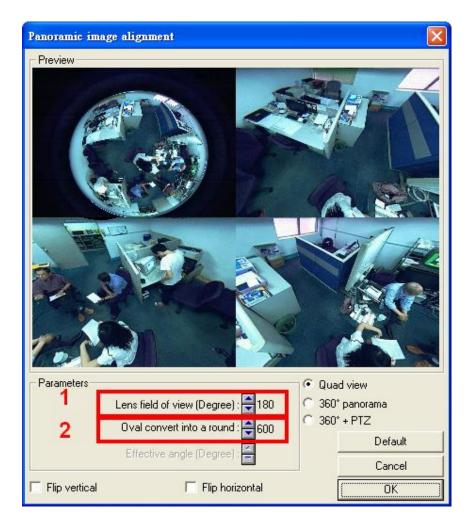


Align the circle to fit the Panorama Images.





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



Where,

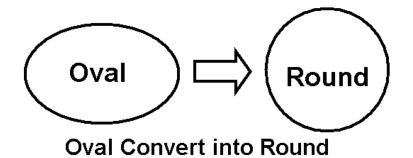
Fish eye Lens Field of View Angle.

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 read 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:

🜵 Panorama 360 360	/180 Degree Surveil	lance System. (Profe	essional Edition)	
System Video Setting	Screen Size Help			
DVR Advance	Settings			
DVR Settings	rage Recording			
M Enable N/	AS Recording ectory	6	]	
	s and Settings\david\点 NAS Connection Pa		s Screen Drive Re	
Con	2.168.1.122\mynas\ ect NAS On System Star	rtup 7	is Passv	vord Protected.
Run NAS C	Connection 8	Cancel	<u>D</u> K	Advance >>
Connection	DVR Playback	Remote Pack	Remote NVR Playback	Quit

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

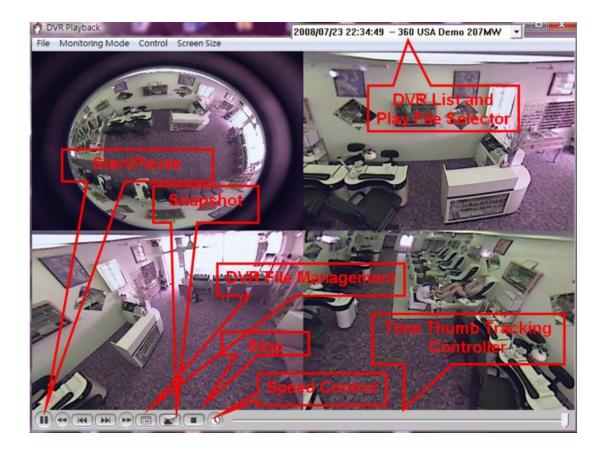
Motion Sensitivity: There are 10 levels of sensitivity for motion detection. The higher the value, the more sensitive the system is to the motion.

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.



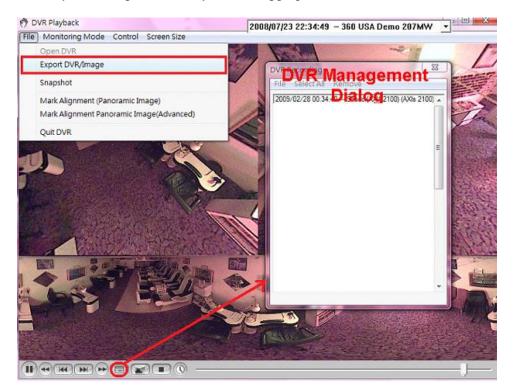
P.S.: Disable title annotate text from camera site, you should turn of the title annotates text from your camera site, before you using motion trigger recording. Annotate text will cause motion alert all the times.

### **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.

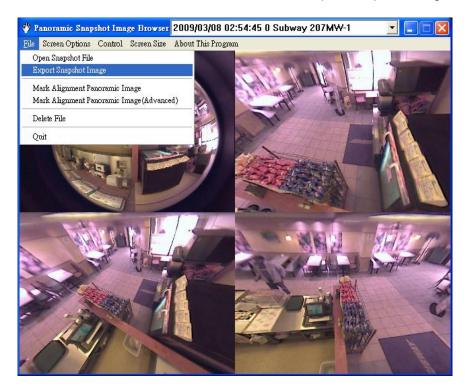


### Snapshot File Export

Open Snapshot Viewer

1

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**

Pack Monitoring Environment to EXE 🔹 💽	
Look in: 🔁 Desktop 💽 🔶 🖽 🖛	
Hsih. Cognac (GSM)	
1. 公用	
File name: logo 1.bmp Open	Select Camera/Video Server
Files of type: EXEcutable File *.EXE  Cancel	- Select Camera To Pack
Disable DVR Recording.	Subway 207MW-1 0IQEYE 510 Network Camera
Total Receieve Frame Limited	0IQEYE 752 Network Camera
Total Frame Limit to: 100 Frames 2	180 Demo-2 180 VGA Demo
	360 Demo (4) Asoni 180 Demo
This Program is Password Protected. 3	Asoni 360 Demo AXIS 211 - 1
Enter	AXIS 211 - 5

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:

P Camera WEB Publish Toolbox		
Select Publish Camera		
DIQEYE 510 Network Camera DIQEYE 752 Network Camera 180 Demo-2 180 VGA Demo 360 Demo 360 USA 207MW-2 360 USA Demo 207MW		
Asoni 180 Demo Asoni 360 Demo	-	
Screen Width: 🗬 640	(2) Screen Height: 🗧 480	
HTML File	(3)	
D:\IECGUI\MyWeb.html	(•)	
Quit	(4) Generate Web Page	

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,

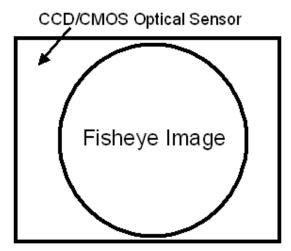
(a) HTML file (\*.html): An Editable HTML text file. (b) Ocx360.cab: The CAB file is an Activex Control file, allows you view camera from remote web page. (c) Camera configure file (\*.cctv). You should move 3 file in same directory or give CAB with global path.

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 >= 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:

L Device Manager		
Action yew + → B E C 2		
<ul> <li>Computer</li> <li>Disk drives</li> </ul>		
Display adapters     WIDIA RIVA TNT2 Pro (Micron)		
⊕ ∰ DVD/CD-ROM drives ⊕ ∰ Floppy disk controllers		
Floppy disk drives		
IDE ATA/ATAPI controllers		
Mice and other pointing devices		
😑 🖳 Monitors		
⊕ ■     ■ Network adapters     ⊕ -      _      _      _      Ports (COM & LPT)		
Gound, video and game controllers     Storage volumes		
System devices		
🗄 🍣 Universal Serial Bus controllers		
Display Properties	<u>? ×</u>	
Background Screen Saver Appearance Web Effects Settings		
Drag the monitor icons to match the	physical arrangement of your monitors.	
Display:		
2. Default Monitor on S3 ViRGE DX/GX		
,		
Colors	Screen area	
High Color (16 bit)		
	1280 by 1024 pixels	

Extend my Windows desktop onto this monitor.

Identify

ΟK

Troubleshoot...

Cancel

Advanced...

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)