# FISHEYE PANORAMIC CAMERA

# **PRODUCT MANUAL**

V1.0

#### Notice

We'd like to express our gratitude for purchasing fisheye panoramic camera from our Company.

Please read this manual carefully before installation. When you start installing the camera, you are supposed to have finished reading it. If the product is damaged because the user does not operate it according to the manual, he/she cannot be entitled to guarantee service.

If you come across any problem related to the product before or during the installation, please contact us, we will provide technical support.

This manual will update constantly, please check the latest version on our website. New version will release without further notice. Our company reserves the right of interpretation of this manual.

Environmental conditions : Operation: Temperature:  $-30^{\circ}C \sim +65^{\circ}C$ Moisture:  $10\% \sim 95\%$ Storage: Temperature:  $-40^{\circ}C \sim 75^{\circ}C$ Moisture :  $10\% \sim 95\%$ Power: DC12V/2A

Note: The fisheye panoramic camera is not explosion-proof, please avoid external shocks which may bring damage to the device during installation.

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# **1 PRODUCT OVERVIEW**

### **1.1 INTRODUCTION**

Users are always in the pursuit of easier installation, operation and maintaining of video surveillance system for security in the places like shops, offices and residential places. To meet such requirement, we provide highly integrated solution with ceiling/wall mounted IP HD fisheye panoramic camera. All functions are integrated into one camcorder camera and users are able to monitor easily with any common devices such as PC, laptop or portable device.

# **1.2 APPLICABLE DOMAINS**

The camera can be used in outdoor areas related to municipal, energy, transportation, electricity, water and agriculture.

Check whether the product is complete before installation. If there are contents missing, please contact our distributor.

# 1.3 SAFTY NOTICE

- \* Do not touch the camera during a lightening thunderstorm;
- \* Do not drop the camera;
- \* If abnormal smell or smoke comes out of the camera, turn off the power immediately;
  - \* Make sure that the device is well mounted, no shaking;
  - \* The camera cannot stand fierce collision;
- \* Do not rub the transparent cover of the camera in order not to damage the view;
  - \* Pay attention to the operating conditions of the camera;
  - \* Please contact us if you have any questions about our product.

# **2 FUNCTIONS**

# 2.1 BASIC FUNCTIONS

The fisheye panoramic camera is mainly used for remote video transmission based on IP network. The product adopts H.264 hardware compression technology which enables the device to transmit high-quality video at a speed of 25 frame/sec on LAN/WAN. The camera is entirely based on TCP/IP protocol. It has a built-in Web server to support IE browser. It can be adjusted, opened, updated through network. The management and the maintenance of the camera is convenient.

# 2.2 ADVANCED FUNCTIONS

\* Latest high-performance processor: HI3518. Support H.264 Main Profile video encoding;

\* Transmission speed up to 25 fps;

\* Ameliorated H.264 video compression algorithm which realizes high definition image transmission on narrowband;

\* Built-in Web server, easy usage of IE browser to realize real-time monitor and control;

\* Optional equipment: WIFI: 802.11b/g, wireless network;

\* Remote upgrading;

\* Dynamic DNS, LAN and Internet;

\* Single/two-way speaker;

\* Motion detection: optional region and optional sensitivity;

\*Built-in watchdog, recover automatically from anomalies, automatic connection to network after outage;

\* Dynamic alarm system, able to set alarm period;

\* Possible to send Email, FTP pictures and trigger external alarm;

\* Mobile phone access.

# **3 SYSTEM REQUIREMENT**

Minimum hardware requirement:

- \* CPU: 2.4 GHz
- \* Memory: 2048MB
- \* Sound card: necessary when voice monitor and tow-way intercom are needed
- \* Hard drive: if video recording is needed, it should be no less than 160G
- \* System: 32/64 bit Windows2003, Windows XP, Win 7 and Win8

Software requirement:

- \* IE 6.0 or above
- \* DirectX8.0 or above
- \* TCP / IP protocol

# **4 INSTALLATION**

There are mainly three kinds of networking to manage the camera: remote connection, LAN connection and cable connection. Before using the camera, please follow the steps below to install the hardware and to set software correctly.



Step 1: connect the network cable to the RJ45 port on the camera. Step 2: connect the power adapter to the camera's outlet.



Warning: please choose the right power adapter, otherwise, the camera may not work.

# 4. 2 CONNECT NETWORK CABLE TO ROUTER OR SWITCH

Connect the other side of the network cable to a switch or to a router.



Check whether the green LED of the RJ port is on or not. If the LAN is well connected, LED will be on. If there are data transmitted, orange LED will scintillate.

Wait for about one minute. Normally, the yellow LED is always on and the green LED scintillates; this manifests that the camera is connected (in order to connect it smoothly, set the camera's IP address to the same fixed IP address of the computer which should be in the same network segment in the LAN ).

Now, the camera can communicate with user's network. It can be accessed to. User can visit its home page and start using the camera.

# **5 ACCESS TO THE CAMERA**

There are two ways to access to the camera:

- 1. via IE browser;
- 2. via multi-screen monitoring software.

### 5.1 VIA IE BROWSER

After connecting the camera and a computer into the same LAN, the computer will be able to control the camera. Set the IP address of the computer to the same as the camera's: 192.168.0.%. The default IP address of the camera is 192.168.0.123. After these modifications, use PING command to verify whether the computer and the camera can successfully communicate. If not, check power line and network cable to make sure that they are properly connected. Computer IP address setting:

Constal	
General	
You can get IP settings assigned this capability. Otherwise, you ne for the appropriate IP settings.	automatically if your network supports eed to ask your network administrator
Obtain an IP address autom	natically
• Use the following IP address	s:
IP address:	192.168.0.122
Subnet mask:	255.255.255.0
Default gateway:	
Obtain DNS server address	automatically
Use the following DNS serve	er addresses:
Preferred DNS server:	
Alternate DNS server:	• • •
Validate settings upon exit	Advanced

Open IE browser, select "enable" or "prompt" for all the plug-ins in "ActiveX controls and plug-in" of Tools-Security-Custom level(C), set the security level to medium.

	Diagnose Connection Problems Reopen Last Browsing Session Pop-up Blocker Manage Add-ons	Tools •	Internet Options - Security At Risk 2 2 22 General Security Privacy Content Connections Programs Advanced Vour security settings put your computer at risk Select a zone to view or change security settings.	Security Settings - Local Intranet Zone Settings ActiveX controls and plug-ins ActiveX controls and plug-ins ActiveX controls to run without pror Dischler
*	Work Offline Compatibility View Compatibility View Settings Full Screen Toolbars Explorer Bars Developer Tools	F11	Internet     Coston         -Your security settings are below the recommended         level outling war computer at an increased risk of	
	Suggested Sites Internet Options		onine attack. - To change the settings, dick Custom level. - To use the recommended settings, dick Default level. Enable Protected Mode (requires restarting Internet Explorer) Custom level Default level Reset al zones to default level	Takes effect after you restart Internet Explorer Reset custom settings Reset to: Medium-low (default)  CK Cancel

Enter the IP address of the camera in the address bar, press Enter. If it is the first visit, a plug-in will automatically install after pressing Enter button. Right-click on the "?" in the prompt bar, choose "run add-ins (R)".



#### Click Run.

Do you	want to run this	ActiveX control?		
Nar	ne: Not Available			
Publish	er: Control name is	not available		
			Run	Don't Run
	This ActiveV contr	rol was previously ad	ded to your comput	er when vou installer

Click install.

After the installation, the network camera will enter the login screen. Input user name and password to enter the preview screen.



### 5.2 PREVIEW SCREEN



The function of each label above is as follows:

1	Real-time preview.
2	Time. If the time displayed is wrong, set it in the [general] settings in the remote configuration.
3	Voice intercom: when opened, communication between the computer terminal and the device terminal
	can be achieved (not for all cameras).
4	Remote replay: replay by using the SD card or TF card in the camera.
5	Remote configuration: specific parameter settings, refer to 5.4.
6	Cancellation: exit the preview screen and enter the login screen.
7	Local replay: replay the videos stored in computer.
8	Local settings: set the storage path of manually captured video.
9	Channel: one camera can only use one channel.
10	Stream: stream type can be set when previewing, choose main stream or sub stream.
11	Installation mode: choose from ceiling mounting, wall mounting and desktop mounting.
12	Unwrapping mode: 8 modes to choose from.
13	Image attributes: adjust brightness, saturation and other parameters of the camera.
14	Alarm output window: digital output of alarms.
15	Manual video recording.
16	Manual capture.
17	PTZ: click the button to unwrap the image, realize digital zoom, drag, split screen. This function requires
	proper settings of 11 and 12.
18	Sound.
19	Stop previewing.
20	CAM1: camera channel, it can be changed in the [export] of [remote configuration].

# 5.4 CAMERA SETTINGS

#### 5.4.1 SYSTEM INFO

System info contains SD information, log information and version information.

Storage information, as shown below, contains the information of the SD card: capacity, record start time and record end time.

Remote Config	SD Inf∘	-			×
Version 	No	Capacity	Left Capacity	Status	
Record     Alarm     NetService     Advanced	1	60479 MB	0 MB	Normal	
	Current Record S Record E	working disk start Time ind Time	111		×

#### 5.4.2 LOG INFORMATION

Log information contains device operating system log, user's log and so on. User can choose to export logs or to remove logs after viewing.

Remote Config				X
	Log Type Start Time End Time	All 2014-07-03 0 2014-07-03 1	0:00:00 🔄 5:46:46 🚔 Search Last Page Next Page	
	No	Log Time	100	
	IND	Log time	Log	
	1	2014-7-3 15:38:33	2047-11-00 23:49:24	- 10
1	2	2014-7-3 15:38:33	default,GUI	_
	3	2014-7-3 15:36:40	7008115 MaterDatast 1	=
	5	2014-7-3 15:38:54	MotionDetect 1	
	6	2014-7-3 15:38:56	MotionDetect 1	- 10
	7	2014-7-3 15:39:04	MotionDetect, 1	
	8	2014-7-3 15:39:27	MotionDetect, 1	
	9	2014-7-3 15:39:27	MotionDetect, 1	
	10	2014-7-3 15:39:29	MotionDetect, 1	
	11	2014-7-3 15:39:29	MotionDetect, 1	
	12	2014-7-3 15:39:29	MotionDetect, 1	
	13	2014-7-3 15:39:31	MotionDetect, 1	
	14	2014-7-3 15:39:32	MotionDetect, 1	
	15	2014-7-3 15:39:32	MotionDetect, 1	-
			Log Export Remove	
	Defaul	t Reboo	ot OK Cancel	

#### 5.4.3 VERSION INFORMATION

User can view the version information of firmware, web, UUID device (for mobile phone), two-dimensional code (for mobile phone scanning) and so on.



### 5.4.4 GENERAL SETTINGS

System settings include general settings, encode settings, camera parameters, network settings, display mode, PTZ settings and serial port settings.

General settings, as shown below, include: system time, language, treatment when SD card is full and so on. Click [save] after adjustments.

Remote Config			<b>X</b>
Remote Config	General System Time Language IPC No[0,998] MachineName SD Full SnapInterval(Sec) Auto Logout(Min) Video Standard Date Format Date Sparator Time Sparator Time Sparator Start: 2000/ 1/ 1	2014-07-03 15:55:41 English 0 LocalHost Overwrite 2 0 PAL VYYYY MM DD - 24Hour 01	
	Default Reb	oot OK	Cancel

Parameter	Note	
System time	Default is 01/01/2000	
Language	Change the language of web interface, choose	
	Chinese or English	
IPC No.	The ID number of the camera, default is 0	
Machine name	The name of the camera, it will show when users	
	enter via telnet	
SD full	Choose to cover former video or to stop recording	
Snap interval	Set the time interval of snapshot, default is 2S	
Auto logout	default is 0	

Video standard	PAL or NTSC	
Date format	Choose Chinese format or western format	
Date separator	delimiter that separate year, month and day	
Time format	24h or 12h	
DST	adjust summer time	

# 5.5.5 ENCODE SETTINGS

Set camera's parameters in the encode settings, including audio and video control.

Remote Config		×
Remote Config	Encode Channel 1 • Mainstream Compression H.264 • Resolution 1.34/(1280x1024 • FPS 25 • Bit Rate Type VBR • Quality Good • Bit Rate 3072 • kbps	H.264 • D1(704x576) • 18 • VBR • Worse • 585 • kbps
®-Advanced	Quality Good Quality Good Bit Rate 3072 GopSize 2 Audio V Audio/Video	VBR  Vorse V
	Default Reboot OK	Cancel

Parameter	Note
Compression	H.264 standard compression
Resolution	Multiple resolutions, different resolution has different default transport stream value
Frame rate (fps)	PAL : 1~25 fps; NTSC: 1~30 fps, frame rate can be customized, it should be more than 16
	fps if there are objects moving frequently in the image
Stream control	Including fixed stream mode and variable stream mode. Picture quality can only be
	changed under variable stream, not under fixed stream.
Quality	Multiple types of picture quality. Bit rate changes in accordance with picture quality.
Bit rate type	Under variable stream mode, this value is the upper limit of the stream, under fixed
	stream mode, this value is fixed.
GOP size	The interval of two initial frame should range from 2 to 12 P frames, shorter interval for
	motion picture, and longer interval for static picture.
audio/ video	Main stream: Select [audio] to transport audio and video, otherwise, only video can be
	transported.
	Sub stream: Select two squares to transport audio and video at the same time.

#### 5.4.6 CAMERA PARAMETERS

Set day and night switch, advanced features, image attributes and installation mode in the camera parameter window.

Remote Config		×
System Info System General Camera Camera Network Display PTZ R5232	Camera Day and Night switch Switch Mode Photoresistor Cont ▼ Day To Night 80 Night To Day 72	
Alarm Alarm Alarm Advanced	Advance Color Mode <u>Neutral</u> Rotate Close •	
	Color Brightness 60 Contrast 62 Saturation 56 Hue 63 Sharpness 62	
	Installation Install Mode Wall	
	Default Reboot OK Cance	2

Parameter	Note
Day and	Mode: auto (CMOS control the switch), color, black and white, photoresistor(photoresistor control the switch)
Night	
switch	
Advanced	Color mode: standard, natural, vivid. Mirroring feature is off by default. Select [horizon] to flip horizontally,
features	select [vertical] to flip vertically.
Image	Brightness: if the picture is too bright or dim, adjust this value. It ranges from 0 to 100. The recommended
attributes	value is from 40 to 60. Default value is 50.
	Contrast: adjust this value when image contrast is not enough. The range of the value is also from 40-60.
	Saturation: adjust the color, this value will not affect the overall brightness of the image.
	Hue: Adjust the tendency of the color.
	sharpness: The higher the value is, the clearer the edge, the lower the value is, the obscurer the edge.
Installation	Wall mounting, ceiling mounting or desktop mounting. Different mounting has different unwrapping results.
mode	

### 5.4.7 NETWORK SETTINGS

Set the parameters of the network, check MAC address and modify IP address, TCP, HTTP port and transfer policy in network settings.

work		
MAC	DC:07:C1:F4:02:8C	
IP Address	192 . 168 . 0 . 123	DHCP
GetWay	192 . 168 . 0 . 1	
Subnet Mask	255 . 255 . 255 . 0	
Primary DNS	192 . 168 . 1 . 1	
Secondary DNS	8.8.8.8	
Media Port	34567	
HTTP Port	80	
Transfer Policy	Quality Preferred 🔹	

#### 5.4.8 DISPLAY MODE

Choose whether to display channel title and time title in the preview window. Drag time title and channel title if needed via OSD, the channel title can be customized.



#### 5.4.9 PTZ

Our product supports PTZ linkage. PTZ protocol supports standard PELCOD protocol and some private protocols used by other companies. User can decide which protocol to use according to their need. Parameters for PELCOD protocol:

Remote Config			×
<ul> <li>System Info</li> <li>System</li> <li>General</li> <li>Encode</li> <li>Camera</li> <li>Network</li> <li>Display</li> <li>PTZ</li> <li>RS232</li> <li>Record</li> <li>Alarm</li> <li>NetService</li> <li>Advanced</li> </ul>	PTZ Channel Protocol Address[1-4] BaudRate DataBit StopBit Parity	1   PELCOD  PELCOD  9600  8  1  NONE	



RS232 settings : When connecting the device to other devices through 232 cable, make sure that the parameters of both sides are the same in order to communicate successfully.

<ul> <li>■ System Info</li> <li>■ System</li> </ul>	RS232		
General − General − Camera − Network − Display − PTZ ■ Record ⊕ Alarm ⊕ NetService ⊕ Advanced	Protocol Address BaudRate Data Bits Stop Bits Parity	NONE	

#### 5.4.11 VIDEO RECORDING

[Record] adjusts the video that will be stored by the SD card in the camera. Select [Record] to start functional configuration.

User can adjust video length, video time and video type etc. in [record]. When the stream is limited, for example, the recording time is 60 minutes, the conversion formula is: stream size  $\times$  3600  $\div$  8  $\div$  1024= MB

The calculation formula of the memory card:

File size/h  $\, imes\,$  recording time/day  $\, imes\,$  days to be saved

For example: a camera of 512kps, it records 12h/day for 15 days. The formula is as the following:

file size/h:  $512 \times 3600 \div 8$  (1 byte=8 bit)  $\div 1024=225$ MB Memory card capacity= $225 \times 12 \times 15=40500$ MB $\approx 39$ GB



Parameter	Note
Length	The length of the video
Prerecord	The time before actual recording begins.
Record	Timing: choose recording time, Manual: record all the time, stop: stop recording.
mode	
Week	The displayed date is present date, choose all weekdays or one day, default is all days.
Regular	Exporting video under timing or manual record mode. Display manually recorded video when
	checked.

Detect	Cooperate with motion detection configuration. Start recording when motion is detected.
Alarm	Start recording when camera blind alarm is given.

#### 5.4.12 MOTION DETECTION

Alarm management includes motion detection, video blind, alarm input, alarm output, abnormality management.

Motion detection, shown as below, is to detect moving objects and to give alarm via an external alarm device. Alarm information can also be exported in the alarm output region. When alarm is given, it will also trigger related operations as recording, picture capturing and Email sending etc. Choose the region that should be monitored in [region], the whole area is covered by a square of 4 to 3. Choose the time that motion detection is needed in [period]. Click the 1 button beside [record channel] and [alarm output] to turn on or to turn off the linkage feature. Blue button means linkage is on, white button means linkage is off. When motion detection is on, corresponding configurations should be done in system settings. To turn on [send Email] and [FTP] function, corresponding configurations should be done in network settings.



Parameter	Note
Enable	Is on, 🔲 is off.
Sensibility	Sensibility ranges from 1 to 6, 1 is the lowest, 6 is the highest, default is 3.
Region	Use mouse to select the region that should be monitored.
Period	Color green shows the period that motion detection is on, color white shows the period that motion
	detection is off.
Record channel	Start recording when alarm is given. I Is on, I is off.
Alarm output	Link to external alarm device. 💷 Is on, 💷 is off.
Send Email	Is on, 🔲 is off.
FTP	Is on, 🔲 is off.
Log	Create log. 🔟 Is on, 🔲 is off.
Snapshot	Is on, 🔲 is off.

#### 5.4.13 VIDEO BLIND

Instruct the camera to give alarm when the lens is blocked. The alarm can also be given by external alarm device. It can also trigger related operations as video recording, sending Email, create log and snapshot. The device's sensibility ranges from 1 to 6. User can adjust the sensibility of the camera according their need. Set the alarm time in [period]. Click the 🗈 button beside [record channel] and [alarm output] to turn on or to turn off linkage feature. Blue button means linkage is on, white button means linkage is off. When video blind feature is on, corresponding configurations should be done in the system settings. To turn on [send Email] and [FTP] function, corresponding configurations should be done in network settings.



Parameter	Note
Enable	To turn on or to turn off video blind feature. 🔟 Is on, 🔲 is off.
Sensibility	Range from 1 to 6. 1 is the lowest, 6 is the highest. Default is 3.
Period	Color green shows the period that video blind feature is on, color white means the period that video blind
	feature is off.
Record channel	Is on, I is off.
Alarm output	When the alarm output is on, the device can link to external alarm device to give alarm. 🔟 Is on, 🔟
	is off.
Send Email	Is on, 🔟 is off.
FTP	Is on, 🔳 is off.
Log	Create log. 🔝 Is on, 🔟 is off.
Snapshot	Is on, 🔟 is off.

#### 5.4.14 ALARM INPUT

The camera can be linked to external alarm input devices such as infrared sensing device which can detect outside environment. If the sensor type is [normal open], operations like sending Email will be triggered at high level (electricity). If the sensor type is [normal off], related operations will be triggered at low level. Click the button beside [record channel] and [alarm output] to turn on or to turn off linkage feature. Blue button means linkage is on, white button means linkage is off. If [record channel] is on, the camera will record when alarm is given. Select [alarm output] to give alarm in the preview screen or via an external device. Alarm period can be customized. Please refer to 5.4.13.



#### 5.4.15 ALARM OUTPUT

When the motion detection feature is on, if there is an alarm given, it will be displayed in the preview window. Alarm can also be given by external devices. Choose [configuration] to detect motion and video blockage. Alarm will be given once motion or blockage is detected. Choose [manual], select status to turn on alarm output. If [status] is not selected, the alarm output is off. Choose [stop] to turn off alarm output.

Remote Config			×
System Info     System     Record	Alarn Output		
Video Motion     Video Blind	Channel	1	
Alarm Input	Status		
Alarm Output	AlarmOut Type	<ul> <li>Configuration C Manual</li> </ul>	Stop
B-NetService			
B Advanced			
1			
	Default Ret	oot OK	Cancel

#### 5.4.16 ABNORMAL

Process abnormal states of the device, including storage device not exist, capacity shortage, fail access to SD card, IP address conflict and network anomalies. Adjust Email and FTP settings in network settings. Please refer to 5.4.13.

System Info		_		
System     System     Record     Abrm	Abnormal			
Video Motion	Enable	Storage Device	NOT EXIST	
···· Video Blind ···· Alarm Input ···· Alarm Output	Less Than(%)	0		
NetService     Advanced	Period	Setting		
	Record Channel	1	Delay 10 Sec	
	Alarm Output	1	Delay 10 Sec	
	Send Email		FTP	
	√ Log		Snapshot	

#### 5.4.17 DDNS

Network service includes DDNS, Email, FTP, PPPOE, UPNP, WIFI and RTSP.

DDNS: use it during remote visit. Embedded device type: Oray, DynDns, NO-IP and MYQ-SEE. User can choose according to their need. Here is an example of a camera whose IP address is 192.168.100.123.

Map port on the broadband cat router, HTTP and TCP ports need to be mapped.

Adjust DDNS. After the settings, connect the camera to the mapped router. Input [test.xicp.net] to access to the camera via Internet.

DNS	
	Enable
DDNS Type	Oray -
Domain Name	your.gicp.net
Port	80
User Name	
Password	

#### 5.4.18 EMAIL

SMTP server is the server of the mailbox that send the Email. User name is the sender's Email address. Sender's name is the same as the user name.

Em	ail	
		V Enable
	SMTP Server	Your SMTP Server
	Port	25
		Need SSL
	User Name	xianhu.tan@gmail.com
	Password	•••••
	Sender	xianhu.tan@gmail.com
	Receiver	tanxh@puwell.com
	Title	Alarm Message

#### 5.4.19 FTP

Upload information as alarm video, alarm snapshot, log and so on to FTP server.



#### 5.4.20 IP FILTER

Set black list and white list. Black list refers to the IP addresses that are banned to access to the camera. White list refers to the IP addresses that are allowed to access to the camera.



#### 5.4.21 NTP

Network time protocol automatically synchronizes the time to the network time.

System Info     System     System     Record	NTP	
NetService		Enable
DDNS Email	Time Zone	(GMT+08:00) -
FTP IP FILTER	Server IP	NTP
	Port	123
UPNP	Update Period(Min)	10 -
RTSP		
i≟- Advanced		

#### 5.4.22 PPPOE

Connect the device to network cable that is linked to the broadband cat. Connect to the Internet using user name and the password given by the operator. The IP address displayed below is a fake IP address. This function demands appropriate settings of DDNS or a fixed IP address from the operator.



#### 5.4.23 UPNP

Support external plug and play devices.

#### 5.4.24 WIFI

Connect to router through WIFI. Select the router that needs to be connected in the WIFI device list. Double-click to load camera's parameters. Enter password. IP address can be customized but it must be in the same network segment of the router. Once connected, the device can be accessed to through the IP address customized here.



#### 5.4.25 RTSP

The device can be accessed to via media like VLC which support RTSP. Default port is 554. Address is:

rtsp://192.168.1.126:554/user=admin&password=123456&channel=0&stream=0.sd p?real\_stream



#### 5.4.26 SD MANAGE

Manage tools include SD manage, upgrade, auto maintain, user management, group management, default and import/export.

SD manage, shown as below, can manage the SD card. It works for the SD card or for the TF card that is being used. User can choose read/write, disk formatting, partition, recovery and so on.

System Info  System  - System  - Record  - Alarm	) Manage				
NetService	No	Capacity	Left Capacity	Status	
- SD Manage	1	60479 MB	0 MB	Normal	-
Upgrade					
AutoMaintain					
- Group Management					- 64
Default					_
ImportExport					
	•				<u>.</u>
	Deedlan	hite France Diele			
	Read/W	rite Format Disk			
	Read o	nly Partition			
	Snapsh	not Recover			

### 5.4.27 UPGRADE

Click [browse] to choose the new firmware and click [upgrade] to upgrade.



#### 5.4.28 AUTOMAINTAIN Set auto reboot time.

⊕- System Info ⊕- System	AutoMaintain		
<ul> <li>Becord</li> <li>Aarm</li> <li>NetService</li> <li>Advanced</li> <li>SD Manage</li> <li>Upgrade</li> <li>Group Management</li> <li>Group Management</li> <li>Default</li> <li>ImportExport</li> </ul>	Auto Reboot Set Reboot Time Auto Delete Old Files	Every Day	

#### 5.4.29 USER MANAGEMENT

User can add, modify, delete and change authority of other users. If the user wants to manage another user, select the user that need to be managed, for example: admin, select [modify user], click [modify password] to change password, click [authority set] to modify his/her authority.

⊕- System Info ⊕- System	User Ma	anagem	ient					
i∰⊷ Record i∰∽ Alarm i∰∽ NetService	U	ser list						
🖻 Advanced		No	Username		Group	Use	er status	
- SD Manage		1	admin		admin	adr	nin 's account	
···· Upgrade ···· AutoMaintain		2	guest		user	gue	est 's account	
- User Management								
- Group Management								
- Default								
Inporcexpore								
	G	Add Lie	or 🔷					
		Add 05	-					
	U	ser Name	2					
	P;	assword						
					_	Mardifa Daram		
	Pa	assword	Confirm			Modity Passi	word	
	G	roup	ad	min	<b>-</b>	Authority S	Set	
	R	euseable	No		-			
	м	lemo						

#### 5.4.30 GROUP MANAGEMENT

User can manage every group in group management: modify password, set authority and add new group.

System Info     System     Record     Alarm     NetService	coup Manag Group list	ement			
Advanced	No	Name	Authority	Memo	
- SD Manage	1	admin	23	administrator group	
AutoMaintain	2	user	2	user group	
- Group Management - Default - ImportExport	⊙ Add G	iroup 💿 🕅	odify Group 🔵	Delete Group	
	Group				
	Authority		Authority Set		
	Memo				

### 5.4.31 DEFAULT

Select the configuration that the user wants to default, click [save] to reset to factory settings.

System Info	Default				
Acord     Advanced     Advanced     Advanced     Advanced     Upgrade     Group Management     Group Management     ImportExport	Please select or General Record Network GUI Display Account	etting entri	es that you want to Encode Alarm Set NetService RS232 Camera	default	

# 5.4.32 IMPORT EXPORT

After the configuration, choose [config export] to download the back-up file. Choose [config import] to upload file to restore configuration.

∎- System Info ∎- System	ImportExport	
⊡ Record ⊡ Alarm		
	Config Export	Browse Download
SD Manage Upgrade AutoMaintain User Management	Config Import	Browse
Group Management Default ImportExport		

# **6 MOBILE PHONE ACCESS**

Android or IOS smart phone is available to access via 3G or WiFi hotpot.

# 6.1 UMEYE PRODUCT OVERVIEW

UMeye cloud server platform is the best mobile surveillance solution for the internet era. It consists of three parts that's front- end acquisition devices, platform severs and remote viewing.

# 6.2 THE MAIN FUNCTIONS

- Main function:
- register login, forget password
- real-time preview
- device management
- (Add, delete, modify)
- remote playback
- alarm management
- Iocal playback
- images preview
- modify password
- the local configuration



### 6.3 THE APPLICATION INSTALLATION

IPhone client requires IOS 4.3 and above; Android client requires android 2.2 and above.

#### 6.4 ATTAIN THE APPLICATION

APPLE mobile users: Search umeye in app store to install it. Appstore software QR code:



Android mobile users: Search umeye in google play to install it. software QR code:



#### 6.5 THE LOGIN INTERFACE INSTRUCTION



Please click UMEYE icon after the application installed, then it will run. The start programs enter login interface just like the following figure:



icon	Instruction
**	set the server address, the default is:
6 <b>74</b>	app.umeye.cn:8300
	after click, it will be save the last time login password
	when you login again.
•	User register

The user need to register a new account at the first use, this account used as cloud storage our users' information and the related devices. Click "register" button and jump into the register interface in the login manual.



*Item must fill
User name: User during login
password: Login password (at least 6
figures)
confirm password: re- enter the password
mail box: Secret keeping mailbox for when
you forget password you can reset it.
Real name: Optional item can be filled or
not filled.
Contact number: Optional item can be
filled or not filled.

#### • Retrieve password

Click "retrieve password" button in the login interface then enter "retrieve password" page.



1 Input username

2 Click "retrieve password", the system will send the retrieve password line to the certain mailbox which you set when you registered then enter the mail box to set password basic on the prompt.

3 If you forget the mail box, you can through "retrieve mailbox" to view mail address.

# 6.6 DEVICE MANAGEMENT

After enter the main manual select "device management" then enter management page.



icons	Instruction
	Return to the main manual
•	Click it then pop up the items to modify the parameter, name etc.
0	Lens
	Catalogue
	Device
!!!	Pop up items to add catalogue, device, lens.
0,	search local device

### 6.6.1 ADD DEVICE/ LENS

Click button add manually, or click button device add LAN device just like the following figure 3.2e, it support to add catalogue, device and lens. (Note: add multi- channel device such as: dvr, nvr. Select to add devices as following figure 3.2c,. Add single lens like ipc, select to add lens as following figure 3.2d, the most difference between device and lens are channel number and channel NO.)

	Device Manage		Device Manage		H	Search device 🔍
	9			9	0	192.168.100.129 xmjn2k2xgc04 1
0		0.				Add Device
	Alias :		Alias :		$(\phi) \in \mathcal{F}$	Add camera
Q.	Link mode: P2P Address	0	Link mode: P2P Address	•		Modify Alias
~	Cloud ID:	0	Cloud ID:			Modify IP
S.	User ID:	G	User ID:	•		Modify Passwor
	Password:		Password:			
	Channels NO:		Channels: 1 4 8 16 32			
	StreamType: 💿 Main 💿 Sub		StreamType: Main Sub			
	+ 0		+ 0			
iII	0,	i		0,		기면서 이상 방문을

➤ **Name** : it is the monitoring device's name, it can help you to identify the device location, it is recommended that you can name the device basic the device location then the name will be showed under the icon and showed in the title when playback.

- Connection model: P2P and ip address。 P2P is used to connect by serial number; Address can be used as traditional ip address, DDNS or port to connect the device.
- > **UMID**: The unique serial number of the device cloud. It can be attained by

device label or LAN searching. You can also click the QR code button in the right of input box.

- **Username** : Front- end device username, the default is admin.
- Password : Front- end device password. It is match with the front- end username, the default is admin and details can be attained in label.
- Channel number: IPC just one channel, DVR、 NVR device basic on the actual number to select.
- Channel NO.: set the parameter when you add the les. Ipc has one channel so fulfill 1, if you need to add one of lens of the dvr or nvr, it should depend on the certain channel to fill and start at 1.

After fill the settings, click the button 🕒 to save it then click 🖆 return to "device lists" interface. Turn back "device lists" interface, it support to view the

related device name, icon, device online status ( icon is color Means online,

otherwise, icon is gray means off line)

### 6.6.2MODIFY、 DELETE DEVICE/ LENS

Click edit button on the right of the device 🗈 can pop up the modify menu

like figure 3.3f, to modify the device name, connection parameter and remove operation; The connection parameter like UMID, username, password, channel number/no, stream type and so on that can be modify. After you modify saved in the following figure 3.2g:



# 6.7 REAL-TIME PREVIEW

Enter the real-time preview from the main interface, and you will see all device

lists of all logged account. Click bottom-right button a can switch to the favorite lists (this list is the preview collection at the time of the camera). Click to view the real-time camera which you want. As follows:



Click the button of the playing window to select a different camera, double-click the playing screen can zoom in the playback windows as shown in figure 3.3b. It support full screen to view when horizontal screen. Click the screen can pop up PTZ control as showed in figure 3.3c.



Figure 3.3c

Video motoring interface key features instruction as showed in the following figure:

lcon	Instruction
C	Turn back to the main interface
< >	PTZ left and right control
~ ~	PTZ up and down control
$\odot$	zoom in, zoom out

88	zoom large or shrink
Car Car	aperture zoom
	open/ close intercom
<b>()</b>	open/ close listening
	pause/ player
0.	snapshot
	open/close record
	favorite
	single or four screens switch

# 6.8 REMOTE PLAYBACK

The mobile client support to access remote device and request the records from hardware devices. The devices which should have storage and remote playback function. Click the camera which need to playback then click "done" after select search type, time, it will list remote video lists then click the list items to playback:

•	jiaxing	0,	6	jiaxing		jiaxing
			Filename	Start time	End time	
	Event type All Videos		XMRF[53B0B90E- 53B0BA14-00DA	2014-06-30 09:10:38	2014-06-30 09:15:00	
	Start 2014-7-1	00:00	Southan to South			
	End time 2014-7-1	14:09	XMRF[53B0BA14- 53B0BAC8-00999	2014-06-30 09:15:00	2014-06-30 09:18:00	
			XMRF[53B0BAC8 -53B0BB7C-0095	2014-06-30 09:18:00	2014-06-30 09:21:00	
			XMRF[53B0BB7C -53B0BC30-0097	2014-06-30 09:21:00	2014-06-30 09:24:00	
			XMRF[53B0BC30- 53B0BCE4-00982	2014-06-30 09:24:00	2014-06-30 09:27:00	
			XMRF[53B0BCE4- 53B0BD98-0094D	2014-06-30 09:27:00	2014-06-30 09:30:00	
			XMRF[53B0BD98 -53B0BE4C-0097	2014-06-30 09:30:00	2014-06-30 09:33:00	Playing 00:01/04:22
			XMRF[53B0BE4C-	2014-06-30	2014-06-30	

Figure 3.4a

Figure 3.4b

Figure 3.4c

# 6.9 ALARM MANAGEMENT

Access to "alarm management" in the main interface and select the camera which need alarm management.

	Alarming option	
0	company	Alarming
0	xd1001	Record
0	jiaxing	•

lcon	Instrucion
0	Unguard
	Guard
	Click then pop up
	Manu items
	Set up defense,
-0	start alarm
	withdraw
	defense, cancel alarm
	set alarm notice
	way
E	View alarm
	records

#### 6.9.1ALARM RECORDS

Click button **I** to select "alarm records" and enter to record lists. It displays all alarm records for open guard of the device.

Alarming option	icons	Instruction
Company Alarming	P	return to alarm management
Record xd1001		edit alarm information
Image: several	٧	play the selected camera
		delete alarm records
		unguard, cancel alarm
		Page up
		Page down
	0	search alarm records

# 6.10 LOCAL PLAYBACK

After mobile phone client record, the videos clips will save in the mobile phone directly.

### 6.10.1PLAY RECORDS

Click a section of records, such as: 20130910145429.mp4 will play.



6.10.2DELETE

Click to edit button "III", local playback lists and video lists will become to edition state



Figure 3.6b

Select record options which need to delete, click button 🛄 will delete the

selected records.

# 6.11 BROWSE IMAGES

All images of album are captured from the mobile phone real-time preview. Also, you can view these images, save and delete in bulk. Specific steps same as section 3.6.

# 6.12 MODIFY PASSWORD

Enter the main manual "modify password" option to modify the user password that's login account password. Modify interface as shown in figure 3.8a.

input the original password then input new password. Click button 🔳 to save it.



Figure 3.8a

# 6.13 LOCAL CONFIGURATION

Enter the main manual "local configuration" option, into the interface as follows figure 3.9a:



Instruction	
camera PTZ rotation rate	
setting	
alarm information prompt	
switch	
alarm voice switch	

Click button 📙 to save the current

# 6.14 LOGOUT

Click on the "logout" to exit the current account and return to the login interface.

# 6.15 LANGUAGE SWITCHING

The software language will be changed if mobile phone operating system language has been changed. For example, the mobile operation system language change to English, the application client language will replace the language as English.

- **7 MORE INFORMATION**
- 7.1 ROUTER MAPPING

### SETTING METHOD 1

Step1: Open the IE explorer, input the IP address of the IP camera, the default IP address of the camera is 192.168.0.123. And input the user account and password to login, the default account is admin, password is 123456. Then open the configure window.

Step 2: Open the network setting, click the Ethernet setting, modify and confirm the IP and DNS, and save. Please make sure the IP camera could access from the LAN network.

Network		
MAC	DC:07:C1:F4:02:8D	
IP Address	192 . 168 . 100 . 129 🔲 DHCP	
GetWay	192 . 168 . 100 . 1	
Subnet Mask	255 . 255 . 255 . 0	
Primary DNS	192 . 168 . 1 . 1	
Secondary DNS	8.8.8.8	
Media Port	34567	
HTTP Port	80	
Transfer Policy	Adaptive	

IP camera network setting



RTSP		
Port	✓ Enable	1

IP camera media stream setting

Authentication---Enable Media Access Port---554 Media Access Protocol----TCP Meadia Port---34567 Http Port---80 Save the setting and the cam

Save the setting and the camera setting is finish.

Notice: These 3 ports need to be configured on the Network Router, and the Access Protocol must be TCP protocol.

# NETWORK ROUTER SETTING

Step 1: Open the explorer to login the router setting window. Click the NAT or Forwarding, then open the Virtual Server setting window, click ADD.

21 (XX-XX or XX)	
192.168.1.100	
TCP	
Enabled 💙	
FTP 💌	
Save Back	
	21 (00-300 or 300) 192.168.1.100 TCP Enabled FTP Save Back

# Add or Modify a Virtual Server Entry

Add new entry

Service Port: 554 IP Address: 192.168.100.129 Protocol: TCP/ All Status: Enabled Common Service Port: no select.

Click Save. Then add the 80, 34567 ports as the same way. And you could refer to the router manual for the detail setting.

Step 2: Open the running Status of the Router,

	System	Refresh
Status	Firmware Version	v1.1.6.0 Wed Dec 19.17:29:54 CST 2007
Network	Host Name	
Wireless	Domain Name	
Firewall	WAN	
rnewan	Connection Type	DHCP Release Renew
System	MAC Address	00-15-AF-7F-5C-26
Help	IP	192.168.100.3
	Subnet Mask	255.255.255.0
	Gateway	192.168.100.254
	DNS	192.168.100.1
	LAN	
	MAC Address	00-15-AF-7F-5C-25
	IP	192.168.0.1
	Subnet Mask	255.255.255.0
	DHCP Server	Enabled Client List
	Address Range	192.168.0.50 - 192.168.0.100

**Running Status** 

Find the WAN IP address.

Step 3: Open the IE Explorer and input the WAN IP address, then you could access the IP camera.

SETTING METHOD 2

Step1: Open the IE explorer, input the IP address of the IP camera, the default IP address of the camera is 192.168.0.123. And input the user account and password to login, the default account is admin, password is 123456. Then open the configure window.

Step 2: Open the network setting, click the Ethernet setting, modify and confirm the IP and DNS, and save. Please make sure the IP camera could access from the LAN network.

Network	
MAC	DC:07:C1:F4:02:8D
IP Address	192 . 168 . 100 . 129 DHCP
GetWay	192 . 168 . 100 . 1
Subnet Mask	255 . 255 . 255 . 0
Primary DNS	192 . 168 . 1 . 1
Secondary DNS	8.8.8.8
Media Port	34567
HTTP Port	80
Transfer Policy	Adaptive 🔻

IP camera network setting





IP camera media stream setting

Authentication---Enable

Media Access Port---554

Media Access Protocol---TCP

PTZ Control Port---34567

Web Access Port---80

Save the setting and the camera setting is finish.

Notice: These 3 ports need to be configured on the Network Router, and the Access Protocol must be TCP protocol.

#### Step 4: DDNS Setting

DDNS		
	✓ Enable	
DDNS Type	Oray 👻	
Domain Name	test.gicp.net	
Port	80	
User Name	test	
Password	•••••	

#### **DDNS** Setting

Enable DDNS: Enable

DDNS: Select a DDNS service at drop-down menu.

DDNS Server: Auto fill according the DDNS service selected.

DDNS Domain: Input the name of your DDNS account. If you don't have a DDNS account, please apply one on the relative website.

Refresh Time. Select the time.

Username, Password: According your DDNS account.

Then save the DDNS setting.

### NETWORK ROUTER SETTING

Step 1: Open the explorer to login the router setting window. Click the NAT or Forwarding, then open the Virtual Server setting window, click ADD.

### Add or Modify a Virtual Server Entry

Service Port:	21	(XX-XX or XX)
IP Address:	192.168.1.100	
Protocol:	TCP	*
Status:	Enabled	*
Common Service Port:	FTP	*
	Save	Back

#### Add new entry

Service Port: 554 IP Address: 192.168.100.129 Protocol: TCP/ All Status: Enabled Common Service Port: no select. Click Save. Then add the 80, 34567 ports as the same way. And you could refer to the router manual for the detail setting.

Step 2: Open the IE Explorer and input the DDNS Domain, then you could access the IP camera.

# 8 ANNEX : TECHNICAL SPECIFICATIONS

# 8.1. HF-XD TECHNICAL SPECIFICATIONS

Item		HF-XD	HF-XD-I	
Lens		Fisheye lens, f=1.16mm, F=2.0		
	Field of view	Horizontal 185 °		
	Iris		Fixed	
	Sensor	1/3" progre	ssive scan CMOS	
Optical	Pixels	1.3 1	megapixel	
parameters	Sensibility	0.15Lux@F2.0(color)/0.0	15Lux@F2.0(black and white)	
	Infrared		Omni-directional infrared illumination	
	illumination		3W@850nm	
	Day and night	Auto switch IP Cut Filter		
	switch	140 5 %		
	Rotation	Vertical and horizontal		
	Adjustment	Brightness, saturation, sharpness, contrast, Tone		
	Maximum	1000-0004		
Image	resolution	1280×1024		
	Video code	H.264	Dual stream	
	Video stream	100Kbps~6Mbps		
	Maximum fps	25fps		
	Microphone	Built-in		
Audio	Pickup distance	6 Meters		
	Audio code	G.711		
Danamatia	Panoramic 360° panoramic expansion-view.180° 2 split-view. 90° 4 split-view		ew,180° 2 split-view, 90° 4 split-view	
Footuros	display	Longitude and latitude correcting view(wall mounted)		
reatures	PTZ	Digital PTZ		
	Motion			
	detection	20X15 Regional detecting, Sensibility 1-6 adjustable		
Alarm	Alarm output	Motion detection		
	Alarm reaction	Alarm Record/Image Snapshot, Alarm Video/Image Upload(FTP/Email)		
	Protocol	TCP/IP, HTTP, DHCP, DNS, RTSP, FTP, SMTP, NTP, PPPOE		
network	compatibility	O	NVIF 2.0	
	Communicate			
	port	RJ 45 × 1 10M/100M Ethernet.		
Port	Electricity port	Φ 5.5-2.1mm round DC outlet		
	Local storage	UP to 128G SD card	UP to 128G Micro SD card	
	Power Supply	DC12	2V±10%,1A	
	Power			
_	consumption	<6W		
	Operating	-15°C~+50°C@ humidity 10%~ 95%		
General	condition			
parameters	Storage	-40 °C ~+75 °C @ humidity 10%~ 95%		
	condition			
	EMC	CE, FCC		
	Housing	Plastic (White)	Plastic (Black)	

	Protection class	IP50	
	Product size	Φ148×53 mm	
	Package size	183×183×75mm	
	Weight	Net weight: 0.5kg	
	Optional	Wifi POF	
	Function:		

# 8.2. HF-TA TECHNICAL SPECIFICATIONS

Item		HF-TA1001	HF-TA-1101	
Lens		1/3" Fisheye lens, f=1.29mm, F=2.0		
	Field of view	Horizontal 185 °		
	Iris	Fixed		
Optical	Sensor	1/3" progret	ssive scan CMOS	
parameters	Pixels	1.3 megapixel		
	Sensibility	0.15Lux@F2.0(color)/0.015Lux@F2.0(black and white)		
	Infrared	Omni-directional infrared illumination 3W@850nm		
	illumination			
	Rotation	Vertical and horizontal		
	Adjustment	Brightness, saturation	n, sharpness, contrast,Tone	
	Maximum	1000-1004		
Image	resolution	1280×1024		
	Video code	H.264	Dual stream	
	Video stream	1024Kbps~5120Kbps		
	Maximum fps	25fps		
	Microphone Built-in		Built-in	
Audio	Pickup distance	6 Meters		
	Audio code	G.711		
· ·	Panoramic	360° panoramic expansion-view,180° 2 split-view, 90° 4 split-view		
Panoramic	display	Longitude and latitude correcting view(wall mounted)		
Features	PTZ	Digital PTZ		
	Motion	20X15 Regional detecting, Sensibility 1-6 adjustable		
Alarma	detection			
AldTII	Alarm output	Motion detection		
	Alarm reaction	Alarm Record/Image Snapshot, Alarm Video/Image Upload(FTP/Email)		
	Protocol	TCP/IP, HTTP, DHCP, DNS, RTSP, FTP, SMTP, NTP, PPPOE		
network compatibility ONVIF 2.0		NVIF 2.0		
Port	Communicate	4 pin Socket Connector 10M/100M		
	port	Ethernet.	RJ 45 $\times$ 1 10M/100M Ethernet.	
	Electricity port	Φ 5.5-2.1mm round DC outlet		
	Local storage	UP to 128G SD card		
Power Supply		DC12	V±10%,1A	
	Power	<6W		
General	consumption			
parameters	Operating	-15℃~+50℃@ humidity 10%~ 95%		
	condition			
	Storage	-40°C~+75°C@	humidity 10%~ 95%	

condition	
EMC	CE, FCC
Housing	PC, White
Protection clas	s IP50
Fireproof class	UL94V-2
Product size	Φ100×36.6 mm
Package size	135×125×70mm
Weight	Net weight: 0.2kg
Optional	Wifi:3G
Function:	

\*Design, Specifications are subject to change without notice.