PROVISION ISR®

Now you can see!

- IP IR Mini PTZ Camera

USER MANUAL

Precautions:

Please read this manual carefully before installing and operating the camera.

- Please refer to the technical specs to confirm you are using a suitable power supply. Do not use power supply with higher/lower rating than specified.
- Do not attempt to disassemble the camera; in order to prevent electric shock, do not remove any screws or covers.
- There are no user-serviceable parts inside. Please contact the nearest service center if there is any technical failure.
- Avoid incorrect operation, shock vibration or heavy weight pressing which can damage the camera.
- Do not use corrosive detergent to clean the camera. If necessary, please use a soft dry cloth to wipe dirt. For tough contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.
- Avoid aiming the camera directly towards extremely bright objects such as the sun, as it may permanently damage the image sensor.
- Please follow the installation instructions.
- Do not operate the camera in environments that exceeds the specified temperature, humidity or power.
- Keep away from any heat sources such as radiators, heat registers, stoves, etc.
- Do not expose the product to the direct airflow of an air conditioner.
- All pictures and examples used in the manual are for reference only.
- Please use our production under the following environmental standards:

Environmental Temperature:	- 35 ~ 60°C
Environmental Humidity:	<95% (no condensing)
Barometric Pressure:	86 ~ 106KPa

Contents

1. Product Overview

- **PT Capabilities:** The camera is equipped with Pan/Tilt motors that allow movement range of 360° pan and 180° tilt (With auto-flip).

- **Motorized Vari-Focal with auto-focus:** The camera is equipped with x20 optical zoom lens and features accurate auto focus algorithm.

- **Double stream:** The camera support dual stream video streaming for different requirements and applications.

- **Supported network protocols:** Support TCP/IP, PPPoE, DDNS, FTP, UPNP & ONVIF

- **PTZ Features:** The camera support special PTZ features such as Cruise, pattern, preset and scan.

- **All-weather outdoor design:**

  ➢ IP66 Protection standard

  ➢ TVS 3000V Protection standard

2. Function Introduction:

- **Movement proportional to zoom:** higher zoom values will automatically reduce the camera speed while on manual control.

- **Auto movement functions:**

  ➢ 256 presets slots
  ➢ 1 Cruise built with the available presets (Cannot be edited)
  ➢ Scan with left/right boundaries and speed control
  ➢ Recordable pattern with full movement/zoom record

3. Web Browse Operation Guide

3.1. Common Operations

Factory default settings：

IP camera is a network device and must be assigned with network IP address, subnet mask and gateway. The camera default setting is as follows:

Default IP address: DHCP. If no DHCP server is available, the camera will fall back to 192.168.201.226
Subnet mask: 255.255.255.0
Gateway: Assigned by DHCP. If no DHCP server is available, the camera will fall back to 192.168.201.1
WEB port: 80

Please use Provision-ISR's Ip manager to locate the IP address of the camera. For example:

	IP Manager					
Refresh ∨						⊙
	Device Name	Device Type	Device Model	IP Address	HTTP Port	
☐	PTZ CAMERA	IPC		192.168.0.159	80	

Network parameters

Take the example of Windows 10 operating system. Make sure that the IP address of the computer is in network segment of the camera. If the IP addresses are not in the same segment, the computer and camera will not be able to communicate.

After setting IP address, you could test whether it has been connected between the computer and the camera by using the PING order from clicking the "start"→"run" button in the bottom left corner. The format of the command: 'ping 192.168.0.99' (Or any other IP assigned to the camera).

The screen should look as follows:

```
pinging 192.168.0.99 with 32 bytes of data:

Reply from 192.168.0.99: bytes=32 time<1ms TTL=64
Reply from 192.168.0.99: bytes=32 time<1ms TTL=64
Reply from 192.168.0.99: bytes=32 time<1ms TTL=64
Reply from 192.168.0.99 bytes=32 time<1ms TTL=64

ping statistics for 192.168.0.99:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

As the picture shown above, it indicates that it has been successfully connected between the computer and the camera. However, if the screen shows like below, it indicates some kind of a failure for the following possible reasons:

```
pinging 192.168.0.99 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

ping statistics for 192.168.0.99
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

- Hardware connection is incorrect
- Computer TCP/IP is not in the same segment as the camera
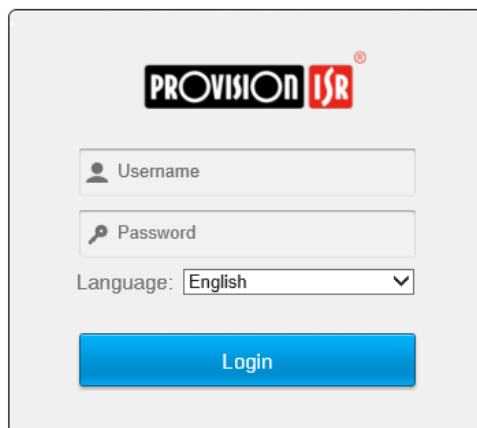- Your network forbid pings.

4. Web Interface

4.1. Web Login

Enter IP address of the camera on "Internet Explorer" web browser to open the following interface:
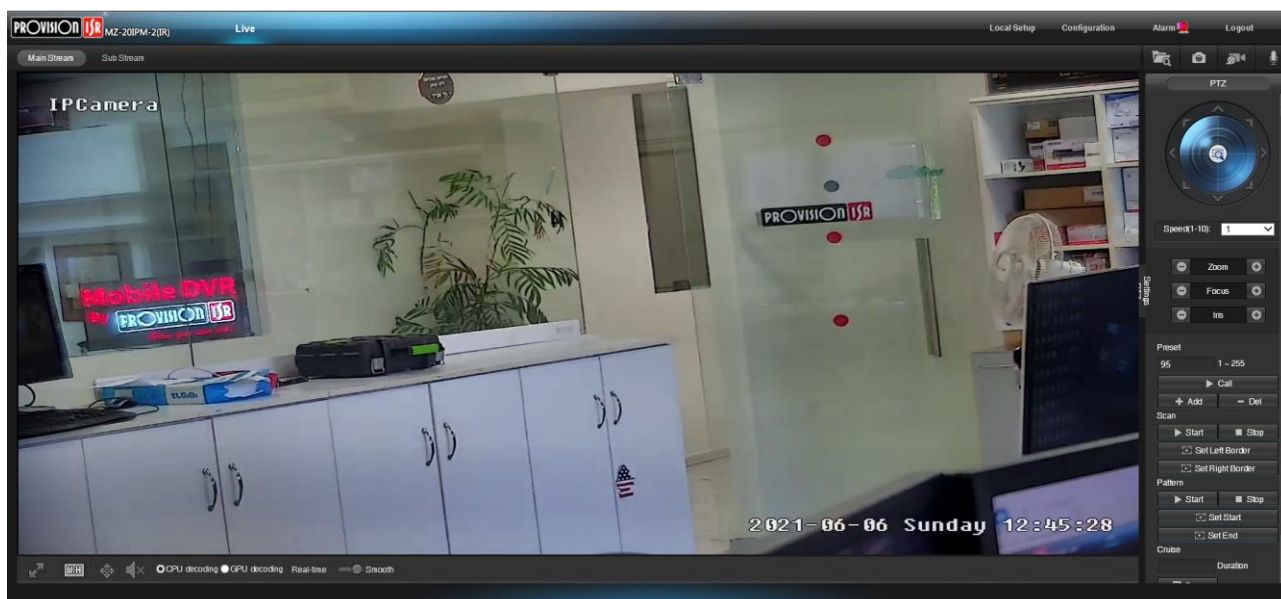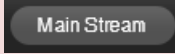
◆ user name: admin

◆ password: 123456

◆ Port: 80
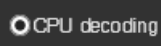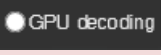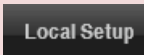
Downloading and installing the video Active-X:

Please click here to download the plug-in and install it with the administrator after closing the browser.

After you logged in, the web-browser will prompt you to install or update the plug-in. Click on "Ok", clise all internet browser and start the installation by double clicking on the downloaded file. Log in back to the camera web page and perform the login authentication procedure (default: admin/123456). Upon successful login, the camera will redirect to the following interface.

| Button	Task	Button	Task
Main Stream	View the image main stream	(PTZ icon)	Open PTZ controls
Sub Stream	View the image sub stream	CPU decoding	Encode video by PC CPU
(folder icon)	Browse for local snapshots and videos	GPU decoding	Encode video by PC GPU
(camera icon)	Take a snapshot	Real-time — Smooth	Switch between real-time video (Less buffer) and Smooth video (More buffer).
(record icon)	Start local video recording	Local Setup	Configure where local snapshots are videos will be saved
(stop record icon)	Stop local video recording	Configuration	Configure the camera parameters
(fullscreen icon)	Full screen view	Alarm	View live alarm notifications
W:H	Change video aspect ratio	Logout	Log out of the camera

4.2. Presets

1. Enter the PTZ Setting interface by clicking on (PTZ icon).

2. Saving preset position: Input the preset number you want to save or edit, set the camera position and click on "+ Add"

3. Call the preset position: Input the preset number you want to call and click on "call ".

4. Delete preset position: Input the preset number you want to delete and click on "- Del"

5. Special function preset position: this kind of preset position can be called, but it cannot be modified or deleted.
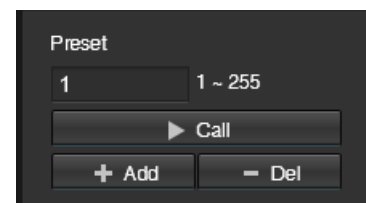
4.3. Scan

1. Enter the PTZ Setting interface by clicking on (PTZ icon).

2. Set the right and left scan boundaries by the "Set Left/Right Border" buttons.

3. Start and Stop the scan using the corresponded buttons
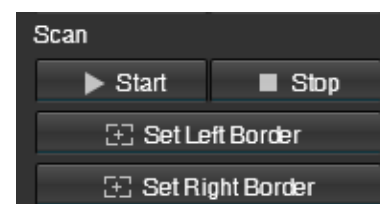
4.4. Pattern

1. Enter the PTZ Setting interface by clicking on ⬦ .

2. In order to start recording the pattern click on the "Set Start" button.
3. To stop recording the pattern click on "Set End" button.
3. Start and Stop the scan using the corresponded buttons
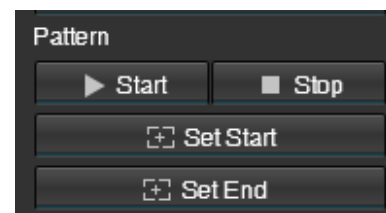
4.5. Cruise

1. Enter the PTZ Setting interface by clicking on ⬦ .

2. Set the dwell time between 2 presets.
3. The cruise will run through all configured presets.
3. Start and Stop the scan using the corresponded buttons
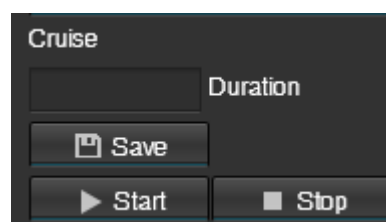
5. Configuration

Click "configuration" to enter the configuration interface:

5.1. Camera

5.1.1. Image

From this interface you can set the video image settings.

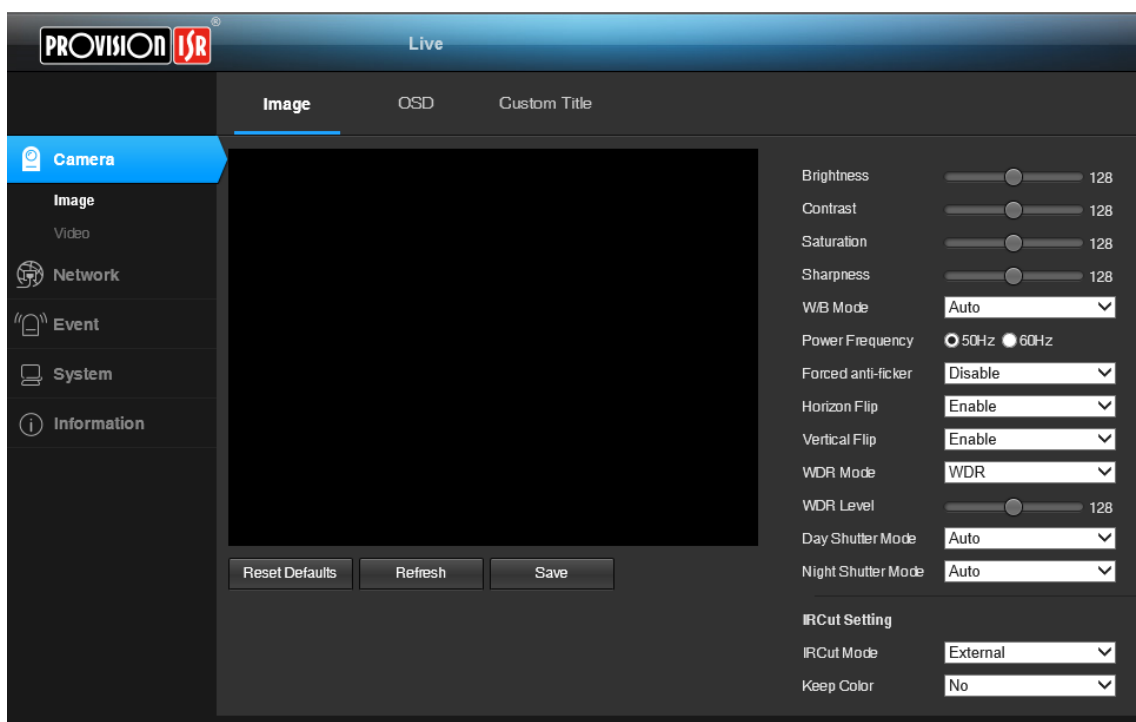| Brightness | ⚬ 128 |
Contrast	⚬ 128
Saturation	⚬ 128
Sharpness	⚬ 128
W/B Mode	Auto
Power Frequency	⦿ 50Hz ⦿ 60Hz
Forced anti-ficker	Disable
Horizon Flip	Enable
Vertical Flip	Enable
WDR Mode	WDR
WDR Level	⚬ 128
Day Shutter Mode	Auto
Night Shutter Mode	Auto
IRCut Setting	
IRCut Mode	External
Keep Color	No

- "Sharpness": Set the general image brightness. This will be done digitally and not affect the exposure values.

- "Contrast": Set the contrast of the video colors

- "Saturation": Higher saturation gives more vivid colors, but might look artificial. Lower saturation will result in dull colors.

- "Sharpness": Higher sharpness the image edge is clearer, while it could not be said the higher the sharpness, the better image quality, high sharpness can make the picture look distorted.

- "W/B Mode": Set the white balance of the camera (Auto or Manual)

- "Power Frequency": Set the power frequency in your region to prevent light flickering.
  "Forced Anti-flicker": In some cases, there might be flickering even if the power frequency is set properly. This feature will attempt to remove it.

- "Horizon Flip": Horizontally mirror the image if required.

- "Vertical Flip": Vertically flip the

- "WDR Mode": Set **Digital WDR**.

- "WDR Level": Set the WDR level.

- "Day Shutter Mode": Set the shutter mode for day mode between auto and manual. If manual is selected, set the corresponding exposure value.

- "Night Shutter Mode": Set the shutter mode for night mode between auto and manual. If manual is selected, set the corresponding exposure value.

- "IR Cut Mode": Set the day/night shifting method:
  - External (Default): The CDS light measuring sensor will control over the Day/Night mode.
  - Auto: The image sensor will control over the Day/Night mode.
  - Timing: Set schedule to control over the Day/Night mode.
  - Manual: Set Day/Night Mode Manually.

- "Keep Color": Set the camera to remain in color even in night mode.

- "Reset Defaults": Revert all changes and restore to factory default.
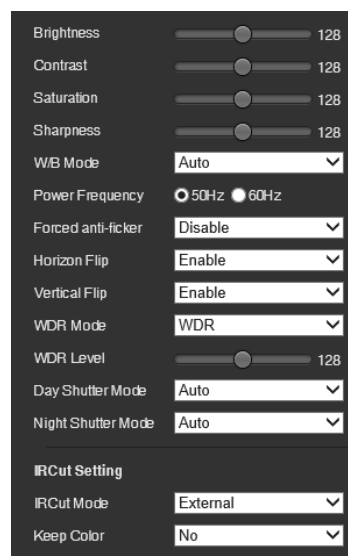
5.1.2. OSD

Set the OSD (On screen display) that will appear on the camera video.

- OSD (Enable/Disable): Enable or Disable OSD completely.

- Color: Set the color of the OSD.

- Font Size: Set the OSD font size

- Overlay Items: Set what information will appear on the video

- Time Position: Set the position for the time/date.

- Time format: Set the time/date format

- 12 Hours/24 Hours: Set if the clock will work in 12 or 24 hour mode.

- Title Position: Set the title position.

- Title Message: Set the title of the camera

5.1.3. Custom Title:

Add additional custom titles to the camera as required.

5.2.Video

Set all the video parameters of the camera.

- Status: Enable/disable the video stream.
- Video Compression: Set the video compression (H265/H264). Please make sure that the NVR support the chosen compression type.
- Resolution: Set the video resolution of the camera.
- Frame Rate (FPS): Set the FPS of the camera
- Bit Rate Type: Set VBR (Variable Bit-rate) or CBR (Constant Bit-Rate).
- Quality: Set the quality preset which will define the actual bit-rate
- Frame Interval: The I-Frame frames. Default is 50.
- QP Minimum Value: Quantization Parameter. Lower QP - less compression (higher bitrate requirements) and lower compression artifacts (higher quality).
- QP Max Value: Quantization Parameter. Higher QP - more compression (lower bitrate requirements) and higher compression artifacts (lower quality).
- Advance Encode profile: Choose between High/Main/Base encoding profile.

5.3. Network

5.3.1. Basic

From this interface you can set basic network settings such as IPv4, IPv6, DNS, DHCP and static IP.

If set to DHCP, the DHCP server will provide the camera with all the required configuration fields (IP Address ,Subnet Mask, Default Gateway, Preferred DNS and Alternate DNS).
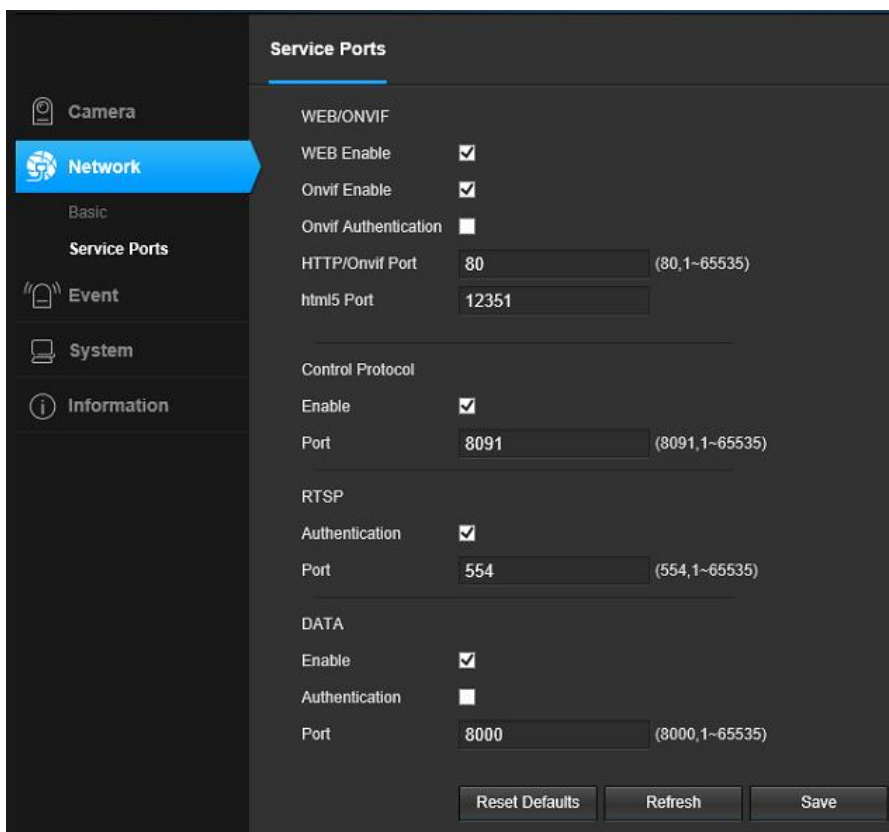If set to Static, the user needs to provide all the details above.

Both IPv4 and IPv6 are available but cannot work together. Please select the required protocol.
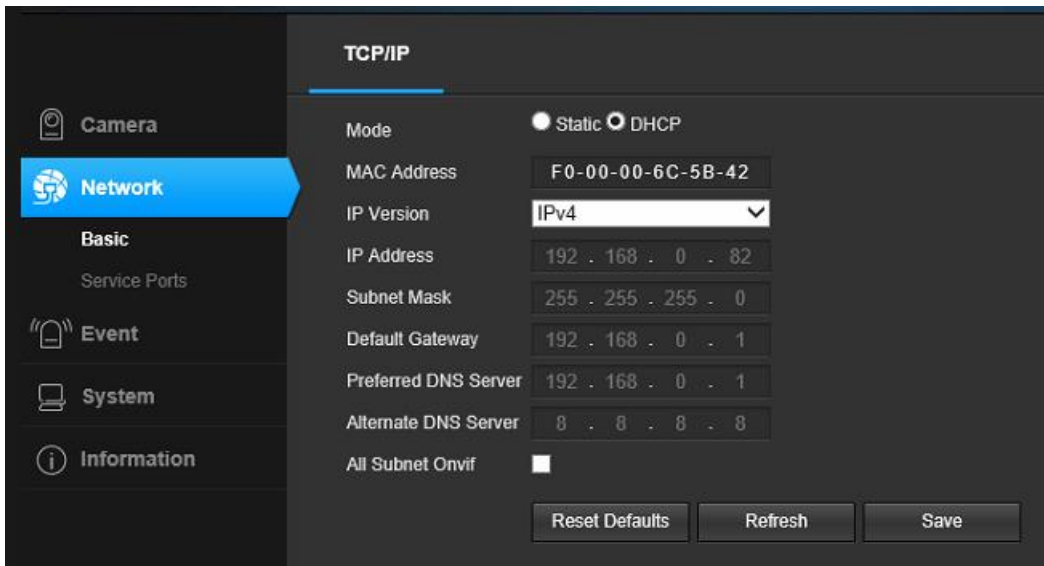
5.3.2.　Service Ports:

This interface contains all the ports required for the camera work. If some of the ports are not in use, it is advisable to disable it.
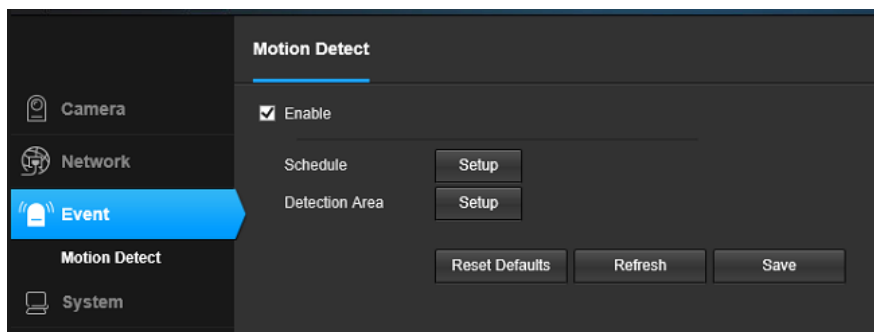

Note：　Please reboot the IP camera after modifying the parameters.

5.4. Event

5.4.1. Motion Detect

The camera can detect motion on the scene based on pixel change.

Enable/disable the motion detection as required. Note that if the NVR is set to record motion, the motion detection must be enabled on the camera side.

Schedule:
Set the motion detection schedule as required. Click on the "Setup" button to open the following interface:
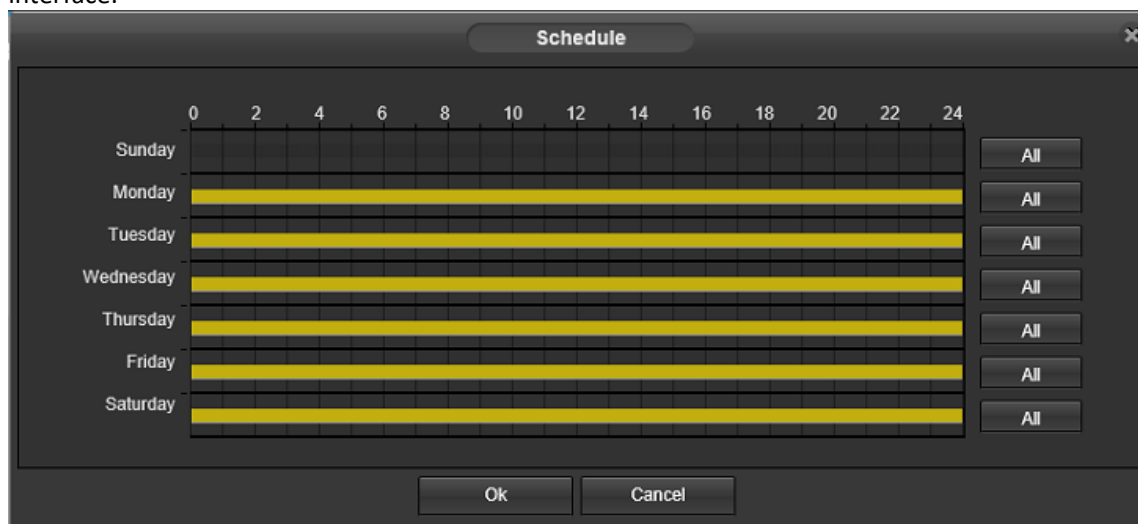
Click on a schedule to delete it. Drag the mouse from the start point to the end point to set new schedule interval. Click on "All" to set a 24h schedule for the selected day.

Detection Area:
Set the motion detection area as required. Click on the "Setup" button to open the following interface:

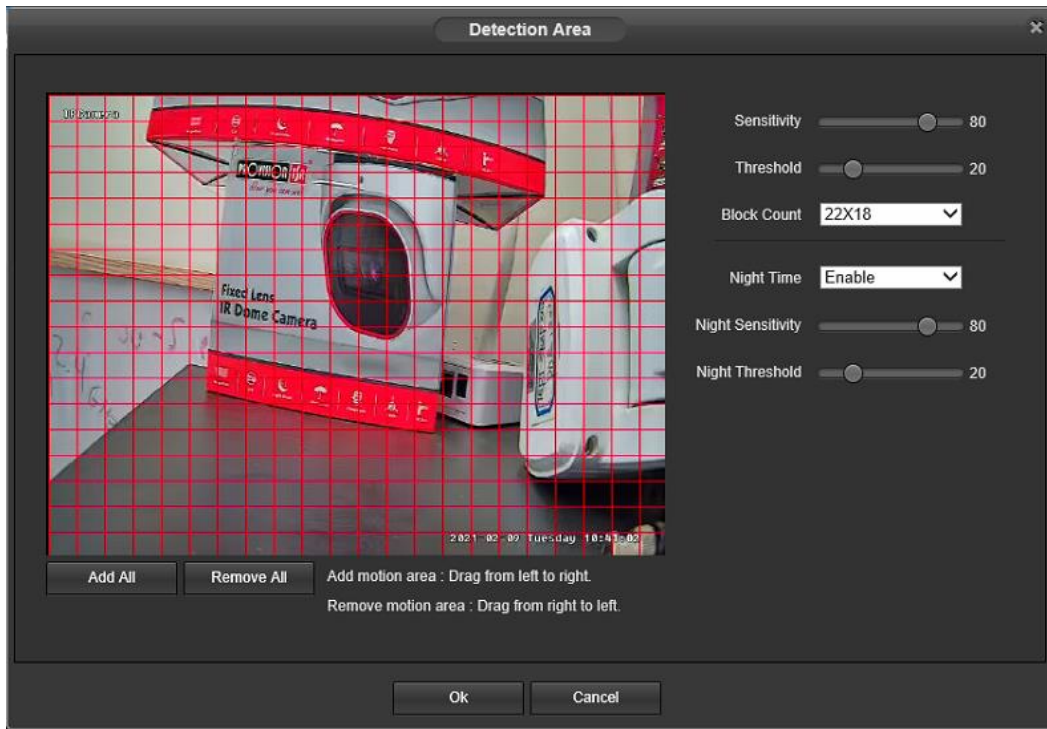**Sensitivity**: Higher sensitivity will consider minor changes as motion. Lower sensitivity will require more significant changes to be considered motion. Set the sensitivity of the motion detection.
**Threshold**: Higher threshold means that more "blocks" needs to contain motion in order to trigger an alarm. Lower threshold means that less "blocks" needs to contain motion in order to trigger an alarm.
Block Count: set the numbers of blocks. (Default is 22x18)
Night Time: Set if motion detection should also be enabled when the camera is on night mode.
Night Sensitivity / Threshold: Same as above just for night mode.
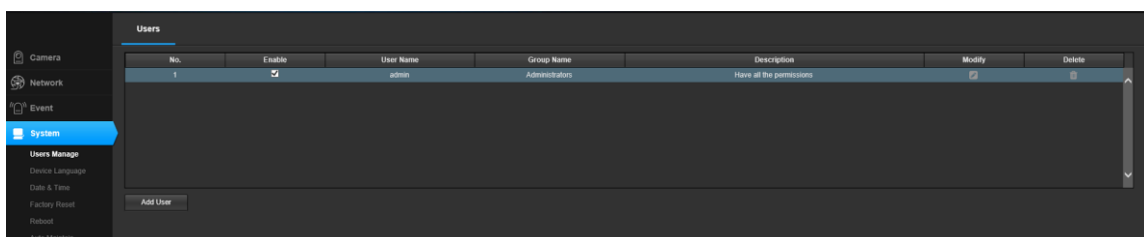**Detection Area**: Set the detection area as follows:
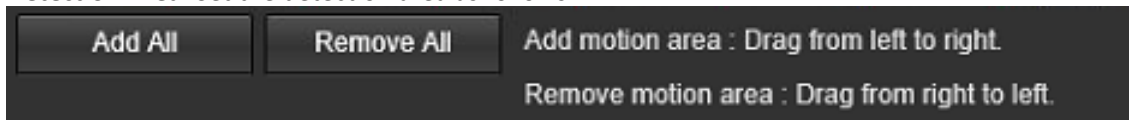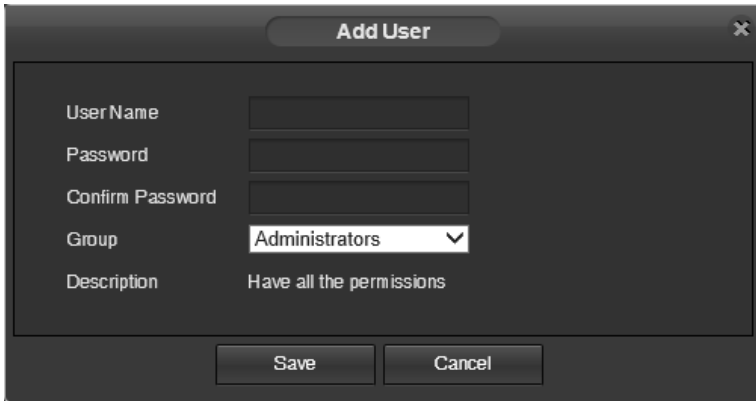

5.5. System

5.5.1. Users Manage

This interface allows you to manage the users of the system (Add/remove/modify).

The system has a built-in super administrator (admin account) which cannot be removed, but only edited.

Adding a User:
To add a new user, click on the "Add New" button. The following interface will open:

Set a user name and password, and choose out of 3 operating groups:

1) Administrator: allows to perform any operation or configuration on the camera.
2) Operator: allows to perform any operation or configuration on the camera, except of managing users (Cannot add/delete/modify users).
3) User: Can only live view and see configurations (Cannot edit or setup anything).
4) Save to confirm

Deleting a User:

Click on the delete icon (🗑), and confirm deleting on the prompt.
Modifying a User:

Click on the modify icon (✎) to open the following window.
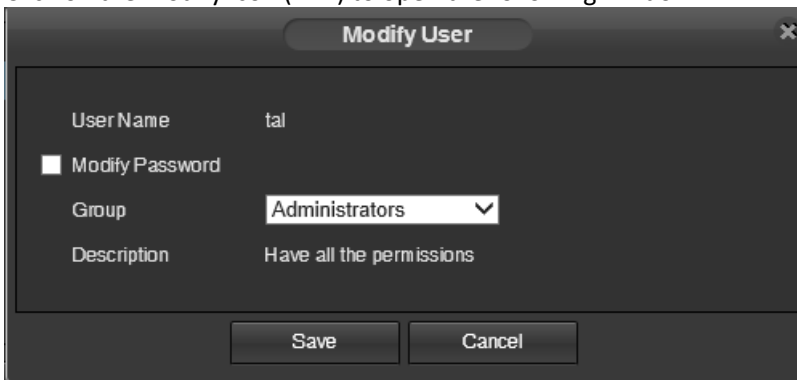
Change the user group or password as required. Click on "Save" to save the changes.

5.5.2. Device Language

Use this interface to change the system language.

Choose the required language, click on save to save the selection and then click refresh to apply the new language selection.

15

5.5.3. Date & Time

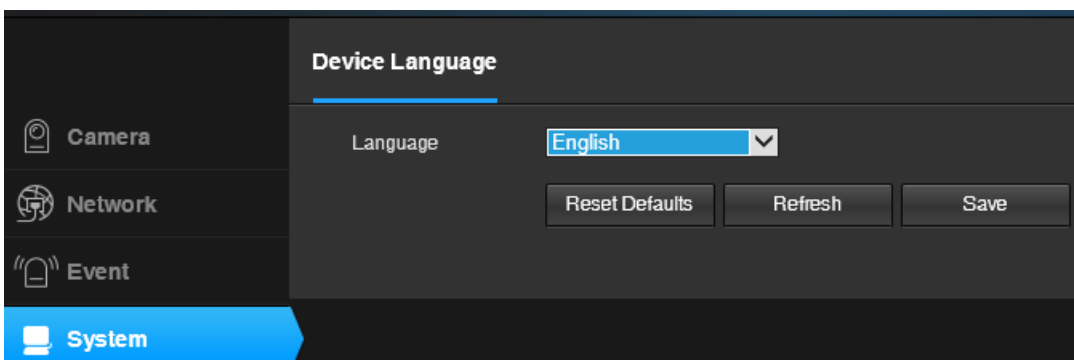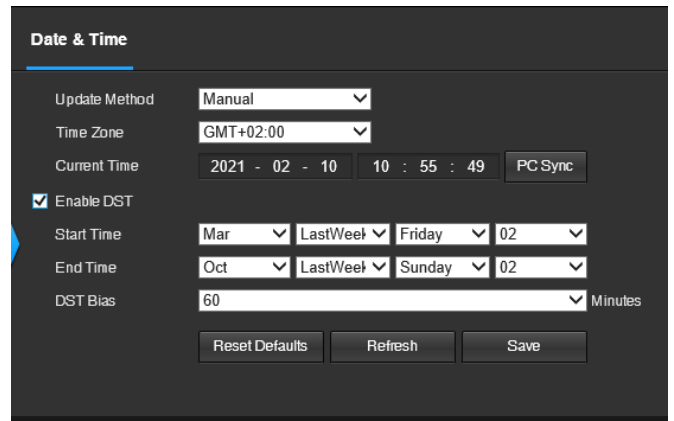Use this interface to set the camera date and time.

Note: In normal circumstances, the date and time will be configured automatically by the NVR. It is advisable not to change this setting manually unless required.

If you enable DST (Daylight Saving Time), please configure it according to your local DTS setup.

5.5.4. Factory Reset

Use this interface the restore the camera settings to factory default. If you wish for the camera to retain all network configurations (IP Addresses, Ports, Etc.), please mark the option accordingly.
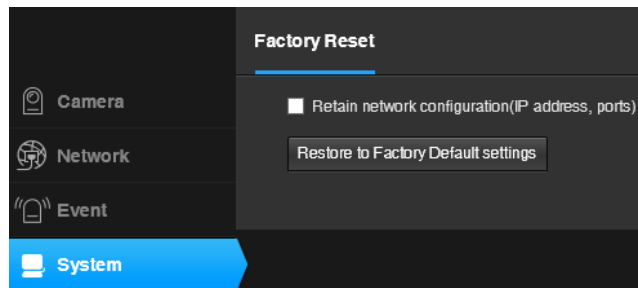
5.5.5. Reboot

Use this to manually reboot the camera. After clicking on "Reboot", confirm or cancel in the following prompt message. Reboot time should take 1-4 minute.
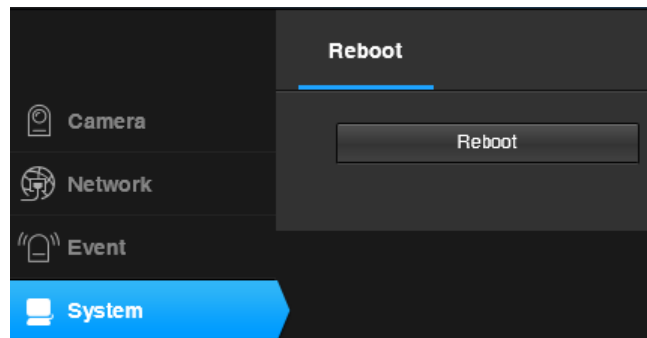
5.5.6. Auto Maintain

The IP camera is eventually a computer. Occasional reboot will clear the camera memory and cache and might prevent problems that appear over long time durations.

If you wish to activate the "Auto Maintain" feature, enable it and set the weekly time and date for the reboot to take place.
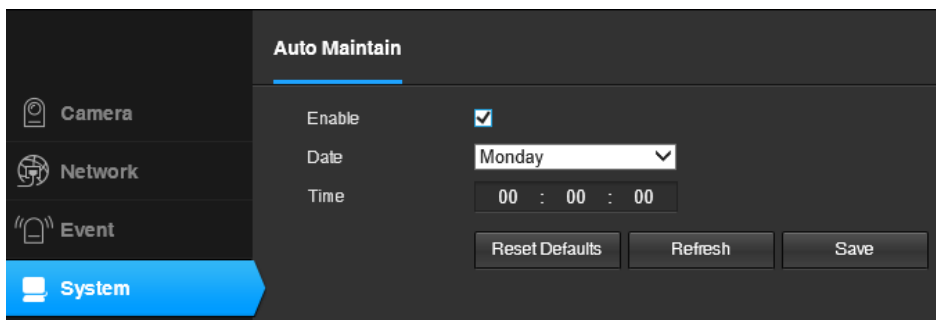
5.5.7. Upgrade

In some cases, camera firmware update is required so new features will be added and bugs and other problems will be fixed. Click on the "Browse" button and choose the update file. Click on upgrade to confirm. The upgrade process can take 3-12 minutes. At the end of the process the camera will reboot. No configurations will be changed during the update.

6. Park Action

Park action will return the camera position to **Preset 1** once 1/2 minutes as passed (Default is on – 1 minute). If Preset 1 position is not configured, the Park action will not work. Please see the preset commands below to enable/disable park action.
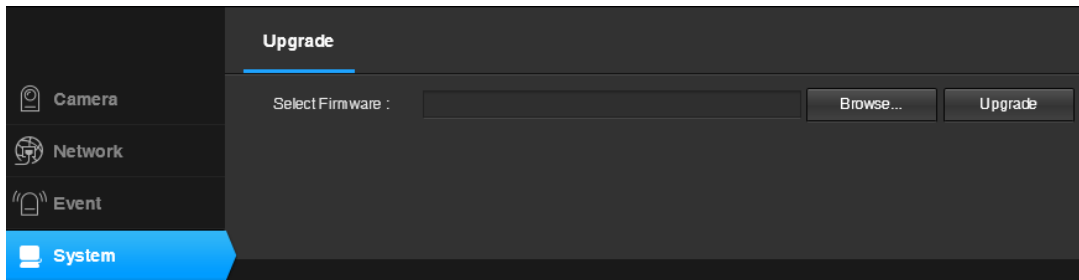
7. Preset Commands:

Please use the presets described below for special actions.

Operation command	Instruction
Day/Night	SET preset 70 then: CALL preset 1: Auto Mode. CALL preset 2: Night Mode CALL preset 3: Day Mode
Set Day/Night Sensitivity	SET preset 71 then CALL preset 1-10 (1 – Lowest Sensitivity, 10 – Highest Sensitivity)
Park Action	SET preset 76 then: CALL preset 1: Go to Preset 1 CALL preset 2: Start Scan CALL preset 3: Start Tour CALL preset 4: Start Pattern CALL preset 5: Off
Idle Delay Time	SET Preset 72 then: CALL preset 1: 30 Seconds CALL preset 2: 60 Seconds CALL preset 3: 5 mins CALL preset 4: 10 mins CALL preset 5: 30 mins
Cruising Time Set	SET preset 75 then CALL preset 1-255 (Seconds)
Cruising Start	CALL preset 98
Start Pattern Record	SET preset 86
Stop Pattern Record	CALL preset 96
Start Pattern	CALL preset 97
Set Scan Left Boundary	SET preset 92
Set Scan Right Boundary	SET preset 93

Start Scan	CALL preset 99
Scan Speed Set	SET 87 then CALL preset 1 – 30
Reboot	CALL preset 94
Default to Factory	CALL preset 82

8. Appendix

8.1.   Lighting protection and Anti-surge

This product uses the gas discharge tube of TVS diode and protection circuit, can effectively prevent the 3.0 kV following transient lightning and surge lamp all types of pulse signal to the damage of equipment. However, for outdoor installation according to the actual situation on the premise of guarantee the electrical safety to do the necessary protective measures:

● Signal transmission line must be with the high voltage equipment goods between high voltage cables to keep a distance of at least 50 meters

● Choose as far as possible outside wiring along the roof line

● for open field must adopt sealing pipe buried wiring way, and the steel pipe by one-point earthling, absolutely forbidden by wiring overhead way

●in strong thunderstorms or high induction voltage region (e.g., high voltage transformer substation), must be taken to add extra high power lightning protection equipment and installation of lightning rod and other measures

● Lightning protection and grounding design of outdoor installation and wiring must be combined with the construction of lightning protection requirements into consideration, and conform to the requirements of relevant national standards and industry standards.

● the system must be equipped on potential grounding. Grounding device must meet the system anti-interference and electrical safety requirements, and shall not be short term or mixed with strong power grid zero line. System separate grounding, grounding resistance is not greater than 4Ω.

PROVISION ISR ®

Now you can see!

The IP IR Bullet PTZ Camera gives you more of everything: Faster movements, higher accuracy, HD video performance and easier installation.