

EZY-LAN / IP CAM Programming

1 General

The control panel can communicate directly with some IP camera models, for a maximum of 8 cameras, with the aim of offering visual verification (video-verification) in case of alarm events.

Each camera can be associated with one or more alarm zones (maximum 4).

With the control panel armed, for each alarm generated by one of the associated zones, the control panel will ask the camera for a sequence of images (at low resolution) - the number of images for each event is programmable from 1 to 8.

The images relating to the alarm events are stored in the memory of the control panel and are made available for viewing directly from the APP, as well as sent as attachments to the alarm e-mails (only to users who have enabled the reception of this type of communication).

The internal memory dedicated to the images is a 2Mb circular RAM buffer, sufficient to store about 66 images in VGA resolution. Once the memory is full, the new images overwrite those of the older events.

NOTE. The memory dedicated to the images is volatile type, therefore the images will be lost in case of restart or complete lack of power to the control panel

3 Installing the Camera

The IP camera and the control panel must be connected to the same local network.

In fact, the image acquisition function for video verification is only possible if the control unit can directly reach and interrogate the camera.

4 Settings common to all brands

The cameras need some settings that are normally made via a web browser or any dedicated software. Refer to the tools and manuals provided by the camera manufacturer for details on its programming.

The camera must be programmed with a static (fixed) local IP address that is part of the same subnet assigned to the control panel.

Correct example. Control Panel IP = 192.168.1.150 / Camera IP = 192.168.1.160

Incorrect example. Control Panel IP = 192.168.1.150 / Camera IP = 192.168.0.160

If the camera had a dynamic IP address that can vary over time, the control panel would no longer be able to find it.

2 Compatible models

BRAND SUNELL

All models are compatible

BRAND PROVISION-ISR

All models are compatible

BRAND DAHUA

Only the following models are compatible.

It is also mandatory to add a microSD memory inside the camera

- IPC-K35
- HFW1320S-W
- HDBW1320E-W
- HFW1235S-W
- HFW1435S-W
- HDBW1235E-W
- HDBW1435E-W
- HFW1235S-W-S2
- HFW1435S-W-S2
- HDBW1235E-W-S2
- HDBW1435E-W-S2

5 Control panel settings

For the settings of the camera on the control panel, refer to the "Installer Manual" of the control panel.

6 SUNELL camera settings

Set the options as follows

CONFIGURATION -> FLUX -> IMAGE CAPTURE

Snapshot Resolution = VGA or D1

Snapshot Quality = High



Select the resolution according to your preferences:

VGA → image size about 30kb

D1 → image size about 37kb

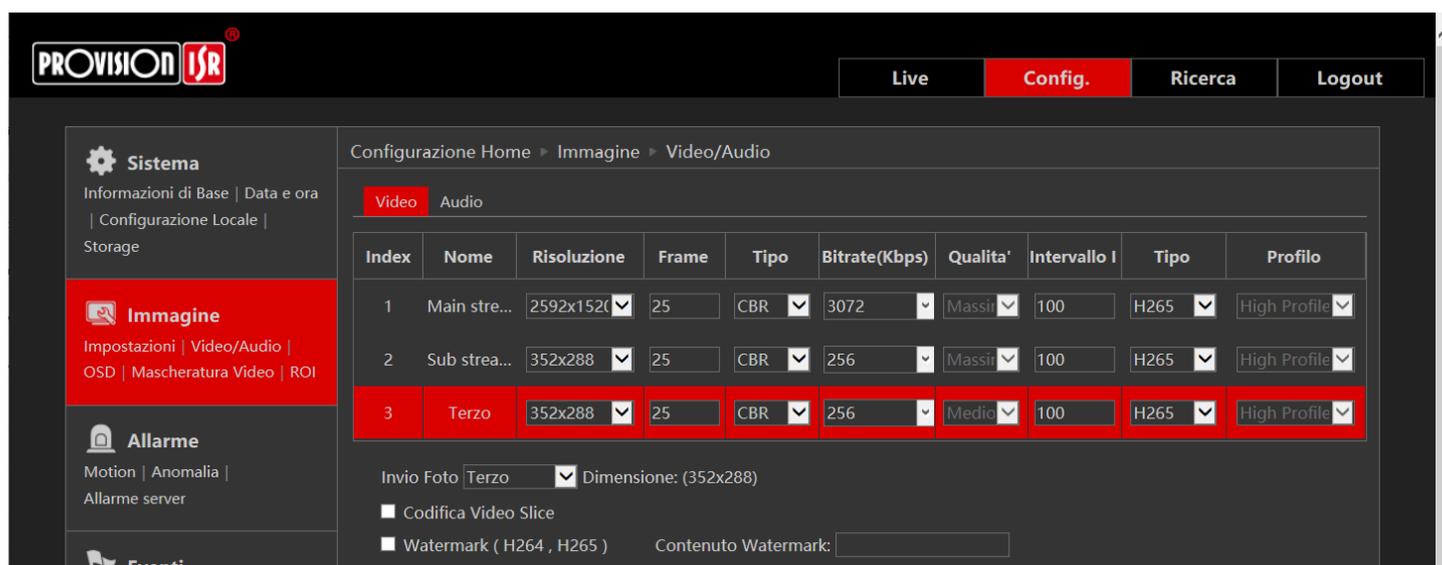
7 PROVISION-ISR Camera Settings

Set the options as follows

CONFIG. -> IMAGINE -> VIDEO/AUDIO

Third Resolution = 352x288 or 480x240 or 704x576

Send Photo = Third



Select the resolution according to your preferences:

352x288 → image size about 20kb

480x240 → image size about 22kb

704x576 → image size about 63kb

8 DAHUA Camera Settings

PLEASE NOTE. It is mandatory to insert a microSD of adequate capacity and characteristics into the camera (see the camera requirements).

Set the options as follows

SETTING -> CAMERA -> VIDEO

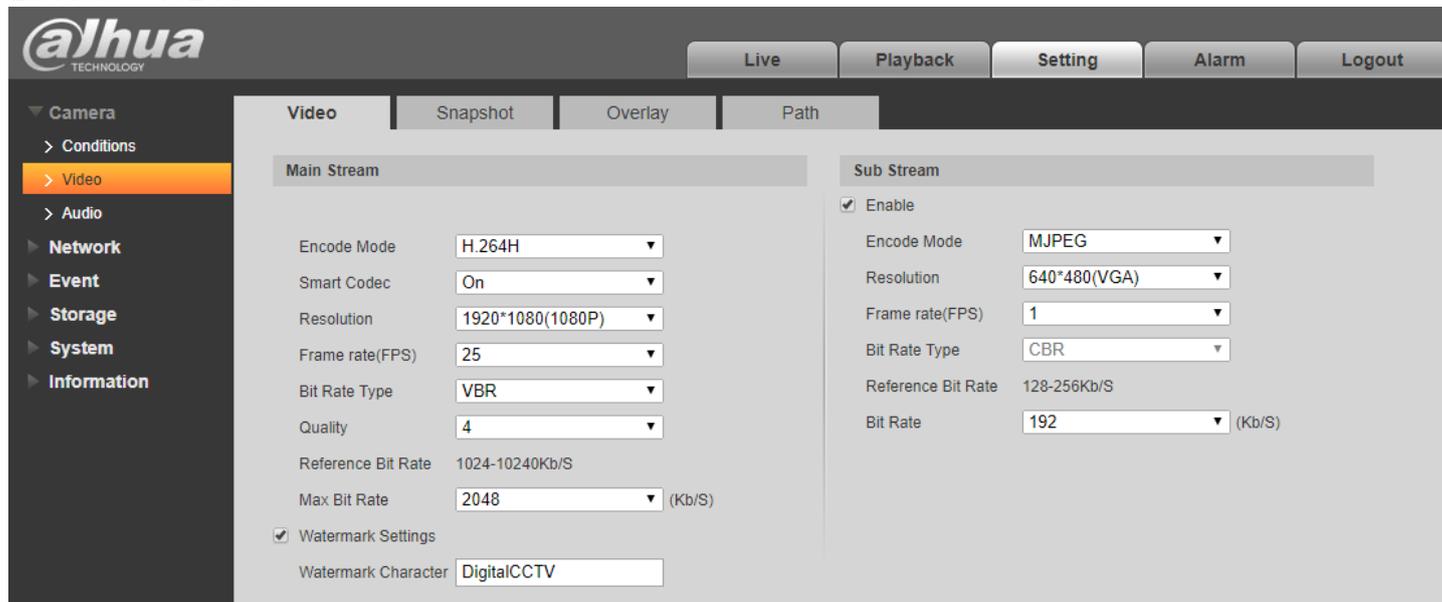
Sub stream = Abilitato

Encode mode = MJPEG

Resolution = 640*480 (VGA)

Frame rate (FPS) = 1

Bit Rate = 192 Kb/s



The screenshot shows the Dahua camera web interface. The top navigation bar includes 'Live', 'Playback', 'Setting', 'Alarm', and 'Logout'. The left sidebar shows a menu with 'Camera' expanded, and 'Video' selected. The main content area is titled 'Video' and has tabs for 'Video', 'Snapshot', 'Overlay', and 'Path'. Under the 'Video' tab, there are two sections: 'Main Stream' and 'Sub Stream'. The 'Main Stream' settings are: Encode Mode (H.264H), Smart Codec (On), Resolution (1920*1080(1080P)), Frame rate(FPS) (25), Bit Rate Type (VBR), Quality (4), Reference Bit Rate (1024-10240Kb/S), Max Bit Rate (2048) (Kb/S), and Watermark Settings (checked) with Watermark Character (DigitalCCTV). The 'Sub Stream' settings are: Enable (checked), Encode Mode (MJPEG), Resolution (640*480(VGA)), Frame rate(FPS) (1), Bit Rate Type (CBR), Reference Bit Rate (128-256Kb/S), and Bit Rate (192) (Kb/S).

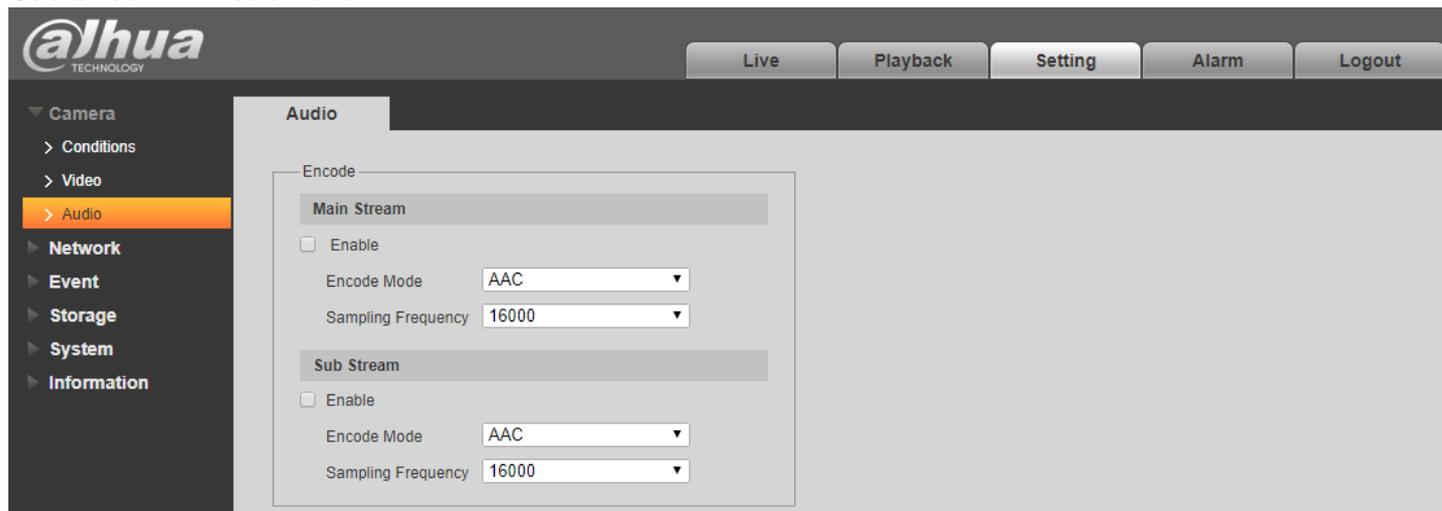
VGA → image size about 23kb

[IF AUDIO IS PRESENT]

Set the options as follows

SETTING -> CAMERA -> AUDIO

Sub stream = Disabilitato



The screenshot shows the Dahua camera web interface. The top navigation bar includes 'Live', 'Playback', 'Setting', 'Alarm', and 'Logout'. The left sidebar shows a menu with 'Camera' expanded, and 'Audio' selected. The main content area is titled 'Audio' and has tabs for 'Audio' and 'Video'. Under the 'Audio' tab, there are two sections: 'Main Stream' and 'Sub Stream'. The 'Main Stream' settings are: Enable (unchecked), Encode Mode (AAC), and Sampling Frequency (16000). The 'Sub Stream' settings are: Enable (unchecked), Encode Mode (AAC), and Sampling Frequency (16000).

Set the options as follows

SETTING -> STORAGE -> SCHEDULE

The screenshot shows the 'Schedule' configuration page. On the left is a navigation menu with 'Storage' expanded to 'Schedule'. The main area has tabs for 'Record', 'Snapshot', and 'Holiday Schedule'. At the top right, there are three checked options: 'General' (green square), 'Motion' (yellow square), and 'Alarm' (red square). Below this is a 24-hour grid for each day of the week (Sun-Sat) and a 'Holiday' row. The 'General' recording mode is selected for all days, indicated by green bars. Each day has a 'Setting' button to its right. At the bottom are 'Default', 'Refresh', and 'Save' buttons.

Set the options as follows

SETTING -> STORAGE -> DESTINATION

The screenshot shows the 'Destination' configuration page. The left navigation menu has 'Storage' expanded to 'Destination'. The main area has tabs for 'Path', 'Local', 'FTP', and 'NAS'. It is divided into two sections: 'Record' and 'Snapshot'. Each section contains a table with columns for 'Event Type', 'Scheduled', 'Motion Detection', and 'Alarm'. In the 'Record' section, 'Local' is checked under 'Scheduled'. In the 'Snapshot' section, all options are unchecked. 'Default', 'Refresh', and 'Save' buttons are at the bottom.

Record				Snapshot			
Event Type	Scheduled	Motion Detection	Alarm	Event Type	Scheduled	Motion Detection	Alarm
Local	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FTP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FTP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NAS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NAS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Set the options as follows

SETTING -> STORAGE -> RECORD CONTROL

Pack Duration = 1 min

Pre-event Record = 0 sec

Disk Full = Overwrite

Record Mode = Manual

Record Stream = Sub Stream

The screenshot shows the 'Record Control' configuration page. The left navigation menu has 'Storage' expanded to 'Record Control'. The main area contains several settings: 'Pack Duration' is set to 1 with a unit of 'Min. (1~120)'; 'Pre-event Record' is set to 0 with a unit of 'Sec. (0~5)'; 'Disk Full' is set to 'Overwrite' via a dropdown menu; 'Record Mode' has radio buttons for 'Auto', 'Manual' (which is selected), and 'Off'; 'Record Stream' is set to 'Sub Stream' via a dropdown menu. 'Default', 'Refresh', and 'Save' buttons are at the bottom.

Set the options as follows

SETTING -> SYSTEM -> GENERAL -> DATE&TIME

DST = DISABLED

NTP = DISABLED

The screenshot shows a web interface for configuring system settings. On the left is a dark sidebar with a menu containing: Camera, Network, Event, Storage, System (expanded), General (highlighted), Account, Default, Import/Export, Auto Maintain, Upgrade, and Information. The main content area has two tabs: 'General' and 'Date&Time'. The 'Date&Time' tab is active and contains the following settings:

- Date Format: DD-MM-YYYY
- Time Format: 24-Hour
- Time Zone: GMT+01:00
- Current Time: 19-03-2018 (with a calendar icon) 12 : 46 : 24 (with a 'Sync PC' button)
- DST
- DST Type: Date Week
- Start Time: Mar | LastWeek | Sun | 02 : 00 : 00
- End Time: Oct | LastWeek | Sun | 03 : 00 : 00
- NTP
- Server: [Empty text box]
- Port: 0
- Interval: 0 Min. (0~30)

At the bottom of the settings area are three buttons: 'Default', 'Refresh', and 'Save'.