GeoVision inc
The Vision of Security

GV-Face Recognition Camera

User's Manual

- GV-VD8700
- GV-FD8700-FR

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

VD8700-UM-B

GeoVision inc
安全的愿景

GV-人脸识别摄像机

用户手册

- GV-VD8700
- GV-FD8700-FR

在尝试连接或操作本产品之前，
请仔细阅读这些说明，并保存本手册以备将来使用。

VD8700-UM-B

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Note: No memory card slot or local storage function for Argentina.

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August 2020

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注意：阿根廷没有内存卡插槽或本地存储功能。

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2020年8月

Preface

Welcome to the *GV-Face Recognition Camera User's Manual*. The instructions will guide you through the installation and use of the camera.

This *Manual* is designed for the following models:

Model	Model Number
IR Vandal Proof IP Dome	GV-VD8700
IR Fixed IP Dome	GV-FD8700-FR

前言

欢迎阅读*GV*-人脸识别摄像机用户手册。本说明将指导您完成摄像机的安装和使用。

本手册适用于以下型号：

型号	型号编号
红外防破坏IP半球摄像机	GV-VD8700
红外固定IP半球摄像机	GV-FD8700-FR

Contents

目录

Regulatory Notices

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

Class A

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

CE Notice

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

RoHS Compliance

The Restriction of Hazardous Substances (RoHS) Directive is to forbid the use of hazardous materials of production. To meet the RoHS Directive requirements, this product is made to be RoHS compliant.

法规通知

FCC通知

本设备已进行测试，发现符合FCC规则第15部分对A类数字设备的限制。这些限制旨在在商业环境中操作设备时提供合理的保护，以防止有害干扰。

A类

本设备会产生、使用并可能辐射射频能量，如果未按照说明手册进行安装和使用，可能会对无线通信造成有害干扰。在住宅区操作本设备可能会导致有害干扰，在这种情况下，用户将需要自行承担费用纠正干扰。

CE通知

这是一款A类产品。在家庭环境中，该产品可能会造成无线干扰，在这种情况下，用户可能需要采取适当措施。

RoHS合规

限制有害物质（RoHS）指令禁止使用有害材料进行生产。为了满足RoHS指令的要求，本产品已制造为RoHS合规。

Naming Definition

GV-DVR / NVR	GeoVision Analog and Digital Video Recording Software. The GV-DVR also refers to **GV-Multicam System** or **GV-Hybrid DVR**.
GV-VMS	GeoVision Video Management System for IP cameras.

Note for Connecting to GV-DVR / NVR / VMS

The camera is designed to work with and record on GV-DVR / NVR / VMS, a video management system.

Once the camera is connected to the GV-DVR / NVR / VMS, the resolution set on the GV-DVR / NVR / VMS will override the resolution set on the camera's Web interface. You can only change the resolution settings through the Web interface when the connection to the GV-DVR / NVR / VMS is interrupted.

Face Recognition is only supported by GV-VMS. When applying Face Recognition, one camera can only be connected to one GV-VMS at a time.

命名定义

GV-DVR / NVR	GeoVision模拟和数字视频录制软件。GV-DVR也指**GV-Multi cam系统**或**GV-Hybrid DVR**。
GV-VMS	GeoVision IP摄像机视频管理系统。

连接GV-DVR / NVR / VMS的注意事项

该摄像机设计用于与GV-DVR / NVR / VMS视频管理系统一起工作和录制。

一旦摄像机连接到GV-DVR / NVR / VMS，GV-DVR / NVR / VMS上设置的分辨率将覆盖摄像机Web界面上设置的分辨率。只有在与GV-DVR / NVR / VMS的连接中断时，您才能通过Web界面更改分辨率设置。

人脸识别仅支持GV-VMS。在应用人脸识别时，一台摄像机一次只能连接到一台GV-VMS。

Note for Recording

1. By default, the recording function is disabled. Configure the function in the camera's Web interface to record alarm events to the memory card inserted in the camera upon disconnection from GV-DVR / NVR / VMS. See *4.4.3 Tools* for details.
2. Mind the following when using a memory card for recording:
   - Recorded data on the memory card can be damaged or lost if the data are accessed while the camera is under physical shock, power interruption, memory card detachment or when the memory card reaches the end of its lifespan. No guarantee is provided for such causes.
   - The stored data can be lost if the memory card is not accessed for a long period of time. Back up your data periodically if you seldom access the memory card.
   - Memory cards are expendable and their durability varies according to the conditions of the installed site and how they are used. Back up your data regularly and replace the memory card annually.
   - Replace the memory card when its read/write speed is lower than 6 MB/s or when the memory card is frequently undetected by the camera.
   - To avoid power outage, it is highly recommended to apply a battery backup (UPS).
3. For better performance, it is highly recommended to use memory cards of the following specifications:
   - Micro SD card of MLC NAND flash, Class 10.

录制注意事项

1.默认情况下，录制功能是禁用的。在摄像机的Web界面中配置功能，以便在与GV-DVR / NVR / VMS断开连接时将警报事件记录到插入摄像机的内存卡中。详细信息请参见 *4.4.3* 工具。

2.使用内存卡进行录制时请注意以下事项：

- 如果在摄像机受到物理冲击、电源中断、内存卡脱离或内存卡达到使用寿命末期时访问数据，内存卡上的录制数据可能会损坏或丢失。对此类原因不提供任何保证。

- 如果长时间未访问内存卡，存储的数据可能会丢失。如果您很少访问内存卡，请定期备份您的数据。
- 内存卡是易耗品，其耐用性因安装地点的条件和使用方式而异。请定期备份您的数据，并每年更换一次内存卡。

- 当内存卡的读写速度低于6 MB/s或内存卡经常无法被摄像机识别时，请更换内存卡。

- 为了避免停电，强烈建议使用电池备份（UPS）。

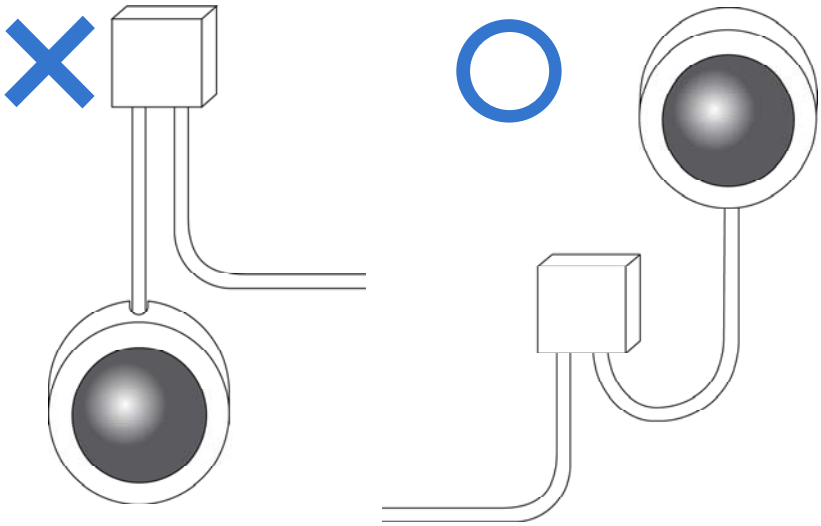
3.为了获得更好的性能，强烈建议使用以下规格的存储卡：

- MLC NAND闪存的Micro SD卡，Class 10。

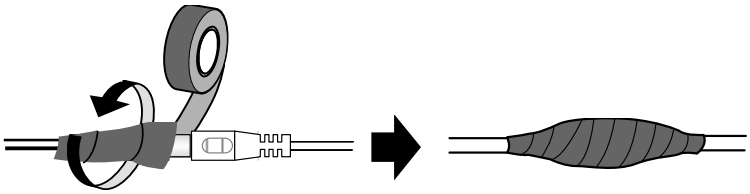
Note for Installing Camera Outdoor

When installing the camera outdoor, be sure that:

1. The camera is set up above the junction box to prevent water from entering the camera along the cables.



2. Any PoE, power, audio and I/O cables are waterproofed using waterproof silicon rubber or the like.

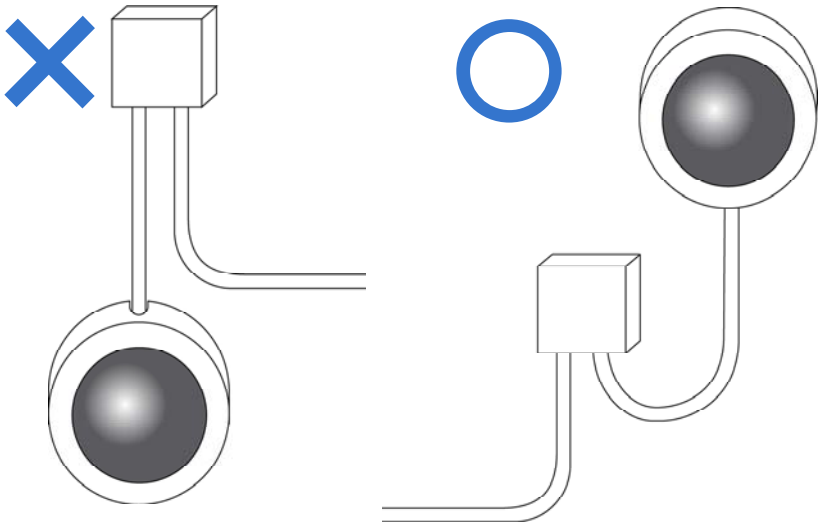


3. The screws are tightened and the cover is in place after opening the camera cover.

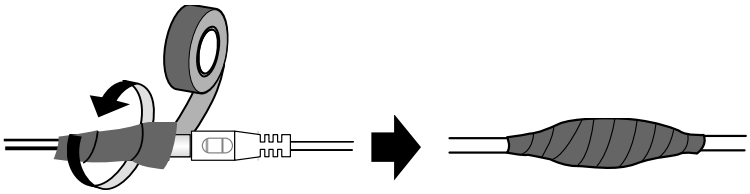
户外安装摄像机注意事项

在户外安装摄像机时，请确保：

1.摄像机安装在接线盒上方，以防止水沿着电缆进入摄像机。



2.任何PoE、电源、音频和I/O电缆都使用防水硅胶或类似材料进行防水处理。



3.螺丝已拧紧，摄像机盖在打开后已就位。

Optional Accessories

Optional devices can expand your camera's capabilities and versatility. Contact our sales representatives for more information.

Device	Description
GV-Mount Accessories	GV-Mount Accessories provide a comprehensive lineup of accessories for installing the camera on ceiling, wall corner and pole. For details, see *GV-Mount Accessories Installation Guide.*
GV-PA191 PoE Adapter	The GV-PA191 is a Power over Ethernet (PoE) adapter designed to provide power to the IP device through a single Ethernet cable.
GV-PoE Switch	GV-PoE Switch is designed to provide power along with network connection for IP devices. GV-PoE Switch is available in various models with different numbers and types of ports.
GV-Relay V2	GV-Relay V2 is designed to expand the voltage load of GV IP devices. It provides 4 relay outputs, and each can be set as normally open (NO) or normally closed (NC) independently as per your requirement.
Metal PG21 Conduit Connector (only for GV-VD8700)	The metal PG21 conduit connector is used for running the wires through a 3/4" conduit pipe.
Power Adapter	Contact our sales representatives for the countries and areas supported.

可选配件

可选设备可以扩展您摄像机的功能和多样性。请联系我们的销售代表以获取更多信息。

设备	描述
GV-支架配件	GV-支架配件提供全面的配件系列，用于将摄像机安装在天花板、墙角和杆上。有关详细信息，请参见*GV*-安装配件安装指南。
GV-PA191 PoE适配器	GV-PA191是一款以太网供电（PoE）适配器，旨在通过单根以太网电缆为IP设备提供电源。
GV-PoE交换机	GV-PoE交换机旨在为IP设备提供电源和网络连接。GV-PoE交换机有多种型号，具有不同数量和类型的端口。
GV-继电器V2	GV-继电器V2旨在扩展GV IP设备的电压负载。它提供4个继电器输出，每个输出可以根据您的需求独立设置为常开（NO）或常闭（NC）。
金属PG21 导管连接器（仅适用于GV-VD8700)	金属PG21导管连接器用于通过3/4”导管管道引导电线。
电源适配器	请联系我们的销售代表以获取支持的国家和地区信息。

Chapter 1 Introduction

GV-VD8700 (Outdoor)

GV-FD8700-FR (Indoor)

GeoVision Face Recognition cameras feature cutting-edge face recognition technology that allows users to identify important personnel from its database, on the fly. Up to 10,000 face profiles can be defined in the camera's database, and also categorized to meet various corporate needs, such as facilitating customer service or security management and more. The camera's face recognition mechanism is effective for a distance of up to 4 m (13.12 ft) while able to identify up to 10 persons simultaneously. With a recognition time of within 2 seconds, it can quickly identify VIP guests and / or potential intruders. When integrated with GV-VMS, GV-VD8700's face recognition can be used to trigger alerts according to the predefined rules, thereby providing an improved, reliable security management.

GV-VD8700 is designed for outdoors, with IK10 vandal resistance and IP66 ingress protection while **GV-FD8700-FR** is intended for indoors. Both cameras support H.265 video codec to achieve better compression ratio while maintaining high-quality pictures at reduced network bandwidths. For night operations, the cameras are equipped with an IR effective distance of up to 40 m (131.23 ft). The WDR and Backlight Compensation allow the cameras to detect faces in environments with drastic light contrast.

第一章 介绍

GV-VD8700（户外）

GV-FD8700-FR（室内）

GeoVision人脸识别摄像机采用先进的人脸识别技术，允许用户实时识别其数据库中的重要人员。摄像机的数据库中可以定义多达10,000个面部档案，并可根据各种企业需求进行分类，例如促进客户服务或安全管理等。该摄像机的人脸识别机制在距离最多可达4米（13.12英尺）时有效，同时能够同时识别多达10人。识别时间在2秒以内，可以快速识别VIP客户和/或潜在入侵者。当与GV-VMS集成时，GV-VD8700的人脸识别可以根据预定义规则触发警报，从而提供更可靠的安全管理。

GV-VD8700设计用于户外，具有IK10防破坏性和IP66防水等级而**GV-FD8700-FR**则适用于室内。两款摄像机均支持H.265视频编码，以实现更好的压缩比，同时在降低网络带宽的情况下保持高质量图像。在夜间操作时，摄像机配备了有效距离可达40米（131.23英尺）的红外线。宽动态范围（WDR）和背光补偿使摄像机能够在光线对比度剧烈的环境中检测人脸。

Features:

- 1/2.5” progressive scan low lux CMOS
- Min. illumination at 0.04 lux
- Triple streams from H.265 and H.264
- Up to 30 fps at 3840 x 2160
- Megapixel varifocal lens
- P-iris lens for auto iris control
- Day and Night function (with removable IR-cut filter)
- Intelligent IR
- Wide Dynamic Range (WDR)
- IK10 Vandal resistance (only for GV-VD8700)
- IP66 Ingress protection (only for GV-VD8700)
- IR distance of up to 40 m (131.23 ft)
- 3-axis mechanism (pan / tilt / rotate)
- One sensor input and digital output
- Built-in micro SD card slot (SD/SDHC/SDXC/UHS-I, Class 10) for local storage
- DC 12V / PoE
- One-way audio
- Defog
- Motion detection
- Tampering alarm
- Face recognition
- Text overlay
- Privacy mask
- IP address filtering
- Recording assigned by GV-Edge Recording Manager (Windows & Mac)
- Supports iPhone, iPad, and Android
- 4 languages on Web interface

特点：

- 1/2.5”逐行扫描低照度CMOS
- 最低照度为0.04 lux
- 来自H.265和H.264的三路流
- 在3840 x 2160分辨率下可达30帧每秒
- 百万像素变焦镜头
- P-iris镜头用于自动光圈控制
- 日夜功能（带可拆卸红外切割滤镜）
- 智能红外
- 宽动态范围（WDR）
- IK10 防破坏等级（仅适用于 GV-VD8700）
- IP66 防水等级（仅适用于 GV-VD8700）
- 红外距离可达 40 米（131.23 英尺）
- 三轴机制（平移 / 倾斜 / 旋转）
- 一个传感器输入和数字输出
- 内置 micro SD 卡槽（SD/SDHC/SDXC/UHS-I，Class 10）用于本地存储
- 直流 12V / PoE
- 单向音频
- 除雾
- 运动检测
- 篡改报警
- 人脸识别
- 文本叠加
- 隐私遮罩
- IP 地址过滤
- 由 GV-Edge 录制管理器（Windows 和 Mac）分配录制
- 支持 iPhone、iPad 和 Android
- 网页界面支持 4 种语言

1.1 System Requirements

To access the Web interface of the camera, make sure the connected network is stable and use one of the following Web browsers:

- Microsoft Internet Explorer 11 or later
- Google Chrome

Note: When using Google Chrome browser, only H.264 video codec is supported and there has a live view delay of 2~5 seconds.

1.1 系统要求

要访问摄像机的Web界面，请确保连接的网络稳定，并使用以下Web浏览器之一：

- Microsoft Internet Explorer 11 或更高版本
- 谷歌浏览器

注意：使用谷歌Chrome浏览器时，仅支持H.264视频编码，并且实时视图有2~5秒的延迟。

1.2 Packing List

1.2.1 GV-VD8700

- GV-VD8700 Camera
- Screw x 4

- I/O Cable

- Installation Sticker

- PG21 Conduit Connector

- Big Concave Hexagon Wrench

- Silica Gel Bag
- Conduit Converter
- Screw Anchor x 4

- Audio Wire x 2

- RJ-45 Connector

- Waterproof Rubber Sets (for RJ-45 Cat.5 and DC12V / for RJ-45 Cat. 6)

Cat.5 (Ø 5 mm) Cat.6 (Ø 6 mm)

- Torx Wrench

- Small Concave Hexagon Wrench

- Sticker (for Silica Gel Bag)

1.2 包装清单

1.2.1 GV-VD8700

- GV-VD8700摄像机
- 螺丝 x 4

- I/O电缆

- 安装贴纸

- PG21导管连接器

- 大凹六角扳手

- 硅胶袋
- 导管转换器
- 螺丝锚 x 4

- 音频线 x 2

- RJ-45连接器

- 防水橡胶套件（适用于RJ-45 Cat.5和DC12V / 适用于RJ-45 Cat. 6）

Cat.5
(Ø 5 毫米)

Cat.6
(Ø 6 毫米)

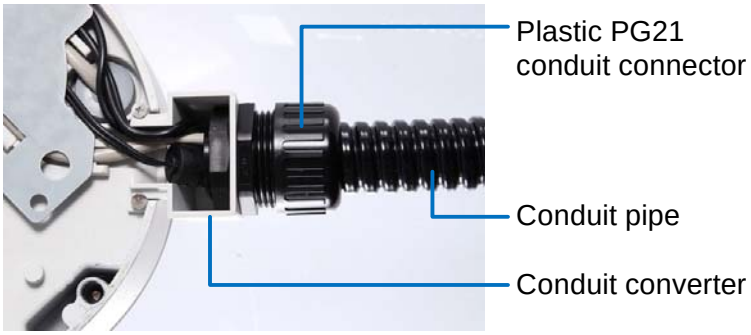
- 星形扳手

- 小凹六角扳手

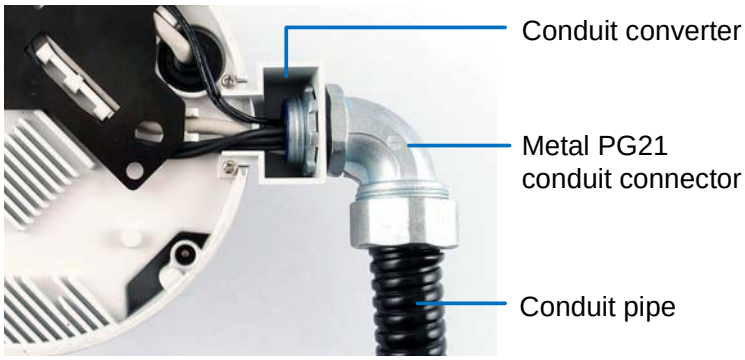
- 贴纸（用于硅胶袋）

- Ruler
- 8 GB Micro SD Card (MLC, SDHC, Class 10) (The Micro SD Card is preinstalled and formatted in the camera)
- Download Guide
- Warranty Card

Note: You can run the wires through a conduit pipe. After you have threaded all the wires, install the supplied conduit converter and plastic PG21 conduit connector with a self-prepared 1/2” conduit pipe to the camera. Power will have to be supplied through a PoE adapter, because the power adapter wire does not fit in a 1/2” pipe. You will have to purchase your own PG21 conduit connector if you want to use a 3/4” or 1” pipe.



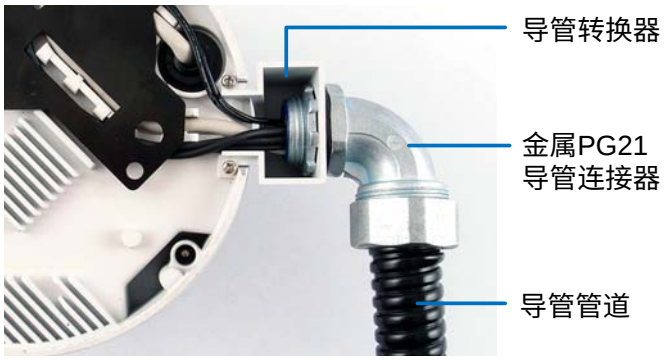
A metal PG21 conduit connector can be purchased upon request. The metal PG21 conduit connector can be connected with a 3/4” pipe.



- 尺子
- 8 GB Micro SD卡（MLC，SDHC，Class 10）（Micro SD卡已预装并格式化在摄像头中）
- 下载指南
- 保修卡

注意：您可以通过导管管道穿过电线。在您穿过所有电线后，安装提供的导管转换器和塑料PG21导管连接器，并使用自备的1/2英寸导管管道连接到摄像头。电源必须通过PoE适配器供电，因为电源适配器线无法放入1/2英寸管道中。如果您想使用3/4英寸或1英寸管道，您需要自行购买PG21导管连接器。

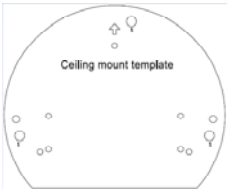
金属PG21导管连接器可根据要求购买。金属PG21导管连接器可以与3/4英寸管道连接。



1.2.2 GV-FD8700-FR

- GV-FR8700-FR Camera
- Screw x 3

- Installation Sticker



- Audio Wire x 2

- Torx Wrench

- Screw Anchor x 3

- I/O Cable

- 8 GB Micro SD Card (MLC, SDHC, Class 10) (The Micro SD Card is preinstalled and formatted in the camera)
- Download Guide
- Warranty Card

1.2.2 GV-FD8700-FR

- GV-FR8700-FR摄像头
- 螺丝 x 3

- 安装贴纸

- 音频线 x 2

- 星形扳手

- 螺丝锚 x 3

- I/O电缆

- 8 GB Micro SD卡（MLC，SDHC，Class 10）（Micro SD卡已预装并格式化在相机中）
- 下载指南
- 保修卡

1.3 Overview

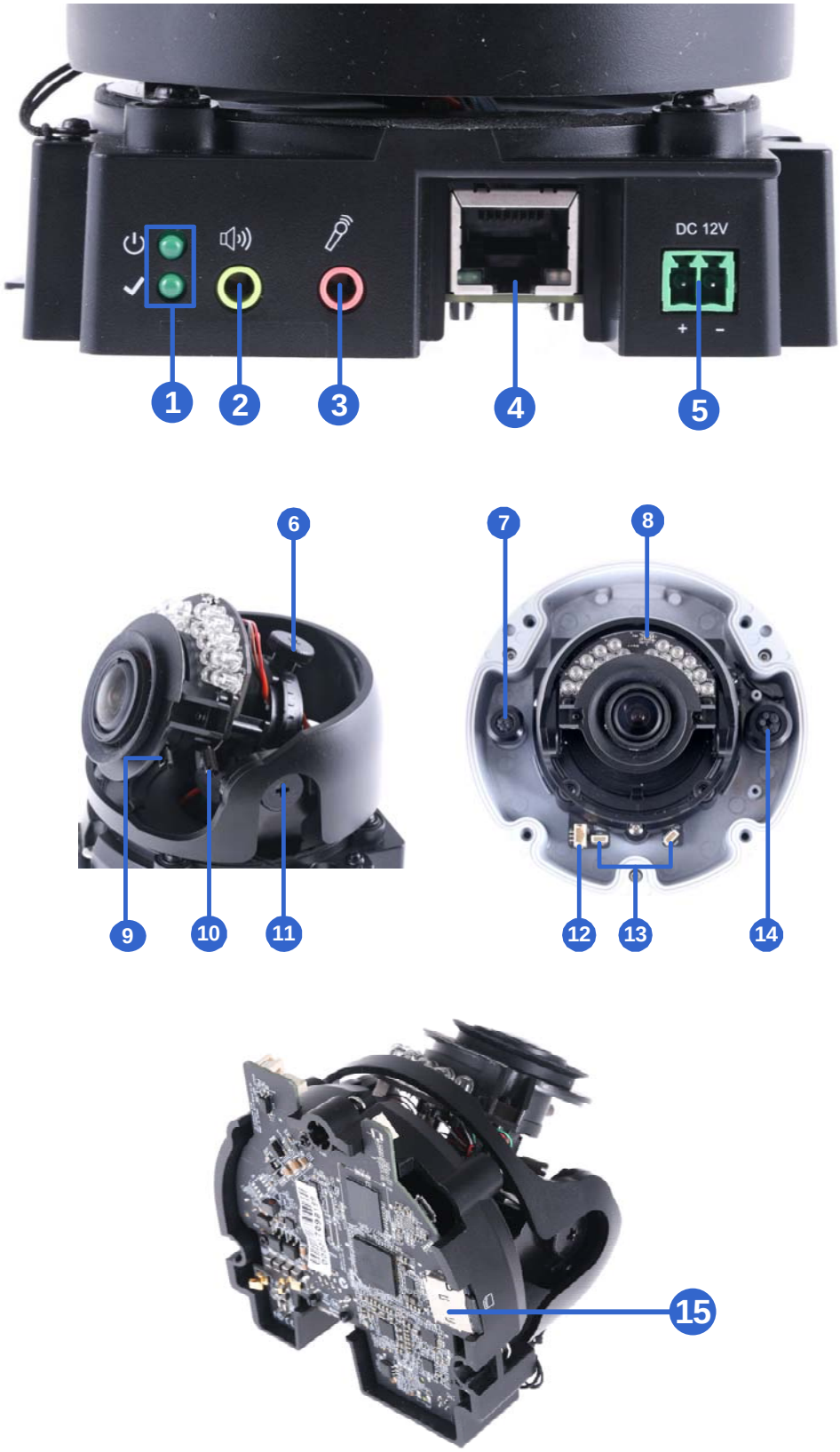


Figure 1-1

1.3 概述

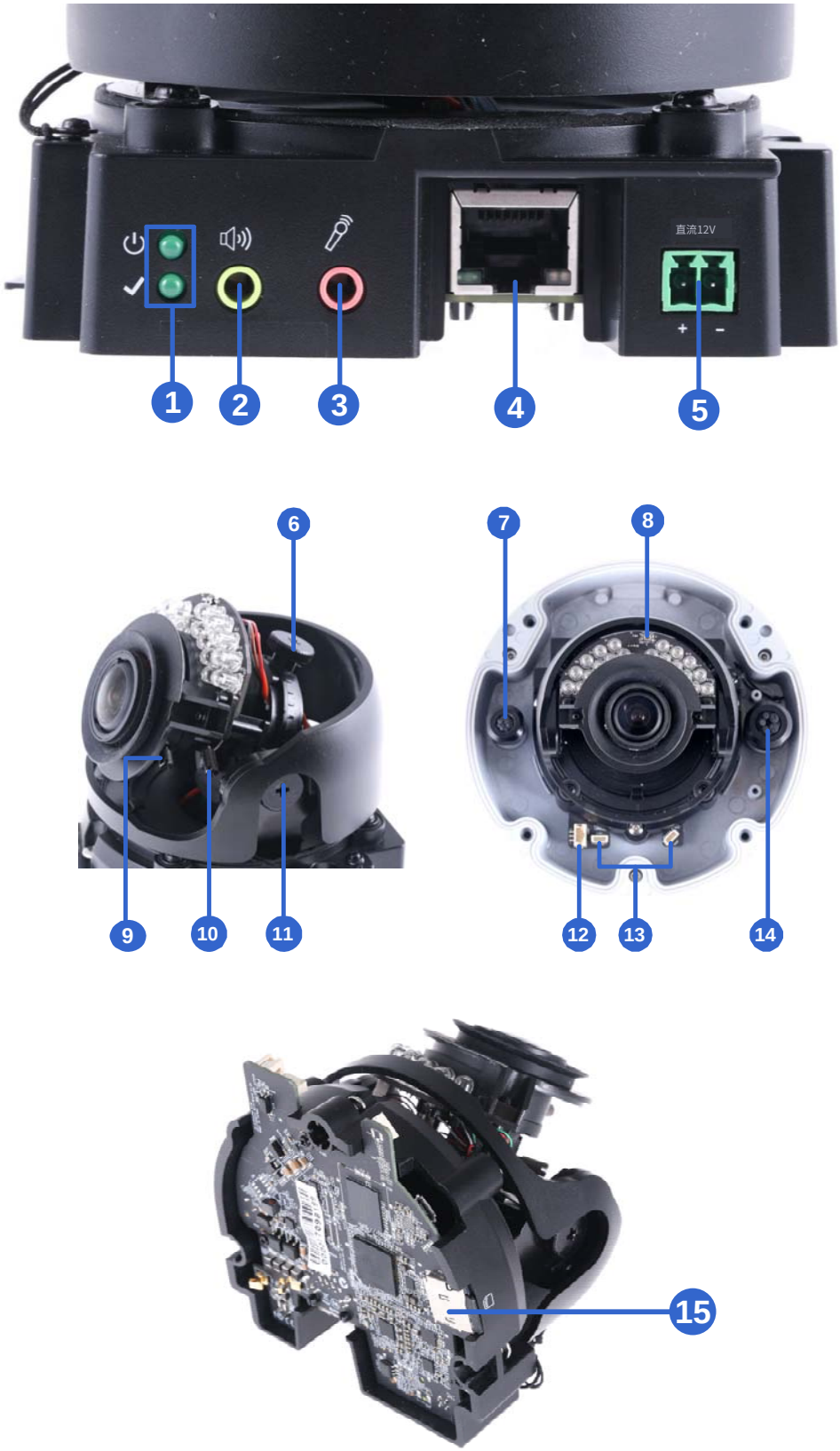


图*1-1*

No.	Name	Description
1	LED Indicators	The power LED (top) turns on when the power is on and turns off when there is no power supply. The status LED (bottom) turns on when the system operates normally and turns off when an error occurs.
2	Audio Out	Currently not functional.
3	Line In	Connects to a microphone for audio input. **Note:** This interface only works with an external microphone with power supply.
4	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
5	DC 12V	Connects to power.
6	Rotational Screw	Loosens to rotate the camera.
7	Conduit Connector	Waterproofs the Ethernet cable. **Note:** Not available for GV-FD8700-FR.
8	Default Button	Resets the camera to factory default settings. For details, see *7.2 Restoring to Factory Default Settings*.
9	Focus Screw	Adjusts the focus of the camera.
10	Zoom Screw	Zoom the camera in or out.
11	Tilt Screw	Loosens the screw to tilt the camera.
12	I/O Connector	Connects to I/O devices. For details, see *1.6 I/O Connectors*.
13	Built-in Microphone Connectors	Connects to a built-in microphone to record sound. For details, see *1.5 Connecting the Camera*. **Note:** Not available for GV-FD8700-FR.
14	Conduit Connector	Waterproofs the audio / I/O wires. **Note:** Not available for GV-FD8700-FR.
15	Memory Card Slot	Contains a micro-SD card (SD/SDHC/SDXC/UHS-I, Class 10) to store recording data.

编号	姓名	描述
1	LED指示灯	电源LED（顶部）在通电时亮起，在没有电源时熄灭。 状态LED（底部）在系统正常运行时点亮，在发生错误时熄灭。
2	音频输出	当前不可用。
3	线路输入	连接到麦克风 用于音频输入。 注意:此接口仅适用于带电源的外部麦克风。 内部
4	局域网 / PoE	连接到 10/100 以太网 或 PoE。
5	直流12V	连接电源。
6	旋转螺丝	松动以旋转 摄像头。
7	导管连接器	防水以太网电缆 . 注意:不适用于 GV-FD870 0-FR。
8	默认按钮	将相机重置为出厂默认设置 ngs。有关详细信息，见*7.2* 恢复出厂默认设置。
9	焦距螺丝	调整相机的焦距。
10	变焦螺丝	将相机放大或缩小。
11	倾斜螺丝	松开螺丝以倾斜摄像头。
12	I/O 连接器	连接到 I/O 设备。有关详细信息，请参见ee *1.6 I/O* 连接器。
13	内置麦克风 连接器	连接到一个 内置麦克风用于录音。有关详细信息，请参见*1.5* 连接摄像头。 注意：不适用于 GV-FD8700-FR。
14	导管连接器	防水音频 / I/O 电线。 注意:不适用于 GV-FD8700- FR。
15	存储卡插槽	包含一张 micro-SD 卡 (SD/SDHC/SD XC/UHSI，级别 10) 用于存储录制数据。

1.4 Installing the Camera

This section introduces the standard installations of the cameras.

Note:

1. For optimal face recognition results, follow recommended guidelines to install the camera. For details, see *5.3 Ideal Camera Position*.
2. You can also install the camera to ceilings, wall corners (concave or convex), and poles using optional mounting kits. For details on these installations, see *GV-Mount Accessories Installation Guide*.

1.4.1 GV-VD8700

The camera is designed for outdoors. With the standard package, you can install the camera on the ceiling.

1. Remove the housing cover with the supplied torx wrench.

Figure 1-2

1.4 安装 th e Camera

本节介绍摄像头的标准安装。

注意：

1.为了获得最佳的人脸识别效果，请遵循推荐的安装指南。有关详细信息，请参见*5.3* 理想摄像机位置。

2.您还可以使用可选的安装套件将摄像头安装在天花板、墙角（凹形或凸形）和杆上。有关这些安装的详细信息，请参见 *GV*-安装配件安装指南。

1.4.1 GV-VD8700

该摄像头设计用于户外。使用标准包装，您可以将摄像头安装在天花板上。

1.使用随附的星形扳手拆下外壳盖。

图 *1-2*

2. Optionally remove the cables that attach the built-in microphone to the camera to assist with installation.

Figure 1-3

3. Remove the back plate with the supplied torx wrench and remove the safety lock with a Philips screwdriver. Keep the removed screw for later use.

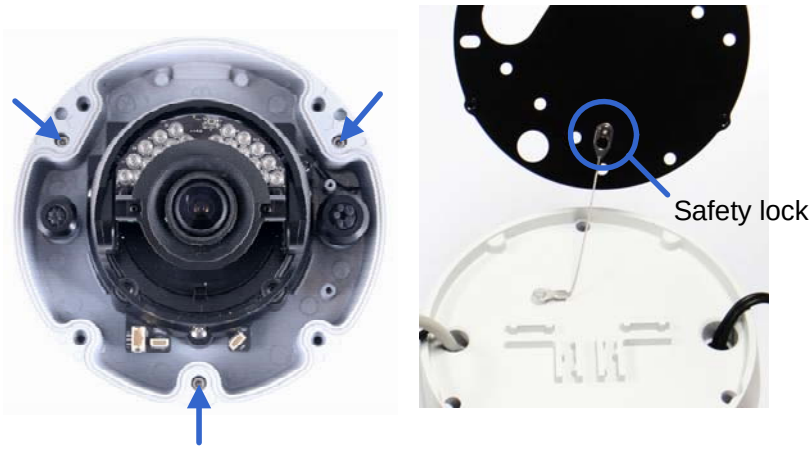


Figure 1-4

4. Thread wires into the camera.

   A. Rotate to remove the cap of the conduit connector.

Figure 1-5

2.可选择性地拆下与安装连接的电缆。 内置麦克风与摄像头连接以协助

图 *1-3*

3.拆下后盖 使用随附的星形扳手拆下安全锁，并保留拆下的螺钉以备后用。

十字螺丝刀。K

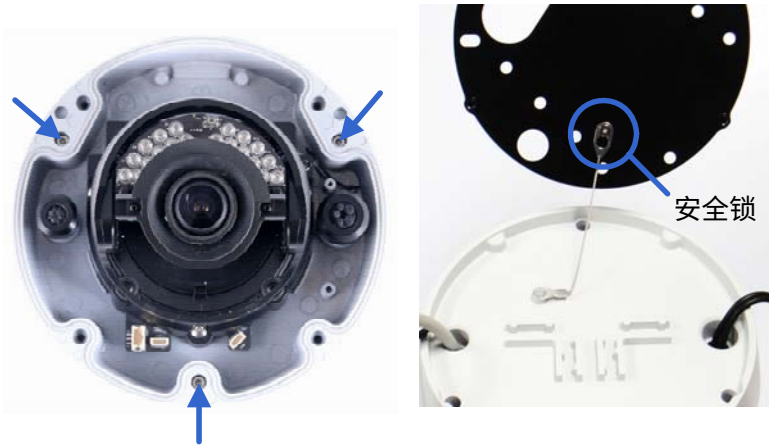


图 *1-4*

4.将电线穿入摄像头。

A. 旋转 以拆下导管连接器的盖子。

图 *1-5*

B. Unplug the conduit connector inside the housing and disintegrate the connector. You should have 3 parts:

Figure 1-6

C. Thread the audio wires and I/O wires through the conduit entry and then through parts 1, 2, and 3 of the conduit connector.

Tip:

1. To make the threading easier, it is recommended to thread the wires in the order described in *Step 4-C*.
2. Use a pair of pliers to help you pull the wires through the camera.

B.拔掉外壳内的导管连接器并拆解连接器。您应该有 3 个部分：

图 *1-6*

C.将音频线和 I/O 线穿过导管入口，然后穿过导管连接器的 1、2 和 3 部分。

提示：

1. 为了使穿线更容易，建议按照顺序穿入电线
   如步骤*4-C*中所述。
2. 使用一对钳子帮助您将电线拉过摄像头。

If you use cat 5 Ethernet cable, there are 5 holes each labeled with its diameter. Remove the plugs and push the wires to the corresponding hole listed below:

Figure 1-7

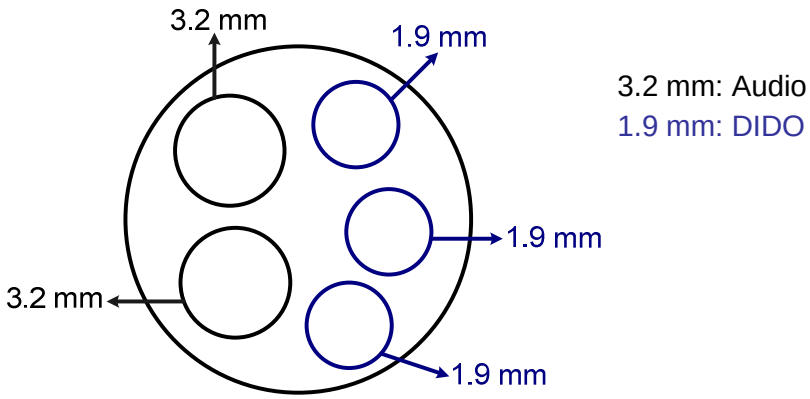


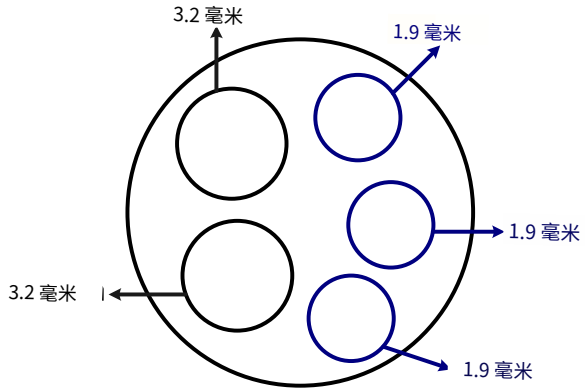
Figure 1-8

IMPORTANT:

1. Use the supplied ruler and leave at least 14 cm of I/O wires and 10 cm of audio wires between their connectors on the camera and the conduit connector.
2. The plugs are used to prevent water from entering the camera housing. Keep the unused holes plugged and save the removed plugs for future use.
3. Only thread the wires through their designated holes on the conduit connector to make sure the wires are properly sealed.

如果您使用的是cat 5以太网电缆，每个孔都有5个标记其直径的孔。拔掉插头并推动电线到 e 下面列出的相应孔：

图*1-7*



3.2毫米：音频
1.9毫米：数字输入数字输出

图*1-8*

重要提示：

1.使用随附的尺子，并在摄像头的连接器和导管连接器之间留出至少14厘米的I/O电线和10厘米的音频线。

2.插头用于防止水进入摄像头外壳。保持未使用的孔插好，并保存移除的插头以备将来使用。3.仅将电线穿过导管连接器上指定的孔，以确保电线正确密封。

If you use cat 6 Ethernet cable, thread the DC 12V wires through the conduit connector. Refer to the following figure for the corresponding holes and their diameters.

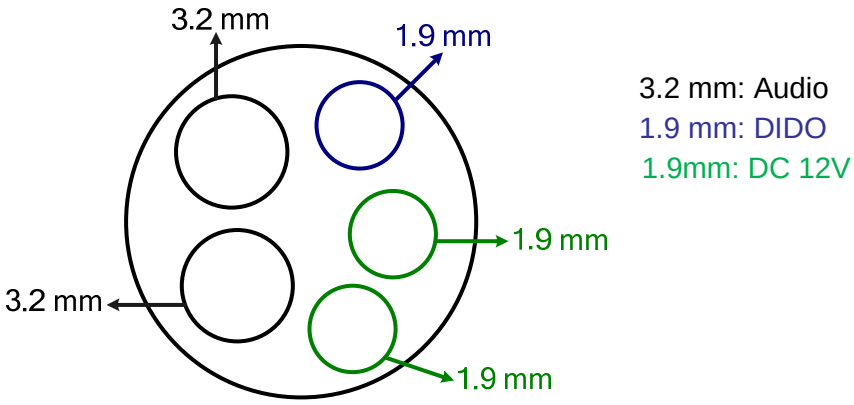


Figure 1-9

IMPORTANT: Leave more than 10 cm of power wires between their connectors on the camera and the conduit connector.

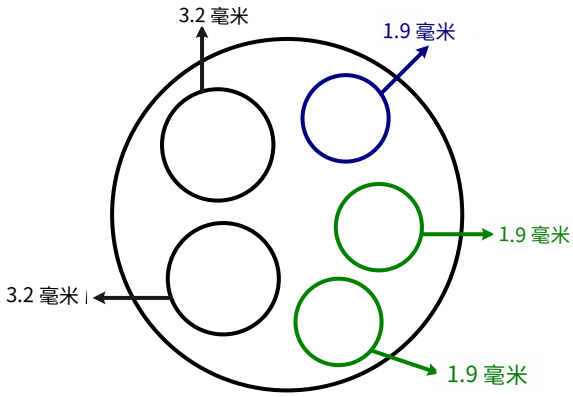
---

5. Install the Ethernet cable.

   A. Rotate to remove the indicated cap and the plug inside.

Figure 1-10

如果您使用的是6类以太网电缆，请将直流12V电线穿过导管连接器。请参阅下图以获取相应 到
孔及其直径 秒。



3.2毫米：音频
1.9 毫米：数字输入数字输出
1.9 毫米：直流12V

图*1-9*

重要提示：在摄像头和导管连接器之间留出超过10厘米的电源线。

5.安装以太网电缆。

A.旋转以拆卸指示的盖子和内部插头。

图*1-10*

B. Thread an Ethernet cable (the end with no RJ-45 connector) and the optional power adapter wires from the back panel through the conduit connector.

Figure 1-11

IMPORTANT: Use the supplied ruler and leave about 14 cm of the Ethernet cable between the connector on the camera and the conduit connector.

C. Re-install the cap. Make sure the cap is installed tightly to waterproof the camera.

6. Connect the wires to the camera. *1.5 Connecting the Camera* and *1.6 I/O Connector*.

Tip: Unscrew the indicated screws and lift the camera to help you connect the wires and insert the memory card.

B.将以太网电缆（没有RJ-45连接器的一端）和可选的电源适配器电线从后面面板穿过导管连接器。

图*1-11*

重要提示：使用随附的尺子，在摄像头连接器和导管连接器之间留出约14厘米的以太网电缆。

C. 重新安装盖子。确保盖子安装紧密，以防水摄像头。

6. 将电线连接到摄像头。*1.5* 连接摄像头和*1.6 I/O* 连接器.

提示:拧松指示的螺丝并抬起摄像头，以帮助您连接电线和插入存储卡。

---

7. Sort out the wires at the back. You can have the wires come out from positions A and B or from C.

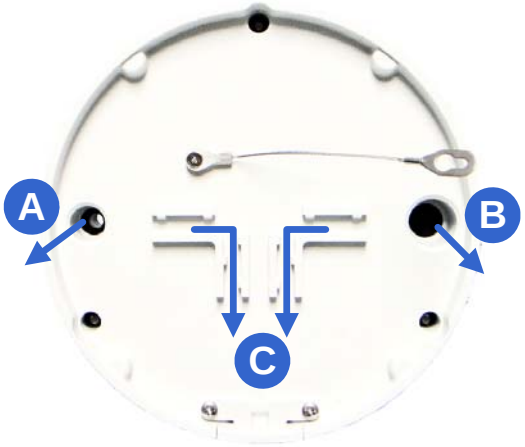


Figure 1-12

8. Secure the back plate to the ceiling.

   A. Paste the sticker to the ceiling. The arrow on the sticker indicates the direction that the camera faces.

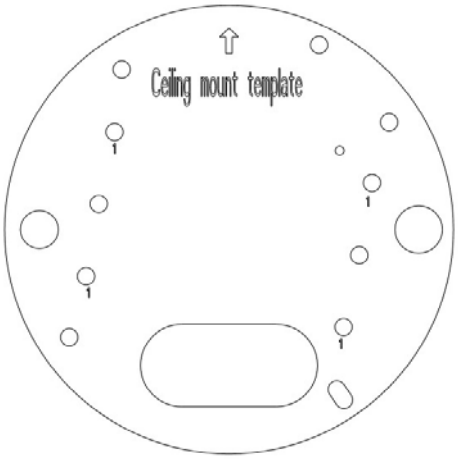


Figure 1-13

   B. Drill 4 holes for screws. The recommended ones are indicated as '1'.

   C. Insert the screw anchors to the 4 holes.

   D. Drill holes A & B or only hole C for sorting out the wires according to *Figure 1-12*.

   E. Secure the back plate to the ceiling with the supplied screws.

7.整理后面的电线。您可以选择从位置 A 和 B 或者从 C 处引出电线。

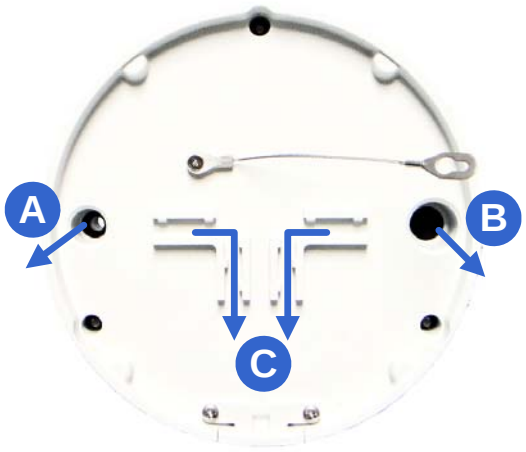


图 *1-12*

8.将后盖固定到天花板上。

A.将贴纸粘贴到天花板上。贴纸上的箭头指示摄像头的朝向。

图 *1-13*

B.钻 4 个螺丝孔。推荐的孔标记为 ‘1’。

C.将螺丝锚插入 4 个孔中。

D.根据图 *1-12*钻孔 A 和 B 或仅钻孔 C 以整理电线。

E.用提供的螺丝将后盖固定到天花板上。

9. Secure the camera to the desired location.

   A. Secure the safety lock to the camera with the screw you removed from the back plate in *Step 2*.

Figure 1-14

   B. Thread all the wires into the ceiling and connect them.

   C. Secure the camera to the back plate with the supplied torx wrench.

10. Access the live view. See *2.3 Accessing Your Surveillance Image*.

9.将摄像头固定到所需位置。

A.用您从后盖中移除的螺丝将安全锁固定到摄像头上，见步骤 *2*。

图 *1-14*

B.将所有电线穿入天花板并连接。

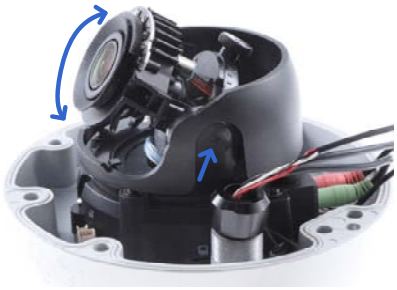
C.用提供的星形扳手将摄像头固定到后盖上。

10. 访问实时视图。见*2.3* 访问您的监控图像。

11. Adjust the angle, focus and zoom of the camera.

Pan Adjustment

Tilt Adjustment



Rotational Adjustment

Zoom Adjustment

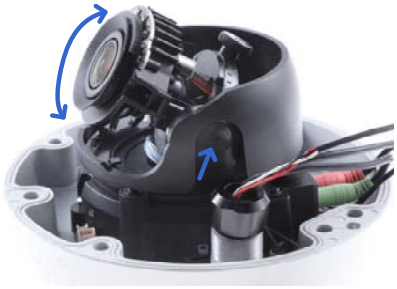
Focus Adjustment

Figure 1-15

11.调整摄像头的角度、焦距和变焦。

平移调整

倾斜调整



旋转调整

变焦调整

焦距调整

图 *1-15*

12. Replace the silica gel bag, organize the wires and secure the camera cover with the torx wrench.

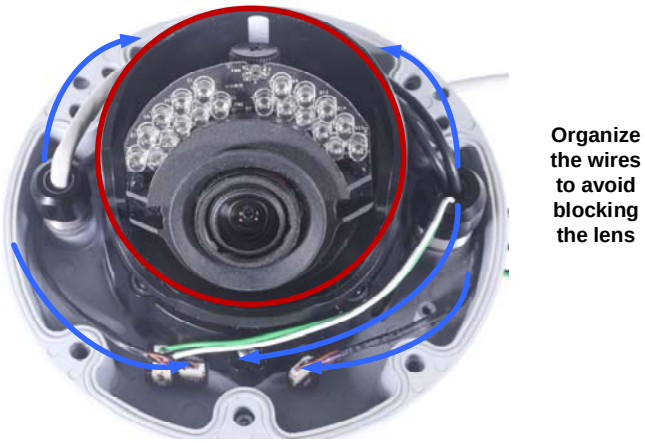


Figure 1-16

1.4.2 GV-FD8700-FR

The camera is designed for indoors. With the standard package, you can install the camera on the ceiling or the wall. Before installation, make sure the installing site is shielded from rain and moisture.

1. Use the supplied torx wrench to loosen three screws on the housing cover, and take out the camera body.

Figure 1-17

12.更换硅胶袋，整理电线并用星形扳手固定摄像头盖。

图 *1-16*

1.4.2 GV-FD8700-FR

该摄像头设计用于室内。使用标准包装，您可以将摄像头安装在天花板或墙壁上。在安装之前，请确保安装地点不受雨水和

气。

1.使用随附的星形扳手松开外壳盖上的三个螺丝，然后取出摄像头主体。

图 *1-17*

2. Place the installation sticker where you want to install it, and make 3 marks on the ceiling or the wall for screw anchors

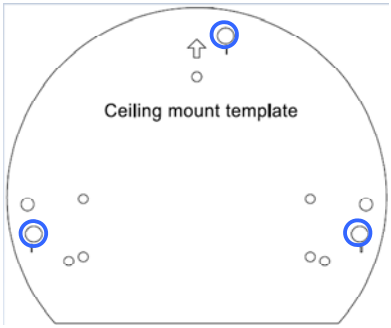


Figure 1-18

3. Drill the marks and insert the screw anchors.
4. Connect the camera to network and power. For details, see *1.5 Connecting the Camera*.
5. Secure the camera to the ceiling or the wall with the supplied screws.
6. Access the live view. For details, see *2.3 Accessing Your Surveillance Images*.
7. Loosen the tile screw, pan screw or rotational screw. Adjust the angles based on the live view as needed, and tighten the screws again. See Figure 1-15 for illustrations.
8. Remove the indicated part in the housing cover for wiring through the cables if necessary. Place the housing cover back and tighten the three screws to secure it.

Figure 1-19

2. 将安装贴纸放置在您希望安装的位置，并在天花板或墙壁上做三个螺丝锚的标记

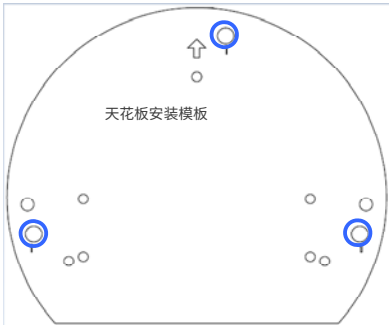


图 *1-18*

3. 钻孔并插入螺丝锚。
4. 连接摄像头　　到网络　网络和电源。有关详细信息，请参见*1.5* 连接摄像头。
5. 使用随附的螺丝将摄像头固定在天花板或墙壁上。
6. 访问实时视图。有关详细信息，请参见*2.3* 访问您的监控图像。
7. 松开瓦片螺丝、平移螺丝或旋转螺丝。根据实时视图调整角度，并再次拧紧螺丝。请参见图 1-15 以获取插图。
8. 如有必要，请移除外壳盖上指示的部分以便通过电缆布线。
   将外壳盖放回并拧紧三个螺丝以固定。

图 *1-19*

1.5 Connecting the Camera

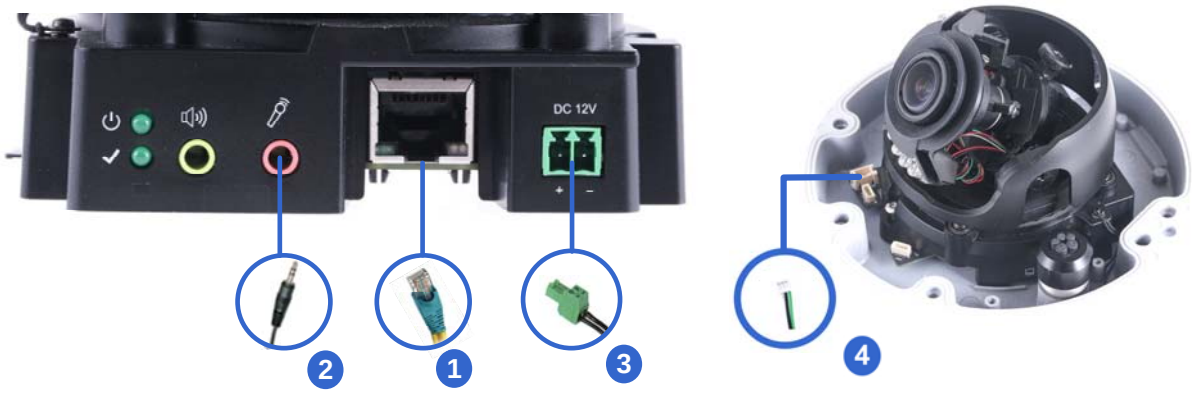


Figure 1-20

1. Use a standard network cable to connect the camera to your network.
2. Optionally connect an external microphone.
3. Connect power using one of the following methods:
   - Plug the power adapter to the power port.
   - Use the Power over Ethernet (PoE) function and the power will be provided over the network cable.
4. Optionally connect to input / output devices. For details, see *1.6 I/O Connector*.
5. The status LED of the camera will be on.

Note:

1. The speaker interface will be supported in the near future.
2. The microphone interface only works with external microphone with power supply.

1.5 连接摄像头

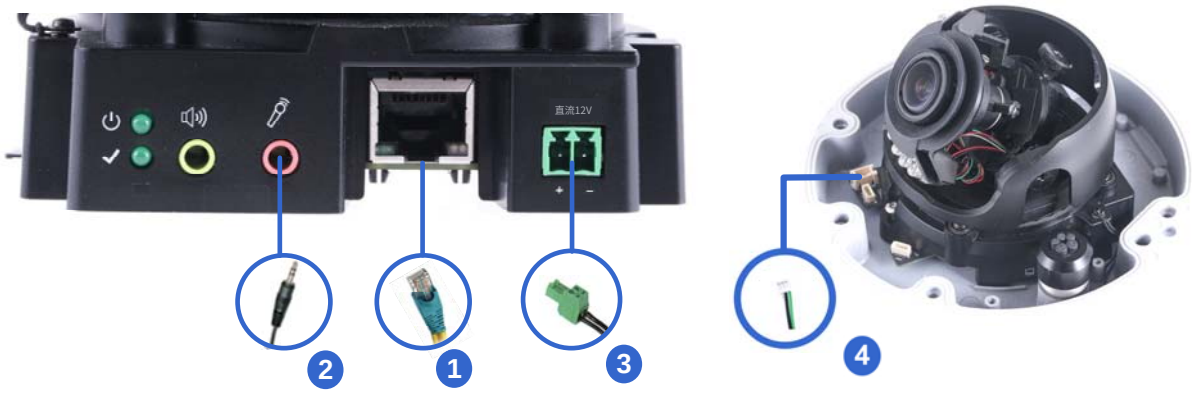


图 *1-20*

1. 使用标准网络电缆将摄像头连接到您的网络。
2. 可选择性地连接外部麦克风。
3. 使用以下方法之一连接电源：
   - 将电源适配器插入电源端口。
   - 使用以太网供电（PoE）功能，电源将通过网络电缆提供。
4. 可选择性地连接输入/输出设备。有关详细信息，请参见*1.6 I/O* 连接器。
5. 摄像头的状态LED将亮起。

注意：

1. 扬声器接口 I 将被支持将在不久的将来提供。
2. 麦克风 接口仅与带电源的外部麦克风配合使用。

1.6 I/O Connector

The camera supports one digital input and one digital output of dry contact.

Pin	Supplied I/O Cable	Function
1	Green	Digital Output
2	Black	GND
3	White	Digital Input

For details on how to enable an installed I/O device, see *4.2.4 I/O Control*.

1.6 I/O连接器

摄像头支持一个数字输入和一个干接点数字输出。

引脚	提供的I/O电缆	功能
1	绿色	数字输出
2	黑色	接地
3	白色	数字输入

有关如何启用已安装的I/O设备的详细信息，请参见*4.2.4 I/O*控制。

Chapter 2 Getting Started

2.1 Looking Up the IP Address

By default, the camera is assigned with a dynamic IP address by the DHCP server when the camera is connected to the network. This IP address remains unchanged unless you unplug or disconnect your camera from the network.

Note: If your router does not support DHCP, the default IP address will be **192.168.0.10**. In this case, it is strongly recommended to modify the IP address to avoid IP address conflict with other GeoVision IP devices on the same LAN. To change the IP address, see *2.2 Changing the IP Address* later in this chapter.

Follow the steps below to check the camera's dynamic IP address:

1. Download and install the **GV-IP Device Utility** program from our website.

Note: The PC installed with GV-IP Device Utility must be under the same LAN as the camera you wish to configure.

---

2. On the PC desktop, select **Start**, point to **Programs** and select **GV IP Device Utility**. The Utility window appears and automatically searches for the IP devices on the same LAN.
3. Click the **Name** or **Mac Address** column to sort.

第2章 入门

2.1 查找IP地址

B默认情况下，摄像头被分配 已连接 一个动态 当摄像头通过DHCP服务器获取动态IP地址时 摄像头连接到网络 此IP地址 除非您拔掉 或重新启动 连接时 我们的摄像头网络 网络。

注意：如果您的路由器不支持DHCP，默认IP地址将为 **19** **2.168.0.10**.在这种情况下，强烈建议您修改IP地址，以避免与同一局域网中其他GeoVision IP设备的IP地址冲突。要更改IP地址，请参见 *2.2* 更改*IP*地址本章后面部分。

按照以下步骤检查摄像头的动态IP地址：

1.从我们的网站下载并安装**GV-IP设备工具**程序。

注意:安装了GV-IP设备工具的PC必须与您希望配置的摄像头在同一局域网内。

2.在PC桌面上，选择开始，指向程序并选择**GV IP设备工具**。工具窗口出现并自动搜索同一局域网上的IP设备。 3.点击名称或**MAC地址**列进行排序。

4. Find the Mac Address of the camera to see its IP address.

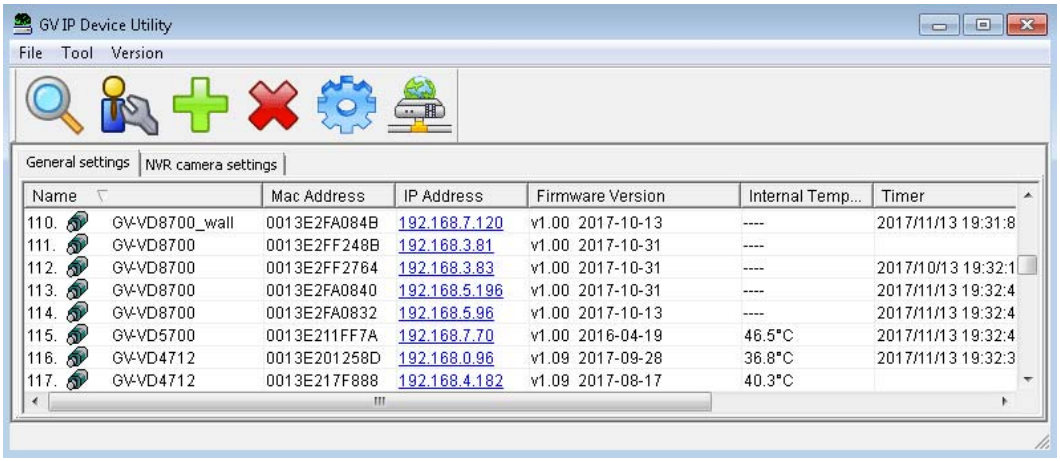


Figure 2-1

2.2 Changing the Static IP Address

When the DHCP server on your network is unavailable or disabled, the camera can be accessed by the default IP **192.168.0.10**. To modify the static IP address, log in the Web interface to access the network setting page.

1. Open your Web browser, and type the default IP address http://192.168.0.10.
2. In both Login and Password fields, type the default ID and password **admin**. Click **Apply**.
3. On the top bar, go to **System Settings**. Select **Network** and click **LAN Configuration** to begin the network settings. This page appears.

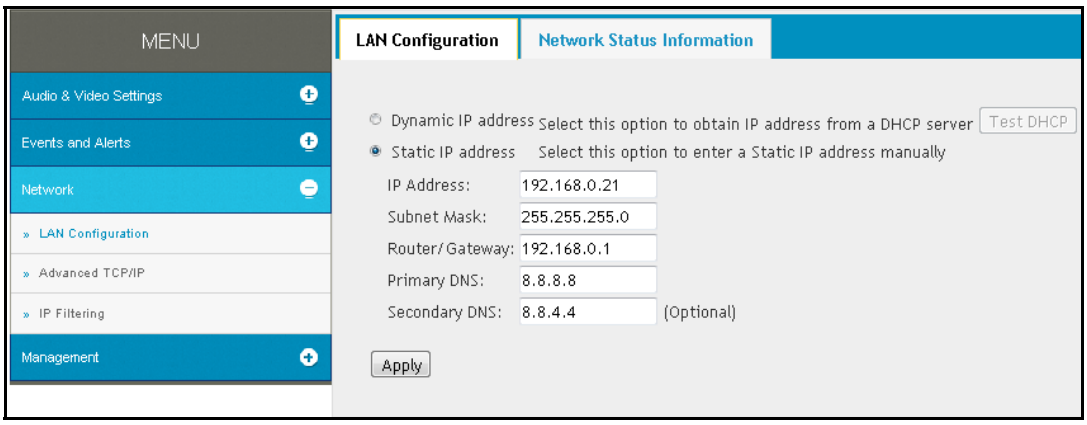


Figure 2-2

4. Select **Static IP address** and type the required network information.
5. Click **Apply**. The camera is now accessible through the static IP address.

4.找到摄像头的MAC地址以查看其IP地址。

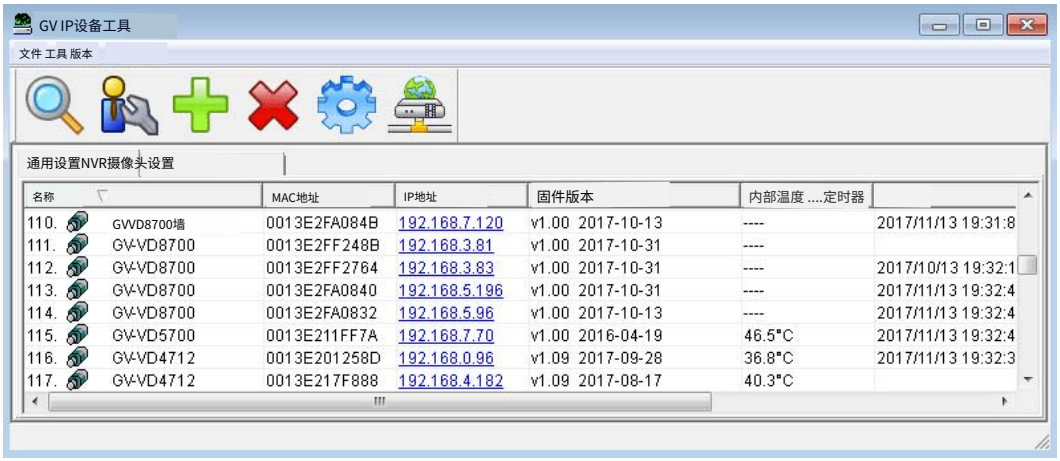


图*2-1*

2.2 更改静态IP地址

当您的网络上的DHCP服务器不可用或已禁用时，摄像头可以通过默认IP**192.168.0.10**访问。要修改静态IP地址，请登录Web界面以访问网络 b 设置页面。

1.打开您的网页浏览器，输入默认IP地址http://192.168.0.10。

2.在登录和密码字段中，输入默认ID和密码 **admin**。点击应用。

3.在顶部栏中，转到**系统设置**。选择网络 **工作并点击局域网配置以**开始网络设置。此页面出现。

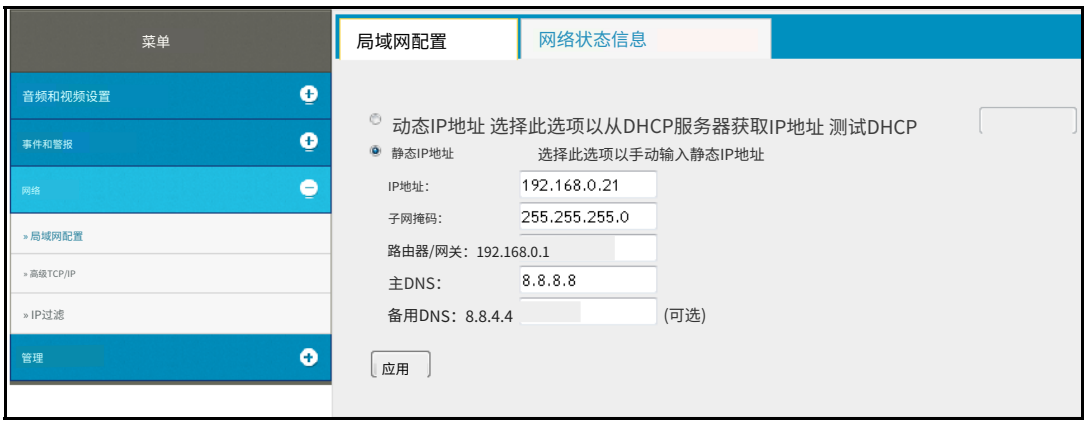


图*2-2*

4.选择**静态IP地址**并输入所需的网络信息。

5. 点击应用。摄像头现在可以通过静态IP地址访问。

IMPORTANT:

1. Use the dynamic DNS Service to obtain a domain name linked to the camera's changing IP address before you start using the dynamic IP address. For details on Dynamic IP Address, see *4.3.2 Advanced TCP/IP* and *4.3.1 LAN Configuration.*
2. If Dynamic **IP Address** is enabled and you cannot access the camera, you may have to reset it to the factory default settings and perform the network settings again. To restore the factory settings, see *7.2 Restoring to Factory Default Settings.*

重要提示：

1.使用动态DNS服务获取与摄像头变化的IP地址关联的域名，然后再开始使用动态IP地址。有关动态IP地址的详细信息，请参见*4.3.2* 高级*TCP/IP*和*4.3.1* 局域网配置。

2.如果启用了动态**IP**地址且无法访问摄像头，您可能需要将其重置为出厂默认设置，并重新进行网络设置。要恢复出厂设置，请参见*7.2* 恢复出厂默认设置。

2.3 Accessing Your Surveillance Images

Two types of users are allowed to log on to the camera: **Administrator** and **Guest.** The Administrator has full access to all system configurations, while the Guest can only access the live view and network status.

Once the camera is connected to the network, follow these steps to access your surveillance images:

1. Open the Internet Explorer or Chrome browser.
2. Type the IP address or domain name of the camera in the **Location/Address** bar of your browser. To look up the IP address, see *2.1 Looking Up the IP Address*.
3. Enter the login name and password. The administrator account has unrestricted access to all the features and functions. The guest account is restricted to have the access of only the live view and network status information.
   - The default login name and password for Administrator are **admin**.
   - The default login name and password for Guest are **guest**.

Figure 2-3

Note:

1. The default ID and Password are no longer supported in the latest version. For the first-time user, after entering **admin** in both ID and password fields, you will be requested to change the login credentials.
2. On the login page, you can select an idle timeout to sign out of the account after a period of inactivity.

2.3 访问您的监控图像

允许两种类型的用户登录摄像头：**管理员**和访客。管理员对所有系统配置具有完全访问权限，而访客只能访问实时视图和网络状态。

一旦摄像头连接到网络，请按照以下步骤访问您的监控图像：

1.打开Internet Explorer或Chrome浏览器。

2.在浏览器的**位置/地址**栏中输入摄像头的IP地址或域名。要查找IP地址，请参见*2.1* 查找*IP*地址。3.输入登录名和密码。管理员账户对所有功能和特性具有无限制访问权限。访客账户的访问权限仅限于实时视图和网络状态信息。

- 管理员的默认登录名和密码为 **admin**。
- 访客的默认登录名和密码为 **guest**。

图*2-3*

注意：

1.在最新版本中，默认ID和密码不再受支持。对于首次使用者，在输入 **admin**作为用户名和密码后，系统会要求您更改登录凭据。

2.在登录页面，您可以选择一个空闲超时，以便在一段时间不活动后自动注销账户。

4. A video image, similar to the example below, is now displayed on your browser.

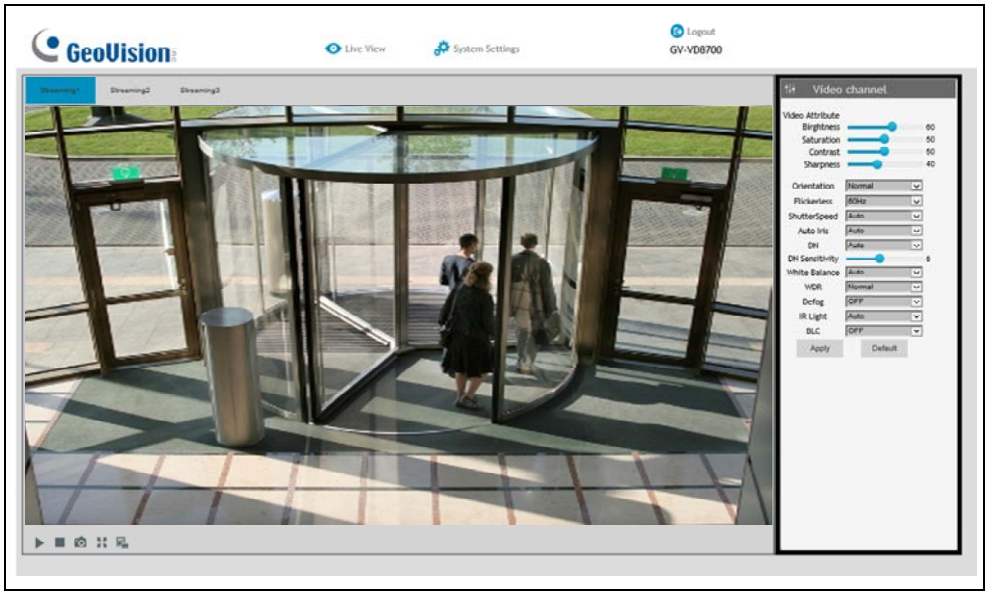


Figure 2-4

Note: To enable the updating of images in Microsoft Internet Explorer, you must set your browser to allow ActiveX Controls and perform a once-only installation of GeoVision's ActiveX component onto your computer.

2.3 Configuring the Basics

Once you have logged in to the camera, you are ready to configure some of its primary settings through the Web interface:

- **Date and time adjustment:** see *4.4.1 Date & Time*.
- **Login and privileged passwords:** see *4.4.2 User Account*.
- **Network gateway:** see *4.3 Network*.
- **Camera image adjustment:** see *3.2 The Control Panel of the Live View Window*.
- **Audio settings adjustment:** see *4.1.2 Audio Settings*.
- **Video format, signal format, resolution and frame rate:** see *4.1.1 Video Settings*.

IMPORTANT: If you are using a 50 Hz flicker, set the **Flickerless** value to **50 Hz**. See *Video Attributes* in *3.2 The Control Panel of the Live View Window*.

4.现在在您面前显示的图像视频，类似于下面的示例。 浏览器。

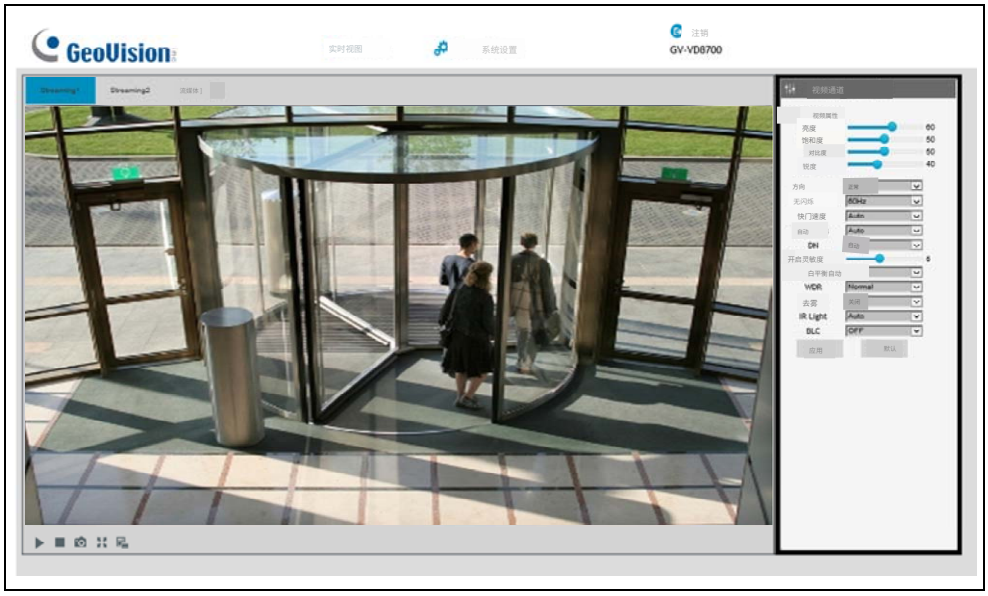


图 *2-4*

注意：要在 Microsoft Internet Explorer 中启用图像更新，您必须在计算机上安装 GeoVision 的 ActiveX 组件。 浏览器设置为允许 ActiveX 控件，并执行一次性安装。

2.3 配置基础设置

一旦您登录到摄像头，您就可以通过网页界面配置一些主要设置：

- **日期和时间调整：请参见***4.4.1* 日期和时间。
- **登录和特权密码：请参见***4.4.2* 用户账户。
- **网络网关:见***4.3* 网络.
- **摄像头图像调整:**见*3.2* 实时视图窗口的控制面板.
- **音频设置调整:见***4.1.2* 音频设置.
- **视频格式、信号格式、分辨率和帧率:见***4.1.1* 视频设置 .

重要:如果您使用的是50 Hz闪烁，请将无闪烁值设置为**50 Hz**.在*3.2* 控制中的 *Vi* 属性中查视频看 实时视图窗口的控制面板.

Chapter 3 Accessing the Live View

3.1 The Live View Window

This section introduces the features of the **Live View** window and **Network Status** on the main page.

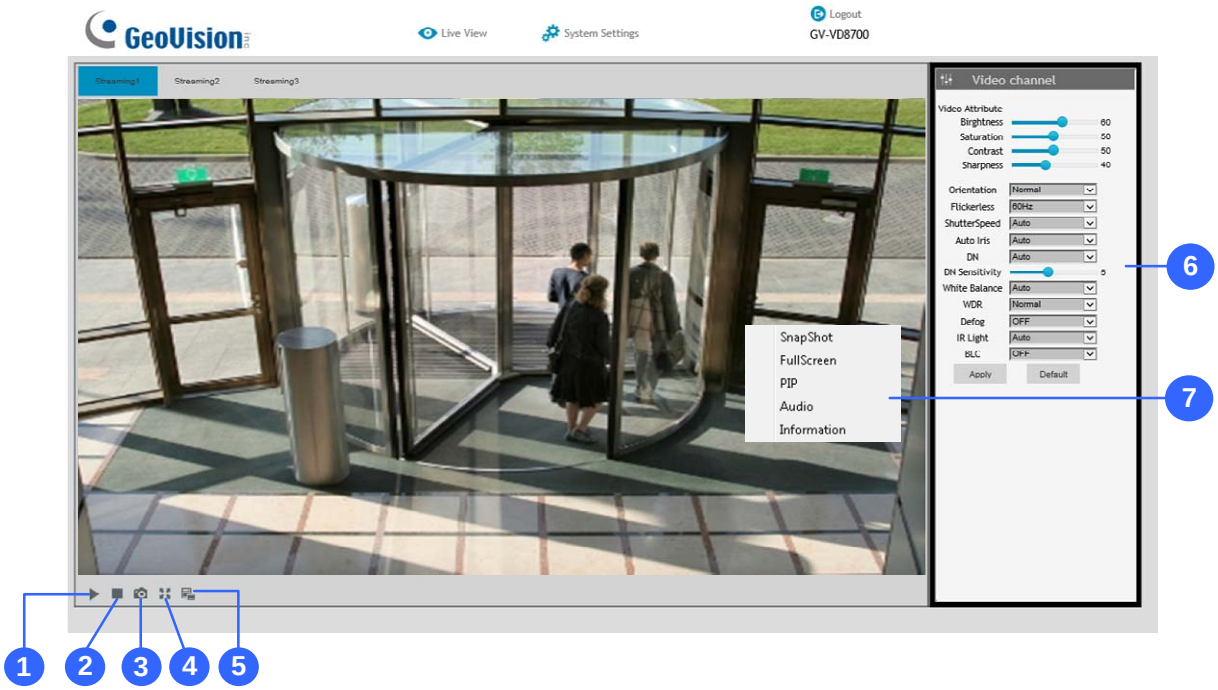


Figure 3-1

No.	Name	Function
1	Play	Plays live video.
2	Stop	Stops playing video.
3	Snapshot	Takes a snapshot of live video. --- See *3.3 Snapshot of a Live Video*.
4	Full Screen	Switches to full screen view.
5	File Save	Records live video to the local computer. --- See *3.4 Video Recording*.
6	Control Panel	Adjust these image quality settings: **Video Attribute**, **Orientation**, **Flickerless**, **Shutter Speed**, **Auto Iris**, **DN**, **DN Sensitivity**, **White Balance**, **WDR**, **IR Light**, and **BLC**. --- See *3.2 The Control Panel of the Live View Window*.

第3章 访问实时视图

3.1 实时视图窗口

本节介绍了主页面上实时视图窗口和**网络状态**的功能。

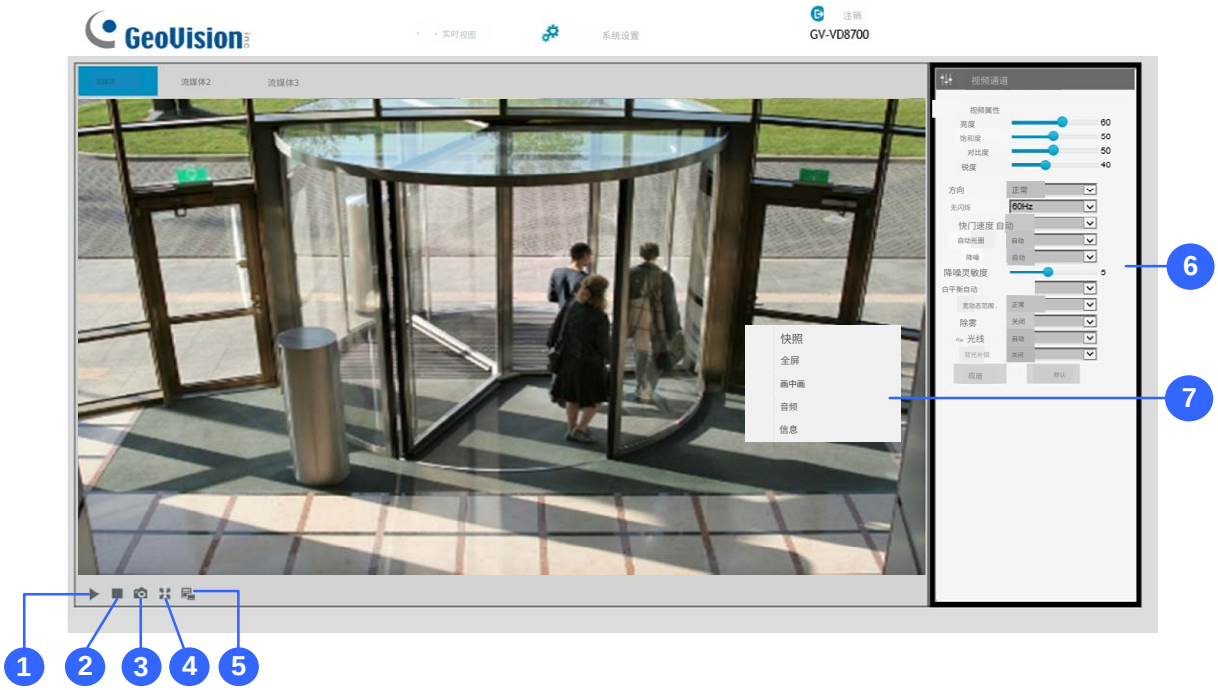


图*3-1*

编号	姓名	功能
1	播放	播放实时视频。
2	停止	停止播放视频。
3	快照	拍摄实时视频的快照。 --- 见*3.3* 实时视频快照。
4	全屏	切换到全屏视图。
5	文件保存	将实时视频录制到本地计算机。 --- 见*3.4* 视频录制。
6	控制面板	调整这些图像质量设置：视频属性，方向，无闪烁，快门速度，自动光圈， **DN**，**DN** 灵敏度，白平衡，宽动态范围，红外灯，以及**BLC**。--- 见*3.2* 实时视图窗口的控制面板。

7	Pop-up Menu	On the Live View window, right-click the image to have these options: ■ **Snapshot:** Takes a snapshot of live videos. ■ **Full Screen:** Switches to full screen view. ■ **PIP:** Enables an inset window for a close-up view on the video. See *3.5 Picture-in-Picture View*. ■ **Audio:** Receives audio from the surveillance site. ■ **Information:** Shows the information on codec, resolution, frames per second and transmission speed of the video stream.

7	弹出菜单	在实时视图窗口中，右键单击图像以获取以下选项： ■ 快照:拍摄实时视频的快照。 ■ **全屏**:切换到全屏视图。 ■ 画中画:启用一个插入窗口以便于视频的特写视图。见*3.5 画中画视图.* ■ 音频:接收来自监控现场的音频。 ■ **信息**:显示视频流的编解码器、分辨率、每秒帧数和传输速度的信息。

3.2 The Control Panel of the Live View Window

The control panel is on the right side of the Live View window. You can adjust the settings of the following functions on the control panel. Note these settings are only accessible for Administrator.

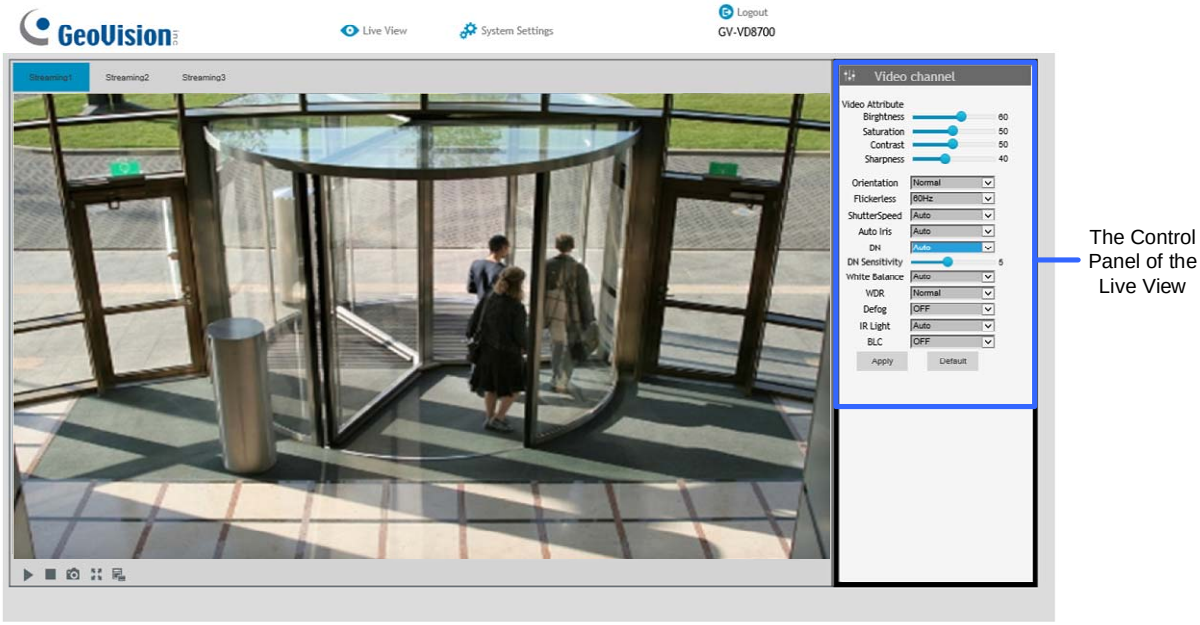


Figure 3-2

[Video Attributes] Adjusts the image quality settings.

- **Brightness:** Adjusts the brightness of the video image.
- **Saturation:** Adjusts the saturation of the video image.
- **Contrast:** Adjusts the relative differences between one pixel and the next.
- **Sharpness:** Adjusts the sharpness of the video image.
- **Orientation:** Changes the image orientation on the Live View window.
- **Flickerless:** The camera automatically matches the frequency of your camera's image to the frequency of indoor light sources, e.g. fluorescent lighting. You can also select 50 Hz or 60 Hz manually. If these don't match, faint light and dark bars may appear in your images. Check the power utility to determine which frequency is used at your area.

3.2 实时视图窗口的控制面板

控制面板位于实时视图窗口的右侧。您可以在控制面板上调整以下功能的设置。请注意，这些设置仅对管理员可用。

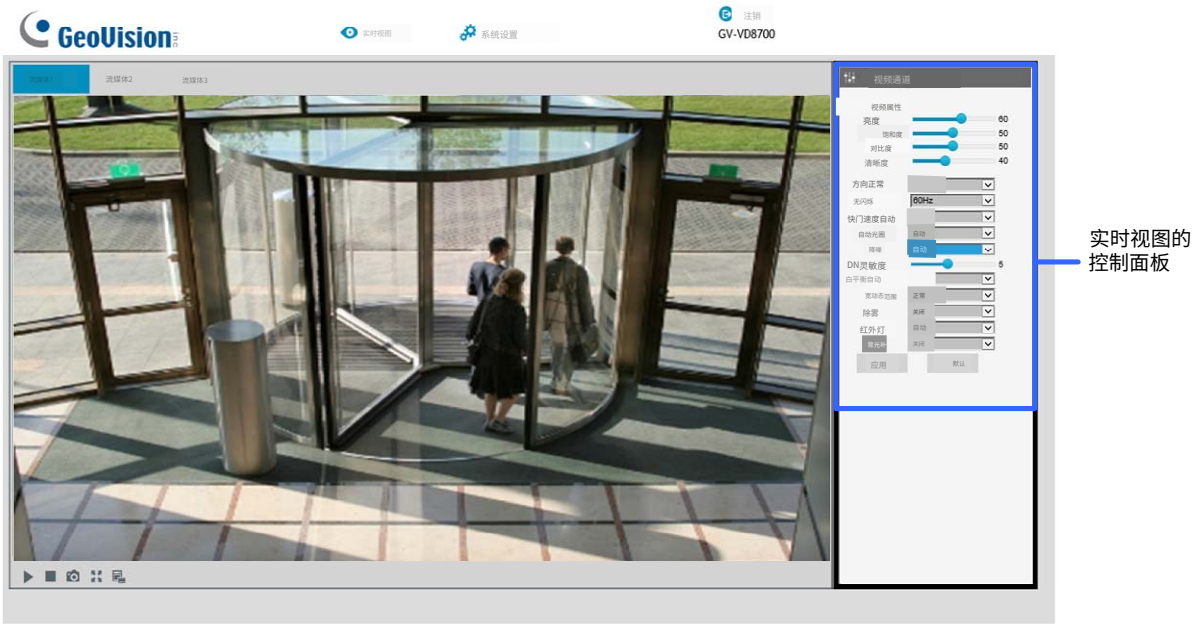


图*3-2*

[视频属性]调整图像质量设置。

- **亮度:**调整视频图像的亮度。
- **饱和度:**调整视频图像的饱和度。
- 对比度:调整一个像素与下一个像素之间的相对差异。
- 锐度:调整视频图像的锐度。
- **方向:**更改实时视图窗口中的图像方向。
- **无闪烁:**摄像头自动将图像频率与室内光源的频率匹配，例如荧光灯。您也可以手动选择50 Hz或60 Hz。如果这些不匹配，您的图像中可能会出现微弱的亮暗条纹。检查电力公用事业以确定您所在地区使用的频率。

- **Shutter Speed:** Shutter speed controls the amount of light entering the image sensor and directly impacts the quality of image presentation. A slower shutter speed allows higher light exposure, which creates a brighter overall image and brings out background details, but blurs moving objects. A faster shutter speed is able to capture motion at the cost of lowering color and image clarity. The minimum shutter speed ranges from 1/30 to 1/8000 sec. In low light conditions, a fast shutter speed will lower color quality and image clarity. In this case, select the **Auto** option for automatic shutter control.
- **Auto Iris:** This function is enabled by default. Select **Auto** from the drop-down list when the scene appears fuzzy and the Flickerless function does not help to improve the situation. Select **Max** to set the aperture of the camera to its maximum regardless of the illumination of the environment.
- **D/N:** Select **Auto** for automatic switch between day mode and night mode depending on the amount of light detected. Select **Black and White** to switch the camera to night mode. Select **Color** to switch the camera to day mode. Select **Specified Time** to specify a period of time to enable night mode. Set the light sensor's sensitivity of switching between day mode and night mode, from 1 to 10. The higher the value, the more sensitive the camera is to light.
- **White Balance:** The camera automatically adjusts the color to be closest to the image you are viewing. You can choose one of the four presets: **Auto**, **Outdoor**, **Fluorescent**, and **Incandescent**. You can also choose **Manual** to adjust the white balance manually.
- **Wide Dynamic Range:** Adjusts and generates clear live view when the scene contains very bright and very dark areas at the same time. Select **Strong** to bring out details of the dark areas of the scene or **Normal** for a balanced effect.
- **Defog:** Select **Auto** to automatically enhance the visibility of images. Select **Off** to disable the function.
- **IR Light:** Select **Auto** to automatically enhance the visibility of images. Select **Off** to disable the function.
- **BLC:** Select **On** to adjust the color intensity of scenes with strong light at the background or select **Off** to disable the function. You can also choose **Manual** to set the **Start Time** and **End Time** when the specified BLC adjustment will be activated and terminated.

Click **Apply** to save the configuration after the settings are completed. The changes take effect only after the configurations have been saved.

- **快门速度:**快门速度控制进入图像传感器的光量，并直接影响图像呈现的质量。较慢的快门速度允许更高的光曝光，这会产生更亮的整体图像并突出背景细节，但会模糊移动物体。较快的快门速度能够捕捉运动，但会降低颜色和图像清晰度。最小快门速度范围从1/30到1/8000秒。在低光条件下，快速快门速度会降低颜色质量和图像清晰度。在这种情况下，选择自动选项以实现自动快门控制。

- 自动光圈:此功能默认启用。当场景模糊且无闪烁功能无法改善情况时，从下拉列表中选择自动。选择最大以将摄像头的光圈设置为最大，无论环境的照明如何。

- **D/N:**选择自动以根据检测到的光线量在白天模式和夜间模式之间自动切换。选择**黑白**以将摄像头切换到夜间模式。
  选择彩色以将摄像头切换到白天模式。选择**指定时间**以指定启用夜间模式的时间段。设置光传感器在白天模式和夜间模式之间切换的灵敏度，范围从1到10。值越高，摄像头对光线的敏感度越高。

- **白平衡:**摄像头自动调整颜色，使其最接近您所查看的图像。您可以选择四个预设之一：自动，户外，**荧光**和**白炽灯**。您还可以选择手动以手动调整白平衡。

- **宽动态范围:**在场景同时包含非常明亮和非常黑暗的区域时，调整并生成清晰的实时视图。选择强以突出场景中黑暗区域的细节，或选择正常以获得平衡效果。

- 去雾:选择自动以自动增强图像的可见性。选择关闭以disable该功能。
- 红外灯:选择自动以自动增强图像的可见性。选择关闭以disable该功能。
- 背光补偿:选择开启以调整背景光强烈场景的颜色强度或选择关闭以禁用该功能。您还可以选择手动设置开始时间和结束时间以指定BLC调整何时激活和终止。

设置完成后，点击应用以保存配置。更改仅在配置被保存后生效。

3.3 Snapshot of a Live Video

To take a snapshot of live video, follow these steps:

1. Click the **Snapshot** button (No. 3, Figure 3-2). The Save As dialog box appears.
2. Specify **Save in**, type the **File name** and select **JPEG** or **BMP** as **Save as Type**. You may also choose to display the camera name and/or the date, the text color and image quality of the snapshot.
3. Click the **Save** button to save the image in the local computer.

3.4 Video Recording

You can record live video to your local computer. To do so, follow the steps below:

1. Click the **File Save** button (No. 5, Figure 3-2). The Save As dialog box appears.
2. Specify **Save in**, type the **File name** and move the **Time Period** scroll bar to specify the time length of each video clips from 1 to 5 minutes.
3. Click the **Save** button to start recording.
4. To stop recording, click the **Stop** button (No. 2, Figure 3-2).

3.3 实时视频快照

要拍摄实时视频的快照，请按照以下步骤操作：

1. 点击快照按钮（编号 3，图 3-2）。出现“另存为”对话框。
2. 指定保存位置，输入文件名并选择 **JPEG**或 **BMP**作为**保存类型**。您还可以选择显示摄像头名称和/或日期、文本颜色和快照的图像质量。
3. 点击保存按钮将图像保存到本地计算机。

3.4 视频录制

您可以将实时视频录制到本地计算机。为此，请按照以下步骤操作：

1. 点击文件保存按钮（编号 5，图 3-2）。出现“另存为”对话框。
2. 指定保存位置，输入文件名并移动**时间段**滚动条以指定每个视频片段的时长，从 1 到 5 分钟。
3. 点击保存按钮开始录制。
4. 要停止录制，请点击停止按钮（编号 2，图 3-2）。

3.5 Picture-in-Picture View

The full screen mode provides a particular type of close-up view: **Picture-in-Picture (PIP)**. With the Picture-in-Picture (PIP) view, you can zoom in on the video to get a close-up view.

Figure 3-3

1. Right-click the live view and select **PIP**. An inset window appears.
2. Click the inset window. A navigation box appears.
3. Move the navigation box around in the inset window to have a close-up view of the selected area.
4. To adjust the navigation box size, move the cursor to any of the box corners, and enlarge or diminish the box.
5. To exit the PIP view, right-click the image and click **PIP** again.

3.5 画中画视图

全屏模式提供了一种特定类型的特写视图：**画中画 (PIP)**。
使用画中画 (PIP) 视图，您可以放大视频以获得特写视图。

图 *3-3*

1. 右键单击实时视图并选择 **PIP**。插入窗口出现。
2. 单击插入窗口。导航框出现。
3. 在插入窗口中移动导航框，以便对选定区域进行特写查看。
4. 要调整导航框的大小，请将光标移动到框的任意角落，然后放大或缩小框。
5. 要退出 PIP 视图，请右键单击图像并再次单击 **PIP**。

Chapter 4 Administrator Mode

The Administrator can access and configure the camera over the network. The configuration categories include: **Audio & Video Settings**, **Event and Alerts**, **Network** and **Management**.

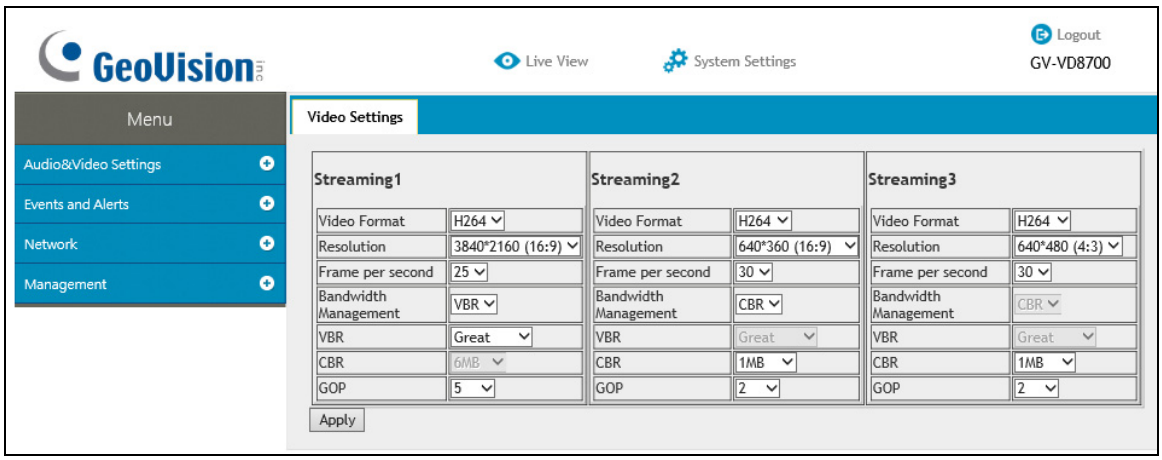


Figure 4-1

Corresponding Sections for Configuration Menu

Find the topic of interest by referring to the indicated section.

4.1 Audio & Video Settings	4.1.1 Video Settings 4.1.2 Audio Settings 4.1.3 RTSP 4.1.4 Privacy Mask 4.1.5 Text Overlay
4.2 Events and Alerts	4.2.1 Face Recognition 4.2.2 Tampering Alarm 4.2.3 Motion Detection 4.2.4 I/O Control 4.2.4.1 Input Settings 4.2.4.2 Output Settings 4.2.5 E-mail 4.2.6 Event Manager
4.3 Network	4.3.1 LAN Configuration 4.3.2 Advanced TCP/IP 4.3.3 IP Filtering
4.4 Management	4.4.1 Date and Time 4.4.2 User Account 4.4.3 Tools 4.4.4 External Storage Settings 4.4.5 System Log

第4章 管理员模式

管理员可以通过网络访问和配置摄像头。配置类别包括：**音频和视频设置**，**事件和警报**，网络和管理。

图 *4-1*

配置菜单的对应部分

通过参考所指示的章节找到感兴趣的主题。

4.1 音频和视频设置	4.1.1 视频设置 4.1.2 音频设置 4.1.3 RTSP 4.1.4 隐私遮罩 4.1.5 文本叠加
4.2 事件和警报	4.2.1 人脸识别 4.2.2 篡改警报 4.2.3 运动检测 4.2.4 I/O控制 4.2.4.1 输入设置 4.2.4.2 输出设置 4.2.5 电子邮件 4.2.6 事件管理器
4.3 网络	4.3.1 局域网配置 4.3.2 高级TCP/IP 4.3.3 IP过滤
4.4 管理	4.4.1 日期和时间 4.4.2 用户账户 4.4.3 工具 4.4.4 外部存储设置 4.4.5 系统日志

4.1 Audio & Video Settings

The camera supports three streams, Streaming 1, Streaming 2, and Streaming 3, which allow separate codec and resolution settings for a single video transmission. In a bandwidth-limited network, such as mobile phone surveillance, this multi-stream feature allows you to view live video in lower resolution and codec (Streaming 2 / Streaming 3), and record in highest resolution 3840 x 2160 and codec H.265 (Streaming 1) at the same time.

4.1.1 Video Settings

You can configure your video stream settings, such as H.264/H.265 video format, resolutions, frame rate, etc. or enable / disable streaming 2 and streaming 3 in Video Settings.

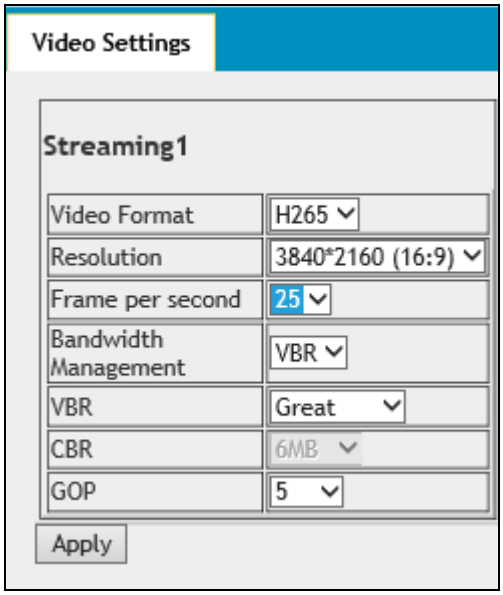


Figure 4-2

Note: Streaming 3 is disabled by default. To enable streaming 3, change the video resolution of streaming 1 to 2560 x 1440 (16:9) or lower.

4.1 音频和视频设置

该摄像头支持三路视频流，流1、流2和流3，允许为单个视频传输设置不同的编解码器和分辨率。在带宽受限的网络中，例如手机监控，此多流功能允许您以较低的分辨率和编解码器（流2 / 流3）查看实时视频，同时以最高分辨率3840 x 2160和编解码器H.265（流1）进行录制。

4.1.1 视频设置

您可以在视频设置中配置视频流设置，例如H.264/H.265视频格式、分辨率、帧率等，或启用/禁用流2和流3。

图*4-2*

注意：流3默认情况下是禁用的。要启用流3，请将流1的视频分辨率更改为2560 x 1440（16:9）或更低。

[Video Format] Select either **H.265** or **H.264** as codec type.

[Resolution]

Configure the resolution. The supported resolutions are listed below:

Streams	Ratio	Supported Resolution
Streaming 1	16:9	3840 x 2160, 2560 x 1440, 1920 x 1080, 1280 x 720
Streaming 2		1280 x 720, 640 x 360
Streaming 3		640 x 360
Streaming 1	4:3	2560 x 1920, 2048 x 1536, 1600 x 1200, 1280 x 960
Streaming 2		1024 x 768, 640 x 480, 320 x 240
Streaming 3		640 x 480, 320 x 240

[Frame per Second] Select a specific frame rate for video streams from the drop-down list.

[Bandwidth Management]

You can configure the bitrate settings to control bandwidth usage.

- **VBR (Variable Bitrate):** The quality of the video stream is kept as constant as possible at the cost of a varying bitrate. The bandwidth is much more efficiently used than a comparable CBR. Set the image quality to one of the 5 standards: **Poor**, **Fair**, **Good**, **Great** or **Excellent**.
- **CBR (Constant Bitrate):** CBR is used to achieve a specific bitrate by varying the quality of the stream. The bitrates available for selection depend on the image resolution.

[GOP]

Set the maximum number of seconds between every key frame. The default is 2 (seconds).

[视频格式]选择 **H.265或 H.264**作为编码类型。

[分辨率]

配置分辨率。支持的分辨率如下所示：

流	比例	支持的分辨率
流 1	16:9	3840 x 2160, 2560 x 1440, 1920 x 1080, 1280 x 720
流 2		1280 x 720, 640 x 360
流 3		640 x 360
流 1	4:3	2560 x 1920, 2048 x 1536, 1600 x 1200, 1280 x 960
流 2		1024 x 768, 640 x 480, 320 x 240
流 3		640 x 480, 320 x 240

[每秒帧数]从下拉列表中选择视频流的特定帧率。

[带宽管理]

您可以配置比特率设置以控制带宽使用。

- **VBR（可变比特率）：**视频流的质量尽可能保持恒定，代价是比特率的变化。带宽的使用效率远高于可比的CBR。将图像质量设置为以下5个标准之一：差,一般,好, 很好或优秀。

- **CBR（恒定比特率）：**CBR用于通过改变流的质量来实现特定的比特率。可供选择的比特率取决于图像分辨率。

[GOP]

设置每个关键帧之间的最大秒数。默认值为2（秒）。

4.1.2 Audio Settings

You can enable the microphone and adjust the audio quality to **Low** or **Normal**. Select **Built-in Microphone** or **External Microphone** as the source of audio input.

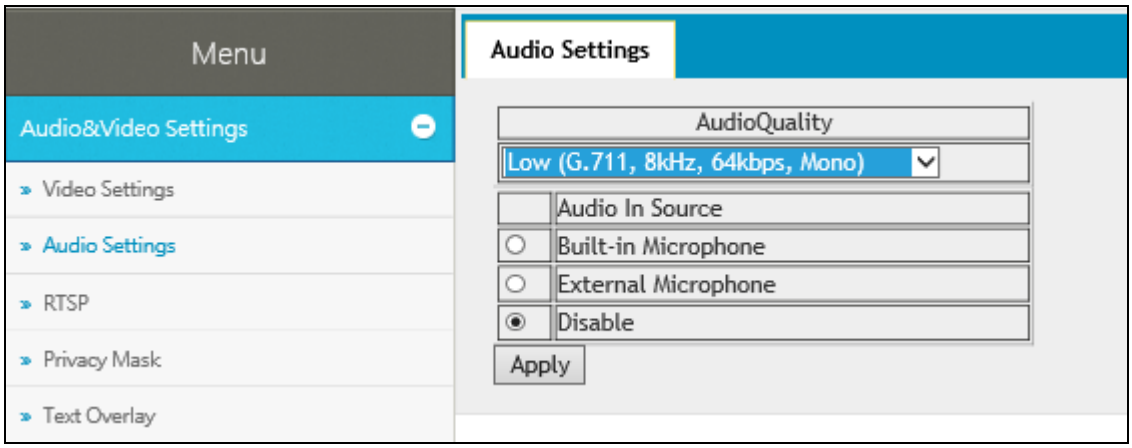


Figure 4-3

Note:

1. GV-FD8700-FR is not equipped with built-in microphone.
2. The microphone input interface only works with external microphone with power supply. For details, see *1.5 Connecting the Camera.*

4.1.2 音频设置

您可以启用麦克风并将音频质量调整为低或正常。选择**内置麦克风**或**外部麦克风**作为音频输入源。

图 *4-3*

注意：

1.GV-FD8700-FR 不配备内置麦克风。

2.麦克风输入接口仅适用于带电源的外部麦克风。

有关详细信息，请参见*1.5* 连接摄像头。

4.1.3 RTSP

The RTSP enables video and audio streaming to your **3G-enabled** mobile phone. The RTSP streaming is enabled by default.

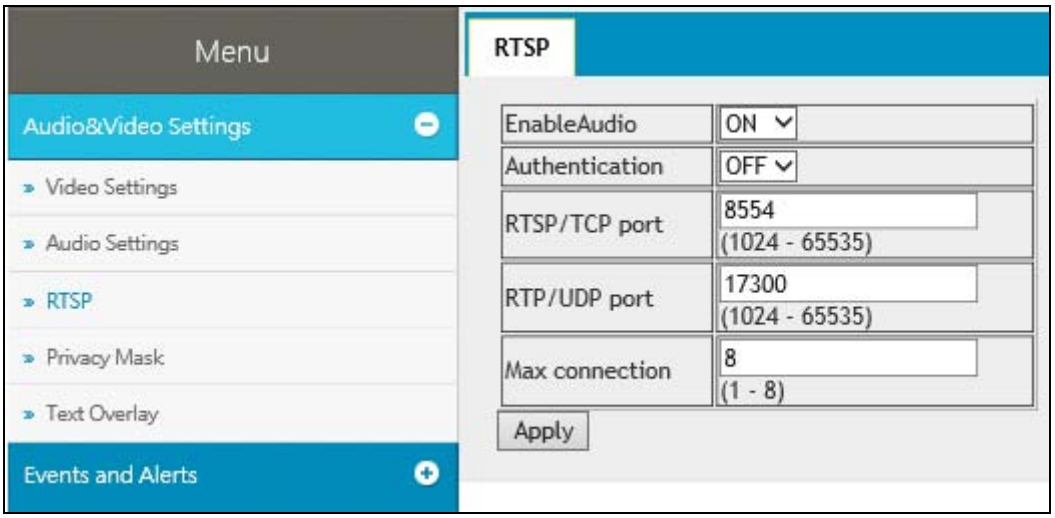


Figure 4-4

[Enable Audio] Turns audio streaming on or off.

[Authentication] The ID and password of the camera are required to access the camera through RTSP connections. This function is disabled by default.

[RTSP/TCP Port] Keep the default value 8554, or modify it if necessary.

[RTP/UDP Port] Keep the default range from 1024 to 65535, or modify it if necessary. The number of ports for use is limited to 20.

[Max Connection] Set the maximum number of RTSP and 3GPP connections to the camera. The maximum value is 8.

4.1.3 RTSP

RTSP 使您的 **3G-enabled**手机能够进行视频和音频流传输。RTSP 流传输默认启用。

图 *4-4*

[启用音频]开启或关闭音频流传输。

[身份验证]访问摄像头需要摄像头的 ID 和密码

通过 RTSP 连接。此功能默认情况下已禁用。

[RTSP/TCP 端口]保持默认值 8554，或根据需要修改。

[RTP/UDP 端口]保持默认范围为 1024 到 65535，或根据需要修改。可用端口数量限制为 2 0。

[最大连接]设置与摄像头的 RTSP 和 3GPP 连接的最大数量。

最大值为 8。

4.1.4 Privacy Mask

You can use the Privacy Mask to block out sensitive areas on live view and recorded clips. This feature is ideal for scenes with displays, keyboard sequences (e.g. passwords), and for anywhere else you don't want sensitive information visible.

Figure 4-5

1. Drag the area(s) where you want to block out on the image.
2. Click **Apply** to save all the settings.
3. To delete the latest privacy mask you had marked, click **Delete**.
4. To delete all privacy masks you had marked, click **Reset** and click **OK**.

Note: You cannot set more than 4 privacy masks on the camera image.

4.1.4 隐私遮罩

您可以使用隐私遮罩在实时视图和录制片段中屏蔽敏感区域。

此功能非常适合显示器、键盘序列（例如密码）等场景，以及您不希望敏感信息可见的任何其他地方。

图 *4-5*

1.拖动您想要在图像上屏蔽的区域。

2.点击应用以保存所有设置。

3.要删除您标记的最新隐私遮罩，请点击删除。

4.要删除您标记的所有隐私遮罩，请点击重置并点击确定。

注意：您不能在摄像头图像上设置超过4个隐私遮罩。

4.1.5 Text Overlay

The Text Overlay allows you to overlay the camera name and date & time on the camera view. Up to 33 characters can be created on one camera view. The overlaid text will be saved in the recordings.

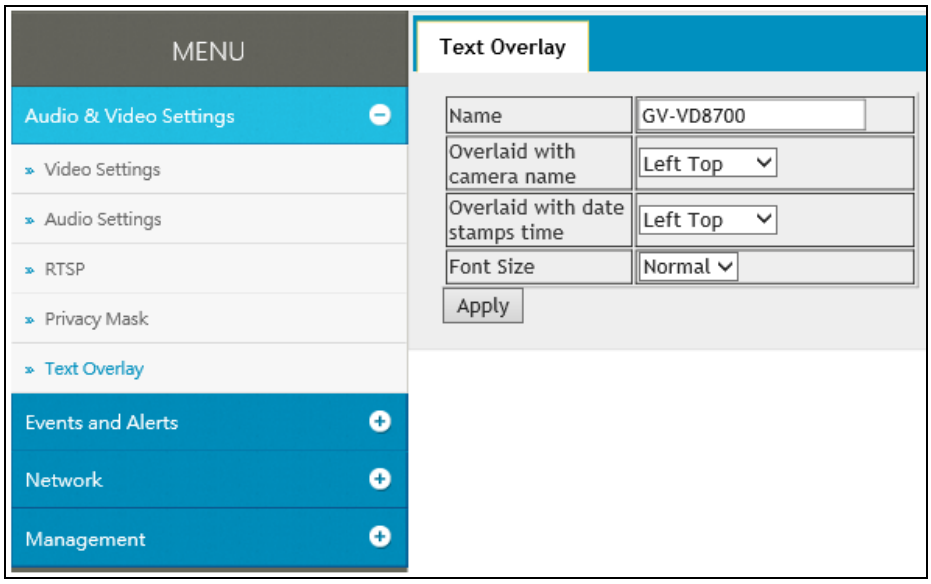


Figure 4-6

[Name] Type the camera name in the **Name** field.

[Overlaid with Camera Name] Display the camera name on the designated area on the camera view. You can choose to place the text on the **Left Top**, **Left Down**, **Right Top** or **Right Down** of the camera view.

[Overlaid with date stamps time] Display the current date and time on the designated area on the camera view. You can choose to place the text on the **Left Top**, **Left Down**, **Right Top** or **Right Down** of the camera view.

[Font Size] Choose **Small**, **Normal** or **Big** fonts using the drop-down list.

4.1.5 文本叠加

文本叠加允许您在摄像头视图上叠加摄像头名称和日期时间。
每个摄像头视图最多可以创建33个字符。叠加的文本将保存在
录制中。

图*4-6*

[名称]在名称字段中输入摄像头名称。
[叠加摄像头名称]在摄像头视图的指定区域显示摄像头名称。您可以选择将文本放置在摄像头视图的左上、左下、右上**或右下**。

[叠加日期时间戳]在摄像头视图的指定区域显示当前日期和时间。您可以选择将文本放置在左上，左下，右上或右下的摄像头视图中。

[字体大小]使用下拉列表选择小，正常或大字体。

4.2 Event and Alerts

For the events of motion detection, tampering alarm or I/O trigger and face groups, the Administrator can set up triggered actions to send a snapshot by e-mail and / or activate an output device.

To have above triggered actions, you must also set the following features:

- Tampering Alarm (See *4.2.2 Tampering Alarm*)
- Motion Detection (See *4.2.3 Motion Detection*)
- Input Setting (See *4.2.4.1 Input Settings*)
- Output Setting (See *4.2.4.1 Output Settings*)
- Face Groups (See *5.6.5 Trigger Area*)

4.2.1 Face Recognition

You can configure the face recognition settings in this page. For details, see *5.6 Face Recognition Basic Settings*

4.2 事件和警报

对于运动检测、篡改警报或I/O触发和人脸组的事件，管理员可以设置触发的操作以通过电子邮件发送快照和/或激活输出设备。

要实现上述触发操作，您还必须设置以下功能：

- 篡改警报（见*4.2.2* 篡改警报）
- 运动检测（见*4.2.3* 运动检测）
- 输入设置 (见*4.2.4.1* 输入设置)
- 输出设置 (见*4.2.4.1* 输出设置)
- 人脸组 (见*5.6.5* 触发区域)

4.2.1 人脸识别

您可以在此页面配置人脸识别设置。有关详细信息，请参见*5.6* 人脸识别基本设置

4.2.2 Tampering Alarm

Tampering Alarm is used to detect whether a camera is being physically tampered. An alarm can be generated when the camera is moved, covered up, or out of focus. The alarm types include output triggers and email alerts.

Figure 4-7

1. Select the **Enable** option.
2. Enable **Dark Image** to trigger an alarm when the scene turns dark, e.g. when the lens of the camera is covered up. By default, this function is disabled.
3. Select the desired detection sensitivity under **Sensitivity**. The higher the value, the more sensitive the camera is to scene changes.
4. In the **Dwell Time when triggered (seconds)** field, specify the time length allowed for scene changes before an alarm is generated.
5. To trigger the e-mail alert when a tampering event occurs, enable **E-Mail Output**.
6. To trigger the output device when a tampering event occurs, enable **I/O Output**.
7. If you want the camera to ignore any movement or scene change in certain areas, click the screen to drag areas on the camera view. Click **Delete** to delete the latest masked area. Click **Reset** to delete all masked area.
8. Click **Apply** to save all the settings.

For details on setting up the e-mail server and output device, see *4.2.5 E-Mail* and *4.2.4.2 Output Settings*.

4.2.2 篡改警报

篡改警报用于检测摄像头是否被物理篡改。当摄像头被移动、遮挡或失焦时，可以生成警报。警报类型包括输出触发和电子邮件警报。

图 *4-7*

1. 选择启用选项。
2. 启用暗图像以在场景变暗时触发警报，例如当摄像头镜头被遮挡时。默认情况下，此功能是禁用的。
3. 在**灵敏度**下选择所需的检测灵敏度。值越高，摄像头对场景变化的敏感度越高。
4. 在**触发时的停留时间（秒）**字段中，指定在生成警报之前允许场景变化的时间长度。
5. 要在发生篡改事件时触发电子邮件警报，请启用**电子邮件输出**。
6. 要在发生篡改事件时触发输出设备，请启用**I/O**输出。
7. 如果您希望摄像头忽略某些区域内的任何移动或场景变化，请单击屏幕以拖动摄像头视图上的区域。单击删除以删除最新的遮挡区域。单击重置以删除所有遮挡区域。
8. 点击应用以保存所有设置。

有关设置电子邮件服务器和输出设备的详细信息，请参见*4.2.5* 电子邮件和 *4.2.4.2* 输出设置。

4.2.3 Motion Detection

Motion detection is used to generate an alarm whenever movement occurs in the video image. You can configure up to 4 areas with different sensitivity values for motion detection. Set up at least one area to enable this function.

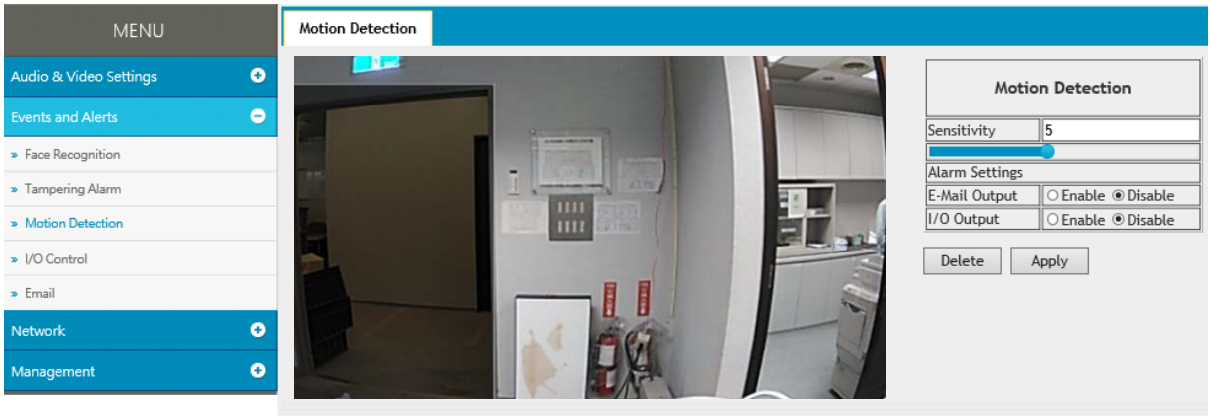


Figure 4-8

1. Select the desired sensitivity under **Sensitivity**. There are ten values. The higher the value, the more sensitive the camera is to motion.
2. Drag an area on the image.
3. To create several areas with different sensitivity values, repeat steps 1 and 2.
4. Click **Delete** to delete the selected areas.
5. Click **Reset** to delete all the selected areas.
6. Select **Enable** to activate the e-mail alert and / or output alarm.
7. Click **Apply** to save the above settings.

For details on setting up the e-mail server and output device, see *4.2.5 E-Mail* and *4.2.4.2 Output Settings*.

4.2.3 运动检测

运动检测用于在视频图像中发生运动时生成警报。

您可以配置最多4个区域，每个区域具有不同的运动检测灵敏度值。至少设置一个区域以启用此功能。

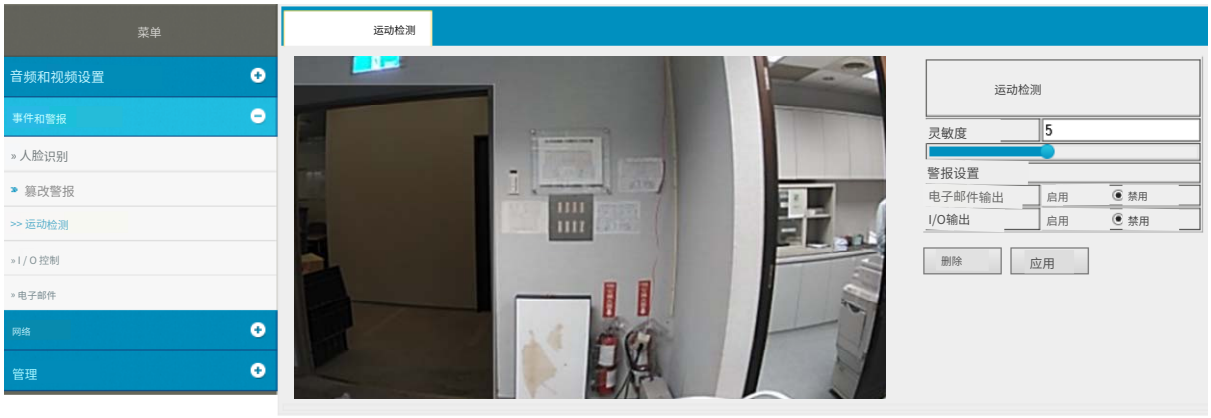


图 *4-8*

1. 在**灵敏度**下选择所需的灵敏度。共有十个值。值越高，摄像头对运动的灵敏度越高。

2. 在图像上拖动一个区域。
3. 要创建多个具有不同灵敏度值的区域，请重复步骤1和2。
4. 点击删除以删除选定的区域。
5. 点击重置以删除所有选定的区域。
6. 选择启用以激活电子邮件警报和/或输出警报。
7. 点击应用以保存上述设置。

有关设置电子邮件服务器和输出设备的详细信息，请参见*4.2.5* 电子邮件和 *4.2.4.2* 输出设置。

4.2.4 I/O Control

After installing the I/O device, you need to enable the I/O settings on the camera. For installing the I/O device on the camera, see *1.6 I/O Connector*.

4.2.4.1 Input Settings

To activate the sensor input, select **Enable**.

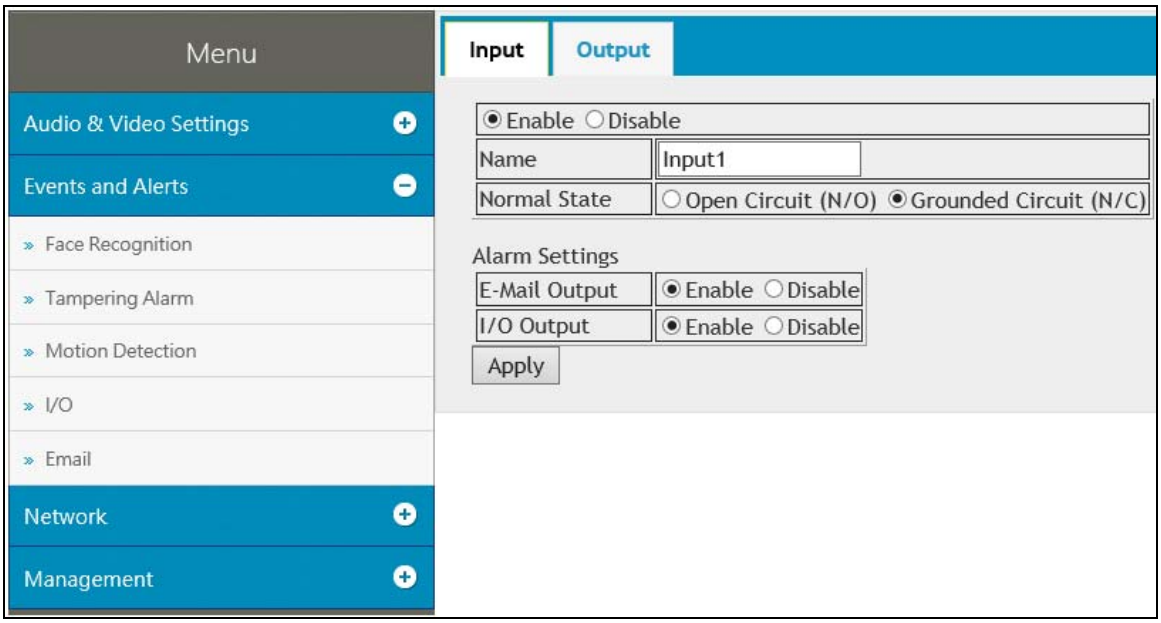


Figure 4-9

- **Name:** Name the input in the Name field.
- **Normal State:** Set the input state to trigger actions by selecting **Open Circuit (N/O)** or **Grounded Circuit (N/C)**.
- **E-Mail Output:** Enable this option to send alerts to a specified e-mail address when the input is triggered.
- **I/O Output:** Enable this option to trigger the output once the input is activated.

For details on setting up the e-mail server and output device, see *4.2.5 E-Mail* and *4.2.4.2 Output Settings*.

4.2.4 I/O 控制

安装 I/O 设备后，您需要在摄像头上启用 I/O 设置。有关在摄像头上安装 I/O 设备的信息，请参见*1.6 I/O* 连接器。

4.2.4.1 输入设置

要激活传感器输入，请选择启用。

图 *4-9*

- 名称:在名称字段中命名输入。
- **正常状态:**通过选择**开路 (N/O)或接地电路 (N/C)**设置输入状态以触发操作。
- **电子邮件输出:**启用此选项以在输入被触发时向指定的电子邮件地址发送警报。
- **I/O 输出:**启用此选项以在输入被激活后触发输出。

有关设置电子邮件服务器和输出设备的详细信息，请参见*4.2.5* 电子邮件和 *4.2.4.2* 输出设置。

4.2.4.2 Output Settings

Select **Enable** to start the output device.

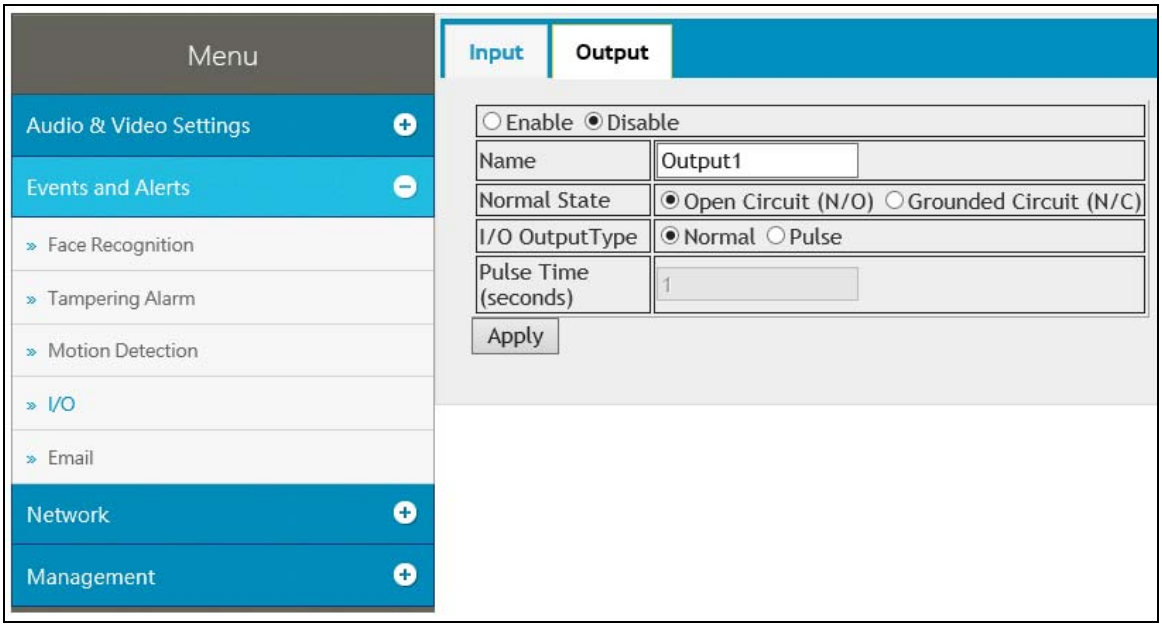


Figure 4-10

- **Name:** Name the output in the Name field.
- **Normal State:** Choose the output signal that best suits your device: **Open Circuit (N/O)** and **Grounded Circuit (N/C)**.
- **I/O Output Type:** Choose **Normal** for the output to remain in effect until the trigger action stops. Or choose **Pulse** for the output to last only for the amount of time you specified.
- **Pulse Time (seconds):** Specify the time (seconds) for the pulse-type output to last.

4.2.4.2 输出设置

选择启用以启动输出设备。

图 *4-10*

- 名称:在名称字段中命名输出。
- **正常状态:**选择最适合您设备的输出信号:**开路 (N/O) 和接地电路 (N/C)**。

- **I/O 输出类型:**选择正常以使输出在触发动作停止之前保持有效。或者选择脉冲以使输出仅持续您指定的时间。
- **脉冲时间（秒）:**指定脉冲类型输出持续的时间（秒）。

4.2.5 E-mail

After an event is triggered, the camera can send an e-mail to a remote user containing a snapshot.

IMPORTANT: To send e-mail alert upon motion, be sure to set up the detection area on the Motion Detection page. For details, see *4.2.3 Motion Detection*.

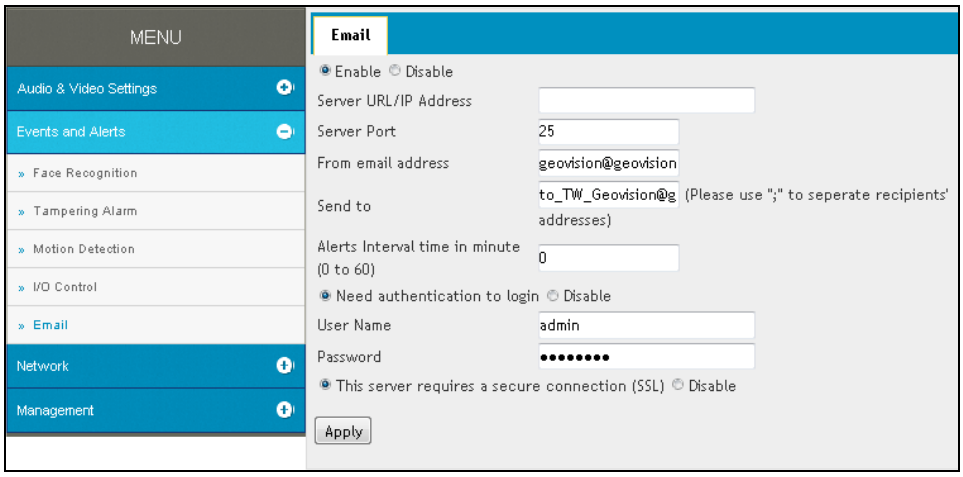


Figure 4-11

To enable the e-mail functions:

1. Select **Enable** to set up e-mail notifications.
2. **Server URL/IP Address:** Type the server's URL address or IP address.
3. **Server Port:** Type the server's port number. Or keep the default value 25.
4. **From email address:** Type the sender's e-mail address.
5. **Send to:** Type the e-mail address(s) you want to send alerts to.
6. **Alerts interval time in minute:** Specify the interval between e-mail alerts. The interval can be between 0 and 60 minutes. The option is useful for frequent event occurrence. Any event triggers during the interval period will be ignored.
7. If the server needs authentication, select **Need authentication to login** and type a valid **Username** and **Password** to log in to the server. If the server needs a secure connection (SSL), select **This server requires a secure connection**.
8. Click **Apply** to save the settings.

For related settings of e-mail alerts, see *4.2.2 Tampering Alarm*, *4.2.3 Motion Detection*, and *4.2.4 I/O Control* and *4.4.4 External Storage Settings*.

4.2.5 电子邮件

在事件触发后，摄像头可以向远程用户发送包含快照的电子邮件。

重要提示:要在运动时发送电子邮件警报，请确保在运动检测页面上设置检测区域。有关详细信息，请参见*4.2.3* 运动检测。

图*4-11*

要启用电子邮件功能：

1. 选择启用以设置电子邮件通知。
2. **服务器URL/IP地址:**输入服务器的URL地址或IP地址。
3. **服务器端口:**输入服务器的端口号。或保持默认值25。
4. **发件人电子邮件地址:**输入发件人的电子邮件地址。
5. 发送至:输入您希望发送警报的电子邮件地址。
6. **警报间隔时间（分钟）：** 指定电子邮件警报之间的间隔。间隔可以在0到60分钟之间。该选项对于频繁事件发生非常有用。在此时间段内触发的任何事件将被忽略。
7. 如果服务器需要身份验证，请选择**需要身份验证以登录**并输入有效的用户名和密码以登录服务器。如果服务器需要安全连接（SSL），请选择**此服务器需要安全连接**。
8. 点击应用以保存设置。

有关电子邮件警报的相关设置，请参见*4.2.2* 篡改警报，*4.2.3* 运动检测，以及*4.2.4 I/O* 控制和*4.4.4* 外部存储设置。

4.2.6 Event Manager

You can set up the connection to GV-FWC Server and integrate 3rd-party software through Http settings.

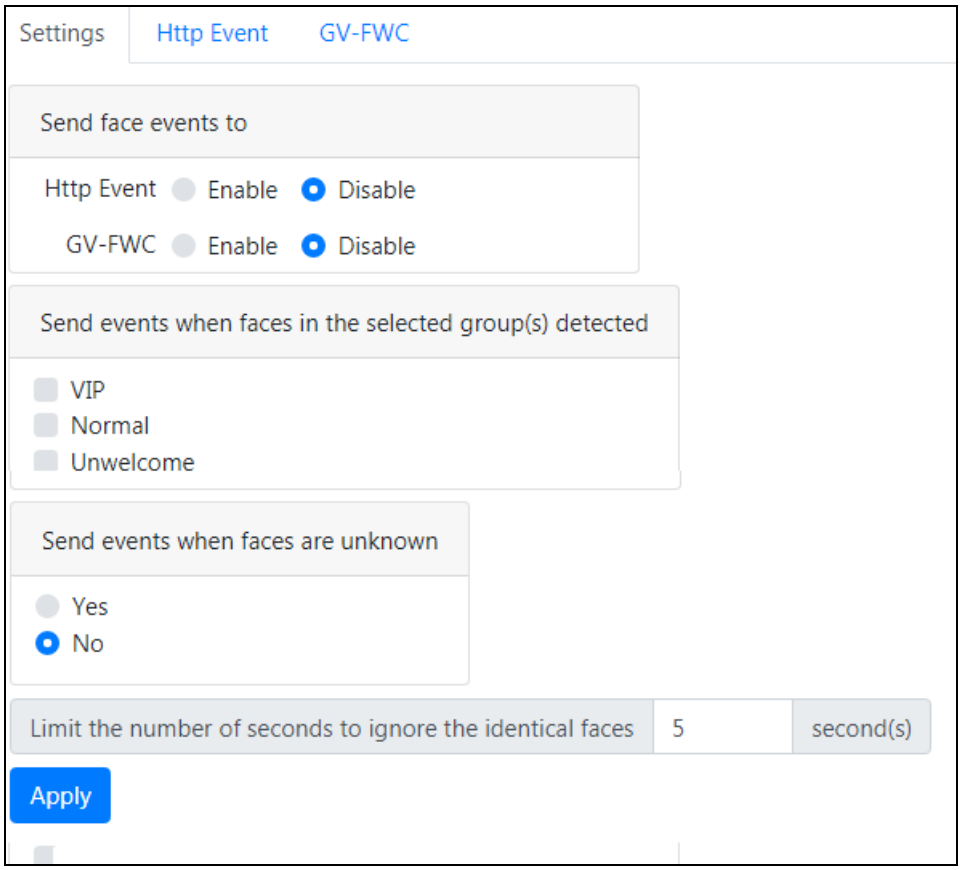


Figure 4-12

[Settings] After setting up HTTP Event and/or GV-FWC in their separate pages under the Event Manager, you need to enable their functions here to activate the connection.

[Send events when faces in the selected group(s) detected] Send the events to GV-FWC Server or 3rd-party software when any face of the selected groups is detected.

[Send events when faces are unknown] Send the events to 3rd-party software when a face fails to be recognized from the database. Note the function is not supported by GV-FWC Server.

[Limit the number of seconds to ignore the identical faces] Set up the event frequency by specifying the number of seconds to ignore the events of identical faces detected.

4.2.6 事件管理器

您可以通过Http设置建立与GV-FWC服务器的连接，并集成第三方软件。

图 *4-12*

[设置]在事件管理器的单独页面中设置 HTTP 事件和/或 GV-FWC 后，您需要在此处启用它们的功能以激活连接。

[当检测到所选组中的人脸时发送事件]当检测到所选组中的任何人脸时，将事件发送到 GV-FWC 服务器或第三方软件。

[当人脸未知时发送事件]当人脸未能从数据库中识别时，将事件发送到第三方软件。请注意，该功能不支持 GV-FWC 服务器。

[限制忽略相同人脸的秒数]通过指定忽略检测到的相同人脸事件的秒数来设置事件频率。

4.3 Network

The Network section includes some basic but important network configurations that enable the camera to be connected to a TCP/IP network.

4.3.1 LAN Configuration

According to your network environment, select between **Static IP address** or **Dynamic IP address**.

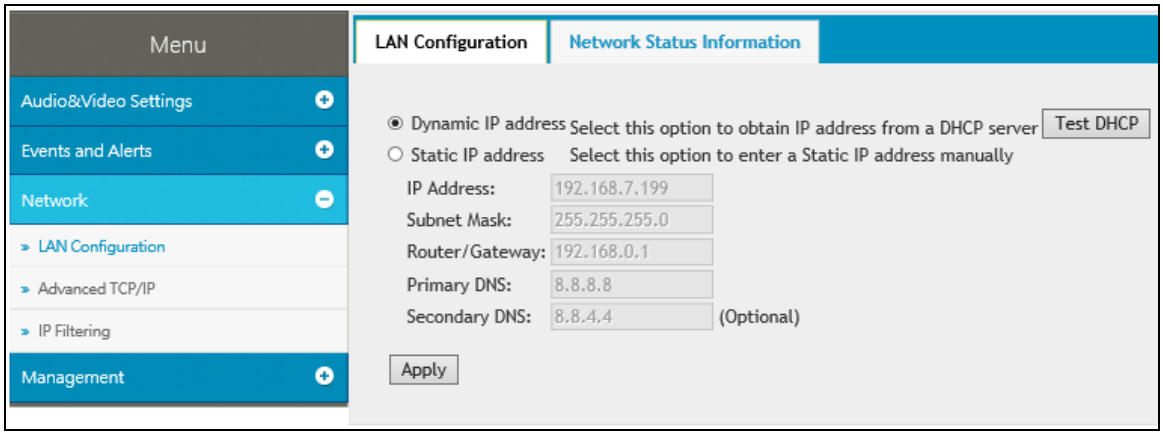


Figure 4-13

[LAN Configuration]

- **Dynamic IP address:** The network environment has a DHCP server which will automatically assign a dynamic IP address to the camera. Click the **Test DHCP** to see the currently assigned IP address or look up the address using GV-IP Device Utility.
- **Static IP address:** Assign a static IP or fixed IP to the camera. Type the camera's IP address, Subnet Mask, Router/Gateway, Primary DNS server and Secondary DNS server.

Parameters	Default
IP address	192.168.0.10
Subnet Mask	255.255.255.0
Router/Gateway	192.168.0.1
Primary DNS server	8.8.8.8
Secondary DNS server	8.8.4.4

For details on Dynamic DNS Server Settings, *see 4.3.2 Advanced TCP/IP.*

4.3 网络

网络部分包括一些基本但重要的网络配置，使摄像头能够连接到TCP/IP网络。

4.3.1 局域网配置

根据您的网络环境，在**静态IP地址**和**动态IP地址**之间进行选择。

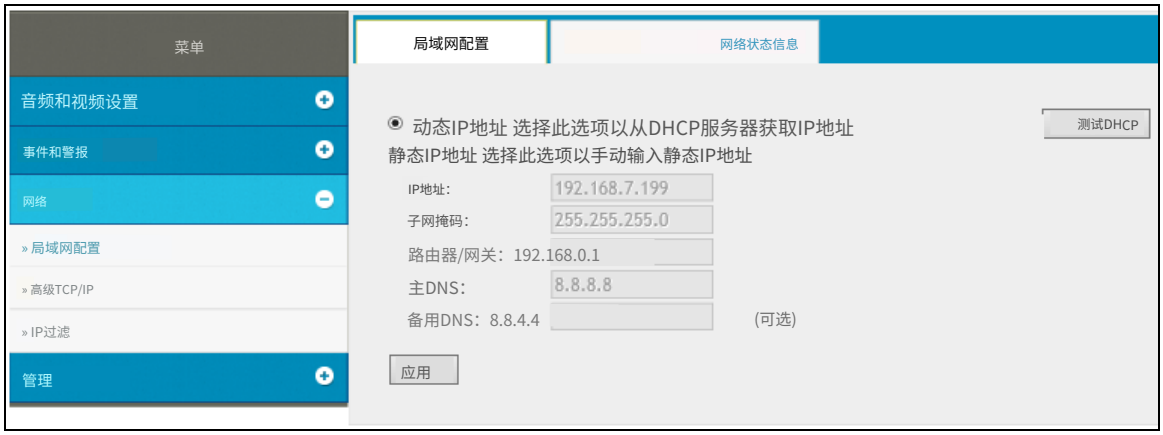


图*4-13*

[局域网配置]

- **动态IP地址：**网络环境中有一个DHCP服务器，它将自动为摄像头分配动态IP地址。点击测试**DHCP**以查看当前分配的IP地址，或使用GV-IP设备工具查找地址。

- **静态IP地址:**为摄像头分配一个静态IP或固定IP。输入摄像头的IP地址、子网掩码、路由器/网关、主DNS服务器和次DNS服务器。

参数	默认
IP地址	192.168.0.10
子网掩码	255.255.255.0
路由器/网关	192.168.0.1
主DNS服务器	8.8.8.8
次DNS服务器	8.8.4.4

有关动态DNS服务器设置的详细信息，请参见*4.3.2*高级*TCP/IP*。

[Network Status Information]

In this tab, you can view the current network status.

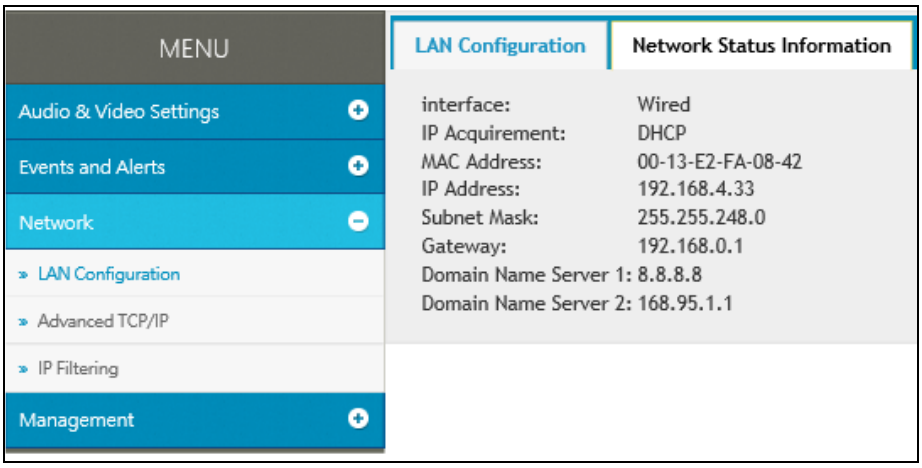


Figure 4-14

[网络状态信息]

在此选项卡中，您可以查看当前的网络状态。

图*4-14*

4.3.2 Advanced TCP/IP

This section introduces the advanced TCP/IP settings, including DDNS Server, HTTP port, and HTTPS.

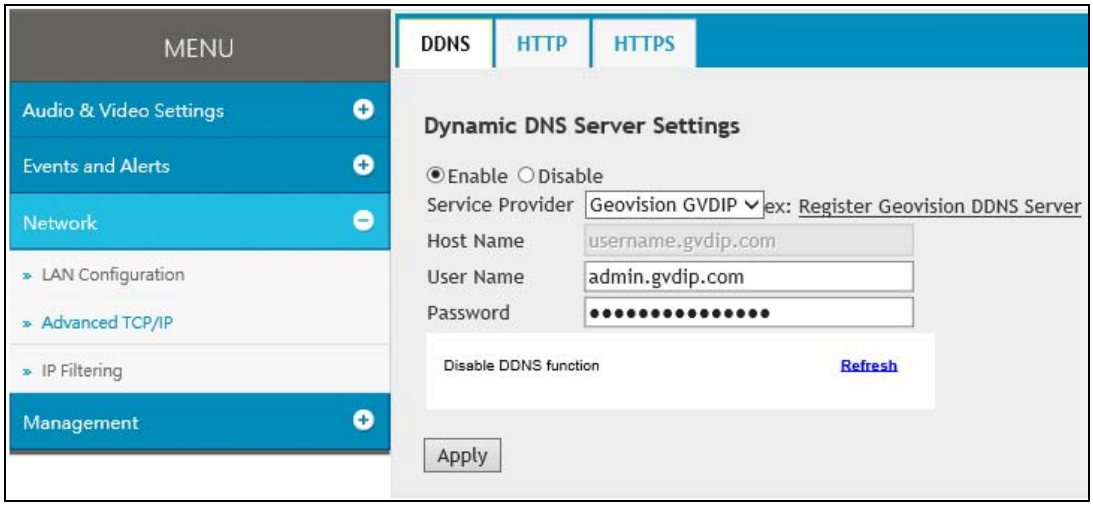


Figure 4-15

[Dynamic DNS Server Settings]

DDNS (Dynamic Domain Name System) provides a convenient way of accessing the camera when using a dynamic IP. DDNS assigns a domain name to the camera, so that the Administrator does not need to go through the trouble of checking if the IP address assigned by DHCP Server or ISP (in xDSL connection) has changed.

Before enabling the DDNS function, the Administrator should apply for a Host Name from the DDNS service provider's website. There are 2 providers listed in the camera: GeoVision GVDIP or DynDNS.org.

4.3.2 高级TCP/IP

本节介绍高级TCP/IP设置，包括DDNS服务器、HTTP端口和HTTPS。

图*4-15*

[动态DNS服务器设置]

DDNS（动态域名系统）为使用动态IP的摄像头提供了一种方便的访问方式。DDNS为摄像头分配一个域名，因此管理员无需费心检查DHCP服务器或ISP（在xDSL连接中）分配的IP地址是否已更改。

在启用DDNS功能之前，管理员应从DDNS服务提供商的网站申请一个主机名。摄像头中列出了 2 个提供商：GeoVisionGVDIP 或 DynDNS.org。

To enable the DDNS function:

1. Select **Enable**.
2. Select the DDNS service provider you have registered with. If you do not have a DDNS provider, you can click on **Register GeoVision DDNS Server** to register the service via **GeoVision DDNS V2** and obtain a host name.

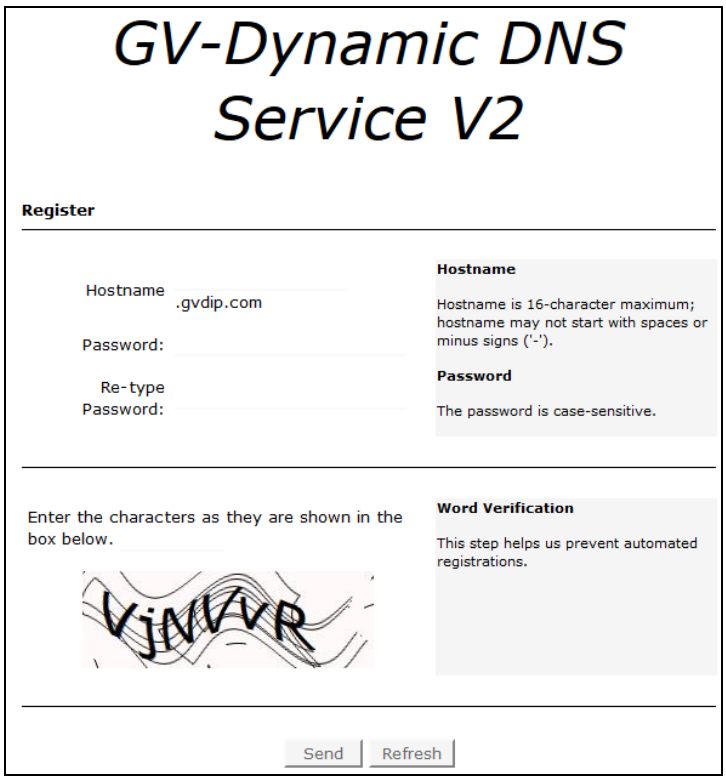


Figure 4-16

3. Type the **Host Name** used to link to the camera. For the users of GeoVision DDNS Server, it is unnecessary to fill the field because the system will detect the host name automatically.
4. Type the **User Name** used to enable the service from the DDNS. The user name should look similar to your host name. Depending on your service provider, you should add domain name (.dipmap.com, .gvdip.com or .org) after your user name, for example, alice.dipmap.com
5. Type the **Password** used to enable the service from the DDNS.
6. Click **Apply** to save the settings.

要启用 DDNS 功能：

1. **选择启用。**
2. 选择您已注册的 DDNS 服务提供商。如果您没有 DDNS 提供商，可以点击**注册 GeoVision DDNS 服务器**通过 **G**eo**V**isio**n DDNS V2**注册服务并获取主机名。

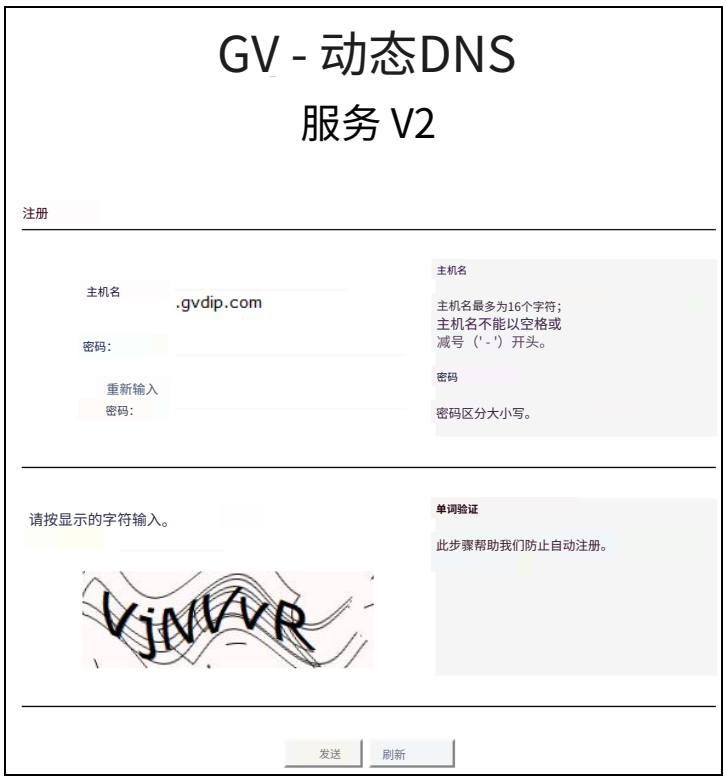


图 *4-16*

3. 输入主机名以链接到摄像头。对于GeoVision DDNS服务器的用户，无需填写该字段，因为系统会自动检测主机名。

4. 输入用于启用DD**N**S服务的用户名。用户名应与您的主机名相似。根据您的服务提供商，您应在用户名后添加域名（.dip**ma**p.co**m**，.gvdip.co**m**或.or**g**），例如，**a**lice.dip**ma**p.co**m**

5. 输入用于启用DDNS服务的密码。
6. 点击应用以保存设置。

[HTTP Port Settings]

The HTTP port enables connecting the camera to the Web. For security integration, the Administrator can hide the server from the general HTTP port by changing the default HTTP port of 80 to a different port number within the range of 1024 through 65535.

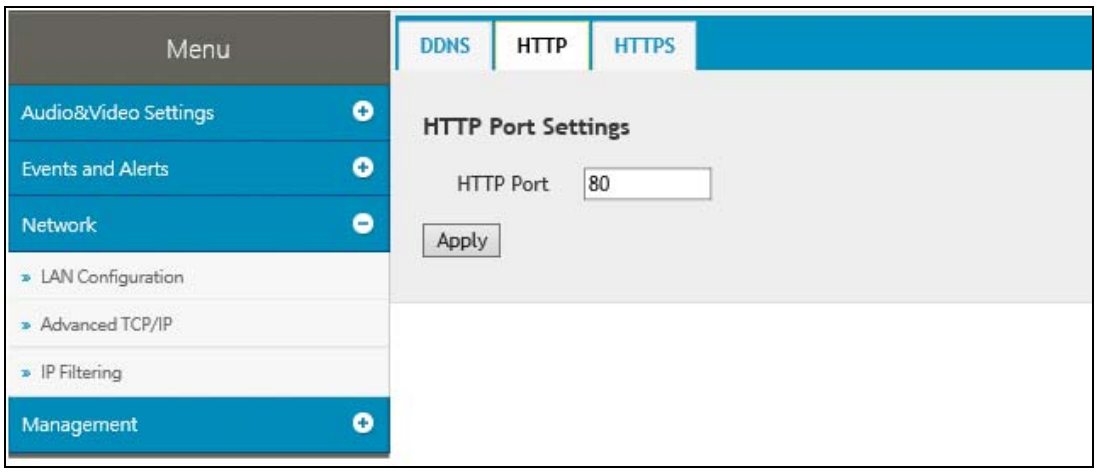


Figure 4-17

[HTTPS Settings]

By enabling the Hypertext Transfer Protocol Secure (HTTPS) settings, you can access the camera through a secure protocol.

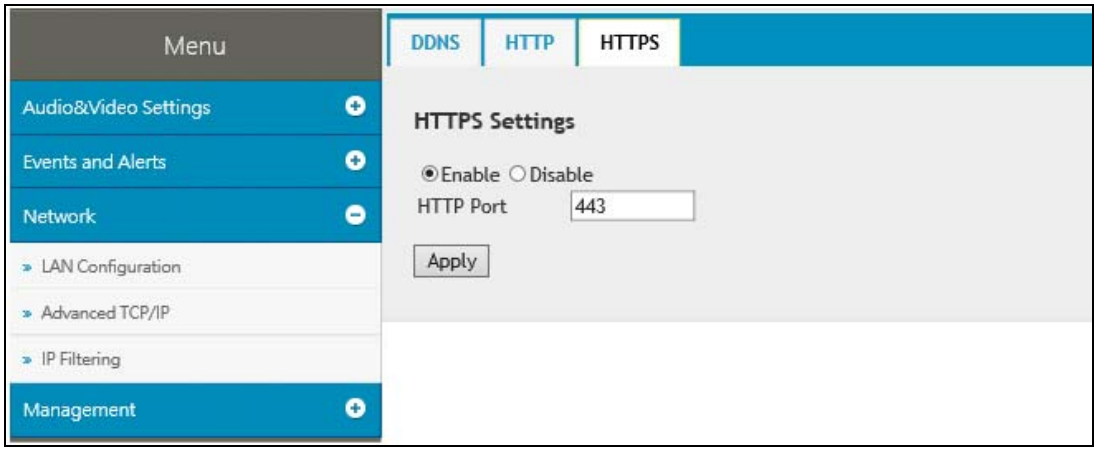


Figure 4-18

[HTTP端口设置]

HTTP端口使摄像头能够连接到网络。为了安全集成，管理员可以通过将默认的HTTP端口80更改为1024到65535范围内的其他端口号来隐藏服务器。

图*4-17*

[HTTPS设置]

通过启用超文本传输安全协议（HTTPS）设置，您可以通过安全协议访问摄像头。

图*4-18*

4.3.3 IP Filter

The Administrator can set IP filtering to grant or restrict access to the camera. Note that you can only set up 4 filter entries for the camera.

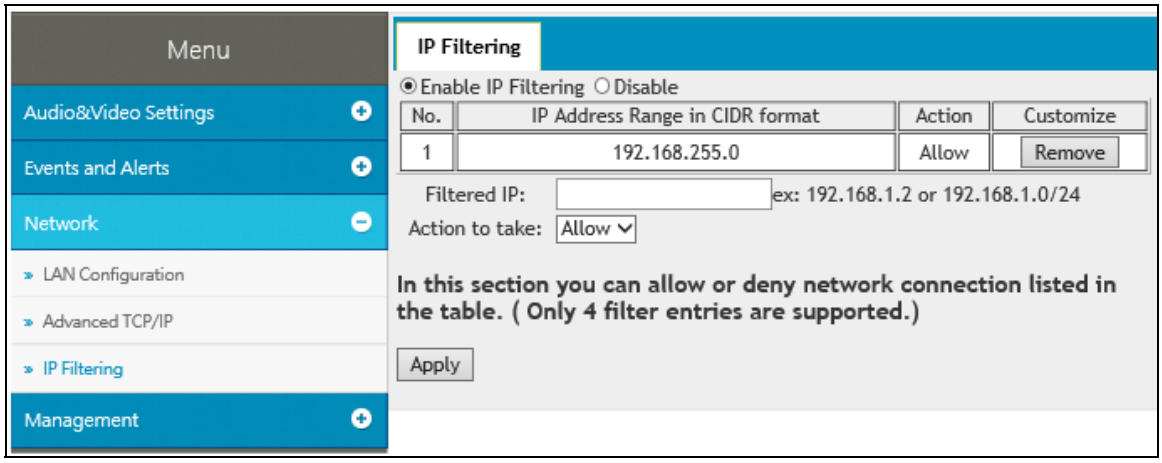


Figure 4-19

To enable the IP Filter function:

1. **Enable IP Filtering:** Enable the IP Filtering function.
2. **Filtered IP:** Type the IP address you want to grant or restrict access to.
3. **Action to take:** Select the action of **Allow** or **Deny** to be taken for the IP address(es) you have specified.
4. Click **Apply** to save the settings.

4.3.3 IP过滤器

管理员可以设置IP过滤，以授予或限制对摄像头的访问。请注意，您只能为摄像头设置4个过滤条目。

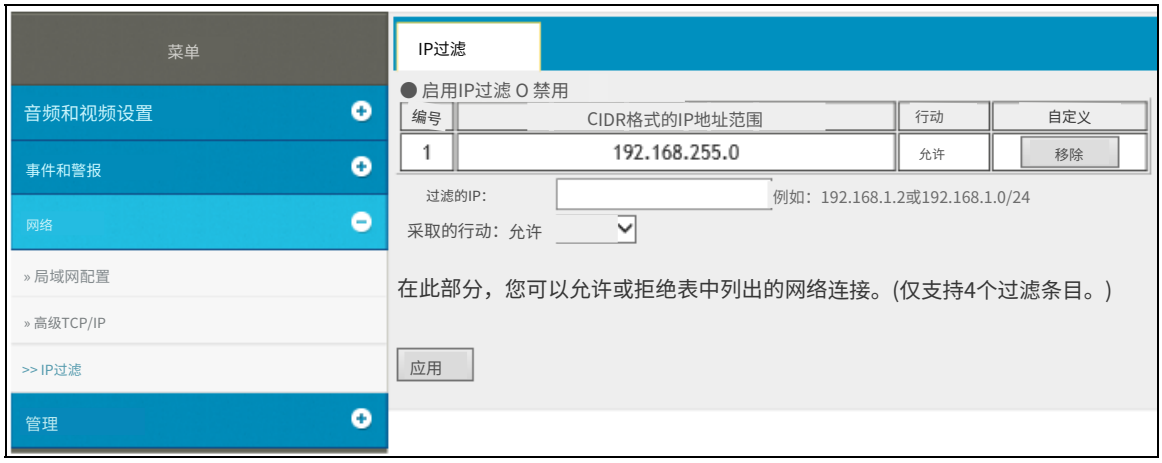


图*4-19*

要启用IP过滤功能：

1. **启用IP过滤：**启用IP过滤功能。
2. **过滤的IP：**输入您想要授予或限制访问的IP地址。

3.**采取的行动：**选择对您指定的IP地址采取允许或拒绝的行动。

4.点击应用以保存设置。

4.4 Management

The Management section includes the settings of date, time and user account. You can also view the firmware version and execute certain system operations.

4.4.1 Date and Time

The date and time settings are used for date and time stamps on the image.

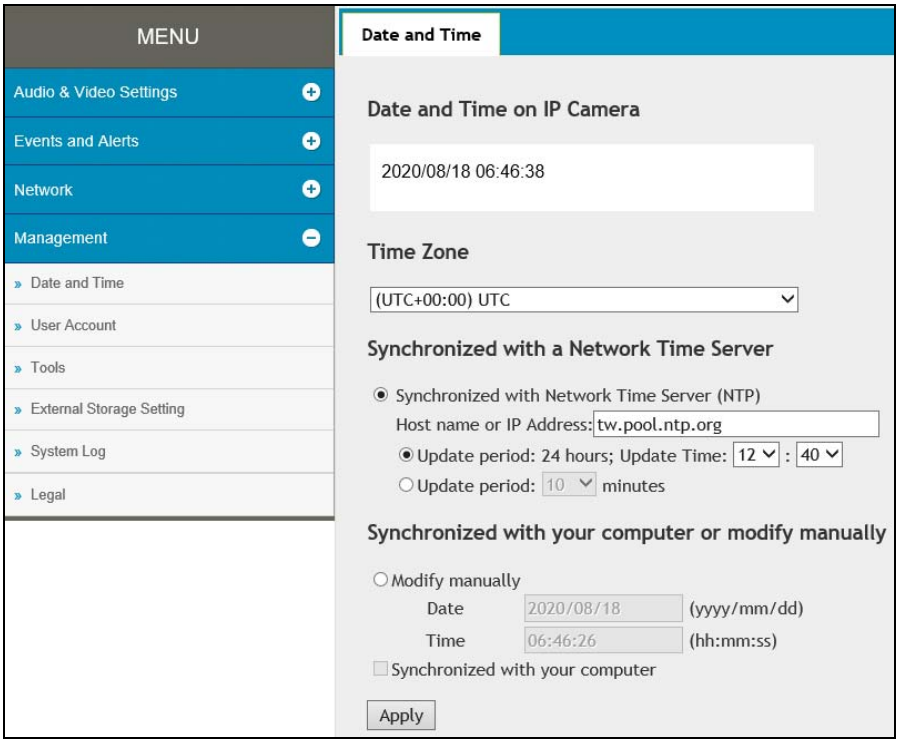


Figure 4-20

[Date & Time on IP Camera] Displays the current date and time of the camera.

[Time Zone] Sets the time zone for local settings.

[Synchronized with a Network Time Server] By default, the camera uses the timeserver of tw.pool.ntp.org to automatically update its internal clock every 24 hours. You can change the host name or IP setting to the timeserver of interest. To change the time of automatic update, select an update period and the use the drop-down lists to specify the time.

[Synchronized with your computer or modify manually] Manually changes the camera's date and time. Or, select **Synchronized with your computer** to synchronize the camera's date and time with those of the local computer.

4.4 管理

管理部分包括日期、时间和用户账户的设置。您还可以查看固件版本并执行某些系统操作。

4.4.1 日期和时间

日期和时间设置用于图像上的日期和时间戳。

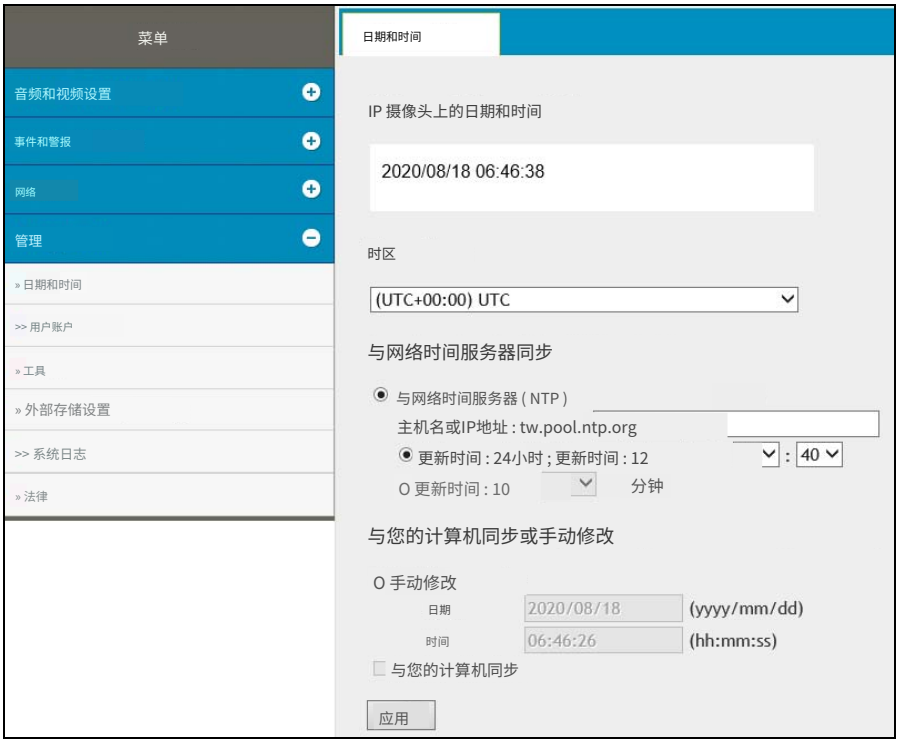


图 *4-20*

[IP 摄像头上的日期和时间]显示摄像头的当前日期和时间。

[时区]设置本地设置的时区。

[与网络时间服务器同步]默认情况下，摄像头使用tw.pool.ntp.org 的时间服务器，每 24 小时自动更新其内部时钟。您可以更改感兴趣的时间服务器的主机名或 IP 设置。要更改自动更新的时间，选择更新周期，然后使用下拉列表指定时间。

[与您的计算机同步或手动修改]手动更改摄像头的 date 和 time。或者，选择**与您的计算机同步**以将摄像头的 date 和 time 与本地计算机的同步。

4.4.2 User Account

You can change the login name and password of Administrator and the Guest user accounts.

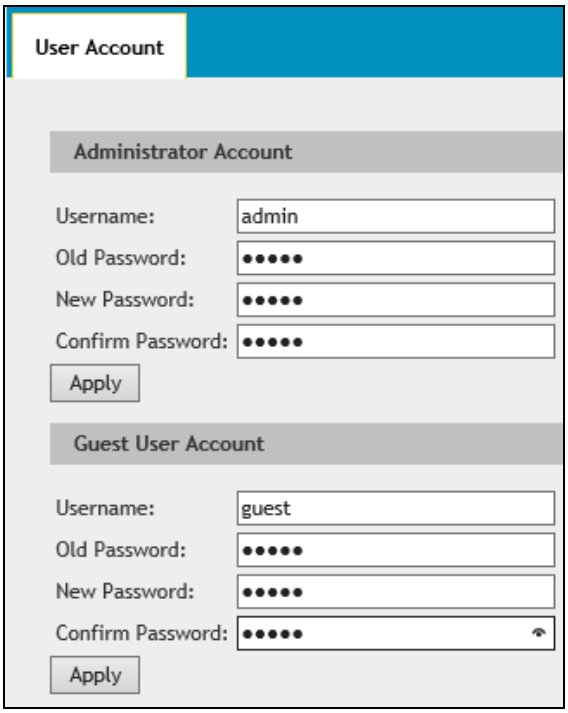


Figure 4-21

4.4.2 用户账户

您可以更改管理员和访客用户账户的登录名和密码。

图 *4-21*

4.4.3 Tools

This section allows you to execute certain system operations and view the firmware version.

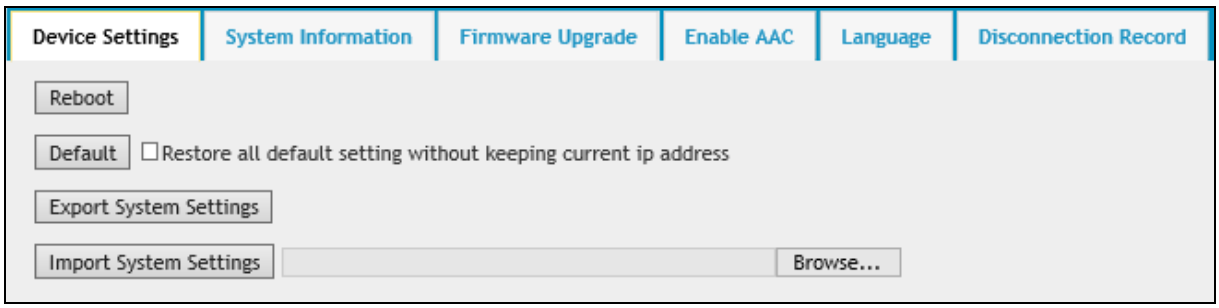


Figure 4-22

[Device Settings] You can reboot the camera, restore the camera to its factory default settings, or import / export the system settings.

- **Reboot:** Click **Reboot** for the camera to perform a software reset.
- **Default:** Click **Default** to restore the camera to factory default settings.
- **Export System Settings:** Click to export the configurations of the camera to the local PC.
- **Import System Settings:** Click **Browse** to locate the system file (.config) and click **Import System Settings** to import previously saved configurations to the camera. Log in again after the Import completes.

[System Information] This field displays the firmware version of the camera.

[Firmware Upgrade] Upgrade the firmware over the Internet. For details, see *7.1 Upgrading System Firmware*.

[Language] Select the language and click **Apply** to save the settings.

[Disconnection Record] When the camera is disconnected from GV-DVR / NVR / VMS, the recordings of alarm events will be temporarily saved to the camera's memory card. The recordings will later be uploaded to a predefined FTP server when the network connection is resumed. After all the recordings are uploaded to the FTP, the temporary recordings on the memory card will be removed.

IMPORTANT: Format the micro-SD card before its first use. For details, see *4.4.4 External Storage Settings*

4.4.3 工具

本节允许您执行某些系统操作并查看固件版本。

图 *4-22*

[设备设置]您可以重启摄像头，将摄像头恢复到出厂默认设置，或导入/导出系统设置。

- 重启：点击重启使摄像头执行软件重置。
- 默认：点击默认将摄像头恢复到出厂默认设置。
- **导出系统设置：**点击以将摄像头的配置导出到本地 PC。
- **导入系统设置：**点击浏览以定位系统文件 (.config)，然后点击导入系统设置将之前保存的配置导入摄像头。导入完成后请重新登录。

[系统信息]此字段显示摄像头的固件版本。

[固件升级]通过互联网升级固件。有关详细信息，请参见*7.1* 升级系统固件。

[语言**]**选择语言并点击应用以保存设置。

[断开记录]当摄像头与GV-DVR / NVR / VMS断开连接时，报警事件的录音将暂时保存到摄像头的存储卡中。录音将在网络连接恢复后上传到预定义的FTP服务器。所有录音上传到FTP后，存储卡上的临时录音将被删除。

重要提示:在首次使用前格式化micro-SD卡。有关详细信息，请参见*4.4.4* 外部存储设置

- **Disconnection Record:** Select **On** to enable the service.
- **Video Time Interval (minutes):** Choose the duration time between **1**, **2**, **3**, **4**, or **5** minutes. When the recording starts once the camera is disconnected from GV-DVR / NVR / VMS, the camera will record videos for the specified time period.
- **Upload video to an FTP server:** Select **On** to upload the recordings to an FTP server. Type the settings of your FTP server in the following fields: **Server URL / IP Address**, **Server Port**, **User Name**, **Password** and the name of the storage folder on the FTP server in **Remote Directory**.

- **断开记录:选择开启**以启用该服务。
- **视频时间间隔（分钟）：**选择持续时间 **1**, **2**, **3**, **4**, 或 **5** 分钟。当摄像头与GV-DVR / NVR / VMS断开连接后，录制将开始，摄像头将在指定的时间段内录制视频。
- **上传视频到FTP服务器：**选择开启以将录制上传到FTP服务器。
  在以下字段中输入您的FTP服务器设置：**服务器URL / IP地址，服务器端口**，用户名，密码以及FTP服务器上存储文件夹的名称在**远程目录**中。

4.4.4 External Storage Settings

You can view the memory card information in this page. Format the memory card before using it for the first time. After being formatted, the memory card will be ready to use. To insert or remove a SD card, see *1.3 Overview*.

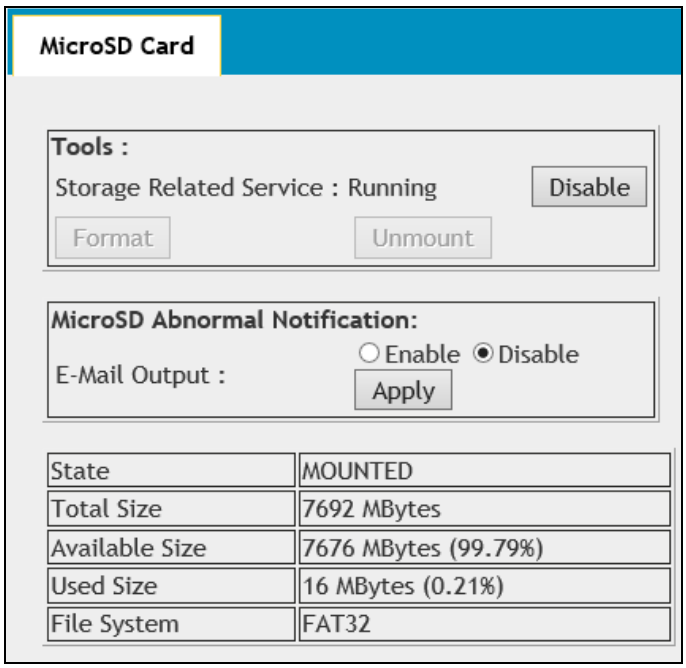


Figure 4-23

[Tools]

- **Disable:** When you click **Disable**, the recordings that are saved to the memory card and the snapshot of face recognition become inaccessible. The **Format** button and the **Unmount** button become active only when you clicked **Disable**.
- **Format:** Click **Format** to clear the content of SD card.
- **Unmount:** Click **Unmount** to disengage the SD card from the camera.

[MicroSD Abnormal Notification] Select **Enable** to activate the e-mail alert upon micro-SD card abnormality.

For details on setting up the e-mail server, see *4.2.5 E-Mail*.

Note: The recording data may be lost if you remove the memory card during recording.

4.4.4 外部存储设置

您可以在此页面查看存储卡信息。首次使用前请格式化存储卡。格式化后，存储卡将准备就绪。要插入或移除SD卡，请参见*1.3* 概述。

图*4-23*

[工具]

- 禁用：当您点击禁用时，保存到存储卡的录制内容和人脸识别的快照将无法访问。格式按钮和卸载按钮仅在您点击禁用后变为可用。
- 格式:点击格式以清除SD卡的内容。
- 卸载:点击卸载以将SD卡从摄像头中分离。

[MicroSD异常通知]选择启用以在micro-SD卡异常时激活电子邮件警报。

有关设置电子邮件服务器的详细信息，请参见*4.2.5* 电子邮件。

注意:如果在录制过程中移除存储卡，录制数据可能会丢失。

4.4.5 System Log

The log contains dump data that is used by service personnel for analyzing problems.

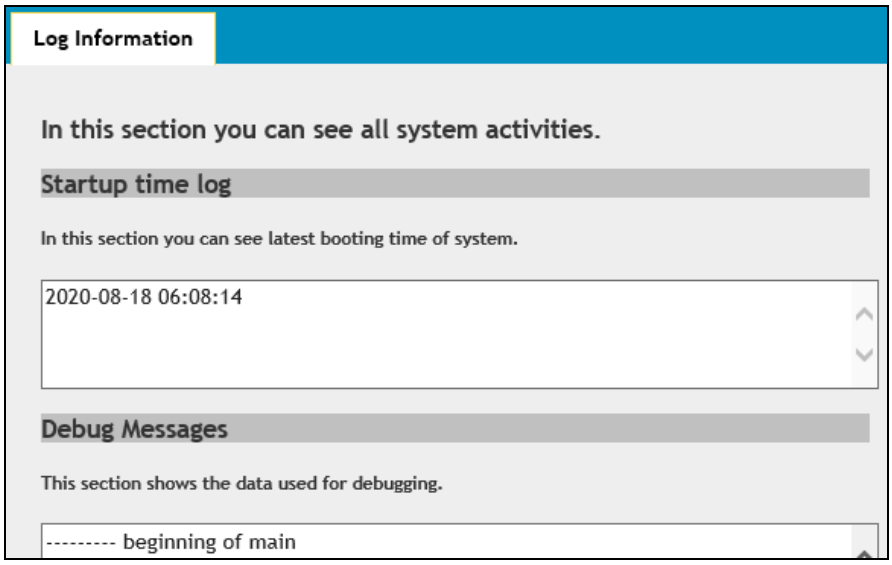


Figure 4-24

- **Clear:** Click **Clear** to delete all system logs.
- **Download:** Click **Download** to download all system logs to your computer.

4.4.5 系统日志

日志包含服务人员用于分析问题的转储数据。

图 *4-24*

- 清除:点击清除以删除所有系统日志。
- 下载:点击下载将所有系统日志下载到您的计算机。

Chapter 5 Face Recognition

GV-VD8700 and **GV-FD8700-FR** can detect for and identify persons' faces from its predefined database. Upon successful recognition, the name of the person identified is displayed on the live view while the related data are recorded into the camera as a recognition event, as exemplified by the figure below. Those who are detected but failed to be recognized within the database are recorded as "unknown".

Read the following sections to learn how to improve the efficiency and accuracy of face recognition, particularly in regards to variables, such as the movement speed and facial direction of the recognition target. It is recommended to install the camera in places where the targets are facing right at the camera and remain focused for a maximized depth of field. It is also essential to arrange proper lighting conditions to avoid high contrast and backlighting that obscures the recognition target. See *5.2 Installation Flowchart* for a step-by-step guide of the installation.

Figure 5-1

第5章 人脸识别

GV-VD8700和**GV-FD8700-FR**可以从其预定义数据库中检测和识别人员的面孔。在成功识别后，识别到的人员姓名将在实时视图中显示，同时相关数据将作为识别事件记录到摄像头中，如下图所示。那些被检测到但未在数据库中被识别的将被记录为“未知”。

请阅读以下章节以了解如何提高人脸识别的效率和准确性，特别是关于识别目标的移动速度和面部方向等变量。建议将摄像头安装在目标正对摄像头并保持聚焦的地方，以最大化景深。同时，安排适当的照明条件以避免高对比度和背光，这会遮挡识别目标。请参见*5.2* 安装流程图以获取安装的逐步指南。

图 *5-1*

5.1 Features

- Store up to 10,000 face data entries
- Recognize up to 10 faces simultaneously
- Maximum recognition distance of 4 meters (13.12 ft)
- Minimum recognition time of 2 seconds
- Output alarm trigger through face group settings
- Store up to 7 days of face recognition results and up to 3 GB of face recognition snapshots

5.1 功能

- 最多存储 10,000 条人脸数据条目
- 最多同时识别 10 张人脸
- 最大识别距离为 4 米（13.12 英尺）
- 最小识别时间为 2 秒
- 通过人脸组设置输出报警触发
- 最多存储 7 天的人脸识别结果和高达 3 GB 的人脸识别快照

5.2 Installation Flowchart

Follow the step-by-step guide to set up face recognition and refer to the relevant sections if needed.

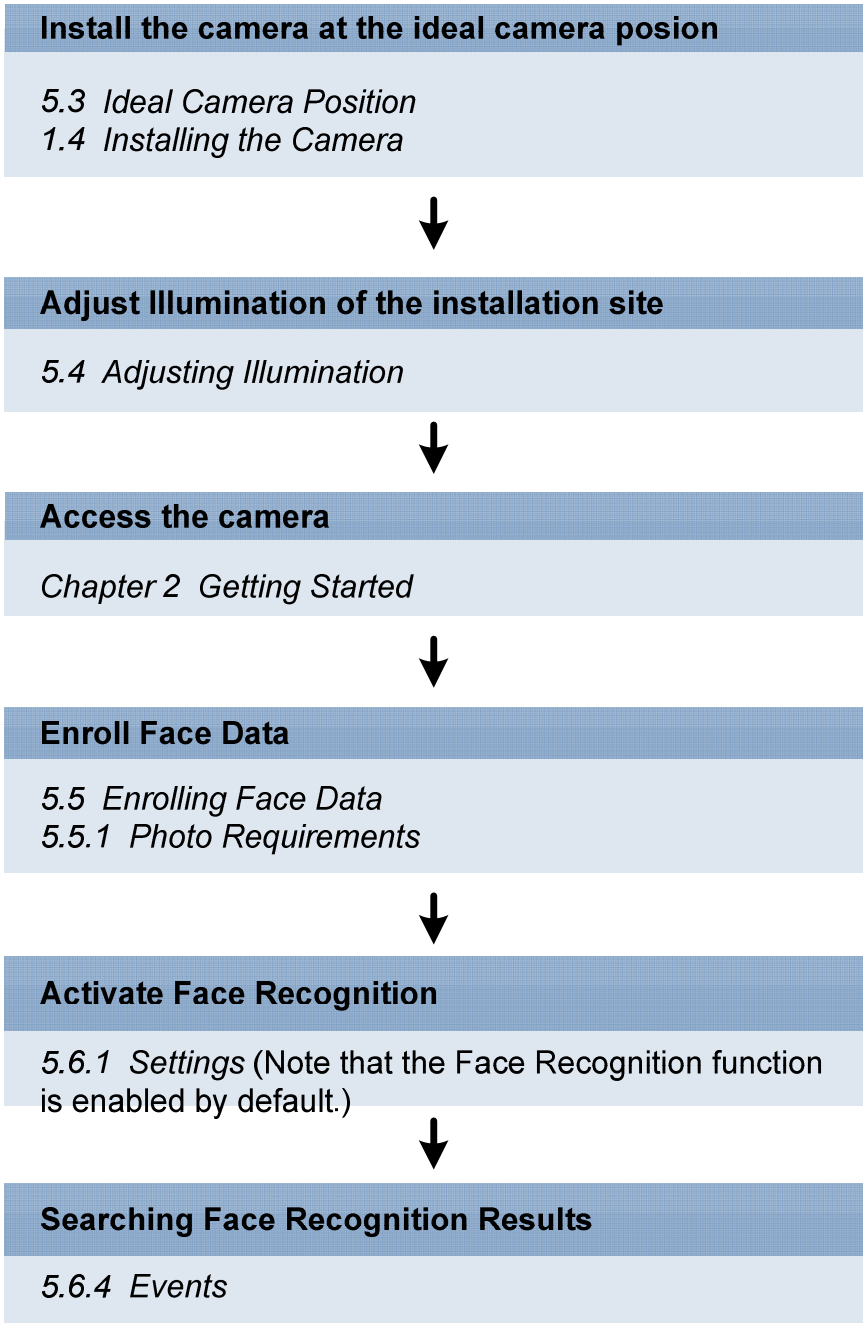


Figure 5-2

5.2 安装流程图

按照逐步指南设置人脸识别，并在需要时参考相关部分。

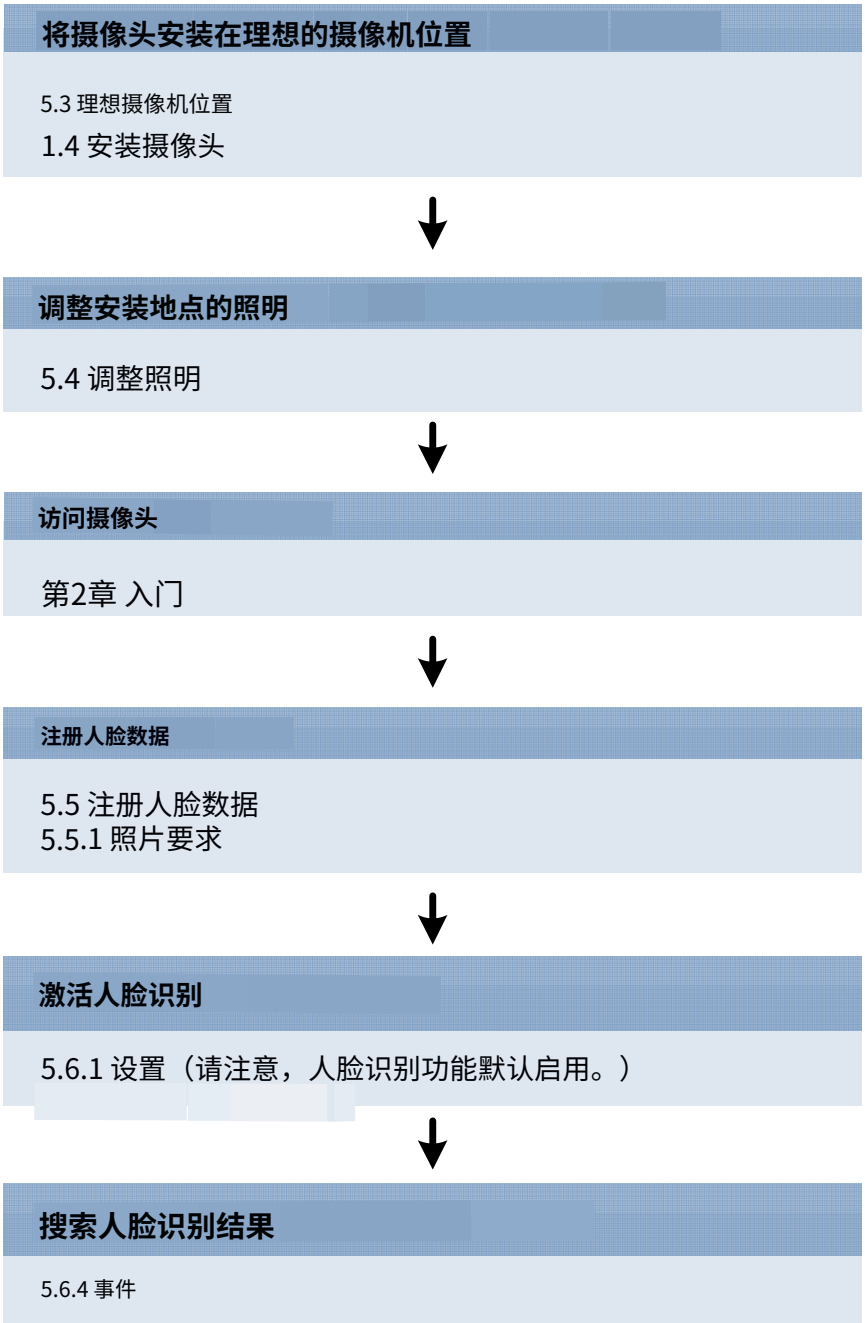


图 *5-2*

5.3 Ideal Camera Position

Face recognition works best when the camera is properly aligned with the face of the recognition target. When installing the camera, make sure to take the relevant environmental factors into account, such as height, distance, focus and range, to achieve optimal recognition results. A well-lit hallway is an example of an ideal location, where the direction of movements of the recognition targets can be easily predicted. Make sure you meet the criteria below when installing the camera:

Less Ideal Installation Scenario	Recommended Installation Scenario
A height of > 2 m or < 2 m	An approximate height of 2 m
A distance of > 4 m or < 4 m	An approximate distance of 4 m
Wide angle end	Telephoto end
> 15° of lateral deviation	< 15° of lateral deviation
Results	
Less Accuracy	**Better Accuracy**

- **Height & Distance:** The more aligned the camera is to the front view of the face, the better the recognition results. Mount the camera at a 15-degree angle to the face of the recognition targets, or at a height of approximately 2 m (6.56 ft). The recognition result is at its best at a distance of approximately 4 m (13.12 ft).

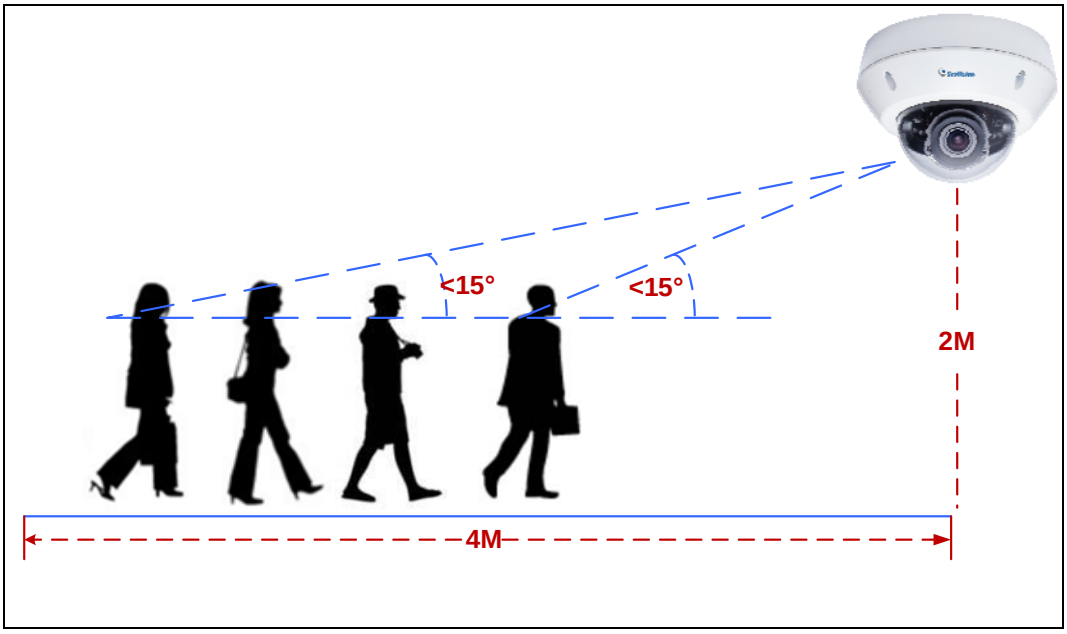


Figure 5-3

5.3 理想摄像机位置

人脸识别在摄像头与识别目标的面部正确对齐时效果最佳。安装摄像头时，请确保考虑相关环境因素，如高度、距离、焦距和范围，以实现最佳识别效果。一个光线充足的走廊是理想位置的一个例子，在这里可以轻松预测识别目标的移动方向。安装摄像头时，请确保满足以下标准：

不理想的安装场景	推荐的安装场景
高度 > 2 米 或 < 2 米	大约 2 米的高度
距离 > 4 米 或 < 4 米	大约 4 米的距离
广角端	长焦端
> 15° 的横向偏差	< 15° 的横向偏差
结果	
较低的准确性	**更好的准确性**

- **高度与距离:**摄像头与面部正视图越对齐，识别结果越好。将摄像头安装在与识别目标面部成 15 度角，或高度大约为 2 米（6.56 英尺）。在大约 4 米（13.12 英尺）的距离下，识别结果最佳。

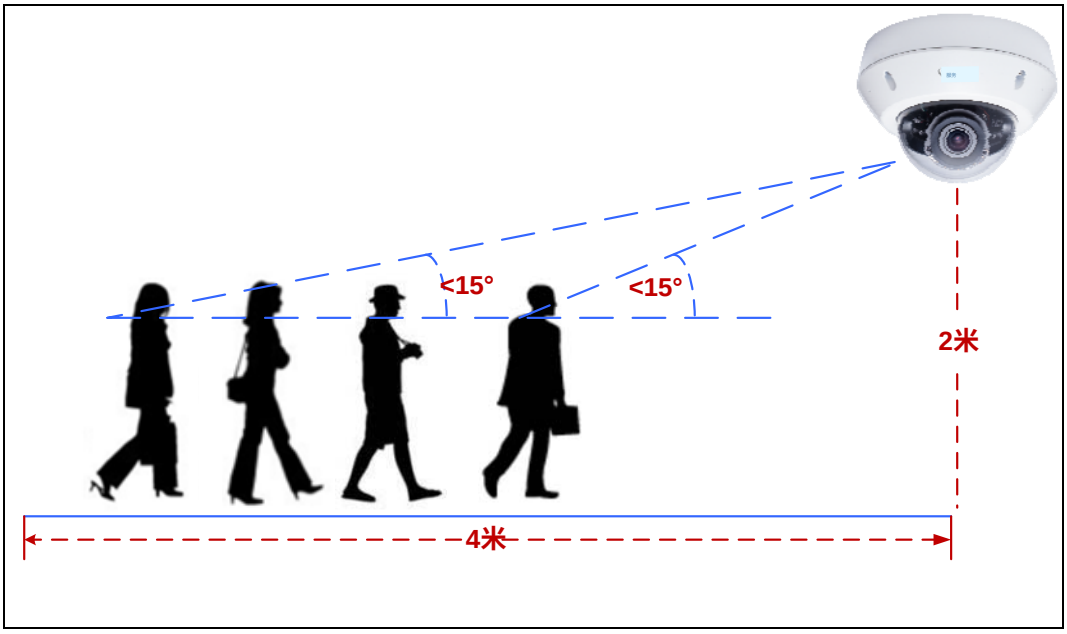


图 *5-3*

- **Focus:** A large depth of field not only ensures an appropriate image size for the faces of the recognition targets, but also allows them to stay in focus for a longer period of time, thereby increasing the recognition accuracy. Calibrate the lens at the telephoto end for effective recognition at its optimal recognition distance of 4 m (13.12 ft).

Figure 5-4

- **Range:** The recognition result is at its best when the target walks straight to the camera. When the target deviates laterally, recognition is still possible as long as **the target stays within a 15 degree** range. The camera is unable to recognize the faces when the deviation exceeds 15 degrees.

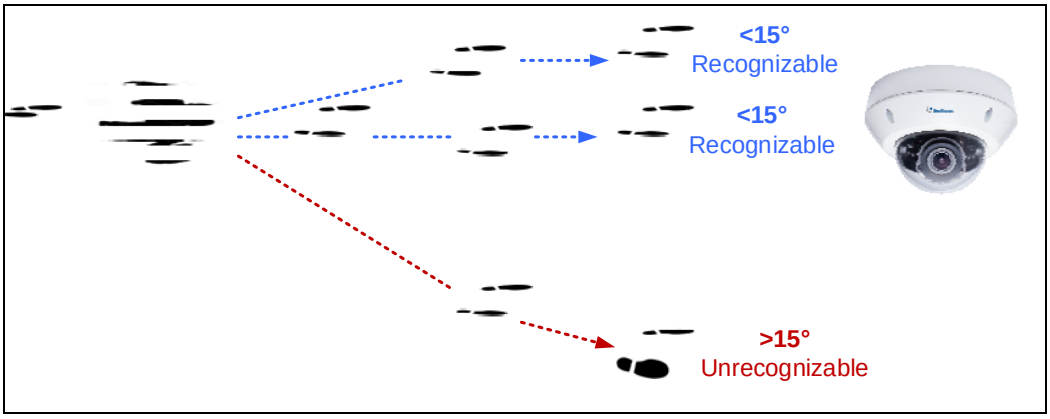


Figure 5-5

- 焦距:较大的景深不仅确保了识别目标面部的适当图像大小，还允许它们在更长时间内保持清晰，从而提高识别准确性。在远摄端校准镜头，以便在最佳识别距离4米（13.12英尺）进行有效识别。

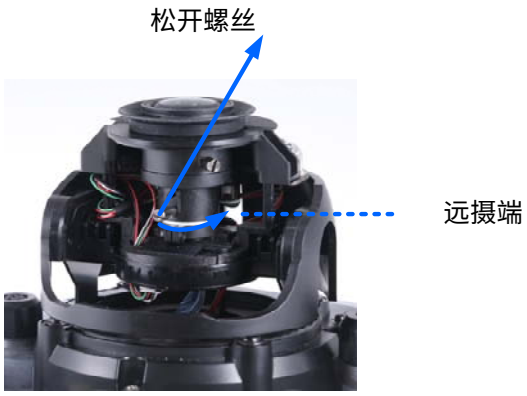


图 *5-4*

- 范围:当目标直向摄像头行走时，识别结果最佳。
  当目标横向偏离时，只要目标保持在**15**度范围内，仍然可以进行识别。当偏离超过**15**度时，摄像头无法识别面部。

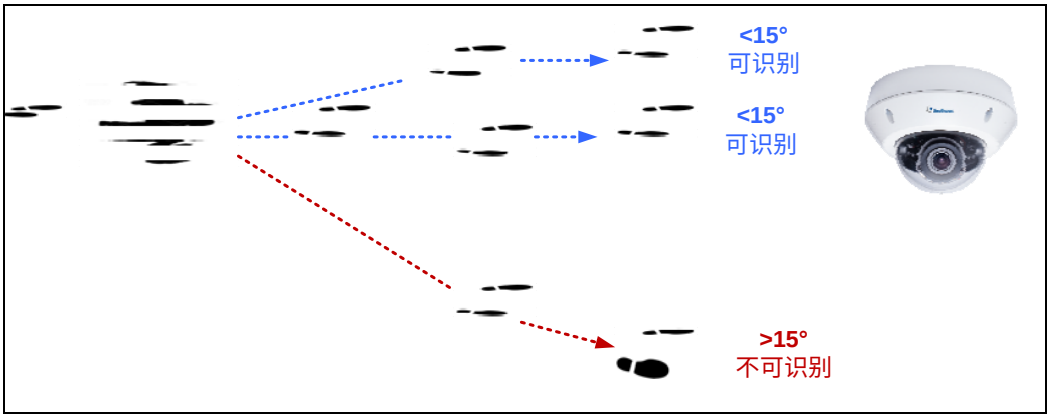


图 *5-5*

5.4 Adjusting Illumination

After installing the camera properly, it is required to adjust the environment's lighting since the recognition process may vary depending on the illumination. Follow the guidelines below to set up the environment's lighting according to **Daytime**, **Nighttime** and **Low Illumination (WDR)** recognition needs.

5.4.1 Daytime

Make sure the following criteria are met to achieve optimal recognition performance in daytime:

Less Ideal Installation Scenario	Recommended Installation Scenario
Insufficient Lighting	Sufficient Lighting
Fast Moving Target	Target Moving at a Constant Speed (1/60 Second Shutter Speed)
Results	
Less Ideal Recognition Performance	**Best Recognition Performance**

- **Lighting:** Sufficient light is required for effective recognition results, as moving targets often cause motion-blurred images under insufficient lighting.
- **Shutter Speed:** Adjust the shutter speed to 1/60 seconds manually when the camera is installed in places with high flow of people such as hallways.

5.4 调整照明

在正确安装摄像头后，需要调整环境的照明，因为识别过程可能会因照明而有所不同。请遵循以下指南，根据白天、夜间和**低照明（WDR）**的识别需求设置环境照明。

5.4.1 白天

确保满足以下标准，以在白天实现最佳识别性能：

不理想的安装场景	推荐的安装场景
照明不足	照明充足
快速移动目标	目标以恒定速度移动 （1/60秒快门速度）
结果	
识别性能较差	**最佳识别性能**

- 照明：有效识别结果需要充足的光线，因为在照明不足的情况下，移动目标常常会导致运动模糊的图像。
- **快门速度：**当摄像头安装在人员流动量大的地方（如走廊）时，请手动将快门速度调整为1/60秒。

5.4.2 Nighttime

If you found recognition results to be less optimal at night, you can use **extra IR LED tubes** as a lighting aid for the camera or **create extra face data under IR LED illumination**. Both methods can be applied to achieve optimal face recognition results at night.

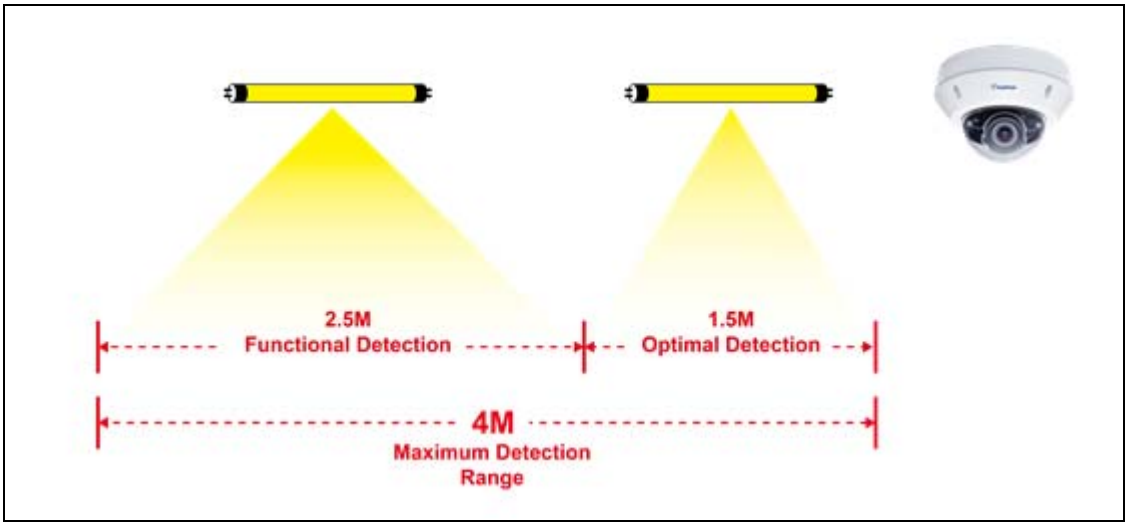


Figure 5-6

- **Extra IR LED Tubes:** Install additional IR LED tubes at the surveillance site to illuminate the recognition range.

Internal IR LED only	**With the aid of extra IR LED Tube**
	
Relying solely on the internal IR LED can cause overexposure, which may lead to misrecognition	Increasingly better recognition results occur under stable illumination of extra IR LED tubes.

Figure 5-7

- **Enroll face data under special light conditions:** Enroll additional face data for objects under IR LED illumination. See *5.5 Enrolling Face Data*.

5.4.2 夜间

如果您发现夜间的识别结果不够理想，可以使用**额外的红外LED灯管**作为摄像头的照明辅助，或**在红外LED照明下创建额外的人脸数据**。这两种方法可以应用于夜间实现最佳的人脸识别效果。

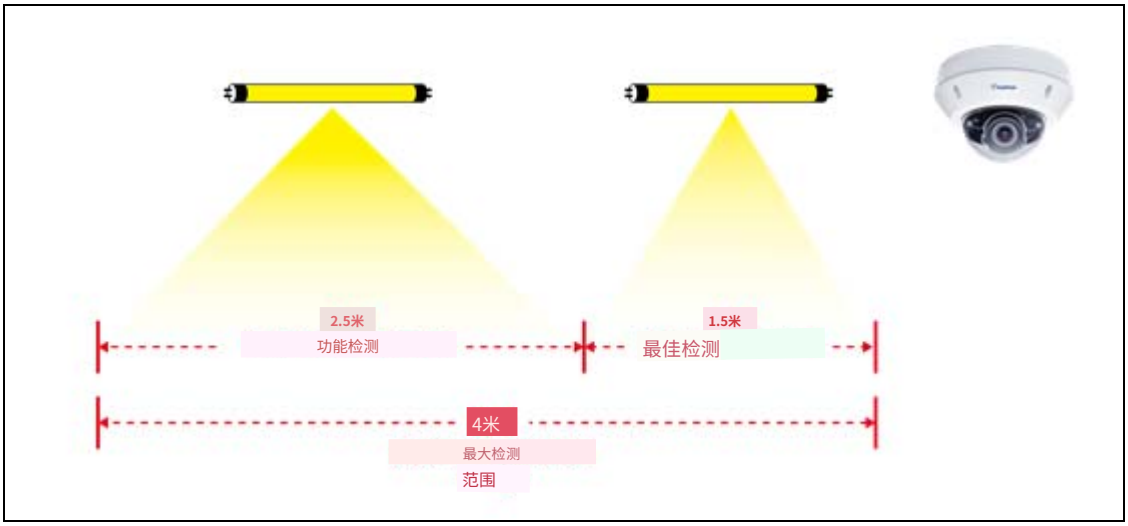


图 *5-6*

- **额外的红外LED管：**在监控现场安装额外的红外LED管以照亮识别范围。

仅内部红外LED

仅依靠内部红外LED可能导致过度曝光，从而导致误识别。

借助
额外的红外LED管

在额外的红外LED管稳定照明下，识别结果会越来越好。

图 *5-7*

- **在特殊光照条件下登记人脸数据：**为在红外LED照明下的物体登记额外的人脸数据。见*5.5* 登记人脸数据。

5.4.3 Low Illumination (WDR)

Intense lighting contrast in an environment may cause ineffective recognition results. In this case, there are two ways to compensate for recognition accuracy:

- **Apply Wide Dynamic Range (WDR) or Back Light Compensation (BLC):** By default, the WDR function is enabled. If recognition results are still ineffective with the WDR on, adjust the **WDR** settings to **Strong** and enable the **BLC** settings. To adjust WDR or BLC settings, see *3.2 The Control Panel of Live View Window*.

Without Applying WDR or BLC	WDR	WDR (Strong) and BLC
		

Figure 5-8

- **Enroll face data under special light conditions:** Enroll additional face data for objects under WDR and BLC illumination. See *5.5 Enrolling Face Data.*

5.4.3 低照明（WDR）

环境中的强烈光照对比可能导致识别效果不佳。在这种情况下，有两种方法可以补偿识别准确性：

- **应用宽动态范围 (WDR) 或背光补偿 (BLC)：**默认情况下，WDR 功能已启用。如果在 WDR 开启的情况下识别结果仍然无效，请将 **WDR**设置调整为强并启用 **BLC**设置。要调整 WDR 或 BLC 设置，请参见*3.2* 实时视图窗口的控制面板。

图 *5-8*

- **在特殊光照条件下登记人脸数据：**为在 WDR 和 BLC 照明下的对象登记额外的人脸数据。请参见*5.5* 登记人脸数据。

5.5 Enrolling Face Data

After the camera and the environment's lighting are set, it is required to create the face data by adding photos of the persons to be recognized into the Face Database of the camera.

To enroll Face Data:

1. Click **System Settings**. Then in the left menu, click **Events and Alerts**, select **Face Recognition** and click the **Management** tab.

2. Click Add new record on the upper-right corner. A dialog box appears.

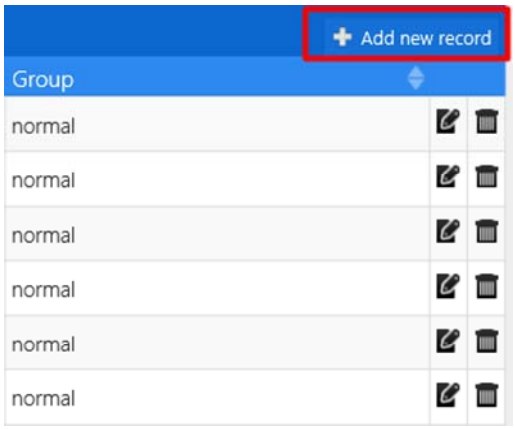


Figure 5-9

5.5 登记人脸数据

在摄像头和环境的照明设置完成后，需要通过将要识别的人员的照片添加到摄像头的人脸数据库中来创建人脸数据。

要登记人脸数据：

1. 点击**系统设置**。然后在左侧菜单中，点击**事件和警报**，选择**人脸识别**并点击管理 tab。

2. 点击 

在右上角。将出现一个对话框。

图 *5-9*

3. Fill out the following information:

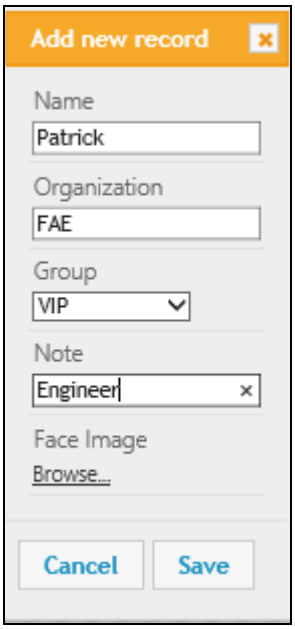


Figure 5-10

- **Name:** Type a desired name for the person.
- **Organization:** Type a desired organization name for the person.
- **Group:** Select from a list of three groups in which the person shall be categorized under. The three groups include **VIP**, **Normal**, **Unwelcomed**. To add more groups, see [Group Management], *5.6.1 Settings*.
- **Note:** Type any additional remarks.
- **Browse:** Click to add portrait photos or snapshots, as face recognition data, for the person. Make sure the photos meet all the requirements as specified in *5.5.1 Photo Requirements*.

4. Click **Save** to save the face data. If the photos selected don't meet the required criteria, an error message will appear.

5. To add photos to or edit an existing profile, click the **Edit Record** icon in Figure 5-9.

3.填写以下信息：

图 *5-10*

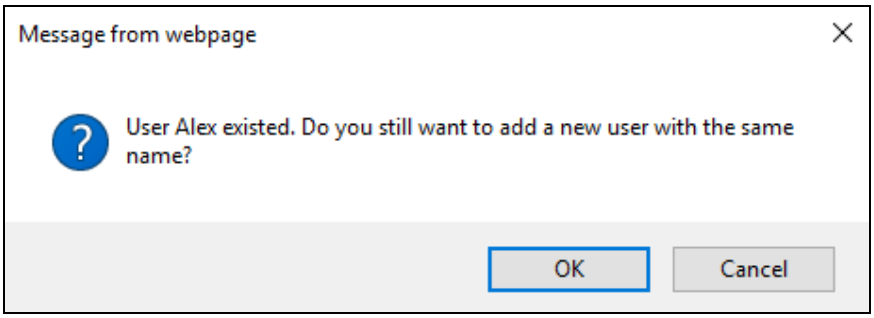
- 姓名：输入所需的姓名。
- **组织：**输入所需的组织名称。
- 组：从三个组中选择，确定该人应归类于哪个组。这三个组包括 **VIP**，正常，不受欢迎。要添加更多组，请参见[组管理]，*5.6.1* 设置。
- 注意：输入任何附加备注。
- 浏览**:**点击添加人像照片或快照，作为该人的人脸识别数据。确保照片符合*5.5.1* 照片要求中规定的所有要求。

4.点击保存以保存人脸数据。如果选择的照片不符合要求，将出现错误信息。

5.要添加照片或编辑现有档案，请点击**编辑记录**图标 在图5-9中。

Note:

1. The group settings can be used to trigger output alarms on the camera, and on the VMS through a GV-I/O Box. For related settings, see *5.6.5 Trigger Area* in the manual and *Configuring Face Setting*, *Chapter 3, GV-VMS User's Manual* respectively.
2. It is possible to create two face data with identical names in the database. In this case, simply click **OK** when you are prompted by the pop-up message.



注意：

1.组设置可用于触发摄像头上的输出警报，以及通过GV-I/O盒在视频管理系统上触发。有关设置，请参见*5.6.5* 触发区域和第*3*章，GV-VMS用户手册中的配置人脸设置。

2.在数据库中可以创建两个具有相同名称的人脸数据。在这种情况下，当弹出消息提示您时，只需点击确定。

5.5.1 Photo Requirements

For face recognition to work, it is required for the photos to meet the following criteria:

- Each photo should consist of only one face.
- Size of the face in the photo is around 120 ~ 150 pixels.
- The file size of the photo cannot exceed 350 KB.
- Only JPG / JPEG format is supported.
- Make sure the face of the person does not occupy more than 50% of the image.

See the examples below:

Best Example	Example of Failure - 1	Example of Failure - 2
		
The face occupies 50% of the image. The size of the person's face is around 120 ~150 pixels.	The face occupies more than 50% of the image.	The size of the person's face is less than 120 pixels.

Figure 5-11

The accuracy of the face recognition can be improved by conforming to the suggestions below:

- Enroll 5 or more photos for each person with different angles
- Make sure the lighting is sufficient to reduce shadows on faces.
- Avoid glare from the glasses that obscures the eyes.
- Take the photo of the person from a distance of about 1 ~ 1.5 meters (3.2 ~ 4.9 feet) away from the camera to minimize image distortions.

5.5.1 照片要求

为了使人脸识别正常工作，照片必须满足以下标准：

- 每张照片应仅包含一个人脸。
- 照片中人脸的大小约为120 ~ 150像素。
- 照片的文件大小不能超过350 KB。
- 仅支持JPG / JPEG格式。
- 确保照片中人的脸部不占图像的50%以上。

请参见以下示例：

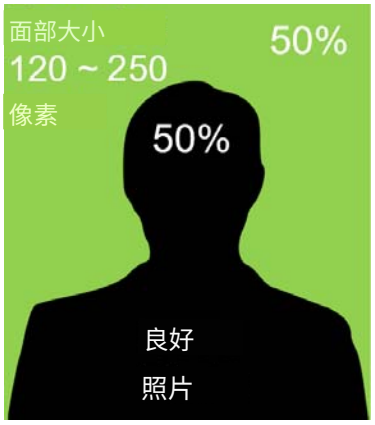
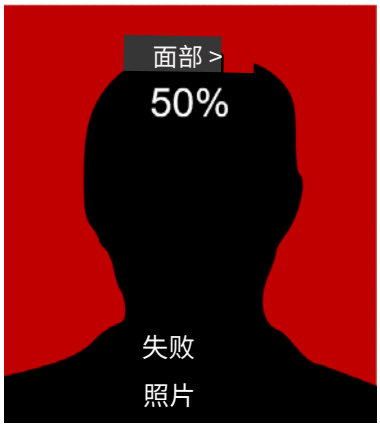
最佳示例	失败示例 - 1	失败示例 - 2
		
人脸占图像的50%。人脸的大小约为120 ~ 150像素。	人脸在图像中占据超过50%。	人脸的大小小于120像素。

图*5-11*

通过遵循以下建议，可以提高人脸识别的准确性：

- 为每个人注册5张或更多不同角度的照片
- 确保光线充足，以减少面部阴影。
- 避免眼镜反光遮挡眼睛。
- 从距离摄像头约1 ~ 1.5米（3.2 ~ 4.9英尺）的地方拍摄，以最小化图像失真。

More photos with different variations and under different lighting conditions can increase the recognition performance. It is recommended to include at least a **front view (close view and distant view)**, a **tilted-left view**, a **tilted-right view**, and a **20 degree view from above view** per face ID.

Front View (Close View)	Front View (Distant View)	Tilted-Left View	Tilted-Right View	20 Degree View from above view
				

Figure 5-12

See the table below for more examples. You can enroll a maximum of **20** photos per Face ID.

Smiling View	Glasses Removed view	20 Degree View from below	Internal IR LED (with Glasses)	Internal IR LED (Glasses Removed)
				

Figure 5-13

Note: You can take the portraits with different sources of light, such as IR LED, WDR or Back Light Compensation.

Certain articles and / or angle of view may pose limitations to the accuracy of face recognition. See *Appendix B. Limitations to Face Recognition* to avoid them if the recognition results are still ineffective.

更多不同变化和不同光照条件下的照片可以提高识别性能。建议每个面部ID至少包括一个**正面视图（近距离和远距离视图）**，一个**左倾视图**，一个**右倾视图**，以及一个**从上方20度的视图**。

正面视图 (近距离视图)	**正面视图 (远距离视图)**	**左倾 视图**	**右倾 视图**	**20度视图 从上方 视图**
				

图*5-12*

请参见下表以获取更多示例。您可以为每个面部识别ID注册最多 **20**张照片。

微笑视图	**佩戴眼镜 去掉眼镜的视图**	**20度视图 从下方**	**内部红外LED (佩戴眼镜)**	**内部红外LED (眼镜 已移除)**
				

图 *5-13*

注意:您可以在不同光源下拍摄肖像，例如红外LED、宽动态范围或背光补偿。

某些物体和/或视角可能会对人脸识别的准确性造成限制。
请参阅附录*B.* 人脸识别的限制以避免在识别结果仍然无效的情况下出现这些问题。

Using Snapshots

If for any reason standard portrait photos cannot be taken, you can increase the recognition performance by using snapshots taken from the surveillance site. Possible scenarios may include:

- **Nighttime Recognition:** where the installation site may not be subjected to IR LED enrollment conveniently.
- **Special Entities:** who are unwelcomed or who refuse to comply with the standard enrollment process.
- **Frequently Misrecognized Entities:** whose personal photos were not taken properly, which leads to deficient recognition results.

To use **snapshots from live videos**, see *3.3 Snapshot of a Live Video.*
To use **snapshots from recorded videos**, see *3.4 Video Recording.* Capture the desired image and use it as the source for face data enrollment.
To use **snapshots from events**, go to **Event and Alerts** and click **Events**. Right-click the snapshot under **Image** (Snapshot of Events, Figure 5-17) and click **Save image as…** to save the cropped image as the future source for face data enrollment. See *5.6.4 Events*.

After the snapshots are saved, edit them so that they meet the requirements as specified in *5.5.1 Photo Requirements*.

使用快照

如果由于任何原因无法拍摄标准肖像照片，您可以通过使用从监控现场拍摄的快照来提高识别性能。可能的场景包括：

- **夜间识别：**安装现场可能无法方便地进行红外LED注册。
- **特殊实体:**不受欢迎的或拒绝遵循标准注册流程的人员。
- **经常被误识别的实体：**其个人照片未正确拍摄，导致识别结果不佳。

要使用**实时视频中的快照**，请参见*3.3* 实时视频快照。要使用**录制视频中的快照**，请参见*3.4* 视频录制。捕获所需图像并将其用作人脸数据注册的来源。

要使用事件中的快照，请转到事件和警报并点击事件。右键点击图像下的快照（事件快照，图 5-17）并点击另存为**...**以将裁剪后的图像保存为未来的人脸数据注册源。请参见5*.6.4* 事件。

快照保存后，请编辑它们以满足 *5.5.1* 照片要求中规定的要求。

5.6 Face Recognition Basic Settings

5.6.1 Settings

After the camera is installed, select **Enable** to activate face recognition and click **Apply**.

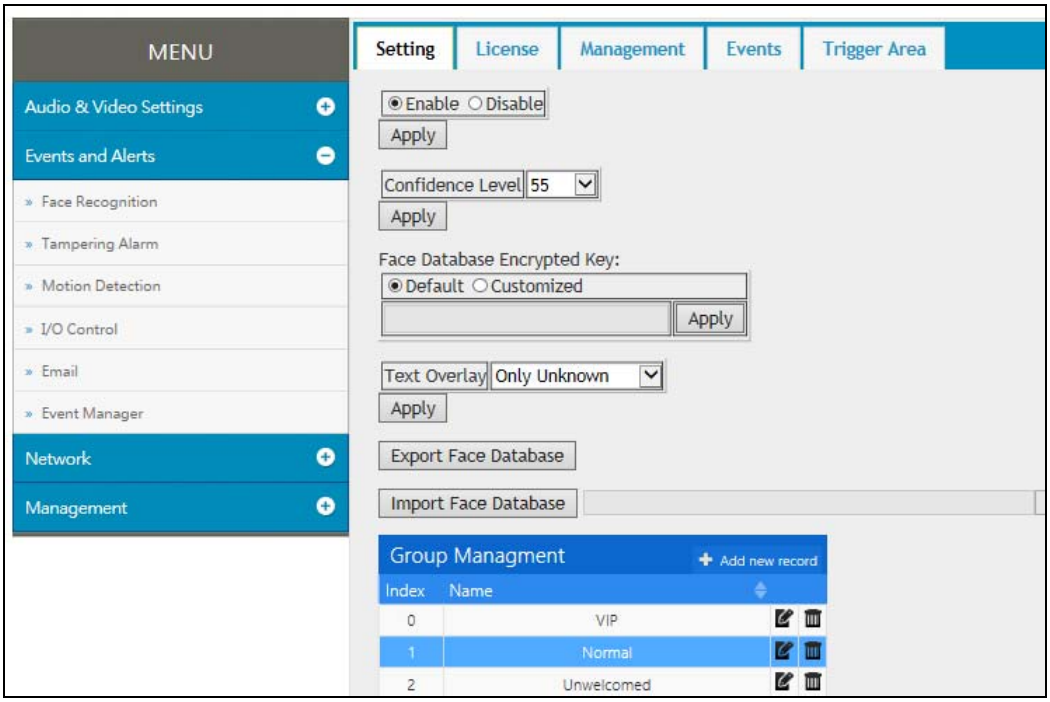


Figure 5-14

[Confidence Level] Select the confidence level for different precision requirements.

- At level 50, the camera identifies similar faces from the face database when a person passes by.
- At level 55, the camera recognizes the passing person with increased accuracy.
- At level 60, it is required for the person to be seen directly in front of the camera at a proper distance with his / her face captured under good lighting condition for the recognition to work.

[Face Database Encrypted Key] Export and import the database with encryption. Select **Customized** and type an encrypted key, with the maximum length of 20 characters containing letters and/or numbers, to protect the exports with encryption. When importing an encrypted database, a valid key to be entered in this field is required to open it.

[Text Overlay] Select whether to display face data on the live view, or only display the face data of recognized (known) persons, or only the text “unknown” for the persons failed to be recognized.

5.6 人脸识别基本设置

5.6.1 设置

安装摄像头后，选择启用以激活人脸识别并点击应用。

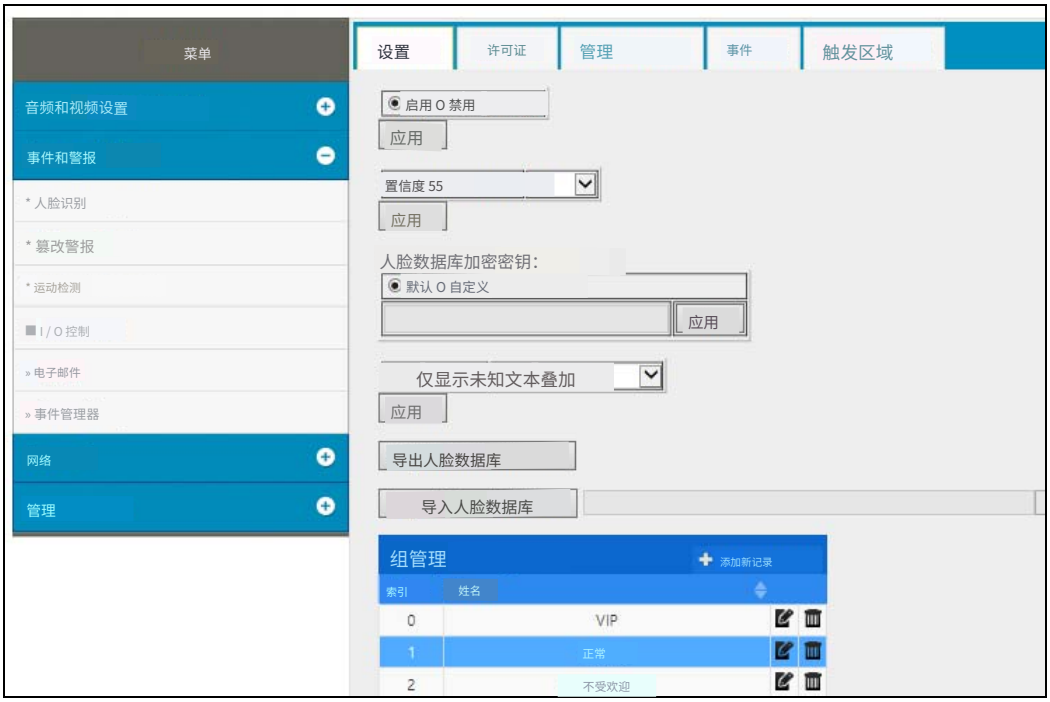


图 *5-14*

[置信度]选择不同精度要求的置信度级别。

- 在 50 级时，摄像头识别出人脸数据库中的相似面孔，当一个人经过时。

- 在 55 级时，摄像头以更高的准确性识别经过的人。
- 在 60 级时，要求该人正面直接出现在摄像头前，且在适当距离内，面部在良好光照条件下被捕捉，以便识别能够正常工作。

[人脸数据库加密密钥]导出和导入加密的数据库。选择自定义并输入一个加密密钥，最大长度为20个字符，包含字母和/或数字，以保护导出数据的加密。导入加密数据库时，必须在此字段中输入有效密钥以打开它。

[文本叠加]选择是否在实时视图中显示人脸数据，或仅显示已识别（已知）人员的人脸数据，或仅显示“未知”文本以表示未被识别的人员。

[Export Face Database] Export the face database of the camera into a zip file and save it on your PC, to be backed up or used for other cameras.

[Import Face Database] Import a face database into the camera.

[Group Management] Click  to edit the name of the existing face groups, or click 

to add a face group. Up to 32 groups are supported including the 3 default groups, VIP, Normal and Unwelcome.

IMPORTANT:

1. Importing a face database into the camera will replace the existing database. Back up the existing database before importing a new *dat*abase into the camera.
2. After the new database is imported, make sure that your local computer is supported by Abode Flash Player. Otherwise, the face database (Figure 5-16) and event log (Figure 5-17) will become inaccessible.
3. Any changes made to the group names directly from the camera will not be reflected on those of GV-VMS. If your camera is connected to GV-VMS, add or edit the group names on GV-VMS which will synchronize with the camera's face database.
4. Through GV-VMS, you can only modify the first 10 group names.

[导出人脸数据库]将摄像头的人脸数据库导出为zip文件并保存到您的电脑上，以便备份或用于其他摄像头。

[导入人脸数据库]将人脸数据库导入到摄像头中。

[组管理]点击  以编辑现有的人脸组名称，或点击 + 添加新记录 以添加一个人脸组。最多支持32个组，包括3个默认组：VIP、正常和不受欢迎。

重要提示：

1.将人脸数据库导入到摄像头中将替换现有数据库。在将新的数据库导入到摄像头之前，请备份现有数据库。

2.导入新数据库后，请确保您的本地计算机支持Adobe Flash Player。否则，人脸数据库（图5-16）和事件日志（图5-17）将无法访问。

3.直接从摄像头对组名称所做的任何更改将不会反映在GV-VMS上。如果您的摄像头连接到GV-VMS，请在GV-VMS上添加或编辑组名称，这将与摄像头的人脸数据库同步。

4.通过GV-VMS，您只能修改前10个组名。

5.6.2 License

The license key is programmed by default. When the license key is programmed properly, the settings page will show **Face recognition license activated**.

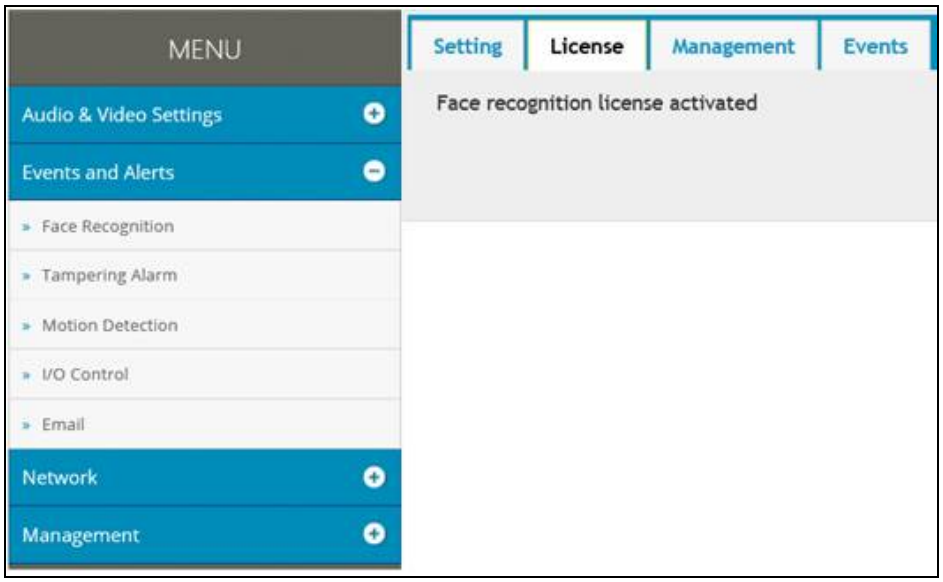


Figure 5-15

5.6.2 许可证

许可证密钥默认已编程。当许可证密钥正确编程时，
设置页面将显示**人脸识别许可证已激活。**

图*5-15*

5.6.3 Management

In the **Management** section, you can enroll, review, search and edit the enrollment data of a specific entity, including pictures and name.

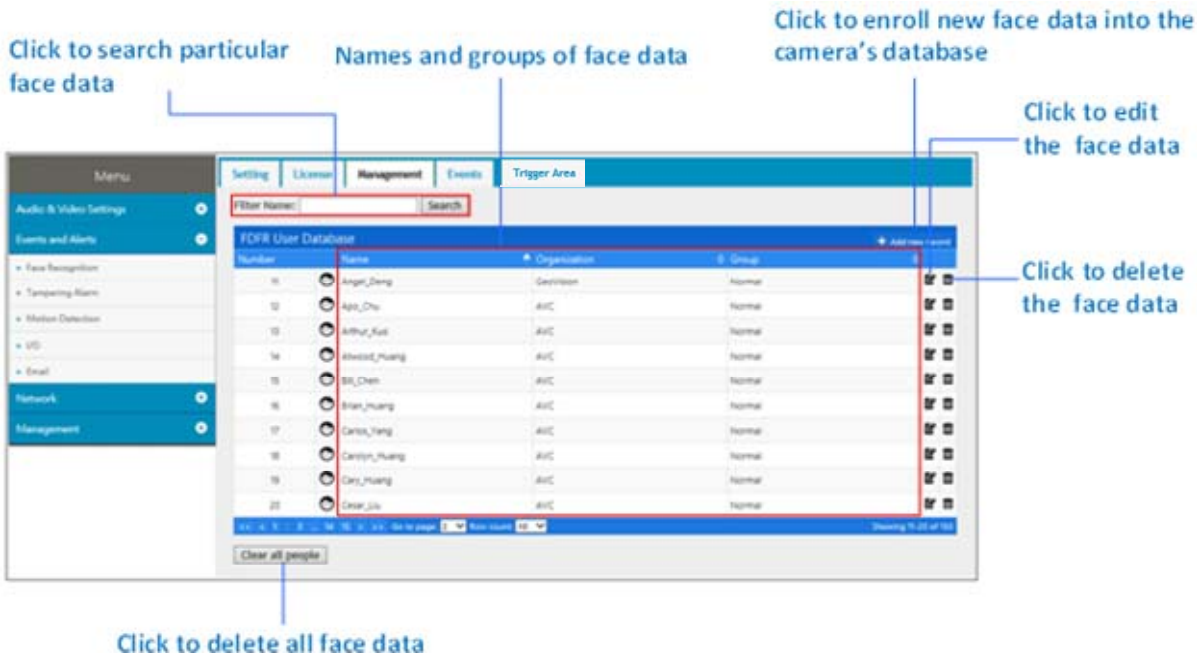


Figure 5-16

[Filter Name] Type **Name** and click **Search** to retrieve the face data of a particular person.
[Add new record] Click to create new face data. *See 5.5 Enrolling Face Data*.

[Edit] Click  to edit the face data. *See 5.5 Enrolling Face Data*.

[Delete] Click  to delete the face data.

[Clear all people] Click to delete all face data in the face database.

Note: When using the Search function, the results will include all entries containing the keyword searched for, unless further specified. Suppose the face database contains entries of “Alvin Martin” and “Alvin Huang”, both results are shown when using “Alvin” as the keyword. When the keyword is further specified as “Alvin Huang”, “Alvin Martin” is excluded from the search results.

5.6.3 管理

在管理部分，您可以登记、查看、搜索和编辑特定实体的登记数据，包括图片和姓名。

图*5-16*

[筛选名称]类型名称并点击搜索以检索特定人员的人脸数据。

[添加新记录]点击以创建新的人脸数据。参见*5.5*登记人脸数据。

[编辑]点击 以编辑人脸数据。参见*5.5*登记人脸数据。

[删除]点击 以删除人脸数据。

[清除所有人员]点击以删除人脸数据库中的所有人脸数据。

注意:使用搜索功能时，结果将包括所有包含搜索关键字的条目，除非另有说明。假设人脸数据库包含“阿尔文・马丁”和“阿尔文・黄”的条目，使用“阿尔文”作为关键字时，将显示这两个结果。当关键字进一步指定为“阿尔文・黄”时，“阿尔文・马丁”将从搜索结果中排除。

5.6.4 Events

In the **Events** section, you can search the face event log, enroll faces and synchronize with face databases of other cameras. The camera keeps the events for 7 days or up to 160,000 events. After reaching either the 7 days or the 160,000 events quota, the oldest event is recycled.

Note: When applying Face Recognition, one camera can only be connected to one GV-VMS host at a time.

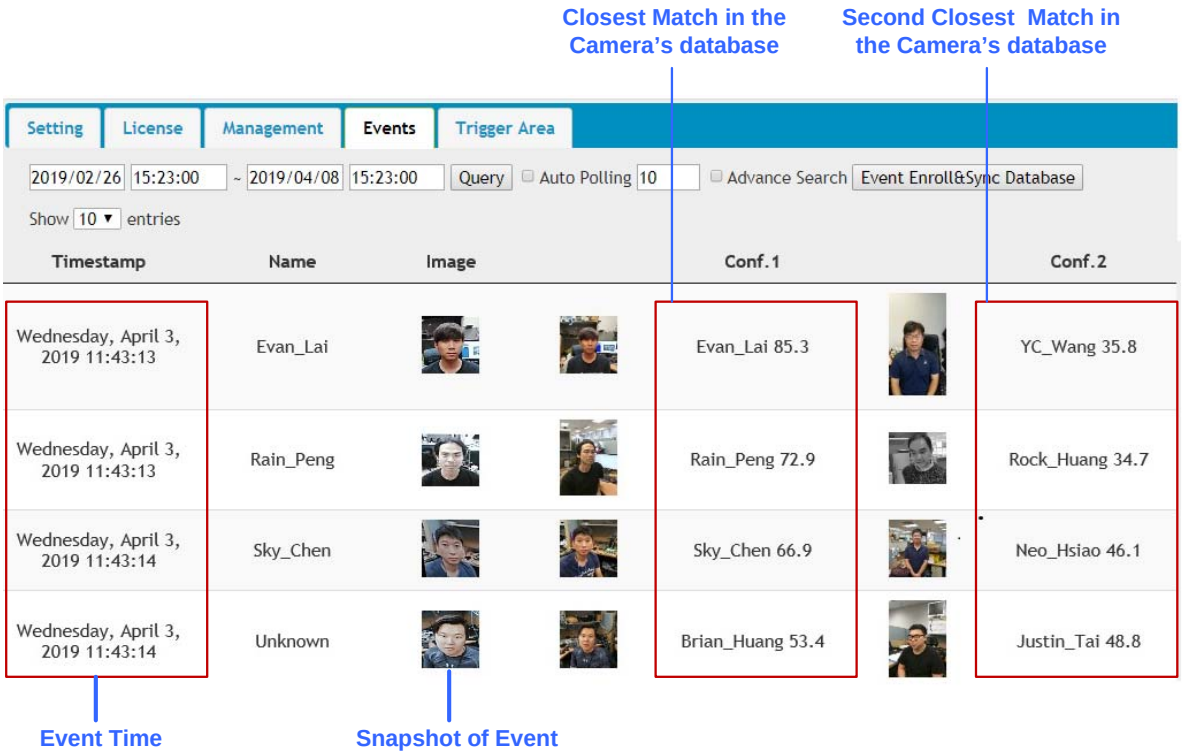


Figure 5-17

5.6.4.1 Searching for log data

1. Specify the **Start Time** and **End Time** of the log data.
2. Click **Query** to display the search results.
3. Choose to display **10**, **25**, or **50** query entries from the drop-down list.

5.6.4 事件

在事件部分，您可以搜索人脸事件日志，录入人脸并与其他摄像头的人脸数据库同步。摄像头保留事件7天或最多160,000个事件。在达到7天或160,000个事件配额后，最旧的事件将被回收。

注意：在应用人脸识别时，一台摄像头只能同时连接到一个GV-VMS主机。

图 *5-17*

5.6.4.1 搜索日志数据

1.指定日志数据的开始时间和结束时间。

2.点击查询以显示搜索结果。

3.从下拉列表中选择显示 **10**，**25**或 **50**条查询记录。

4. To locate specific events, select **Advanced Search**. The search field appears.

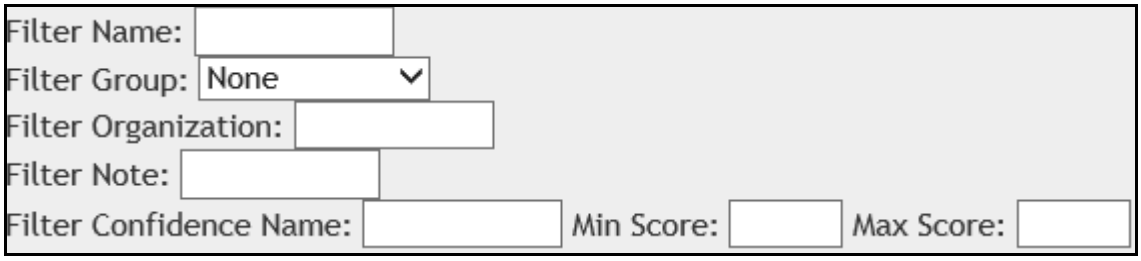


Figure 5-18

- **Filter Name:** Type the name of the person to filter for the person's recognition events.
- **Filter Group:** Select among **VIP, Normal** and **Welcomed** from the drop-down list to show the event log of all persons who belong to that group.
- **Filter Organization:** Type the organization to display all events with the members belonging to that organization.
- **Filter Confidence Name:** Type the name of the person and specify the confidence interval, from **Min Score** to **Max Score**, in which it is searched for. For instance, if *Jack* is searched with a *Min Score of 0* and *Max Score of 1*, all results of Jack recorded under **Conf0** to **Conf1** will be displayed.
  - ⊙ **Conf1:** The closest match, of Face ID from the database, to the recognition event.
  - ⊙ **Conf2:** The second-closest match, of Face ID from the database, to the recognition event.

5. To see the full snapshot of the event, double-click the snapshot under **Image**. Right-click the image to save the picture.

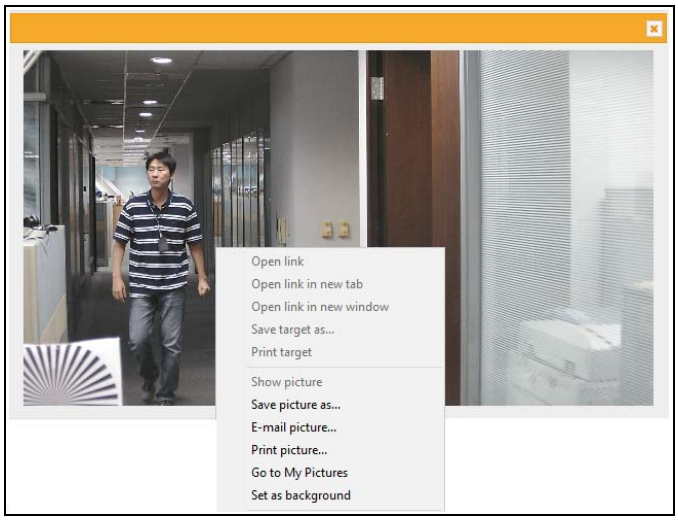


Figure 5-19

4.要定位特定事件，请选择**高级搜索**。搜索字段出现。

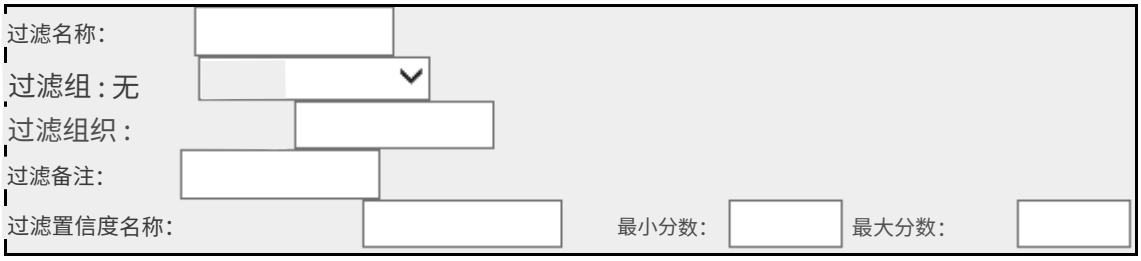


图 *5-18*

- **过滤器名称:**输入要过滤的人的姓名，以筛选该人的识别事件。

- **过滤器组:**从下拉列表中选择**VIP、正常**和欢迎，以显示属于该组的所有人的事件日志。
- **过滤组织：**输入组织名称以显示所有属于该组织的成员的事件。

- 过滤置信度名称：输入人员的名称并指定置信区间，从最小分数到最大分数进行搜索。例如，如果搜索杰克，最小分数为*0*，最大分数为*1*，所有记录在**Con***f0*到 **Con f***1*下的杰克的结果将被显示。

  ⊙ **Conf1**：数据库中与识别事件最接近的Face ID。

  ⊙ **Conf2**：数据库中与识别事件第二接近的Face ID。

5.要查看事件的完整快照，请双击图像下的快照。右键单击图像以保存图片。

图*5-19*

6. To update and show query results periodically, select **Auto Polling**. Type the time interval in minutes in the next field. See *Figure 5-18*.

Note:

1. The actual event time may vary depending on your computer's clock.
2. When using the Search function, the results will include all entries containing the keyword searched for, unless further specified. Suppose the face database contains events related to "Alvin Martin" and "Alvin Huang", both results are shown when using "Alvin" as the keyword. When the keyword is further specified as "Alvin Huang", "Alvin Martin" is excluded from the search results.
3. The texts and the snapshots of the face events have different recycle thresholds as they are stored in the camera's storage space and the memory card respectively. As a result, some older events may be displayed as text-only events when the snapshots are removed due to the memory card reaching its 3GB limit while the event texts are still in place.

5.6.4.2 Enrolling Faces

You can enroll a new face from recognition events or include the new face to an existing face ID.

1. On the Events page, click Event Enroll&Sync Database to open the Camera Manager page.
2. Specify the Start and End date and time and/or the filtering criteria to locate specific events. See Step 4 in *5.6.4.1 Search for log data*.
3. Click SEARCH to display the search results.
4. To enroll a new face, click ADD RECORD at the right side of every entry. The following dialog box appears, which functions are similar to those of Step 3 in *5.5 Enrolling Face Data*.

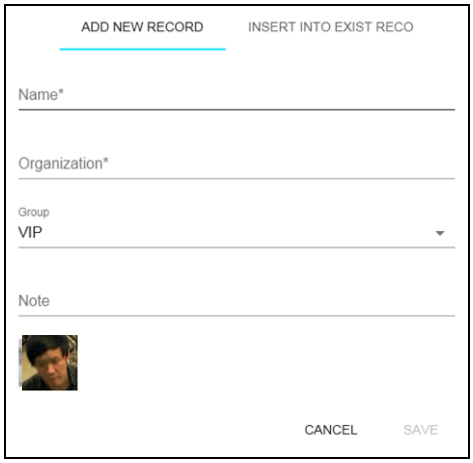


Figure 5-20

6.要定期更新并显示查询结果，请选择**自动轮询**。在下一个字段中输入时间间隔（以分钟为单位）。参见图 *5-18*。

注意：

1.实际事件时间可能会根据您计算机的时钟而有所不同。

2.使用搜索功能时，结果将包括所有包含搜索关键词的条目，除非另有说明。假设人脸数据库包含与“阿尔文・马丁”和“阿尔文・黄”相关的事件，使用“阿尔文”作为关键词时，两个结果都会显示。当关键词进一步指定为“阿尔文黄”时，“阿尔文・马丁”将被排除在搜索结果之外。

3.文本和人脸事件的快照具有不同的回收阈值，因为它们分别存储在摄像头的存储空间和存储卡中。
因此，当事件文本仍然存在时，由于存储卡达到3GB限制而移除快照，一些较旧的事件可能会显示为仅文本事件。

5.6.4.2 注册人脸

您可以从识别事件中注册新的人脸，或将新的人脸添加到现有的人脸识别ID中。

1.在事件页面上，点击 事件注册与同步数据库 以打开摄像机管理器页面。
2.指定开始和结束日期及时间和/或过滤条件以定位特定事件。请参见步骤4中的*5.6.4.1* 搜索日志数据。
3. 点击 搜索 以显示搜索结果。
4.要注册新的人脸，请点击 添加记录 在每个条目的右侧。将出现以下对话框，其功能类似于*5.5* 注册人脸数据中的步骤3。

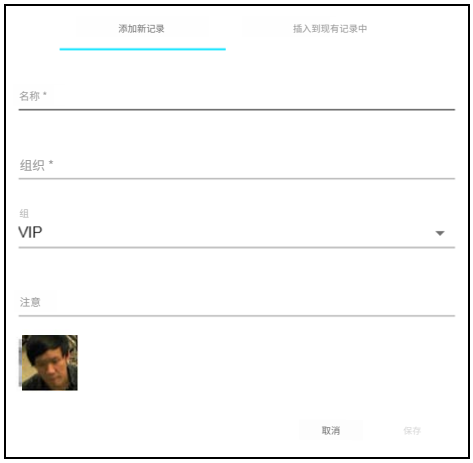


图*5-20*

5. To insert the new face into an existing record, click **INSERT INTO EXIST REC** at the top bar to open the following dialog box and search the name for the face.

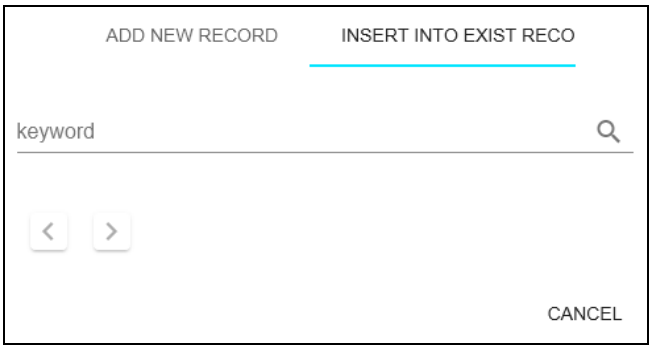


Figure 5-21

5.6.4.3 Synchronizing Face Databases

You can synchronize the face databases of more than one camera.

1. On the Events page, click 

to open the Camera Manager page.
2. Click **SYNC DATABASE** at the top bar to open the following dialog box.

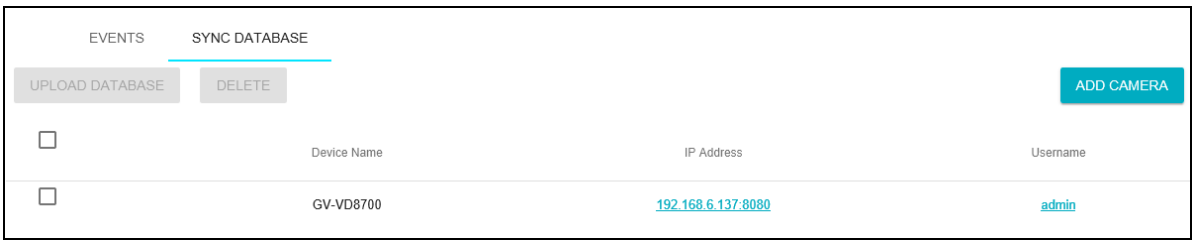


Figure 5-22

3. To add a camera, click 

, type its **IP Address**, **Username** and **Password** and click **Save**.
4. Select the desired camera(s) and click **UPLOAD DATABASE** to upload the current face database into the selected camera(s). When the uploading process is complete, a successful message will be shown.

5.要将新的人脸插入现有记录，请点击**插入到现有记录**在顶部栏以打开以下对话框并搜索人脸的名称。

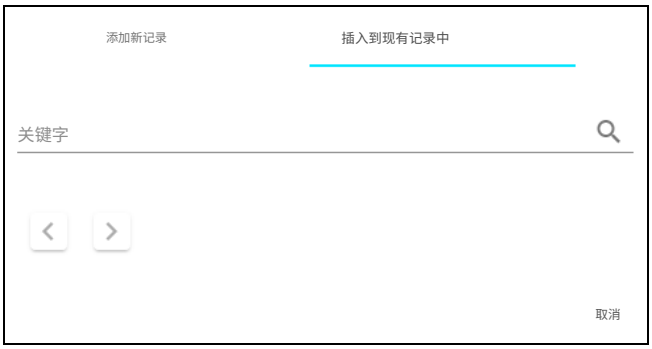


图 *5-21*

5.6.4.3 同步人脸数据库

您可以同步多个摄像头的人脸数据库。

1.在事件页面上，点击 事件注册与同步数据库 打开摄像机管理器页面。

2.点击**同步数据库**在顶部栏以打开以下对话框。

图 *5-22*

3. 要添加摄像头，请点击 添加摄像头，输入其 **IP地址** ，**用户名** 和 **密码** 并**点击保存。**

4.选择所需的摄像头并点击**上传数据库**将当前人脸数据库上传到所选摄像头。上传过程完成后，将显示成功消息。

5.6.5 Trigger Area

You can specify an area of interest to trigger face recognition, and an output device if a person from the selected groups appears on the live view and/or if the person fails to be recognized from the database.

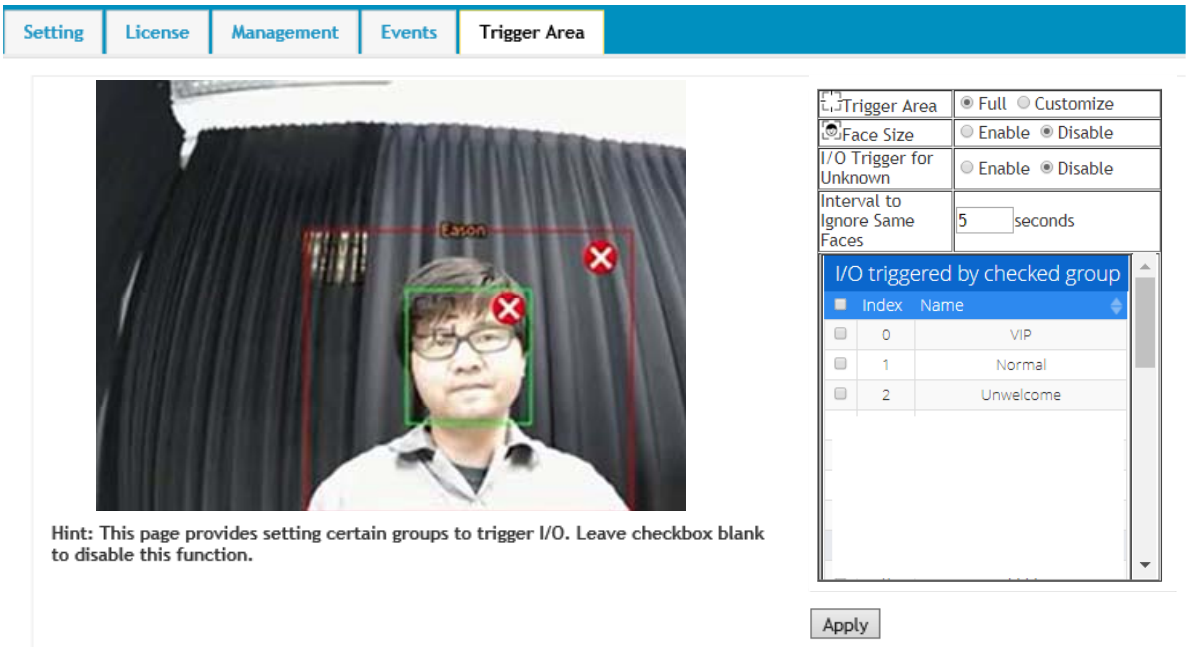


Figure 5-23

[Trigger Area] Select **Full** to fill the entire screen or select **Customize** to define an area of interest to trigger face recognition and/or an output device.

[Face Size] Select **Enable** to draw an area corresponding to the size of a face. The area outlined must be smaller than the face detected for a triggering action.

[I/O Trigger for Unknown] Trigger the output device when a person fails to be recognized from the database.

[Interval to Ignore Same Faces] Specify the time interval to prevent the output device from being triggered again if the same face is detected on the live view.

[I/O triggered by checked group] Select the face groups to be detected to trigger the output device.

5.6.5 触发区域

您可以指定一个感兴趣的区域以触发人脸识别，并在选定组中的人员出现在实时视图中和/或未能从数据库中识别出该人员时触发输出设备。

图 *5-23*

[触发区域]选择全部以填充整个屏幕，或选择自定义以定义一个感兴趣的区域以触发人脸识别和/或输出设备。

[人脸大小]选择启用以绘制一个与人脸大小相对应的区域。所勾勒的区域必须小于检测到的人脸，以便触发动作。

[未知的I/O触发]当一个人未能从数据库中被识别时触发输出设备。

[忽略相同人脸的间隔]指定时间间隔，以防止在实时视图中检测到相同人脸时再次触发输出设备。

[由选中组触发的I/O]选择要检测的面部组以触发输出设备。

Chapter 6 Recording and Playback

The camera can only record video and audio to the camera's memory card upon disconnecting from GV-DVR / NVR / VMS. To do so, make sure that the micro-SD card is inserted into the memory card slot (No.15, Figure 1-2), formatted (see *4.4.4 External Storage*) and enable the **Disconnection Record** function. For details, see *4.4.3 Tools*. To set up audio recording, see *4.1.2 Audio Settings*.

6.1 Playback Using the Memory Card

You can access the recordings from your local PC by connecting the memory card to a memory card reader. Since the video files are saved in the MPEG4 format, they are accessible by any video player that supports the format. See *4.4.4 External Storage* to remove the micro-SD card safely.

第6章 录制和回放

摄像头只能在与GV-DVR/NVR/VMS断开连接时将视频和音频录制到摄像头的存储卡中。为此，请确保micro-SD卡已插入存储卡插槽（第15号，图1-2），已格式化（请参见*4.4.4* 外部存储）并启用**断开记录**功能。有关详细信息，请参见*4.4.3* 工具。要设置音频录制，请参见*4.1.2* 音频设置。

6.1 使用存储卡播放

您可以通过将存储卡连接到读卡器来访问本地计算机上的录音。由于视频文件以MPEG 4格式保存，因此可以通过任何支持该格式的视频播放器访问。请参见*4.4.4* 外部存储以安全地移除micro-SD卡。

Chapter 7 Advanced Applications

This chapter introduces advanced applications.

7.1 Upgrading System Firmware

GeoVision periodically updates the latest firmware to the company website. You can update the camera's firmware through the Web interface or GV-IP Device Utility.

7.1.1 Using the Web Interface

1. On the top bar, go to **System Settings**. Under **Management**, select **Tools** and click **Firmware Upgrade**.

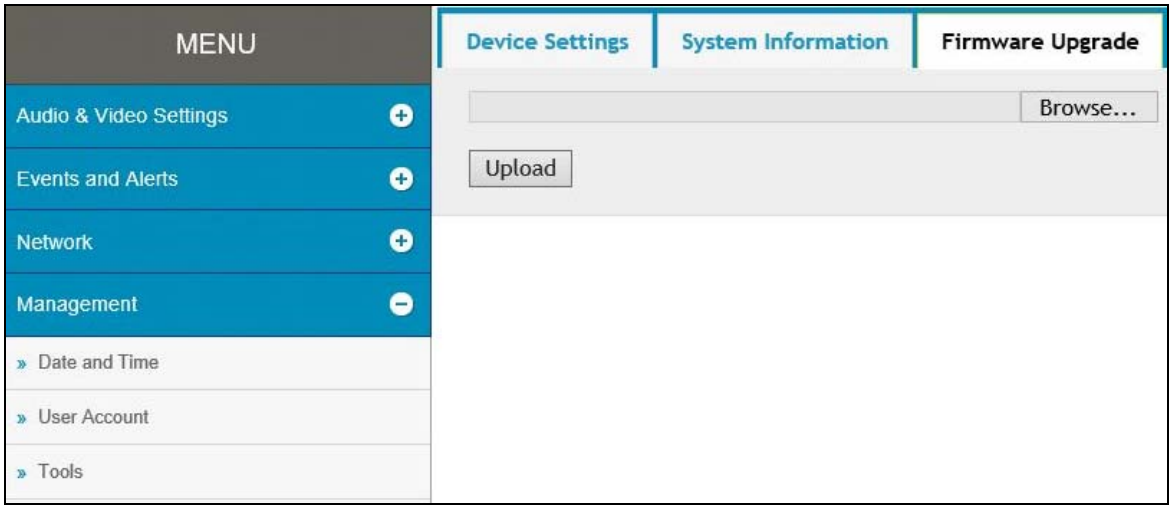


Figure 7-1

2. Click the **Browse** button to locate the firmware file (.zip) saved at your local computer.
3. Click the **Upload** button to start upgrading.

第7章 高级应用

本章介绍高级应用。

7.1 升级系统固件

GeoVision定期在公司网站上更新最新固件。您可以通过网页界面或GV-IP设备工具更新摄像头的固件。

7.1.1 使用网页界面

1.在顶部栏中，转到**系统设置**。在管理下，选择工具**并点击固件升级**。

图*7-1*

2.点击浏览按钮以定位保存在本地计算机上的固件文件（.zip）。

3.点击上传按钮开始升级。

7.1.2 Using the GV-IP Device Utility

The IP Device Utility provides another way to upgrade the firmware. Note the computer used to upgrade firmware must be under the network of the camera.

1. Download and install the **GV-IP Device Utility** from our Website.
2. Double-click the **GV-IP Device Utility** icon created on your desktop. This dialog box appears.

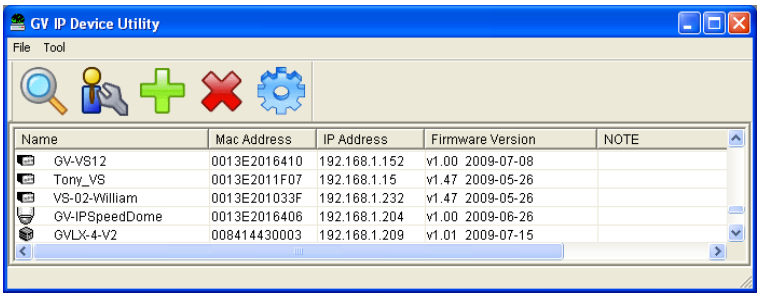


Figure 7-2

3. Click the **Search** button to locate the available camera on the same LAN. Or click the **New** button and assign the IP address to locate the camera on the Internet.
4. Double-click the camera in the list. This dialog box appears.

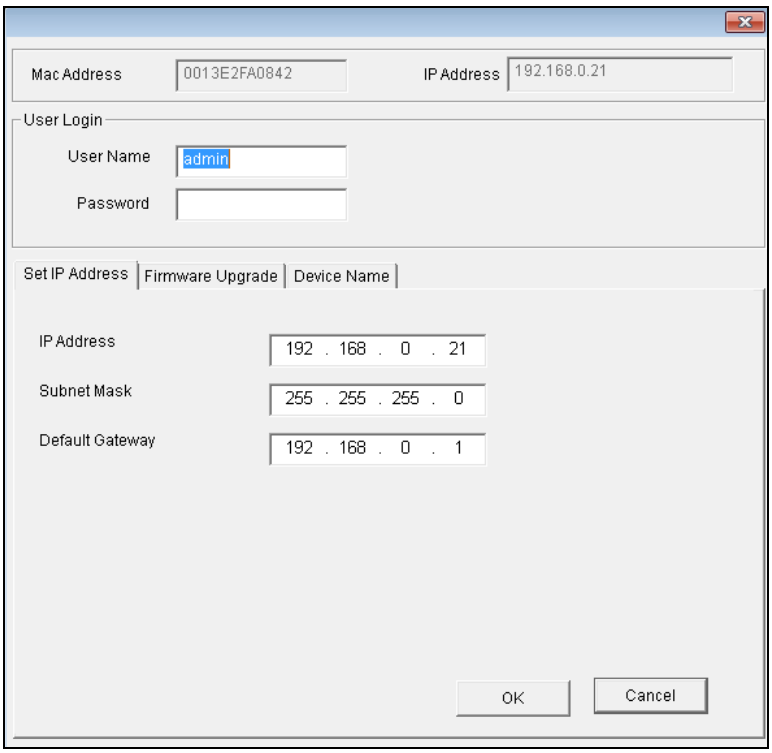


Figure 7-3

7.1.2 使用GV-IP设备工具

IP设备工具提供了另一种升级固件的方法。请注意，用于升级固件的计算机必须在摄像头的网络下。

1.从我们的网站下载并安装**GV-IP**设备工具。

2.双击桌面上创建的**GV-IP设备工具**图标。此对话框将出现。

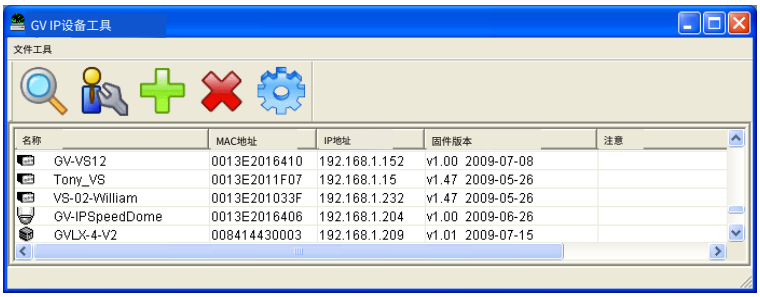


图*7-2*

3.点击搜索按钮以定位同一局域网内的可用摄像头。或者点击新建按钮并分配IP地址以在互联网上定位摄像头。4.双击列表中的摄像头。此对话框将出现。

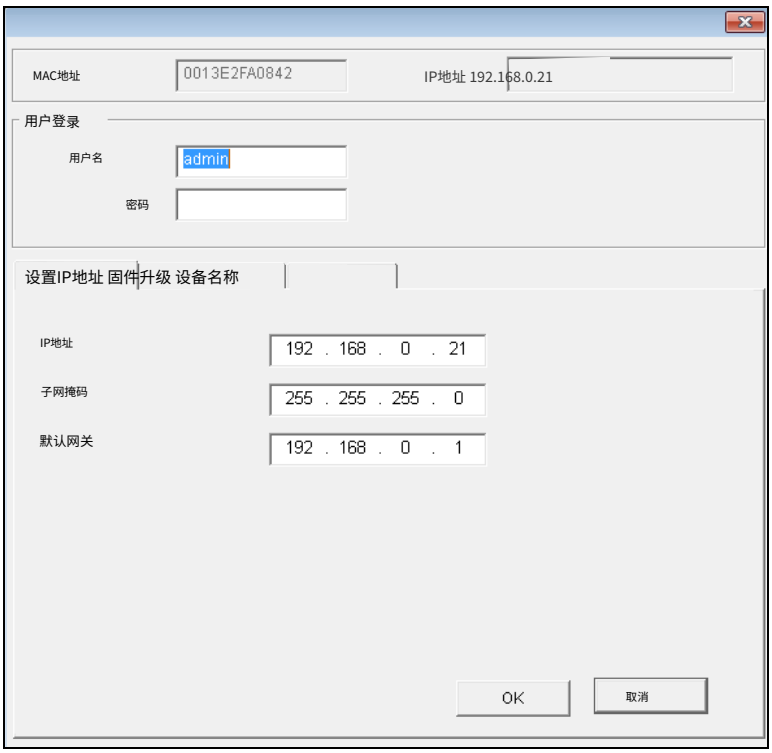


图*7-3*

5. Click the **Firmware Upgrade** tab. This dialog box appears.

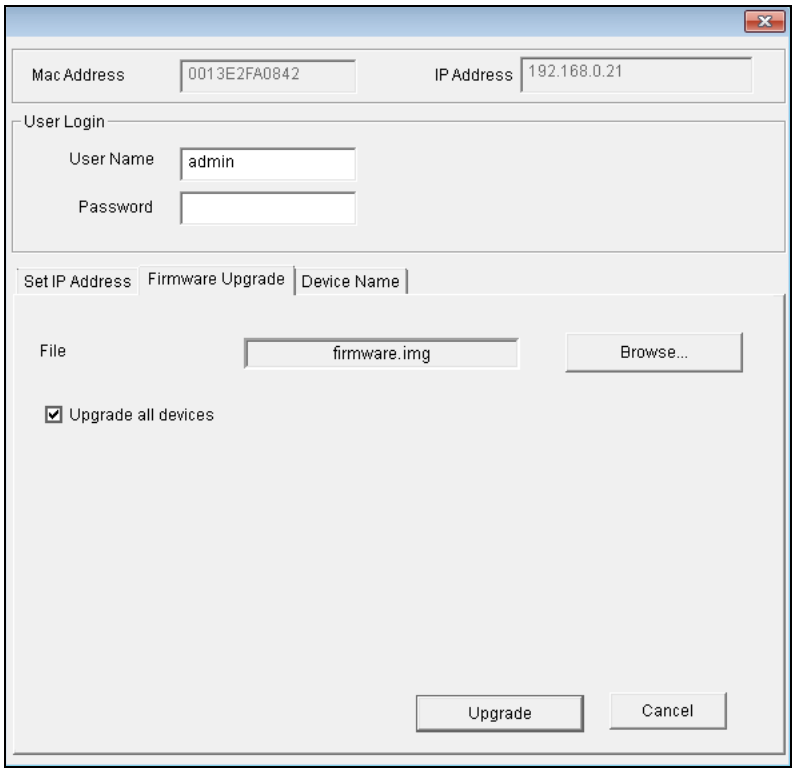


Figure 7-4

6. Click the **Browse** button to locate the firmware file (.img) saved at your local computer.
7. Type **Password**, and click **Upgrade** to start the upgrade.

5.点击**固件升级**tab。此对话框出现。

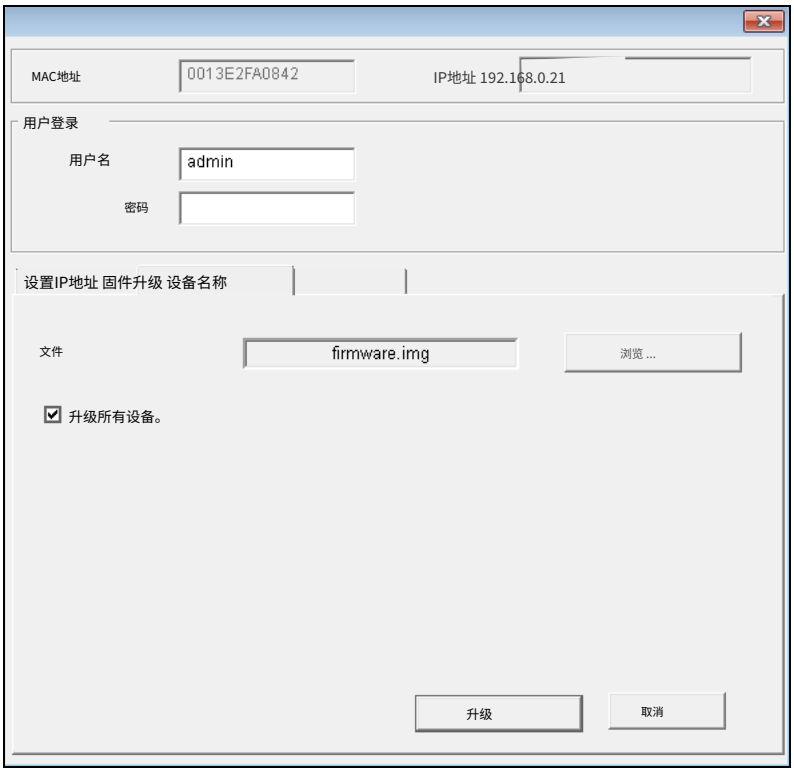


图*7-4*

6.点击浏览按钮以定位保存在本地计算机上的固件文件（.img）。

7.输入密码，然后点击升级以开始升级。

7.2 Restoring to Factory Default Settings

If for any reason the camera is not responding correctly, you can reset it to its factory default setting by using the camera's Web interface or by operating directly on the camera.

7.2.1 Using the Web Interface

1. On the Web interface, go to **System Settings**.
2. In the left menu of Web interface, select **Management** and click **Tools**.
3. Under the **Device Settings** tab, click the **Default** button to restore the factory default settings, and the current IP address of the camera will be kept.
4. To restore the camera and its IP address to factory default settings, select **Restore All Default Setting Without Keeping Current IP Address** and click **Default**.

7.2.2 Directly on the Camera

1. Keep the power and network cables (or PoE) connected to the camera.
2. Press and hold the **Default** button on the camera body. The status LED blinks. This shall take about 8 seconds.

Figure 7-5

3. Release the **Default** button when the status LED stops blinking. The process of loading default settings is completed and the camera reboots automatically.

7.2 恢复出厂默认设置

如果摄像头因任何原因未能正常响应，您可以通过摄像头的网页界面或直接在摄像头上操作将其重置为出厂默认设置。

7.2.1 使用网页界面

1.在网页界面中，转到**系统设置**。

2.在网页界面的左侧菜单中，选择管理并点击工具。

3.在**设备设置**选项卡下，点击默认按钮以恢复出厂默认设置，当前摄像头的IP地址将被保留。

4.要将摄像头及其IP地址恢复为出厂默认设置，请选择**恢复所有默认设置而不保留当前IP地址并点击默认。**

7.2.2 直接在摄像头上

1.保持电源和网络电缆（或PoE）连接到摄像头。

2.按住摄像头机身上的默认按钮。状态LED闪烁。这大约需要8秒钟。

图*7-5*

3.当状态LED停止闪烁时，释放默认按钮。加载默认设置的过程已完成，摄像头将自动重启。

Chapter 8 DVR / NVR / VMS Configurations

The GV-DVR / NVR / VMS provide a full range of video management functions and features, such as video viewing, recording, playback, alert settings and more. The following are the integration specifications:

- For **GV-VD8700**, GV-DVR / NVR version 8.7.4.0, GV-VMS version 17.1 or later versions are required. For **GV-FD8700-FR**, GV-DVR / NVR version 8.8.0, GV-VMS version 17.1.0.100 or later versions are required.
- **Face Recognition is only supported by GV-VMS**. When applying Face Recognition, one camera can only be connected to one GV-VMS at a time. See *Configuring Face Setting*, *Chapter 3*, *GV-VMS User's Manual*.
- The camera supports up to 8 streams of connection.
- When the camera is connected to IE browser or GeoVision CMS applications, it takes up 1 stream when it is connected to GV-DVR / NVR / VMS, it takes up 2 streams.

Note: By default, the camera is in dual streams and will take up 2 streams when connected to GV-DVR / NVR / VMS.

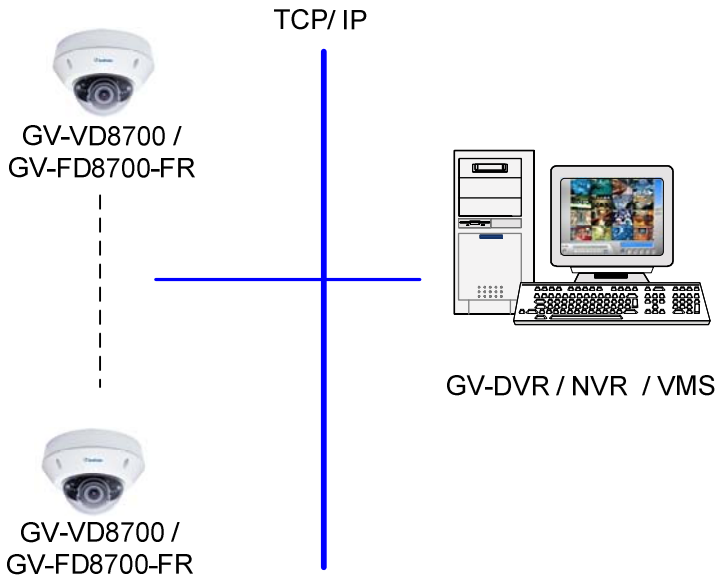


Figure 8-1

第8章 DVR / NVR / VMS 配置

GV-DVR / NVR / VMS 提供全面的视频管理功能和特性，如视频查看、录制、回放、警报设置等。以下是集成规格：

- 对于 **GV-VD8700**，要求GV-DVR / NVR版本8.7.4.0，GV-VMS版本17.1或更高版本。对于**GV-FD8700-FR**，要求GV-DVR / NVR版本8.8.0，GV-VMS版本17.1.0.100或更高版本。
- **人脸识别仅支持GV-VMS**。在应用人脸识别时，每个摄像头只能同时连接到一个GV-VMS。请参见配置人脸设置，第*3*章，*GV-VMS*用户手册。
- 该摄像头支持最多8个连接流。
- 当摄像头连接到IE浏览器或GeoVision CMS应用程序时，它占用1个流；当连接到GV-DVR / NVR / VMS时，它占用2个流。

注意：默认情况下，摄像头处于双流模式，连接到GV-DVR / NVR / VMS时将占用2个流。

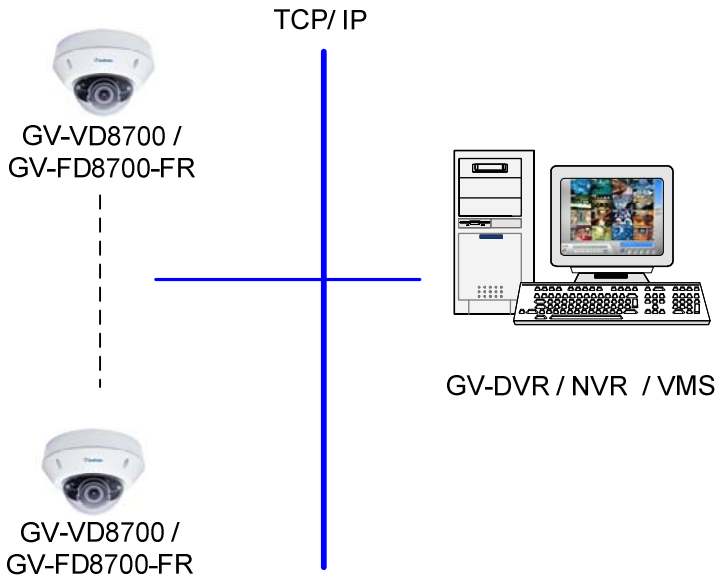


图*8-1*

8.1 Setting Up IP Cameras on GV-DVR / NVR

Follow the steps below to manually connect your camera to GV-DVR / NVR.

Note: The following instructions are based on GV-DVR / NVR V8.7.4.0 software and user interfaces.

1. On the GV-DVR / NVR's main screen, click the **Configure** button, select **System Configure**, select **Camera Install** and click **IP Camera Install**. This dialog box appears.

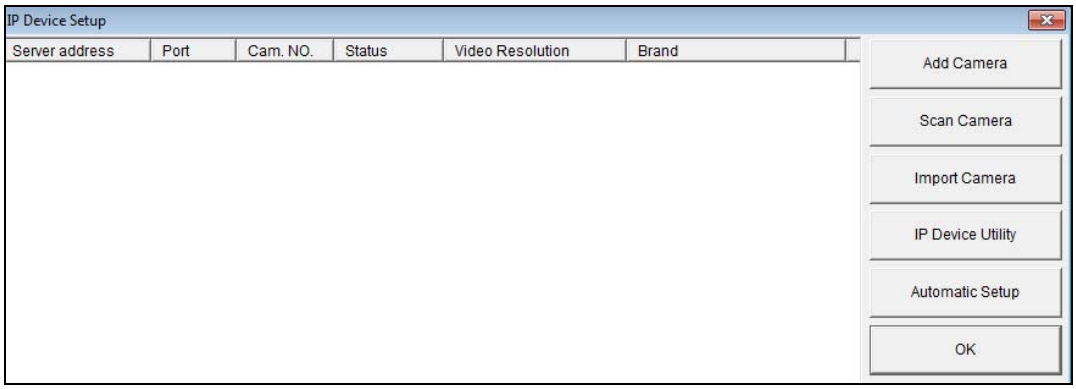


Figure 8-2

2. To automatically set up an IP camera, click **Scan Camera** to detect any IP cameras on the same LAN.

3. Double-click the camera and type its user name and password.

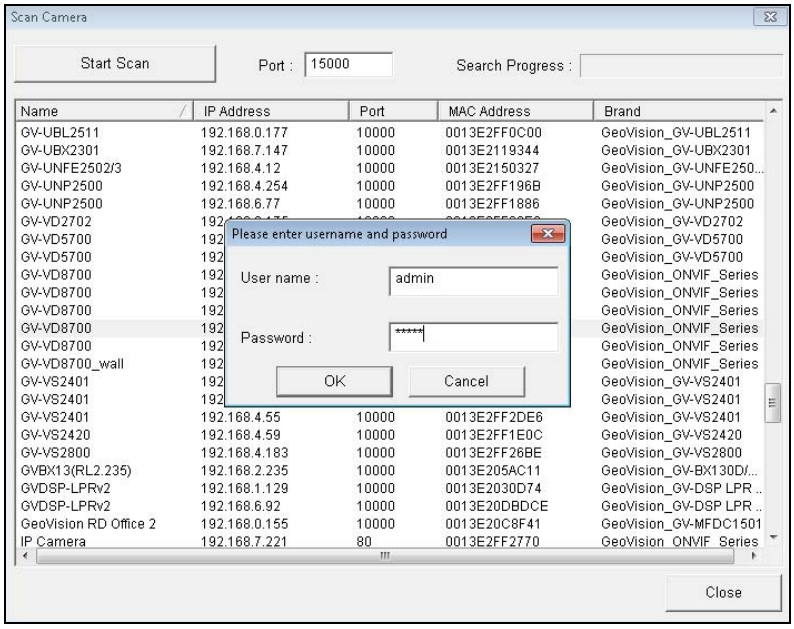


Figure 8-3

8.1 在GV-DVR / NVR上设置IP摄像头

按照以下步骤手动将摄像头连接到 GV-DVR / NVR。

注意:以下说明基于 GV-DVR / NVR V8.7.4.0 软件和用户界面。

1.在 GV-DVR / NVR 的主屏幕上，点击配置按钮，选择**系统配置**，选择**摄像头安装**并点击**IP 摄像头安装**。将出现此对话框。

图 *8-2*

2.要自动设置 IP 摄像头，请点击**扫描摄像头**以检测同一局域网中的任何 IP 摄像头。

3.双击摄像头并输入其用户名和密码。

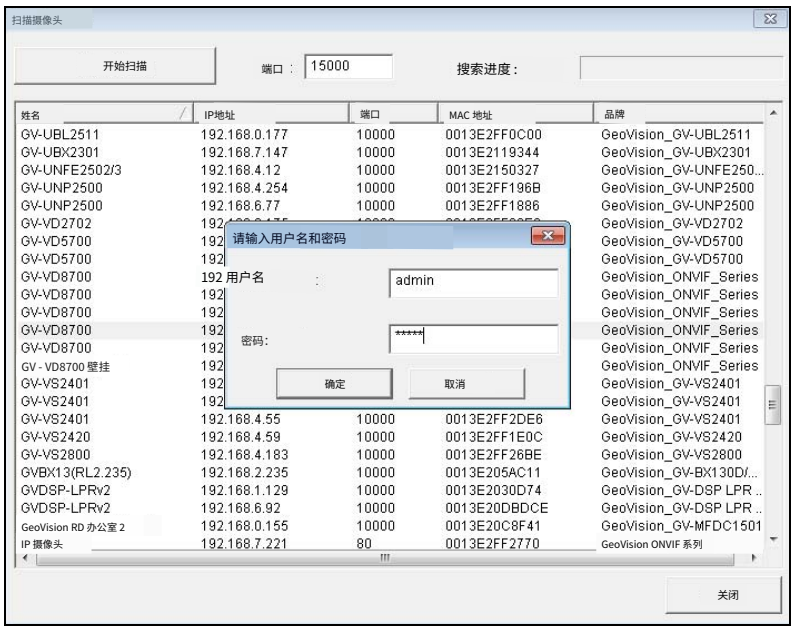


图 *8-3*

4. Click **OK**. This dialog box appears.

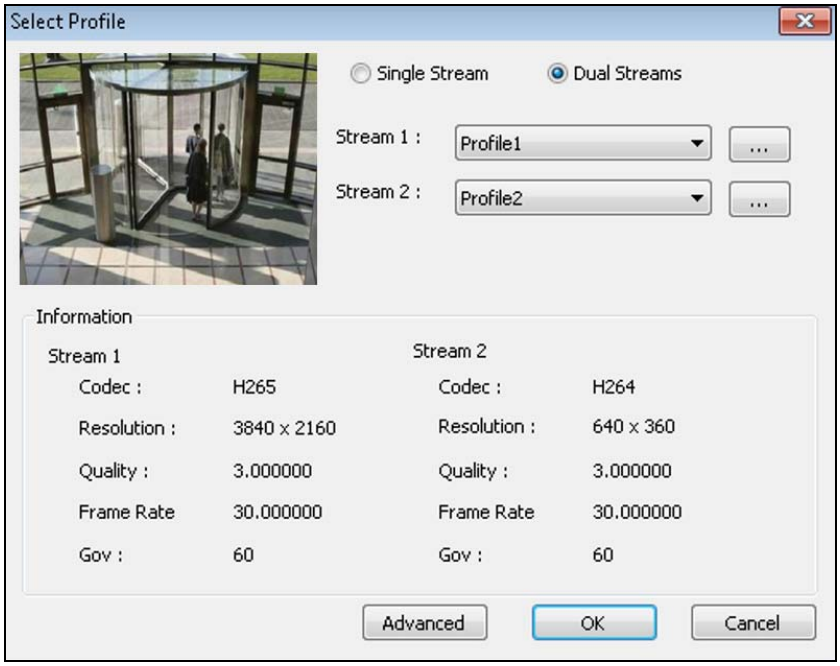


Figure 8-4

5. Click **OK** to add the camera to the connection list.

6. Click the listed camera and select **Display position** to map the IP camera to channel on the GV-DVR / NVR.

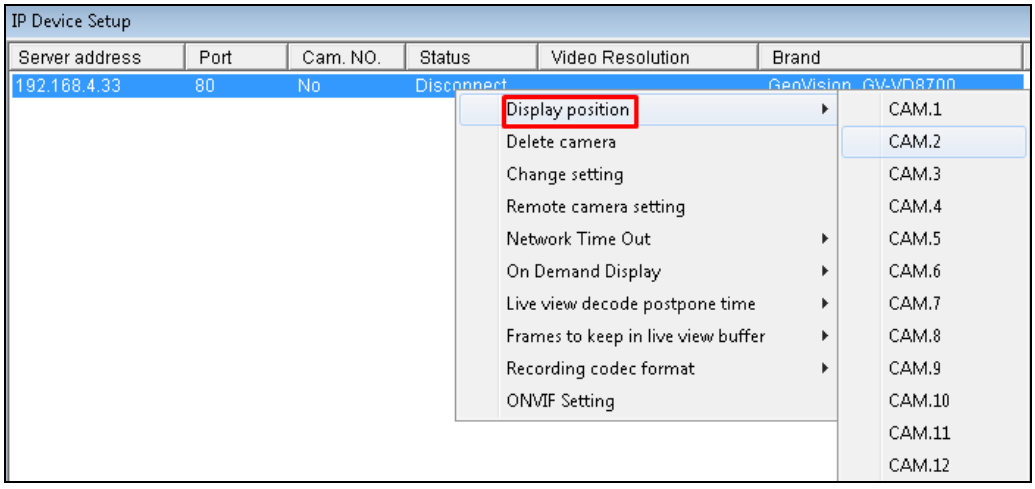


Figure 8-5

7. The Status column now should display “Connected”. Click **OK**. The dome view is displayed on the selected channel of GV-DVR / NVR.

4. 点击确定. 此对话框出现。

图 *8-4*

5. 点击确定将摄像头添加到连接列表中。

*6.*点击列出的摄像头并选择**显示位置**将IP摄像头映射到GV-DVR / NVR的通道上。

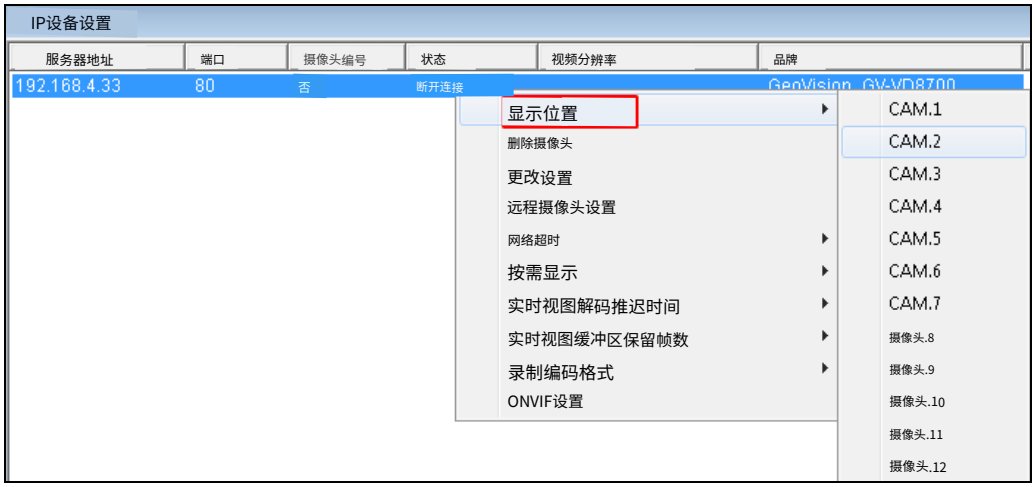


图*8-5*

7.状态栏现在应该显示“已连接”。点击确定。圆顶视图显示在GV-DVR / NVR的选定通道上。

8.1.1 Customizing Camera Settings on GV-DVR / NVR

After the camera is connected and assigned with a display channel, you can configure the camera's settings such as frame rate, codec type and resolution. Right-click the camera to see the following list of options:

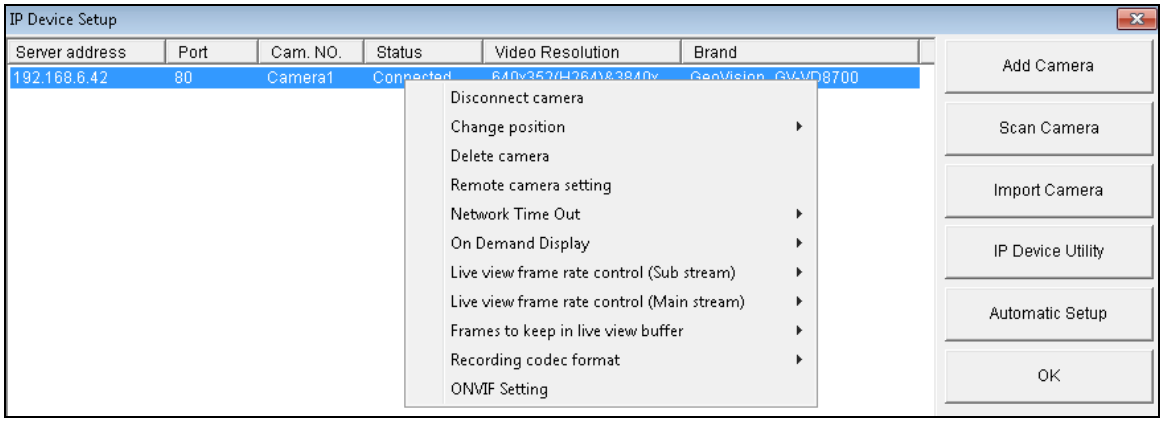


Figure 8-6

- **Disconnect camera:** Ends the connection to the GV-IP camera. You can **change** the settings of the camera after the camera is disconnected.
- **Change Position:** Changes the grid position where the live view is displayed on the main screen.
- **Delete camera:** Delete the camera on the camera list.
- **Remote Camera Settings:** Accesses the Web interface.
- **Network Time Out:** When network disconnection exceeds the specified time period, the camera status will be displayed as Connection Lost.
- **On Demand Display:** When the camera supports dual streaming with different resolutions, select **On Demand Display** to enable automatic adjustment of live view resolution.
- **Live-view frame rate control (Sub stream):** Sets the live view frame rate of the sub stream to help reduce the CPU usage. Select one of the following options when the live view codec of the camera is set to **H.264** or **H.265**:
  - ⊙ **Maximum Live-view Frame Rate:** Views the video at the maximum frame rate possible.
  - ⊙ **Live-view Key Frame only:** You can choose to view the key frames of the videos only instead of all frames on the live view. This option is related to the GOP setting of the IP camera. For example, if the GOP value is set to 30, there is only one key frame among 30 frames.

8.1.1 在 GV-DVR / NVR 上自定义摄像头设置

在摄像头连接并分配显示通道后，您可以配置摄像头的设置，例如帧率、编码类型和分辨率。右键单击摄像头以查看以下选项列表：

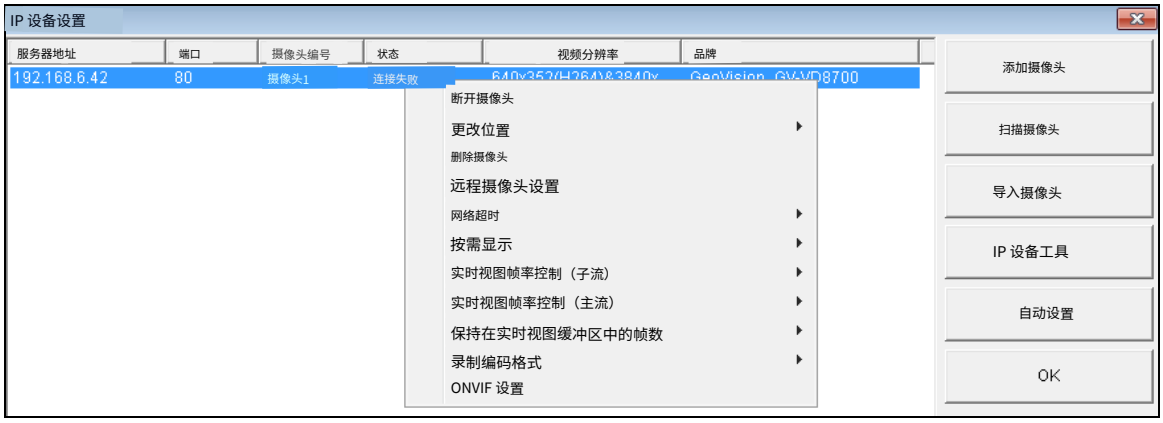


图 *8-6*

- **断开摄像头：**结束与 GV-IP 摄像头的连接。您可以在摄像头断开连接后更改摄像头的设置。
- **更改位置：**更改实时视图在主屏幕上显示的网格位置。
- **删除摄像头：**从摄像头列表中删除摄像头。
- **远程摄像头设置：**访问网页界面。
- **网络超时：**当网络断开连接超过指定时间段时，摄像头状态将显示为连接丢失。
- **按需显示：**当摄像头支持不同分辨率的双流时，选择**按需显示**以启用实时视图分辨率的自动调整。
- **实时视图帧率控制（子流）：**设置子流的实时视图帧率，以帮助减少CPU使用率。当摄像头的实时视图编码设置为 **H.264**或 **H.265**时，请选择以下选项：

  ⊙ **最大实时视图帧率：**以可能的最大帧率查看视频。

  ⊙ **仅查看实时视图关键帧：**您可以选择仅查看视频的关键帧，而不是实时视图中的所有帧。此选项与IP摄像头的GOP设置相关。例如，如果GOP值设置为30，则在30帧中只有一个关键帧。

- **Live-view frame rate control (Main stream):** Sets the live view frame rate of the main stream with higher resolution when On Demand function is enabled. Refer to Live-view frame rate control above to see the options available.
- **Frames to keep in live view buffer:** Specifies the number of frames to keep in the live view buffer.
- **Recording Codec Format:** Specifies whether to record in standard or **GeoVision** type of H.264 / H.265 codec.
- **ONVIF Settings:** Adjusts the camera's video settings when connecting through ONVIF protocol. See *8.1 Setting Up IP Cameras on GV-DVR / NVR*.

- **实时视图帧率控制（主流）：**在启用按需功能时，设置主流的实时视图帧率以获得更高的分辨率。请参阅上述实时视图帧率控制以查看可用选项。

- **实时视图缓冲区中保留的帧数：**指定在实时视图缓冲区中保留的帧数。

- **录制编码格式：**指定是否以标准或 **GeoVision**类型的 H.264 / H.265 编码格式进行录制。
- **ONVIF 设置：**在通过 ONVIF 协议连接时调整摄像头的视频设置。请参见*8.1* 在 *GV-DVR / NVR* 上设置 *IP* 摄像头。

8.2 Setting Up IP Cameras on GV-VMS

Follow the steps and conform the integration specification below to manually connect your camera to GV-VMS.

- When applying Face Recognition, one camera can only be connected to one GV-VMS host at a time.

Note: The following instructions are based on V17.1 software and user interfaces.

1. To access the IP Device Setup page, click **Home**, select **Toolbar**, click **Configure** and select **Camera Install**.

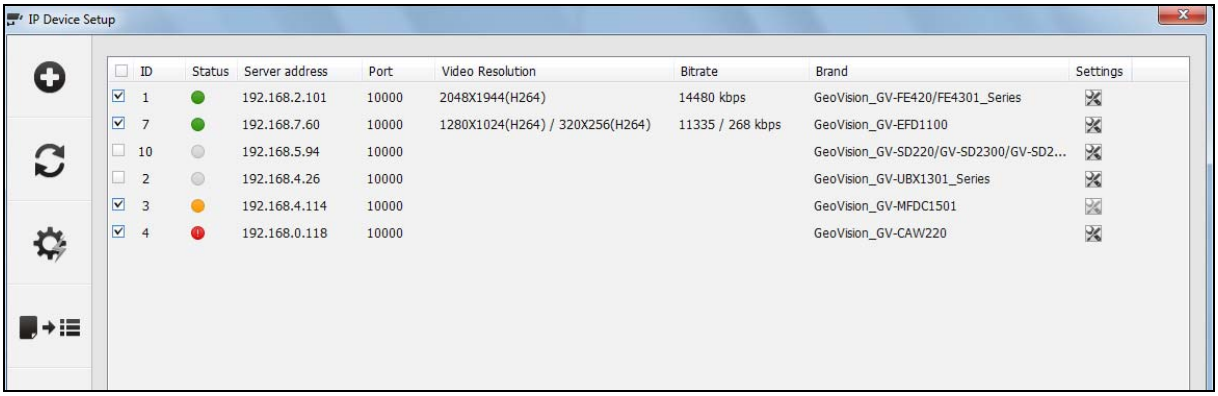


Figure 8-7

2. Click **Automatic Setup**.

8.2 在 GV-VMS 上设置 IP 摄像头

请按照以下步骤并遵循集成规范手动将您的摄像头连接到 GV-VMS。

- 在应用人脸识别时，一台摄像头只能同时连接到一个 GV-VMS 主机。

注意：以下说明基于 V17.1 软件和用户界面。

1. 要访问IP设备设置页面，请点击首页 **，选择工具栏** ，点击 **配置** **并选择摄像头安装。**

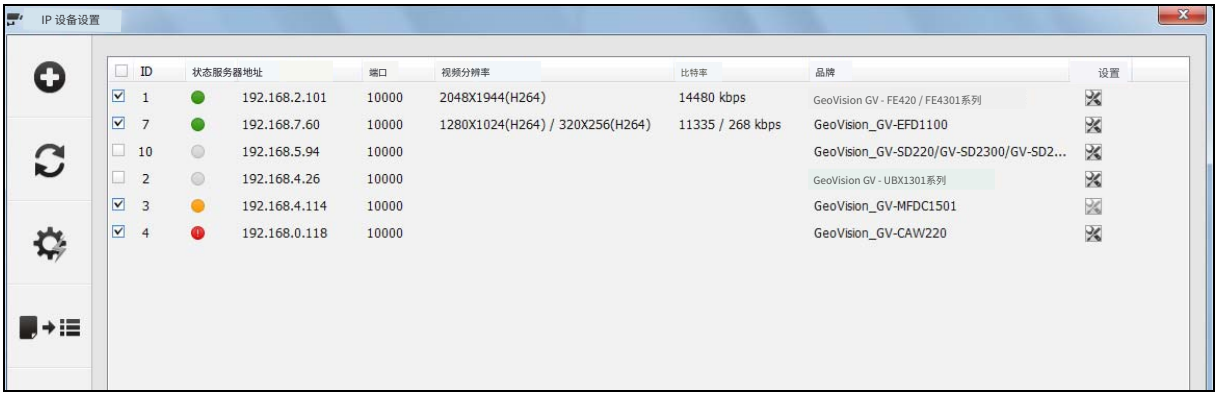


图*8-7*

2. **点击自动设置。**

3. Double-click the camera and type its **User name** and **Password**.

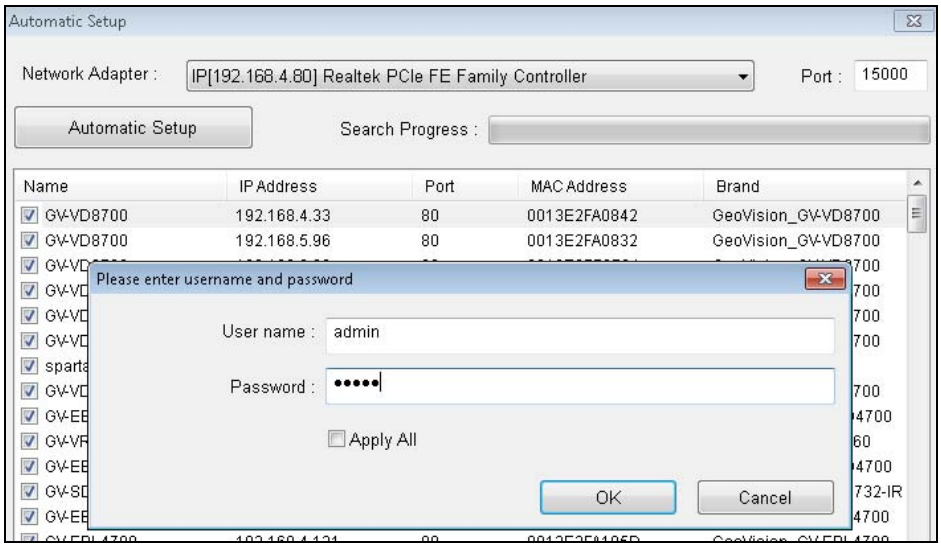


Figure 8-8

4. Click **OK**. This dialog box appears.

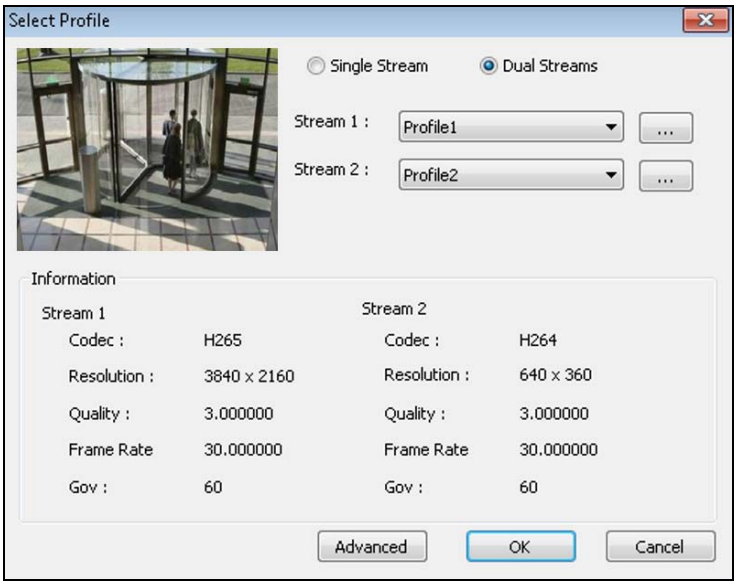


Figure 8-9

5. Click **OK** to add the camera to the list.

6. To connect the added camera, click the box besides the **ID** column. Upon successful connection, the **Status** icon shows green, with the video resolution and bit rate being displayed in the correspondent columns.

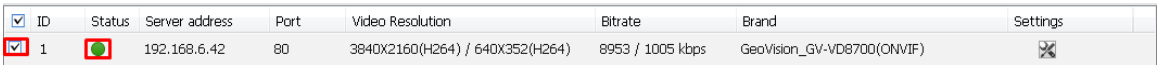


Figure 8-10

3.双击摄像头并输入其用户名和密码。

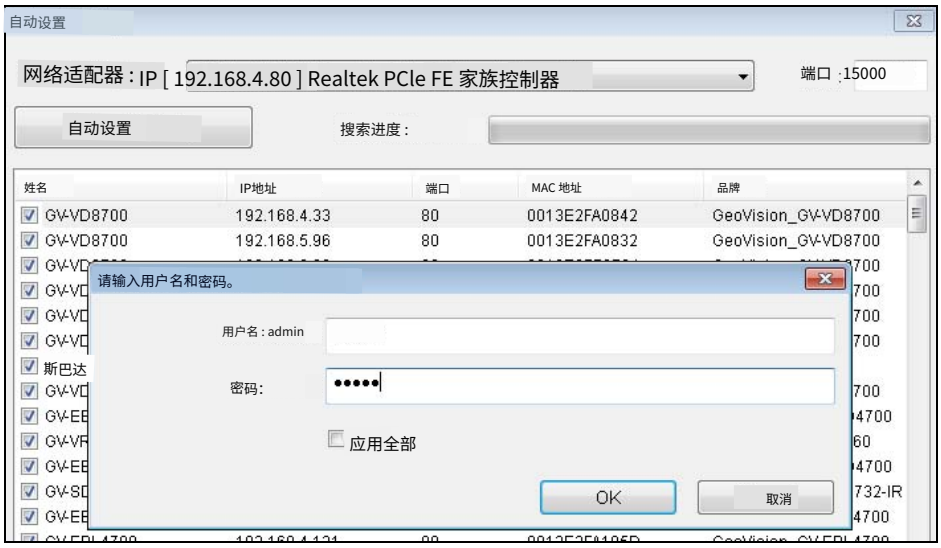


图 *8-8*

4. 点击确定. 此对话框出现。

图 *8-9*

5. 点击确定以添加摄像头　摄像头到　列表。

6.要连接已添加的摄像头，请点击　在 **ID** 列旁边的框。成功后连接，状态图标显示为绿色，视频分辨率和比特率在相应列中显示。

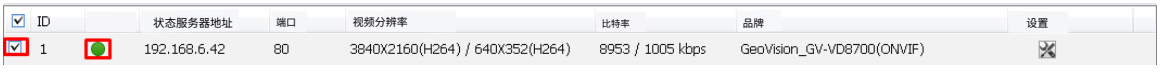


图 *8-10*

Chapter 9 Smart Device Connection

You can access the live view and play back recordings on your mobile devices using the mobile app GV-Eye. For details on system requirements, installation and setup, visit our website.

第9章 智能设备连接

您可以使用移动应用程序GV-Eye在移动设备上访问实时视图和回放录音。有关系统要求、安装和设置的详细信息，请访问我们的网站。

Appendix

A. RTSP Protocol Support

The camera supports RTSP protocol for both video and audio streaming. For RTSP command, enter:

rtsp://<IP of the GV-VD8700:8554/<CH No.>.sdp
rtsp://<IP of the GV-FD8700-FR:8554/<CH No.>.sdp

For example, rtsp://192.168.3.111:8554/CH001.sdp

Note: Only VLC and QuickTime players are supported for streaming video via RTSP protocol.

B. Limitations to Face Recognition

Remove and avoid the articles and angle of view listed below, which can cause face recognition to be ineffective.

- Masks
- Helmets
- Hats
- Sun Glasses
- Bangs that Obscure the Forehead or the Eyes
- Lowered Head or Side Face View

Helmet	Lowered Head	Side Face View
		

附录

A. RTSP协议支持

该摄像头支持RTSP协议进行视频和音频流传输。要使用RTSP命令，请输入：

rtsp://<GV-VD8700的IP:8554/<CH No.>.sdp
rtsp://<GV-FD8700-FR的IP:8554/<CH No.>.sdp

例如，rtsp://192.168.3.111:8554/CH001.sdp

注意：仅支持VLC和QuickTime播放器通过RTSP协议进行视频流播放。

B.人脸识别的限制

请移除并避免以下列出的物品和视角，这可能导致人脸识别无效。

- 口罩
- 头盔
- 帽子
- 太阳镜
- 遮挡额头或眼睛的刘海
- 低头或侧脸视角

头盔	低头	侧脸视角