

# DEVICE JSON SETTING MANUAL

## 配置文件(./conf 目錄下):來源雲端或本地脫機配置

版本演變: DOC FROM : D:\MediaGuardAppV31\MediaGuard\_DOC 幫助說明

FROM X:\MediaGuardAppV31\MediaGuard\_DOC

### 業務 API

### 什麼是設備序列號:

下文中 "device\_serial\_no": "lbOEHIQZqzXXX" 就是設備序列號, 指的是程序唯一標識符, 是任意一串字符串或 CPU 序列號等為規則的字符串, 與雲端配置的設備序列號一致, 以實現 API 訪問的 KEY (當然也要附加 API TOKEN), 每個程序安裝在 Windows 或 Linux 上的一個整體視為一個設備。

和實體的設備序列號不同: 海康的設備序列號是通過 HIKSDK 提供的函數獲得, 其他的實體設備有自己的方式獲得真實的硬件設備序列號。

## 1、啟動 MediaGuard 配置

### 配置設備有三種方式:

- 1、雲端系統進行配置設備, 程式自動下載配置到本地。
- 2、直接通過設備的 JSON 文件配置設備
- 3、通過設備 API 上存配置 JSON 文件到設備。

### ./Conf 目錄下的配置文件說明

名稱	修改日期	類型	大小
camera_list.json <b>當前設備掛載的鏡頭列表</b>	4:48	JSON 檔案	2 KB
camera_schedule_8.json	2/1/2025 14:48	JSON 檔案	1 KB
camera_schedule_12.json <b>當前鏡頭對應的Schedule與其他配置</b>		檔案	1 KB
camera_tasks_list_8.json	2/1/2025 14:48	JSON 檔案	1 KB
camera_tasks_list_12.json <b>當前鏡頭配置的任務列表</b>		JSON 檔案	2 KB
device.json <b>設備配置文件 (設備是指應用程式的配置文件的載體)</b>			4 KB
main_company_details_by_serialno.json	2/1/2025 15:52	JSON 檔案	1 KB

第一種方式請參考: DVR\_AI\_MEDIAGUARD 系統操作說明 - HK.pdf

## 2、配置說明 device.json

增加一個關鍵字段標識設備是否脫機還是聯機( device\_is\_online\_always = true | false)

脫機聯機之間如果出現不同步,可以嘗試把 "device\_is\_online\_always": true|false 改變後重新運行

Device.Json 配置說明:

```
{
  "device_config": {
    "maincom_id": "6000014",
    "device_ip": "192.168.0.177",
    "device_port": 180,
    "device_serial_no": "IbOEH1OZQz",
    "device_serial_no_hmac": "5834f9a3218e1a895002414dd966bdedd8a13261",
    "device_is_online_always": true, //[標識設備是否 online]
    "language_code": "zh-HK",
    "user": "admin2",
    "password": "admin123",
    "password_format": "plain text",
    "local_login": "admin",
    "local_password": "admin888",
    "local_authorization": "7ad166bdb8395514bb54cc0ac21db289",
    "reamrks": "serial no is hamc by toll from STAR-LangMXcore password format is md5_32_upcase , admin required lower.",
    "language_code": "zh-HK"
  },
  "http_server_cloud": {
    "scheme": "http",
    "host": "81.71.74.135",
    "port": 5002,
    "remarks": "cloud for api"
  },
  "http_server": {
    "scheme": "http",
    "host": "81.71.74.135",
    "port": 5002,
    "remarks": "device web server AIG WEB SITE http_server_cloud http_server storage_server 都是一樣的"
  },
  "storage_server": {
    "scheme": "http",
```

```
"host": "81.71.74.135",
"port": "5002",
"remarks": "The node and cloud are the same, if they are separated, you need to set another one here"
},
"global_setting": {
  "recordTimeMinutes": 300000,
  "picRemainMinutes": 15,
  "videoRemainMinutes": 15,
  "storageLimitedbytes": 502400001,
  "ffmpegOpenInfo": false,
  "nHDType": "kHWDeviceTypeCUDA",
  "nHDTypeRemark": {
    "remarks": "nHDType 硬件解碼類型 storageLimitedbytes=502400001 字節即 500Mb",
    "hdtype": [
      "kHWDeviceTypeNone 無硬件解碼",
      "kHWDeviceTypeVDP AU",
      "kHWDeviceTypeCUDA",
      "kHWDeviceTypeVA API",
      "kHWDeviceTypeDXVA2 英德爾集成顯卡解碼",
      "kHWDeviceTypeQSV",
      "kHWDeviceTypeVIDEOTOOLBOX",
      "kHWDeviceTypeD3D11VA",
      "kHWDeviceTypeDRM",
      "kHWDeviceTypeOPENCL",
      "kHWDeviceTypeMEDIACODEC"
    ]
  },
  "remarks": "The node is used to configure the recording system and hardware environment ;Storage Limited bytes 502400000
= 502M ;media file record Timespan Minutes 5minutes = 60 * 1000 * 5; videoRemainMinutes::The rule keeps video files for at
least 15 minutes"
},
"database": {
  "ip": "81.71.74.135",
  "port": 3306,
  "base_frontend": "camera_guard_business",
  "base_history": "camera_guard_history",
  "user": "root",
  "password": "root 本地數據庫 目前是无本地數據庫模式 即本節點是沒用的"
},
"pool": { "database_pool": 30 },
"carPlateRecogBusiness": {
  "enable": false,
  "permitted_cameraId": [
    {
      "cameraId": 12,
      "name": "大華 SRV2_IP91",
```

```

    "rtspIp": "192.168.0.91"
  },
  {
    "cameraId": 18,
    "name": "海康 SRV2_IP91",
    "rtspIp": "192.168.0.90"
  }
],
"permitted_cameraId_remark": "permitted_cameraId 是允许具体哪个镜头启动车牌监测",
"http_server_api": "http://81.71.74.135:5005/PlateReturn",
"http_detect_server_api": "http://localhost:5600/detect",
"threshold": 0.6,
"user": "admin",
"password": "123456",
"reamrks": "for card plate recognition,post to detct server and return the result and then post back to http server,Post time out 200milliseconds - 500milliseconds,timeout will be exited!"
},
"doc_encoding": "the current document endoding is requied utf-8.本文档必须是非 bom 非签名的 UTF,否则读取出错 *****"
}

```

### 3、鏡頭列表 **Camera\_list.json**

#### 鏡頭的 json 列表

是由 API 通過 `bool CameraMpeg::camera_list` 這個函數通過雲獲取,如果如何設置離線(脫機 Offline)則從本機獲取文件。

增加鏡頭指定的 models 對象數組, Models 數組包含的字段：

- "model id":1,
- model\_name:"yolovx.pt"
- alert\_trigger\_conditions:true //true:當預設條件符合則警報,false:不符合則警報
- precision\_rate:75 //程式判斷預設: >大於
- alert\_voice:"請使用指定袋" // 空白="" 則 alert\_voice\_file
- alert\_voice file: "aaa.mp3" //如果 alert\_voice=empty 則使用語音文件播放警報

Camera\_List Json -----BEGIN

```

{
  "meta": {
    "success": true,
    "message": "OK",
    "errorCode": -1
  },

```

```
"data": [{
  "rtspIp": "192.168.0.92",
  "rtspUsername": "admin",
  "rtspPassword": "hik12345",
  "maincomId": "6000014",
  "cameraId": 8,
  "name": "海康攝像 IP92:",
  "cameraIp": null,
  "siteId": 10,
  "siteName": "6 樓",
  "rtsp": "rtsp://admin:hik12345@192.168.0.92:554/h264/ch1/main/av_stream",
  "type": 0,
  "online": "使用中",
  "remark": "Floor3 3006",
  "createTime": "2023-01-20 00:00:00",
  "deviceId": 3007,
  "deviceName": "HUA_SERVER1",
  "recordStatus": 0,
  "deviceType": 1006, //從雲端邏輯獲得的鏡頭類型
  "online": true, //指鏡頭是否可連線的狀態
  "modelListSetting": [{
    "modelId": "M00123",
    "modelName": "yolovx.pt",
    "alertTriggerConditions": false,
    "precisionRate": 90,
    "alertVoice": "請使用指定袋",
    "alertVoiceFile": "aaa.mp3"
  },
  {
    "modelId": "1M00122",
    "modelName": "yolovx2.pt",
    "alertTriggerConditions": false,
    "precisionRate": 90,
    "alertVoice": "請使用指定袋",
    "alertVoiceFile": "aaa.mp3"
  }
  ], //model 數組
  {
    "rtspIp": "192.168.0.91",
    "rtspUsername": "admin",
    "rtspPassword": "admin888888",
    "maincomId": "6000014",
    "cameraId": 12,
    "name": "大華 IP91",
    "cameraIp": null,
    "siteId": 12,
    "siteName": "7 樓 A 座",
```

```

        "rtsp":
"rtsp://admin:admin888888@192.168.0.91:554/cam/realmonitor?channel=1&subtype=0",
        "type": 0,
        "online": "使用中",
        "remark": "大華鏡頭 IP91",
        "createTime": "2023-01-20 00:00:00",
        "deviceId": 3007,
        "deviceName": "HUA_SERVER1",
        "recordStatus": 1,
        "deviceType": 1006,
        "onlive": true, //指鏡頭是否可連線的狀態
        "modellistSetting": [{
            "modelId": "1M00122",
            "modelName": "yolovx2.pt",
            "alertTriggerConditions": false,
            "precisionRate": 90,
            "alertVoice": "請使用指定袋",
            "alertVoiceFile": "aaa.mp3"
        }] //單個數組
    }]
}

Camera_List Json -----END

```

函數 bool CameraMpeg::get\_task\_list\_by\_camera\_id 需要加上 model 對象 FOR YOLOv8:

```

"model_setting": [
    {
        "model_id": 1,

        "model_name": "yolovx.pt",

        "alert_trigger_conditions": false, //不是垃圾袋的情況

        "precision_rate": 90,

        "alert_voice": "請使用指定袋",

        "alert_voice_file": "aaa.mp3"
    `}] //單個數組

```

## 4、錄像時段與配置 camera\_schedule\_8.json

鏡頭配置和錄像時段 CameraId=8

```

{
  "meta": {
    "success": true,
    "message": "OK",
    "errorCode": -1
  },
  "data": {
    "cameraId": 8,
    "cameraName": "海康攝像 IP92:",
    "cameraIp": "192.168.0.92",
    "deviceId": 3007, //定義設備的編號 ID 由雲端對盒子定義 ID
    "deviceName": "HUA_SERVER1",
    "siteId": "10", //位置編號 ID,由雲端定義
    "maincomId": "6000014",
    "policyIsStart": true, //是否啟動策略
    "saveVideo": true, //是否保存錄像
    "saveMpeg4": true, //是否以 mp4 格式保存,否則 flv 保存
    "hlsOutput": true, //是否保存 hls 輸出
    "rtmpOutput": false, //未作測試,需要配合 Nginx 才能被用戶以 url 形式請求
    "savePic": true,
    "savePictRate": 60, // 公式 : 60%25 =2 次(保存次數)也就是兩秒 10 幀保存兩次 或者說 每 1 秒假設 25 幀 60 產生 2 次的圖片保存
    "sundayStart": "00:00:00", //星期天保存的時段開始 功能未實現
    "sundayEnd": "00:00:00", //星期天保存的時段結束 功能未實現
    "mondayStart": "00:00:00",
    "mondayEnd": "00:00:00",
    "tuesdayStart": "00:00:00",
    "tuesdayEnd": "00:00:00",
    "wednesdayStart": "00:00:00",
    "wednesdayEnd": "00:00:00",
    "thursdayStart": "00:00:00",
    "thursdayEnd": "00:00:00",
    "fridayStart": "00:00:00",
    "fridayEnd": "00:00:00",
    "saturdayStart": "00:00:00",
    "saturdayEnd": "00:00:00"
  }
}

```

## 5、主公司資料配置 main\_company\_details\_by\_serialno.json

通過**設備序列號**獲取設備相關的主公司資料配置

文件名稱: main\_company\_details\_by\_serialno.json

存儲路徑: `./conf/main_company_details_by_serialno.json`

規則:如果在線,則雲端獲取,否則通過本地 json 獲取

什麼是 **設備序列號**: 平台和設備 `device.json` 設置的 `device.json->device_serial_no`

平台和設備一致就可以,也可以是程式獲取 CPU ID 作為序列號, 也可以人為任意設置,只要一致就可以,

## 6、鏡頭的任務列表 JSON

通過脫機或者聯機獲取鏡頭的任務列表 包含 AI Model 數組,保存在 `./conf`

`camera_tasks_list_{cameraId}.json`

如果 API,則請求: `/Task/GetTaskListByCameraId/{cameraId}`

例如 : `cameraId = 1003`

`camera_tasks_list_1003.json`  
`/Task/GetTaskListByCameraId/1003`

## 7、獲取鏡頭詳細 `get_camera_details`

如果 API,則請求: `/zh-CN/Cam/CameraDetails?CameraId={cameraId}`

例如 : `cameraId = 12366`

`camera_details_12366.json`  
`/zh-CN/Cam/CameraDetails?CameraId=12`

## 8、車牌檢測 API `http_detect_server_api`

來自 `device.json` 局部 :

```
9、"carPlateRecogBusiness": {
10、  "enable": false,
11、  "permitted_cameraId": [
12、    {
13、      "cameraId": 12,
14、      "name": "大華 SRV2_IP91",
15、      "rtspIp": "192.168.0.91"
16、    },
17、    {
18、      "cameraId": 18,
19、      "name": "海康 SRV2_IP91",
20、      "rtspIp": "192.168.0.90"
21、    }
22、  ],
```



```

23、    "permitted_cameraId_remark": "permitted_cameraId 是允许具体哪个镜头启动车牌监测",
24、    "http_server_api": "http://81.71.74.135:5005/PlateReturn",
25、    "http_detect_server_api": "http://localhost:5600/detect",
26、    "threshold": 0.6,
27、    "user": "admin",
28、    "password": "123456",
29、    "reamrks": "for card plate recognition,post to detct server and return the result and
then post back to http server ,Post time out 200milliseconds - 500milliseconds,timeout will be
exited!"
30、 },

```

## 9、鏡頭時間表

例如 camera\_schedule\_8.json 格式: camera\_schedule\_{CameraId}.json

```

{
  "meta": {
    "success": true,
    "message": "OK",
    "errorCode": -1
  },
  "data": {
    "cameraId": 12,
    "cameraName": "大華 IP91",
    "cameraIp": "192.168.0.91",
    "deviceId": 3007,
    "deviceName": "HUA_SERVER1",
    "siteId": "12",
    "maincomId": "6000014",
    "policyIsStart": true,
    "saveVideo": true,
    "saveMpeg4": true,
    "hlsOutput": true,
    "rtmpOutput": false,
    "savePic": true,
    "savePictRate": 90,
    "sundayStart": "00:00:00",
    "sundayEnd": "23:59:00",
    "mondayStart": "00:00:00",
    "mondayEnd": "23:30:00",
    "tuesdayStart": "00:00:00",
    "tuesdayEnd": "22:00:00",
    "wednesdayStart": "00:00:00",
    "wednesdayEnd": "23:59:00",
    "thursdayStart": "00:00:00",
    "thursdayEnd": "23:59:00",

```

```
    "fridayStart": "00:00:00",  
    "fridayEnd": "23:59:00",  
    "saturdayStart": "00:00:00",  
    "saturdayEnd": "23:59:00"  
  }  
}
```

## 10、加載任務 AI 模型

目的: 標識離線使用和鏡頭加載 models

## 11、StreamInfo 解碼單元傳入參數(結構體)

//獲取鏡頭列表對應的 StreamInfo(鏡頭解碼傳入參數結構體)

//由於這個 StreamInfo 結構體 的參數來自介個方面:

來自本地 device.json, 雲端 API->鏡頭列表\Camera list Schedule 等等綜合起來的結構體對象

//所以需要一個特定的函數處理綜合性業務