

DEVICE JSON SETTING MANUAL

DEVICE JSON 補充配置的 Data Field

目的：標識離線使用和鏡頭加載 models

版本演變： DOC FROM : X:\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": "IbOEHIQZQz" 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.

... 用於離線脫機使用此鏡頭列表, 聯網配置好後, 自動本地保存一個列表, 當脫機時候, 僅讀取此json

名稱	修改日期	類型	大小
camera_list.json	13/3/2024 14:56	JSON 源文件	2 KB
config.json	3/3/2024 14:56	JSON 源文件	2 KB
device.json	6/3/2024 17:31	JSON 源文件	4 KB
deviceUtf8.json	6/3/2024 17:31	JSON 源文件	3 KB

作廢, 改用device.json
設備配置json, 需要手動編寫, 具體設置參考文檔說明
舊版本, 備份一份不帶簽名頭的UTF格式的文本json, 現在改用rapidJSON讀取, 無效此文件備份, 帶簽名和不帶簽名都可以讀取

第一種方式請參考: [DVR_AI_MEDIAGUARD 系統操作說明 - HK.pdf](#)

2、device.json 配置說明

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": "Ib0EH10ZQz",
    "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 目前是無本地數據庫模式 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、設備配置與播放列表 Camera_List Json（來自 API）

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 -----

```
{
  "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
    "onlive": 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、鏡頭配置和錄像時段

```

{
  "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、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

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、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