Merit LILIN Ent. Co., Ltd.

HTTP API/SDK Document for Navigator Software

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Chapter 1 INTRODUCTION

Chapter 1.1 Overview

This document, HTTPAPI, specifies the HTTP-based application-programming interface (API) for LILIN Navigator Enterprise (NAV). Application developers can use this document to develop applications based LILIN Navigator Enterprise.

Chapter 1.2 Software versions

The support for this HTTPAPI document is highly dependent on the product release. Please make sure that the functions, you want, are provided by the release of your product.

Chapter 1.3 Product-specific functionality

Some of the functions described in this specification may not be implemented in every IP-based product, and the set of the Common Gateway Interface (CGI) parameters and actual parameter values may differ among different products. At the end of each API function has product information for developers.

Chapter 1.4 Product Support List

Navigator Enterprise2.0.0.32 and above

Chapter 2 HOW TO USE THIS MANUAL

This section contains information about general usages of this document.

Chapter 2.1 General notations

Chapter 2.1.1 General abbreviations

CGI : Common Gateway Interface – a standardized way to communicate between a client (e.g., a web browser) and a server (e.g., a web server).

N/A : Not applicable – a feature/parameter/value is not used in a specific task.

Chapter 2.2 Convention of this document

In URL syntax and in descriptions of CGI parameters, text in italic within angle brackets denotes that is to be replaced with either a value or a string. When replacing the text string, the angle brackets shall also be replaced.

Chapter 2.3 HTTP status returned codes

The built-in Web server uses the standard HTTP status codes. The syntax of returned HTTP status is as following format:

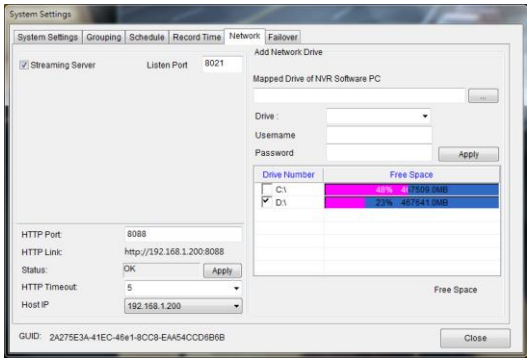
HTTP/1.0 <HTTP code><HTTP text> \r\n

HTTP code and text meanings are described as the followings:

HTTP Code	HTTP Text	Description
200	OK	The request has succeeded.
204	No Content	Server has received the request but there is no information returned, and the client should stay in the same document view. This is mainly to allow inputting scripts without changing the document at the same time.
400	Bad Request	The request had bad syntax or was inherently impossible to be satisfied.
401	Unauthorized	The parameter to this message gives a specification of authorization schemes that are acceptable. The client should retry the request with a suitable Authorization header.
403	Forbidden	The request is for an action that is forbidden.
404	Not Found	The server has not found anything matching the given URL.

Chapter 2.4 Default HTTP and Streaming Port

The default streaming port is 8021 and the default HTTP portof Navigator Enterprise is 8080. Click on System->Network to identify the ports.



Chapter 3 HTTP API

Chapter 3.1 Image and video request URLs

There are two different ways to request images from Navigator Enterprise—snapshot (JPEG) and server-push (MJPEG).

Chapter 3.1.1 Base64 encode

Default username and password to login Navigator Enterprise are admin and EMPTY. Please use "admin:" width base64 encode for accessing Navigator Enterprise.

Chapter 3.1.2 JPEG image (snapshot)

When a jpeg image is requested, the server either returns the specified JPEG image file or an image with an error image (No Video | Not Permission | Not available).

Syntax:

http://<*serverIP*>/snap<*cameraID*>

Example: Requested JPEG image

HTTP/1.0 200 OK\r\n
Content-Type: image/jpeg\r\n
Content-Length: 8567\r\n
\r\n
<*JPEG image data which start with 0xffd8 and end with 0xffd9*>\r\n

Example: Request JPEG image from #4 camera's default resolution.

http://admin:@192.168.0.200:8088/snap003

Return: Requested JPEG image

Parameter	Values	Description
<*cameraID*>	000~719	/snap000 is the image camera #1

Chapter 3.1.3 MJPEG video (server-push)

When an MJPG video is requested, the server either returns continuous flow of jpeg images or an image with an error image (No Video | Not Permission | Not available) returned. The content type is "multipart/x-mixed-replace" and each image ends with a boundary string <boundary>. The returned image and HTTP data are equal to the request for a single JPEG image.

Syntax:

http://<serverIP>/getimage<cameraID>

Parameter	Values	Description
<*cameraID*>	000~719	/snap000 is the image camera #1

Example:

http://admin:@192.168.0.200:8080/getimage003&fps=5

Example: Request JPEG image stream from the 4nd camera with CIF resolution

http://admin:@192.168.0.200:8080/getimage003\

Example: Request JPEG image stream from the 2nd camera with other resolution

http://admin:@192.168.0.200:8021/getimage003?width=720&height=480

Return: Requested Multipart JPEG image

HTTP/1.0 200 OK\r\n
Content-Type: multipart/x-mixed-replace;boundary=--<*boundary*>\r\n
\r\n
--<*boundary*>\n

<JPEG image>

--<*boundary*>\n

<JPEG image>
…
where the <*boundary*> field in Merit LILIN digital device is
<*myboundary*>\n
and the returned <*image*> field is

Content-Type: image/jpeg\n
Content-Length: <*jpeg image size*> Stamp:<YYYYMMDD 00HHmmss TK SSSSSSSS>\n\n
<*jpeg image data*>

Where:

	Field	Bits	Example
Date:	Year, A.D.	31-16	07d2=2002 AD
	Month (1~12)	15-8	04=Apr
	Day (1~31)	7-0	01=First
Time:	Hour (0~23)	31-16	0011=17 hr
	Minute (0~59)	15-8	36=54 min
	Second (0~59)	7-0	0e=14 sec
Tick:	Ticks(0~99)	7-0	09=90 ms from last sec.
Seq:	Seq (0~2^{32}-1)	31-0	84b=2123 images since server start

Chapter 3.1.4 H.264 live streaming

To get Navigator Enterprise H.264 streaming, use the following CGI commands. Navigator Enterprise H.264 streams are bounded in between boundaries for the elementary streams.

Syntax:

http://<serverIP>/getstream<cameraID>

Example:

Ch1: http://admin:@192.168.0.200:8021/getstream000
Ch2: http://admin:@192.168.0.200:8021/getstream001
Ch3:http://admin:@192.168.0.200:8021/getstream002
Ch4: http://admin:@192.168.0.200:8021/getstream003
,

,

Ch16: http://admin:@59.124.49.36:8021/getstream015

HTTP H.264 Description:
HTTP/1.0 200 OK\r\n
Content-Type: multipart/x-mixed-replace;boundary=--<boundary>\r\n \r\n

--<boundary>\n
<H.264 image>
--<boundary>\n
<H.264 image>
…

Where:

the <boundary> field in Merit LILIN digital device is <myboundary>\n

and the returned <image> field is

Content-Type: video/h264\n

Content-Length: <H.264 image size>
Stamp:<YYYYMMDD 00HHmmss TK SSSSSSSS>\n\n
<H.264 image data>

Chapter 3.2 Navigator Enterprise H.264 playback stream

Playback stream of Navigator Enterprise platform contains extra 24 bytes playback header or each H.264 frame. The H.264 video raw data is followed by the 24 bytes playback header. The playback stream contains up to 108 channels of a particular time frame. If you want to play only for one channel due to CPU usage, please parse the 24 bytes header for the channel.

For synchronous audio and video playback, the audio frames are also in the playback stream. Please filter out the audio frames if your application does not need the audio.

Syntax:

http://<serverIP>/getpbstream&ch=<cameraID>&date=YYYY/MM/DD&time=hh:mm:ss

Example:

http://admin @192.168.0.200:8021/getpbstream&ch=1&date=2011/06/28&time=11:30:00

Example:

http://192.168.3.5:8021/getpbstream&ch=1&date=2014/05/13&time=14:00:00&
iframeonly=1&needaudio=1&speed=2

HTTP H.264 Description:

Stream content |--RH--|--H.264--|--RH--|--H.264--|--RH--|--AUDIO PCM--|--RH--|--H.264--……..

struct RH

```
{
DWORD startcode; // 0x5757
DWORD rh_length ; // RH + frame length
BYTE User_level;
DWORD time; // time
DWORD prev_rh_length;
BYTE ch_id; //channel id
BYTE v_format;
BYTE v_res;
BYTE frame_type;
BYTE gop;
BYTE data_type; // audio data or video
BYTE reserved2;
}
```

Size of RH is 24 Byte

Where:.
startcode: 0x5757
rh_length: Size of RH added data size
time: UTC time with sec.
prev_rh_length: Prev length.
ch_id: 0~15 mean channel 1 ~ channel 15.
data_type: VIDEO_DATA= 0,AUDIO_DATA=1.

Parameter	Values	Description
<CameraID>	000~108	Channel ID
speed	1, 2, 3, 4	1 = normal speed, 2 = FF x 1, 3 = FF x 2, 4 = FF x 4
iframeonly=1	0/1	1 = reduce CPU load for I frame only
needaudio=1	0/1	1 = audio, 0 = mute
extheadinfo=1	0/1	License plate or POS info

Chapter 3.3 Get Navigator EnterpriseJPEG playback stream

Get MJPEG or JPEG snapshot for playback

Syntax:

http://<serverIP>/*download?jpeg=<YYYYMMDD-HHMMSS>&ch=<CCC>&framelimit=1&endtime=YYYYMMDD-HHMMSS&width=w&height=h&speed=2&playdirection=1&iframeonly=1*

Example #1:

http://admin:@192.168.0.200:8021/download?jpeg=20141212-122259&ch=021

Example #2

http://admin:@192.168.3.178:8021/download?jpeg=20141212-122259&ch=021&framelimit=0&endtime=20141212-132259&width=720&height=480&speed=2&playdirection=1&iframeonly=1

Parameter	Values	Description
<YYYYMMDD-HHMMSS>	20141231-235959	YYYY = year MM=month DD=day HH=hour MM=minute SS=second
<CCC>	0~719	Channel number
framelimit	0~65536	Number of JPEGs; 0 means MJPG streaming
width	JPEG width	Default: 720
height	JPEG height	Default: 480
speed	0.125 ~ 16	
playdirection	1, -1,	-1: backward, 1: forward

FireFox snapshot for example #1

Chapter 3.4 Get Navigator Enterpriseplayback information

Get playback recording start and recording end

Syntax:

http://<serverIP>/playback?ch=<cameraID>&getrec=start&getrec=end

Example:

http://admin:@192.168.0.200:8021/playback?ch=1&getrec=start&getrec=end

Return:
Playback ok
start=2014/05/02 09:35:00
end=2014/05/14 10:11:00
timezonebias=8.0

Parameter	**Values**	**Description**
<CameraID>	000~108	Channel ID
Time zone		UTC difference

Chapter 3.5 Server configuration request

Chapter 3.5.1 Server configuration request

Request server's configuration.

Syntax:

http://<*serverIP*>/server

Example: Request the server configuration

http://admin:@192.168.0.200:8021/server

Return: Requested server configurations

HTTP/1.0 200 OK\r\n
Date: Thu, 01 Jan 1970 00:00:00 GMT\r\n
Connection: close\r\n
Content-Type: text/html\r\n
Content-Length: 244\r\n
\r\n

Device name=CMX Video Server
MAC address=00-0f-fc-24-50-0e
GUID=2A275E3A-41EC-46e1-8CC8-EAA54CCD6B6B
Software version=3,6,1,102
Model=9999
JPEG channel=36
Group max=20
Devicemax=720
Maxchannel=720
httpport=8021
videoport=8021
Device type=CMX

Parameter	Values	Description
Model	9999	NAV/CMX streaming type
Group max	Integer	Number of groupings
Max channel	Integer	Number of channels
httpport	Integer	The HTTP port, default 8021
videoport	Integer	The video port
Device type	Constant	NAV/CMX streaming server

Chapter 3.5.2 Camera configuration request

Request a camera's configuration.

Syntax:

http://<serverIP>/cmd=getchannelinfo&ch<cameraID>

Example: Request information of camera #2.
http://admin:@192.168.0.200:8021/cmd=getchannelinfo&ch=001

HTTP/1.0 200 OK\r\n
Date: Thu, 01 Jan 1970 00:00:00 GMT\r\n
Connection: close\r\n
Content-Type: text/html\r\n
Content-Length: 244\r\n
\r\n

guid=2A275E3A-41EC-46e1-8CC8-EAA54CCD6B6B
ch=1 uid=2 name=Cam 002
ip=59.124.49.26
httpport=60015
videoport=0
user=guest
pass=guest
devicetype=9998

switch=1
record=1
ssdprofile=
protocol=
camidx=0
cmxstreamingtype=1002
model=40
enabledorpaused=1
sysfeature=0

Parameter	Values	Description
guid	UID	Unique ID of a NAV/CMX server
name	String	Camera name
ip	Integer	Number of channels
httpport	Integer	The HTTP port, default 8021
videoport	Integer	The video port
user	String	Username of the camera
pass	String	Password of the camera
record	Integer	Recording status of the camera
sysfeature		

Chapter 3.5.3.1 Camera grouping configuration request

Request a camera grouping configuration.

http://<serverIP>/cmd=getgroupinfo

Example: Request grouping information.

http://admin:@192.168.0.200:8021/cmd=getgroupinfo&runonce=1

Note: Runonce: you can use Internet Browser to test the command.

--myboundary
Content-Type: text/html
Content-Length: 490

cmd=getgroupinfo ok
guid=5F5DD88E-5D31-4BF0-95F4-02FCD7EC14D0
groupmax=20
groupallowmax=1
group00allow=1
group00uid=0
group00childmax=36
group00nameutf8=Main Grouping
group00time=30
group01allow=0
group02allow=0
group03allow=0
group04allow=0
group05allow=0
group06allow=0
group07allow=0
group08allow=0
group09allow=0
group10allow=0

group11allow=0
group12allow=0
group13allow=0
group14allow=0
group15allow=0
group16allow=0
group17allow=0
group18allow=0
group19allow=0

Parameter	Values	Description
guid	UID	Unique ID of a NAV/CMX server
groupmax	Integer	There are 20 grouping in max.
groupallowmax	Integer	Visible group
group<gid>uid	Integer	Gid: group ID from 0~19
group<gid>childmax	Integer	Number of cameras for the grouping Gid: group ID from 0~19
group<gid>nameutf8	String	Grouping name The Gid: group ID from 0~19
group<gid>allow	Integer	The group in use, if group #1 is in use, the character is 1, otherwise 0. Gid: group ID from 0~19

Chapter 3.5.3.2 NAV Select Group ID

User can set NAV group id

http://<serverIP>/cmd=smsg&msgtype=32790&parammax=1&param1=<groupid>

Example: Set the NAV group id to 1.

http://admin:@192.168.0.200:8021/cmd=smsg&msgtype=32790&parammax=1&param1=1

Parameter	Values	Description
group id	Integer	group ID from 0~19

Chapter 3.5.4 NAV Recording Start and End

Syntax:

http://<serverIP>/tiba=TimeInterval?RecordCheck=1

Example: Get recording start and recording end of an NAV.

http://192.168.0.200:8021/tiba=TimeInterval?RecordCheck=1

Return:

```
<root>
<ID value="000001h">
<TimeInterval value="2018-06-01T19:34:00/2018-06-06T15:20:25"/>
<RecordCheck value="RecordCheck=ONRECORD"/>
<UpdateDateTime value="2018-06-06T15:20:25"/>
</ID>
</root>
```

Parameter	Values	Description
TimeInterval	Date/time	<DateStart>T<TimeStart>/<DateEnd>T<TimeEnd>
RecordCheck	String	Recording status
UpdateDateTime	Integer	Last update of recording service

Chapter 3.6 Notification to Alarm Monitor

Chapter 3.6.1 Notify Alarm Notification to Alarm Monitor

Notify Navigator Enterprise for live video of a channel.

Syntax:

http://<serverIP>/notifyAlarmEvent?status=<status>&ch=<channel>

Example: Notify Navigator Enterprise for displaying video of the channel.

http://192.168.0.200:8021/notifyAlarmEvent?status=on&ch=01

Example: Notify Navigator Enterprise for closing video for the channel .

http://192.168.0.200:8021/notifyAlarmEvent?status=videoclose&ch=01

Parameter	Values	Description
<*status*>	“on” and “videoclose”	“on”—Show video on alarm monitor. “videoclose”—Close video on alarm monitor.
<channel>	0~107	The channel for showing and closing video

Chapter 3.7 POS/GPS/Metadata

Chapter 3.7.1 Send metadata

Syntax:

http://<serverIP>/sendMetaData?ch=<channel ID>&data=<meta data>&code=<uni>

Example: Send a text to a NAV/CMX or NVR.

http://192.168.0.200:8021/sendMetaData?ch=<channel ID>&data=<meta data>&code=<uni>

Parameter	Values	Description
<channel>	01~100	The channel for showing and closing video
<meta data>	Ascii/Unicode	
<uni>	0/1	0= ascii; 1=unicode

Chapter 3.8 Get alarm status and number plates from an Navigator Enterprise

Get real-time alarm status and license plates from Navigator Enterprise.

Syntax:

http://<serverIP>/getcmxalarmmotion

Syntax:

http://<serverIP>/getcmxalarmmotion?posstringtype=<type>		
Parameter	**Values**	**Description**
<type>	String	All: posstringtype=all POS string: posstringtype=text Number plate: posstringtype=plate Facial recognition: posstringtype=face

Example:

http://admin:@192.168.0.200:8080/getcmxalarmmotion

Example:

http://admin:@192.168.0.200:8080/getcmxalarmmotion?posstringtype=all

Return:

Content-Type: text/plain
Stamp:07DE060C 000D2111 00
CMXState=1
CMXAlarm=2:32,3:32,
chvl=5
platech7=[D2002:0:16777215:0:89:-1:20150623195012_ch007_D2002.jpg]
.
.
.
Platech12=[AB2002:0:16777222:0:89:-1:20150623195012_ch0012_AB2002.jpg]
facech2=[Alex:73:9:20180502143927_ch015_Alex.jpg]
posstrch23utf8=QR01_nm”中文”, st:”20181120:0000”, et:”20191022:0000”, rm: “R501”, id:”45CA-QB-HM”

CMXAlarm code

Parameter	Values	Description
<CMXAlarm>	<ch>:<alarm code>	
<ch>	0~107	
<alarm code>	Decimal	Please translate to hex value for the following code.
	0x01	Remote IP camera motion detected, 2
	0x02	Remote alarm input detected, 4
	0x08	GPIO Input, 8
	0x10	Audio detection, 16
	0x20	Motion local detection, 32
	0x40	Tamper detection, 64
	0x80	Ext IO detection, 128
	0x100	Video loss detection
	0x200	Car detection
	0x400	NAV virtual CGI DI
	0x800	NAV file written error
	0x1000	NAV failure over detection
	0x2000	DB access error
	0x4000	NAV system status error, RAM, APP RAM, CPU, network, IO exception
	0x8000	Facial recognition
	0x10000	Remote virtual fence
	0x20000	Object left
	0x40000	Object remove
	0x100000	Fall detection
	0x200000	Wondering detection
	0x400000	Crowd detection
	0x800000	Speed detection
	0x1000000	Fighting detection
	0x2000000	Smart event logic #1
	0x4000000	Smart event logic #2
	0x8000000	Smart event logic #3
	0x10000000	Remote LPR recognition
	0x20000000	Local device alarm
	0x40000000	Speed detection, radar

Parameter	Values	Description
chvl	<ch>, <ch>…,<ch>	Channel number of the video loss cameras
<ch>	0~107	

Run-time ANPR information

Platech<ch>=[<plate number>:<plate region>:<plate back color>:<plate text color>:<recognition rate>:<plate list type>:<image filename>

Parameter	Values	Description
<ch>	0~107	Channel
<plate number>	ASCII	Plate characters and numbers
<plate region>		Reserved
<plate back color>		Reserved
<plate text color>		Reserved
<recognition rate>	Decimal	0~99
<plate list type>		Reserved

<image filename>	ASCII	To get the stored picture

Note: You can get the snapshot ANPR picture based on “getplatejpeg” API.

Syntax:

http://<serverIP>/cmd=getplatejpeg&file=<image filename>

Example:

http://192.168.0.200:8021/cmd=getplatejpeg&file=20150623195012_ch007_D2002.jpg

Run-time facial recognition detection

Facech<ch>=[<Name>:<Confidence>:<category>:<image filename>

facech2=[Alex:73:9:20180502143927_ch015_Alex.jpg]

Parameter	Values	Description
<ch>	0~107	Channel
<Name>	ASCII	Face of the person
<Confidence>	0-99	Confidence rate in percent
<Image file name>		YYYYMMDDhhmmss format

Chapter 3.8.1 Get ANPR Plate Type List from an Navigator Enterprise

Syntax:

http://<ServerIP>/cmd=getplatetypelist

Example:

http://192.168.0.200:8021/cmd=getplatetypelist

Return:

typemax=5
type0utf8=Exclusion List
type1utf8=Denied Access
type2utf8=Approved Access
type3utf8=الـ شركاء
type4utf8=Test1

Parameter	Values	Description
typemax	Integer	The plate list types
type<int>utf8	String	Return of UTF8 list name
int	Integer	Index o the plate lists.

Chapter 3.8.2 Get ANPR List from an Navigator Enterprise

Get a list of date/time and number plate in text such as

Syntax:

http://<serverIP>/cmd=geteventlist?timefrom=<YYYYMMDDhhmmss>&timeto=<YYYYMMDDhhmmss>&ch=<ch>&searchname=<Task>&code=<ANSIUNI>i&searchtext=<Plate>

Example:

http://admin:@192.168.0.200:8021/cmd=geteventlist?timefrom=20171006150000&timeto=20171006160500&ch=1&searchname=plate

Return:

cmd=geteventlist OK
starttime=20141201080500,
endtime=20141201230000 timezone bias=-480 min
countget=1214;counttotal=1214;searchtype=4;code=ansi
S6133 20141201181236_ch004_S6133.jpg
S6133 20141201181242_ch004_S6133.jpg
S6133 20141201181248_ch004_S6133.jpg

Parameter	Values	Description
<*YYYYMMDDhhmmss*>	<ch>:<alarm code>	
<ch>	0~107	0 based, 0: channel #1, 1: channel #2
<Task>	text	event, pos, or plate (default)
<ANSIUNI>	text	ansi OR utf8
	0x02	Remote alarm input detected, 4
	0x08	GPIO Input, 8

Chapter 3.8.3 Get ANPR Snapshot from an Navigator Enterprise

Syntax:

http://<serverIP>/cmd=getplatejpeg?file=<Filename>

Example:

http://admin:@192.168.0.200:8021/cmd=getplatejpeg?file=20141201181706_ch004_S6133.jpg

Return:

Chapter 3.8.4 Get event list from a Navigator Enterprise

Get a list of date/time and event list in text such as

http://<serverIP>/cmd=geteventlist?timefrom=<YYYYMMDDhhmmss>&timeto=<YYYYMMDDhhmmss>&ch=<ch>&searchname=<Task>&code=<ANSIUNI>i&searchtext=&standardweb=1

searchtext: The list keyword to search
searchname: Type of event to search in the database

1. searchname=event Alarm Event
2. searchname=pos POS string (RS232, USB Scanner, Access Control…)
3. searchname=plate License plate
4. searchname=time Recording time
5. searchname=face Face

searchtype: Type of event to search in the database

1. searchtype=2 Alarm Event
2. searchtype=3 POS string (RS232, USB Scanner, Access Control…)
3. searchtype=4 License plate
4. searchtype=0 Recording time
5. searchtype=6 Face

Example:

http://admin:@192.168.0.200:8021/cmd=geteventlist?timefrom=20190131160000&timeto=20190131175959&ch=0&searchtype=3&code=utf8&searchtext=xxx&standardweb=1

Return:

cmd=geteventlist ok
starttime=20190131000000, endtime=20190131235959 timezone bias=8.0
countget=18144;counttotal=18144;searchtype=3;code=utf8
20190131160505 ch000 st0 etm0 card:23895463 20190131160505 ch000 st0 etm0 card:23895463
20190131160505 ch000 st0 etm0 card:23895463 20190131160505 ch000 st0 etm0 card:23895463
20190131160511 ch000 st0 etm0 mac:cdab4268 20190131160511 ch000 st0 etm0 mac:cdab4268
20190131160511 ch000 st0 etm0 mac:cdab4268 20190131160511 ch000 st0 etm0 mac:cdab4268
20190131160517 ch000 st0 etm0 card:65478235 20190131160517 ch000 st0 etm0 card:65478235
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20190131160523 ch000 st0 etm0 mac:ccab4236 20190131160523 ch000 st0 etm0 mac:ccab4236
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20190131160536 ch000 st0 etm0 mac:afcb1297 20190131160536 ch000 st0 etm0 mac:afcb1297
20190131160536 ch000 st0 etm0 mac:afcb1297

Search recording time

Example:

http://admin:@192.168.0.200:8021/cmd=geteventlist?timefrom=20200605080000&timeto=20200605175959&ch=0&searchtype=0&standardweb=1

Return:

cmd=geteventlist ok starttime=20200605080000, endtime=20200605175959 timezone bias=8.0
filelist=00000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000001111111111111110000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000011111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111111111111111111111111111
11111111111111111111111111111111111111111111111111111111000000000000000000000000
00000000000000000000000000000000000000001111111111111111111111111111111111111000
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00000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000
In minutes, 0 means there is no video file in that minute, 1 means there is video file in that minute.

Chapter 3.8.5 Manually set HTTP post for ANPR information

To post HTTP based information to a host (PC), LILIN Navigator can send the following information to a host. After NAV Advanced Alarm DO is configured, the CGI can be posted to a remote PC by NAV server.

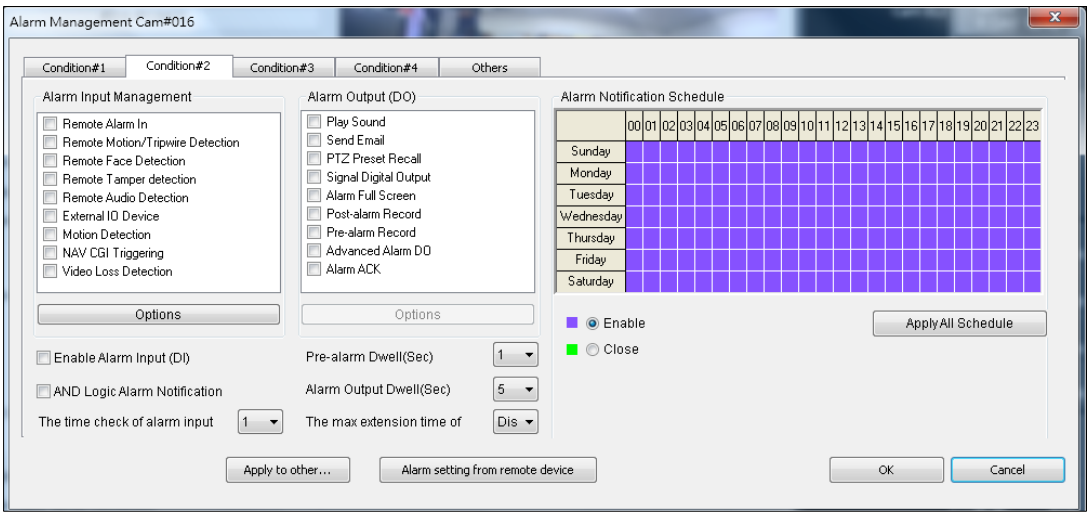
Syntax:

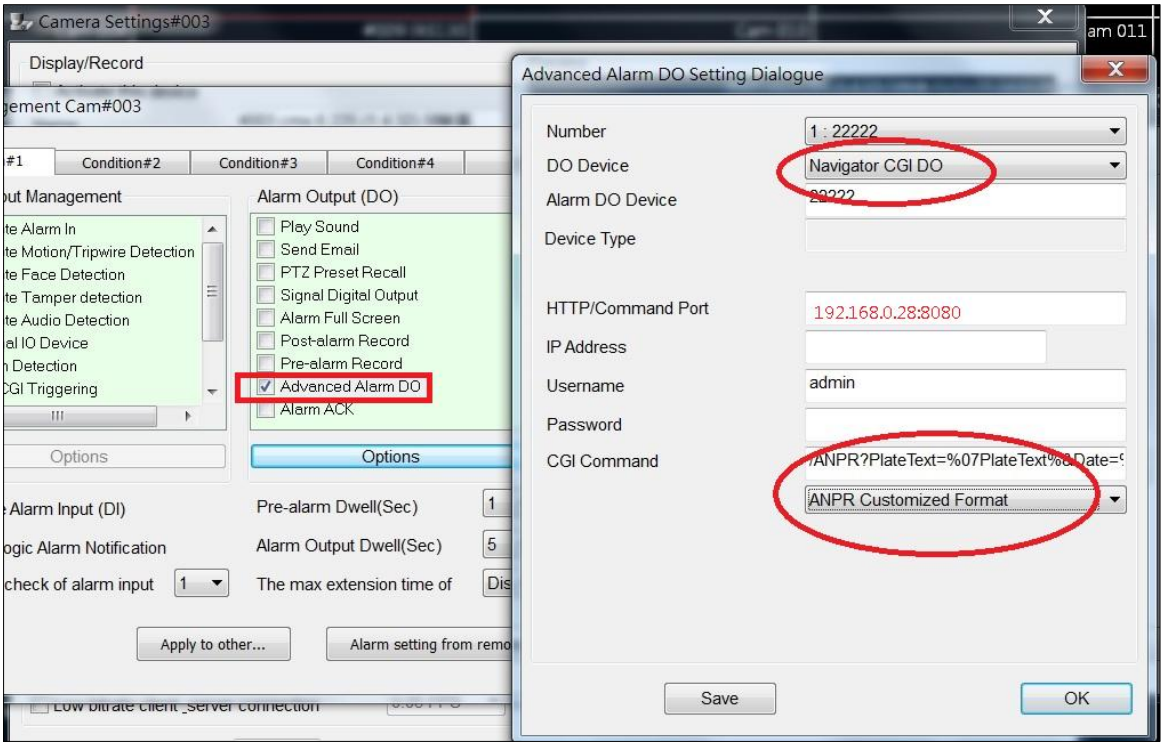
http://<ServerIP>/ANPR?PlateText=<Plate>&Channel=<iCh>&CountryType=<iCountry>&RegionType=<iReg>&Condition=<iCon>&Confidence=<iCon>

Example:

http://admin:@192.168.0.200:8021/ANPR?PlateText=ABC123&Channel=23i&Condition=2&CountryType=22&RegionType=2&Confidence=78

Parameter	Values	Description
<HostIP:HostPass>	String	
<Plate>	String	Plate detected
<iCh>	Int	iCh is 1 based, channel number of the plate detected.
<iCountry>	Int	Country code
<iReg>	Int	Province or state
<Confidence>	Int	Recognition rate
<iCon>	int	Alarm Condition: 1~4 (picture below)





Chapter 3.8.6 Programmatically set host IP address of a HTTP server for HTTP ANPR Post information

Syntax:

http://<HostIP:HostPass>/sethttppost?destip=<Host IP>&destport=<Host Port>&url=ANPR&SysFeature=0x8000000&httppost_en=1&httppostjpeg_en=0&ANPR_en=1&account=admin&password=&dwell=5

Example:

http://admin:@192.168.0.200:8080/sethttppost?destip=192.168.0.112&destport=80&url=ANPR&SysFeature=0x8000000&httppost_en=1&httppostjpeg_en=0&ANPR_en=1&account=admin&password=&dwell=5

Parameter	Values	Description
<destip>	String	Server IP (ANPR PC->receiving PC)
<destport>	String	Server's port number (ANPR PC-> receive PC)
<httppost_en>	Int	1: enable, 0: disable
<ANPR_en>	Int	1: enable, 0: disable
<account>	String	Server's HTTP username
<password>	String	Server's HTTP password
<dwell>	Int	HTTP post interval

Chapter 3.9 Facial Recognition

Syntax:

http://<ServerIP>/cmd=getfacetypelist

Example:

http://192.168.0.200:8021/cmd=getfacetypelist

Return:

typemax=5
type0utf8=Exclusion List
type1utf8=Denied Access
type2utf8=Approved Access
type3utf8=الـ شركاء type4utf8=Test1

Parameter	Values	Description
typemax	Integer	The face list types
type<int>utf8	String	Return of UTF8 list name
int	Integer	Index o the face lists.

Chapter 3.9.1 Find a Person from Facial Recognition DB

Syntax:

http://<ServerIP>/Face?PersonName=%PersonName%&Date=%Year%-%02Month%-%02Day%&Time=%02Hour%:%02Min%:%02Sec%

Example:

http://192.168.0.200:8021/Face?PersonName=王小明&Date=2016-06-23&Time=16:07:51

Return:

Parameter	Values	Description
%PersonName%	String	Name of the face
%Confidence%	Integer	Confidence rate
%Channel%	Integer	Camera number, 1 based
%Condition%	Integer	The alarm conduction #
%Year%	Integer	Year 4 digits
%year%	Integer	Year 2 digits
%02Month%	Integer	Month
%02Day%	Integer	Day
%02Hour%	Integer	Hour
%02Min%	Integer	Minute
%02Sec%	Integer	Second

Chapter 3.9.2 Get Snapshot for a Face

Syntax:

http://<ServerIP>/cmd=getfacejpeg?file=<YYYYMMDDHHmmss>_<ch>_6S6133.jpg&code=<uni>

Example:

http://192.168.0.200:8021/cmd=getfacejpeg?file=20141201201108_ch004_6S6133.jpg&code=utf8

Parameter	Values	Description
<YYYY>	Integer	Year 4 digits
<MM>	Integer	Month
<DD>	Integer	Day
<HH>	Integer	Hour
<mm>		
<ss>		
<ch>		ch004
<uni>	String	Utf8

Chapter 3.9.3 Register a Snapshot for a Face

Syntax:

http://<ServerIP>/cmd=regfacejpeg?file=<filename>&PersonName=<name>

Example:

http://192.168.0.200:8021/cmd=*regfacejpeg*?file=6S6133.jpg&PersonName=Steve Hu

Parameter	Values	Description
<filename>	String	JPEG filename
<name>	String	Utf8

Return:

1: Register OK
2: Failure face too small
3: Failure face angle NG

Chapter 3.9.4 Recognize a Snapshot for a Face

Syntax:

http://<ServerIP>/cmd=recfacejpeg? file=<filename>

Example:

http://192.168.0.200:8021/cmd=recfacejpeg?file=6S6133.jpg

Parameter	Values	Description
<filename>	String	JPEG filename

Return:
0: Failed to recognize
1: Recorgnized

Confidence rate: 89%

Name: Steve Hu

Chapter 4 PTZ Control

PTZ controls for DVR/NVR, IP PTZ cameras, Navigator PTZ, and fisheye camera. Please make sure that you use streaming port for the PTZ control.

Syntax:

http://<serverIP>/cmd=ptz&ch=<channel>&param1=<PTZCommand>&param2=<Speed>

Return: 200 OK

Example: Get recording end for channel 03.

http://admin:@192.168.0.200:8021/cmd=ptz?ch=1&param1=1para2=20

Parameter	Values	Description
<channel>	00~107	Channel number
PTZCommand		#define PTZ_CMD_SDOME_STOP 0 #define PTZ_CMD_SDOME_UP 1 #define PTZ_CMD_SDOME_UL 2 #define PTZ_CMD_SDOME_UR 3 #define PTZ_CMD_SDOME_DOWN 4 #define PTZ_CMD_SDOME_DOWNR 5 #define PTZ_CMD_SDOME_DOWNL 6 #define PTZ_CMD_SDOME_LEFT 7 #define PTZ_CMD_SDOME_RIGHT 8 #define PTZ_CMD_SDOME_IrisLarge 9 #define PTZ_CMD_SDOME_IrisSmall 10 #define PTZ_CMD_SDOME_ZoomIn 11 #define PTZ_CMD_SDOME_ZoomOut 12 #define PTZ_CMD_SDOME_FocusFar 13 #define PTZ_CMD_SDOME_FocusNear 14 #define PTZ_CMD_SDOME_AutoFocus 15 #define PTZ_CMD_SDOME_AutoIris 16 #define PTZ_CMD_SDOME_AutoPan 17 #define PTZ_CMD_SDOME_StopPan 18 #define PTZ_CMD_SDOME_PresetPoint 19 #define PTZ_CMD_SDOME_FISH_EYE_CELL 20 #define PTZ_CMD_SDOME_FISH_EYE_WALL21
		#define PTZ_CMD_FISH_EYE_1W_WINDOW01 1 #define PTZ_CMD_FISH_EYE_1W_WINDOW02 2 #define PTZ_CMD_FISH_EYE_1W_WINDOW03 3 #define PTZ_CMD_FISH_EYE_1W_WINDOW04 4 #define PTZ_CMD_FISH_EYE_1W_WINDOW07 5 #define PTZ_CMD_FISH_EYE_3W1B_WINDOW01 11 #define PTZ_CMD_FISH_EYE_3W1B_WINDOW02 12 #define PTZ_CMD_FISH_EYE_3W1B_WINDOW03 13 #define PTZ_CMD_FISH_EYE_4W_WINDOW01 21 #define PTZ_CMD_FISH_EYE_4W_WINDOW02 22 #define PTZ_CMD_FISH_EYE_4W_WINDOW0 23 #define PTZ_CMD_FISH_EYE_4W_WINDOW04 24 #define PTZ_CMD_FISH_EYE_3W_WINDOW01 31 #define PTZ_CMD_FISH_EYE_3W_WINDOW02 32 #define PTZ_CMD_FISH_EYE_2W1B_WINDOW01 41 #define PTZ_CMD_FISH_EYE_2W1B_WINDOW02 42

		#define PTZ_CMD_FISH_EYE_2W_WINDOW01 51 #define PTZ_CMD_FISH_EYE_5W_WINDOW01 61 #define PTZ_CMD_FISH_EYE_5W_WINDOW02 62 #define PTZ_CMD_FISH_EYE_NO_FEDISPLAY 71

Contact
Contact lilin.zendesk.com for technical support.