Wisenet Open Platform v4.02

SDK API Document

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Revision History

The table below provides the version information and revision history of this document.
Please refer to 2.0x documents for checking revision history before 3.00.

Version	Date	Description
4.02	2022-12-16	[CHAPTER 5 SDK API] • Added new parameters and changed examples on the Add/ Send dynamic Event schema • Added new parameters and changed the structure on Get Camera Device System Config • Added cautions related to Write Key Value • Added GetFlipMirrorRotate API • Added GetMaxResolution API • Added SetChannel API
4.01	2021-05-31	[CHAPTER 3. Input Events] • Added RTSP metadata • Added Metadata event [CHAPTER 4. Output events] • Added Set Metaframe Schema • Added Set Metaframe Options [CHAPTER 5. SDK API] • Added Start to use SD Card for Application • Added Stop to use SD Card for Application • Added Format SD Card • Added Get SD Card Status [CHAPTER 6. Others] • Added Send Application Command
4.00		[CHAPTER 5. SDK API] • Added 'Start SD Card for exclusive use' • Added 'Get SD Card exclusive use status' Added Chapter 11 WN7 Platform Video Configuration
3.60	2019-12-20	• Added Chapter 9 S3L Platform Video Configuration • Added Chapter 10 CV2x Platform Video Configuration
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3.51	2019-06-10	• Added new version number
3.50	2018-10-29	[CHAPTER 3. Input Events] • Modified OPENSDK_ENCVIDEO_EVENT Struct • Added Raw audio • Modified OPENSDK_VA_EVENTS Struct • Modified CPU/Memory limit • Added RS-485 event [CHAPTER 4. Output Events] • Added RS-485 set/send event • Added Event Log • Added Proxy setting [CHAPTER 5. SDK API] • Added SUNAPI API [CHAPTER 7. WN3 Platform Video Configuration] • Deleted [CHAPTER 8. PTZ Model Video Configuration] • Deleted [CHAPTER 9. Fisheye Model Video Configuration] • Deleted [CHAPTER 10. 5Mega Model Video Configuration] • Deleted [CHAPTER 7. WN5 Platform Video Configuration] • Added XF8000 • Added T4000 • Modified CHAPTER 11 to CHAPTER7
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CAHPTER 1.

Introduction

Wisenet Open Platform SDK provides the following supports to develop applications for the IP camera.

- Input events
- Output events
- Various kinds of APIs.

This document contains the following information

- Supported input and output event details
- SDK API definition and description
- Limitations
- Known issues

CAHPTER 2.

Requirements

To create an application using the SDK, a developer requires the following software and hardware.

- Linux , or Windows
- Wisenet Open Platform SDK
- Hanwha IP camera supports Wisenet Open Platform

CAHPTER 3.

Input Events

Wisenet Open Platform SDK supports the following input events.

- Media events
  - Raw video
  - Raw audio
  - Encoded video
  - Encoded audio
- Video analytics events
  - Motion detection(MD)
  - Face detection(FD)
  - Appear disappear(AD)
  - Tampering
  - Enter exit
  - Intelligent video - Cross line detection
  - Alarm event
- Network service events
  - New client connection
  - Client data
  - Client connection closed
- Network notification events
  - Connected
  - Disconnected
- SD card notification events
  - Inserted/Removed
  - Stop SD card recording
- Stop application events
  - CPU usage high

- Memory usage high
- CPU and memory usage high
- Network bandwidth usage high
- Stop application

• Error notification events

Media events

Media events are used to receive the camera's captured audio/video data in different media formats. Both raw and encoded audio video events are supported. It has the following input events.

Raw video

The API provides camera captured video to recv_event function in raw video format. YUV422 is the supported formats.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_RAW_VIDEO	RAW video event

OPENSDK_ENCVIDEO_EVENT structure

Variable	Type	Description
buff	Character pointer	Buffer pointer
frameTime	Character pointer	frame time
size	Integer	size
width	Integer	Video width
height	Integer	Video height

frame_type	Enum: OPENSDK_VIDEO_FRAMETYPE OPENSDK_UNKNOWN_FRAME	Not supported
codec	Enum: OPENSDK_MEDIA_CODEC OPENSDK_MEDIA_NULL	YUV format
time_stamp	long	Time stamp of video frame

Raw audio

The API provides camera-raw audio to recv_event function. PCM is the supported format.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_RAW_AUDIO	RAW audio event

OPENSDK_ENCAUDIO_EVENT structure

Variable	Type	Description
buff	Character pointer	Buffer pointer
frameTime	Character pointer	time buffer pointer
size	Integer	Buffer size
Sampling_rate	Integer	Audio Sampling rate
no_of_chaneel	Integer	Channel number
codec	Enum: OPENSDK_MEDIA_CODEC	Audio codec

Encoded video

The API provides camera-encoded video in a user-defined format to the recv_event function. H.264 , H.265 and MJPEG video are supported.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_MEDIA_VIDEO	Encoded video event

OPENSDK_ENCAUDIO_EVENT structure

Variable	Type	Description
buff	Character pointer	Buffer pointer
frameTime	Integer	Video buffer size
size	Integer	Video width
width	Integer	Video height
height	Integer	Codec type
frame_type	Enum: OPENSDK_VIDEO_FRAMETYPE OPENSDK_I_FRAME/OPENSDK_P_FRAME/ OPENSDK_B_FRAME	Video frame type For MJPEG value is NULL
codec	Enum: OPENSDK_MEDIA_CODEC	codec format

The following figure shows the supported media formats and resolutions for Hanwha IP cameras.

Encoded audio

The API provides camera-encoded audio in the user-defined format to the recv_event function. It supports G.711 and G.726 audio.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_MEDIA_AUDIO	Encoded audio event

OPENSDK_ENCAUDIO_EVENT structure

Variable	Type	Description

buff	Character pointer	Buffer pointer
frameTime	Character pointer	time buffer pointer
size	Integer	Buffer size
Sampling_rate	Integer	Audio Sampling rate
no_of_chaneel	Integer	Channel number
codec	Enum: OPENSDK_MEDIA_CODEC	Audio codec

Recorded video

The API provides camera-recorded video in the user-defined format to recv_event function. It supports H.264, H.265 and MJPEG video.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_RECORDED_VIDEO	Encoded video event

OPENSDK_ENCVIDEO_EVENT structure

Variable	Type	Description
buff	Character pointer	Buffer pointer
frameTime	Character pointer	frame time
size	Integer	size
width	Integer	Video width
height	Integer	Video height
frame_type	Enum: OPENSDK_VIDEO_FRAMETYPE OPENSDK_UNKNOWN_FRAME	Not supported
codec	Enum: OPENSDK_VIDEO_FRAMETYPE OPENSDK_I_FRAME/OPENSDK_P_FRAME/ OPENSDK_B_FRAME	Video frame type For MJPEG value is NULL
time_stamp	long	Time stamp of video frame

Video analytics events

VA events are used to transport camera-captured events to third party applications. To get this event, users need to enable the VA setting in the camera using the WISENET web page. It supports the following VA events.

Motion detection

If any movement occurs in the camera field, this event is activated. To get this event the user has to select the Motion Detection event in the VA settings.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_MD_EVENT	Motion Detection event
event	OPENSDK_VA_EVENTS	Motion detect event description

OPENSDK_VA_EVENTS structure

Variable	Type	Description
MessageTime	Char*	Time event occurred
state	Bool	Enabled or disabled
ChannelID	INT32_N	Not used
Index	INT32_N	Not used
Level	Bool	Not used
objectCount	INT32_N	Not used
FdData	OPENSDK_FD_DATA	Not used

Face detection (FD)

This event detects the human faces in the camera field. To get this event the user has to

select the Face Detection event in the VA settings.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_FD_EVENT	Face Detection event
event	OPENSDK_VA_EVENTS	Motion detect event description

OPENSDK_VA_EVENTS structure

Variable	Type	Description
MessageTime	Char*	Time event occurred
state	Bool	Enabled or disabled
ChannelID	INT32_N	Not used
Index	INT32_N	Not used
Level	Bool	Not used
objectCount	INT32_N	Not used
FdData	OPENSDK_FD_DATA	Not used

Appear disappear (AD)

This event occurs when any object appears in the camera field and then disappears. To get this event the user has to select the Appear Disappear event in VA settings.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_AD_EVENT	Appear Disappear event

event	OPENSDK_VIDEOANALYTIC_EVENT	AD event description

OPENSDK_VIDEOANALYTIC_EVENT structure

Variable	Type	Description
Mesagetime	INT8_N	Time event occurred
Channel ID	INT32_N	Not used
Line	INT32_N	Line no
Area	INT32_N	Area region
State	BOOL_N	Enabled or disabled
Action	OPENSDK_VA_ACTION	OPENSDK_ACTION_APPEAR_DISAPPEAR
Object Description	OPENSDK_OBJECT_DESCRIPTION	Object description

Tampering Event

This event occurs when any attempt to tamper with the camera occurs. To get this event, the user has to select the Tampering Event in VA settings.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_TAMP_EVENTS	Tampering events
event	OPENSDK_VA_EVENTS	Tamp detect event description

OPENSDK_VA_EVENTS structure

Variable	Type	Description
MessageTime	Char*	Time event occurred
state	Bool	Enabled or disabled
ChannelID	INT32_N	Not used
Index	INT32_N	Not used

Level	Bool	Not used
objectCount	INT32_N	Not used
FdData	OPENSDK_FD_DATA	Not used

Intelligent Video

To get this event the user has to select the Intelligent Video event in VA settings.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_IV_PASSING_EVENT	Intelligent video event
event	OPENSDK_VIDEOANALYTIC_EVENT	IV event description

OPENSDK_VIDEOANALYTIC_EVENT structure

Variable	Type	Description
Mesagetime	INT8_N	Time event occurred
Channel ID	INT32_N	Not used
Line	INT32_N	Line no.
Area	INT32_N	Area region
State	BOOL_N	Enabled or disabled
Action	OPENSDK_VA_ACTION	OPENSDK_ACTION_RIGHT, OPENSDK_ACTION_LEFT
Object Description	OPENSDK_OBJECT_DESCRIPTION	Object description

Enter Exit

Indicate if an object has entered into the camera field and exited soon thereafter. To get this event the user has to select the Enter Exit event in VA settings.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_ENTER_EXIT_EVENT	Enter Exit event
event	OPENSDK_VIDEOANALYTIC_EVENT	IV event description

OPENSDK_VIDEOANALYTIC_EVENT structure

Variable	Type	Description
Mesagetime	INT8_N	Time event occurred
Channel ID	INT32_N	Not used
Line	INT32_N	Line no.
Area	INT32_N	Area region
State	BOOL_N	Enabled or disabled
Action	OPENSDK_VA_ACTION	OPENSDK_ACTION_RIGHT, OPENSDK_ACTION_LEFT
Object Description	OPENSDK_OBJECT_DESCRIPTION	Object description

Audio detect Event

To get this event the user has to select the audio detect event in the event settings. Indicate the event occurrence.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_AUDIODETECT_EVENT	Audio detect event
event	OPENSDK_VA_EVENTS	Audio event description

OPENSDK_VA_EVENTS structure

Variable	Type	Description
MessageTime	Char*	Time event occurred
state	Bool	Enabled or disabled
ChannelID	INT32_N	Not used
Index	INT32_N	Not used
Level	Bool	Not used
objectCount	INT32_N	Not used
FdData	OPENSDK_FD_DATA	Not used

Alarm Event

To get this event the user has to select the Alarm event in the VA settings. Indicate the Alarm's occurrence.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_ALARM_EVENT	Digital input event
event	OPENSDK_VA_EVENTS	Digital input description

OPENSDK_VA_EVENTS structure

Variable	Type	Description
MessageTime	Char*	Time event occurred
state	Bool	Enabled or disabled
ChannelID	INT32_N	Not used
Index	INT32_N	Not used
Level	Bool	Not used
objectCount	INT32_N	Not used
FdData	OPENSDK_FD_DATA	Not used

RTSP metadata

RTSP metadata occurs from camera. To get this event the user has to add “<rtspMetadata>” on IPCameraManifest.xml.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_RTSP_METADATA	RTSP metadata event
string	char*	Metadata string

Network events

The Network Service events receive the network client services. The following network service events are supported in the WISENET network camera.

New client connection

Indicate to the application that a new client connection has started.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_NEW_CLIENT	New client connection event
networkconfiguration	OPENSDK_NETWORK_CONFIG	Client details

OPENSDK_NETWORK_CONFIG structure

Variable	Type	Description
socketType	OPENSDK_SOCKET_TYPE OPENSDK_TCP/OPENSDK_UDP/ OPENSDK_MULTICAST	Socket Connection Mode
serviceType	OPENSDK_SERVICE_TYPE OPENSDK_SERVER/OPENSDK_CLIENT	Socket Connection Type
ipAddress	Character	IP address
portNo	Integer	Port number

Client data

Indicate the data received from the client

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_NETWORK_DATA	Client data event
packet	OPENSDK_NETWORK_PACKET	Network packet information

OPENSDK_NETWORK_PACKET structure

Variable	Type	Description
buff	Char*	Data buffer received from client
size	int	Data size
Client_id	int	Network client id

Client connection closed

Give notification that the client connection has been closed.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_CLIENT_CLOSED	Client connection closed event
Clientid	INT32_N	Network client id

Server disconnected

Give notification when disconnected from the server.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_SERVER_DISCONNECTED	Server is disconnected.
Clientid	INT32_N	Network client id

Network notification events

This receives the basic network connection notifications. The following are the two Network Notification events.

Connected

Notifies the application that a new network connection has been made.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_NETWORK_CONNECTED	Network connected notification event

Disconnected

Indicate to the application that a network service has disconnected.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_NETWORK_DISCONNECTED	Network disconnected notification event

SD card notification events

These events are for SD card notification, and indicate whether or not the card is inserted and whether or not recording is going on. The events are given below.

SD Card Inserted

Indicates the SD card has been inserted.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description

input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_SDCARD_INSERTED	SD card inserted notification

SD Card Removed

This event indicates to the application that the SD card has been removed.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_SDCARD_REMOVED	SD card removed notification

Stop SD card recording

This event indicates that the application SD card recording has been stopped.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_STOP_APP_RECORDING	SD card stop recording

Setting changes notification

This event indicates setting changes in the camera.

Supported events are:

- OPENSDK_NETWORK_INTERFACE

- OPENSDK_NETWORK_PORTS
- OPENSDK_VIDEO_PROFILE
- OPENSDK_MEDIA_CONFIG
- OPENSDK_IMAGE_CONFIG
- OPENSDK_STORAGE
- OPENSDK_EVENT_CONFIG

Stop application events

This indicates the occurrence of critical events like high memory or CPU usage, and the application needs to be stopped accordingly.

CPU usage high

If the CPU usage of the application is high, it will be indicated by this event. This event is coming when an application is killed by the camera. For example, in WN5 platforms, the system total CPU usage is over 80%, the network camera kills an application which uses CPU much. At this time, the application receives this event as a stop request.

The condition for each camera is described in below.

	WN5 model
CPU	System total over 80% & every 5 seconds, Max 3 times

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_CPU_USAGE_HIGH	CPU usage high event

Memory usage high

If the application is using a great deal of the memory then this event indicates that the memory usage is high and the application needs to be closed. This event is coming when an application is killed by the camera. For example, in WN5 platforms, the system total memory usage is over 80%, the network camera kills an application which uses memory much. At this time, the application receives this event as a stop request.

The condition for each model is described in below.

	WN5 model
Memory	System total over 80% & every 5 seconds, Max 3 times

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_MEMORY_USAGE_HIGH	Memory usage high event

CPU and memory usage high

If CPU and memory usage are high, this event notifies the application that it is taking more memory and CPU and needs to be closed. This event is coming when an application is killed by the camera. Same as CPU/Memory high event, when it is over the limitation concurrently, the application receives this event as a stop request.

The condition for each model is described in “CPU usage high” and “Memory usage high”.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_CPU_MEMORY_USAGE_HIGH	Both CPU and memory usage high event

Network bandwidth usage high

This event is not currently supported in SDK.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_NETWORK_BANDWIDTH_HIGH	Network bandwidth usage high event

Disk usage high

This event is not currently supported in SDK.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_DISK_USAGE_HIGH	Application disk usage high event

Stop application

This event is for stopping the application if any of the situations described above occurs.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_STOP_APP_CMD	Application stop event

Error notification events

If any error occurs, this event notifies the user of the fact.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_NOTIFY	Error notification event
Buffer	INT8_N*	Error message

Receive the result of an event task

Since version 2.0, this supports sending FTP/SMTP messages and encoding JPEG.

Event status

This reports the execution status of the task (ftp, smtp, jpeg encode etc.) to an application, which is added to the scheduler for asynchronous processing.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_EVENT_STATUS	Event status notification
Status	Void *	Event status

TASK_STATUS structure

Variable	Type	Description
TASKID	UINT32_N	Unique id of the task
TaskName	OPENSDK_OUTPUT_EVENT	Event name
TaskError	OPENSDK_ERR_CODE	Error Code
Taskdata	Void*	User input data pointer so that user can free the allocated memory

Receive the CGI commands event

In version 2.01, this supports CGI communication with /stw-cgi/openapp.cgi. For example, if the name of an installed application is “ABC”, then the CGI command will be like http://<IP address>/stw-cgi/openapp.cgi?AppID=”ABC”&command=...

If you want to make a server push connection, you should add “action=monitor” at the command,
http://<IP address>/stw-cgi/openapp.cgi?AppID=”ABC”&action=monitor&command=...

“AppID” is a mandatory option, “action=monitor” is also a mandatory option for server push connection, and other commands follow the application’s definition. The commands for a specific application are sent to recv_event() of the application with this event. The structure “Setting” has the CGI commands.

Application setting

This event occurs when a client sends a CGI command to get/set settings or information from an installed application. For this, just one response will be sent to the client.

As you can see, “monitor” of APP_SETTING_REQ structure is set to false, which means this command doesn’t request a continuous connection.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_APP_SETTING	App settings notification
Setting	APP_SETTING*	Application settings

APP_SETTING structure

Variable	Type	Description
req	APP_SETTING_REQ*	Buf pointer and buf length of request
res	OPENSDKPAYLOAD_RESPONSE*	Buf pointer and buf length of response

APP_SETTING_REQ structure

Variable	Type	Description
data	char*	Buf pointer to send
size	int	Buf length of send
id	Int	ID for connection (useless)
monitor	Boolean	False

Server push connection

To maintain a continuous connection between a client and an application, “id” should be kept. You can find that “monitor” of APP_SETTING_REQ structure is set to true, so you can use “id” when you send a response at any time to a client.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_APP_SETTING	App settings notification
Setting	APP_SETTING*	Application settings

APP_SETTING structure

Variable	Type	Description
req	APP_SETTING_REQ*	Buf pointer and buf length of request
Res	OPENSDKPAYLOAD_RESPONSE*	Buf pointer and buf length of response

APP_SETTING_REQ structure

Variable	Type	Description
data	char*	Buf pointer to send
size	int	Buf length of send
id	int	ID for connection
monitor	boolean	True

Receive the License Registration event

Since version 2.01, SUNAPI has supported registering a license for an installed application. If the registration is successful, it will send the license registration event to the application. However, if there is no content in the event structure, you can read it using openSDK_ReadKeyValue() API. When the license is registered by an application's web page, this event is not supported.

License Registration

This event will be sent only when the license is registered by the SUNAPI protocol.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_UPDATE_LICENSE	License registration notification

RS-485 event

Receive RS-485 packet

This event will be sent when the RS-485 packet is came from RS-485 terminal.

Parameters

OPENSDK_INPUT_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_INPUT_EVENT OPENSDK_RS485	RS-485 event

OPENSDK_RS485_DATA structure

Variable	Type	Description
packet	unsigned char	RS-485 packets(Max. 256 characters)
packet_length	Int	

Metadata event

Receive metadata event

This event will be sent when the metadata event is came from user event.

Parameters

OPENSDK_METADATA_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_META_DATA	Metadata event

OPENSDK_META_DATA structure

Variable	Type	Description
seq	int	Last metadata sequence
len	int	Length of metadata
xml	char	Xml data(Max, 160000 characters)
remain_data	int	Remain metadata buffer
tv	struct timeval	Time of day

Function Example

```
OPENSDK_META_DATA* metadata;
Metadata = (OPENSDK_META_DATA*)pData;
```

Receive Upload the Filename event

Receive Upload File Name event

This event will be sent when file upload finishing event comes from user event.

Refer to the /opt/opensdk/opensdk-4.02/SampleApplication/test_Upload_File folder.

Parameters

OPENSDK_UPLOAD_DATA_FILE enum

Variable	Type	Description
input_event	Enum: OPENSDK_UPLOAD_DATA_FILE	Upload File name receive event

OPENSDK_META_DATA structure

Variable	Type	Description
pData	Char *	Void pointer include upload file name

Function Example

```
 char recFileName[OPENSDK_APPNAME_MAX_LENGTH +
OPENSDK_FILE_DOT_AND_EXTENSION_LENGTH] = {0,};
```

```
            memcpy(recFileName,(INT8_N *) pData, OPENSDK_APPNAME_MAX_LENGTH +
OPENSDK_FILE_DOT_AND_EXTENSION_LENGTH);
```

Motion Detection Setting Change event

Receive Motion Detection Setting change event

This event will be sent when the motion detection setting change event comes from user event.

Parameters

OPENSDK_MD_CHANGE_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_MD_CHANGE_EVENT	Motion Detection setting change event

OPENSDK_META_DATA structure

Variable	Type	Description
isEnable	Char	Motion Detection On/Off
enableVaBoxDisplay	Char	deprecated
enableOverlay	Char	Overlay box is display or not.
sensitivity	Char	0 : Very low 4: Very high
mdMode	Char	deprecated
objectSizeRule	Char	0: very Small 5: very large
area	Structure: OPENSDK_MD_OBJAREA Array OPENSDK_MAX_MD_AREA	The coordinate of Motion Detection Event Allowed area
manualSize	Structure : OPENSDK_OBJ_MANUALSIZE	
handover	Structure : HandOverSetting	

Function Example

```
OPENSDK_MD_SETTING* data;
data = (OPENSDK_MD_SETTING*)pData;
```

Flip/Mirror Setting Change event

Receive Flip or Mirror Setting change event

This event will be sent when the flip or mirror setting change event comes from user event.

Parameters

OPENSDK_FLIP_MIRROR_EVENT enum

Variable	Type	Description
input_event	Enum: OPENSDK_FLIP_MIRROR_EVENT	Flip or Mirror setting change event.

OPENSDK_META_DATA structure

Variable	Type	Description
enableFlipMode	Char	To activate flip mode.
enableMirrorMode	Char	To activate mirror mode.
rotate	Char	0 : "0" degrees in Clockwise 1 : "90" degrees in Clockwise 2 : ,"180" degrees in Clockwise 3 : "270" degrees in Clockwise
reserved	Char	

Function Example

```
OPENSDK_FLIP_MIRROR_SETTING* data;
data = (OPENSDK_FLIP_MIRROR_SETTING*)pData;
```

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Output events

SDK supports the following output events.

- Record events
  - Start record
  - Stop record
- Video events
  - Change video config
  - Start live encoded video
  - Stop live encoded video
  - Start live raw video
  - Stop live raw video
- Audio events
  - Start audio
  - Stop audio
- Alarm out events
  - Alarm out ON
  - Alarm out OFF
- Network events
  - Start service
  - Stop service
  - Send data
  - Close client
- PTZ Events
  - Start PTZ
  - Stop PTZ
  - PTZ zoom out
  - PTZ zoom in

- PTZ move

- FTP Event
- Email Event
- JPEG Encode Event
- Set OSD Message
- Stop Application

Record events

Record events are used to start or stop the SD card recording. Record events have the following output events.

Start Record(Deprecated)

This is used to start the SD card recording in the 3rd party application.

Use opensdk_getSDcardStoragePath() API instead of this event.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_START_RECORD	Start Record event

Stop Record(Deprecated)

This is used to stop SD card recording in the 3rd party application.

This event is not required anymore. Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_STOP_RECORD	Stop Record event

Video events

Change video config

Not Supported

Start live encoded video

This is used to start the encoded video from the application.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_START_LIVE_ENC_VIDEO	Start Encoded video

Stop live encoded video

This is used to stop encoded video from the application.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description

output_event	Enum: OPENSDK_STOP_LIVE_ENC_VIDEO	Stop Encoded video

Start live raw video

This is used to start the raw video from the application.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_START_LIVE_RAW_VIDEO	Start Raw video

Stop live raw video

This is used to stop the raw video from the application.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_STOP_LIVE_ENC_VIDEO	Stop Raw video

Audio events

Audio events are used to start or stop receiving the encoded audio from camera. The API has the following output events.

Start Audio

This is used to start to receive encoded audio from the camera in G.711 format.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_START_AUDIO	Start Audio event

Limitation

- 3rd party applications don't have an option switch audio codec. They will receive the default audio from the camera.
- 3rd party applications can receive audio only when video is enabled.

Stop Audio

This is used to stop receiving encoded audio from the camera in G.711 format.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_ STOP_AUDIO	Stop Audio event

Alarm events

Alarm events are used to turn the alarm out events on or off. They have the following output events.

Alarm output ON

Used to turn the alarm output on by the user.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_ALARM_OUT_ON	Alarm output On event

Alarm output OFF

This event is for turning Alarm out off by the application.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_ALARM_OUT_OFF	Alarm output Off event

Network events

Network events are used to start TCP server service, manage clients and send data to the client. Network events include the following events.

Start service

This is used to start the TCP server service.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_START_SERVICE	Start Service Event

Limitation

- TCP server service is supported.

Stop service

This is used to stop the TCP server service.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_STOP_SERVICE	Stop Service Event

Send data

This is used to send the request or data to the client with client id.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_SEND_DATA	Send Data Event

Close client

This is used to close the client connected on the TCP server.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_CLOSE_CLIENT	Close Client Event

Misc events

FTP file upload

File upload to the FTP server can be done through this event. The required data should be sent in the pData.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description

output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_FTP_FILE_UPLOAD	ftp file upload

OPENSDK_FTP_UPLOAD struct

Members	Type	Description
buff	char*	Content of the file to be uploaded
size	int	The size of the buffer
fileName	char*	The name of the file

Send email notification

Emails can be sent with this event. The data required for this should be passed as an argument.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_SEND_EMAIL_NOTIFICATION	Send email

OPENSDK_SMTP_UPLOAD struct

Members	Type	Description
buff	char*	Content of the file to be uploaded
size	int	The size of the buffer
fileName	char*	The name of the file
message	char*	Message to be sent
subject	char*	subject of the mail

JPEG encode

Raw videos frames got can be converted into jpeg images with this event. The data required should be sent along with this.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_JPEG_ENCODE	Encode into jpeg format

OPENSDK_JPEG_ENCODE_DETAILS struct

Members	Type	Description
yuv_format	OPENSDK_YUV_FORMAT enum: YUV400/ YUV420/ YUV422	Format of the raw video
yuv_buffer	unsigned char*	The input raw video buffer
jpeg_buffer	unsigned char*	The output jpeg buffer
yuv_size	unsigned long int	The input yuv buffer size
jpeg_size	unsigned long int	The output jpeg buffer size
width	unsigned int	Width of the image
height	unsigned int	Height of the image

Set OSD message

An OSD message can be set using this event. The required data should be sent with the event. The message passed will be displayed, along with the camera title. The duration of the display will be specified in the input structure.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_SET_OSD_MESSAGE	Set the osd message

OPENSDK_SET_OSD struct

Members	Type	Description
message [OPENSDK_MAX_OSD_LENGTH]	character array	The message buffer to be set, along with the camera title.
msec_duration	unsigned int	The duration for which the message is to be shown (in milliseconds).
x	unsigned int	The location of OSD Message
y	unsigned int	The location of OSD Message

Send Metadata to RTP Client

The application can send the metadata event to RTSP Client. The data to be sent is string type. To send the metadata, it should be in this format, and sent with this event. This syntax follows ONVIF specification.

When an application requests sending of the metadata to the RTP client, the camera will send it upon every request. However, the interval between the metadata should be over 30ms to ensure quality of service.

```
<?xml version=”1.0” encoding=”UTF-8”?>
<tt:MetadataStream xmlns:tt=”http://www.onvif.org/ver10/schema” xmlns:wsnt=
   "http://docs.oasis-open.org/wsn/b-2" xmlns:tns1="http://www.onvif.org/
   ver10/topics"
xmlns:tnssamsung="http://www.samsungcctv.com/2011/event/topics">
   <tt:Event>
      <wsnt:NotificationMessage>
         <wsnt:Topic Dialect="http://www.onvif.org/ver10/tev/topicExpression/
         ConcreteSet">
            tns1:VideoSource/tnssamsung: "Application Name"
         </wsnt:Topic>
         <wsnt:Message>
```

```
          <tt:Message UtcTime="2014-03-06T11:06:54.623Z">
             <tt:Source>
                <tt:SimpleItem Name="Defined Name" Value="Defined Value"/>
             </tt:Source>
             <tt:Data>
                <tt:SimpleItem Name="Defined Name" Value="Defined Value"/>
                <tt:ElementItem Name="Defined Name">
                ..............
                </tt:ElementItem>
             </tt:Data>
          </tt:Message>
       </wsnt:Message>
    </wsnt:Message>
  </tt:Event>
</tt:MetadataStream>
```

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_EVENT_METADATA	Send Metadata to RTP Client

Send Event to web CGI request

Application can send the continuous Event to web cgi for a single CGI request. As mentioned in Input events, in version 2.01, it supports CGI communication with /stw-cgi/openapp.cgi.

To send the response as a result of the CGI command, the data to be sent is string type with ID. The ID is sent with APP_SETTINGS_REQ, so you should keep this value. If the client disconnects the connection, it will return -1.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description

output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_EVENT_SERVERPUSH	Send event data continuously to a webcgi request
id	int*	The ID to differentiate the client

Stop application

This is used to stop all the services started by the application and close the application.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_STOP_APPLICATION	Stop Application Event

Set RS-485

Set RS-485 configuration

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_SET_RS485	Set RS-485 configuration

OPENSDK_RS485_SETTING structure

Variable	Type	Description
isEnable	Char	RS-485 On(1), Off(0)

Baudrate	INT32_N	Enum: OPENSDK_RS485_BAUDRATE
dataBit	INT32_N	Enum: OPENSDK_RS485_DATABIT
stopBit	INT32_N	Enum: OPENSDK_RS485_STOPBIT
parity	INT32_N	Enum: OPENSDK_RS485_PARITY

Function Example

```
OPENSDK_RS485_SETTING* setting = new OPENSDK_RS485_SETTING;

setting->isEnable = true;
setting->baudrate = OPENSDK_RS485_BAUDRATE_9600;
setting->dataBit = OPENSDK_RS485_DATA_8BIT;
setting->stopBit = OPENSDK_RS485_STOP_1BIT;
setting->parity = OPENSDK_RS485_PARITY_NON;

OPENSDK::EVENT::send_event(OPENSDK_SET_RS485, setting, sizeof(OPENSDK_RS485_SETTING));

delete setting;
```

Send RS-485 packet

Send RS-485 packet by using RS-485 terminal

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_WRITE_RS485_PACKET	Send RS-485 packet

OPENSDK_RS485_DATA structure

Variable	Type	Description
packet	unsigned char	RS-485 packets(Max. 256 characters)
packet_length	Int	Packet length

Function Example

```
OPENSDK_RS485_DATA* data = new OPENSDK_RS485_DATA;
unsigned char packet[9] = {0xA0, 0x00, 0x01, 0x20, 0x01, 0x00, 0x96, 0xFF, 0x48};

memcpy(data->packet,packet,9);      // set RS-485 packet
data->packet_length = 9;    // set RS-485 packet size

OPENSDK::EVENT::send_event(OPENSDK_WRITE_RS485_PACKET, data, sizeof(OPENSDK_RS485_DATA));

delete data;
```

Write event log

Application can write event log on camera by using this output event.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_WRITE_LOG	Write event log on camera

OPENSDK_LOG_DATA structure

Members	Type	Description
log	char	Log string
type	OPENSDK_LOG_TYPE	Log type(only use "EVENT_LOG" on Open SDK)

Function Example

```
OPENSDK_LOG_DATA data;

data.type = EVENT_LOG;      // only use "EVENT_LOG" on Open SDK
sprintf(data.log,"[Open SDK:EVENT_LOG] Test Log");

OPENSDK::EVENT::send_event(OPENSDK_WRITE_LOG, &data, sizeof(OPENSDK_LOG_DATA));
```

Set Proxy IP

Proxy IP configuration can be set by using this output event.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_SET_PROXY_IP	Set Proxy IP configuration

OPENSDK_SET_PROXY structure

Variable	Type	Description
ip_address	char	IP address(Max. 15 characters)
port	unsigned int	Port number
id	char	ID(Max. 30 characters)
password	char	Password(Max. 30 characters)
type	OPENSDK_PROXY_TYPE	HTTP/HTTPS/SOCKS

Function Example

```
OPENSDK_SET_PROXY proxy;

sprintf(proxy.ip_address,"192.168.38.51");
proxy.port = 808;
proxy.type = HTTP;
sprintf(proxy.id,"admin");
sprintf(proxy.password,"1234");
OPENSDK::EVENT::send_event(OPENSDK_SET_PROXY_IP, &proxy, sizeof(OPENSDK_SET_PROXY));
```

Add dynamic Event schema

Add Dynamic event schema.

- For simple True/false event, you'd better to use event type because there is no detail eventSchema.

- If you want to push metadata event, please make meta event schema first, and send event which is following schema you made.
  (For the metadata event schema, we suggest you to use ONVIF standard scheme, but it's up to you.)
- If you send json or xml files, please check the validation first.
- Detailed information can be found in the In App Development Guidelines.pdf file.
- The sample code is located in the /opt/opensdk/opensdk-4.02/SampleApplication/test_dynamicEvent folder.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_ADD_DYNAMIC_EVENT_SCHEMA	Add dynamic event schema

DYNAMIC_EVENT_SCHEMA_DATA structure

Variable	Type	Description
eventName	Char	Event name
type	Char	Type (META: 0, EVENT: 1)
eventSchema	Char	Event schema format
rule_index	Char	The identification number of figures and detection area users want, such as a line or rectangular.
IsMeta	Char	Use when the metadata type is RTP.
metaEventSourceToDataDeleteorMaintain	Char	Delete xml content that is set previously if the state is 0. Save xml content that is set previously if the state is 1 (the value of the state does not matter).
IsOnOffEvent	Char	Enter 1 if a field for the state in xml exists.
channel	Char	Channel

isPropertyEvent	Char	To understand property events, refer to the Onvif Core Specification section 9.4.2.
reserve	Char	N/C

Function Example

```
char eventName[64] = "HTWTESTDetection";


    OPENSDK_DEVICE_DATETIME* mDateTime = new OPENSDK_DEVICE_DATETIME;
    OPENSDK_ERR_CODE ret =
(OPENSDK_ERR_CODE)OPENSDK::DEVICE::opensdk_getDeviceDateTime(mDateTime,
sizeof(OPENSDK_DEVICE_DATETIME));
    if (ret != OPENSDK_APP_OK)
    {
        debug_message("Get Device Date and Time is Error,
ErrorCode : %d\n",ret);
    }
    OPENSDK_DATETIME_FMT time = mDateTime->localTime;



    char timeStamp[128] = {0, };
    sprintf(timeStamp, "%04d-%02d-%02dT%02d:%02d:%02d.%03dZ",
            time.year, time.month, time.day, time.hour, time.min, time.sec,
mDateTime->milliSec);


    delete mDateTime;




    char eventSchema[512] = "<tt:MessageDescription
IsProperty=\"true\"><tt:Source><tt:SimpleItemDescription
Name=\"VideoSourceToken\" Type=\"tt:ReferenceToken\"/><SimpleItemDescription
Name=\"RuleName\"
Type=\"xsd:string\"/></tt:Source><tt:Data><tt:SimpleItemDescription
Name=\"State\" Type=\"xsd:boolean\"/><tt:SimpleItemDescription
Name=\"ClassTypes\"
Type=\"tt:StringList\"/></tt:Data></tt:MessageDescription>";
    DYNAMIC_EVENT_SCHEMA_DATA* data = new DYNAMIC_EVENT_SCHEMA_DATA;
    memset(data, 0, sizeof(DYNAMIC_EVENT_SCHEMA_DATA));
    data->type = 1; // 0 : META 1 : EVENT
    data->IsMeta = 0;
    data->IsOnOffEvent = 1;
    data->metaEventSourceToDataDeleteorMaintain = 0;
```

```
    data->channel = 0;
    data->isPropertyEvent = 1;



    memcpy(data->eventName, eventName, 64);
    memcpy(data->eventSchema, eventSchema, 512);

    OPENSDK_ERR_CODE ret1 =
OPENSDK::EVENT::send_event(OPENSDK_ADD_DYNAMIC_EVENT_SCHEMA, data,
sizeof(DYNAMIC_EVENT_SCHEMA_DATA));
    if (ret1 != OPENSDK_APP_OK)
    {
        debug_message("Add Dynamic Event Message is Error,
ErrorCode : %d\n",ret1);
    }
    delete data;
```

Result

```
http://<camera-ip>/stw-cgi/opensdk.cgi?msubmenu=opensdkeventinfo&action=view
```

```
Response(JSON) Type : EVENT
{
{
    "OpenSDKEventInfo": [
    {
"AppName": "test_dynamicEvent",
"AppEvent": "HTWTESTDetection",
"EventTopic": "tns1:OpenApp/test_dynamicEvent/HTWTESTDetection",
"Type": "Event",
"EventSchema": "<tt:MessageDescription IsProperty=\"true\"><tt:Source>  <
   tt:SimpleItemDescription Name=\"VideoSourceToken\"
Type=\"tt:ReferenceToken\"/><SimpleItemDescription Name=\"RuleName\"
Type=\"xsd:string\"/></tt:Source><tt:Data><tt:SimpleItemDescription
Name=\"State\" Type=\"xsd:boolean\"/><tt:SimpleItemDescription
Name=\"ClassTypes\"
Type=\"tt:StringList\"/></tt:Data></tt:MessageDescription>"
    }
    ]
}
}
```

You can check these event schema for OpenSDK events.

```
http://<cam_ip>/stw-cgi/eventstatus.cgi?msubmenu=eventstatusschema&action=view
```

With below SUNAPI command, you can check received event.

```
http://<camera-ip>/stw-
cgi/eventstatus.cgi?msubmenu=eventstatus&action=monitor&SchemaBased=True&Channel.0.EventType=OpenSDK
```

In "**Meta**" type event, there is "**Info**" parameter.

"**Info**" will have response string which app sent and it should follow schema you made in "**eventSchema[512]**"

Send dynamic event

Send Dynamic event.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT OPENSDK_SEND_DYNAMIC_EVENT	Send dynamic event

DYNAMIC_EVENT_SCHEMA_DATA structure

Variable	Type	Description
eventName	Char	Event name
type	Char	Type (META: 0, EVENT: 1)
eventSchema	Char	Event schema format
rule_index	Char	The identification number of figures and detection area users want, such as a line or rectangular.
IsMeta	Char	Use when the metadata type is RTP.
metaEventSourceToDataDeleteorMaintain	Char	Delete xml content that is set previously if the state is 0. Save xml content that is set previously if the state is 1 (the value of the state does not

		matter).
IsOnOffEvent	Char	Enter 1 if a field for the state in xml exists.
channel	Char	Channel
isPropertyEvent	Char	To understand property events, refer to the Onvif Core Specification section 9.4.2.
reserve	Char	N/C

Function Example

```
  DYNAMIC_EVENT_META* meta = new DYNAMIC_EVENT_META;
    memset(meta, 0, sizeof(DYNAMIC_EVENT_META));

    char eventMessage[512];
    meta->type = 1;
    meta->isOnOffEvent = 1;
    meta->channel = 0;
    meta->isPropertyEvent = 1;
    meta->metaEventSourceToDataDeleteorMaintain = 0;
    meta->state = 1;

    memcpy(meta->eventName,eventName,64);
    sprintf(eventMessage, "<tt:Message
UtcTime=\"%s\"><tt:Source><tt:SimpleItem Name=\"VideoSourceToken\"
Value=\"VideoSourceToken-0\"/><tt:SimpleItem Name=\"RuleName\"
Value=\"HTWDetectionRule\"/></tt:Source><tt:Data><tt:SimpleItem Name=\"State\"
Value=\"true\"/><tt:SimpleItem Name=\"ClassTypes\"
Value=\"HTWTestResult\"/></tt:Data></tt:Message>",timeStamp);
    memcpy(meta->string, eventMessage,512);
    debug_message("eventMessage : %s\n", eventMessage);

    OPENSDK_ERR_CODE ret2 =
(OPENSDK_ERR_CODE)OPENSDK::EVENT::send_event(OPENSDK_SEND_DYNAMIC_EVENT, meta,
sizeof(DYNAMIC_EVENT_META));


    if (ret2 != OPENSDK_APP_OK)
    {
        printf("[%s][%s][%d] Send Dynamic Event Message is Error,
ErrorCode : %d\n",__FILE__,__FUNCTION__,__LINE__,ret2);
    }

    sprintf(eventMessage, "<tt:Message
```

```
UtcTime=\"%s\"><tt:Source><tt:SimpleItem Name=\"VideoSourceToken\"
Value=\"VideoSourceToken-0\"/><tt:SimpleItem Name=\"RuleName\"
Value=\"HTWDetectionRule\"/></tt:Source><tt:Data><tt:SimpleItem Name=\"State\"
Value=\"false\"/><tt:SimpleItem Name=\"ClassTypes\"
Value=\"HTWTestResult\"/></tt:Data></tt:Message>",timeStamp);
    memcpy(meta->string, eventMessage,512);
    debug_message("eventMessage : %s\n",eventMessage);
    OPENSDK_ERR_CODE ret3 =
(OPENSDK_ERR_CODE)OPENSDK::EVENT::send_event(OPENSDK_SEND_DYNAMIC_EVENT, meta,
sizeof(DYNAMIC_EVENT_META));
    delete meta;
```

Result

```
http://<camera-ip>/stw-
cgi/eventstatus.cgi?msubmenu=eventstatus&action=monitor&SchemaBased=True&Chann
el.0.EventType=OpenSDK
```

Result

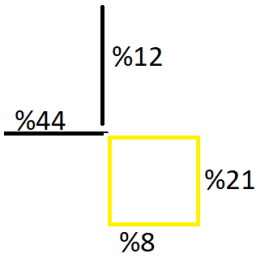
```
Response (JSON)  Type : EVENT
 "OpenSDK": {
                "test_dynamicEvent": {
                    "HTWTESTDetection": true,
                    "HTWTESTDetectionRules": {
                        "1": true
                    }
                }
            }

"OpenSDK": {
                "test_dynamicEvent": {
                    "HTWTESTDetection": true,
                    "HTWTESTDetectionRules": {
                        "1": false
                    }
                }
            }
```

Example

The result below is an event response from A2 Technology's FaceMaskDetection.

```
Response (JSON)
{
    "EventStatus": [
{
    "EventName": "OpenSDK",
    "Time": "2020-08-05T10:38:26.003+00:00",
    "Source": {
        "Channel": 0,
        "AppName": "hanwha_nofacemaskdetection",
        "AppID": "hanwha_nofacemaskdetection",
        "AppEvent": "FaceMaskDetection",
        "Type": "Meta"
    },
    "Data": {
        "Info": "<EventData><tt:Message><tt:Source><tt:SimpleItem
VideoSourceToken = 0/></tt:Source><tt:Data><tt:SimpleItem FaceMaskDetection =
44-12-8-21/></tt:Data></tt:Message></EventData>"
    }
}
]
}
```

Meta data contains face position (x,y,width,height in percent)



Set Metaframe Schema

Application can set metadataframe schema.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT SET_METAFRAME_SCHEMA	Set metaframe schema by xml

Function Example

```
char schema[2000];
sprintf(schema, "META FRAME SCHEMA XML");
OPENSDK::EVENT::send_event(SET_METAFRAME_SCHEMA,schema,2000);
```

Set Metaframe Options

Application can set metadataframe options.

Parameters

OPENSDK_OUTPUT_EVENT enum

Variable	Type	Description
output_event	Enum: OPENSDK_OUTPUT_EVENT	Set metaframe options by json

Function Example

```
char options[2000];
sprintf(options,
"{\"AppID\":\"ID\",\"Capabilities\":[{\"xpath\":\"//tt:VideoAnalytics/tt:Frame
/tt:Object/tt:Appearance/tt:LicensePlateInfo/tt:CountryCode\",\"type\":\"xs:st
ring\",\"enum\":[\"KR\",\"US\",\"CN\",\"FN\",\"IN\"]}]}");
OPENSDK::EVENT::send_event(SET_METAFRAME_OPTIONS,options,2000);
```

CAHPTER 5.

SDK API

The SDK has a set of APIs that the application developer can use. The APIs are grouped as described below, in the following modules.

Video Profile API

Get video source

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getVideoSource	OPENSDK_VID_SOURCE*, INT32_N

Description

Gets the current video source type for camera.

Parameters

OPENSDK_VID_SOURCE enum

Members	Description
OPENSDK_NO_SOURCE	No source selected
OPENSDK_VID_NTSC	Source NTSC
OPENSDK_VID_PAL	Source PAL
OPENSDK_VID_2MP	Source 2MP
OPENSDK_VID_3MP	Source 3MP

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_FEATURE_NOT_SUPPORTED - For OPENSDK_NO_SOURCE and unsupported cameras.
- OPENSDK_APP_ERR_API_ERROR – SDK error

Permission

Not applicable.

Set video source

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setVideoSource	OPENSDK_VID_SOURCE*, INT32_N

Description

Sets the video source type for camera based on the camera model.

Parameters

OPENSDK_VID_SOURCE enum

Members	Description
OPENSDK_NO_SOURCE	No source selected
OPENSDK_VID_NTSC	Source NTSC
OPENSDK_VID_PAL	Source PAL
OPENSDK_VID_2MP	Source 2MP
OPENSDK_VID_3MP	Source 3MP

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_FEATURE_NOT_SUPPORTED - For OPENSDK_NO_SOURCE and unsupported cameras.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable.

Get profiles information

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getProfilesInfo	OPENSDK_PROFILES_INFO*, INT32_N

Description

Gets the number of used profiles and profiles information for the current video source.

Parameters

OPENSDK_PROFILES_INFO structure

Members	Type	Description
profileConfig	Struct: OPENSDK_PROF_CONFIG	Array of the structure

OPENSDK_PROF_CONFIG

Members	Type	Description
isEnable	Unsigned char	Array of the structure
profileName[64];	Character	
codecName[64];	Character	

isEnableAudio	Unsigned char	
isDefault;	Unsigned char	
isFixedFramerate	Unsigned char	
isEventProfile	Unsigned char	
isRecordProfile	Unsigned char	
atcMode	Enum: OPENSDK_ATC_MODE OPENSDK_ATC_OFF /OPENSDK_ATC_ON_FPS_CONTROL / OPENSDK_ATC_ON_FPS_COMPRESSION	
atcLevel	Enum: OPENSDK_ATC_LEVEL OPENSDK_ATC_VERYLOW/OPENSDK_ATC_LOW/ OPENSDK_ATC_MEDIUM/OPENSDK_ATC_HIGH/ OPENSDK_ATC_VERY_HIGH	
atcLimit	Integer	
resolution	Structure : OPENSDK_RESOLUTION	
fps	Integer	
compressionLevel	Integer	
bitrate	Integer	
mode	Enum: OPENSDK_BITRATE_MODE OPENSDK_VAR_BITRATE/OPENSDK_CONST_BITRATE	
gopLen	Integer	
encProfile	Enum: OPENSDK_ENC_PROFILE OPENSDK_NO_PROFILE/OPENSDK_BASELINE_PROFILE,OPENSDK_MAIN_PROFILE/OPENSDK_EXTENDED_PROFILE/OPENSDK_HIGH_PROFILE	
entropyMode	Enum : OPENSDK_ENTROPY_MODE OPENSDK_CAVLC/OPENSDK_CABAC/OPENSDK_DEFAULT	

INT32_N

Type	Description
Integer	The size of the first argument structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable.

Limitation:

- Supports a maximum of 10 camera profiles

Get profile Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getProfileConfig	INT32_N,OPENSDK_PROF_CONFIG*, INT32_N

Description

Gets the profile configuration information for the profile ID;

Parameters

INT32_N

Type	Description
Integer	Profile ID

OPENSDK_PROF_CONFIG

Members	Type	Description
isEnable	Unsigned char	
profileName[64];	Character	
codecName[64];	Character	
isEnableAudio	Unsigned char	
isDefault;	Unsigned char	
isFixedFramerate	Unsigned char	

isEventProfile	Unsigned char	
isRecordProfile	Unsigned char	
atcMode	Enum: OPENSDK_ATC_MODE OPENSDK_ATC_OFF /OPENSDK_ATC_ON_FPS_CONTROL / OPENSDK_ATC_ON_FPS_COMPRESSION	
atcLevel	Enum: OPENSDK_ATC_LEVEL OPENSDK_ATC_VERYLOW/OPENSDK_ATC_LOW/ OPENSDK_ATC_MEDIUM/OPENSDK_ATC_HIGH/ OPENSDK_ATC_VERY_HIGH	
atcLimit	Integer	
resolution	Structure : OPENSDK_RESOLUTION	
fps	Integer	
compressionLevel	Integer	
bitrate	Integer	
mode	Enum: OPENSDK_BITRATE_MODE OPENSDK_VAR_BITRATE/OPENSDK_CONST_BIT RATE	
gopLen	Integer	
encProfile	Enum: OPENSDK_ENC_PROFILE OPENSDK_NO_PROFILE/OPENSDK_BASELINE_P ROFILE,OPENSDK_MAIN_PROFILE/OPENSDK_E XTENDED_PROFILE/OPENSDK_HIGH_PROFILE	
entropyMode	Enum : OPENSDK_ENTROPY_MODE OPENSDK_CAVLC/OPENSDK_CABAC/OPENSDK_ DEFAULT	

INT32_N

Type	Description
Integer	The size of the argument structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.
- OPENSDK_APP_ERR_PROFILE_NUMBER – Invalid profile ID.

Permission

Not applicable.

Limitation:

- Supports 1 to 10 profile IDs.

Set profile Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setProfileConfig	INT32_N,OPENSDK_PROF_CONFIG*, INT32_N

Description

Sets the profile configuration information for the profile ID;

Parameters

INT32_N

Type	Description
Integer	Profile ID

OPENSDK_PROF_CONFIG

Members	Type	Description
isEnable	Unsigned char	
profileName[64];	Character	
codecName[64];	Character	
isEnableAudio	Unsigned char	
isDefault;	Unsigned char	
isFixedFramerate	Unsigned char	
isEventProfile	Unsigned char	
isRecordProfile	Unsigned char	
atcMode	Enum: OPENSDK_ATC_MODE OPENSDK_ATC_OFF /OPENSDK_ATC_ON_FPS_CONTROL /	

	OPENSDK_ATC_ON_FPS_COMPRESSION	
atcLevel	Enum: OPENSDK_ATC_LEVEL OPENSDK_ATC_VERYLOW/OPENSDK_ATC_LOW/ OPENSDK_ATC_MEDIUM/OPENSDK_ATC_HIGH/ OPENSDK_ATC_VERY_HIGH	
atcLimit	Integer	
resolution	Structure : OPENSDK_RESOLUTION	
fps	Integer	
compressionLevel	Integer	
bitrate	Integer	
mode	Enum: OPENSDK_BITRATE_MODE OPENSDK_VAR_BITRATE/OPENSDK_CONST_BIT RATE	
gopLen	Integer	
encProfile	Enum: OPENSDK_ENC_PROFILE OPENSDK_NO_PROFILE/OPENSDK_BASELINE_P ROFILE,OPENSDK_MAIN_PROFILE/OPENSDK_E XTENDED_PROFILE/OPENSDK_HIGH_PROFILE	
entropyMode	Enum : OPENSDK_ENTROPY_MODE OPENSDK_CAVLC/OPENSDK_CABAC/OPENSDK_ DEFAULT	

INT32_N

Type	Description
Integer	The size of argument structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.
- OPENSDK_APP_ERR_PROFILE_NUMBER – Invalid profile ID.

Permission

Not applicable.

Limitation

- Supports 1 to 10 profile IDs.

Add profile

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_addProfile	INT32_N,OPENSDK_PROF_CONFIG*, INT32_N

Description

Adds the profile using profile ID.

Parameters

INT32_N

Type	Description
Integer	Profile ID should be in the range of 1 to 10

OPENSDK_PROF_CONFIG structure

Members	Type	Description
isEnable	Unsigned char	Array of the structure
profileName[64];	Character	
codecName[64];	Character	
isEnableAudio	Unsigned char	
isDefault;	Unsigned char	
isFixedFramerate	Unsigned char	
isEventProfile	Unsigned char	
isRecordProfile	Unsigned char	
atcMode	Enum: OPENSDK_ATC_MODE OPENSDK_ATC_OFF /OPENSDK_ATC_ON_FPS_CONTROL / OPENSDK_ATC_ON_FPS_COMPRESSION	
atcLevel	Enum: OPENSDK_ATC_LEVEL OPENSDK_ATC_VERYLOW/OPENSDK_ATC_LOW/ OPENSDK_ATC_MEDIUM/OPENSDK_ATC_HIGH/ OPENSDK_ATC_VERY_HIGH	
atcLimit	Integer	

resolution	Structure : OPENSDK_RESOLUTION	
fps	Integer	
compressionLevel	Integer	
bitrate	Integer	
mode	Enum: OPENSDK_BITRATE_MODE OPENSDK_VAR_BITRATE/OPENSDK_CONST_BITRATE	
gopLen	Integer	
encProfile	Enum: OPENSDK_ENC_PROFILE OPENSDK_NO_PROFILE/OPENSDK_BASELINE_PROFILE,OPENSDK_MAIN_PROFILE/OPENSDK_EXTENDED_PROFILE/OPENSDK_HIGH_PROFILE	
entropyMode	Enum : OPENSDK_ENTROPY_MODE OPENSDK_CAVLC/OPENSDK_CABAC/OPENSDK_DEFAULT	

INT32_N

Type	Description
Integer	The size of argument structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.
- OPENSDK_APP_ERR_PROFILE_NUMBER – Invalid profile ID.
- OPENSDK_APP_ERR_MODIFY_FIXED_PROFILE – Trying to remove/add fixed profile

Permission

Not applicable.

Limitation

- Supports 1 to 10 profile IDs.
- Profile IDs 1, 2 and 10 or fixed profile users can’t add/remove profiles.

Delete profile

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_deleteProfile	INT32_N

Description

Deletes the profile using profile ID.

Parameters

INT32_N

Type	Description
Integer	Profile ID should be in range 1 to 10

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.
- OPENSDK_APP_ERR_PROFILE_NUMBER – Invalid profile ID.
- OPENSDK_APP_ERR_MODIFY_FIXED_PROFILE – Trying to remove/add fixed profile

Permission

Not applicable.

Limitation

- Supports 1 to 10 profile IDs. Profile IDs 1, 2 and 10 or fixed profile users can't add/remove profiles.

Get Bit Rate Limit

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getBitrateLimit	INT32_N*,INT32_N*,INT32_N*, OPENSDK_VID_CODEC, bool,INT32_N, INT32_N

Description

Gets the bit rate limit;

Parameters

INT32_N *

Type	Description
Integer	minimum bit rate

INT32_N *

Type	Description
Integer	Maximum bit rate

INT32_N *

Type	Description
Integer	default bit rate

OPENSDK_VID_CODEC enum

Members	Description
OPENSDK_VCODEC_MJPEG	
OPENSDK_VCODEC_H264	
OPENSDK_VCODEC_MPEG4	
OPENSDK_VCODEC_NOVIDEO,	
OPENSDK_VCODEC_YUV	

bool

Type	Description
Boolean	is CBR

INT32_N

Type	Description
Integer	width

INT32_N

Type	Description
Integer	height

Error code

- OPENSDK_APP_ERR_UNSUPPORTED_CAMERA_MODEL – Unsupported camera model.
- OPENSDK_APP_ERR_NOT_INITIALIZED – Input parameters are not initialized properly.

Permission

Not applicable.

Get Frame Rate Limit

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getFramerateLimit	INT32_N*, OPENSDK_VID_CODEC, INT32_N, INT32_N

Description

Gets the frame rate limit for the given video format with the resolution.

Parameters

INT32_N *

Type	Description
Integer	Maximum frame rate

OPENSDK_VID_CODEC enum

Members	Description
OPENSDK_VCODEC_MJPEG	
OPENSDK_VCODEC_H264	
OPENSDK_VCODEC_MPEG4	
OPENSDK_VCODEC_NOVIDEO,	
OPENSDK_VCODEC_YUV	

INT32_N

Type	Description
Integer	width

INT32_N

Type	Description
Integer	height

Error code

- OPENSDK_APP_ERR_UNSUPPORTED_CAMERA_MODEL – Unsupported camera model.
- OPENSDK_APP_ERR_NOT_INITIALIZED – Input parameters are not initialized properly.

Permission

- Not applicable

Get Supported Video Resolution

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getSupportResolution	OPENSDK_RESOLUTION*,INT32_N*

Description

Gets the supported video resolution for the camera.

Parameters

OPENSDK_RESOLUTION structure

Members	Type	Description
Width	Integer	
Height	Integer	

INT32_N *

Type	Description
Integer	resolution count

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Get Flip Mirror Rotate

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	getFlipMirrorRotate	OPENSDK_FLIPMIRROR* , int

Description

Get flip mirror rotate config value from camera

Example

```
OPENSDK_FLIPMIRROR * data = new OPENSDK_FLIPMIRROR ();
OPENSDK::PROFILE::opensdk_getFlipMirrorRotate(data,
sizeof(OPENSDK_FLIPMIRROR));
delete data;
```

Get Max Resolution

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	getMaxResolution	OPENSDK_RESOLUTION* , int

Description

Get max resolution value from camera

Example

```
OPENSDK_RESOLUTION * data = new OPENSDK_RESOLUTION();
OPENSDK::PROFILE::opensdk_getMaxResolution(data, sizeof(OPENSDK_RESOLUTION));
delete data;
```

Set Channel

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	setChannel	Unsignined int

Description

Set channel value to Camera

Example

```
OPENSDK::DEVICE::opensdk_setChannel(1);
```

Video Analytics API

Get MD Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getMDconfig	OPENSDK_MD_REQUEST*,INT32_N

Description

Gets MD configuration.

Parameters

OPENSDK_MD_REQUEST structure

Members	Type	Description
mdConfig	Structure : OPENSDK_MD_CONFIG	

OPENSDK_MD_CONFIG structure

Members	Type	Description
mdSetting	Structure : OPENSDK_MD_SETTING	
vaEventSetting	Structure: OPENSDK_VA_EVENT_SETTING	

OPENSDK_MD_SETTING structure

Members	Type	Description
isEnable	character	
enableOverlay	character	
enableVaBoxDisplay	character	
sensitivity	character	
mMode	Character	
Area[OPENSDKMAX_MD_AREA]	Structure:OPENSDK_MD_OBJAREA	
objectSizeRule	character	
ManualSize	Structure: OPENSDK_MANUALSIZE	
handover	Structure: HandOverSetting	

OPENSDK_MD_OBJAREA structure

Members	Type	Description
index	character	
isEnable	character	
mdMode	character	
ptCount	character	
midpoint[OPENSDK_MAX_MD_AREA_POINT]	OPENSDK_MD_POINT	
sensitivity	character	

threshold	character	
handover_idx	Unsigned character	
Reserved	charecter	

OPENSDK_MD_POINT structure

Members	Type	Description
xPos	Integer	
xPos	Integer	

OPENSDK_OBJ_MANUALSIZE structure

Members	Type	Description
VSL	character	
VSH	character	
HSL	character	
HSH	character	
minWidth	integer	
minHeight	integer	
maxWidth	integer	
maxHeight	integer	

OPENSDK_VA_EVENT_SETTING structure

Members	Type	Description
schedule	Structure: OPENSDK_SCHEDULE_SETTING	Schedule settings
action	Structure: OPENSDK_EVENT_ACTION_SETTING	Action settings

OPENSDK_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	character	
onSun[24]	character	
onMon[24]	character	
onTue[24]	character	
onWed[24]	character	
onThu[24]	character	

onFri[24]	character	
onSat[24]	character	
detailSetting	Structure: OPENSDK_DETAIL_SCHEDULE_SETTING	

OPENSDK_DETAIL_SCHEDULE_SETTING structure

Members	Type	Description
detailSun [24]	Structure :OPENSDK_MINUTE_TESTING	
detailMon [24]	Structure :OPENSDK_MINUTE_TESTING	
detailTue [24]	Structure :OPENSDK_MINUTE_TESTING	
detailWed [24]	Structure :OPENSDK_MINUTE_TESTING	
detailThu [24]	Structure :OPENSDK_MINUTE_TESTING	
detailFri [24]	Structure :OPENSDK_MINUTE_TESTING	
detailSat [24]	Structure :OPENSDK_MINUTE_TESTING	

OPENSDK_MINUTE_TESTING structure

Members	Type	Description
isEnable	character	
from	character	
to	character	

OPENSDK_EVENT_ACTION_SETTING structure

Members	Type	Description
relayOut	character	
ftp	character	
mail	character	
record	character	
preset	character	
reserved[12]	character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Set MD Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setMDconfig	OPENSDK_MD_REQUEST*,INT32_N

Description

Sets MD configuration.

Parameters

OPENSDK_MD_REQUEST structure

Members	Type	Description
mdConfig	Structure : OPENSDK_MD_CONFIG	

OPENSDK_MD_CONFIG structure

Members	Type	Description
mdSetting	Structure : OPENSDK_MD_SETTING	
vaEventSetting	Structure: OPENSDK_VA_EVENT_SETTING	

OPENSDK_MD_SETTING structure

Members	Type	Description
isEnable	character	
enableOverlay	character	
enableVaBoxDisplay	character	
sensitivity	character	
mMode	Character	
Area[OPENSDKMAX_	Structure:OPENSDK_MD_OBJAREA	

MD_AREA]		
objectSizeRule	character	
ManualSize	Structure: OPENSDK_MANUALSIZE	

OPENSDK_MD_OBJAREA structure

Members	Type	Description
index	character	
isEnable	character	
mdMode	character	
ptCount	character	
midpoint[OPENSDK_MAX_MD_AREA_POINT]	OPENSDK_MD_POINT	
sensitivity	character	
threshold	character	
handover_idx	Unsigned character	
Reserved	charecter	

OPENSDK_MD_POINT structure

Members	Type	Description
xPos	Integer	
xPos	Integer	

OPENSDK_OBJ_MANUALSIZE structure

Members	Type	Description
VSL	character	
VSH	character	
HSL	character	
HSH	character	
minWidth	integer	
minHeight	integer	
maxWidth	integer	
maxHeight	integer	

OPENSDK_VA_EVENT_SETTING structure

Members	Type	Description
schedule	Structure: OPENSDK_SCHEDULE_SETTING	Schedule settings
action	Structure: OPENSDK_EVENT_ACTION_SETTING	Action settings

OPENSDK_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	character	
onSun[24]	character	
onMon[24]	character	
onTue[24]	character	
onWed[24]	character	
onThu[24]	character	
onFri[24]	character	
onSat[24]	character	
detailSetting	Structure: OPENSDK_DETAIL_SCHEDULE_SETTING	

OPENSDK_DETAIL_SCHEDULE_SETTING structure

Members	Type	Description
detailSun [24]	Structure :OPENSDK_MINUTE_TESTING	
detailMon [24]	Structure :OPENSDK_MINUTE_TESTING	
detailTue [24]	Structure :OPENSDK_MINUTE_TESTING	
detailWed [24]	Structure :OPENSDK_MINUTE_TESTING	
detailThu [24]	Structure :OPENSDK_MINUTE_TESTING	
detailFri [24]	Structure :OPENSDK_MINUTE_TESTING	
detailSat [24]	Structure :OPENSDK_MINUTE_TESTING	

OPENSDK_MINUTE_TESTING structure

Members	Type	Description
isEnable	character	
from	character	
to	character	

OPENSDK_EVENT_ACTION_SETTING structure

Members	Type	Description
relayOut	character	
ftp	character	
mail	character	
record	character	
preset	character	
reserved[12]	character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Get VA Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getVAconfig	OPENSDK_VA_CONFIG*,INT32_N

Description

Gets VA configuration.

Parameters

OPENSDK_VA_CONFIG structure

Members	Type	Description
va	Structure: OPENSDK_VA_CONF	

Event	Structure: OPENSDK_VA_EVENT_SETTING	

OPENSDK_VA_CONF structure

Members	Type	Description
va	Character	
ivConfig	Structure : OPENSDK_IV_SETTING	
Mdconfig	Structure : OPENSDK_MD_SETTING	

OPENSDK_VA_EVENT_SETTING structure

Members	Type	Description
schedule	OPENSDK_SCHEDULE_SETTING	
action	OPENSDK_EVENT_ACTION_SETTING	

OPENSDK_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	character	
onSun[24]	character	
onMon[24]	character	
onTue[24]	character	
onWed[24]	character	
onThu[24]	character	
onFri[24]	character	
onSat[24]	character	
detailSetting	Structure: OPENSDK_DETAIL_SCHEDULE_SETTING	

OPENSDK_DETAIL_SCHEDULE_SETTING structure

Members	Type	Description
detailSun [24]	Structure :OPENSDK_MINUTE_TESTING	
detailMon [24]	Structure :OPENSDK_MINUTE_TESTING	
detailTue [24]	Structure :OPENSDK_MINUTE_TESTING	
detailWed [24]	Structure :OPENSDK_MINUTE_TESTING	
detailThu [24]	Structure :OPENSDK_MINUTE_TESTING	
detailFri [24]	Structure :OPENSDK_MINUTE_TESTING	

detailSat [24]	Structure :OPENSDK_MINUTE_TESTING	

OPENSDK_MINUTE_TESTING structure

Members	Type	Description
isEnable	character	
from	character	
to	character	

OPENSDK_EVENT_ACTION_SETTING structure

Members	Type	Description
relayOut	character	
ftp	character	
mail	character	
record	character	
preset	character	
reserved[12]	character	

INT32_N

Type	Description
Integer	Size of the structure used in argument

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Set VA Configuration

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	opensdk_setVAconfig	OPENSDK_VA_CONFIG*,INT32_N

Description

Sets VA configuration.

Parameters

OPENSDK_VA_CONFIG structure

Members	Type	Description
va	Structure: OPENSDK_VA_CONF	
event	Structure: OPENSDK_VA_EVENT_SETTING	

OPENSDK_VA_CONF structure

Members	Type	Description
mode	Character	
ivConfig	Structure : OPENSDK_IV_SETTING	
mdconfig	Structure : OPENSDK_MD_SETTING	

OPENSDK_VA_EVENT_SETTING structure

Members	Type	Description
schedule	OPENSDK_SCHEDULE_SETTING	
action	OPENSDK_EVENT_ACTION_SETTING	

OPENSDK_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	character	
onSun[24]	character	
onMon[24]	character	
onTue[24]	character	
onWed[24]	character	
onThu[24]	character	
onFri[24]	character	
onSat[24]	character	

detailSetting	Structure: OPENSDK_DETAIL_SCHEDULE_SETTING	

OPENSDK_DETAIL_SCHEDULE_SETTING structure

Members	Type	Description
detailSun [24]	Structure :OPENSDK_MINUTE_TESTING	
detailMon [24]	Structure :OPENSDK_MINUTE_TESTING	
detailTue [24]	Structure :OPENSDK_MINUTE_TESTING	
detailWed [24]	Structure :OPENSDK_MINUTE_TESTING	
detailThu [24]	Structure :OPENSDK_MINUTE_TESTING	
detailFri [24]	Structure :OPENSDK_MINUTE_TESTING	
detailSat [24]	Structure :OPENSDK_MINUTE_TESTING	

OPENSDK_MINUTE_TESTING structure

Members	Type	Description
isEnable	character	
from	character	
to	character	

OPENSDK_EVENT_ACTION_SETTING structure

Members	Type	Description
relayOut	character	
ftp	character	
mail	character	
record	character	
preset	character	
reserved[12]	character	

INT32_N

Type	Description
Integer	Size of the structure used in argument

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Get AD Configuration (Appear/Disappear)

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setADconfig	OPENSDK_AD_CONFIG*,INT32_N

Description

Gets AD configuration.

Parameters

OPENSDK_AD_CONFIG structure

Members	Type	Description
eventSetting	Structure: OPENSDK_AD_EVENT_SETTING	

OPENSDK_AD_EVENT_SETTING structure

Members	Type	Description
isEnable	Character	
sensitivity	Character	1~100
schedule	Structure: OPENSDK_SCHEDULE_SETTING	
action	Structure: OPENSDK_EVENT_ACTION_SETTING	
reserved[128]	Character	

OPENSDK_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	Character	
onSun[24]	Character	

onMon[24]	Character	
onTue[24]	Character	
onWed[24]	Character	
onThu[24]	Character	
onFri[24]	Character	
onSat[24]	Character	

OPENSDK_EVENT_ACTION_SETTING structure

Members	Type	Description
relayOut[OPENSDK_CAMERA_RELAY_COUNT]	Character	
ftp	Character	
mail	Character	
record	Character	
preset	Character	
reserved[12]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Set AD Configuration

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	opensdk_getADconfig	OPENSDK_AD_CONFIG*,INT32_N

Description

Sets AD configuration.

Parameters

OPENSDK_AD_CONFIG structure

Members	Type	Description
eventSetting	Structure: OPENSDK_AD_EVENT_SETTING	

OPENSDK_AD_EVENT_SETTING structure

Members	Type	Description
isEnable	Character	
sensitivity	Character	1~100
schedule	Structure: OPENSDK_SCHEDULE_SETTING	
action	Structure: OPENSDK_EVENT_ACTION_SETTING	
reserved[128]	Character	

OPENSDK_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	Character	
onSun[24]	Character	
onMon[24]	Character	
onTue[24]	Character	
onWed[24]	Character	
onThu[24]	Character	
onFri[24]	Character	
onSat[24]	Character	

OPENSDK_EVENT_ACTION_SETTING structure

Members	Type	Description
relayOut[OPENSDK_CAMERA_RELAY_COUN	Character	

T]		
ftp	Character	
mail	Character	
record	Character	
preset	Character	
reserved[12]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Get FD Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getFDconfig	OPENSDK_FD_REQUEST*,INT32_N

Description

Gets FD configuration.

Parameters

OPENSDK_FD_REQUEST structure

Members	Type	Description
fdConfig	Structure:OPENSDK_FD_CONFIG	

OPENSDK_FD_CONFIG structure

Members	Type	Description
fdSettings	structure: OPENSDK_FD_SETTING	
vaEventSetting	Structure: OPENSDK_VA_EVENT_SETTING	

OPENSDK_FD_SETTING structure

Members	Type	Description
isEnable	Character	
enableOverlay;	Character	
enableVaBoxDisplay	Character	
sensitivity	Character	1~100
area[OPENSDK_MAX_FD_OBJECT]	Structure: OPENSDK_FDOBJ_AREARULE	

OPENSDK_VA_EVENT_SETTING structure

Members	Type	Description
schedule	Structure: OPENSDK_SCHEDULE_SETTING	
action	Structure: OPENSDK_EVENT_ACTION_SETTING	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Set FD Configuration

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	opensdk_setFDconfig	OPENSDK_FD_REQUEST*, INT32_N

Description

Sets FD configuration.

Parameters

OPENSDK_FD_REQUEST structure

Members	Type	Description
fdConfig	Structure:OPENSDK_FD_CONFIG	

OPENSDK_FD_CONFIG structure

Members	Type	Description
fdSettings	structure: OPENSDK_FD_SETTING	
vaEventSetting	Structure: OPENSDK_VA_EVENT_SETTING	

OPENSDK_FD_SETTING structure

Members	Type	Description
isEnable	Character	
enableOverlay;	Character	
enableVaBoxDisplay	Character	
sensitivity	Character	1~100
area[OPENSDK_MAX_FD_OBJECT]	Structure: OPENSDK_FDOBJ_AREARULE	

OPENSDK_VA_EVENT_SETTING structure

Members	Type	Description
schedule	Structure: OPENSDK_SCHEDULE_SETTING	
action	Structure: OPENSDK_EVENT_ACTION_SETTING	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Get Tampering Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getTampconfig	OPENSDK_TAMP_REQUEST*, INT32_N

Description

Gets the tampering configuration.

Parameters

OPENSDK_TAMP_REQUEST structure

Members	Type	Description
tampConfig	Structure:OPENSDK_TAMP_CONFIG	

OPENSDK_TAMP_CONFIG structure

Members	Type	Description
isEnable	Character	
sensitivity	Character	
reserved1[8]	Character	
schedule	Structure: OPENSDK_SCHEDULE_SETTING	
action	Structure: OPENSDK_EVENT_ACTION_SETTING	
reserved2[128]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Set Tampering Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setTampconfig	OPENSDK_TAMP_REQUEST*, INT32_N

Description

Sets the tampering configuration.

Parameters

OPENSDK_TAMP_REQUEST structure

Members	Type	Description
tampConfig	Structure:OPENSDK_TAMP_CONFIG	

OPENSDK_TAMP_CONFIG structure

Members	Type	Description
isEnable	Character	
sensitivity	Character	
reserved1[8]	Character	
schedule	Structure: OPENSDK_SCHEDULE_SETTING	
action	Structure: OPENSDK_EVENT_ACTION_SETTING	
reserved2[128]	Character	

INT32_N

Type	Description

Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Record API

The APIs are designed to get information about the storage device, recorded data and the record configuration of the camera device. SD card permission is required to access the APIs. APIs also allow the developer to change certain configurations.

Get SD Card Storage Path

Signature

Return Type	Method	Parameters
const INT8_N*	opensdk_getSDcardStoragePath	void

Description

This is used to get the SD card storage path from the application.

Return Value

If successful, this will return the path of the SD card storage. If any failure occurs in getting the path, it will return NULL.

Permission

SD Card permission required

Get SD Card size

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getMountSize	Pointer to UINT64_N(Total size), Pointer to UINT64_N(Free size)

Description

This is used to get the total size and free size of SD card.

Return Value

Opensdk error code is returned

Permission

SD Card permission required

Get Storage Information

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getStorageInfo	OPENSDK_STORAGE_RESPONSE*, INT32_N

Description

Gets storage information on a connected camera device.

Parameters

OPENSDK_STORAGE_RESPONSE structure

Members	Type	Description

storageInfo[OPENSDK_MAX_STORAGE_NUM]	Structure: OPENSDK_STORAGE_INFO	

OPENSDK_STORAGE_INFO structure

Members	Type	Description
storageToken[8]	Character	
storageType;	Character	
fileSystem;	Character	
totalSize	Integer	
freeSize	Integer	
storageStatus	Character	
reserved[64]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Set Storage Information

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setStorageInfo	OPENSDK_STORAGE_RESPONSE*, INT32_N,

Description

Sets storage information on the connected camera device.

Parameters

OPENSDK_STORAGE_RESPONSE structure

Members	Type	Description
storageInfo[OPENSDK_MAX_STORAGE_NUM]	Structure: OPENSDK_STORAGE_INFO	

OPENSDK_STORAGE_INFO structure

Members	Type	Description
storageToken[8]	Character	
storageType;	Character	
fileSystem;	Character	
totalSize	Integer	
freeSize	Integer	
storageStatus	Character	
reserved[64]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Get Record Configuration

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	opensdk_getRecordConfig	OPENSDK_REC_CONFIG*, INT32_N

Description

Gets the SD card recording configuration.

Parameters

OPENSDK_REC_CONFIG structure

Members	Type	Description
enable	Unsigned Character	
forceIfps	Unsigned Character	
overWrite	Unsigned Character	
preAlarmDuration	Integer	
postAlarmDuration	Integer	
recordingMode	Character	
autoRemoval	Character	
autoRemovalPeriod	Integer	
autoRemovalPeriodUnit	Character	
recordProfileName[64]	Character	
reserved[57]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Set Record Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setRecordConfig	OPENSDK_REC_CONFIG*, INT32_N

Description

Sets SD card recording configuration.

Parameters

OPENSDK_REC_CONFIG structure

Members	Type	Description
enable	Unsigned Character	
forceIfps	Unsigned Character	
overWrite	Unsigned Character	
preAlarmDuration	Integer	
postAlarmDuration	Integer	
recordingMode	Character	
autoRemoval	Character	
autoRemovalPeriod	Integer	
autoRemovalPeriodUnit	Character	
recordProfileName[64]	Character	
reserved[57]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Search Recorded Video

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_searchRecVideo	OPENSDK_REC_SEARCH_REQUEST*, INT32_N, OPENSDK_REC_SEARCH_RESPONSE*, INT32_N

Description

Searches recorded videos stored on the SD card.

Parameters

OPENSDK_REC_SEARCH_REQUEST structure

Members	Type	Description
storageType	Integer	
pageNo	Integer	
channelToken	Unsigned Character	
eventToken	Unsigned Character	
startTime	structure: OPENSDK_REC_DATETIME_FMT	
endTime	structure: OPENSDK_REC_DATETIME_FMT	
Direction	Character	
maxResult	Integer	
startKey	Integer	

INT32_N

Type	Description
Integer	The size of the first parameter structure

OPENSDK_REC_SEARCH_RESPONSE structure

Members	Type	Description
storageType	Integer	
pageNo	Integer	
channelToken	Unsigned Character	
eventToken	Unsigned Character	
resultCount	Integer	
searchResult[]	Structure: OPENSDK_REC_SEARCH_RESULT	

OPENSDK_REC_SEARCH_RESULT structure

Members	Type	Description
startTime	OPENSDK_REC_DATETIME_FMT	
endTime	OPENSDK_REC_DATETIME_FMT	
contentSize	Integer	
encoding	Character	
width	Integer	
height	Integer	
fileIndex	Integer	
key	Integer	

OPENSDK_REC_DATETIME_FMT structure

Members	Type	Description
Year	Integer	
Month	Integer	
Day	Integer	
Hour	Integer	
Minute	Integer	
Second	Integer	

INT32_N

Type	Description
Integer	The size of the second parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Get Recorded Video

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getRecVideo	OPENSDK_REC_GET_VIDEO *, INT32_N

Description

Gets the recorded video from the SD card. The recorded video will be received in OPENSDK_RECORDED_VIDEO events.

Parameters

OPENSDK_REC_GET_VIDEO structure

Members	Type	Description
startTime	structure: OPENSDK_REC_DATETIME_FMT	
endTime	structure: OPENSDK_REC_DATETIME_FMT	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Get back up recorded video

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_backupRecVideo	OPENSDK_REC_BACKUP_REQUEST*, INT32_N, OPENSDK_REC_BACKUP_RESPONSE*, INT32_N

Description

Backs up recorded video.

Parameters

OPENSDK_REC_BACKUP_REQUEST structure

Members	Type	Description
storageToken[8]	Unsigned Character	
channelToken	Unsigned Character	
startTime	structure: OPENSDK_REC_DATETIME_FMT	
endTime	structure: OPENSDK_REC_DATETIME_FMT	
dbIndex	Integer	
reserved[8]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

OPENSDK_REC_BACKUP_RESPONSE structure

Members	Type	Description
storageToken[8]	Unsigned Character	
channelToken	Unsigned Character	
startTime	structure: OPENSDK_REC_DATETIME_FMT	

endTime	structure: OPENSDK_REC_DATETIME_FMT	
port	Integer	

INT32_N

Type	Description
Integer	The size of the second parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Add Storage Format

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_addStorageFormat	OPENSDK_REC_STORAGE_FMT*, INT32_N,

Description

Adds a storage format to the camera device.

Parameters

OPENSDK_REC_STOSRAGE_FMT structure

Members	Type	Description
storageToken[8]	Character	
storageFileSystem	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Get Continuous Record Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getContRecConfig	OPENSDK_REC_CONT_CONFIG, INT32_N

Description

Gets the continuous record configuration for the camera.

Parameters

OPENSDK_REC_CONT_CONFIG structure

Members	Type	Description
recMode	Character	
eventMode	Character	
eventSchedule	structure: OPENSDK_REC_SCHEDULE_SETTING	
reserved[64]	Character	

OPENSDK_REC_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	character	

onSun[24]	character	
onMon[24]	character	
onTue[24]	character	
onWed[24]	character	
onThu[24]	character	
onFri[24]	character	
onSat[24]	character	
detailSetting	Structure: OPENSDK_DETAIL_SCHEDULE_SETTING	

OPENSDK_REC_CONT_CONFIG structure

Members	Type	Description
recMode	Character	
eventMode	Character	
eventSchedule	structure: OPENSDK_REC_SCHEDULE_SETTING	
reserved[64]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Set Continuous Record Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setContRecConfig	OPENSDK_REC_CONT_CONFIG,

		INT32_N

Description

Sets the continuous record configuration for the camera.

Parameters

OPENSDK_REC_CONT_CONFIG structure

Members	Type	Description
recMode	Character	
eventMode	Character	
eventSchedule	structure: OPENSDK_REC_SCHEDULE_SETTING	
reserved[64]	Character	

OPENSDK_REC_SCHEDULE_SETTING structure

Members	Type	Description
isEnable	character	
onSun[24]	character	
onMon[24]	character	
onTue[24]	character	
onWed[24]	character	
onThu[24]	character	
onFri[24]	character	
onSat[24]	character	
detailSetting	Structure: OPENSDK_DETAIL_SCHEDULE_SETTING	

OPENSDK_REC_CONT_CONFIG structure

Members	Type	Description
recMode	Character	
eventMode	Character	
eventSchedule	structure: OPENSDK_REC_SCHEDULE_SETTING	
reserved[64]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Get NAS Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getNASconfig	OPENSDK_REC_NAS_CONFIG*, INT32_N

Description

Gets NAS configuration.

Parameters

OPENSDK_REC_NAS_CONFIG structure

Members	Type	Description
nasSetting	structure: OPENSDK_NAS_SETTING	

OPENSDK_NAS_SETTING structure

Members	Type	Description
isEnable	Character	
name[32]	Character	
ipAddress[16]	Character	
id[32]	Character	

password[32]	Character	
defaultFolder[128]	Character	
fileSystem	Character	
actionType	Character	
reserved[127]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Set NAS Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getNASconfig	OPENSDK_REC_NAS_CONFIG, INT32_N

Description

Sets NAS configuration.

Parameters

OPENSDK_REC_NAS_CONFIG structure

Members	Type	Description
nasSetting	structure: OPENSDK_NAS_SETTING	

OPENSDK_NAS_SETTING structure

Members	Type	Description
isEnable	Character	
name[32]	Character	
ipAddress[16]	Character	
id[32]	Character	
password[32]	Character	
defaultFolder[128]	Character	
fileSystem	Character	
actionType	Character	
reserved[127]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Remove NAS Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_removeNASconfig	OPENSDK_REC_NAS_CONFIG, INT32_N

Description

Removes NAS configuration.

Parameters

OPENSDK_REC_NAS_CONFIG structure

Members	Type	Description
nasSetting	structure: OPENSDK_NAS_SETTING	

OPENSDK_NAS_SETTING structure

Members	Type	Description
isEnable	Character	
name[32]	Character	
ipAddress[16]	Character	
id[32]	Character	
password[32]	Character	
defaultFolder[128]	Character	
fileSystem	Character	
actionType	Character	
reserved[127]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Start NAS Recording

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startNASRecord	OPENSDK_REC_NAS_CONFIG, INT32_N

Description

Starts NAS recording.

Parameters

OPENSDK_REC_NAS_CONFIG structure

Members	Type	Description
nasSetting	structure: OPENSDK_NAS_SETTING	

OPENSDK_NAS_SETTING structure

Members	Type	Description
isEnable	Character	
name[32]	Character	
ipAddress[16]	Character	
id[32]	Character	
password[32]	Character	
defaultFolder[128]	Character	
fileSystem	Character	
actionType	Character	
reserved[127]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

SD Card permission required

Start SD Card for exclusive use

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startExclusiveUseSDcard	void

Description

This is used to dedicate the usage of the SD card to open platform applications only. After running this API, recording data will not be saved on 2nd slot.

When API was executed, SD card would be initialized and remounted.

Return Value

If successful, this will return OPENSDK_APP_OK(1).

Permission

SD Card permission required

Function Example

```
OPENSDK_ERR_CODE          errCode = OPENSDK_APP_OK;
errCode = OPENSDK::RECORD::opensdk_startExclusiveUseSDcard();
```

Get SD Card exclusive use status

Signature

Return Type	Method	Parameters

int	opensdk_getExclusiveUseSDcard	void

Description

This is used to get the status of the SD card whose usage is dedicated to the open platform application.

Return Value

Normal status: 0

Exclusive use (not recording on 2nd slot): 1

Mode changing: 2

Permission

SD Card permission required

Function Example

```
int status;
status = OPENSDK::RECORD:: opensdk_getExclusiveUseSDcard ();
```

Start to use SD Card for Application

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startSDcardUse	SD_CARD, FILE_SYSTEM

Description

This API is for staring to use SD card for application.

Parameters

SD_CARD enum

Members	Description
SD 1	1st SD card(/mnt/mmcblk0p1)
SD 2	2nd SD card(/mnt/mmcblk1p1)

FILE_SYSTEM enum

Members	Description
EXT4	Mount ext4 formatted SD
VFAT	Mount vfat formatted SD

Caution

- After using this API, don't turn on Record Enable(could be malfunction)
- If Record was enabled before using this API, operating time of this API would be taken max 20 second. Please definitely check return value.

Permission

SD Card permission required

Function Example

```
SD_CARD sd_number = SD1;
FILE_SYSTEM type = EXT4;

OPENSDK::RECORD::opensdk_startSDcardUse(sd_number,type);
```

Stop to use SD Card for Application

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_stopSDcardUse	SD_CARD

Description

This API is for stoping to use SD card for application.

Parameters

SD_CARD enum

Members	Description
SD 1	1st SD card(/mnt/mmcblk0p1)
SD 2	2nd SD card(/mnt/mmcblk1p1)

Permission

SD Card permission required

Function Example

```
SD_CARD sd_number = SD1;


OPENSDK::RECORD::opensdk_stopSDcardUse(sd_number);
```

Format SD Card

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_formatSDcard	SD_CARD, FILE_SYSTEM

Description

This API is for format SD card for application.

Parameters

SD_CARD enum

Members	Description
SD 1	1st SD card(/mnt/mmcblk0p1)
SD 2	2nd SD card(/mnt/mmcblk1p1)

FILE_SYSTEM enum

Members	Description
EXT4	Format SD card to ext4
VFAT	Format SD card to vfat

> **Note**
>
> After using this API, it will take more time. Please check the status before using SD card.

Permission

SD Card permission required

Function Example

```
SD_CARD sd_number = SD1;
FILE_SYSTEM type = EXT4;

OPENSDK::RECORD:: opensdk_formatSDcard(sd_number,type);
```

Get SD card Status

Signature

Return Type	Method	Parameters
SD_CARD_STATUS	opensdk_getSDcardStatus	SD_CARD

Description

This API is for getting SD card status.

Parameters

SD_CARD_STATUS enum

Members	Description
UNMOUNTED	SD card is not mounted
MOUNTED_EXT4	SD card is mounted by EXT4
MOUNTED_VFAT	SD card is mounted by VFAT
FORMATTING	SD card format is in progress
STATUS_ERROR	SD card has a problem.(recommend to format)

SD_CARD enum

Members	Description
SD 1	1st SD card(/mnt/mmcblk0p1)
SD 2	2nd SD card(/mnt/mmcblk1p1)

Permission

SD Card permission required

Function Example

```
SD_CARD sd_number = SD1;
SD_CARD_STATUS status = OPENSDK::RECORD:: opensdk_getSDcardStatus(sd_number);
```

Device - System Info

The APIs are designed to get information about the camera device. APIs also allow the developer to change certain configurations.

Get Device Date & Time

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getDeviceDateTime	OPENSDK_DEVICE_DATETIME*, INT32_N

Description

Gets device date and time.

Parameters

OPENSDK_DEVICE_DATETIME structure

Members	Type	Description
syncType	Character	
enableDst	Character	
timeZone[64]	Character	
utcTime	Structure : OPENSDK_DATETIME_FMT	
localTime	Structure : OPENSDK_DATETIME_FMT	
milliSec	Integer	
currTimeZone	Character	

OPENSDK_DATETIME_FMT structure

Members	Type	Description
year	Integer	
month	Integer	
Day	Integer	
hour	Integer	
Min	Integer	
Sec	Integer	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Set Device Time Zone

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setTimeZone	OPENSDK_TIMEZONE_INFO

Description

Gets device date and time.

Parameters

OPENSDK_TIMEZONE_INFO enum

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Device permission required

Get Camera Device System Config

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getSystemConfig	OPENSDK_SYS_INFO*,INT32_N,

Description

Gets camera device system configuration.

Parameters

OPENSDK_SYS_INFO structure

Members	Type	Description
devInfo	structure:OPENSDK_DEVICE_INFO	
camInfo	structure : OPENSDK_CAMERA_INFO	
videoType	Integer	
interfaceVersion[16]	Character	
scopeSetting	Structure : OPENSDK_SCOPE_SETTING	
onvifSetting	Structure: OPENSDK_ONVIF_SETTING	
bootloaderVersion[64]	Character	
aiModelDetectionVersion[32]	Character	
reserved2[32]	Character	
trackingVersion[16]	Character	
openSSLVersion[8]	Character	

reserved[14]	Character	

OPENSDK_DEVICE_INFO structure

Members	Type	Description
manufacturer[64]	Character	
model[32]	Character	
firmwareVersion[16]	Character	
moduleVersion[16]	Character	
ptzVersion[16]	Character	
lastUpdate[32]	Character	
serialNumber[32]	Character	
hardwareId[16]	Character	

OPENSDK_CAMERA_INFO structure

Members	Type	Description
device_name[32]	Character	
location[64]	Character	
description[64]	Character	
memo[128]	Character	
language	Character	
deviceType	Character	
manufacturer[64]	Character	

OPENSDK_SCOPE_SETTING structure

Members	Type	Description
onvifScope[OPENSDK_MAX_SCOPE_COUNT]	structure : OPENSDK_ONVIF_SCOPE	

OPENSDK_ONVIF_SCOPE structure

Members	Type	Description
isconfigurable	integer	
item[OPENSDK_MAX_SCOPE_ITEM_LENGTH]	character	

OPENSDK_ONVIF_SETTING structure

Members	Type	Description
discoveryMode	Character	
enableAuth	Character	
enableConfig	Character	
serviceRestart	Character	
reserved[7]	Character	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_PERMISSION_RESTRICTED – Permission required
- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Device permission required

Get Camera Model

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getCameraModel	Char *

Description

Gets camera model.

Parameters

OPENSDK_CAMERA_MODEL enum

Members	Description

SNB_6004	

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Get Camera MAC Address

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getMacAddress	OPENSDK_MAC_INFO *

Description

Gets camera MAC address.

Parameters

OPENSDK_MAC_INFO struct

Members	Type	Description
buff	char*	Buffer to fill the MAC address
size	int	size of the input buffer passed

Get Camera IP Address

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	opensdk_getIpAddress	OPENSDK_IP_INFO*

Description

Get camera IP address.

Parameters

OPENSDK_MAC_INFO struct

Members	Type	Description
buff	char*	Buffer to fill the IP address
size	int	Size of the input buffer passed

Video Setup APIs

Get Privacy Mask Info

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPrivacyMaskInfo	OPENSDK_PRIVACY_MASK*, INT32_N,

Description

Gets Privacy mask information.

Parameters

OPENSDK_PRIVACY_MASK structure

Members	Type	Description
isEnable	Unsigned Character	

color	Integer	
pattern	Integer	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Set Privacy Mask Info

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPrivacyMaskInfo	OPENSDK_PRIVACY_MASK*, INT32_N,

Description

Sets Privacy mask information

Parameters

OPENSDK_PRIVACY_MASK structure

Members	Type	Description
isEnable	Unsigned Character	
color	Integer	
pattern	Integer	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Get Info of all Privacy Mask Areas

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getAllPrivacyMaskAreasInfo	OPENSDK_PRIVACY_AREAS*, INT32_N,

Description

Gets information of all Privacy mask areas.

Parameters

OPENSDK_PRIVACY_AREAS structure

Members	Type	Description
privacyAreas[OPENSDK_MAX_PRIVACY_AREA]	structure: OPENSDK_PRIVACY_AREA_SET	

OPENSDK_PRIVACY_AREA_SET structure

Members	Type	Description
index	Integer	
privacyArea	structure: OPENSDK_PRIVACY_AREA	

OPENSDK_PRIVACY_AREA structure

Members	Type	Description
isEnable	Unsigned Character	
name[12]	Integer	
color	Integer	

pointCnt	Integer	
ptCoordinate[OPENSDK_MAX_N2_PRIVACY_AREA_POINT_COUNT]	structure: OPENSDK_PT_COORDINATE	

OPENSDK_PT_COORDINATE structure

Members	Type	Description
x	Integer	
y	Integer	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Add all Privacy Mask Areas

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_addPrivacyMaskArea	OPENSDK_PRIVACY_AREA_SET*, INT32_N,

Description

Adds all Privacy mask areas.

Parameters

OPENSDK_PRIVACY_AREA_SET structure

Members	Type	Description

index	Integer	
privacyArea	structure: OPENSDK_PRIVACY_AREA	

OPENSDK_PRIVACY_AREA structure

Members	Type	Description
isEnable	Unsigned Character	
name[12]	Integer	
color	Integer	
pointCnt	Integer	
ptCoordinate[OPENSDK_MAX_N2_PRIVACY_AREA_POINT_COUNT]	structure: OPENSDK_PT_COORDINATE	

OPENSDK_PT_COORDINATE structure

Members	Type	Description
x	Integer	
y	Integer	

INT32_N

Type	Description
Integer	The size of the first parameter structure

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

Remove Privacy Mask Areas

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_removePrivacyMaskArea	INT32_N,

Description

Removes Privacy mask areas.

Parameters

INT32_N,

Type	Description
integer	index

Error code

- OPENSDK_APP_ERR_WORNG_INUPT_DATA – Wrong input params.
- OPENSDK_APP_ERR_API_ERROR – SDK error.

Permission

Not applicable

PTZ APIs

Set Home Position

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzHomePosition	void

Description

Sets PTZ home position.

Start Home Position

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzHomePosition	OPENSDK_PTZ_HOMEPOSITION_STARTREQUEST*, int

Description

Starts PTZ home position.

Parameters

OPENSDK_PTZ_HOMEPOSITION_STARTREQUEST structure

Members	Type	Description
ptzSpeed	struct: OPENSDK_PTZ_SPEED	

OPENSDK_PTZ_SPEED structure

Members	Type	Description
pan	struct: OPENSDK_PTZ_COORDINATE	pan
tilt	struct: OPENSDK_PTZ_COORDINATE	tilt
zoom	struct: OPENSDK_PTZ_COORDINATE	zoom

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
real	integer	
normal	integer	

Int

Type	Description
integer	Size of the first argument structure passed

Get All Preset Info

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getAllPresetInfo	OPENSDK_PTZ_PRESET_INFO*, int

Description

Gets all PTZ preset info.

Parameters

OPENSDK_PTZ_PRESET_INFO structure

Members	Type	Description
preset	struct OPENSDK_PRESET	

OPENSDK_PRESET [OPENSDK_MAX_PRESET_COUNT] structure

Members	Type	Description
index	Integer	
setting	struct OPENSDK_PTZ_PRESETSETTING	

OPENSDK_PTZ_PRESETSETTING structure

Members	Type	Description
isEnable	character	
token[OPENSDK_PRESET_NAME_LEN]	character	
name[OPENSDK_PRESET_NAME_LEN]	character	
position	struct : OPENSDK_PTZ_POSITION	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	

tilt	Integer	

Int

Type	Description
integer	Size of the first argument structure passed

Get PTZ Preset

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzPreset	OPENSDK_PTZ_PRESET_REQUEST*, INT32_N, OPENSDK_PTZ_PRESET*, INT32_N

Description

Gets current PTZ preset info for index

Parameters

OPENSDK_PTZ_PRESET_REQUEST structure

Members	Type	Description
index	Integer	

OPENSDK_PTZ_PRESET structure

Members	Type	Description
index	Integer	
setting	OPENSDK_PTZ_PRESETSETTING struct	

OPENSDK_PTZ_PRESETSETTING structure

Members	Type	Description
isEnable	character	
token[OPENSDK_PRESET_NAME_LEN]	character	
name[OPENSDK_PRESET_NAME_LEN]	character	
position	struct : OPENSDK_PTZ_POSITION	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

Int

Type	Description
integer	Size of the first argument structure passed

Add PTZ Preset

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_addPtzPreset	OPENSDK_PTZ_PRESET*, INT32_N

Description

Adds PTZ preset info.

Parameters

OPENSDK_PTZ_PRESET structure

Members	Type	Description
index	Integer	
setting	OPENSDK_PTZ_PRESETSETTING struct	

OPENSDK_PTZ_PRESETSETTING structure

Members	Type	Description
isEnable	character	
token[OPENSDK_PRESET_NAME_LEN]	character	
name[OPENSDK_PRESET_NAME_LEN]	character	
position	struct : OPENSDK_PTZ_POSITION	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

Int

Type	Description
integer	Size of the first argument structure passed

Remove PTZ Preset

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_removePtzPreset	OPENSDK_PTZ_PRESET_REQUEST*, INT32_N

Description

Removes PTZ preset info

Parameters

OPENSDK_PTZ_PRESET_REQUEST structure

Members	Type	Description
index	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start PTZ Preset

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzPreset	OPENSDK_PTZ_START_PRESET *, INT32_N

Description

Starts PTZ preset.

Parameters

OPENSDK_PTZ_START_PRESET structure

Members	Type	Description
index	Integer	
ptzSpeed	OPENSDK_PTZ_SPEED struct	

OPENSDK_PTZ_SPEED structure

Members	Type	Description
pan	struct: OPENSDK_PTZ_COORDINATE	pan
tilt	struct: OPENSDK_PTZ_COORDINATE	tilt
zoom	struct: OPENSDK_PTZ_COORDINATE	zoom

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
real	integer	
normal	integer	

Int

Type	Description
integer	Size of the first argument structure passed

Stop PTZ Preset

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_stopPtz	OPENSDK_PTZ_START_STOP*, INT32_N

Description

Stops PTZ control.

Parameters

OPENSDK_PTZ_START_STOP structure

Members	Type	Description
panTilt	Character	
zoom	Character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Get PTZ Limit Config

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzLimitConfig	OPENSDK_PTZ_LIMIT_CONFIG*, INT32_N

Description

Gets PTZ limitation of the camera.

Parameters

OPENSDK_PTZ_LIMIT_CONFIG structure

Members	Type	Description
limitSetting	OPENSDK_PTZ_LIMIT_SETTING struct	

OPENSDK_PTZ_LIMIT_SETTING structure

Members	Type	Description
use	Character	
enablePanLimit	Character	
enableTiltLimit	Character	
enableZoomLimit	Character	
tiltLimitRange	Character	
proportional	Character	
reserved[2]	Character	
ptzLimitPosition	OPENSDK_PTZ_LIMIT_POSITION struct	

OPENSDK_PTZ_LIMIT_POSITION structure

Members	Type	Description
panLeftPos	integer	
panRightPos	integer	
tiltUpPos	integer	
tiltDownPos	integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set PTZ Limit Config

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzLimitConfig	OPENSDK_PTZ_LIMIT_CONFIG*, INT32_N

Description

Sets PTZ limit configuration.

Parameters

OPENSDK_PTZ_LIMIT_CONFIG structure

Members	Type	Description
limitSetting	OPENSDK_PTZ_LIMIT_SETTING struct	

OPENSDK_PTZ_LIMIT_SETTING structure

Members	Type	Description
use	Character	
enablePanLimit	Character	
enableTiltLimit	Character	
enableZoomLimit	Character	
tiltLimitRange	Character	
proportional	Character	
reserved[2]	Character	
ptzLimitPosition	OPENSDK_PTZ_LIMIT_POSITION struct	

OPENSDK_PTZ_LIMIT_POSITION structure

Members	Type	Description
panLeftPos	integer	
panRightPos	integer	
tiltUpPos	integer	
tiltDownPos	integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start PTZ Limit Config

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzLimitCmd	OPENSDK_PTZ_LIMIT_START_CMD

Description

Starts PTZ limit.

Parameters

OPENSDK_PTZ_LIMIT_START_CMD enum

Members	Description
OPENSDK_PTZ_LIMIT_START_PAN_CMD	=0
OPENSDK_PTZ_LIMIT_START_TILT_CMD	
OPENSDK_PTZ_LIMIT_SET_CMD	
OPENSDK_PTZ_LIMIT_STOP_CMD	

Get All PTZ Swing

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getAllPtzSwing	OPENSDK_PTZ_SWINGS*, INT32_N

Description

Gets all PTZ swing.

Parameters

OPENSDK_PTZ_SWINGS structure

Members	Type	Description
swing	struct OPENSDK_SWING	

OPENSDK_SWING structure

Members	Type	Description
ptzSwingSetting	struct OPENSDK_PTZ_SWING	
Index	interger	

OPENSDK_PTZ_SWING structure

Members	Type	Description
isEnable	unsigned character	
mode	Integer	
firstPreset	Integer	
secondPreset	Integer	
speed	Integer	
DWT	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Get PTZ Swing

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzSwing	INT32_N, OPENSDK_PTZ_SWING_GETRESPONSE*, INT32_N

Description

Gets PTZ swing.

Parameters

INT32_N

Type	Description
integer	Index

OPENSDK_PTZ_SWING_GETRESPONSE structure

Members	Type	Description
index	Integer	
ptzSwingSetting	OPENSDK_PTZ_SWING	

OPENSDK_PTZ_SWING structure

Members	Type	Description
isEnable	unsigned character	
mode	Integer	
firstPreset	Integer	
secondPreset	Integer	
speed	Integer	
DWT	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set PTZ Swing

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzSwing	OPENSDK_PTZ_SWING_SETREQUEST*, INT32_N

Description

Sets PTZ swing.

Parameters

OPENSDK_PTZ_SWING_SETREQUEST structure

Members	Type	Description
index	Integer	

ptzSwingSetting	OPENSDK_PTZ_SWING	

OPENSDK_PTZ_SWING structure

Members	Type	Description
isEnable	unsigned character	
mode	Integer	
firstPreset	Integer	
secondPreset	Integer	
speed	Integer	
DWT	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start PTZ Swing

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzSwing	OPENSDK_PTZ_REQUEST*, INT32_N

Description

Starts PTZ swing.

Parameters

OPENSDK_PTZ_REQUEST structure

Members	Type	Description
Index	Integer	

INT32_N

Type	Description
Integer	Size of the first argument structure passed

Get All PTZ Groups

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getAllPtzGroup	OPENSDK_PTZ_GROUPS*, INT32_N

Description

Gets all PTZ groups. The max number of group structures is OPENSDK_MAX_PTZ_GROUP(=6).

Parameters

OPENSDK_PTZ_GROUPS structure

Members	Type	Description
index	Integer	
setting	OPENSDK_PTZ_GROUP	

INT32_N

Type	Description
integer	size of the first argument structure passed

Get PTZ Group

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzGroup	INT32_N, OPENSDK_PTZ_GROUP_GET_RESPONSE*, INT32_N

Description

Gets the PTZ group.

Parameters

INT32_N

Members	Type	Description
Index	Integer	

OPENSDK_PTZ_GROUP_GET_RESPONSE structure

Members	Type	Description
index	integer	
group	OPENSDK_PTZ_GROUP struct	

OPENSDK_PTZ_GROUP structure

Members	Type	Description
IsEnable	Unsigned character	
presetList[OPENSDK_PTZ_MAX_PRESET_OF_GROUP]	OPENSDK_PTZ_GROUP_PRESET struct	

OPENSDK_PTZ_GROUP_PRESET structure

Members	Type	Description
presetIndex	Integer	
speed	Integer	
DWT	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Add PTZ Group

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_addPtzGroup	OPENSDK_PTZ_ADD_GROUP,INT32_N,

Description

Adds the PTZ group.

Parameters

OPENSDK_PTZ_ADD_GROUP structure

Members	Type	Description
index	integer	
group	OPENSDK_PTZ_GROUP struct	

OPENSDK_PTZ_GROUP structure

Members	Type	Description
IsEnable	Unsigned character	
presetList[OPENSDK_PTZ_MAX_PRESET_OF_GROUP]	OPENSDK_PTZ_GROUP_PRESET struct	

OPENSDK_PTZ_GROUP_PRESET structure

Members	Type	Description
presetIndex	Integer	
speed	Integer	
DWT	Integer	

INT32_N

Members	Type	Description
size	Integer	size of the structure passed

Remove PTZ Group

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_removePtzGroup	INT32_N,

Description

Removes the PTZ group.

Parameters

INT32_N

Members	Type	Description
Index	Integer	

Start PTZ Group

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzGroup	INT32_N

Description

Starts the PTZ group.

Parameters

INT32_N

Members	Type	Description
Index	Integer	

Get PTZ Tour

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzTour	OPENSDK_PTZ_TOUR_GET_RESPONSE*, INT32_N

Description

Gets the PTZ tour.

Parameters

OPENSDK_PTZ_TOUR structure

Members	Type	Description
tour	OPENSDK_PTZ_TOUR struct	

OPENSDK_PTZ_TOUR structure

Members	Type	Description
IsEnable	Unsigned character	
groupList[OPENSDK_PTZ_MAX_GROUP_OF_TOUR]	OPENSDK_PTZ_TOUR_GROUP struct	

OPENSDK_PTZ_TOUR_GROUP structure

Members	Type	Description
groupIndex	Integer	
DWT	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set PTZ Tour

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzTour	OPENSDK_PTZ_TOUR_SET_REQUEST*, INT32_N

Description

Sets the PTZ tour.

Parameters

OPENSDK_PTZ_TOUR_SET_REQUEST structure

Members	Type	Description
Tour	OPENSDK_PTZ_TOUR struct	

OPENSDK_PTZ_TOUR structure

Members	Type	Description
IsEnable	Unsigned character	
groupList[OPENSDK_PTZ_MAX_GROUP_OF_TOUR]	OPENSDK_PTZ_TOUR_GROUP struct	

OPENSDK_PTZ_TOUR_GROUP structure

Members	Type	Description
groupIndex	Integer	
DWT	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start PTZ Tour

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzTour	void

Description

Starts the PTZ tour.

Start PTZ Trace

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzTrace	OPENSDK_PTZ_TRACE*, INT32_N

Description

Starts the PTZ trace.

Parameters

OPENSDK_PTZ_TRACE structure

Members	Type	Description
index	Integer	
ptzTraceMode	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Get PTZ Autorun

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzAutoRun	OPENSDK_PTZ_AUTORUN*, INT32_N

Description

Gets PTZ Auto Run setting.

Parameters

OPENSDK_PTZ_AUTORUN structure

Members	Type	Description
autorun	struct OPENSDK_PTZ_AUTORUN_SETTING	

OPENSDK_PTZ_AUTORUN_SETTING structure

Members	Type	Description
mode	Integer	0:OFF, 1: Home, 2:Preset, 3:Swing, 4: Group, 5:Tour,

		6:Trace,7:AutoPan, 8:Schedule AutoRun
homeTime	Integer	5~50, 60~3600 sec
presetNum	Integer	1~255
presetTime	Integer	5~50, 60~3600 sec
swingMode	Character	0~2 (P/T/PT)
swingTime	Integer	5~50, 60~3600 sec
groupNum	Character	1~6
groupTime	Integer	5~50, 60~3600 sec
tourTime	Integer	5~50, 60~3600 sec
traceNum	Character	1~4
traceTime	Integer	5~50, 60~3600 sec
autoPanSpeed	Character	20~50
autoPanAngle	Character	20~70 degree
autoPanTime	Integer	5~50, 60~3600 sec
scheduleTime	Integer	5~50, 60~3600 sec
schedule[7]	struct OPENSDK_AUTORUN_SCHEDULE	SUN ~ SAT

OPENSDK_AUTORUN_SCHEDULE structure

Members	Type	Description
detailSchedule[24]	struct: OPENSDK_AUTORUN_DETAIL_SCHEDULE	

OPENSDK_AUTORUN_DETAIL_SCHEDULE structure

Members	Type	Description
isEnable	Character	
startMin	Character	
reserved[2]	Character	
detailAutorun	struct: OPENSDK_AUTORUN_DETAIL	

OPENSDK_AUTORUN_DETAIL structure

Members	Type	Description

mode	Integer	0:OFF, 1: Home, 2:Preset,3: wing, 4: Group, 5:Tour, 6:Trace,7:AutoPan,8:Schedule AutoRun
presetNum	Character	1~255
swingMode	Character	0~2 (P/T/PT)
groupNum	Character	1~6
traceNum	Character	1~4
autoPanSpeed	Character	20~50
autoPanAngle	Character	20~70 degree
reserved[2];	Character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set PTZ Autorun

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzAutoRun	OPENSDK_PTZ_AUTORUN*, INT32_N

Description

Sets PTZ Auto Run setting.

Parameters

OPENSDK_PTZ_AUTORUN structure

Members	Type	Description
autorun	struct OPENSDK_PTZ_AUTORUN_SETTING	

OPENSDK_PTZ_AUTORUN_SETTING structure

Members	Type	Description
mode	Integer	0:OFF, 1: Home, 2:Preset,3:Swing, 4: Group, 5:Tour, 6:Trace,7:AutoPan,8:Schedule AutoRun
homeTime	Integer	5~50, 60~3600 sec
presetNum	Integer	1~255
presetTime	Integer	5~50, 60~3600 sec
swingMode	Character	0~2 (P/T/PT)
swingTime	Integer	5~50, 60~3600 sec
groupNum	Character	1~6
groupTime	Integer	5~50, 60~3600 sec
tourTime	Integer	5~50, 60~3600 sec
traceNum	Character	1~4
traceTime	Integer	5~50, 60~3600 sec
autoPanSpeed	Character	20~50
autoPanAngle	Character	20~70 degree
autoPanTime	Integer	5~50, 60~3600 sec
scheduleTime	Integer	5~50, 60~3600 sec
schedule[7]	struct OPENSDK_AUTORUN_SCHEDULE	SUN ~ SAT

OPENSDK_AUTORUN_SCHEDULE structure

Members	Type	Description
detailSchedule[24]	struct: OPENSDK_AUTORUN_DETAIL_SCHEDULE	

OPENSDK_AUTORUN_DETAIL_SCHEDULE structure

Members	Type	Description
isEnable	Character	
startMin	Character	
reserved[2]	Character	

detailAutorun	struct: OPENSDK_AUTORUN_DETAIL	

OPENSDK_AUTORUN_DETAIL structure

Members	Type	Description
mode	Integer	0:OFF, 1: Home, 2:Preset, 3: Wing, 4: Group, 5:Tour, 6:Trace, 7:AutoPan, 8:Schedule AutoRun
presetNum	Character	1~255
swingMode	Character	0~2 (P/T/PT)
groupNum	Character	1~6
traceNum	Character	1~4
autoPanSpeed	Character	20~50
autoPanAngle	Character	20~70 degree
reserved[2];	Character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Get PTZ Status

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzStatus	OPENSDK_PTZ_STATUS*, INT32_N

Description

Gets PTZ status.

Parameters

OPENSDK_PTZ_STATUS structure

Members	Type	Description
ptzPosition	struct OPENSDK_PTZ_POSITION	
ptzMoveStatus	struct OPENSDK_PTZ_MOVE_STATUS	
error[32]	Character	
utcTime	time_t	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

OPENSDK_PTZ_MOVE_STATUS structure

Members	Type	Description
ptMove	Character	
zoomMove	Character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start ABS Move

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	opensdk_startAbsMove	OPENSDK_PTZ_MOVE_START *, INT32_N

Description

Starts ABS move.

Parameters

OPENSDK_PTZ_MOVE_START structure

Members	Type	Description
position	struct OPENSDK_PTZ_POSITION	
speed	struct OPENSDK_PTZ_SPEED	
timeout	Integer	
mode	Integer	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

OPENSDK_PTZ_SPEED structure

Members	Type	Description
pan	struct: OPENSDK_PTZ_COORDINATE	pan
tilt	struct: OPENSDK_PTZ_COORDINATE	tilt
zoom	struct: OPENSDK_PTZ_COORDINATE	zoom

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
real	integer	

normal	integer	

Set ABS Pantilt

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setAbsPantilt	OPENSDK_PTZ_MOVE_START*, INT32_N

Description

Sets ABS pantilt.

Parameters

OPENSDK_PTZ_MOVE_START structure

Members	Type	Description
position	struct OPENSDK_PTZ_POSITION	
speed	struct OPENSDK_PTZ_SPEED	
timeout	Integer	
mode	Integer	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

OPENSDK_PTZ_SPEED structure

Members	Type	Description

pan	struct: OPENSDK_PTZ_COORDINATE	pan
tilt	struct: OPENSDK_PTZ_COORDINATE	tilt
zoom	struct: OPENSDK_PTZ_COORDINATE	zoom

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
real	integer	
normal	integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set ABS Zoom

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setAbsZoom	OPENSDK_PTZ_MOVE_START*, INT32_N

Description

Sets ABS zoom.

Parameters

OPENSDK_PTZ_MOVE_START structure

Members	Type	Description
position	struct OPENSDK_PTZ_POSITION	
speed	struct OPENSDK_PTZ_SPEED	
timeout	Integer	
mode	Integer	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	

tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

OPENSDK_PTZ_SPEED structure

Members	Type	Description
pan	struct: OPENSDK_PTZ_COORDINATE	pan
tilt	struct: OPENSDK_PTZ_COORDINATE	tilt
zoom	struct: OPENSDK_PTZ_COORDINATE	zoom

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
real	integer	
normal	integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Get PTZ AUX

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzAux	INT32_N, OPENSDK_PTZ_AUXILLARY*, INT32_N

Description

Gets PTZ aux.

Parameters

INT32_N

Type	Description
Integer	index

OPENSDK_PTZ_AUXILLARY structure

Members	Type	Description
index	Integer	
value	Integer	
name[64];	Character	
reserved[64]	Character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set PTZ AUX

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzAux	OPENSDK_PTZ_AUXILLARY*, INT32_N

Description

Sets PTZ aux.

Parameters

OPENSDK_PTZ_AUXILLARY structure

Members	Type	Description
index	Integer	
value	Integer	
name[64];	Character	

reserved[64]	Character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start Rel Move

Signature:

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startRelMove	OPENSDK_PTZ_MOVE_START*, INT32_N

Description

Starts rel move.

Parameters

OPENSDK_PTZ_MOVE_START structure

Members	Type	Description
position	struct OPENSDK_PTZ_POSITION	
speed	struct OPENSDK_PTZ_SPEED	
timeout	Integer	
mode	Integer	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description

pan	Integer	
tilt	Integer	

OPENSDK_PTZ_SPEED structure

Members	Type	Description
pan	struct: OPENSDK_PTZ_COORDINATE	pan
tilt	struct: OPENSDK_PTZ_COORDINATE	tilt
zoom	struct: OPENSDK_PTZ_COORDINATE	zoom

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
real	integer	
normal	integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

PTZ Move

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_ptzMoveCmd	OPENSDK_PTZ_MOVE_REQUEST*, INT32_N

Description

Command for PTZ move.

Parameters

OPENSDK_PTZ_MOVE_REQUEST structure

Members	Type	Description
position	struct OPENSDK_PTZ_POSITION	
speed	struct OPENSDK_PTZ_SPEED	

timeout	Integer	
mode	Integer	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

OPENSDK_PTZ_SPEED structure

Members	Type	Description
pan	struct: OPENSDK_PTZ_COORDINATE	pan
tilt	struct: OPENSDK_PTZ_COORDINATE	tilt
zoom	struct: OPENSDK_PTZ_COORDINATE	zoom

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
real	integer	
normal	integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

PTZ Motor Control

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_ptzMotorControl	OPENSDK_PTZ_MOTOR_CONTROL*, INT32_N

Description

API for PTZ motor control.

Parameters

OPENSDK_PTZ_MOVE_REQUEST structure

Members	Type	Description
mode	Character	
position	struct OPENSDK_PTZ_POSITION	
af	Character	
reserved[32]	Character	

OPENSDK_PTZ_POSITION structure

Members	Type	Description
pan	struct OPENSDK_PTZ_COORDINATE	
tilt	struct OPENSDK_PTZ_COORDINATE	
zoom	struct OPENSDK_PTZ_COORDINATE	
focus	struct OPENSDK_PTZ_COORDINATE	

OPENSDK_PTZ_COORDINATE structure

Members	Type	Description
pan	Integer	
tilt	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Get PTZ Attributes

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzAttr	INT32_N, OPENSDK_PTZ_PRESET_IMAGE*, INT32_N

Description

Gets PTZ attributes.

Parameters

INT32_N

Type	Description
integer	Index of the attributes

OPENSDK_PTZ_PRESET_IMAGE structure

Members	Type	Description
index	Integer	Preset index
isTestRequest	Character	
imageSet	struct : OPENSDK_PTZ_IMAGE_CONFIG_SETREQUEST	

OPENSDK_PTZ_IMAGE_CONFIG_SETREQUEST structure

Members	Type	Description
videoSourceIndex	Integer	
image	struct: OPENSDK_PTZ_IMAGE	
isTestRequest	Character	

OPENSDK_PTZ_IMAGE structure

Members	Type	Description
SSDR	struct: OPENSDK_PTZ_IMAGE_SSDR	
WhiteBalance	struct OPENSDK_PTZ_IMAGE_WHITEBALANCE	
BackLight	struct OPENSDK_PTZ_IMAGE_BACKLIGHT	
Exposure	struct OPENSDK_PTZ_IMAGE_EXPOSURE	
Special	struct OPENSDK_PTZ_IMAGE_SPECIAL	

Focus	struct OPENSDK_PTZ_IMAGE_FOCUS	
OSD	struct OPENSDK_PTZ_IMAGE_OSD	
IR	struct OPENSDK_PTZ_IMAGE_IR	
Reserved[12]	Character	
DaynightScheduleSetting	struct OPENSDK_PTZ_DAYNIGHT_SCHEDULE_SETTING	
ImagePreset	struct OPENSDK_PTZ_IMAGE_PRESET_SETTING	
ptzIr	struct OPENSDK_PTZ_IR_SETTING	
tracking	struct OPENSDK_PTZ_IMGTRACKING_SETTING	

OPENSDK_PTZ_IMAGE_SSDR structure

Members	Type	Description
isEnabled	Unsigned Character	
Level	integer	
DynamicRange	integer	
Reserved[16]	character	

OPENSDK_PTZ_IMAGE_WHITEBALANCE structure

Members	Type	Description
Mode	integer	
Red	integer	
Blue	integer	
Reserved[16]	character	

OPENSDK_PTZ_IMAGE_BACKLIGHT structure

Members	Type	Description
Mode	integer	
blcLevel	integer	
blcTop	integer	
blcBottom	integer	
blcLeft	integer	
blcRight	integer	
hlcLevel	integer	
hlcMasktone	integer	

hlcMode	character	
hlcMaskColor	character	For PTZ models
hlcAreaFixed	character	For PTZ models
hlcTop	character	For PTZ models
hlcBottom	character	For PTZ models
hlcLeft	character	For PTZ models
hlcRight	character	For PTZ models
blcDisplay	character	For PTZ models
wdrMode	character	For PTZ models
wdrLimit	character	For PTZ models
wdrLevel	character	
coordBlcTop	character	Change parameter
coordBlcBottom	character	Keep Blc area coordinate for SNZ5200
coordBlcLeft	character	Keep Blc area coordinate for SNZ5200
coordBlcRight	character	Keep Blc area coordinate for SNZ5200
reserved2	character	Keep Blc area coordinate for SNZ5200

OPENSDK_PTZ_IMAGE_EXPOSURE structure

Members	Type	Description
brightness	integer	
irisMode	integer	
irisLevel	integer	
blcBottom	integer	
shutterMode	integer	
shutterSpeed	integer	
agcMode	integer	
agcLevel	integer	
ssnrMode	integer	
ssnrLevel	integer	
sensupMode	integer	
sensupCondition	integer	
inOutMode	character	

longShutterSpeed	integer	
shortShutterSpeed	integer	
useAFLK	character	
pIrisMode	character	Auto, Manual
pIrisPosition	integer	1 ~ 100
sensorFrameMode	character	0:60fps, 1:50fps, 2:30fps, 3:25fps 8:15fps
irisFno	integer	
reserved[16]	character	

OPENSDK_PTZ_IMAGE_SPECIAL structure

Members	Type	Description
titleMode	integer	
titleStr[64]	character	
titleX	integer	
titleY	integer	
daynightMode	integer	
daynightDwt	character	
daynightBrightness	character	
daynightDwtBW	character	
daynightBrightnessBW	character	
daynightDuration	integer	
sharpnessMode	integer	
sharpnessLevel	integer	
gamma	integer	
colorLevel	integer	
ptzPositionDisp	character	PTZ OSD position display
displayLanguage	integer	
dis	character	
vps	character	
sync	character	
dayNightColor	character	

Hrev	character	For PTZ models
Vrev	character	For PTZ models
afterAction	character	For PTZ models
freeze	character	For PTZ models
daynightExtMode	character	
negativeMode	character	
autofocusEnable	character	
defog	character	
defogLevel	integer	
lensShading	character	0:Off, 1:On (Default is On)
car	character	
trackTime	integer	
reserved2[5]	character	

OPENSDK_PTZ_IMAGE_FOCUS structure

Members	Type	Description
Mode	integer	
ZoomTrack	integer	
ZoomSpeed	integer	
Dzoom	integer	
DzoomLimit	integer	
InitZoomPos	integer	
ManZoomPos	integer	
InitLens	integer	
InitLensDur	integer	
Reserved[16]	character	

OPENSDK_PTZ_IMAGE_OSD structure

Members	Type	Description
isEnable	character	
dateFormat	character	
x	integer	

y	integer	
reserved1[10]	character	
osdColor	integer	For PTZ models
camIdMode	character	For PTZ models
camIdValue	integer	For PTZ models
ptzPosX	integer	For PTZ models
ptzPosY	integer	
displayWday	character	
presetNameDisp	character	
reserved2[1]	character	
osdSize	character	0: Small, 1: Medium, 2:Large
reserved3[11]	character	

OPENSDK_PTZ_IMAGE_IR structure

Members	Type	Description
Mode	integer	
Level	integer	
Reserved[4]	character	

OPENSDK_PTZ_DAYNIGHT_SCHEDULE_SETTING structure

Members	Type	Description
schedule[8]	struct: OPENSDK_PTZ_DAYNIGHT_SCHEDULE	0:Daily, 1:Sun, ... , 6:Sat

OPENSDK_PTZ_DAYNIGHT_SCHEDULE structure

Members	Type	Description
isEnable	character	
startHour	character	
startMin	character	
endHour	character	
endMin	character	

OPENSDK_PTZ_IMAGE_PRESET_SETTING structure

Members	Type	Description

defaultMode	character	0:none, 1 : Definition focus, 2: motion focus, 3: ....
scheduleMode	character	
schedule[OPENSDK_PTZ_IMAGE_PRESET_SCHEDULE_COUNT]	struct: OPENSDK_PTZ_IMAGE_PRESET_SCHEDULE	

OPENSDK_PTZ_IMAGE_PRESET_SCHEDULE structure

Members	Type	Description
isEnable	character	
startHour	character	
startMin	character	
endHour	character	
endMin	character	

OPENSDK_PTZ_IR_SETTING structure

Members	Type	Description
mode	integer	
ledonlevel	integer	
ledofflevel	integer	
ledontimehour	integer	
ledontimemin	integer	
ledofftimehour	integer	
ledofftimemin	integer	
ledmaxpower	integer	
ledpowercontrol	integer	
reserved[128]	character	

OPENSDK_PTZ_IMGTRACKING_SETTING structure

Members	Type	Description
mode	character	
reserved[3]	character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set PTZ Attributes

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzAttr	OPENSDK_PTZ_PRESET_IMAGE*, INT32_N

Description

Sets PTZ attributes.

Parameters

OPENSDK_PTZ_PRESET_IMAGE structure

Members	Type	Description
index	Integer	preset index
isTestRequest	Character	
imageSet	struct : OPENSDK_PTZ_IMAGE_CONFIG_SETREQUEST	

OPENSDK_PTZ_IMAGE_CONFIG_SETREQUEST structure

Members	Type	Description
videoSourceIndex	Integer	
image	struct: OPENSDK_PTZ_IMAGE	
isTestRequest	Character	

OPENSDK_PTZ_IMAGE structure

Members	Type	Description
SSDR	struct: OPENSDK_PTZ_IMAGE_SSDR	
WhiteBalance	struct OPENSDK_PTZ_IMAGE_WHITEBALANCE	
BackLight	struct OPENSDK_PTZ_IMAGE_BACKLIGHT	

Exposure	struct OPENSDK_PTZ_IMAGE_EXPOSURE	
Special	struct OPENSDK_PTZ_IMAGE_SPECIAL	
Focus	struct OPENSDK_PTZ_IMAGE_FOCUS	
OSD	struct OPENSDK_PTZ_IMAGE_OSD	
IR	struct OPENSDK_PTZ_IMAGE_IR	
Reserved[12]	Character	
DaynightScheduleSetting	struct OPENSDK_PTZ_DAYNIGHT_SCHEDULE_SETTING	
ImagePreset	struct OPENSDK_PTZ_IMAGE_PRESET_SETTING	
ptzIr	struct OPENSDK_PTZ_IR_SETTING	
tracking	struct OPENSDK_PTZ_IMGTRACKING_SETTING	

OPENSDK_PTZ_IMAGE_SSDR structure

Members	Type	Description
isEnabled	Unsigned Character	
Level	integer	
DynamicRange	integer	
Reserved[16]	character	

OPENSDK_PTZ_IMAGE_WHITEBALANCE structure

Members	Type	Description
Mode	integer	
Red	integer	
Blue	integer	
Reserved[16]	character	

OPENSDK_PTZ_IMAGE_BACKLIGHT structure

Members	Type	Description
Mode	integer	
blcLevel	integer	
blcTop	integer	
blcBottom	integer	
blcLeft	integer	
blcRight	integer	

hlcLevel	integer	
hlcMasktone	integer	
hlcMode	character	
hlcMaskColor	character	For PTZ models
hlcAreaFixed	character	For PTZ models
hlcTop	character	For PTZ models
hlcBottom	character	For PTZ models
hlcLeft	character	For PTZ models
hlcRight	character	For PTZ models
blcDisplay	character	For PTZ models
wdrMode	character	For PTZ models
wdrLimit	character	For PTZ models
wdrLevel	character	
coordBlcTop	character	Change parameter
coordBlcBottom	character	Keep Blc area coordinate for SNZ5200
coordBlcLeft	character	Keep Blc area coordinate for SNZ5200
coordBlcRight	character	Keep Blc area coordinate for SNZ5200
reserved2	character	Keep Blc area coordinate for SNZ5200

OPENSDK_PTZ_IMAGE_EXPOSURE structure

Members	Type	Description
brightness	integer	
irisMode	integer	
irisLevel	integer	
blcBottom	integer	
shutterMode	integer	
shutterSpeed	integer	
agcMode	integer	
agcLevel	integer	

ssnrMode	integer	
ssnrLevel	integer	
sensupMode	integer	
sensupCondition	integer	
inOutMode	character	
longShutterSpeed	integer	
shortShutterSpeed	integer	
useAFLK	character	
pIrisMode	character	Auto, Manual
pIrisPosition	integer	1 ~ 100
sensorFrameMode	character	0:60fps, 1:50fps, 2:30fps, 3:25fps 8:15fps
irisFno	integer	
reserved[16]	character	

OPENSDK_PTZ_IMAGE_SPECIAL structure

Members	Type	Description
titleMode	integer	
titleStr[64]	character	
titleX	integer	
titleY	integer	
daynightMode	integer	
daynightDwt	character	
daynightBrightness	character	
daynightDwtBW	character	
daynightBrightnessBW	character	
daynightDuration	integer	
sharpnessMode	integer	
sharpnessLevel	integer	
gamma	integer	
colorLevel	integer	
ptzPositionDisp	character	PTZ OSD position display

displayLanguage	integer	
dis	character	
vps	character	
sync	character	
dayNightColor	character	
Hrev	character	For PTZ models
Vrev	character	For PTZ models
afterAction	character	For PTZ models
freeze	character	For PTZ models
daynightExtMode	character	
negativeMode	character	
autofocusEnable	character	
defog	character	
defogLevel	integer	
lensShading	character	0:Off, 1:On (Default is On)
car	character	
trackTime	integer	
reserved2[5]	character	

OPENSDK_PTZ_IMAGE_FOCUS structure

Members	Type	Description
Mode	integer	
ZoomTrack	integer	
ZoomSpeed	integer	
Dzoom	integer	
DzoomLimit	integer	
InitZoomPos	integer	
ManZoomPos	integer	
InitLens	integer	
InitLensDur	integer	
Reserved[16]	character	

OPENSDK_PTZ_IMAGE_OSD structure

Members	Type	Description
isEnable	character	
dateFormat	character	
x	integer	
y	integer	
reserved1[10]	character	
osdColor	integer	For PTZ models
camIdMode	character	For PTZ models
camIdValue	integer	For PTZ models
ptzPosX	integer	For PTZ models
ptzPosY	integer	
displayWday	character	
presetNameDisp	character	
reserved2[1]	character	
osdSize	character	0: Small, 1: Medium, 2: Large
reserved3[11]	character	

OPENSDK_PTZ_IMAGE_IR structure

Members	Type	Description
Mode	integer	
Level	integer	
Reserved[4]	character	

OPENSDK_PTZ_DAYNIGHT_SCHEDULE_SETTING structure

Members	Type	Description
schedule[8]	struct: OPENSDK_PTZ_DAYNIGHT_SCHEDULE	0:Daily, 1:Sun, ... , 6:Sat

OPENSDK_PTZ_DAYNIGHT_SCHEDULE structure

Members	Type	Description
isEnable	character	
startHour	character	

startMin	character	
endHour	character	
endMin	character	

OPENSDK_PTZ_IMAGE_PRESET_SETTING structure

Members	Type	Description
defaultMode	character	0: none, 1: Definition focus, 2: motion focus, 3: ....
scheduleMode	character	
schedule[OPENSDK_PTZ_IMAGE_PRESET_SCHEDULE_COUNT]	struct: OPENSDK_PTZ_IMAGE_PRESET_SCHEDULE	

OPENSDK_PTZ_IMAGE_PRESET_SCHEDULE structure

Members	Type	Description
isEnable	character	
startHour	character	
startMin	character	
endHour	character	
endMin	character	

OPENSDK_PTZ_IR_SETTING structure

Members	Type	Description
mode	integer	
ledonlevel	integer	
ledofflevel	integer	
ledontimehour	integer	
ledontimemin	integer	
ledofftimehour	integer	
ledofftimemin	integer	
ledmaxpower	integer	
ledpowercontrol	integer	
reserved[128]	character	

OPENSDK_PTZ_IMGTRACKING_SETTING structure

Members	Type	Description
mode	character	
reserved[3]	character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start PTZ Attributes

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startPtzAttr	OPENSDK_PTZ_IMAGE_CONFIG_START*, INT32_N

Description

Starts PTZ attributes.

Parameters

OPENSDK_PTZ_IMAGE_CONFIG_START structure

Members	Type	Description
videoSourceIndex	Integer	preset index
awc	Character	
reserved[63]	Character	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Stop PTZ Attributes

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_stopPtzAttr	INT32_N

Description

Stops PTZ attributes.

Parameters

INT32_N

Type	Description
integer	Index of the attribute to stop

Get PTZ VA Configuration

Signature:

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_getPtzVAconfig	INT32_N, OPENSDK_PTZ_VA_CONFIG*, INT32_N

Description:

Gets PTZ VA configuration.

Parameters:

INT32_N

Type	Description
integer	Index of the VA configuration to get

OPENSDK_PTZ_VA_CONFIG structure

Members	Type	Description
index	Integer	
va	struct OPENSDK_PTZ_VA_SETTING	

OPENSDK_PTZ_VA_SETTING structure

Members	Type	Description
mode	Integer	
iv	struct OPENSDK_PTZ_PRESET_IV_SETTING	
md	struct OPENSDK_PTZ_PRESET_MD_SETTING	

OPENSDK_PTZ_PRESET_IV_SETTING structure

Members	Type	Description
isEnable	Character	
analyticsType	Character	
enableOverlay	Character	
enableVaBoxDisplay	Character	
sensitivity	Character	
objectSizeRule	Character	
objectRule [OPENSDK_PTZ_IV_MAX_OBJECT_COUNT]	struct OPENSDK_PTZ_IV_OBJ_RULE	
fullScreenRule	struct OPENSDK_PTZ_IV_FULL_SCREEN	
manualSize	struct OPENSDK_PTZ_IV_OBJ_MANUAL_SIZE	

OPENSDK_PTZ_IV_OBJ_RULE structure

Members	Type	Description
type	Character	
point	OPENSDK_PTZ_IV_POINTS struct	
lineRule	Character	
lineRuleDetail	Character	
areaRule e[OPENSDK_PTZ_IV_MAX_AREA_RULE]	Character	

OPENSDK_PTZ_IV_POINTS structure

Members	Type	Description
valid	Unsigned Character	
posX	Integer	
posY	Integer	

OPENSDK_PTZ_IV_FULL_SCREEN structure

Members	Type	Description
rule[OPENSDK_PTZ_IV_MAX_FULL_SCREEN_RULE];	Character	MAX_FULLSCR_RULE=3 ([0]=IVRULE_APPEAR, [1]=IVRULE_DISAPPEAR, [2]=IVRULE_SCENE_CHANGE)

OPENSDK_PTZ_IV_OBJ_MANUAL_SIZE structure

Members	Type	Description
verticalLow	Character	
verticalHigh	Character	
horizontalLow	Character	
horizontalHigh	Character	
minWidth	Integer	
minHeight	Integer	
maxWidth	Integer	
maxHeight	Integer	

OPENSDK_PTZ_PRESET_MD_SETTING structure

Members	Type	Description
isEnable	Character	
enableOverlay	Character	
enableVaBoxDisplay	Character	
sensitivity	Character	
mdMode	Character	
objectSizeRule	Character	
area [OPENSDK_PTZ_MAX_MD_AREA]	struct OPENSDK_PTZ_MD_OBJ_AREA_RULE	

manualSize	struct OPENSDK_PTZ_IV_OBJ_MANUAL_SIZE	

OPENSDK_PTZ_MD_OBJ_AREA_RULE structure

Members	Type	Description
numPoint	Character	
mdPoints[OPENSDK_PTZ_MAX_MD_AREA_POINT]	OPENSDK_PTZ_MD_POINTS struct	
index	Character	
reserved[7]	Character	

OPENSDK_PTZ_MD_POINTS structure

Members	Type	Description
posX	Integer	
posY	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Set PTZ VA Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_setPtzVAconfig	OPENSDK_PTZ_VA_CONFIG*, INT32_N

Description

Sets PTZ VA configuration.

Parameters

OPENSDK_PTZ_VA_CONFIG structure

Members	Type	Description
index	Integer	
va	struct OPENSDK_PTZ_VA_SETTING	

OPENSDK_PTZ_VA_SETTING structure

Members	Type	Description
mode	Integer	
iv	struct OPENSDK_PTZ_PRESET_IV_SETTING	
md	struct OPENSDK_PTZ_PRESET_MD_SETTING	

OPENSDK_PTZ_PRESET_IV_SETTING structure

Members	Type	Description
isEnable	Character	
analyticsType	Character	
enableOverlay	Character	
enableVaBoxDisplay	Character	
sensitivity	Character	
objectSizeRule	Character	
objectRule [OPENSDK_PTZ_IV_MAX_OBJECT_COUNT]	struct OPENSDK_PTZ_IV_OBJ_RULE	
fullScreenRule	struct OPENSDK_PTZ_IV_FULL_SCREEN	
manualSize	struct OPENSDK_PTZ_IV_OBJ_MANUAL_SIZE	

OPENSDK_PTZ_IV_OBJ_RULE structure

Members	Type	Description
type	Character	
point	OPENSDK_PTZ_IV_POINTS struct	
lineRule	Character	
lineRuleDetail	Character	
areaRule e[OPENSDK_PTZ_IV_MAX_AREA_RULE]	Character	

OPENSDK_PTZ_IV_POINTS structure

Members	Type	Description
valid	Unsigned Character	
posX	Integer	

posY	Integer	

OPENSDK_PTZ_IV_FULL_SCREEN structure

Members	Type	Description
rule[OPENSDK_PTZ_IV_MAX_FULL_SCREEN_RULE];	Character	MAX_FULLSCR_RULE=3 ([0]=IVRULE_APPEAR, [1]=IVRULE_DISAPPEAR, [2]=IVRULE_SCENE_CHANGE)

OPENSDK_PTZ_IV_OBJ_MANUAL_SIZE structure

Members	Type	Description
verticalLow	Character	
verticalHigh	Character	
horizontalLow	Character	
horizontalHigh	Character	
minWidth	Integer	
minHeight	Integer	
maxWidth	Integer	
maxHeight	Integer	

OPENSDK_PTZ_PRESET_MD_SETTING structure

Members	Type	Description
isEnable	Character	
enableOverlay	Character	
enableVaBoxDisplay	Character	
sensitivity	Character	
mdMode	Character	
objectSizeRule	Character	
area [OPENSDK_PTZ_MAX_MD_AREA]	struct OPENSDK_PTZ_MD_OBJ_AREA_RULE	
manualSize	struct OPENSDK_PTZ_IV_OBJ_MANUAL_SIZE	

OPENSDK_PTZ_MD_OBJ_AREA_RULE structure

Members	Type	Description
numPoint	Character	

mdPoints[OPENSDK_PTZ_MAX_MD_AREA_POINT]	OPENSDK_PTZ_MD_POINTS struct	
index	Character	
reserved[7]	Character	

OPENSDK_PTZ_MD_POINTS structure

Members	Type	Description
posX	Integer	
posY	Integer	

INT32_N

Type	Description
integer	Size of the first argument structure passed

Start PTZ

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_startptz	OPENSDK_PTZEVENT_REQUEST*

Description

Starts PTZ .

Parameters

OPENSDK_PTZEVENT_REQUEST structure

Members	Type	Description
ptzcommad	struct OPENSDK_PTZ_COMMAND	
movedirection	struct OPENSDK_PTZ_MOVE_DIRECTION	
focusdirection	struct OPENSDK_PTZ_FOCUS_DIRECTION	
zoomdirection	struct OPENSDK_PTZ_ZOOM_DIRECTION	

speed	Unsigned integer	
pan	float	
tilt	float	
zoom	integer	

OPENSDK_PTZ_COMMAND enum

Members	Description
OPENSDK_PTZ_MOVE	
OPENSDK_PTZ_ZOOM	
OPENSDK_PTZ_FOCUS	
OPENSDK_PTZ_MOVE_STOP	
OPENSDK_PTZ_ZOOM_STOP	
OPENSDK_PTZ_FOCUS_STOP	
OPENSDK_PTZ_ABSMOVE	
OPENSDK_PTZ_RELMOVE	

OPENSDK_PTZ_MOVE_DIRECTION enum

Members	Description
OPENSDK_PTZMOVE_LEFT	
OPENSDK_PTZMOVE_RIGHT	
OPENSDK_PTZMOVE_UP	
OPENSDK_PTZMOVE_DOWN	
OPENSDK_PTZMOVE_LEFTUP	
OPENSDK_PTZMOVE_LEFTDOWN	
OPENSDK_PTZMOVE_RIGHTUP	
OPENSDK_PTZMOVE_RIGHTDOWN	

OPENSDK_PTZ_ZOOM_DIRECTION enum

Members	Description
OPENSDK_PTZ_ZOOM_IN	
OPENSDK_PTZ_ZOOM_OUT	

OPENSDK_PTZ_FOCUS_DIRECTION enum

Members	Description
OPENSDK_PTZ_FOCUS_FAR	
OPENSDK_PTZ_FOCUS_NEAR	

Stop PTZ

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_stopptz	OPENSDK_PTZEVENT_REQUEST*

Description

To stop PTZ.

Parameters

OPENSDK_PTZEVENT_REQUEST structure

Members	Type	Description
ptzcommad	struct OPENSDK_PTZ_COMMAND	
movedirection	struct OPENSDK_PTZ_MOVE_DIRECTION	
focusdirection	struct OPENSDK_PTZ_FOCUS_DIRECTION	
zoomdirection	struct OPENSDK_PTZ_ZOOM_DIRECTION	
speed	Unsigned integer	
pan	float	
tilt	float	
zoom	integer	

OPENSDK_PTZ_COMMAND enum

Members	Description
OPENSDK_PTZ_MOVE	
OPENSDK_PTZ_ZOOM	

OPENSDK_PTZ_FOCUS	
OPENSDK_PTZ_MOVE_STOP	
OPENSDK_PTZ_ZOOM_STOP	
OPENSDK_PTZ_FOCUS_STOP	
OPENSDK_PTZ_ABSMOVE	
OPENSDK_PTZ_RELMOVE	

OPENSDK_PTZ_MOVE_DIRECTION enum

Members	Description
OPENSDK_PTZMOVE_LEFT	
OPENSDK_PTZMOVE_RIGHT	
OPENSDK_PTZMOVE_UP	
OPENSDK_PTZMOVE_DOWN	
OPENSDK_PTZMOVE_LEFTUP	
OPENSDK_PTZMOVE_LEFTDOWN	
OPENSDK_PTZMOVE_RIGHTUP	
OPENSDK_PTZMOVE_RIGHTDOWN	

OPENSDK_PTZ_ZOOM_DIRECTION enum

Members	Description
OPENSDK_PTZ_ZOOM_IN	
OPENSDK_PTZ_ZOOM_OUT	

OPENSDK_PTZ_FOCUS_DIRECTION enum

Members	Description
OPENSDK_PTZ_FOCUS_FAR	
OPENSDK_PTZ_FOCUS_NEAR	

Start PTZ Instant AF

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	opensdk_startPtzInstantAf	INT32_N

Description

Starts PTZ instant AF mode.

Parameters

INT32_N

Type	Description
integer	PTZ instant AF index

Other SDK APIs

Read Key Value

Signature

Return Type	Method	Parameters
UINT32_N	read_keyValue	INT8_N*, INT32_N, INT8_N *

Description

Reads the key value from the manifest xml file.

Parameters

const INT8_N

Type	Description
const Character	key

const INT32_N

Type	Description

const Integer	key value buffer size

const INT8_N

Type	Description
const character	key value buffer

Write Key Value

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	write_keyValue	const char*, char *

Description

Writes the given value to the key existing in the application configuration in the manifest xml file.

> **Note**
>
> NAND memory fusing may occur if you are using the above API for frequent saving other than simple setting purposes. If saving frequently, use it by reading and writing on an SD card.

Parameters

const char*

Type	Description
const char	Key existing in the file

Char *

Type	Description
char*	Value to be given to the key

Add Key Value

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	add_keyValue	const char*, char *, char *

Description

Adds the key and value to the specified tag.

Parameters

const char*

Type	Description
const char	New key

Char *

Type	Description
char*	Value to be given to the key

Char *

Type	Description
char*	Tag into which key needs to be added. If tag is not specified, key is added into main tag.

Debug message

Signature

Return Type	Method	Parameters
VOID_N	debug_message	Const INT8_N*, ...

Description

Shows the logs from the debug viewer.

Parameters

const INT8_N*

Type	Description
const Character	Application log

Send event

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	send_event	OPENSDK_OUTPUT_EVENT, VOID_N*, INT32_N

Description

Shows the logs from the debug viewer.

Parameters

const INT8_N*

Type	Description
OPENSDK_OUTPUT_EVENT INt32_N*	Output event Unique ID is returned if it is an asynchronous call
VOID_N*	Event details
INT32_N	Size of buffer

Get Raw Video Configuration

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	getRawVideoConfig	OPENSDK_RAW_VIDEO_SETTINGS *

Description

Gets the raw video configuration details.

Parameters

OPENSDK_RAW_VIDEO_SETTINGS structure

Members	Type	Description
enable	unsigned int	raw video enabled
format	OPENSDK_YUV_FORMAT	yuv format
width	unsigned int	
height	unsigned int	
fps	unsigned char	

OPENSDK_YUV_FORMAT enum

Members	Description
YUV400	yuv 400 format
YUV420	uyuv format
YUV422	yuv 422 format

Get all Application Configuration Data

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	get_allAppConfigData	OPENSDK_APP_CONFIG_INFO *

Description

Gets all the application configuration keys that the user added for the application.

Parameters

OPENSDK_APP_CONFIG_INFO structure

Members	Type	Description
buff	char*	Buffer to fill with the keys
size	int	Size of the input buffer passed

Add Application Configuration Data

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	add_appConfigData	char *,char *

Description

Adds new key and its data into the application configuration in manifest file.

Parameters

char *

Type	Description
char*	key buffer

char *

Type	Description
char*	value buffer

Delete Application Configuration Data

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	delete_appConfigData	char *

Description

Deletes an existing key and its data from the application configuration in the manifest file.

Parameters

char *

Type	Description
char*	Key to be deleted

Get SDK Version

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	get_sdkVersion	OPENSDK_VERSION_DETAILS*

Description

Gets the camera SDK version.

Parameters

OPENSDK_VERSION_DETAILS structure

Members	Type	Description
buff	char*	Buffer to fill the version string
size	int	Size of the input buffer passed

Reload Settings

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	reload_settings	void

Description

If the Video and audio settings of Application changes, then the reload_settings API should be called.

App Info

Signature

Return Type	Method	Parameters

OPENSDK_ERR_CODE	get_AppDetails	Appname OpenSdk public info(App pubic info)

Description

Gets the public info of the Application.

Parameters

OPENSDK_PUBLIC_INFO structure

Members	Type	Description
app_version	Char[]	Application version
installed_date	Char[]	Application installed date

SUNAPI API

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_sendSunapi	const INT8_N*, OPENSDK_SUNAPI_RESPONSE

Description

Application can use the SUNAPI by using this API.

Parameters

const INT8_N*

Type	Description
const INT8_N*	SUNAPI string(Max. 256 characters)

OPENSDK_SUNAPI_RESPONSE structure

Members	Type	Description
res_buff	char*	Return value
buff_len	int	Length of return value

Function Example

```
OPENSDK_ERR_CODE          errCode = OPENSDK_APP_OK;
OPENSDK_SUNAPI_RESPONSE* sunapi_res = new OPENSDK_SUNAPI_RESPONSE;

errCode = OPENSDK::SUNAPI::opensdk_sendSunapi("stw-cgi/factory.cgi?action=view",sunapi_res);

delete sunapi_res;
```

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Others

Nand Flash Space

Description

Application can use nand flash space.

Path: /mnt/opensdk/storage/

Version

- After 3.52_190724

Nand flash size

- Refer to the Document Programming Guide - 1.4 Requirements.

Data status on situation

- Uninstall Application: exist data
- Soft Factory default(Except network parameter & open platform): exist data
- Hard Factory default: delete data

Function Example

```
FILE *f;
if((f = fopen("/mnt/opensdk/storage/test.txt", "wr")) == NULL)
{
     debug_message("file create error");
     return;
}
fputs("Hanwha Techwin\n", f);
fclose(f);
```

Send Application Command

Signature

Return Type	Method	Parameters
OPENSDK_ERR_CODE	opensdk_sendAppCommand	OpenSDKAppCommand*

Description

This API is designed for the purpose of adding new API without SDK modification. If application developer needed to add new function, Please contact Hanwha techwin SDK developer.

Parameters

OpenSDKAppCommand struct

Members	Type	Description
index	Int	Index for command
data	char*	Command data
length	int	Data length

Function Example

```
OpenSDKAppCommand *command = new OpenSDKAppCommand;

char str[200] = "Test String";

command->index = 1;
command->data = data;
command->length = strlen(data);

OPENSDK::DEVICE::opensdk_sendAppCommand(command);

delete command;
```

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Error codes

- OPENSDK_APP_NONE = 0,
- OPENSDK_APP_OK = 1,
- OPENSDK_APP_ERR_FAILED = -1,
- OPENSDK_APP_ERR_INVALID_TIMEZONE = 3,
- OPENSDK_APP_ERR_INVALID_DATETIME ,
- OPENSDK_APP_ERR_INVALID_HOSTNAME , // 5
- OPENSDK_APP_ERR_INVALID_IPv4_ADDR ,
- OPENSDK_APP_ERR_INVALID_IPv6_ADDR ,
- OPENSDK_APP_ERR_INVALID_DNS_NAME ,
- OPENSDK_APP_ERR_INVALID_STREAM_SETUP ,
- OPENSDK_APP_ERR_STREAM_CONFLICT , // 10
- OPENSDK_APP_ERR_INCOMPLETE_CONFIGURATION ,
- OPENSDK_APP_ERR_PROFILE_ALREADY_EXIST ,
- OPENSDK_APP_ERR_PROFILE_DELETE_FAILED ,
- OPENSDK_APP_ERR_PROFILE_MAX_LIMIT ,
- OPENSDK_APP_ERR_PROFILE_NOT_EXIST , // 15
- OPENSDK_APP_ERR_REMOVE_FIXED_PROFILE ,
- OPENSDK_APP_ERR_CONFIG_NOT_EXIST ,
- OPENSDK_APP_ERR_CONFIG_CONFLICT ,
- OPENSDK_APP_ERR_CONFIG_MODIFY ,
- OPENSDK_APP_ERR_CAPABILITY_NOT_SUPPORTED , // 20
- OPENSDK_APP_ERR_INVALID_NETWORK_INTERFACE ,
- OPENSDK_APP_ERR_INVALID_MTU_VALUE ,
- OPENSDK_APP_ERR_INVALID_SPEED_VALUE ,
- OPENSDK_APP_ERR_INVALID_INTERFACE_TYPE ,
- OPENSDK_APP_ERR_OPERATION_PROHIBITED , // 25

- OPENSDK_APP_ERR_SERVICE_NOT_SUPPORTED ,
- OPENSDK_APP_ERR_INVALID_GATEWAY_ADDRESS ,
- OPENSDK_APP_ERR_IPFILTER_LIST_FULL ,
- OPENSDK_APP_ERR_NOTFOUND_IPv4_ADDR ,
- OPENSDK_APP_ERR_NOTFOUND_IPv6_ADDR , // 30
- OPENSDK_APP_ERR_ACCESS_LOG_UNAVAILABLE ,
- OPENSDK_APP_ERR_SYSTEM_LOG_UNAVAILABLE ,
- OPENSDK_APP_ERR_SUPPORT_INFORMATION_UNAVAILABLE,
- OPENSDK_APP_ERR_EMPTY_SCOPE_LIST ,
- OPENSDK_APP_ERR_SCOPE_OVERWRITE_FAILURE , // 35
- OPENSDK_APP_ERR_SCOPE_MAX_LIMIT ,
- OPENSDK_APP_ERR_NOTFOUND_SCOPE ,
- OPENSDK_APP_ERR_REMOVE_FIXED_SCOPE ,
- OPENSDK_APP_ERR_AUDIO_NOT_SUPPORTED ,
- OPENSDK_APP_ERR_NOTFOUND_VIDEO_SOURCE , // 40
- OPENSDK_APP_ERR_IMAGE_SETTING_NOT_SUPPORTED,
- OPENSDK_APP_ERR_INVALID_IMAGE_SETTING ,
- OPENSDK_APP_ERR_USERNAME_CRASH ,
- OPENSDK_APP_ERR_PASSWORD_TOO_LONG ,
- OPENSDK_APP_ERR_USERNAME_TOO_LONG , // 45
- OPENSDK_APP_ERR_PASSWORD_TOO_WEAK ,
- OPENSDK_APP_ERR_USER_MAX_LIMIT ,
- OPENSDK_APP_ERR_USERNAME_NOT_FOUND ,
- OPENSDK_APP_ERR_KEY_GENERATION_FAILED ,
- OPENSDK_APP_ERR_UNKNOWN_CERTIFICATE_ID , // 50
- OPENSDK_APP_ERR_PKCS10_CREATION_FAILED ,
- OPENSDK_APP_ERR_CLIENT_AUTHENTICATION_NOT_SUPPORTED,
- OPENSDK_APP_ERR_CERTIFICATE_FORMAT_NOT_SUPPORTED,
- OPENSDK_APP_ERR_CERTIFICATE_ID_ALREADY_EXIST,
- OPENSDK_APP_ERR_UNKNOWN_RELAY_TOKEN , // 55
- OPENSDK_APP_ERR_INVALID_DELAY_TIME ,
- OPENSDK_APP_ERR_VIDEO_ANALYTICS_NOT_SUPPORTED,

- OPENSDK_APP_ERR_WRONG_PTZ_POSITION ,
- OPENSDK_APP_ERR_UNKNOWN_AUX_TOKEN ,
- OPENSDK_APP_ERR_DELETE_FIXED_USER , // 60
- OPENSDK_APP_ERR_CRITICAL ,
- OPENSDK_APP_ERR_VIDEOSOURCE_NOT_EXIST ,
- OPENSDK_APP_ERR_VIDEOSOURCE_NOT_SUPPORTED,
- OPENSDK_APP_ERR_REQUEST_INCORRECT ,
- OPENSDK_APP_ERR_INVALID_CONFIG , // 65
- OPENSDK_APP_ERR_OPERATION_TEMPORARILY_UNAVAILABLE,
- OPENSDK_APP_ERR_APPNAME_NULL ,
- OPENSDK_APP_ERR_APPNAME_MAX_LEN ,
- OPENSDK_APP_ERR_APPNAME_MIN_LEN ,
- OPENSDK_APP_ERR_FEATURE_NOT_SUPPORTED ,
- OPENSDK_APP_ERR_SOCKET_ERROR ,
- OPENSDK_APP_ERR_INVALID_SOCKET ,
- OPENSDK_APP_ERR_NOT_INITIALIZED ,
- OPENSDK_APP_ERR_INIT_ERROR ,
- OPENSDK_APP_ERR_START_ERROR ,
- OPENSDK_APP_ERR_STOP_ERROR ,
- OPENSDK_APP_ERR_MEDIA_ERROR ,
- OPENSDK_APP_ERR_API_ERROR ,
- OPENSDK_APP_ERR_WRONG_INUPT_DATA ,
- OPENSDK_APP_ERR_INSUFFICIENT_INPUT_BUFFER ,
- OPENSDK_APP_ERR_VIDEO_NOT_RUNNING ,
- OPENSDK_APP_ERR_AUDIO_NOT_RUNNING ,
- OPENSDK_APP_ERR_PROFILE_NUMBER ,
- OPENSDK_APP_ERR_MODIFY_FIXED_PROFILE ,
- OPENSDK_APP_ERR_UNSUPPORTED_CAMERA_MODEL ,
- OPENSDK_APP_ERR_CPU_USAGE_HIGH ,
- OPENSDK_APP_ERR_LOW_SYSTEM_MEMORY ,
- OPENSDK_APP_ERR_NO_SUFFICIENT_MEMORY ,
- OPENSDK_APP_ERR_SDK_FAILURE ,

- OPENSDK_APP_ERR_UNSUPPORTED_VIDEO_SOURCE ,
- OPENSDK_APP_ERR_PERMISSION_RESTRICTED ,
- OPENSDK_APP_ERR_CONFIG_FILE ,
- OPENSDK_APP_ERR_APP_ALREADY_RECORDING ,
- OPENSDK_APP_ERR_APP_NOT_RECORDING ,
- OPENSDK_APP_EVENT_FTP_NOT_ENABLED ,
- OPENSDK_APP_EVENT_NOT_ENABLED ,
- OPENSDK_APP_FTP_SENDDATA_FAILED ,
- OPENSDK_APP_EVENT_SMTP_NOT_ENABLED ,
- OPENSDK_APP_SMTP_SENDDATA_FAILED ,
- OPENSDK_APP_ERR_MAX_TASK_REACHED ,
- OPENSDK_APP_ERR_RECORD_TIME_MISMATCH ,
- OPENSDK_APP_ERR_INVALID_INPUT ,
- OPENSDK_APP_ERR_INVALID_PTZ_COMMAND ,
- OPENSDK_APP_ERR_SET_APP_CONFIG = 501,
- OPENSDK_APP_ERR_RAW_VIDEO_ENABLED =502,
- OPENSDK_APP_ERR_LIST_CONFIG_DATA ,
- OPENSDK_APP_ERR_ADD_APP_CONFIG ,
- OPENSDK_APP_ERR_DELETE_APP_CONFIG ,

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WN5 Platform Video Configuration

X6000

This section describes XNB-6000 series video configurations; This section applies to XNB-6000, XNO-6080R, XNO-6010R, XNO-6080R, XNV-6080, XNV-6080R, XND-6080, XND-6080R, XND-6080V, XND-6080RV, XND-6010, XNV-6010, XND-6020R, XNV-6020R, XNO-6120R, XNV-6120R and XNV-6120 models.

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	1920x1080	2
	1280X1024	3
	1280X960	3
	1280x720	3
	1024X768	3
	800X600	5
	800x448	5
	720x576	5
	720x480	5
	640X480	5
	640x360	5

	320x240	5
H.264	1920x1080	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30
H.265	1920x1080	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)

YUV422	1920x1080	5
	1280x1024	7
	1280x960	7
	1280x720	10
	1024x768	12
	800x600	12
	800x448	12
	720x576	12
	720x480	15
	640x480	15
	640x360	15
	320x240	15

※ Available max 10 fps with VA(MD, TD and so on)

X8000

This section describes XNB-8000 series video configurations; This section applies to XNB-8000, XNO-8080R, XNO-8020R, XNO-8030R, XNO-8040R, XND-8080R, XNV-8080R, XND-8080RV, XND-8020R, XND-8030R, XND-8040R, XNV-8020R, XNV-8030R and XNV-8040R models.

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	2560x1920	1
	2560x1440	1
	1920x1080	2
	1600x1200	2
	1280X1024	3

	1280X960	3
	1280x720	3
	1024X768	3
	800X600	5
	800x448	5
	720x576	5
	720x480	5
	640X480	
	640x360	5
	320x240	5
H.264	2560x1920	30
	2560x1440	30
	1920x1080	30
	1600x1200	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30
H.265	2560x1920	30
	2560x1440	30
	1920x1080	30
	1600x1200	30
	1280x1024	30
	1280x960	30

	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
YUV422	1920x1080	5
	1600x1200	7
	1280x1024	7
	1280x960	10
	1280x720	12
	1024x768	12
	800x600	12
	800x448	12
	720x576	12
	720x480	15
	640x480	15
	640x360	15
	320x240	15

※ Available max 10 fps with VA(MD, TD and so on)

XF8000

This section describes XNF-8010R series video configurations; This section applies to XNF-8010R, and XNF-8010RV models.

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	2048x2048	30
	1280x1280	30
	1080x1080	30
	960x960	30
	768X768	30
	720X720	30
	640x640	30
	480X480	30
H.264	2048x2048	30
	1280x1280	30
	1080x1080	30
	960x960	30
	768X768	30
	720X720	30
	640x640	30
	480X480	30
H.265	2048x2048	30
	1280x1280	30
	1080x1080	30
	960x960	30
	768X768	30
	720X720	30

	640x640	30
	480X480	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
YUV422	2048x2048	5
	1280x1280	7
	1080x1080	7
	960x960	12
	768X768	15
	720X720	15
	640x640	15
	480X480	15
	640x360	15
	320x240	15

Available max 10 fps with VA (MD, TD and so on)

T4000

This section describes TNO-4050T series video configurations; This section applies to TNO-4030T, TNO-4040T, TNO-4041T, TNO-4050T and TNO-4051T models.

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	640x480	5

	640X360	5
	320X240	5
H.264	640x480	30
	640X360	30
	320X240	30
H.265	640x480	30
	640X360	30
	320X240	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
YUV422	640x480	15
	640X360	15
	320X240	15

Available max 10 fps with VA(MD, TD and so on)

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S3L Platform Video Configuration

Q6000

This section describes QNO-6082R series video configurations; This section applies to Q 2M models.

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	1920x1080	30
	1280X1024	30
	1280X960	30
	1280x720	30
	1024X768	30
	800X600	30
	800x448	30
	720x576	30
	720x480	30
	640X480	30
	640x360	30
	320x240	30
H.264	1920x1080	30

	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30
H.265	1920x1080	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30

Q8000

This section describes QNO-8080R series video configurations; This section applies to Q 5M models.

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	2560x1920	30
	2560x1440	30
	1920x1080	30
	1280X1024	30
	1280X960	30
	1280x720	30
	1024X768	30
	800X600	30
	800x448	30
	720x576	30
	720x480	30
	640X480	30
	640x360	30
	320x240	30
H.264	2560x1920	30
	2560x1440	30
	1920x1080	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30

	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30
H.265	2560x1920	30
	2560x1440	30
	1920x1080	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30

CAHPTER 10.

CV2x Platform Video Configuration

P9081

This section describes PNO-A9081R series video configurations; This section applies to 4K AI cameras

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	3840x2160	1
	3072x1728	5
	2592x1944	5
	2688x1520	5
	2560x1440	5
	2048x1536	5
	1920x1080	30
	1600x1200	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30

	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
H.264	3840x2160	30
	3072x1728	30
	2592x1944	30
	2688x1520	30
	2560x1440	30
	2048x1536	30
	1920x1080	30
	1600x1200	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
H.265	3840x2160	30
	3072x1728	30
	2592x1944	30
	2688x1520	30
	2560x1440	30
	2048x1536	30
	1920x1080	30
	1600x1200	30

	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
NV12	1920x1080	10
	960x540	10
	480x270	10
	240x136	10

QF9000

This section describes QNF-9081R series video configurations; This section applies to 4K AI cameras

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	3008x3008	5
	640x640	15
H.264	3008x3008	30
	640x640	30
H.265	3008x3008	30
	640x640	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
NV12	640x640	10

7180R

This section describes TNO-7180R series video configurations; This section applies to 4K AI cameras

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	2048x1536	1
	1920x1080	2

	1600x1200	2
	1280x1024	3
	1280x960	3
	1280x720	3
	1024x768	3
	800x600	5
	800x448	5
	720x576	5
	720x480	5
	640x480	5
	640x360	5
	320x240	5
H.264	2048x1536	30
	1920x1080	30
	1600x1200	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30
H.265	2048x1536	30
	1920x1080	30
	1600x1200	30
	1280x1024	30
	1280x960	30

	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
	320x240	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
NV12	1920x1080	4
NV12	960x540	5
NV12	480x270	5
NV12	240x136	5

A6081R

This section describes PNO-A6081R series video configurations; This section applies to 2M AI cameras

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG	1920x1080	2
	1280x1024	3

	1280x960	3
	1280x720	3
	1024x768	3
	800x600	5
	800x448	5
	720x576	5
	720x480	5
	640x480	5
	640x360	5
H.264	1920x1080	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30
H.265	1920x1080	30
	1280x1024	30
	1280x960	30
	1280x720	30
	1024x768	30
	800x600	30
	800x448	30
	720x576	30
	720x480	30
	640x480	30
	640x360	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
NV12	1920x1080	10
NV12	960x540	10
NV12	480x270	10
NV12	240x136	10

CAHPTER 11.

WN7 Platform Video Configuration

WN7

This section describes WN7 platform video configurations.

Encoded Video

Codec	Resolution	Maximum Frame Rate (fps)
MJPEG(4K)	3840X2160	5
	3328X1872	5
	3072X1728	5
	2592X1944	5
	2688X1520	5
	1920X1080	30
	1600X1200	30
	1280X1024	30
	1280X960	30
	1280X720	30
	1024X768	30
	800X600	30
	800X448	30

	720X576	30
	720X480	30
	640X480	30
	640X360	30
	320X240	30
MJPEG(Fisheye)	3008X3008	30
	1504X1504	30
	1080X1080	30
	960X960	30
	768X768	30
	720X720	30
	640X640	30
	480X480	30
H.264(4K)	3840 x 2160	30
	3328 x 1872	30
	3072 x 1728	30
	2592 x 1944	30
	2688 x 1520	30
	1920 x 1080	30
	1600 x 1200	30
	1280 x 1024	30
	1280 x 960	30
	1280 x 720	30
	1024 x 768	30
	800 x 600	30
	800 x 448	30
	720 x 576	30
	720 x 480	30
	640 x 480	30
	640 x 360	30
	320 x 240	30

H.264(Fisheye)	3008X3008	30
	1504X1504	30
	1080X1080	30
	960X960	30
	768X768	30
	720X720	30
	640X640	30
	480X480	30
H.265(4K)	3840 x 2160	30
	3328 x 1872	30
	3072 x 1728	30
	2592 x 1944	30
	2688 x 1520	30
	1920 x 1080	30
	1600 x 1200	30
	1280 x 1024	30
	1280 x 960	30
	1280 x 720	30
	1024 x 768	30
	800 x 600	30
	800 x 448	30
	720 x 576	30
	720 x 480	30
	640 x 480	30
	640 x 360	30
	320 x 240	30
H.265(Fisheye)	3008X3008	30
	1504X1504	30
	1080X1080	30
	960X960	30
	768X768	30

	720X720	30
	640X640	30
	480X480	30

Raw Video

YUV type	Resolution	Maximum Frame Rate (fps)
YUV422(4K)	1920 x 1080	3
	1600 x 1200	3
	1280 x 1024	3
	1280 x 960	5
	1280 x 720	5
	1024 x 768	5
	800 x 600	10
	800 x 448	10
	720 x 576	10
	720 x 480	10
	640 x 480	10
	640 x 360	10
	320 x 240	10
YUV422(Fisheye)	1080X1080	3
	960X960	5
	768X768	5
	720X720	10
	640X640	10
	480X480	10