

UC9020 RESTful API

User Guide

Introduction

The information enclosed defines ATEN's RESTful APIs — RESTlink. Each authorized client can configure and control ATEN devices via these APIs, with all request and response messages encoded in JSON.

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API Request Methods

The following methods are used to access server for a client's requests.

1 GET

- List all resource information
- Retrieve one resource data

2 POST

- Create a new entry of resource
- Upload resources
- Perform a specific action provided by resources

3 PATCH

- Update one resource data
- Replace entire resource and its elements

4 DELETE

- Delete a specific resource entry

APIs Request Header Authentication

To access APIs, a credential is required in the http header of each API request.

```
Authorization: {credential}
```

1 Response

1.1 Status Codes

For every RESTful request sent to an ATEN device, it shall respond with an HTTP status code.

The request results corresponding to each status code are described as follows.

- Success
 - 200 OK
 - 201 Created
 - 202 Accepted
 - 204 No content
- Client errors
 - 400 Bad request
 - 401 Unauthorized
 - 403 Forbidden
 - 404 Not found
 - 405 Method not allowed
 - 406 Not acceptable
 - 408 Request timeout
 - 409 Conflict
- Server errors
 - 500 Internal server error
 - 501 Not implemented
 - 503 Service unavailable

API Response Error Handling

When an error occurs, the error message of the following format is returned.

```
{
  "code": 2030103,
  "message": "The server has not found anything matching the Request-URI."
}
```

APIs Server Alive Testing

Testing Path: `https://{device_address}/api/v2.0/ping`

Response Messages

In addition to status codes, ATEN devices also enclose the related detailed descriptions within the HTTP message body, in the following format.

```
{
  "code" : {error code},
  "message" : "{error description}"
}
```

Status Code	<code>	<message>
200 OK		
201 Created		
202 Accepted		
204 No content		
Controller		
500 Internal server error	2010001	"Failed."
	2010002	"DBus Error."
	2010003	"Invalid Json."
	2010004	"Invalid Parameter."
	2010005	"Database Error."
	2010006	"Not Allowed Situation."
	2010007	"Firmware is upgrading."
	2010100	"Operation Not Allowed - transition busy."
	2010101	"Transition Not Allowed - not supported scene setting."
	2010102	"Transition Not Allowed - transition busy – manual."
	2010103	"Set Channel Scene Not Allowed - PRV and PGM should not use same scene."
	2010104	"Set Channel Scene Not Allowed - channel is in transition."
	2010150	"GoLive Not Allowed - ethernet cable is unplugged."
	2010151	"Cannot enable more than 2 live/recording streams."
	2010152	"GoLive Not Allowed - no enabled stream."
	2010153	"GoLive Not Allowed - storage not usable."
	2010200	"Asset ID Not Found."
	2010201	"Not Supported File Format for Background Image."
	2010202	"Import Asset Not Allowed - Asset ID already exist."
	2010250	"Netowrk Setting Not Allowed - IP and gateway isn't in the same subnet."
	2010251	"Import project timeout."
	2010252	"Export project timeout."
	2010253	"Export default project timeout."
	2010254	"User data is corrupted. It will be removed now."
	2010255	"Please turn off live-streaming."
	2010256	"Please turn off USB recording."
	2010257	"No USB drive found."
	2010258	"USB drive is busy."

Web API		
400 Bad request	2030100	"The request could not be understood by the server due to malformed syntax."
	2030230	"Missing required parameter."
	2030231	"Input incorrect parameter format."
401 Unauthorized	2030101	"The request has not been applied because it lacks valid authentication credentials for the target resource."
	2030200	"The request needs to be authorized."
	2030400	"Incorrect username or password."
403 Forbidden	2030102	"The server understood the request but refuses to authorize it."
	2030201	"The request is forbidden."
404 Not found	2030103	"The server has not found anything matching the Request-URI."
405 Method not allowed	2030104	"The method specified in the Request-Line is not allowed for the resource identified by the Request-URI."
	2030301	"Calling not supported dbus method."
	2030401	"Not allowed data modification."
	2030402	"Not acceptable data modification."
408 Request timeout	2030105	"The client did not produce a request within the time that the server was prepared to wait."
409 Conflict	2030106	"The request could not be completed due to a conflict with the current state of the resource."
	2030303	"DBus in the busy state."
500 Internal server error	2030130	"The server encountered an unexpected condition which prevented it from fulfilling the request."
	2030300	"DBus connection fail."
	2030302	"DBus response incorrect data format."
	2032200	"Profile Export Error."
	2032201	"Profile Import Error."
	2032202	"Profile Import Asset Error."
	2032203	"Profile Import Pause Image Error."
	2032204	"Profile export conflict, system in busy status."
2032205	"Profile import conflict, system in busy status."	
501 Not implemented	2030131	"The server encountered an unexpected condition which prevented it from fulfilling the request."

2 Authentication

Authentication group APIs are for handling API access control management.

2.1 User Login

API

/api/v2.0/auth/login

■ POST: logs in for API access control management.

Body

Field	Type	Description
Authorization	String	Authentication code and encoded by "username:password" in base64.

```
{
  "authorization": base64('username:password')
}
```

Response

■ Success

200 OK

Field	Type	Description
id	String	This user's ID.
name	String	This user's name.
role	String	Role of this user.
isModified	Boolean	The user's password has been modified or not.

```
{
  "id": 1,
  "name": "administrator",
  "role": "administrator",
  "isModified": false
}
```

■ Error

401 Unauthorized

Name	Description
Unauthorized	Incorrect username or password.

```
{
  "code": 101,
  "message": "Incorrect username or password."
}
```


500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/auth/login url

Parameters

Request ajax-auto

json

authorization

authorization

String

Send

2.2 User Logout

API

/api/v2.0/auth/logout

Request

- POST: logs out of APIs access control management.

Response

- Success

204 No content

Field	Description
null	No content response.

```
""
```

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/auth/logout url

2.3 Modify Authorization

API

/api/v2.0/auth/login/authorization

Request

■ PATCH: Modifies the login authorization for APIs access control management.

Header

Field	Type	Description
Authorization	String	The special credential value.

Authorization: {credential}

Body

Field	Type	Description
Authorization	String	Authentication code and encoded by 'username:password' in base64.

```
{
  "authorization": base64('username:password')
}
```

Response

■ Success

200 OK

Field	Type	Description
role	String	Role of this user.
isModified	Boolean	The user's password had been modified or not.

```
{
  "id": 1,
  "name": "administrator",
  "role": "administrator",
  "isModified": false
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/auth/login/auth url

Headers

Header

Authorization
 String

Parameters

Request

json
authorization

String

3 Audio

Audio group APIs are for handling audio I/O control management.

P.S.

The names of audio inputs are fixed as { "Line-In", "Mic. In", "HDMI2 Audio", "HDMI1 Audio" }

The names of audio outputs are fixed as { "Line-Out", "DisplayA Audio", "Stream Out Audio" }

3.1 Get All Audio

Get all contains the entire audio's configurations.

API

/api/v2.0/audio

Request

- GET: get the entire audio's configurations.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

- Success

200 OK

Field	Type	Description
audio	Object	All audio information.
input	Object[]	Input audio data list. <more.>
output	Object[]	Output audio data list. <more.>

```
{
  "audio": {
    "input": [...],
    "output": [...]
  }
}
```

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/audio url

Headers

Header

Authorization

Authorization String

Send

3.2 List All Input

List all input contains the entire audio input's configurations.

API

/api/v2.0/audio/input

Request

- GET: get the entire audio input's configurations.

Header

Field	Type	Description
Authorization	String	The special credential value.

Authorization: {credential}

Response

- Success

200 OK

Field	Type	Description
input	Object[]	Input audio data list. <more.>

```

{
  "input": [
    {
      "id": 1,
      "name": "Line-In",
      "type": "analog"
      "pan": 100,
      "gain": 100,
      "isMute": true,
      "capability": {
        "gain": {
          "max": 2000,
          "min": -8000,
          "step": 50
        },
        "pan": {
          "max": 10000,
          "min": -10000,
          "step": 100
        }
      }
    },
    ...
  ]
}

```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```

{
  "code": 50000,
  "message": "System error."
}

```

Send a Sample Request

file:///api/v2.0/audio/input url

Headers

Header

Authorization

Authorization String

Send

3.3 Get One Input

Get one input contains a specified audio input's configurations.

API

/api/v2.0/audio/input/:id

Request

- GET: get a specified audio input's configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

URL

Field	Type	Description
id	Integer	Access data index number.

Response

- Success

200 OK

Field	Type	Description
id	Integer	The unique index number.
name	String	The audio interface name.
type	String	The audio interface type.
gain	Integer	The volume setting. Unit is db * 100.
pan	Integer	Balance sound setting between left and right channel. Unit is percentage * 100.
isMute	Boolean	The mute turn on or not.
capability	Object	Settings scope and limit.

```
{
  "id": 1,
  "name": "Audio Name",
  "type": "analog",
  "pan": 100,
  "gain": 100,
  "isMute": true,
  "capability": {
    "gain": {
      "max": 2000,
      "min": -8000,
      "step": 50
    },
    "pan": {
      "max": 10000,
      "min": -10000,
      "step": 100
    }
  }
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```

Send a Sample Request

The screenshot shows a REST client interface with the following fields and controls:

- URL: `file:///api/v2.0/audio/input/:id` url
- Headers: Header
- Authorization: String
- Parameters: URL (dropdown)
- Body:
- Type:
- Buttons:

3.4 Set One Input

Set one input sets a specified audio input's configurations.

This is an asynchronous setting function.

API

`/api/v2.0/audio/input/:id`

Request

■ PATCH: set a specified audio input's configurations.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```


URL

Field	Type	Description
id	Integer	Access data index number.

Body

Field	Type	Description
gain (optional)	Integer	The volume setting. Unit is db * 100.
pan (optional)	Integer	Balance sound setting between left and right channel. Unit is percentage * 100.
isMute (optional)	Boolean	The mute turned on or not.
sender (optional)	String	For event information. Default value: web.

```
{
  "gain": 100,
  "pan": 100,
  "isMute": false,
  "sender": "web"
}
```

Response

■ Success

204 No contents

Field	Description
null	No content response.

```
...
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

The screenshot shows a REST client interface with the following fields and controls:

- URL: `file:///api/v2.0/audio/input:id` (type: url)
- Headers section:
 - Header
 - Authorization: (type: String)
- Parameters section:
 - URL -
- Body section:
 - Content type: json
 - id:
 - Integer:
 - Request -
- Body section (continued):
 - Content type: json
 - gain:
 - Integer:
 - pan:
 - Integer:
 - isMute:
 - Boolean:
 - sender:
 - String:
- Send button

3.5 List All Output

List all output contains the entire audio output's configurations.

API

`/api/v2.0/audio/output`

Request

■ GET: get the entire audio output's configurations.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

■ Success

200 OK

Field	Type	Description
output	Object[]	Output audio data list. <more.>

```
{
  "output": [
    {
      "id": 1,
      "name": "Line-Out",
      "type": "analog",
      "pan": 100,
      "gain": 100,
      "isMute": true,
      "isCompressorEnabled": true,
      "inputThreshold": -1200,
      "capability": {
        "gain": {
          "max": 2000,
          "min": -8000,
          "step": 50
        },
        "pan": {
          "max": 10000,
          "min": -10000,
          "step": 100
        },
        "inputThreshold": {
          "max": 2400,
          "min": -13500,
          "step": 300
        }
      }
    },
    ...
  ]
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/audio/output	url
Headers	
<input checked="" type="checkbox"/>	Header
Authorization	
Authorization	String
<input type="button" value="Send"/>	

3.6 Get One Output

Get one output contains a specified audio output's configurations.

API

/api/v2.0/audio/output/:id

Request

- GET: get a specified audio output's configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

URL

Field	Type	Description
id	Integer	Access data index number.

Response

- Success

200 OK

Field	Type	Description
id	Integer	The unique index number.
name	String	The audio interface name.
type	String	The audio interface type.
gain	Integer	The volume setting. Unit is db * 100.
pan	Integer	Balance sound setting between left and right channel. Unit is percentage * 100.
isMute	Boolean	The mute turn on or not.
isCompressorEnabled	Boolean	Whether enable compressor function.
inputThreshold	Integer	Input audio gain threshold for trigger compressor working.
capability	Object	Settings scope and limit.

```

{
  "id": 1,
  "name": "Audio Name",
  "type": "analog"
  "pan": 100,
  "gain": 100,
  "isMute": true,
  "isCompressorEnabled": true,
  "inputThreshold": -1200,
  "capability": {
    "gain": {
      "max": 2000,
      "min": -8000,
      "step": 50
    },
    "pan": {
      "max": 10000,
      "min": -10000,
      "step": 100
    },
    "inputThreshold": {
      "max": 2400,
      "min": -13500,
      "step": 300
    }
  }
}

```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```

{
  "code": 50000,
  "message": "System error."
}

```

Send a Sample Request

file:///api/v2.0/audio/output/ic url

Headers

Header

Authorization

Authorization String

Parameters

URL ▼

json

id

Integer

3.7 Set One Output

Set one output sets a specified audio output's configurations.

This is an asynchronous setting function.

API

/api/v2.0/audio/output/:id

Request

- PATCH: set a specified audio output's configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

URL

Field	Type	Description
id	Integer	Access data index number.

Body

Field	Type	Description
gain (optional)	Integer	The volume setting. Unit is db * 100.
pan (optional)	Integer	Balance sound setting between left and right channel. Unit is percentage * 100.
isMute (optional)	Boolean	The mute turn on or not.
isCompressorEnabled (optional)	Boolean	Whether enable compressor function.
inputThreshold (optional)	Integer	Input audio gain threshold for trigger compressor working.
sender (optional)	String	For event information. Default value: web

```
{
  "gain": 100,
  "pan": 100,
  "isMute": false,
  "isCompressorEnabled": true,
  "inputThreshold": -1200,
  "sender": "web"
}
```

Response

- Success

204 No contents

Field	Description
null	No content response.

```
..
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```

Send a Sample Request

file:///api/v2.0/audio/output/ic url

Headers

Header

Authorization

Authorization String

Parameters

URL ajax-auto

json

id

id

Integer

Request ajax-auto

json

gain

gain

Integer

pan

pan

Integer

isMute

isMute

Boolean

isCompressorEnabled

isCompressorEnabled

Boolean

inputThreshold

inputThreshold

Integer

sender

sender

String

Send

4 Transition

Transition group APIs are for handling video transition control management.

4.1 Transition Status

Transition status contains all video transition information.

API

/api/v2.0/transition/status

Request

- GET: get the video transition information.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

- Success

200 OK

Field	Type	Description
direction	Integer	Special value, represent change direction. Allowed values: -1, 1
position	Integer	Special value, represent absolute position. Size range: 0-255

```
{  
  "direction": -1,  
  "position": 100  
}
```

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```


Send a Sample Request

The screenshot shows a REST client interface with the following elements:

- A text input field containing the URL: `file:///api/v2.0/transition/status` with a "url" label.
- A "Headers" section with a checked "Header" checkbox.
- An "Authorization" section with a text input field containing "Authorization" and a "String" type indicator.
- A "Send" button.

4.2 Start Transition

Start transition starts the video transition.

API

/api/v2.0/transition

Request

■ POST: start the video transition.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Request

Field	Type	Description
mode	String	Transition mode defined. Allowed values: "cut", "auto", "manual"
Duration (optional)	Integer	Special value, represent position change duration, when mode == "auto", and it defined in millisecond
Position (optional)	Integer	Special value, represent absolute position, when mode == "manual". Size range: 0-255
Sender (optional)	String	For event information. Default value: web

```
{
  "mode": "auto",
  "duration": 500,
  "sender": "web"
}
```

Response

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

4.3 Get Transition

Get transition contains the video transition information.

API

/api/v2.0/transition

Request

■ GET: get the video transition information.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

■ Success

200 OK

Field	Type	Description
duration	Integer	Special default value, represent position change duration, when transition mode == "auto", and defined in millisecond.

```
{
  "duration": 100
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/transition url

Headers

Header

Authorization

Authorization String

Send

4.4 Set Transition

Set transition sets the video transition.

API

/api/v2.0/transition

Request

■ PATCH: set the video transition.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Body

Field	Type	Description
duration (optional)	Integer	Special default value, represent position change duration, when transition mode == "auto", and defined in millisecond.

sender (optional)	String	For event information. Default value: <code>web</code>
-------------------	--------	--

```
{
  "duration": 500,
  "sender": "web"
}
```

Response

■ Success

200 OK

Field	Type	Description
duration	Integer	Special default value, represent position change duration, when transition mode == "auto", and defined in millisecond.

```
{
  "duration": 100
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

url

Headers

Header

Authorization String

Parameters

Request

json

duration

Integer

sender

String

5 Streamer

Streamer group APIs are special-purpose APIs, for handling program streaming control management.

5.1 Get Status

Get status contains the entire program's streaming configurations.

API

/api/v2.0/streamer/status

Request

- GET: get the entire program's streaming configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

- Success

200 OK

Field	Type	Description																		
egnId	Integer	The streaming engine ID.																		
egnStatus	String	The streaming engine status. Allowed values: "start", "stop"																		
time	Integer	The streaming duration time.																		
overallStatusIdx	Integer	The overall streaming status index.																		
overallStatusMsg	String	The overall streaming status message. <table border="1" data-bbox="504 1272 1054 1581"> <thead> <tr> <th>overallStatusIdx</th> <th>overallStatusMsg</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>not connected</td> </tr> <tr> <td>1</td> <td>disconnecting</td> </tr> <tr> <td>2</td> <td>connecting</td> </tr> <tr> <td>3</td> <td>connecting failed</td> </tr> <tr> <td>4</td> <td>streaming</td> </tr> <tr> <td>5</td> <td>pausing</td> </tr> <tr> <td>6</td> <td>paused</td> </tr> <tr> <td>7</td> <td>resuming</td> </tr> </tbody> </table>	overallStatusIdx	overallStatusMsg	0	not connected	1	disconnecting	2	connecting	3	connecting failed	4	streaming	5	pausing	6	paused	7	resuming
overallStatusIdx	overallStatusMsg																			
0	not connected																			
1	disconnecting																			
2	connecting																			
3	connecting failed																			
4	streaming																			
5	pausing																			
6	paused																			
7	resuming																			
stream	Object[]	The streaming task information list.																		
obj	Object	The streaming information object.																		
id	Integer	The stream data index number.																		
name	String	The stream data name.																		
category	String	The stream category. Allowed values: "streaming", "recording"																		
type	String	The stream type. For streaming : rtp / rtmp For recording : usb / cloud Allowed values: rtp, rtmp, usb, cloud																		
bitrate	Integer	The streaming bitrate.																		
connQuality	Integer	The streaming connection quality. { -1: null, 0: Good, 1: Ok, 2: Bad }																		
statusIdx	Integer	Streaming status index number.																		
recStatusIdx	Integer	Recording status index number.																		
statusMsg	String	Message content decide by stream category Streaming status description messages.																		

		statusIdx	statusMsg
		0	not connected
		1	disconnecting
		2	connecting
		3	connecting failed
		4	streaming
		5	pausing
		6	paused
		7	resuming
		Recording status description messages..	
		recStatusIdx	statusMsg
		0	recording
		1	file splitting
		2	recording failed
		3	recording stopped
		4	storage is full, recording is going to stop now
remainingRecTime	Integer	USB remaining record time.	

```

{
  "egnId": 1,
  "egnStatus": "stop",
  "time": 0,
  "overallStatusIdx": 0,
  "overallStatusMsg": "not connected",
  "stream": [
    {
      "id": 2,
      "name": "RTMP Stream 1",
      "category": "streaming",
      "type": "rtmp",
      "bitrate": 0,
      "connQuality": -1,
      "statusIdx": 0,
      "recStatusIdx": 3,
      "statusMsg": "not connected",
      "remainingRecTime": -1
    },
    ...
  ]
}

```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```

{
  "code": 50000,
  "message": "System error."
}

```

Send a Sample Request

file:///api/v2.0/streamer/status url

Headers

Header

Authorization

Authorization String

Send

5.2 Start Streaming

Start streaming starts the program streaming.

API

/api/v2.0/streamer/start

Request

- POST: start the program streaming.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Body

Field	Type	Description
toggle	Boolean	Enable or disable toggle function. Default value: false

```
{  
  "toggle": true  
}
```

Response

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```

Send a Sample Request

The screenshot shows a REST client interface with the following fields and controls:

- URL: `file:///api/v2.0/streamer/start` (type: url)
- Headers: Header
- Authorization: (type: String)
- Parameters: Request (type: dropdown)
- Body:
- Response: (type: toggle)
- Boolean: (type: Boolean)
- Buttons:

5.3 Stop Streaming

Stop streaming stops the program streaming.

API

`/api/v2.0/streamer/stop`

Request

- POST: stop the program streaming.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```


Send a Sample Request

url
Headers
 Header
Authorization
 String

5.4 Pause Streaming

Pause streaming pauses the program streaming.

API

/api/v2.0/streamer/pause

Request

- POST: pause the program streaming.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Body

Field	Type	Description
toggle	Boolean	Enable or disable toggle function. Default value: false

```
{  
  "toggle": true  
}
```

Response

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```

Send a Sample Request

The screenshot shows a REST client interface with the following fields and controls:

- URL: `file:///api/v2.0/streamer/paus` url
- Headers: Header
- Authorization: String
- Parameters: Request
- Body:
- JSON toggle: Boolean
- Send button

5.5 Resume Streaming

Resume streaming resumes the program streaming.

API

`/api/v2.0/streamer/resume`

Request

- POST: resume the program streaming.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```

Send a Sample Request

The screenshot shows a REST client interface with the following fields and controls:

- URL: `file:///api/v2.0/streamer/resur` url
- Section: Headers
- Control: Header
- Section: Authorization
- Field: Authorization String
- Button: Send

6 Source

Source group APIs are for handling video and audio source configuration management.

P.S.

The name of video are fixed as { "HDMI1 Video", "HDMI2 Video", "WriteBack", "Preview" }

The name of audio are fixed as { "Line-In", "Mic. In", "HDMI2 Audio", "HDMI1 Audio" }

6.1 Get All

Get all contains the entire video and audio configurations.

API

/api/v2.0/source

Request

■ GET: get the entire video and audio configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

■ Success

200 OK

Field	Type	Description
source	Object	Source data.
video	Object[]	All video sources. <more.>
audio	Object[]	All audio sources. <more.>

```
{
  "source": {
    "video": [...],
    "audio": [...]
  }
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/source url

Headers

Header

Authorization

String

6.2 List All Videos

List all videos contains the entire video configuration.

API

/api/v2.0/source/video

Request

■ GET: get the entire video configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

■ Success

200 OK

Field	Type	Description
video	Object[]	Video Source data list. <more.>

```

{
  "video": [
    {
      "id": 2,
      "name": "HDMI2",
      "type": "video",
      "category": "capture",
      "address": "port://video/0",
      "isEditable": true,
      "isForPad": false,
      "isForPgm": false,
      "isForPrv": false,
      "snapshot": "http://127.0.0.1/static/snapshots/HDMI2A.png"
      "altSnapshot": "http://127.0.0.1/static/snapshots/HDMI2B.png"
    },
    ...
  ]
}

```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```

{
  "code": 50000,
  "message": "System error."
}

```

Send a Sample Request

url

Headers

Header

Authorization

 String

6.3 Get Video

Get video contains the video configurations.

API

/api/v2.0/source/video/:id

Request

- GET: get the video configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

URL

Field	Type	Description
id	Integer	Access data index number.

Response

- Success

200 OK

Field	Type	Description
id	Integer	The unique index number.
name	String	The source's name.
type	String	The type of source type. Allowed values: "video"
category	String	The category of source come from where. Allowed values: "capture"
address	String	The URI of source address. Read from device port, used address like "port://video/{parameter}"
isEditable	Boolean	Is this config editable?
isForPad	Boolean	Is this config used for Pad's layout settings?
isForPgm	Boolean	Is this config used for Program's layout settings?
isForPrv	Boolean	Is this config used for Preview's layout settings?
snapshot	String	This video snapshot download path. If snapshot not exist, then will not shown.
altSnapshot	String	Alternative video snapshot download path. If altSnapshot not exist, then will not shown.

```

{
  "id": 2,
  "name": "HDMI1",
  "type": "capture",
  "category": "capture",
  "address": "port://video/0/0",
  "isEditable": true,
  "isForPad": false,
  "isForPgm": false,
  "isForPrv": false,
  // If snapshot exist.
  "snapshot": "http://127.0.0.1/static/snapshots/HDMI2A.png"
  "altSnapshot": "http://127.0.0.1/static/snapshots/HDMI2B.png"
}

```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```

{
  "code": 50000,
  "message": "System error."
}

```

Send a Sample Request

file:///api/v2.0/source/video/i url

Headers

Header

Authorization

Authorization String

Parameters

URL ajax-auto

json

id

Integer

6.4 List All Audio

Get audio contains the entire audio configuration.

API

/api/v2.0/source/audio

Request

- GET: get the entire audio configurations.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

- Success

200 OK

Field	Type	Description
audio	Object[]	Audio source data list. <more.>

```
{
  "audio": [
    {
      "id": 1,
      "type": "analog",
      "name": "Line-In",
      "category": "capture",
      "address": "port://audio/20",
      "isMicTrackMono": true,
      "isFollowVideo": false,
      "isAudibleOnPgm": true
    },
    {
      "id": 2,
      "type": "analog",
      "name": "Mic. In",
      "category": "capture",
      "address": "port://audio/21",
      "isFollowVideo": false,
      "isAudibleOnPgm": true,
      "isMicTrackMono": true,
      "micGain": 0,
      "capability": {
        "gain": {
          "max": 3525,
          "min": -1200,
          "step": 75
        }
      }
    }
  ],
  ...
}
```

- Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.


```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/source/audio url

Headers

Header

Authorization

Authorization String

Send

6.5 Get Audio

Get video contains the audio configurations.

API

/api/v2.0/source/audio/:id

Request

- GET: get the audio configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

URL

Field	Type	Description
id	Integer	Access data index number.

Response

- Success

200 OK

Field	Type	Description
id	Integer	The unique index number.
name	String	The source's name.
type	String	The type of source type. Allowed values: "digital", "analog"
category	String	The category of source come from where. Allowed values: "capture"
address	String	The URI of source address. Read from device port, use address like "port://audio/{parameter}"
isFollowVideo	Boolean	Is this audio following its related video to play? If no related video, then always false.
isAudibleonPgm	Boolean	Is this audio following its related video on the program streaming? If no related video, then always true. This value is read only.
micGain	Integer	The microphone's gain value. Unit is db * 100. If no microphone, then always 0.

Capability	Object	The microphone gain value setting's scope and limit. If this is not microphone, then will not be shown
isMicTrackMono	Boolean	Is this microphone tracked in Mono mode or Stereo mode?

```

{
  "id": 2,
  "type": "analog"
  "name": "Mic. In",
  "category": "capture",
  "address": "port://audio/21",
  "isFollowVideo": false,
  "isAudibleOnPgm": true,
  "isMicTrackMono": true,
  "micGain": 0,
  // If this is microphone
  "capability": {
    "gain": {
      "max": 3525,
      "min": -1200,
      "step": 75
    }
  }
}

```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```

{
  "code": 50000,
  "message": "System error."
}

```

Send a Sample Request

file:///api/v2.0/source/audio/i url

Headers

Header

Authorization

Authorization String

Parameters

URL

json

id

Integer

6.6 Set Audio

Set audio sets the audio configurations.

API

/api/v2.0/source/audio/:id

Request

- PATCH: set the audio configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

URL

Field	Type	Description
id	Integer	Access data index number.

Body

Field	Type	Description
isFollowVideo	Boolean	Is this audio follow the relative video to play?
micGain	Integer	The microphone gain value. Unit is db * 100.
isMicTrackMono	Boolean	Is this microphone track in Mono mode or Stereo mode?
sender (optioanl)	String	For event information. Default value: web

```
{
  "micGain": 0,
  "sender": "web",
  "isFollowVideo": false,
  "isMicTrackMono": true
}
```

Response

- Success

200 OK

Field	Type	Description
id	Integer	The unique index number.
name	String	Audio Source's name.
type	String	The type of source type. Allowed values: "digital", "analog"
category	String	The category of source come from where. Allowed values: "capture"
address	String	The URI of source address. Read from device port, used address like "port://audio/{parameter}"
isFollowVideo	Boolean	Is this audio follow the relative video to play ? If no relative video, then always is false.
isAudibleOnPgm	Boolean	Is this audio follow the relative video on the program streaming? If no relative video, then always is true. This value is read only.
micGain	Integer	The microphone gain value. Unit is db * 100. If not microphone, then always is 0.
capability	Object	The microphone gain value setting scope and limit. If this is not microphone, then will not shown.
isMicTrackMono	Boolean	Is this microphone track in Mono mode or Stereo mode?

```
{
  "id": 2,
  "type": "analog"
  "name": "Mic. In",
  "category": "capture",
  "address": "port://audio/21",
  "isFollowVideo": false,
  "isAudibleOnPgm": true,
  "isMicTrackMono": true,
  "micGain": 0,
  // If this is microphone
  "capability": {
    "gain": {
      "max": 3525,
      "min": -1200,
      "step": 75
    }
  }
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occur.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/source/audio/1 url

Headers

Header

Authorization

Authorization String

Parameters

URL ajax-auto

json

id

id

Integer

Request ajax-auto

json

isFollowVideo

isFollowVideo

Boolean

micGain

micGain

Integer

isMicTrackMono

isMicTrackMono

Boolean

sender

sender

String

Send

7 Channel

Channel group APIs are for handling API access control management.

P.S.

Only by setting channels can the contents shown be changed on displays relative to the configuration; meaning this will invoke configuration.

The name of channel are fixed as { "Preview", "Program", "iPad" }

7.1 List All Channels

List all channels contains the entire channel configurations.

API

/api/v2.0/channels

Permission: admin

Request

- GET: get the entire channel configurations.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Response

- Success

200 OK

Field	Type	Description								
switchMode	Integer	The channel switch mode. Switch mode description.								
		<table border="1"><thead><tr><th>switchMode</th><th>description</th></tr></thead><tbody><tr><td>0</td><td>Switch Preview channel</td></tr><tr><td>1</td><td>Switch Program channel, then will trigger cut switch effect.</td></tr><tr><td>2</td><td>Switch Program channel, then will trigger auto switch effect.</td></tr></tbody></table>	switchMode	description	0	Switch Preview channel	1	Switch Program channel, then will trigger cut switch effect.	2	Switch Program channel, then will trigger auto switch effect.
		switchMode	description							
		0	Switch Preview channel							
		1	Switch Program channel, then will trigger cut switch effect.							
2	Switch Program channel, then will trigger auto switch effect.									
Allowed values: 0, 1, 2										
channels	Object[]	The channel data list. <more.>								

```

{
  "swicthMode": 0,
  "channels": [
    {
      "id": 1,
      "name": "Preview",
      "sceneId": 1
    },
    ...
  ]
}

```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```

{
  "code": 50000,
  "message": "System error."
}

```

Send a Sample Request

url
Headers
 Header
Authorization
 String

7.2 Get Channel

Get channel contains a specified channel’s configurations.

API

/api/v2.0/channels/:id

Request

■ GET: get a specified channel’s configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```

Authorization: {credential}

```

URL

Field	Type	Description
id	Integer	Access data index number.

Response

■ Success

200 OK

Field	Type	Description
id	Integer	The unique index number.
name	String	The channel's name.
sceneId	Integer	The source's data index number.

```
{
  "id": 1,
  "name": "Preview",
  "sceneId": 1
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

file:///api/v2.0/channels/:id url

Headers

Header

Authorization String

Parameters

URL

json

id

Integer

7.3 Set Switch Mode

Set switch mode sets the switch mode.

API

/api/v2.0/channels

Request

- PATCH: set the switch mode.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

Body

Field	Type	Description								
sender (optional)	String	For event information. Default value: web								
switchMode	Integer	The channel switch mode. Switch mode description. <table border="1"><thead><tr><th>switchMode</th><th>description</th></tr></thead><tbody><tr><td>0</td><td>Switch Preview channel</td></tr><tr><td>1</td><td>Switch Program channel, then will trigger cut switch effect.</td></tr><tr><td>2</td><td>Switch Program channel, then will trigger auto switch effect.</td></tr></tbody></table> Allowed values: 0, 1, 2	switchMode	description	0	Switch Preview channel	1	Switch Program channel, then will trigger cut switch effect.	2	Switch Program channel, then will trigger auto switch effect.
switchMode	description									
0	Switch Preview channel									
1	Switch Program channel, then will trigger cut switch effect.									
2	Switch Program channel, then will trigger auto switch effect.									

```
{  
  "sender": "web",  
  
  "sceneId": 1  
}
```

Response

- Success

200 OK

Field	Type	Description								
switchMode	Integer	The channel switch mode. Switch mode description. <table border="1"><thead><tr><th>switchMode</th><th>description</th></tr></thead><tbody><tr><td>0</td><td>Switch Preview channel</td></tr><tr><td>1</td><td>Switch Program channel, then will trigger cut switch effect.</td></tr><tr><td>2</td><td>Switch Program channel, then will trigger auto switch effect.</td></tr></tbody></table> Allowed values: 0, 1, 2	switchMode	description	0	Switch Preview channel	1	Switch Program channel, then will trigger cut switch effect.	2	Switch Program channel, then will trigger auto switch effect.
switchMode	description									
0	Switch Preview channel									
1	Switch Program channel, then will trigger cut switch effect.									
2	Switch Program channel, then will trigger auto switch effect.									

```
{  
  "switchMode": 0  
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{
  "code": 50000,
  "message": "System error."
}
```

Send a Sample Request

The screenshot shows a REST client interface with the following fields and controls:

- URL: `file:///api/v2.0/channels` (url)
- Headers: Header
- Authorization: String
- Parameters: Request (dropdown)
- Request Body:
- JSON Fields:
 - sender:
 - switchMode:
- Integer:

7.4 Set Channel

Set channel sets a specified channel's configurations.

API

`/api/v2.0/channels/:id`

Request

■ PATCH: set a specified channel's configuration.

Header

Field	Type	Description
Authorization	String	The special credential value.

```
Authorization: {credential}
```

URL

Field	Type	Description
id	Integer	Access data index number.

Body

Field	Type	Description
sceneId	Integer	The scene's data index number.
sender (optional)	String	For event information. Default value: web

```
{  
  "sceneId": 1,  
  "sender": "web"  
}
```

Response

■ Success

200 OK

Field	Type	Description
id	Integer	The unique index number.
name	String	The channel's name.
sceneId	Integer	The source's data index number.

```
{  
  "id": 1,  
  "name": "Preview",  
  "sceneId": 1  
}
```

■ Error

500 Internal server error

Name	Description
InternalServerError	Internal server error occurred.

```
{  
  "code": 50000,  
  "message": "System error."  
}
```

Send a Sample Request

file:///api/v2.0/channels/:id url

Headers

Header

Authorization String

Parameters

URL

json

id

Integer

Request

json

sceneld

Integer

sender

String