

# Magewell Pro Convert Decoder

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# Introduction

For Pro Convert, we have rich APIs for developers to interact with products such as obtaining basic information about the device (device name, firmware version and etc.), modifying device configuration and upgrading firmware. These APIs are based on the HTTP protocol and are lightweight, connectionless interfaces that respond to data in JSON format. This document gives you a detailed understanding of each API's functions and request method.

APIs in this document apply to these products:

- Pro Convert AIO RX
- Pro Convert for NDI<sup>®</sup> to HDMI
- Pro Convert for NDI<sup>®</sup> to HDMI 4K
- Pro Convert H.26x to HDMI
- Pro Convert H.26x to HDMI 4K
- Pro Convert for NDI<sup>®</sup> to SDI
- Pro Convert H.26x to SDI

NDI is a registered trademark of NewTek, Inc. in the United States and other countries.

# API Agreement

## Overview

- Request protocol: HTTP
- Request mode: by default, GET is used to request data and commit, and POST is used to upload a file.
- Request URL: `http://IP/mwapi?method=xx&param1=value1&param2=value2...`
- Return data format: when the status code is 200, it returns JSON data, otherwise it returns HTTP status codes.
- Login authentication: carry `sid=xxxxxxx` in cookies

## Example Response

The JSON formatted data is as follows, the attribute of status refers to [API Status Codes](#). The status 0 indicates successful requests, otherwise the request is failed.

```
{
  status: 0,
  enable: true,
  enable-web-control: true
  ...
}
```

## API Status Codes

```
{
  0: MW_STATUS_SUCCESS,
  1: MW_STATUS_PENDING,
  2: MW_STATUS_TIMEOUT,
  3: MW_STATUS_INTERRUPTED,
  4: MW_STATUS_TRY_AGAIN,
  5: MW_STATUS_NOT_IMPLEMENTED,
  6: MW_STATUS_UNKNOWN_ERROR,
  7: MW_STATUS_INVALID_ARG,
  8: MW_STATUS_NO_MEMORY,
  9: MW_STATUS_UNSUPPORTED,
  10: MW_STATUS_FILE_BUSY,
  11: MW_STATUS_DEVICE_BUSY,
  12: MW_STATUS_DEVICE_LOST,
  13: MW_STATUS_IO_FAILED,
  14: MW_STATUS_READ_FAILED,
  15: MW_STATUS_WRITE_FAILED,
  16: MW_STATUS_NOT_EXIST,
  17: MW_STATUS_TOO_MANY,
  18: MW_STATUS_TOO_LARGE,
  19: MW_STATUS_OVERFLOW,
  20: MW_STATUS_UNDERFLOW,
  21: MW_STATUS_FORMAT_ERROR,
  22: MW_STATUS_FILE_EXISTS,
  23: MW_STATUS_FILE_TYPE_ERROR,
  24: MW_STATUS_DEVICE_TYPE_ERROR,
  25: MW_STATUS_IS_DIRECTORY,
  26: MW_STATUS_READ_ONLY,
  27: MW_STATUS_RANGE_ERROR,
  28: MW_STATUS_BROKEN_PIPE,
  29: MW_STATUS_NO_SPACE,
  30: MW_STATUS_NOT_DIRECTORY,
  31: MW_STATUS_NOT_PERMITTED,
  32: MW_STATUS_BAD_ADDRESS,
  33: MW_STATUS_SEEK_ERROR,
  34: MW_STATUS_CROSS_DEVICE_LINK,
  35: MW_STATUS_NOT_INITIALIZED,
  36: MW_STATUS_AUTH_FAILED,
  37: MW_STATUS_NOT_LOGGED_IN,
  38: MW_STATUS_WRONG_STATE,
  39: MW_STATUS_MISMATCH,
  40: MW_STATUS_VERIFY_FAILED,
  41: MW_STATUS_CONSTRAINT_VIOLATION
}
```

# DEMO: Command Line Tool

To call Pro Convert Decoder API, wget and curl are supported in Linux, Windows, and Mac OS.

The location of cookie files varies according to the OS. Adjust the file path for your situation. The following examples are for Linux.

## wget

1 Save your login information on cookies

```
wget --save-cookies=/var/tmp/sid.txt --keep-session-cookies "http://192.168.66.1/mwapi?method=login&id=Admin&pass=e3afed0047b08059d0fada10f400c1e5" -q -O -
```

2 List all users

```
wget --load-cookies=/var/tmp/sid.txt --keep-session-cookies "http://192.168.66.1/mwapi?method=get-users" -q -O -
```

3 Add a new user

```
wget --load-cookies=/var/tmp/sid.txt --keep-session-cookies "http://192.168.66.1/mwapi?method=add-user&id=test&pass=c4ca4238a0b923820dcc509a6f75849b" -q -O -
```

## curl

1 Save your login information on cookies

```
curl --cookie-jar /var/tmp/sid.txt "http://192.168.66.1/mwapi?method=login&id=Admin&pass=e3afed0047b08059d0fada10f400c1e5"
```

2 List all users

```
curl --cookie /var/tmp/sid.txt "http://192.168.66.1/mwapi?method=get-users"
```

3 Add a new user

```
curl --cookie /var/tmp/sid.txt "http://192.168.66.1/mwapi?method=add-user&id=test&pass=c4ca4238a0b923820dcc509a6f75849b"
```

# DEMO: Node.js

This chapter introduces how to call the Pro Convert Decoder API in Node.js.

Download DEMO: [pro-convert-api-demo-nodejs.zip](#)

DEMO Structure

```
pro-convert-api-demo-nodejs
|
|-- httpUtils.js // based on HTTP get and upload in Node.js
|-- DEMO_EDID.bin // the default upload file when upload.js calls upload-edid, replace it with your own EDID file
|-- get.js // request data using GET
|-- upload.js // upload file using POST
```

## Requirements

- Operating System: Linux, OS X or Windows.
- Node.js Runtime: 8.x or newer; it is recommended that you use LTS Releases.

## Running Mode

1.Run the DEMO in the terminal

```
cd pro-convert-api-demo-nodejs
```

2.Run get.js

```
node get
```

3.Run upload.js

```
node upload
```



# DEMO: C

## Requirements

Operating System: Linux, OS X or Windows.

## Compilation

- Prepare the cURL for transferring data with URLs, reference to the [curl tutorial](#).
- Download DEMO: [pro-convert-api-demo-c.zip](#)
- Compile "pro\_convert\_curl.c", and link to "libcurl"
- Build the pro\_convert\_curl.exe file

## Example

- Navigate into the bin directory and run the pro\_convert\_curl.exe

```
cd pro-convert-api-demo-c/bin/linux
./pro_convert_curl <hostip:port>
```

- Sample response

```
***** 1. login *****
login response data:
{
  "status": 0
}

***** 2. get caps *****
get caps response data:
{
  "status": 0,
  "max-input-width": 4096,
  "max-input-height": 2160,
  "max-output-width": 4096,
  "max-output-height": 2160,
  "has-input": true,
  "has-output": true,
  "has-loop-through": true,
  "has-fan": true,
  "has-input-edid": true,
  "has-output-edid": true,
  "has-sdcard": true,
  "has-ptz": true
}

***** 3. upload EDID *****
upload EDID response data:
{
  "status": 0,
  "data": "AP////////wA09wEAAQAAAAEaAQOAAAB4Au6Vo1RMmSYPuFT//4AxQEVAyUBxQIGA0QDhwAEACOGAMPJwWoCwWIoAUB10AAAEAjq
AGHE4LUBYLEUAUB10AAAEAAAA/QAPlg+HPAAAAAAAAAAAAAAAA/ABNQUdFV0VMTAogICAgAWYCA1HxV2EQHwQTBRQgISJdX19gZWZiY2QHFgMSMg1
/BxUHUD0GwFcGAF9/Awd/AINPAADiAA9uAwwAEAC4eCEQgAECaWrN2F3EAXiAA+MPAeABHYAYcRwWIFgsJQBAhGMAAJ5mIVaqUQAeMEaPMwBQHxQ
AAB4AAAAAAAAAAAAAAAAzw=="
}
```

# ping

To detect whether the device is accessible without login.

This function is used to ensure that the device has restarted completely after `firmware update` , `reset all settings` or `change IP address` .

## HTTP Request

```
GET http://ip/mwapi?method=ping
```

Parameter	Description
method	ping

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0: the device is ready. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## sync-time

Use the interface to synchronize clock with UTC with administrative right.

To ensure that the system time is accurate, it is recommended to sync after administrative login.

### HTTP Request

```
GET http://ip/mwapi?method=sync-time&date=xxx&time=xxx
```

Parameter	Description
method	sync-time
date	UTC date format: dd/MM/yyyy
time	UTC time format: HH:mm:ss

### Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

### Example

```
http://192.168.66.1/mwapi?method=sync-time&date=03%2F19%2F2019&time=07:02:26
```

## get-caps

The specifications vary considerably between different Pro Convert products. Use the interface to get the specifications of the connected product.

### HTTP Request

```
GET http://ip/mwapi?method=get-caps
```

Parameter	Description
method	get-caps

### Response Body

```
{
  "status": 0,
  "max-input-width": 1920,
  "max-input-height": 1080,
  "max-output-width": 4096,
  "max-output-height": 2160,
  "has-input": false,
  "has-output": true,
  "has-loop-through": false,
  "has-fan": false,
  "has-input-edid": false,
  "has-output-edid": true,
  "has-sdcard": true,
  "has-ptz": false,
  "has-ndi": true,
  "has-alpha-disp-mode": true
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
max-input-width	Shows the total number of horizontal pixels of the input signal.
max-input-height	Shows the total number of vertical pixels of the input signal.
max-output-width	Shows the total number of horizontal pixels of the output signal.
max-output-height	Shows the total number of vertical pixels of the output signal.
has-input	True indicates there is an input interface, otherwise it is false.
has-output	True indicates whether there is an output interface, otherwise it is false.
has-loop-through	True indicates there is a loophrough interface, otherwise it is false.
has-fan	True indicates there is a fan in the device, otherwise it is false.
has-sdcard	True indicates the device supports SD card, otherwise it is false.
has-ptz	True indicates the device supports PTZ function, otherwise it is false.
has-input-edid	True indicates the device supports input port EDID, otherwise it is false.
has-output-edid	True indicates the device supports output port EDID, otherwise it is false.
has-ndi	True indicates the device supports NDI, otherwise it is false.
has-alpha-disp-mode	True indicates the device supports alpha display, otherwise it is false.

# reboot

Reboot the Pro Convert as an administrator and log in again after rebooting.

The reboot process may take a few minutes. You can use [ping](#) to determine whether the restart is finished.

## HTTP Request

```
http://ip/mwapi?method=reboot
```

Parameter	Description
method	reboot

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully, and the device will restart. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## get-reset-all-permission

Use the interface to determine whether to provide the reset all settings function to users.

Only available when the decoder is connected to Ethernet over USB. The reset all settings interface refers to [reset-all-settings](#).

### HTTP Request

```
GET http://ip/mwapi?method=get-reset-all-permission
```

Parameter	Description
method	get-reset-all-permission

### Response Body

```
{  
  "status": 0,  
  "reset-all-enabled": true  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
reset-all-enabled	True indicates to offer the reset function, otherwise it is false.

## reset-all-settings

Use the interface to reset all settings back to the default values.

Only available when the decoder connect to Ethernet over USB.

The reset process may take a few minutes, and all configuration data will be lost. After resetting, the device will restart, you can use the [ping](#) interface to check the device state.

### HTTP Request

```
GET http://ip/mwapi?method=reset-all-settings
```

Parameter	Description
method	reset-all-settings

### Response Body

```
{
  status: 0,
  ip-addr: "192.168.66.1",
  estimated-duration: 120
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
ip-addr	Shows the USB RNDIS IP address, which may be changed after resetting if user has changed the IP address.
estimated-duration	Shows the estimated wait time for resetting in seconds.

# login

Use the interface to log in. The cookie will carry the Session ID after you log in successfully. For example, Cookie:  
sid=e0f6b33dd2b575eff40733b3778beaab.

## HTTP Request

```
GET http://ip/mwapi?method=login&id=xxx&pass=xxx
```

Parameter	Description
method	login
id	Shows user ID.
pass	Shows MD5 encrypted password.

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. 36 indicates that the user name or password is incorrect. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## Example

```
http://192.168.66.1/mwapi?method=login&id=Admin&pass=e3afed0047b08059d0fada10f400c1e5
```



# logout

Use the interface to log out and return to the "SIGN IN" page.

## HTTP Request

```
GET http://ip/mwapi?mwapi?method=logout
```

Parameter	Description
method	logout

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

# get-summary-info

Use the interface to retrieve status and parameters of the Pro Convert device, including device information, Ethernet status, USB RNDIS status, and NDI status.

## HTTP Request

```
GET http://ip/mwapi?method=get-summary-info
```

Parameter	Description
method	get-summary-info

## Response Body

JSON structure is as follows:

```
{
  "status": 0,
  "device": {...},
  "ethernet": {...},
  "rndis": {...},
  "ndi": {...}
}
```

### 1. Request Body

```
"status": 0
```

Name	Description
status	0 indicates a successful data acquisition. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

### 2. Basic Information (device {...})

```
"device": {
  "name": "Pro Convert",
  "model": "NDI to HDMI",
  "serial-no": "101",
  "hw-revision": "A",
  "fw-version": "1.1.157",
  "up-to-date": true,
  "output-state": "connected",
  "cpu-usage": 60.00,
  "memory-usage": 37.46,
  "core-temp": 69.23,
  "board-id": 0,
  "up-time": 19972,
  "sd-size": 0
}
```

Name	Description
name	Shows the family name of the Pro Convert unit.
model	Shows the model name of the Pro Convert unit.
serial-no	Shows the serial number of the Pro Convert unit.
hw-revision	Shows the hardware version of the Pro Convert unit, the value ranges from A to Z.
fw-version	Shows the current firmware version that's installed in the Pro Convert unit.
up-to-date	True indicates that the firmware is up to date, otherwise it shows false.
output-state	Shows whether a loop-through device is connected to the Pro Convert device, including unconnected, unsupported, active.
cpu-usage	Shows the current CPU usage (the load on the processor, shown as a percentage) of the Pro Convert device.
memory-usage	Shows the current memory usage.

core-temp	Shows the current temperature(°C) of the unit's processor.
board-id	Shows the rotary switch number, from 0 to F.
up-time	Shows the elapsed time since the Pro device's last boot-up, in seconds.
sd-size	Shows the SD memory in MB.

### 3. Ethernet Status (ethernet {...})

```
"ethernet": {
  "state": "disconnected",
  "mac-addr": "70:B3:D5:75:D2:41",
  "ip-addr": "0.0.0.0",
  "ip-mask": "0.0.0.0",
  "gw-addr": "0.0.0.0",
  "dns-addr": "0.0.0.0",
  "tx-speed-kbps": 0,
  "rx-speed-kbps": 0
}
```

Name	Description
state	Shows Ethernet connection status, including down, disconnected, 10m, 100m, 1000m, 2500m, 5000m, 10000m.
mac-addr	Shows the MAC address.
ip-addr	Shows the IP address.
ip-mask	Shows the subnet mask address.
gw-addr	Shows the gateway address.
dns-addr	Shows the DNS server address.
tx-speed-kbps	Shows the Ethernet send speed in Kbps.
rx-speed-kbps	Shows the Ethernet receive speed in Kbps.

### 4. USB RNDIS Status (rndis {...})

```
"rndis": {
  "state": "high-speed",
  "ip-addr": "192.168.66.1",
  "tx-speed-kbps": 0,
  "rx-speed-kbps": 0
}
```

Name	Description
state	Shows Ethernet over USB connection status, including disconnected, full-speed, high-speed, super-speed-5g, super-speed-10g.
ip-addr	Shows Ethernet over USB IP Address.
tx-speed-kbps	Shows current Ethernet over USB send speed, in Kbps.
rx-speed-kbps	Shows current Ethernet over USB receive speed, in Kbps.

### 5. NDI® Status (ndi {...})

```
"ndi": {
  "name": "#00 (B401180706020)",
  "connected": true,
  "tally-preview": false,
  "tally-program": false,
  "audio-drop-frames": 0,
  "video-drop-frames": 0,
  "video-bit-rate": 0,
  "audio-bit-rate": 0,
  "video-width": 0,
  "video-height": 0,
  "video-scan": "progressive",
  "video-field-rate": 0.00,
  "audio-num-channels": 0,
}
```

```

"audio-sample-rate": 0,
"audio-bit-count": 16,
"audio-jitter": 26,
"video-jitter": 7
}

```

Name	Description
name	Shows NDI source name.
connected	True indicates the NDI function is enabled, otherwise it is false.
tally-preview	True indicates the NDI stream has been selected to the Preview bus by any client, otherwise it is false.
tally-program	True indicates that the NDI stream has been selected to the Program bus by any client, otherwise it is false.
audio-drop-frames	Shows dropped audio frames in the previous second.
audio-bit-rate	Shows the audio bitrate for the previous second in Kbps.
audio-num-channels	Shows the total number of NDI audio output channels.
audio-sample-rate	Shows the sampling rate of the audio output, such as 32000, 44100, ...
audio-bit-count	Shows the sampling bit depth of the audio output, including 16, 20, 24, ...
video-drop-frames	Shows dropped video frames in the previous second.
video-bit-rate	Shows the video bitrate for the previous second in kbps.
video-width	Shows the total number of pixels, horizontally.
video-height	Shows the total number of pixels, vertically.
video-scan	Shows the video scan format, including progressive, interlaced, psf.
video-field-rate	Shows the video frame, including 24, 25, 29.97, 30, 48, 50, 59.94, 60.
audio-jitter	Shows the audio difference between the estimated and actual arrival time of a frame of source image.
video-jitter	Shows the video difference between the estimated and actual arrival time of a frame of source image.

# get-signal-info

Use the interface to retrieve the input signal information.

## HTTP Request

```
GET http://ip/mwapi?method=get-signal-info
```

Parameter	Description
method	get-signal-info

## Response Body

JSON structure is as follows:

```
{
  "status": 0,
  "signal-info-types": ["video-info", "audio-info", "hdmi-info", "sdi-info", "info-frames"], // The items in the
array correspond to the following property one by one
  "video-info": {...},
  "audio-info": {...},
  "hdmi-info": {...},
  "sdi-info": {...},
  "info-frames": {...}
}
```

### Status

```
"status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

### Signal type

```
"signal-info-types": [
  "video-info", // video status
  "audio-info", // audio status
  "hdmi-info", // HDMI status
  "sdi-info", // SDI status
  "info-frames" // InfoFrame
]
```

### VIDEO STATUS (video-info: {...})

```
"video-info": {
  "codec": "uncompressed",
  "width": 1920,
  "height": 1080,
  "scan": "progressive",
  "field-rate": 60.00,
  "color-depth": 8,
  "color-format": "rgb",
  "aspect-ratio": "16:9",
  "sampling": "4:4:4",
  "quant-range": "full",
  "sat-range": "full",
  "frame-struct": "2d"
}
```

Name	Description
codec	Shows the video codecs, including uncompressed, dsc, mpeg2, ...

width	Shows the total number of pixels, horizontally.
height	Shows the total number of pixels, vertically.
scan	Shows the scanning mode, including progressive, interlaced, psf
field-rate	Shows the field rate, including 24, 25, 29.97, 30, 48, 50, 59.94, 60.
color-depth	Shows the color depth, including 8, 10, 12.
color-format	Shows the color space, including rgb, bt.601, bt.709, bt.2020.
aspect-ratio	Shows the aspect ratio, including 16:9, 4:3, ...
sampling	Shows the sampling rate, including 4:2:0, 4:2:2, 4:4:4, 4:4:4:4.
quant-range	Shows the quantization range, including limited, full.
sat-range	Shows the saturation range, including limited, extended, full.
frame-struct	Shows the input video frame type, 2d, 3d-left-right, 3d-top-bottom, 3d-left-right-half, 3d-top-bottom-half.

#### AUDIO STATUS (audio-info: {...})

```
"audio-info": {
  "codec": "lpcm",
  "num-channels": 2,
  "sample-rate": 48000,
  "bit-count": 16
}
```

Name	Description
codec	Shows the encoding type, including lpcm, ac3, aac, ...
num-channels	Shows the number of channels, including 1, 2, .. 16
sample-rate	Shows the sampling rate, including 32000, 44100, ...
bit-count	Shows the bit rate, including 16, 20, 24, ...

#### HDMI STATUS (hdmi-info: {...})

```
"hdmi-info": {
  "mode": "dvi",
  "vic": 0,
  "scramble": false,
  "clock-ratio": 1,
  "hdcp": "none",
  "repeat-count": 0,
  "it-content": false,
  "timing-mode-line": "148.50 1920 2008 2052 2200 1080 1084 1089 1125 +hsync +vsync"
}
```

Name	Description
mode	Shows the signal type, including hdmi, dvi.
vic	Shows the Video Identification Code, which is defined for CEA formats.
scramble	True indicates to scramble to prevent signal parsing problems, otherwise it is false.
clock-ratio	Shows the clock ratio, including 1, 4.
hdcp	Shows HDCP encrypted type, including none, hdcp-1.x, hdcp-2.2.
repeat-count	Shows the signal repeat times, 0, 1, 2, 4, ...
it-content	True indicates that the transmission package is content, otherwise it is false.
timing-mode-line	Shows the modeline. Syntax: pclk hdisp hsyncstart hsyncend htotal vdisp vsyncstart vsyncend vtotal [flags] flags: +hsync, -hsync, +vsync, -vsync, interlace, double-scan, sog, +csync, -csync For example: 23.86 640 656 720 800 480 481 484 497 -hsync +vsync The unit of pclk is MHz, and that of the other parameters are in pixels.

#### SDI STATUS (sdi-info: {...})

```
"sdi-info": {
  "link-type": "",
  "link-speed": "",
}
```

```

"stream-type": "",
"level-b": true,
"interlaced": true,
"assignment": 0,
"st352-payload-id": 3423424,
"h-total": 2250,
"v-total": 1125,
"h-active": 1920,
"v-active": 1080
}

```

Name	Description
link-type	Shows link type of input SDI signal, including unknown, single-link, dual-link, quad-link.
link-speed	Shows the current data speed, including unknown, sd, hd, 3g, 6g, 12g.
stream-type	Shows the number of streams that is contained in the data source, including single-stream, dual-stream, 3d.
level-b	True indicates that the input signal is level B format, otherwise it is false.
interlaced	True indicates that the input signal is interlaced, otherwise it is false.
assignment	Shows the link number, especially when be fed into a source of multi-link interfaces.
st352-payload-id	Shows the SMPTE ST 352 video payload identification code for SDI. which is an unsigned 32-bit integer and be displayed in HEX.
h-total	Shows the total number of pixels, horizontally.
v-total	Shows the total number of pixels, vertically.
h-active	Shows the number of active pixels, horizontally.
v-active	Shows the number of active pixels, vertically.

#### InfoFrame (info-frames: {...})

```

"info-frames": [
{
  "id": "AVI",
  "type": 130,
  "version": 2,
  "checksum": 96,
  "data": "ACgAIgAAADkEAACBBw=="
},
{
  "id": "Audio",
  "type": 132,
  "version": 1,
  "checksum": 112,
  "data": "AQAAAAAAAAAAAA=="
}
]

```

Name	Description
id	Shows the infoFrame type, including AVI, Audio, ...
type	Shows the packet type.
version	Shows the packet version.
checksum	Shows the packet checksum.
data	Shows the InfoFrame payload, which is encoded in base64 and displayed in hex.

# get-video-config

Use the interface to retrieve the video settings.

## HTTP Request

```
GET http://ip/mwapi?method=get-video-config
```

Parameter	Description
method	get-video-config

## Response Body

```
{
  "status": 0,
  "show-title": false,
  "show-tally": false,
  "show-vu-meter": true,
  "vu-meter-mode": "none",
  "show-center-cross": false,
  "safe-area-mode": "none",
  "ident-mode": "none",
  "ident-text": "",
  "h-flip": false,
  "v-flip": false,
  "switch-mode": "blank",
  "deinterlace-mode": "bob",
  "in-auto-color-fmt": true,
  "in-color-fmt": "bt.709",
  "ar-convert-mode": "full",
  "alpha-disp-mode": "alpha-blend-checkerboard"
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
show-title	True indicates to show the name and resolution of the source video, otherwise it is false.
show-tally	True indicates to show the Tally light status of selected NDI stream on the connected presentation and delivery applications, otherwise it is false.
show-vu-meter	True indicates to show the VU meter, otherwise it is false.
vu-meter-mode	Shows the measurement of the volume, including none, db, post-gain-db, post-gain-dbfs.
show-center-cross	True indicates to show a center cross on the connected presentation and delivery applications which determines the center position of the entire image, otherwise it is false.
safe-area-mode	Shows the safe area dimension including none, 4:3, 80%, and square.
ident-mode	Indicates to show or hide the device name or ident text that overlays the output, including none, ident-text, device-name.
ident-text	Shows the digital label text overlaid on the output. The label text ranges from 1 to 32 characters which contains A to Z, a to z, 0 to 9, and special characters including spaces, dash(_), minus(-) and plus(+) sign.
h-flip	True indicates to set a mirror effect for the video, otherwise it is false.
v-flip	True indicates to reverse the active image vertically, otherwise it is false.
switch-mode	Shows the image, either Black screen(blank) or the last picture of the previous video(keep-last), when the NDI source is changed.
deinterlace-mode	Shows the method to convert interlaced video into a progressive form including bob, weave.
in-auto-color-fmt	True indicates to auto-set color space, which means the color space will be BT.601 for SD and BT.709 for HD according to the source, otherwise it is false.
in-color-fmt	Shows the color space including bt.601 and bt.709.



ar-convert-mode	Shows the method to convert the aspect ratio of the decoded video. Options are windowbox, full and zoom.
alpha-disp-mode	Shows the background for the alpha channel display. Options are alpha-only, alpha-blend-white, alpha-blend-black, alpha-blend-checkerboard.

# get-def-video-config

Use the interface to retrieve the default video settings.

## HTTP Request

```
GET http://ip/mwapi?method=get-def-video-config
```

Parameter	Description
method	get-def-video-config

## Response Body

```
{
  "status": 0,
  "show-title": false,
  "show-tally": false,
  "show-vu-meter": true,
  "vu-meter-mode": "none",
  "show-center-cross": false,
  "safe-area-mode": "none",
  "ident-mode": "none",
  "ident-text": "",
  "h-flip": false,
  "v-flip": false,
  "switch-mode": "blank",
  "deinterlace-mode": "bob",
  "in-auto-color-fmt": true,
  "in-color-fmt": "bt.709",
  "ar-convert-mode": "full",
  "alpha-disp-mode": "alpha-blend-checkerboard"
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
show-title	True indicates to overlay the name and resolution of the video source on the output, otherwise it is false.
show-tally	True indicates to overlay the Tally light status of selected NDI source stream on the output, otherwise it is false.
show-vu-meter	True indicates to show the VU meter, otherwise it is false.
vu-meter-mode	Shows the measurement of the volume, including none, db, post-gain-db, post-gain-dbfs.
show-center-cross	True indicates to overlay a center cross on the output, otherwise it is false.
safe-area-mode	Shows the safe area mode including none, 4:3, 80%, and square.
ident-mode	Indicates to show or hide the device name or ident text that overlays the output, including none, ident-text, device-name.
ident-text	Shows the digital label text overlaid on the output. The label text ranges from 1 to 32 characters which contains A to Z, a to z, 0 to 9, and special characters including spaces, dash(_), minus(-) and plus(+) sign.
h-flip	True indicates to set a mirror effect for the video, otherwise it is false.
v-flip	True indicates to reverse the active image vertically, otherwise it is false.
switch-mode	Shows the image, either Black screen(blank) or the last picture of the previous video(keep-last), when the NDI source is changed.
deinterlace-mode	Shows the mode to convert interlaced video into a progressive form including bob, weave.
in-auto-color-fmt	True indicates to auto-set color space, which means the color space will be BT.601 for SD sources and BT.709 for HD sources, otherwise it is false.
in-color-fmt	Shows the color space including bt.601 and bt.709.
ar-convert-	

mode	
alpha-disp-mode	Shows the background for the alpha channel display. Options are alpha-only, alpha-blend-white, alpha-blend-black, alpha-blend-checkerboard.

# set-video-config

Use the interface to modify the video settings.

## HTTP Request

```
GET http://ip/mwapi?method=set-video-config&param1=value1&param2=value2...
```

## Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## Example

### 1. Set OSD

```
http://ip/mwapi?method=set-video-config&show-title=true&show-tally=true&show-vu-meter=true&vu-meter-mode=dbu&safe-area-mode=4:3&show-center-cross=true
```

Parameter	Description
method	set-video-config
show-title	True indicates to overlay the name and resolution of the video source on the output, otherwise it is false.
show-tally	True indicates to overlay the Tally light status of selected NDI stream on the output, otherwise it is false.
show-vu-meter	True indicates to overlay the VU meter, a volume bar, on the output, otherwise it is false.
vu-meter-mode	Specify the measurement of the volume, including none, dbu, dbvu, dbfs, if audio gain is set, the post-gain-dbu, post-gain-dbv, and post-gain-dbfs will show the gain effect.
show-vu-meter	True indicates to show the VU meter, otherwise it is false.
vu-meter-mode	Specify the measurement of the volume, including none, db, post-gain-db, post-gain-dbfs.
show-center-cross	True indicates to overlay a center cross on the output which determines the center position of the entire image, otherwise it is false.
safe-area-mode	Specify the dimension of a rectangular to mark the most important part of the picture which can be seen by the majority presentation device, including none, 4:3, 80%, and square.
ident-mode	Set to show/hide the device name or ident text that overlays the output, including none, ident-text, device-name.
ident-text	Specify digital label overlaid on the output. The label text ranges from 1 to 32 characters which contains A to Z, a to z, 0 to 9, and special characters including spaces, dash(_), minus(-) and plus(+) sign.

### 2. Set video process

```
http://ip/mwapi?method=set-video-config&h-flip=false&v-flip=false&deinterlace-mode=weave&ar-convert-mode=full&alpha-disp-mode=alpha-blend-checkerboard
```

Parameter	Description
method	set-video-config
h-flip	True indicates to set a mirror effect, otherwise it is false.
v-flip	True indicates to reverse the active image vertically, otherwise it is false.
deinterlace-mode	Convert interlaced video into a progressive form using bob or weave method.

ar-convert-mode	Specify the method to convert the aspect ratio of the decoded video. Options are windowbox, full and zoom.
alpha-disp-mode	Specify the background for the alpha channel display. Options are alpha-only, alpha-blend-white, alpha-blend-black, alpha-blend-checkerboard.

### 3. Set video source

```
http://ip/mwapi?method=set-video-config&in-auto-color-fmt=false&in-color-fmt=bt.709&switch-mode=blank
```

Parameter	Description
method	set-video-config
in-auto-color-fmt	True indicates to auto-set color space, which means the color space will be BT.601 for SD and BT.709 for HD according to the source, otherwise it is false.
in-color-fmt	Specify the color space to bt.601 or bt.709.
switch-mode	Specify the image to either black screen(blank) or the last picture of the previous video(keep-last) when the NDI source is changed.

# get-supported-video-modes

Use the interface to retrieve video resolutions supported by the presentation device.

## HTTP Request

```
GET http://ip/mwapi?method=get-supported-video-modes
```

Parameter	Description
method	get-supported-video-modes

## Response Body

JSON structure is as follows:

```
{
  "status": 0,
  "modes": [...]
}
```

### 1. Request Body

```
"status": 0
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

### 2. Resolutions of presentation applications (modes {...})

```
{
  "modes": [
    {
      "width": 2560,
      "height": 1440,
      "interlaced": false,
      "field-rate": 5995,
      "aspect-ratio": 1.77777779,
      "pref-mode": true,
      "curr-mode": true
    },
    {
      "width": 2560,
      "height": 1440,
      "interlaced": false,
      "field-rate": 14391,
      "aspect-ratio": 1.77777779,
      "pref-mode": false,
      "curr-mode": false
    }
  ]
  ...
}
```

Name	Description
width	Shows the width of video in pixels.
height	Shows the height of video in pixels.
interlaced	True indicates to convert interlaced video into a progressive form, otherwise it is false.
field-rate	Shows the decoded NDI video field rate.
aspect-ratio	Shows the decoded NDI stream aspect ratio.
pref-mode	True indicates to use the preference mode, otherwise it is false.
curr-mode	True indicates to use current mode, otherwise it is false.



## set-video-mode

Use the interface to set the video resolution to playback. The value must be listed in the result of [get-supported-video-modes](#).

### HTTP Request

```
GET http://ip/mwapi?method=set-video-mode&param1=value1&param2=value2...
```

### Response Body

```
{
  "status": 0,
  "width": 720,
  "height": 576,
  "interlaced": false,
  "field-rate": 5000,
  "aspect-ratio": 1.25000000
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
width	Shows the width of video in pixels.
height	Shows the height of video in pixels.
interlaced	True indicates that convert the video into an interlaced signal, otherwise it is false.
field-rate	Shows the field rate of the decoded NDI video.
aspect-ratio	Shows the aspect ratio of the decoded NDI stream.

### Example

```
http://ip/mwapi?method=set-video-mode&width=720&height=576&aspect-ratio=1.25&field-rate=5000&interlaced=false
```

Parameter	Description
method	set-video-mode
width	Specifies the width of video in pixels.
height	Specifies the height of video in pixels.
interlaced	True indicates that convert the video into an interlaced form, otherwise it is false.
field-rate	Specifies the field rate.
aspect-ratio	Specifies the aspect ratio.



# reset-video-config

Use the interface to reset all video settings back to the default values.

## HTTP Request

```
GET http://ip/mwapi?method=reset-video-config
```

Parameter	Description
method	reset-video-config

## Response Body

```
{
  "status": 0,
  "show-title": false,
  "show-tally": false,
  "show-vu-meter": true,
  "vu-meter-mode": "none",
  "show-center-cross": false,
  "safe-area-mode": "none",
  "ident-mode": "none",
  "ident-text": "",
  "h-flip": false,
  "v-flip": false,
  "switch-mode": "blank",
  "deinterlace-mode": "bob",
  "in-auto-color-fmt": true,
  "in-color-fmt": "bt.709",
  "ar-convert-mode": "full",
  "alpha-disp-mode": "alpha-blend-checkerboard"
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
show-title	True indicates to show the name and resolution of the source video, otherwise it is false.
show-tally	True indicates to show the Tally light status of selected NDI stream on the connected presentation and delivery applications, otherwise it is false.
show-vu-meter	True indicates to show the VU meter, otherwise it is false.
vu-meter-mode	Shows the measurement of the volume, including none, db, post-gain-db, post-gain-dbf.
show-center-cross	True indicates to show a center cross on the connected presentation and delivery applications which determines the center position of the entire image, otherwise it is false.
safe-area-mode	Shows the safe area dimension including none, 4:3, 80%, and square.
ident-mode	Indicates to show or hide the device name or ident text that overlays the output, including none, ident-text, device-name.
ident-text	Shows the digital label text overlaid on the output. The label text ranges from 1 to 32 characters which contains A to Z, a to z, 0 to 9, and special characters including spaces, dash(_), minus(-) and plus(+) sign.
h-flip	True indicates to set a mirror effect for the video, otherwise it is false.
v-flip	True indicates to reverse the active image vertically, otherwise it is false.
switch-mode	Shows the image, either Black screen(blank) or the last picture of the previous video(keep-last), when the NDI source is changed.
deinterlace-mode	Shows the method to convert interlaced video into a progressive form including bob, weave.
in-auto-color-fmt	True indicates to auto-set color space, which means the color space will be BT.601 for SD and BT.709 for HD according to the source, otherwise it is false.
in-color-fmt	Shows the color space including bt.601 and bt.709.

ar-convert-mode	Shows the method to convert the aspect ratio of the decoded video. Options are windowbox, full and zoom.
alpha-disp-mode	Shows the background for the alpha channel display. Options are alpha-only, alpha-blend-white, alpha-blend-black, alpha-blend-checkerboard.

# get-audio-config

Use the interface to retrieve the audio settings.

## HTTP Request

```
GET http://ip/mwapi?method=get-audio-config
```

Parameter	Description
method	get-audio-config

## Response Body

```
{
  {
    "status": 0,
    "gain": -44.00,
    "sample-rate": 0,
    "channels": 0,
    "bit-count": 0,
    "ch0": 0,
    "ch1": 1,
    "ch2": 2,
    "ch3": 3,
    "ch4": 4,
    "ch5": 5,
    "ch6": 6,
    "ch7": 7,
    "ch8": 8,
    "ch9": 9,
    "ch10": 10,
    "ch11": 11,
    "ch12": 12,
    "ch13": 13,
    "ch14": 14,
    "ch15": 15
  }
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
gain	Shows the gain which ranges from -100.00dB to 20.00dB.
sample-rate	Shows the sample rate, including 32000, 44100, 48000, 88200, 96000.
channels	Shows the number of output audio channels, including 0, 2, 4, 8.
bit-count	Reserved.
ch0 ~ ch15	Shows the mapping relationship between the output and source channels. For example, ch0=4&ch1=5 indicates that the output channel1 maps source channel5, and output channel2 maps source channel6.

# set-audio-config

Use the interface to modify audio settings.

## HTTP Request

```
GET http://ip/mwapi?method=set-audio-config&param1=value1&param2=value2...
```

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## Example

```
http://ip/mwapi?method=set-audio-config&gain=-60&sample-rate=44100&channels=2&ch0=4&ch1=5
```

Parameter	Description
method	set-video-config
gain	Adjust the gain from -100.00dB to 20.00dB as needed.
sample-rate	Set the sample rate for your work, including 32000, 44100, 48000, 88200, 96000.
channels	Choose the proper audio channels for your work, including Follow input, 2 Channels, 4 Channels, 8 Channels. Then you can set the mapping relationship between the output and source channels. 0 indicates to follow input. When the channels is set to 2, the selected audio channels map for output channel 1/2. When the channels is set to 4, the selected audio channels map for output channel 1/2 & 3/4. When the channels is set to 8, the selected audio channels map for output channel 1/2, 3/4, 5/6, 7/8.
ch0 ~ ch15	Map the audio channels between the output and source channels when <b>channels</b> is not 0. For example, channels=2&ch0=4&ch1=5 indicates 2 channels are selected. Output channel1 maps the source channel5, and output channel2 maps the source channel6.

# get-output-edid

Use the interface to retrieve the EDID of output port.

## HTTP Request

```
GET http://ip/mwapi?method=get-output-edid
```

Parameter	Description
method	get-output-edid

## Response Body

```
{  
  "status": 0,  
  "data": "AP////////wA09wEAAQAAAAEaAQOAAAB4Au6Vo1RMmSYPUFT//4AxQEVAyUBxQIGA0QDhwAEAC0gAMPJwWoCwWIoAUB10AAAEAjqAGH  
E4LUBYLEUAUB10AAAEAAAA/QAPlg+HPAAAAAAAAAAAAAAAA/ABNQudFV0VMTAogICAgAWYCA1HxV2EQHwQTBRQgISJdX19gZWZiY2QHFgMSMgl/Bx  
UHUD0GwFcGAF9/AWd/AINPAADiAA9uAwwAEAC4eCEQgAECaWn2F3EAXiAA+MPAeABHYAYcRwWIFgsJQBAhGMAAJ5mIVaqUQAeMEaPMwBQHXAAB  
4AAAAAAAAAAAAzw=="  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
data	Shows the EDID data which is encoded in base64 and displayed in hex.

## export-edid

Use the interface to export EDID configuration in a .bin file.

### HTTP Request

```
GET http://ip/mwapi?method=export-edid&port=out&file-name=xxx.bin
```

Parameter	Description
method	export-edid
port	Shows the port type, only out is available now.
file-name	Shows the name of the exported BIN file.

### Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

### Example

```
http://ip/mwapi?method=export-edid&port=out&file-name=Output_Port_EDID_2019_03_20_17_36_42.bin
```

# list-channels

Use the interface to obtain the source list ready to be decoded. The following 2 types are contained.

1. The preset sources which are obtained using the list-channels interface.
2. The auto-detected NDI sources which are obtained using [get-ndi-sources](#).

## HTTP Request

```
GET http://ip/mwapi?method=list-channels
```

Parameter	Description
method	list-channels

## Response Body

```
{
  "status": 0,
  "channels": [
    {
      "name": "RTP",
      "url": "rtp://224.1.2.3:4000?mw-buffer-duration=60"
    },
    {
      "name": "RTP1",
      "url": "rtp://224.2.4.6:6688?mw-buffer-duration=50"
    },
    {
      "name": "UDP",
      "url": "udp://224.1.2.3:4000?mw-buffer-duration=200"
    }
  ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
channels	Shows the preset source arrays.

# get-channel

Use the interface to obtain selected source name.

## HTTP Request

```
GET http://ip/mwapi?method=get-channel
```

Parameter	Description
method	get-channel

## Response Body

```
{  
  "status": 0,  
  "name": "5004",  
  "ndi-name": false  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
name	Shows source name.
ndi-name	Shows whether the selected source is an NDI source, options are true and false.



## set-channel

Use the interface to select current source to decode.

### HTTP Request

```
GET http://ip/mwapi?method=set-channel&ndi-name=true&name=xxx
```

Parameter	Description
method	set-channel
ndi-name	Indicates whether the selected source is an NDI source. Options are true and false.
name	Indicates the selected source name.

### Example

```
{  
  "status": 0,  
}
```

Parameter	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

# add-channel

Use the interface to add sources to preset list. Supported protocols are ntkndi, rtsp, http, rtmp, udp, srt, and rtp.

## HTTP Request

```
GET http://ip/mwapi?method=add-channel&name=xxx&url=xxx
```

Parameter	Description
method	add-channel
name	Indicates the source name which should be identical. The source name ranges from 1 to 120 english characters.
url	Indicates the source URL.

Parameters of **URL** vary for different protocols. For details, refer to the following description.

### 1. NTKNDI

```
ntkndi://ndi?name=test&url=192.168.1.90%3A5963&mw-buffer-duration=60
```

URL components	Description
ntkndi	Indicates the NDI protocol developed by NewTek.
ndi	Indicates the default host name and it cannot be modified.
name	Indicates the NDI stream name.
url	Indicates the NDI URL.
mw-buffer-duration	Indicates the NDI buffer duration in ms. You can get the value range using <a href="#">get-buffer-limit</a> .

### 2. RTSP

```
rtsp://192.168.1.58:899?mw-buffer-duration=60
```

URL components	Description
rtsp://192.168.1.58:899	Indicates a valid RTSP URL.
mw-buffer-duration	Indicates the RTSP buffer duration in ms. You can get the value range using <a href="#">get-buffer-limit</a> .

### 3. HTTP

```
http://192.168.1.88:8585?mw-buffer-duration=60
```

URL components	Description
http://192.168.1.88:8585	Indicates a valid HTTP URL.
mw-buffer-duration	Indicates the HTTP buffer duration in ms. You can get the value range using <a href="#">get-buffer-limit</a> .

### 4. RTMP

```
// RTMP Pull  
rtmp://url/stream-key?mw-buffer-duration=60  
  
// RTMP Push  
rtmp://127.0.0.1/live/stream-key?mw-buffer-duration=80
```

URL components	Description
url	RTMP Pull: Indicates a RTMP URL. RTMP Push: rtmp://127.0.0.1/live/.
stream-key	Indicates the stream key which follows URL. Slashes (/) is not supported.
mw-buffer-duration	Indicates the RTMP buffer duration in ms. You can get the value range using <a href="#">get-buffer-limit</a> .

## 5. UDP

```
// Multicast
udp://ip:port?mw-buffer-duration=80

// Unicast
udp://0.0.0.0:port?mw-buffer-duration=80
```

URL components	Description
ip	Unicast IP address: 0.0.0.0 The range of multicast IP address is from 224.0.0.0 to 239.255.255.255.
port	Indicates the port number which ranges from 1 to 65535.
mw-buffer-duration	Indicates the UDP buffer duration in ms. You can get the value range using <a href="#">get-buffer-limit</a> .

## 6. SRT

```
// Caller
srt://ip:port?mode=caller&latency=125&passphrase=1234567890&mw-buffer-duration=80

// Listener
srt://0.0.0.0:port?mode=listener&latency=125&mw-buffer-duration=80
```

URL components	Description
ip	Listener: 0.0.0.0 caller: a valid IP address. 0.0.0.0 is excluded.
port	Indicates the port number which ranges from 1 to 65535.
mode	Indicates the SRT modes including Caller and Listener.
latency	Indicates the latency time ranges from 20 to 8000 in ms.
passphrase	Indicates the encrypted password. It is optional unless the encryption is required.
mw-buffer-duration	Indicates the SRT buffer duration in ms. You can get the value range using <a href="#">get-buffer-limit</a> .

## 7. RTP

```
// Multicast
rtp://ip:port?mw-buffer-duration=80

// Unicast
rtp://0.0.0.0:port?mw-buffer-duration=80
```

URL components	Description
ip	Unicast IP address: 0.0.0.0 Multicast IP address: the IP address ranges from 224.0.0.0 to 239.255.255.255.
port	Indicates the port number which ranges from 1 to 65535.
mw-buffer-duration	Indicates the RTP buffer duration in ms. You can get the value range using <a href="#">get-buffer-limit</a> .

## Response Body

```
{
  "status": 0
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

# modify-channel

Use the interface to modify the preset source information.

## HTTP Request

```
GET http://ip/mwapi?method=modify-channel&name=xxx&new-name=xxx&url=xxx
```

Parameter	Description
method	modify-channel
name	Indicates the source name which should be identical. The name ranges from 1 to 120 english characters.
new-name	Indicates the user customized source name, which should be identical. The name ranges from 1 to 120 english characters.
url	Indicates the source URL.

## Example

```
{  
  "status": 0  
}
```

Parameter	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

# del-channel

Use the interface to delete preset source.

## HTTP Request

```
GET http://ip/mwapi?method=del-channel&name=xxx
```

Parameter	Description
method	del-channel
name	Indicates the source name to be deleted.

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

# clear-channels

Use the interface to clear all list preset sources.

## HTTP Request

```
GET http://ip/mwapi?method=clear-channels
```

Parameter	Description
method	clear-channels

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

# get-buffer-limit

Use the interface to parse configured buffer duration of each source according to its protocol type, including the default value and the value rang in ms.

## HTTP Request

```
GET http://ip/mwapi?method=get-buffer-limit&proto=ntkndi
```

Parameter	Description
method	get-buffer-limit
proto	Indicates the protocol type, options are ntkndi, rtsp, http, rtmp, udp, srt and rtp.

## Response Body

```
{  
  "status": 0,  
  "buffer-duration-def": 60,  
  "buffer-duration-min": 20,  
  "buffer-duration-max": 120  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
buffer-duration-def	Shows the default buffer time in ms.
buffer-duration-min	Shows the minimum value in ms.
buffer-duration-max	Shows the maximum value in ms.

## get-ndi-config

Use the interface to retrieve the NDI settings.

### HTTP Request

```
GET http://ip/mwapi?method=get-ndi-config
```

Parameter	Description
method	get-ndi-config

### Response Body

```
{
  "status": 0,
  "enable-discovery": false,
  "discovery-server": "",
  "source-name": "PRO CONVERT (#15 (B410190104001))",
  "group-name": "public",
  "low-bandwidth": false
}
```

Key	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
enable-discovery	Shows the enable status of discovery server. Options are true and false.
discovery-server	Shows server IP address.
source-name	Shows the source name within the NDI group detected by your decoder.
group-name	Shows the group that the video source joined in.
low-bandwidth	True indicates the low bandwidth mode is switched on, otherwise it is false.



# set-ndi-config

Use the interface to set NDI.

## HTTP Request

```
GET http://ip/mwapi?method=set-ndi-config&param1=value1&param2=value2...
```

Parameter	Description
method	set-ndi-config
enable-discovery	Indicates the enable status of discovery server. Options are true and false.
discovery-server	Indicates server IP address. It is mandatory when the value of enable-discovery is true.
source-name	Indicates the NDI source name which is retrieved using <a href="#">get-ndi-sources</a> .
group-name	Indicates the group that the video source belongs to. By default it is public.
low-bandwidth	True indicates the low bandwidth function is turned on, otherwise it is false.

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## get-ndi-sources

Use the interface to retrieve available NDI sources.

### HTTP Request

```
GET http://ip/mwapi?method=get-ndi-sources
```

Parameter	Description
method	get-ndi-sources

### Response Body

```
{
  "status": 0,
  "sources": [
    {
      "ndi-name": "MAGEWELL (USB Capture HDMI (D206191017871))",
      "ip-addr": "192.168.1.192:5963" // Containing 'amc_id' indicates it is a multicast address.
    },
    {
      "ndi-name": "MAGEWELL (USB Capture HDMI (D206191017889))",
      "ip-addr": "192.168.1.192:5961"
    }
  ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
sources	Arrays of currently available alternate channels.

## get-playback-config

Use the interface to retrieve the playback settings.

### HTTP Request

```
GET http://ip/mwapi?method=get-playback-config
```

Parameter	Description
method	get-playback-config

### Response Body

```
{  
  "status": 0,  
  "buffer-duration": 60  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
buffer-duration	Shows the buffer time which ranges from 20 to 120 in ms.

# set-playback-config

Use the interface to modify the playback settings.

## HTTP Request

```
GET http://ip/mwapi?method=set-playback-config&buffer-duration=70
```

Parameter	Description
method	set-playback-config
buffer-duration	Set buffer time from 20 to 120 in milliseconds.

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## get-users

Use the interface to list all users with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=get-users
```

Parameter	Description
method	get-users

### Response Body

```
{
  "status": 0,
  "users": [
    {
      "id": "Admin",
      "group": "Admin"
    },
    {
      "id": "Test",
      "group": "User"
    }
  ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
users	Shows the user group arrays. id indicates user name, and group indicates whether the user is an administrator or a general user.

## add-user

Use the interface to add general users with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=add-user&id=xxx&pass=xxx
```

Parameter	Description
method	add-user
id	Shows the user name.
pass	Shows MD5 encrypted password.

### Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## del-user

Use the interface to delete general users with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=del-user&id=xxx
```

Parameter	Description
method	del-user
id	Shows the user name.

### Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

# ch-password

Use the interface to modify password after logging in with old password.

## HTTP Request

```
GET http://ip/mwapi?method=ch-password&pass=xxx&new-pass=xxx
```

Parameter	Description
method	ch-password
pass	Shows MD5 encrypted old password.
new-pass	Shows MD5 encrypted new password.

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.



## set-password

Use the interface to reset user password with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=set-password&id=xxx&pass=xxx
```

Parameter	Description
method	set-password
id	Indicates the user name.
pass	Indicates MD5 encrypted new password.

### Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## get-eth-status

Use the interface to retrieve the ethernet configurations with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=get-eth-status
```

Parameter	Description
method	get-eth-status

### Response Body

```
{
  "status": 0,
  "use-dhcp": true,
  "device-name": "Pro Convert",
  "state": "1000m",
  "mac-addr": "70:B3:D5:75:D2:41",
  "ip-addr": "192.168.1.90",
  "ip-mask": "255.255.255.0",
  "gw-addr": "192.168.1.1",
  "dns-addr": "10.0.0.3",
  "tx-speed-kbps": 0,
  "rx-speed-kbps": 5
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
use-dhcp	Shows whether to use DHCP to retrieve IP address. If yes, it shows true; otherwise, it is false.
device-name	Shows the device name.
state	Shows Ethernet network connection status and the bandwidth speed, including down, disconnected, 10m, 100m, 1000m, 2500m, 5000m, 10000m.
mac-addr	Shows the MAC address.
ip-addr	Shows the IP address.
ip-mask	Shows the subnet mask address.
gw-addr	Shows the gateway address.
dns-addr	Shows the DNS server address.
tx-speed-kbps	Shows the Ethernet send speed in Kbps.
rx-speed-kbps	Shows the Ethernet receive speed in Kbps.

## set-eth-config

Use the interface to set Ethernet configurations.

### HTTP Request

```
GET http://ip/mwapi?method=set-eth-config&param1=value1&param2=value2...
```

Parameter	Description
method	set-eth-config
name	Shows the device name.
dhcp	True indicates that the decoder uses DHCP to retrieve IP address, otherwise it is false.
addr	Indicates the IP address.
mask	Indicates the subnet mask address.
gw-addr	Indicates the gateway address.
dns-addr	Indicates the DNS server address.

### Response Body

```
{  
  "status": 0,  
  "reconnect": true  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
reconnect	True indicates to reconnect and log in the device after network changes, otherwise it is false.

## get-rndis-status

Use the interface to retrieve the Ethernet over USB status with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=get-rndis-status
```

Parameter	Description
method	get-rndis-status

### Response Body

```
{  
  "status": 0,  
  "state": "high-speed",  
  "ip-addr": "192.168.66.1",  
  "tx-speed-kbps": 0,  
  "rx-speed-kbps": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
state	Shows connection status of Ethernet over USB , including disconnected, full-speed, high-speed, super-speed-5g, super-speed-10g.
ip-addr	Shows IP address of Ethernet over USB .
tx-speed-kbps	Shows send speed of Ethernet over USB, in Kbps.
rx-speed-kbps	Shows receive speed of Ethernet over USB, in Kbps.

## set-usb-config

Use the interface to set the RNDIS address.

### HTTP Request

```
GET http://ip/mwapi?method=set-usb-config&addr=xxx
```

Parameter	Description
method	set-eth-config
addr	Indicates the IP address as 192.168.xxx.1.

### Response Body

```
{  
  "status": 0,  
  "reconnect": true  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
reconnect	True indicates to reconnect and log in after modifications, otherwise it is false.

# get-update-state

Use the interface to retrieve the current firmware information and update status with administrative rights.

## HTTP Request

```
GET http://ip/mwapi?method=get-update-state
```

Parameter	Description
method	get-update-state

## Response Body

### Idle

```
{  
  "status": 0,  
  "state": "idle",  
  "cur-ver": "1.1.72",  
  "fw-valid": true  
}
```

### Updating

```
{  
  "status": 0,  
  "state": "updating",  
  "cur-ver": "1.1.72",  
  "update-to-ver": "1.1.72",  
  "num-steps": 4,  
  "step-id": 2,  
  "step-name": "Erasing image",  
  "step-percent": 28,  
  "fw-valid": true  
}
```

### Failed

```
{  
  "status": 0,  
  "state": "failed",  
  "cur-ver": "1.1.72",  
  "error-status": 16,  
  "fw-valid": true  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
state	Shows the current update state, including idle, updating, completed, failed.
cur-ver	Shows the current firmware version.
update-to-ver	Shows the target firmware version to update to.
num-steps	Shows the total number of steps for update, only available in the updating state.
step-id	Shows the current step number, only available in the updating state.
step-name	Shows the current step name, only available in the updating state.
step-percent	Shows the current update process, only available in the updating state.
error-status	Shows the error code, only available in the failed state.
fw-valid	Shows whether the firmware is damaged. Options are true indicates the device is normal. false indicates the device is damaged.



# upload-update-file

Use the interface to upload the .mwf file.

## HTTP Request

```
POST http://ip/mwapi?method=upload-update-file
```

Parameter	Description
method	upload-update-file

## Response Body

```
{  
  "status": 0,  
  "up-to-date": true,  
  "version": "1.1.72",  
  "size": 11890776  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
up-to-date	True indicates the current firmware is up to date, otherwise it is false.
version	Shows the uploaded firmware version.
size	Shows the uploaded file size in bytes.



# update

Use the interface to update firmware. During the update process you can use the [get-update-state](#) interface to retrieve the current status.

## HTTP Request

```
GET http://ip/mwapi?method=update&mode=xxx
```

Parameter	Description
method	update
mode	Shows the update mode, such as manual indicates to update the device to a specified version manually.

## Response Body

```
{  
  "status": 0  
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.

## get-report

Use the interface to get current conditions of the device with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=get-report
```

### Response Body

Plain text HTML segment is as follows.

```
<div class="report-summary">
  <h1>Pro Convert NDI to HDMI</h1>
  <p>Generated at Thu, 21 Mar 2019 07:42:56 GMT</p>
</div>
<div class="report-content">
  <div class="content-level1">
    .
    .
    .
    .
  </div>
</div>
```

## export-report

Use the interface to get an html file of all current conditions of the device with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=export-report&file-name=xxx.html
```

Parameter	Description
method	export-report
file-name	Shows the file name.

### Respond

The report file is downloaded and saved to a local folder.

# get-logs

Use the interface to retrieve the logs as an administrator. The device can store up to 1000 local log entries.

## HTTP Request

```
GET http://ip/mwapi?method=get-logs&types=xxx,xxx,xxx
```

Parameter	Description
method	get-logs
types	Indicates the log types including all, info, warn, error, which can be separated by commas if multiple types are requested.

## Response Body

```
{
  "status": 0,
  "logs": [
    {
      "type": "warn",
      "time": "2019-03-19 09:53:03.047",
      "message": "USB state: disconnected"
    },
    {
      "type": "warn",
      "time": "2019-03-19 09:14:09.292",
      "message": "User 'Admin' (192.168.66.2) session 4 timeout"
    },
    {
      "type": "warn",
      "time": "1970-01-01 00:00:11.872",
      "message": "USB state: disconnected"
    },
    ...
  ]
}
```

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.
logs	Shows the log arrays, including log "type", generated "time" and "message" data.

## Example

### Retrieve all logs

```
http://192.168.66.1/mwapi?method=get-ptz-configmethod=get-logs&types=all
```

### Retrieve warn and error logs

```
http://192.168.66.1/mwapi?method=get-ptz-configmethod=get-logs&types=warn,error
```

## export-logs

Use the interface to export logs from the device as a .html file with administrative rights.

### HTTP Request

```
GET http://ip/mwapi?method=export-logs&file-name=xxx.html
```

Parameter	Description
method	export-logs
file-name	Indicates the exported file name.

### Respond

The log file is downloaded and saved to a local folder.

## clear-logs

Use the interface to clear all logs with administrative rights.

### HTTP Request

```
Get http://ip/mwapi?method=clear-logs
```

### Response Body

Name	Description
status	0 indicates that the request was accepted successfully. Refer to <a href="#">API Status Codes</a> to find specific description for other values.