

Yamaha Extended Control API Specification (Basic)

Rev. 2.00

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1. Preface

This document describes specifications of API of Yamaha Extended Control (YXC, hereafter) for Yamaha A/V products. YXC is Yamaha's new communication protocol sent over Ethernet and Wi-Fi to control MusicCast enabled devices. This document describes basic specifications including the way to control power, change input, browse list, retrieve album art. Advanced function including MusicCast link function and others is described in Yamaha Extended Control API Specification (Advanced).

This specification (Rev.2.00) applies only to MusicCast devices that have been upgraded to a product firmware that supports after API version 2.00.

2. Definitions

- MusicCast
A function to share music easily among audio devices in multiple rooms at homes
- MusicCast Device(s)
All products/devices that are equipped with MusicCast functions
- MusicCast Network
A communication network on which MusicCast Devices join.
 - By multiple MusicCast Devices communicating each other on the same network (=MusicCast Network), all MusicCast devices can be operated using MusicCast App/YXC
- Location
A unit of MusicCast Network being comprised. Location is expressed as Location ID made up by 32 characters
 - Max number of MusicCast Devices within 1 Location is up to 32 32 (available on or after API version 2.00: the max number before version 2.00 was 10).
- Link
A function to share an audio stream among rooms
- Device
Equal to MusicCast Device
- Room
A minimum component MusicCast devices can be shown/associated within a MusicCast network

3. API Overview

- Request Parameters
Parameter information to inquire. Parameters stated as "required = yes" have always to be specified as one of inquiring parameters, while parameters marked as "required = no" can be omitted or need to be used in special cases
- Response Parameters
Parameter information to be returned in the body of response (in JSON object format). Not all parameters listed here are always to be returned in a response, depending on each device specs/functions/setup situations. "response_code" is always returned
 - Note: JSON format data expressions in this document get well formatted for readability, but actual data don't include spaces, intends and carriage return/line feeds
- Base URL
"<BaseURL>" shown in URI is <http://{host}/YamahaExtendedControl>
 - {host} is an IP address of a Device to get controlled
- API version
Values like "v1" or "v2" specified in URI shows a corresponding API version number. Backward compatibility of APIs always being assured unless specified, all APIs that have equal to or smaller API version number(s) that can be read via "getDeviceInfo" are supported on a Device
- Data size of a sting
In case a string is specified with its data size, it is a size before JSON escape process

4. System

4.1. getDeviceInfo

For retrieving basic information of a Device

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getDeviceInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getDeviceInfo |

Response Parameters

| name | type | description |
|----------------------|----------------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| model_name | string | Returns model name Ex. "RX-V479" / "WXC-50" / "UNKNOWN" |
| destination | string | Returns Device's destination region code. There are cases of multiple regions codes like "UC" "BG" depending on Devices Values: "J" / "U" / "C" / "R" / "B" / "G" / "BG" / "T" / "A" / "L" / "K" / "E" / "V" / "F" / "P" / "S" / "H" |
| device_id | string | Return Device's ID (12 digit ASCII).Device ID is unique ID to identify Device. Note: Available on and after API Version 1.17 |
| system_version | floating point | Returns System Version |
| api_version | floating point | Returns API Version |
| netmodule_generation | integer | Returns generation number of the network module (Available on after API version 1.20) |
| netmodule_version | string | Returns Network Module version |
| netmodule_checksum | string | Return check-sum of Network Module in hex. "00000000" is returned until check-sum calculation is done |
| serial_number | string | Returns Serial Number (16 alphanumeric characters) |
| category_code | integer | Returns category code of the model. If this parameter does not exist, treat it as 0 (reserved). Values: 0 : reserved 1 : AV Receiver 2 : Sound Bar 3 : Stereo Receiver 4 : Subwoofer 5 : Mini System 6 : Desktop Audio 1 |
| operation_mode | string | Reserved |
| update_error_code | string | Reserved |
| update_progress | object | Reserved |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "model_name":"RX-V679", "destination":"U", "system_id":"ABADCAFE", "system_version":1.10, "api_version":1.00, "netmodule_generation":2, "netmodule_version":"0200", "netmodule_checksum":"878059DD", "operation_mode":"normal", "update_error_code"."00000000" }</pre> |
|------------------|--|

4.2. getFeatures

For retrieving feature information equipped with a Device

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getFeatures |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getFeatures |

Response Parameters

| name | type | description |
|-----------------------|--------------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| system | object | Returns system's overall info |
| - func_list | string array | Returns valid functions Values: "wired_lan" / "wireless_lan" / "wireless_direct" / "extend_1_band" / "dfs_option" / "network_standby" / "network_standby_auto" / "bluetooth_standby" / "bluetooth_tx_setting" / "auto_power_standby" / "ir_sensor" / "speaker_a" / "speaker_b" / "headphone" / "dimmer" / "zone_b_volume_sync" / "hdmi_out_1" / "hdmi_out_2" / "hdmi_out_3" / "airplay" / "stereo_pair" / "speaker_settings" / "disklavier_settings" / "background_download" / "remote_info" / "network_reboot" / "system_reboot" / "auto_play" / "speaker_pattern" / "party_mode" |
| - zone_num | integer | Returns Zone numbers. Zone B is treated as Zone2 in YXC so a Device with ZoneB returns 2. A Device without Zones returns 1 |
| - input_list | array | Returns a list of inputs |
| - id | string | Returns Input ID Refer to " All ID List " for details |
| - distribution_enable | boolean | Returns whether an input can be a source of Link distribution |
| - rename_enable | boolean | Returns whether an input can be renamed |
| - account_enable | boolean | Return whether an input comes with an account info |
| - play_info_type | string | Returns a type of playback info. Depending on this type, use |

| | | |
|--------------------------|-----------------|--|
| | | specific API to retrieve appropriate playback info Values: "none" / "tuner" / "netusb" / "cd" |
| - range_step | array | Returns minimum/maximum/step values of a parameter |
| - id | string | Returns an ID Value: "dimmer" |
| - min | integer | Returns a minimum value of a parameter |
| - max | integer | Returns a maximum value of a parameter |
| - step | integer | Returns a step value of a parameter |
| - bluetooth | object | Returns a information related to Bluetooth |
| - update_cancelable | boolean | Returns a whether updating can be canceled and connected to the device during Bluetooth (Sink) device list update |
| - speaker_settings | object | Reserved |
| - ymap_list | string array | Reserved |
| - web_control_url | string | Reserved |
| - speaker_pattern_num | integer | Returns the number of patterns that can be selected with the speaker setting function This parameter does not exist in models where speaker setting function is invalid |
| zone | array | Returns Zone related information |
| - id | string | Returns Zone ID. Refer to " All ID List " for details |
| - zone_b | boolean | Returns whether the target Zone is Zone B or not. Valid only when Zone ID is "zone2" |
| - func_list | string array | Returns a list of valid functions Values: "power" / "sleep" / "volume" / "mute" / "sound_program" / "surround_3d" / "direct" / "pure_direct" / "enhancer" / "tone_control" / "equalizer" / "balance" / "dialogue_level" / "dialogue_lift" / "clear_voice" / "subwoofer_volume" / "bass_extension" / "signal_info" / "prepare_input_change" / "link_control" / "link_audio_delay" / "link_audio_quality" / "scene" / "contents_display" / "cursor" / "menu" / "actual_volume" / "audio_select" / "surr_decoder_type" |
| - input_list | string array | Returns a list of selectable Input IDs Refer to " All ID List " for details |
| - sound_program_list | string array | Returns a list of selectable Sound Program IDs Refer to " All ID List " for details |
| - surr_decoder_type_list | string array | Returns a list of selectable Surround Decoder Types Values: "toggle" / "auto" / "dolby_pl" / "dolby_pl2x_movie" / "dolby_pl2x_music" / "dolby_pl2x_game" / "dolby_surround" / "dts_neural_x" / "dts_neo6_cinema" / "dts_neo6_music" |
| - tone_control_mode_list | string array | Returns selectable settings of Tone Control Mode. If there's no list of this, it's fixed to "manual" Values: "manual" / "auto" / "bypass" |
| - equalizer_mode_list | string array | Returns selectable settings of Equalizer Mode. If there's not list of this, it's fixed to "manual" |

| | | |
|---------------------------|--------------|--|
| | | Values: "manual" / "auto" / "bypass" |
| - link_control_list | string array | Returns selectable settings of Link Control Values: "standard" / "stability" / "speed" |
| - link_audio_delay_list | string array | Returns selectable settings of Link Audio Delay Values: "lip_sync"/"audio_sync" / "audio_sync_on" / "audio_sync_off" / "balanced" |
| - link_audio_quality_list | string array | Returns selectable settings of Link Audio Quality Values: "compressed" / "uncompressed" |
| - range_step | array | Returns ID, min, max, step values of a parameter |
| - id | string | Returns ID of a parameter Values: "volume" / "tone_control" / "equalizer" / "balance" / "dialogue_level" / "dialogue_lift" / "subwoofer_volume" / "actual_volume_db" / "actual_volume_numeric" |
| - min | integer | Returns minimum value of a parameter |
| - max | integer | Returns maximum value of a parameter |
| - step | integer | Returns step value of a parameter |
| - scene_num | integer | Returns selectable scenes of total number This parameter does not exist in models without a scene |
| - cursor_list | string array | Returns functions available with executeCursor of remote control function This parameter does not exist in models without a function Values: "up" / "down" / "left" / "right" / "select" / "return" |
| - menu_list | string array | Returns functions available with executeMenu of remote control function This parameter does not exist in models without a function Values: "on_screen" / "top_menu" / "menu" / "option" / "display" / "help" / "home" / "mode" / "red" / "green" / "yellow" / "blue" |
| - actual_volume_mode_list | string array | Returns function list of configurable Actual Volume Mode This parameter does not exist in models without a function Values: "db" / "numeric" Note: For models fixed to "db", the value is "db" only. |
| - audio_select_list | string array | Returns function list of configurable Audio Select This parameter does not exist in models without a function Values: "auto" / "hdmi" / "coax_opt" / "analog" / "unavailable" |
| tuner | object | Returns information related to Tuner function |
| - func_list | string array | Returns a list of available functions Values: "am" / "fm" / "rds" / "dab" / "hd_radio" / "fm_auto_preset" / "dab_initial_scan" / "dab_tune_aid" |
| - range_step | array | Returns object ID, min, max, step values of a parameter |
| - id | string | Returns object ID of a parameter Values: "am" / "fm" |
| - min | integer | Returns minimum value (in unit of kHz) |
| - max | integer | Returns maximum value (in unit of kHz) |
| - step | integer | Returns step value (in unit of kHz) |
| - preset | object | Returns information related to Preset |
| - type | string | Returns Preset type. The value of "common" is for each band. Values: "common" (band common) / "separate" (each band preset) |
| - num | integer | Returns preset capable number. If type is "separate", each band of |

| | | |
|---------------------|-------------------|---|
| | | AM/FM/DAB can have presets up to this number |
| netusb | object | Returns information related to Net/USB function |
| - func_list | string array | Returns a list of available functions Value: "recent_info" |
| - preset | object | Returns information related to Preset |
| - num | integer | Returns preset capable number. All sources of Net/USB Input share this presets |
| - recent_info | object | Returns information related to playback history |
| - num | integer | Returns number of memorable playback history. Playback history is shared among all Net/USB Input sources |
| - play_queue | object | Reserved |
| - mc_playlist | object | Reserved |
| - net_radio_type | string | Returns type of Net Radio. If there's no list of this, it's fixed to "vTuner" Value : "vtuner" / "airable" |
| - vtuner_fver | string | Reserved |
| - pandora | object | Returns information related to Pandora |
| - sort_option_list | string array | Returns a list of selectable sorting method Value : "date" : creation date order (deprecated) "alphabet" : alphabet order "recent" : playback date order |
| distribution | object | Returns information related to distribution function |
| - version | floating point | Returns version of distribution function Note : If devices of the same major version are used, it is guaranteed that the distribution function operates normally If this parameter does not exist, the version is handled as 1.xx (Major version = 1) |
| - compatible_client | integer array | Returns major version of compatible client delivery system when it works as a distribution server Note : Only devices that have versions listed here are certified as distribution clients and if this parameter does not exist, it is compatible only with Major version 1 client |
| - client_max | integer | Returns maximum number of devices that can be specified as clients when it works as a distribution server Note : If this parameter does not exist, the maximum number is 9 |
| - server_zone_list | string array | Returns a list of Zone ID that can work as a master of distributing server. If a Device doesn't have anything of this parameter, "main" is the one of Zone ID to be able to work as a master Values: "main" / "zone2" / "zone3" / "zone4" |
| clock | object | Returns information related to clock function |
| - func_list | string array | Returns a list of valid functions Values: "date_and_time" / "alarm" / "snooze" / "format" |
| - range_step | array | Returns minimum/maximum/step values of a parameter |
| - id | string | Returns ID of a parameter Values: "alarm_volume" / "alarm_fade" |
| - min | integer | Returns minimum value of a parameter |
| - max | integer | Returns maximum value of a parameter |
| - step | integer | Returns step value of a parameter |

| | | |
|-----------------------|-----------------|---|
| - alarm_fade_type_num | integer | Returns alarm fade type numbers |
| - alarm_mode_list | string array | Returns a list of selectable alarm mode Values: "oneday" / "weekly" |
| - alarm_input_list | string array | Returns a list of selectable Input IDs when resume playback Refer to " All ID List " for details |
| - alarm_preset_list | string array | Returns a list of selectable type when preset playback Values: "netusb" / "tuner_common" / "am" / "fm" / "dab" |
| - supported | boolean | Returns whether it supported CCS or not. |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "system":{ "func_list":["wired_lan", "wireless_lan", "wireless_direct", "network_standby", "bluetooth_standby", "speaker_settings", "auto_play", "speaker_pattern", "party_mode"], "zone_num":3, "input_list":[{ "id":"hdmi1", "distribution_enable":false, "rename_enable":true, "account_enable":false }, { "id":"hdmi2", "distribution_enable":false, "rename_enable":true, "account_enable":false }, ... { "id":"spotify", "distribution_enable":true, "rename_enable":false, "account_enable":false }], "speaker_settings":{ "type":"beam", "common":{</pre> |
|------------------|---|

```

    "attribute":1,
    "range_step":[
      {
        "id":"target_angle",
        "min":-90,
        "max":90,
        "step":1
      }
    ]
  },
  "front_l":{
    "attribute":7,
    "range_step":[
      {
        "id":"level",
        "min":-10,
        "max":10,
        "step":1
      },
      {
        "id":"h_angle",
        "min":-90,
        "max":90,
        "step":1
      }
    ]
  },
  ...
  "swfr":{
    "attribute":1,
    "range_step":[
      {
        "id":"level",
        "min":-10,
        "max":10,
        "step":1
      }
    ]
  }
},
"zone":[
  {
    "id":"main",
    "func_list":[
      "power",
      "sleep",
      "volume",
      "mute",

```

```

"sound_program",
"pure_direct",
"enhancer",
"tone_control",
"prepare_input_change",
"link_control"
"scene",
"contents_display",
"cursor",
"menu",
"actual_volume",
"audio_select",
"surr_decoder_type"
],
"input_list":[
  "hdmi1",
  "hdmi2",
  ...
  "spotify"
],
"sound_program_list":[
  "munich",
  "vienna",
  ...
  "straight"
],
"surr_decoder_type_list":[
  "auto",
  "dolby_pl",
  ...
  "dts_neo6_music"
],
"link_control_list":[
  "standard",
  "stability"
],
"range_step":[
  {
    "id":"volume",
    "min":0,
    "max":194,
    "step":1
  },
  {
    "id":"tone_control",
    "min":-12,
    "max":12,
    "step":1
  }
]

```

```

    {
        "id": "actual_volume_db",
        "min": -80.5
        "max": 16.5
        "step": 0.5
    },
    {
        "id": "actual_volume_numeric",
        "min": 0.0
        "max": 97.0
        "step": 0.5
    }
],
"scene_num": 8,
"cursor_list": [
    "up",
    "down",
    "left",
    "right",
    "select",
    "return",
],
"menu_list": [
    "on_screen",
    "top_menu",
    "menu",
    "option",
    "display",
    "help",
    "home",
    "mode",
    "red",
    "green",
    "yellow",
    "blue"
],
"actual_volume_mode_list": [
    "db",
    "numeric"
],
"audio_select_list": [
    "auto",
    "hdmi",
    "coax_opt",
    "analog",
    "unavailable"
]
},
{

```



```

    "id": "zone2",
    "zone_b": false,
    "func_list": [
        "power",
        "sleep",
        "volume",
        "mute",
        "tone_control",
        "prepare_input_change"
    ],
    "input_list": [
        "hdmi1",
        "hdmi2",
        ...
        "spotify"
    ],
    "range_step": [
        {
            "id": "volume",
            "min": 0,
            "max": 194,
            "step": 1
        },
        {
            "id": "tone_control",
            "min": -5,
            "max": 5,
            "step": 1
        },
        {
            "id": "actual_volume_db",
            "min": -80.5
            "max": 16.5
            "step": 0.5
        },
        {
            "id": "actual_volume_numeric",
            "min": 0.0
            "max": 97.0
            "step": 0.5
        }
    ],
    "scene_num": 8,
    "cursor_list": [
        "up",
        "down",
        "left",
        "right",
        "select",

```

| | |
|--|--|
| | <pre> "return"], "menu_list":["on_screen", "top_menu", "menu", "option", "display", "help", "home", "mode", "red", "green", "yellow", "blue"], "actual_volume_mode_list":["db", "numeric"] }], "tuner":{ "func_list":["am", "fm", "rds", "dab"], "range_step":[{ "id":"am", "min":531, "max":1611, "step":9 }, { "id":"fm", "min":76000, "max":90000, "step":100 }], "preset":{ "type":"common", "num":40 } }, "netusb":{ </pre> |
|--|--|

| | |
|--|---|
| | <pre> "preset":{ "num":40 } "vtuner_fver":"A", "pandora":{ "sort_option_list":["recent", "alphabet"] } "distribution":{ "version":3.10, "compatible_client":[2, 3], "client_max":9, "server_zone_list":["main"], } } </pre> |
|--|---|

4.3. getNetworkStatus

For retrieving network related setup / information

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/system/getNetworkStatus |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getNetworkStatus |

Response Parameters

| name | type | description |
|-----------------|---------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| network_name | string | Returns Network Name (Friendly Name) |
| connection | string | Returns setup status of Connection Values: "wired_lan" / "wireless_lan" / "wireless_direct" / "extend_1" / "extend_2" / "extend_3" / "unknown" |
| dhcp | boolean | Returns DHCP setup |
| ip_address | string | Returns IP Address |
| subnet_mask | string | Returns Subnet Mask |
| default_gateway | string | Returns Default Gateway |
| dns_server_1 | string | Returns DNS Server 1 |
| dns_server_2 | string | Returns DNS Server 2 |
| wireless_lan | object | Returns information related to wireless network (Wi-Fi) |
| - ssid | string | Returns SSID |
| - type | string | Returns encryption type |

| | | |
|------------------------|---------|--|
| | | Values: "none" / "wep" / "wpa2-psk(aes)" / "mixed_mode" |
| - key | string | Reserved |
| - ch | integer | Returns a channel number of connected AP. Returns 0 when disconnected |
| - strength | integer | Returns wireless strength. Returns -1 when Link is down status Value Range: -1 (Link Down)、 0 ~ 100 |
| wireless_direct | object | Returns information related to wireless network (Wireless Direct) |
| - ssid | string | Returns SSID |
| - type | string | Returns encryption type Values: "none" / "wpa2-psk(aes)" |
| - key | string | Reserved |
| musiccast_network | object | Returns information related to MusicCast Network |
| - ready | boolean | Returns a status whether or not a Device joins to MusicCast Network |
| - device_type | string | Returns a type of MusicCast Network on a Device. Returns "unknown" If not joined to MusicCast Network yet Values: "root" / "node" / "leaf" / "standard" / "unknown" |
| - child_num | integer | Returns clients number connected to a Device |
| - ch | integer | Returns a channel number that a Device discloses. Returns 0 when device_type is other than root or node |
| - initial_join_running | boolean | Returns whether or not Initial Join is being executed |
| - extend_1_band | string | Reserved |
| - wlan1_ch | integer | Reserved |
| - dfs | object | Reserved |
| - option | boolean | Reserved |
| - radar_ch | integer | Reserved |
| mac_address | object | Returns MAC Address (12 digit ASCII) |
| - wired_lan | string | Returns wired MAC Address |
| - wireless_lan | string | Returns wireless (Wi-Fi) MAC Address |
| - wireless_direct | string | Returns wireless (Wireless Direct) MAC Address |
| vtuner_id | string | Reserved |
| airplay_pin | string | Returns AirPlay PIN |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "network_name":"Yamaha AVR", "connection":"wireless_lan", "dhcp":true, "ip_address":"192.168.0.10", "subnet_mask":"255.255.255.0", "default_gateway":"192.168.0.1", "dns_server_1":"192.168.0.1", "dns_server_2":"192.168.0.2", "wireless":{ "ssid":"AP1-2.4GHz", "type":"wpa2-psk(aes)", "key":"abadcafe", "strength":88 }, }</pre> |
|------------------|--|

| | |
|--|--|
| | <pre> "musiccast_network":{ "ready":true, "device_type":"root", "child_num":1, "initial_join_running":false "extend_1_band": "", "wlan1_ch":0, "dfs":[false, 0] }, "mac_address":{ "wired_lan":"00A0DE012345", "wireless_lan":"78A501012345", "wireless_direct":"78A501012346" }, "vtuner_id":"00A0DE012345", "airplay_pin":"abc123", } </pre> |
|--|--|

4.4. setWiredLan

For setting Wired Network. Network connection is switched to wired by using this API. If no parameter is specified, current parameter is used. If set parameter is incomplete, it is possible not to provide network availability.

Request Parameters

| name | Type | required | description |
|-----------------|--------|----------|---------------------------|
| dhcp | string | no | Specifies DHCP setting |
| ip_address | string | no | Specifies IP Address |
| subnet_mask | string | no | Specifies Subnet Mask |
| default_gateway | string | no | Specifies Default Gateway |
| dns_server_1 | string | no | Specifies DNS Server 1 |
| dns_server_2 | string | no | Specifies DNS Server 2 |

| | |
|------------------------|--|
| URI | <BaseURL>/v1/system/setWiredLan |
| Method | POST |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setWiredLan |
| Example Request (json) | <pre> { "dhcp":false, "ip_address":"192.168.0.11", "subnet_mask":"255.255.255.0", "default_gateway":"192.168.0.1", "dns_server_1":"192.168.0.1", "dns_server_2":"0.0.0.0" } </pre> |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.5. setWirelessLan

For setting Wireless Network (Wi-Fi). Network connection is switched to wireless (Wi-Fi) by using this API. If no parameter is specified, current parameter is used. If set parameter is incomplete, it is possible not to provide network availability.

Request Parameters

| name | type | required | description |
|-----------------|--------|----------|---|
| ssid | string | no | Specifies access point SSID (UTF-8 within 32 bytes) |
| type | string | no | Specifies wireless encryption protocol Values: "none" / "wep" / "wpa2-psk(aes)" / "mixed_mode" |
| key | string | no | Specifies encryption key (printable ASCII (0x20-0x7E) within 64 characters). This value is invalid when type "none" is specified. |
| dhcp | string | no | Specifies DHCP setting |
| ip_address | string | no | Specifies IP Address |
| subnet_mask | string | no | Specifies Subnet Mask |
| default_gateway | string | no | Specifies Default Gateway |
| dns_server_1 | string | no | Specifies DNS Server 1 |
| dns_server_2 | string | no | Specifies DNS Server 2 |

| | |
|------------------------|--|
| URI | <BaseURL>/v1/system/setWirelessLan |
| Method | POST |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setWirelessLan |
| Example Request (json) | { "ssid":"AP1-2.4GHz", "type":"wpa2-psk(aes)", "key":"abadcafe", "dhcp":false, "ip_address":"192.168.0.11", "subnet_mask":"255.255.255.0", "default_gateway":"192.168.0.1", "dns_server_1":"192.168.0.1", "dns_server_2":"0.0.0.0" } |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.6. setWirelessDirect

For setting Wireless Network (Wireless Direct). Network connection is switched to wireless (Wireless Direct) by using this API. If no parameter is specified, current parameter is used. If set parameter is incomplete, it is possible not to provide network availability.

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| type | string | no | Specifies wireless encryption protocol Values: "none" / "wpa2-psk(aes)" |
| key | string | no | Specifies encryption key (printable ASCII (0x20-0x7E) within 64 characters). This value is invalid when type "none" is specified. |

| | |
|------------------------|---|
| URI | <BaseURL>/v1/system/setWirelessDirect |
| Method | POST |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setWirelessDirect |
| Example Request (json) | { "type":"wpa2-psk(aes)", "key":"abadcafe" } |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.7. setIpSettings

For setting IP. This API only set IP as maintain same network connection status (Wired/Wireless Lan/Wireless Direct/Extend). If no parameter is specified, current parameter is used. If set parameter is incomplete, it is possible not to provide network availability.

Request Parameters

| name | type | required | description |
|------|--------|----------|------------------------|
| dhcp | string | no | Specifies DHCP setting |

| | | | |
|-----------------|--------|----|---------------------------|
| ip_address | string | no | Specifies IP Address |
| subnet_mask | string | no | Specifies Subnet Mask |
| default_gateway | string | no | Specifies Default Gateway |
| dns_server_1 | string | no | Specifies DNS Server 1 |
| dns_server_2 | string | no | Specifies DNS Server 2 |

| | | | |
|------------------------|--|--|--|
| URI | <BaseURL>/v1/system/setIpSettings | | |
| Method | POST | | |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setIpSettings | | |
| Example Request (json) | <pre>{ "dhcp":false, "ip_address":"192.168.0.11", "subnet_mask":"255.255.255.0", "default_gateway":"192.168.0.1", "dns_server_1":"192.168.0.1", "dns_server_2":"0.0.0.0" }</pre> | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

4.8. setNetworkName

For setting Network Name (Friendly Name)

Request Parameters

| name | type | required | description |
|------|--------|----------|--|
| name | string | yes | Specifies Network Name. Specifiable up to 32 characters. |

| | | | |
|------------------------|--|--|--|
| URI | <BaseURL>/v1/system/setNetworkName | | |
| Method | POST | | |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setNetworkName | | |
| Example Request (json) | <pre>{ "name":"Yamaha AVR" }</pre> | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.9. setAirPlayPin

For setting AirPlay PIN. This is valid only when “airplay” exists in “func_list” found in /system/getFuncStatus.

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| pin | string | yes | Specifies AirPlay PIN (printable ASCII (0x20-0x7E) within 63 characters). |

| | | | |
|------------------------|---|--|--|
| URI | <BaseURL>/v1/system/setAirPlayPin | | |
| Method | POST | | |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setAirPlayPin | | |
| Example Request (json) | { "pin": "abc123" } | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “ Response Code List ” for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.10. getMacAddressFilter

For retrieving setup of MAC Address Filter

Request Parameters

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/getMacAddressFilter | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getMacAddressFilter | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “ Response Code List ” for details |
| filter | boolean | Returns whether or not Filter is valid |
| address_1 | string | Returns MAC Address [1] (12 digit ASCII) |
| ... | ... | ... |
| address_10 | string | Returns MAC Address [10] (12 digit ASCII) |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "filter":true, "address_1":"00A0DE1BFFFA", "address_2":"00A0DE1BFFFB", "address_3":"00A0DE1BFFFC", "address_4":"00A0DE1BFFFD", "address_5":"00A0DE1BFFFE", "address_6":"000000000000", "address_7":"000000000000", "address_8":"000000000000", "address_9":"000000000000", "address_10":"00A0DE1BFFFF" }</pre> |
|------------------|--|

4.11. setMacAddressFilter

For setting MAC Address Filter

Request Parameters

| name | type | required | description |
|------------|---------|----------|---|
| filter | boolean | no | Specifies valid/invalid setup of Filter |
| address_1 | string | no | Specifies MAC Address [1] (12 digit ASCII) |
| ... | ... | ... | ... |
| address_10 | string | no | Specifies MAC Address [10] (12 digit ASCII) |

| | |
|------------------------|---|
| URI | <BaseURL>/v1/system/setMacAddressFilter |
| Method | POST |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setMacAddressFilter |
| Example Request (json) | <pre>{ "filter":true, "address_1":"00A0DE1BFFFA", "address_2":"00A0DE1BFFFB", "address_3":"00A0DE1BFFFC", "address_10":"00A0DE1BFFFF" }</pre> |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

4.12. getNetworkStandby

For retrieving setup of Network Standby

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getNetworkStandby |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getNetworkStandby |

Response Parameters

| name | type | description |
|-----------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |
| network_standby | string | Returns setup of Network Standby. "auto" is available only when "network_standby_auto" exists in system - func_list under /system/getFeatures Values: "off" / "on" / "auto" |

| | |
|------------------|--|
| Example Response | { "response_code":0, "network_standby":"auto" } |
|------------------|--|

4.13. setNetworkStandby

For setting Network Standby

Request Parameters

| name | type | required | description |
|---------|--------|----------|--|
| standby | string | yes | Specifies setup of Network Standby. "auto" is available only when "network_standby_auto" exists in system - func_list under /system/getFeatures Values: "off" / "on" / "auto" |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/system/setNetworkStandby?standby=<standby> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setNetworkStandby?standby=on |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.14. getBluetoothInfo

For retrieving setup/information of Bluetooth. Parameters are readable only when corresponding functions are available in “func_list” of /system/getFuncStatus. “bluetooth_device” parameter is contained in “bluetooth_tx_setting”.

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/system/getBluetoothInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getBluetoothInfo |

Response Parameters

| name | type | description |
|----------------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |
| bluetooth_standby | boolean | Returns setup of Bluetooth Standby |
| bluetooth_tx_setting | boolean | Returns Bluetooth transmission setting |
| bluetooth_device | object | Returns information of Bluetooth (Sink) device |
| - connected | boolean | Returns status of connection to device |
| - name | string | Returns device name (max size is 128 bytes). |
| - type | string | Returns type of device. Values: "loudspeaker" / "headphone" / "handsfree_device" / "unknown" |
| - address | string | Returns BT address (12-digit hex). |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "bluetooth_standby":true, "bluetooth_tx_setting":true, "bluetooth_device":{ "connected":true, "name":"Yamaha Headphone", "type":"headphone", "address":"C259197BD6F5" } }</pre> |
|------------------|---|

4.15. setBluetoothStandby

For setting Bluetooth Standby

Request Parameters

| name | type | required | description |
|--------|---------|----------|-------------------------------------|
| enable | boolean | yes | Specifies Bluetooth Standby setting |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/setBluetoothStandby?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setBluetoothStandby?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.16. setBluetoothTxSetting

For setting Bluetooth transmission

Request Parameters

| name | type | required | description |
|--------|---------|----------|--|
| enable | boolean | yes | Specifies Bluetooth transmission setting |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/setBluetoothTxSetting?enable=<enable> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setBluetoothTxSetting?enable=true | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.17. getBluetoothDeviceList

For retrieving Bluetooth (Sink) device list. This API is available only when "bluetooth_tx_setting" is true under /system/getFuncStatus.

This device list information is in the cach. If update device list information, excute /system/updateBluetoothDeviceList.

Request Parameters

| | | | |
|-----------------|--|--|--|
| URI | <BaseURL>/v1/system/getBluetoothDeviceList | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getBluetoothDeviceList | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| updating | boolean | Returns whether or not device list is being updated. Returns true while |

| | | |
|-------------|--------|---|
| | | device list is being updated via /system/updateBluetoothDeviceList |
| device_list | array | Returns Bluetooth device list |
| -- name | string | Returns device name (max size is 128 bytes). |
| -- type | string | Returns type of device. Values: "loudspeaker" / "headphone" / "handsfree_device" / "unknown" |
| - address | string | Returns BT address (12-digit hex) |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "updating":false, "device_list":[{ "name":"Yamaha Speaker", "type":"loudspeaker", "address":"9AF2B8CE1580" }, ... { "name":"Yamaha Headphone", "type":"headphone", "address":"C259197BD6F5" }] }</pre> |
|------------------|--|

4.18. updateBluetoothDeviceList

For updating Bluetooth (Sink) device list. This API is available only when “bluetooth_tx_setting” is true under /system/getFuncStatus.

Retrieve update status and list information after finish updating via /system/getBluetoothDeviceList.

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/updateBluetoothDeviceList |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/updateBluetoothDeviceList |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

4.19. connectBluetoothDevice

For connecting Bluetooth (Sink) device. This API is available only when “bluetooth_tx_setting” is true under /system/getFuncStatus.

It is possible to take time to return this API response issued after connection status is fixed.

In models where the value of system - bluetooth - update_cancelable of /system/getFeatures is true, connection processing can be performed even while updating the device list. (Device list update will be canceled)

If false or no parameter exists, connection processing can not be performed while updating the device list.

Request Parameters

| name | type | required | description |
|---------|--------|----------|-----------------------------|
| address | string | yes | Specifies Bluetooth address |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/connectBluetoothDevice?address=<address> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/connectBluetoothDevice?address=C259197BD6F5 | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “ Response Code List ” for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.20. disconnectBluetoothDevice

For disconnecting Bluetooth (Sink) device. This API is available only when “bluetooth_tx_setting” is true under /system/getFuncStatus.

This API response is issued immediately after disconnect request is accepted.

Request Parameters

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/disconnectBluetoothDevice | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/disconnectBluetoothDevice | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “ Response Code List ” for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.21. getFuncStatus

For retrieving setup/information of overall system function. Parameters are readable only when corresponding functions are available in “func_list” of /system/getFeatures

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getFuncStatus |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getFuncStatus |

Response Parameters

| name | type | description |
|--------------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “ Response Code List ” for details |
| auto_power_standby | boolean | Returns whether or not Auto Power Standby is enabled |
| ir_sensor | boolean | Returns whether or not IR sensor is available |
| speaker_a | boolean | Returns whether or not Speaker A is available |
| speaker_b | boolean | Returns whether or not Speaker B is available |
| headphone | boolean | Returns whether or not headphone is connected |
| dimmer | integer | Returns Dimmer setting number. Returns -1 if it's Auto Dimmer, and 0 or higher if its' manual setup |
| zone_b_volume_sync | boolean | Returns whether Zone B volume sync Zone A volume or not. |
| hdmi_out_1 | boolean | Returns output setting of HDMI OUT 1 terminal |
| hdmi_out_2 | boolean | Returns output setting of HDMI OUT 2 terminal |
| hdmi_out_3 | boolean | Returns output setting of HDMI OUT 3 terminal. |
| auto_play | boolean | Returns setting of Auto Play |
| speaker_pattern | integer | Returns speaker setting pattern number Values: 1~Speaker setting pattern number that can be acquired with /system/getFeatures |
| party_mode | boolean | Returns status of Party Mode |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "auto_power_standby":false, "ir_sensor":false, "speaker_a":true, "speaker_b":false, "headphone":false, "dimmer":3, "zone_b_volume_sync":false "hdmi_out_1":true, "hdmi_out_2":false "hdmi_out_3":false, "auto_play":"auto", "speaker_pattern":1, "party_mode":false }</pre> |
|------------------|---|

4.22. setAutoPowerStandby

For setting Auto Power Standby status. Actual operations/reactions of enabling Auto Power Standby depend on each Device

Request Parameters

| name | type | required | description |
|--------|---------|----------|-------------------------------------|
| enable | boolean | yes | Specifies Auto Power Standby status |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/setAutoPowerStandby?enable=<enable> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setAutoPowerStandby?enable=true | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|------------------------------------|--|
| Example Response | <pre>{ "response_code":0 }</pre> | |
|------------------|------------------------------------|--|

4.23. setIrSensor

For setting remote control IR sensor

Request Parameters

| name | type | required | description |
|--------|---------|----------|--------------------------------|
| enable | boolean | yes | Specifies setting of IR sensor |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/setIrSensor?enable=<enable> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setIrSensor?enable=true | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|------------------------------------|--|
| Example Response | <pre>{ "response_code":0 }</pre> | |
|------------------|------------------------------------|--|

4.24. setSpeakerA

For setting Speaker A status

Request Parameters

| name | type | required | description |
|--------|---------|----------|----------------------------|
| enable | boolean | yes | Specifies Speaker A status |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/setSpeakerA?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setSpeakerA?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.25. setSpeakerB

For setting Speaker B status

Request Parameters

| name | type | required | description |
|--------|---------|----------|----------------------------|
| enable | boolean | yes | Specifies Speaker B status |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/setSpeakerB?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setSpeakerB?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.26. setDimmer

For setting FL/LED Dimmer

Request Parameters

| name | type | required | description |
|-------|---------|----------|--|
| value | integer | yes | Setting Dimmer. Specifies -1 in case of auto setting. Specifies 0 or more than 0 in case of manual setting. Auto setting is available only when -1 is exists in vale range under /system/getFeatures. Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/setDimmer?value=<value> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setDimmer?value=3 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.27. setZoneBVolumeSync

For setting Zone B volume sync

Request Parameters

| name | type | required | description |
|--------|---------|----------|--|
| enable | boolean | yes | Specifies whether or not Zone B volume sync Zone A volume. |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/system/setZoneBVolumeSync?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setZoneBVolumeSync?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.28. setHdmiOut1

For setting HDMI OUT 1 terminal output status

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| enable | boolean | yes | Specifies HDMI OUT 1 terminal output status |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/setHdmiOut1?enable=<enable> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setHdmiOut1?enable=true | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.29. setHdmiOut2

For setting HDMI OUT 2 terminal output status

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| enable | boolean | yes | Specifies HDMI OUT 2 terminal output status |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/setHdmiOut2?enable=<enable> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setHdmiOut2?enable=true | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.30. setHdmiOut3

For setting HDMI OUT 3 terminal output status

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| enable | boolean | yes | Specifies HDMI OUT 3 terminal output status |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/setHdmiOut3?enable=<enable> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setHdmiOut3?enable=true | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “ Response Code List ” for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.31. getNameText

For retrieving text information of Zone, Input, Sound program. If they can be renamed, can retrieve text information renamed.

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| Id | string | no | Specifies ID. If no ID is specified, retrieve all information of Zone, Input, Sound program. Refer to “ All ID List ” for details |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/system/getNameText?id=<id> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getNameText?id=main | | |

Response Parameters (No ID is specified)

| name | type | description |
|--------------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “ Response Code List ” for details |
| zone_list | array | Returns a list of Zone |
| - id | string | Returns Zone ID |
| - text | string | Returns text information related to Zone ID |
| input_list | array | Returns a list of Input |
| - id | string | Returns Input ID |
| - text | string | Returns text information related to Input ID |
| sound_program_list | array | Returns a list of Sound program |
| - id | string | Returns Sound Program ID |

| | | |
|------------------|---|--|
| - text | string | Returns text information related to Sound Program ID |
| Example Response | <pre>{ "response_code":0, "zone_list":[{ "id":"main", "text":"Living Room" }, { "id":"zone2", "text":"Kitchen" }], "input_list":[{ "id":"hdmi1", "text":"BD Player" }, { "id":"hdmi2", "text":"HDMI2" }, ... { "id":"spotify", "text":"Spotify" }], "sound_program_list":[{ "id":"munich", "text":"Hall_in_Munich" }, { "id":"vienna", "text":"Hall_in_Vienna" }, ... { "id":"straight", "text":"Straight" }] }</pre> | |

Response Parameters (ID is specified)

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| id | string | Returns ID |
| text | string | Returns text information related to ID |

| | |
|------------------|---|
| Example Response | { "response_code":0, "id":"hdmi1", "text":"BD Player" } |
|------------------|---|

4.32. setNameText

For setting text information related to each ID of Zone, Input.

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| id | string | yes | Specifies ID. Input ID can be specified only when "rename_enable" is true under /system/getFeatures. Sound Program ID can not be specified. Note: If "main" is specified, Network Name is overwritten with same text information to be acceptable both MusicCast CONTROLLER (Yamaha) and Spotify App. If Network Name is changed, "main" text information is not changed. |
| text | string | yes | Specifies text information (UTF-8 within 64 bytes). If "" (empty text) is specified, specifies default text information. |

| | |
|------------------------|---|
| URI | <BaseURL>/v1/system/setNameText |
| Method | POST |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/system/setNameText |
| Example Request (json) | { "id":"main", "text":"Living Room" } |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.33. getLocationInfo

For retrieving Location information

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getLocationInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getLocationInfo |

Response Parameters

| name | type | description |
|--------------------|---------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |
| id | string | Returns Location ID in 32-digit hex |
| name | string | Returns Location Name |
| zone_list | object | Returns Location setup status of each Zone. Retrievable only when each Zone is valid |
| - main | boolean | Returns whether or not Main Zone Location setup is valid |
| - zone2 | boolean | Returns whether or not Zone2 Location setup is valid |
| - zone3 | boolean | Returns whether or not Zone3 Location setup is valid |
| - zone4 | boolean | Returns whether or not Zone4 Location setup is valid |
| stereo_pair_status | string | Returns Stereo Pair setting status Values : "none" / "master_left" / "master_right" / "slave_left" / "slave_right" |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "id":"9A237BF5AB80ED3C7251DFF49825CA42", "name":"Home", "zone_list":{ "main":true, "zone2":true, "zone3":false }, "stereo_pair_status":"none" }</pre> |
|------------------|---|

4.34. getStereoPairInfo

For retrieving Stereo Pair information

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getStereoPairInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getStereoPairInfo |

Response Parameters

| name | type | description |
|---------------|---------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |
| status | string | Returns Stereo Pair status Values : "none" / "master_left" / "master_right" / "slave_left" / "slave_right" |
| pair_info | object | Returns the other side device (Stereo Pair) information |
| - alive | boolean | Returns whether or not the other side device is alive |
| - ip_address | string | Returns IP Address |
| - mac_address | string | Returns MAC Address (Wireless Direct 12 digit ASCII) |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "status":"master_left", "pair_info":{ "alive":true, "ip_address":"192.168.0.10", "mac_address":"00A0DE012345" } }</pre> |
|------------------|---|

4.35. sendIrCode

For sending specific remote IR code. A Device is operated same as remote IR code reception. But continuous IR code cannot be used in this command. Refer to each Device's IR code list for details

Request Parameters

| name | type | required | description |
|------|--------|----------|----------------------------------|
| code | string | yes | Specifies IR code in 8-digit hex |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/system/sendIrCode?code=<code> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/sendIrCode?code=7F016C13 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

4.36. getRemoteInfo

For retrieving remote monitor information. Available only when "remote_info" exists in system - func_list under /system/getFeatures.

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getRemoteInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getRemoteInfo |

Response Parameters

| name | type | description |
|--------------------|----------------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| model_name | string | Returns model name. Same value as /system/getDeviceInfo - model_name Ex : "RX-V479" / "HTR-4068" / ... / "WXC-50" / "UNKNOWN" |
| destination | string | Returns Device's destination region code. Same value as /system/getDeviceInfo - destination Values: "J" / "U" / "C" / "R" / "B" / "G" / "BG" / "T" / "A" / "L" / "K" / "E" / "V" / "F" / "P" / "S" / "H" |
| manufacture | string | "Yamaha Corporation" |
| system_version | floating point | Returns System Version . Same as /system/getDeviceInfo - system_version |
| api_version | floating point | Returns API Version. Same as /system/getDeviceInfo - api_version |
| netmodule_version | string | Returns Network Module version. Same as /system/getDeviceInfo - netmodule_version |
| netmodule_checksum | string | Return check-sum of Network Module in hex. Same value as /system/getDeviceInfo - netmodule_checksum |
| serial_number | string | Returns Serial Number(16 alphanumeric characters) |
| ip_address | string | Returns IP Address. Same value as /system/getNetworkStatus - ip_address |
| mac_address | object | Returns MAC Address (12 digit ASCII). Same value as /system/getNetworkStatus - mac_address |
| - wired_lan | string | Returns wired MAC Address |
| - wireless_lan | string | Returns wireless (Wi-Fi) MAC Address |
| - wireless_direct | string | Returns wireless (Wireless Direct) MAC Address |
| network_standby | string | Returns setup of Network Standby. Same value as /system/getNetworkStandby - network_standby Values : "off" / "on" / "auto" |
| main | object | Returns Main Zone related information |
| - power | string | Returns power status. Same value as /main/getStatus - power Value : "on" / "standby" |
| - input | string | Returns selected Input ID. Same value as /main/getStatus - input Values: Input IDs gotten via /system/getFeatures |
| zone2 | object | Returns information related to Zone2. This data format is same as |

| | | |
|--------------------|--------------|--|
| | | main zone's one above. |
| zone3 | object | Returns information related to Zone3. This data format is same as main zone's one above. |
| zone4 | object | Returns information related to Zone4. This data format is same as main zone's one above. |
| protection_history | string array | Returns protection history (max size is 8 and top is the latest one) |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "model_name":"RX-V483", "destination":"U", "manufacture":"Yamaha Corporation", "system_version":1.10, "api_version":1.00, "netmodule_version":"0200 ", "netmodule_checksum":"878059DD", "serial_number":"123456789abcdef", "ip_address":"192.168.0.10", "mac_address":{" "wired_lan":"00A0DE012345", "wireless_lan":"78A501012345", "wireless_direct":"78A501012346" }, "network_standby":"auto", "main":{" "power":"on", "input":"siriusxm" }, "zone2":{" "power":"on", "input":"cd" }, "protection_history":["DC", "PS2", ... "..."] }</pre> |
|------------------|---|

4.37. requestNetworkReboot

For requesting Network module reboot. Available only when " network_reboot " exists in system - func_list under /system/getFeatures.

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/system/requestNetworkReboot |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/requestNetworkReboot |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.38. requestSystemReboot

For requesting System reboot. Available only when " system_reboot " exists in system - func_list under /system/getFeatures.

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/requestSystemReboot |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/requestSystemReboot |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.39. getAdvancedFeatures

Get additional information about the functions installed in the device.

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/getAdvancedFeatures |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/getAdvancedFeatures |

Response Parameters

| name | type | description |
|------------------------|--------------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| web_settings_list | string array | Returns the items displayed on the Web Settings screen. Items not to be displayed are not returned. Values : "network_name" / "network_settings" / "airplay" / "firmware_update" / "standby" / "mac_filter" / "licenses" / "backup_restore" / "advanced_settings" |
| advanced_settings_list | array | If web_settings_list has advanced_settings, it returns |

| | | |
|-------------|--------------|--|
| | | <p>information about that display.</p> <p>If there is no, this parameter does not exist.</p> <p>Returns the display items of the YXC version Advanced Settings screen.</p> |
| - id | string | <p>Returns items displayed on the Advanced Settings screen.</p> <p>Values : "system_reboot" / "auto_play" / "ir_sensor"</p> |
| - link_list | string array | <p>Returns information on whether to display on the Advanced Settings screen.</p> <p>"for_websettings" is displayed when linked from Web Settings</p> <p>"for_musiccast_app" is displayed when it is linked from MusicCast App</p> <p>Values : "for_websettings" / "for_musiccast_app"</p> |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "web_settings_list":["network_name", "network_settings", "airplay", "firmware_update", "standby", "mac_filter", "licenses", "backup_restore", "advanced_settings"], "advanced_settings_list":[{ "id":"system_reboot", "link_list":["for_websettings"] }, { "id":"auto_play", "link_list":["for_websettings"] }, { "id":"ir_sensor", "link_list":["for_websettings", "for_musiccast_app"] }] }</pre> |
|------------------|---|

4.40. setAutoPlay

For setting Auto Play of device. Available only when " auto play function " exists in system - func_list under /system/getFeatures.

Request Parameters

| name | type | Required | description |
|--------|---------|----------|---|
| enable | boolean | Yes | Specifies Auto Play setting Values : true (enable) , false (disable) |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/setAutoPlay?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setAutoPlay?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.41. setSpeakerPattern

For setting speaker of device. Available only when " speaker_pattern function " exists in system - func_list under /system/getFeatures.

Request Parameters

| name | type | required | description |
|------|---------|----------|---|
| num | integer | yes | Specifies Speaker pattern number. Values : 1~speaker_pattern number from /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/system/setSpeakerPattern?num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setSpeakerPattern?num=1 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

4.42. setPartyMode

For setting Party Mode. Available only when " party_mode " exists in system - func_list under /system/getFeatures.

Request Parameters

| Name | type | required | description |
|--------|---------|----------|--|
| Enable | boolean | yes | Specifies Party Mode setting. Values : true (Enable), false (disable) |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/system/setPartyMode?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/system/setPartyMode?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5. Zone

5.1. getStatus

For retrieving basic information of each Zone like power, volume, input and so on

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/getStatus |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/getStatus |

Response Parameters

| name | type | description |
|---------------------|---------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| power | string | Returns power status Values: "on" / "standby" |
| sleep | integer | Returns Sleep Timer setup value (unit in minutes) Values: 0 / 30 / 60 / 90 / 120 |
| volume | integer | Returns volume value Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| mute | boolean | Returns mute status |
| max_volume | integer | Returns Max Volume setup Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| input | string | Returns selected Input ID Values: Input IDs gotten via /system/getFeatures |
| input_text | string | Returns text information selected Input ID |
| distribution_enable | boolean | Returns whether or not current Input is distributable status |
| sound_program | string | Returns selected Sound Program ID Values: Sound Program IDs gotten via /system/getFeatures |
| surr_decoder_type | string | Returns selected Surround Decoder Type Values: Surround Decoder Type gotten via /system/getFeatures |
| surround_3d | boolean | Returns 3D Surround status |
| direct | boolean | Returns Direct status |
| pure_direct | boolean | Returns Pure Direct status |
| enhancer | boolean | Returns Enhancer status |
| tone_control | object | Returns Tone Control status |
| - mode | string | Returns Mode type. Available on after API version 1.15 Values: what is gotten via /system/getFeatures |
| - bass | integer | Returns Bass status Value Range: calculated by minimum/maximum/step values gotten via |

| | | |
|--------------------|---------|--|
| | | /system/getFeatures |
| - treble | integer | Returns Treble status Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| equalizer | object | Returns Equalizer status |
| - mode | string | Returns Mode type. Available on after API version 1.15 Values: what is gotten via /system/getFeatures |
| - low | integer | Returns Low status Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| - mid | integer | Returns Mid status Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| - high | integer | Returns High status Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| balance | integer | Returns Speaker L/R Balance status. Negative values are for left side, positive values are for right side balance Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| dialogue_level | integer | Returns Dialogue Level status Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |
| dialogue_lift | integer | Returns Dialogue Lift status Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| clear_voice | boolean | Returns Clear Voice status |
| subwoofer_volume | integer | Returns Subwoofer Volume status Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures |
| bass_extension | boolean | Returns Bass Extension status |
| link_control | string | Returns Link Control setup status Values: what is gotten via /system/getFeatures |
| link_audio_delay | string | Returns Audio Delay setup status Values: what is gotten via /system/getFeatures |
| link_audio_quality | string | Returns audio quality setting of distribution Values: what is gotten via /system/getFeatures |
| disable_flags | integer | Returns flags of functions that are not operable/available currently. Disable status is expressed as OR of bit field shown below, i.e. functions that listed in zone - func_list of /system/getFeatures, and also that have no flags of below are only valid/available/operable b[0] Volume b[1] Mute b[2] Link Audio Delay |
| contents_display | boolean | Returns display setting of screen Not displayed if contents_display does not exist in the zone - func_list of /system/getFeatures. |
| actual_volume | object | Returns the display volume setting. Not displayed when there is no volume. |

| | | |
|--------------|----------------|---|
| - mode | string | Returns current Actual Volume Mode. Values: actual_volume_mode_list gotten via /system/getFeatures |
| - value | floating point | Returns display volume value |
| - unit | string | Returns display volume unit. If there is no unit, returns an empty string |
| audio_select | string | Returns current Audio Select. Values: audio_select_list gotten via /system/getFeatures |
| party_enable | boolean | Returns party status of zone |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "power":"on", "sleep":0, "volume":30, "mute":false, "max_volume":100, "input":"pandora", "input_text":"Pandora", "distribution_enable":true, "sound_program":"chamber", "surr_decoder_type":"auto", "pure_direct":false, "enhancer":true, "tone_control":{ "bass":0, "treble":2 }, "dialogue_level":0, "dialogue_lift":1, "disable_flags":0, "contents_display":true, "actual_volume":{ "mode":"db", "value":-23.5, "unit":"dB" }, "audio_select":"auto", "party_enable":false }</pre> |
|------------------|--|

5.2. getSoundProgramList

For retrieving a list of Sound Program available in each Zone. It is possible for the list contents to be dynamically changed

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/<zone>/getSoundProgramList | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/getSoundProgramList | | |

Response Parameters

| name | type | description |
|--------------------|--------------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| sound_program_list | string array | Returns a list of selectable sound program |

| | | |
|------------------|---|--|
| Example Response | <pre>{ "response_code":0, "sound_program_list":["munich", "vienna", ... "straight"] }</pre> | |
|------------------|---|--|

5.3. setPower

For setting power status of each Zone

Request Parameters

| name | type | required | description |
|-------|--------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| power | string | yes | Specifies power status Values: "on" / "standby" / "toggle" |

| | | | |
|-----------------|--|--|--|
| URI | <BaseURL>/v1/<zone>/setPower?power=<power> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/zone3/setPower?power=on | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|------------------------------------|--|
| Example Response | <pre>{ "response_code":0 }</pre> | |
|------------------|------------------------------------|--|

5.4. setSleep

For setting Sleep Timer for each Zone

With Zone B enabled Devices, target Zone is described as Master Power, but Main Zone is used to set it up via YXC

Request Parameters

| name | type | required | description |
|-------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| sleep | integer | yes | Specifies Sleep Time (unit in minutes) Values: 0 / 30 / 60 / 90 / 120 |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setSleep?sleep=<sleep> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setSleep?sleep=120 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.5. setVolume

For setting volume in each Zone. Values of specifying range and steps are different. There are some Devices that cannot allow this value to be go up to Device's maximum volume.

Request Parameters

| name | type | required | description |
|--------|---------|----------|--|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| volume | integer | yes | Specifies volume value Value Range: calculated by minimum/maximum/step values gotten via /system/getFeatures (Available on and after API Version 1.17) "up" / "down" |
| step | integer | no | Specifies volume step value if the volume is "up" or "down". If nothing specified, minimum step value is used implicitly. (Available on and after API Version 1.17) Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setVolume?volume=<volume>&step=<step> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setVolume?volume=50 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.6. setMute

For setting mute status in each Zone

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifying mute status |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setMute?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setMute?enable=false |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.7. setInput

For selecting each Zone input

Request Parameters

| name | type | required | description |
|-------|--------|----------|--|
| zone | string | yes | Specifies target zone Values: "main" / "zone2" / "zone3" / "zone4" |
| input | string | yes | Specifies Input ID Values: Input IDs gotten via /system/getFeatures |
| mode | string | no | Specifies select mode. If no parameter is specified, actions of input change depend on a Device's specification Value: "autoplay_disabled" (Restricts Auto Play of Net/USB related Inputs). Available on and after API Version 1.12 |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setInput?input=<input>&mode=<mode> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setInput?input=airplay&mode=autoplay_disabled |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.8. setSoundProgram

For selecting Sound Programs

Request Parameters

| name | type | required | description |
|---------|--------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| program | string | yes | Specifies Sound Program ID Values: Sound Program IDs gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setSoundProgram?program=<program> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setSoundProgram?program=vienna |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.9. set3dSurround

For setting 3D Surround status

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifies 3D Surround status |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/set3dSurround?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/set3dSurround?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.10. setDirect

For setting Direct status

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifies Direct status |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setDirect?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setDirect?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.11. setPureDirect

For setting Pure Direct status

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifies Pure Direct status |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setPureDirect?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setPureDirect?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.12. setEnhancer

For setting Enhancer status

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifies Enhancer status |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setEnhancer?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setEnhancer?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.13. setToneControl

For setting Tone Control in each Zone. Values of specifying range and steps are different.

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| mode | string | no | Specifies Mode setting. If no parameter is specified, current Mode setting is not changed. |

| | | | |
|--------|---------|----|--|
| | | | Regardless of the Mode setting, bass/treble setting can be changed, but valid only when Mode setting is "manual". Values: Values gotten via /system/getFeatures |
| bass | integer | no | Specifies Bass value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |
| treble | integer | no | Specifies Treble value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setToneControl?mode=<mode>&bass=<base>&treble=<treble> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setToneControl?mode=manual&bass=5&treble=-2 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.14. setEqualizer

For setting Equalizer in each Zone. Values of specifying range and steps are different.

Request Parameters

| name | type | required | description |
|------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| mode | string | no | Specifies Mode setting. If no parameter is specified, current Mode setting is not changed. Regardless of the Mode setting, low/mid/high setting can be changed, but valid only when Mode setting is "manual". Values: Values gotten via /system/getFeatures |
| low | integer | no | Specifies Low value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |
| mid | integer | no | Specifies Mid value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |
| high | integer | no | Specifies High value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setEqualizer?mode=<mode>&low=<low>&mid=<mid>&high=<high> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setEqualizer?mode=manual&low=3&mid=-2&high=5 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.15. setBalance

For setting L/R Balance in each Zone's speaker. Values of specifying range and steps are different.

Request Parameters

| name | type | required | description |
|-------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| value | integer | yes | Specifies L/R Balance value. Negative values are for left side, positive values are for right side balance. Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setBalance?value=<value> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setBalance?value=5 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.16. setDialogueLevel

For setting Dialogue Level in each Zone. Values of specifying range and steps are different.

Request Parameters

| name | type | required | description |
|-------|---------|----------|--|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| value | integer | yes | Specifies Dialogue Level value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setDialogueLevel?value=<value> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setDialogueLevel?value=2 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.17. setDialogueLift

For setting Dialogue Lift in each Zone. Values of specifying range and steps are different.

Request Parameters

| name | type | required | description |
|-------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| value | integer | yes | Specifies Dialogue Lift value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setDialogueLift?value=<value> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setDialogueLift?value=3 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.18. setClearVoice

For setting Clear Voice in each Zone.

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifies Clear Voice setting |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setClearVoice?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setClearVoice?enable=false |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.19. setSubwooferVolume

For setting Subwoofer Volume in each Zone.

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| volume | integer | yes | Specifies volume value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setSubwooferVolume?volume=<volume> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setSubwooferVolume?volume=3 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.20. setBassExtension

For setting Bass Extension in each Zone.

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target zone. Available for zones with this function Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifies Bass Extension setting |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setBassExtension?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setBassExtension?enable=false |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.21. getSignalInfo

For retrieving current playback signal information in each Zone

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/getSignalInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/getSignalInfo |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| audio | object | Returns Audio related information |
| - error | integer | Returns error information Values: 0: No Error |

| | | |
|----------|--------|---|
| | | 1: Unknown Error 2: Check Cable (USB DAC) 3: Check PC (USB DAC) 4: Disconnected (USB DAC) 5: Check Signal : Over Fs 384kHz (USB DAC) |
| - format | string | Returns audio format. Returns "" (empty text) in inputs unsupported to retrieve audio format. Values: "" / "---" (Unknown) / "Analog" / "Digital" / "PCM" / "MPCM" / "WAV" / "FLAC" / "MP3" / "WMA" / "AAC" / "ALAC" / "AIFF" / "DSD" / "Vorbis" / "SBC" |
| - fs | string | Returns Fs. Returns "" (empty text) in inputs unsupported to retrieve Fs. Values: "" / "---" (Unknown) / "Analog" / "8 kHz" / "11.025 kHz" / "12 kHz" / "16 kHz" / "22.05 kHz" / "24 kHz" / "32 kHz" / "44.1 kHz" / "48 kHz" / "64 kHz" / "88.2 kHz" / "96 kHz" / "128 kHz" / "176.4 kHz" / "192 kHz" / "352.8 kHz" / "384 kHz" / "2.8 MHz" / "5.6 MHz" / "11.2 MHz" |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "audio":{ "error":0, "format":"FLAC", "fs":"192 kHz" } }</pre> |
|------------------|--|

5.22. prepareInputChange

Let a Device do necessary process before changing input in a specific zone. This is valid only when “prepare_input_change” exists in “func_list” found in /system/getFuncStatus.

MusicCast CONTROLLER executes this API when an input icon is selected in a Room, right before sending various APIs (of retrieving list information etc.) regarding selecting input

Request Parameters

| name | type | required | description |
|-------|--------|----------|--|
| zone | string | yes | Specifies target zone Values: "main" / "zone2" / "zone3" / "zone4" |
| input | string | yes | Specifies Input ID Values: Input IDs gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/prepareInputChange?input=<input> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/prepareInputChange?input=usb |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.23. recallScene

Scene selection from the scene number.

It is valid only when "scene" exists in zone – func_list of /system/getFeatures.

Request Parameters

| name | type | required | description |
|------|---------|----------|---|
| zone | string | yes | Specifies target zone Values: "main" / "zone2" / "zone3" / "zone4" |
| num | integer | yes | Specifies scene number Values: Scene number gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/recallScene?num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/recallScene?num=1 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|------------------------------|
| Example Response | { "response_code":0, } |
|------------------|------------------------------|

5.24. setContentsDisplay

Set the screen display of each Zone's screen.

It is valid only when "contents_display" exists in zone – func_list of /system/getFeatures.

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |
| enable | boolean | yes | Specifies display status of screen Values: true (enable) , false (disable) |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/setContentsDisplay?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setContentsDisplay?enable=false |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.25. controlCursor

Operate the cursor keys on the remote control.

It is valid only when " cursor " exists in zone – func_list of /system/getFeatures.

Request Parameters

| name | type | required | description |
|--------|--------|----------|--|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |
| cursor | string | yes | Specifies key to be executed Values: Cursor_list gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/controlCursor?cursor=<cursor> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/controlCursor?cursor=up |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|------------------------------|
| Example Response | { "response_code":0, } |
|------------------|------------------------------|

5.26. controlMenu

Operate the menu keys on the remote control.

It is valid only when " menu " exists in zone – func_list of /system/getFeatures.

Request Parameters

| name | type | required | description |
|------|--------|----------|--|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |
| menu | string | yes | Specifies key to be executed Values: Menu_list gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/<zone>/controlMenu?menu=<menu> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/controlMenu?menu=top_menu |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|------------------------------|
| Example Response | { "response_code":0, } |
|------------------|------------------------------|

5.27. setActualVolume

Set the volume of each Zone with the value to display.

It is valid only when " actual_volume " exists in zone – func_list of /system/getFeatures.

Request Parameters

| name | type | required | Description |
|-------|----------------|----------|---|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |
| mode | string | yes | Specifies mode Values: Actual_volume_mode_list gotten via /system/getFeatures |
| value | floating point | no | Specifies volume Values: Calculated from minimum value, maximum value, step value of volume gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setActualVolume?mode=<mode>&value=<value> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setActualVolume?mode=db&volume=-23.5 |

Response Parameters

| name | type | Description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.28. setAudioSelect

Set the audio input selection.

It is valid only when " audio_select " exists in zone – func_list of /system/getFeatures.

In the value of audio_select_list obtained by /system/getFeatures, it is possible to specify something other than unavailable. If current audio_select (gotten with getStatus) is unavailable, it can not be set.

Request Parameters

| name | type | required | Description |
|------|--------|----------|---|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |
| type | string | yes | Specifies Audio Select Values: Audio_decoder_list gotten via /system/getFeatures (other than unavailable) |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setAudioSelect?type=<type> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setAudioSelect?type=auto |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

5.29. setSurroundDecoderType

Set the Sound Program : Decoder Type to be used with Surround Decoder.

It is valid only when "surr_decoder_type" exists in zone – func_list of /system/getFeatures.

Request Parameters

| name | type | required | Description |
|------|--------|----------|--|
| zone | string | yes | Specifies target Zone Values: "main" / "zone2" / "zone3" / "zone4" |
| type | string | yes | Specifies Surround Decoder Type Values: surr_decoder_type_list gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/<zone>/setAudioSelect?type=<type> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/main/setSurroundDecoderType?type=auto |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6. Tuner

APIs in regard to Tuner setting and getting information

Target inputs: AM / FM / DAB

6.1. getPresetInfo

For retrieving Tuner preset information

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| band | string | yes | Specifying a band. Values depend on Preset Type gotten via /system/getFeatures Values: "common" (common), "am" / "fm" / "dab" (separate) |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/getPresetInfo?band=<band> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/getPresetInfo?band=fm |

Response Parameters

| name | type | description |
|---------------|--------------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| preset_info | array | Returns preset information. A number of array elements is to be retrieved via /system/getFeature |
| - band | string | Returns band information. "unknown" when no presets Values: "am" / "fm" / "dab" / "unknown" |
| - number | integer | Returns; frequency (unit in kHz) (band = AM or FM) Station ID (band = DAB) 0 when there's no presets |
| - hd_program | integer | Reserved |
| - text | string | Returns text information of FM(RDS) or DAB |
| func_list | string array | Returns a list of valid functions for Preset. (Recall/Store functions are always valid without specifically listed here) Values: "clear" / "move" |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "preset_info":[{ "band":"am", "number":530 "hd_program":0 "text":"" }], }</pre> |
|------------------|---|

| | |
|--|---|
| | <pre> { "band": "fm", "number": 87500, "hd_program": 0 "text": "BBC1" }, ... { "band": "unknown", "number": 0, "hd_program": 0 }], "func_list": ["clear", "move"] } </pre> |
|--|---|

6.2. getPlayInfo

For retrieving playback information of Tuner

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/getPlayInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/getPlayInfo |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |
| band | string | Returns current Band Values: "am" / "fm" / "dab" |
| auto_scan | boolean | Returns Auto Scan (Up or Down) status |
| auto_preset | boolean | Returns Auto Preset execution status |
| am | object | Returns AM related information |
| - preset | integer | Returns current preset number. 0 when there's no presets Values: 0 (no presets), or one in the range gotten via /system/getFeatures |
| - freq | integer | Returns frequency (unit in kHz) |
| - tuned | boolean | Returns Tuned status |
| fm | object | Returns FM related information |
| - preset | integer | Returns current preset number. 0 when there's no presets Values: 0 (no presets), or one in the range gotten via /system/getFeatures |
| - freq | integer | Returns frequency (unit in kHz). |
| - tuned | boolean | Returns Tuned status |
| - audio_mode | string | Returns Audio Mode Values: "mono" / "stereo" |
| rds | object | Returns RDS information. Available only when RDS is valid |

| | | |
|-------------------------|---------|--|
| - program_type | string | Returns Program Type |
| - program_service | string | Returns Program Service |
| - radio_text_a | string | Returns Radio Text A |
| - radio_text_b | string | Returns Radio Text B |
| dab | object | Returns DAB related information. Available only when DAB is valid |
| - preset | integer | Returns current preset number. 0 when current station is not in presets Values: 0 (no presets), or one in the range gotten via /system/getFeatures |
| - id | integer | Returns Station ID |
| - status | string | Returns DAB status. When it's in Tune Aid, valid parameters are "tune_aid" and "CH Label" only Values: "not_ready" / "initial_scan" / "tune_aid" / "ready" |
| - freq | integer | Returns DAB frequency (unit in kHz) Value Range: 174000 - 240000 |
| - category | string | Returns Category Values: "primary" / "secondary" |
| - audio_mode | string | Returns Audio Mode Values: "mono" / "stereo" |
| - bit_rate | integer | Returns audio bitrate (unit in kbps) Value Range: 32 ~ 256 |
| - quality | integer | Returns signal quality level Value Range: 0 - 100 |
| - tune_aid | integer | Returns signal strength level Value Range: 0 - 100 |
| - off_air | boolean | Returns Off Air status |
| - dab_plus | boolean | Returns DAB+ status |
| - program_type | string | Returns Program Type |
| - ch_label | string | Returns CH Label |
| - service_label | string | Returns Service Label |
| - dls | string | Returns DLS |
| - ensemble_label | string | Returns Ensemble Label |
| - initial_scan_progress | integer | Returns Initial Scan progress status. Available only when "dab_initial_scan" exists in tuner - func_list under /system/getFeatures Value Range: 0 - 100 |
| - total_station_num | integer | Returns station numbers detected by Initial Scan. Available only when "dab_initial_scan" exists in tuner - func_list under /system/getFeatures 0 if Initial Scan hasn't executed or nothing found Value Range: 0 - 255 |
| hd_radio | object | Reserved |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "band":"fm", "auto_scan":false, "am":{ "preset":8, "freq":531, "tuned":true }, }</pre> |
|------------------|--|

```

"fm":{
  "preset":0,
  "freq":87500,
  "tuned":true
},
"rds":{
  "program_type":"Affairs",
  "program_service":"RDS PS",
  "radio_text_a":"RDS Radio Text A",
  "radio_text_b":"RDS Radio Text B"
},
"dab":{
  "preset":10,
  "id":10000,
  "status":"ready",
  "freq":22564,
  "category":"primary",
  "audio_mode":"stereo",
  "bit_rate":128,
  "quality":90,
  "tune_aid":80,
  "off_air":false,
  "dab_plus":false,
  "program_type":"Pop Music",
  "ch_label":"12D",
  "service_label":"BBC Radio 1",
  "dls":"The Chart Game: www.bbc.co.uk/radio2",
  "ensemble_label":"BBC Network DAB"
},
"hd_radio":{
  "program":1,
  "program_list":[
    1,
    2,
    3
  ],
  "station":"WXYZ-FM",
  "category":"Top 40",
  "title":"Beat It",
  "artist":"Michael Jackson",
  "album":"Thriller"
}
}

```

6.3. setBand

For setting Tuner Band

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| band | string | yes | Specifies Band Values: "am" / "fm" / "dab" |

| | | | |
|-----------------|--|--|--|
| URI | <BaseURL>/v1/tuner/setBand?band=<band> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/setBand?band=fm | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|-----------------------------|--|
| Example Response | { "response_code":0 } | |
|------------------|-----------------------------|--|

6.4. setFreq

For setting Tuner frequency

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| band | string | yes | Specifies Band Values : "am" / "fm" |
| tuning | string | yes | Specifies a tuning method. Use "tp_up" and "tp_down" only when Band is RDS Values: "up" / "down" / "cancel" / "auto_up" / "auto_down" / "tp_up" / "tp_down" / "direct" |
| num | integer | no | Specifies frequency (unit in kHz). Valid only when tuning is "direct" |

| | | | |
|-----------------|--|--|--|
| URI | <BaseURL>/v1/tuner/setFreq?band=<band>&tuning=<tuning>&num=<num> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/setFreq?band=fm&tuning=direct&num=87500 | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|-----------------------------|--|
| Example Response | { "response_code":0 } | |
|------------------|-----------------------------|--|

6.5. recallPreset

For recalling a Tuner preset

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| zone | string | yes | Specifies station recalling zone. This causes input change in specified zone Values: "main" / "zone2" / "zone3" / "zone4" |
| band | string | yes | Specifies Band type. Depending on Preset Type gotten via /system/getFeatures, specifying value is different Values: "common" (band common) / "am" / "fm" / "dab" (separate) |
| num | integer | yes | Specifies Preset number Value: one in the range gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/recallPreset?zone=<zone>&band=<band>&num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/recallPreset?zone=main&band=fm&num=13 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.6. switchPreset

For selecting Tuner preset.

Call this API after change the target zone's input to Tuner. It is possible to change Band in case of preset type is "common". In case of preset type is "separate", need to change the target Band before calling this API.

This API is available on and after API Version 1.17.

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| dir | string | yes | Specifies change direction of preset Values: "next" / "previous" |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/switchPreset?dir=<dir> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/switchPreset?dir=next |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.7. storePreset

For registering current station to a preset

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| num | integer | yes | Specifying a preset number Value: one in the range gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/tuner/storePreset?num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/storePreset?num=10 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.8. clearPreset

For clearing Tuner preset.

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| band | string | yes | Specifies Band. Values depend on Preset Type gotten via /system/getFeatures Values: "common" (common), "am" / "fm" / "dab" (separate) |
| num | integer | yes | Specifies Preset number Values: one in the range gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/tuner/clearPreset?band=<band>&num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/clearPreset?band=fm&num=10 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.9. startAutoPreset

For starting Auto Preset. Available only when "fm_auto_preset" exists in tuner - func_list under /system/getFeatures.

Request Parameters

| name | type | required | description |
|------|--------|----------|---------------------------------|
| band | string | yes | Specifies Band. Value : "fm" |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/startAutoPreset?band=<band> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/startAutoPreset?band=fm |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.10. cancelAutoPreset

For canceling Auto Preset. Available only when "fm_auto_preset" exists in tuner - func_list under /system/getFeatures.

Request Parameters

| name | type | required | description |
|------|--------|----------|---------------------------------|
| band | string | yes | Specifies Band. Value : "fm" |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/tuner/cancelAutoPreset?band=<band> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/cancelAutoPreset?band=fm |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.11. movePreset

For moving preset.

For example, if execute movePreset?from=4&to=2 for list {[A], [B], [C], [D], [E] ...}, list is arranged as {[A], [D], [B], [C], [E] ...}.

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| band | string | yes | Specifies Band. Values depend on Preset Type gotten via /system/getFeatures Values: "common" (common), "am" / "fm" / "dab" (separate) |
| from | integer | yes | Specifies source preset number Values: one in the range gotten via /system/getFeatures |
| to | integer | yes | Specifies destination preset number Values: one in the range gotten via /system/getFeatures |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/movePreset?band=<band>&from=<from>&to=<to> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/movePreset?band=am&from=10&to=3 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.12. startDabInitialScan

For starting DAB Initial Scan. Available only when "dab_initial_scan" exists in tuner - func_list under /system/getFeatures.

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/startDabInitialScan |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/startDabInitialScan |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.13. cancelDabInitialScan

For canceling DAB Initial Scan. Available only when "dab_initial_scan" exists in tuner - func_list under /system/getFeatures.

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/tuner/cancelDabInitialScan |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/cancelDabInitialScan |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.14. setDabTuneAid

For executing DAB Tune Aid. Available only when "dab_tune_aid" exists in tuner - func_list under /system/getFeatures.

Request Parameters

| name | type | required | description |
|--------|--------|----------|--|
| action | string | yes | Specifies action of Tune Aid. "stop" / "up" / "down" are available only when executing Tuner Aid. Values : "start" / "stop" / "up" / "down" |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/tuner/setDabTuneAid?action=<action> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/setDabTuneAid?action=up |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

6.15. setDabService

For selecting DAB Service. Available only when DAB is valid to use

Request Parameters

| name | type | required | description |
|------|--------|----------|---|
| dir | string | yes | Specifies change direction of services Values: "next" / "previous" |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/tuner/setDabService?dir=<dir> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/tuner/setDabService?dir=next |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7. Network/USB

APIs in regard to Network/USB related setting and getting information

Target Inputs: USB / Network related ones (Server / Net Radio / Pandora / Spotify / AirPlay etc.)

7.1. getPresetInfo

For retrieving preset information. Presets are common use among Net/USB related input sources

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/getPresetInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getPresetInfo |

Response Parameters

| name | type | description |
|---------------|--------------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| preset_info | array | Returns preset info. Element number of an array can be gotten via system/getFeatures |
| - input | string | Returns Input ID. Returns "unknown" if no presets available |
| - text | string | Returns text info. Returns "" (empty text) if no presets available |
| - attribute | integer | Reserved |
| func_list | string array | Returns a list of valid functions for Preset. (Recall/Store functions are always valid without specifically listed here) Values: "clear" / "move" |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "preset_info":[{ "input":"net_radio", "text":"CBC Radio Jazz" "attribute":0 }, { "input":"pandora", "text":"Queen Radio" "attribute":0 }, ... { "input":"unknown", "text":"" "attribute":0 }] }</pre> |
|------------------|---|

| | |
|--|---|
| | <pre>], "func_list":["clear", "move"] } </pre> |
|--|---|

7.2. getPlayInfo

For retrieving playback information

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/getPlayInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getPlayInfo |

Response Parameters

| name | type | description |
|-------------------|--------------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |
| input | string | Returns current Net/USB related Input ID Refer to "All ID List" for details |
| play_queue_type | string | Reserved |
| playback | string | Returns playback status Values: "play" / "stop" / "pause" / "fast_reverse" / "fast_forward" |
| repeat | string | Returns repeat setting status Value: "off" / "one" / "all" |
| shuffle | string | Returns shuffle setting status Values: "off" / "on" / "songs" / "albums" |
| repeat_available | string array | Returns current settable repeat setting (Available on after API version 1.19) Values: "off" / "one" / "all" |
| shuffle_available | string array | Returns current settable shuffle setting (Available on after API version 1.19) Values: "off" / "on" / "songs" / "albums" |
| play_time | integer | Returns current playback time (unit in second). Returns -60000 if playback time is invalid Value Range: -60000 (invalid) / -59999 ~ 59999 (valid) |
| total_time | integer | Returns total playback time (unit in second). Returns 0 if total time is not available or invalid Value Range: 0 ~ 59999 |
| artist | string | Returns artist name. Returns station name if the input is Net Radio / Pandora / radiko. Returns station name/artist name if the input is Napster (Radio). If Net Radio is airable.radio, "(location / language)" will be appended to the station name. Returns ad name if Pandora playbacks ad contents. If input is MC Link, returns master's internal content info or Room |

| | | |
|----------------|---------|---|
| | | <p>Name if the master input is one of external sources</p> <p>Text information may be left in artist / album / track while playback is stopped. At this time, you can expect playback to start by sending a Play request, but another song different from the displayed song such as when playing the station may be played. Please also note that there is no guarantee that playback will resume certainly depending on the situation.</p> |
| album | string | <p>Returns album name.</p> <p>Returns channel name if the input is SiriusXM.</p> <p>Returns subtitle name if the input is radiko.</p> <p>Returns company name if Pandora playbacks an ad.</p> <p>If input is MC Link, returns master's internal content info or Input Name if the master input is one of external sources</p> |
| track | string | <p>Returns track name.</p> <p>Returns song name if the input is Napster / SiriusXM / Pandora.</p> <p>Returns title name if the input is radiko.</p> <p>If input is MC Link, returns master's internal content info or empty text if the master input is one of external sources</p> |
| albumart_url | string | <p>Returns a URL to retrieve album art data. Data is in jpg/png/bmp/ymf format. The path is given as relative address. If "xxx/yyy/zzz.jpg" is returned, the absolute path is expressed as http://{host}/xxx/yyy/zzz.jpg</p> <p>Note: ymf is original format encrypted by Yamaha AV encryption method.</p> |
| albumart_id | integer | <p>Returns ID to identify album art. If ID got changed, retry to get album art data via albumart_url</p> <p>Value Range: 0 ~ 9999</p> |
| usb_devicetype | string | <p>Returns USB device type. Returns "unknown" if no USB is connected</p> <p>Values: "msc" / "ipod" / "unknown"</p> |
| auto_stopped | boolean | <p>Returns whether or not auto top has initiated. If it is true, display appropriate messages to the external application user interface depending on which input current one is. This flag is cleared (set back to false) with these conditions as follows;</p> <ul style="list-style-type: none"> - Playback is initiated properly - /netusb/setPlayback is executed - type = play found in /netusb/setListControl is executed <p>Target Input : Pandora / SiriusXM</p> <p>A MusicCast Device that detects non-operation time (by key operation on the Device or by remote control) will always return false flag in this data</p> |
| attribute | integer | <p>Returns playback attribute info. Attributes are expressed as OR of bit field as shown below;</p> <p>b[0] Playable</p> <p>b[1] Capable of Stop</p> <p>b[2] Capable of Pause</p> |

| | | |
|--|--|--|
| | | <p> b[3] Capable of Prev Skip b[4] Capable of Next Skip b[5] Capable of Fast Reverse b[6] Capable of Fast Forward b[7] Capable of Repeat b[8] Capable of Shuffle b[9] Feedback Available (Pandora) b[10] Thumbs-Up (Pandora) b[11] Thumbs-Down (Pandora) b[12] Video (USB) b[13] Capable of Bookmark/Favorite (Net Radio / TIDAL / Deezer) b[14] DMR Playback (Server) b[15] Station Playback (Napster) b[16] AD Playback (Pandora) b[17] Shared Station (Pandora) b[18] Capable of Add Track (Napster/Pandora/JUKE/Qobuz) b[19] Capable of Add Album (Napster / JUKE) b[20] Shuffle Station (Pandora) b[21] Capable of Add Channel (Pandora) b[22] Sample Playback (JUKE) b[23] MusicPlay Playback (Server) b[24] Capable of Link Distribution b[25] Capable of Add Playlist (Qobuz) b[26] Capable of add MusicCast Playlist b[27] Capable of Add to Playlist (TIDAL / Deezer) </p> <p> With Pandora, b[9] = 1 validates "thumbs_up" / "thumbs_down" / "mark_tired" of managePlay and "why_this_song" of getPlayDescription. b[21] = 1 validates "add_channel_track" / "add_channel_artist" </p> |
|--|--|--|

| | |
|------------------|---|
| Example Response | <pre> { "response_code":0, "input":"usb", "playback":"stop", "repeat":"off", "shuffle":"on", "repeat_available ":["off", "one"], "shuffle_available":["off", "on"], "play_time":200, "total_time":314, "artist":"尾崎豊", "album":"壊れた扉から", </pre> |
|------------------|---|

| | |
|--|--|
| | <pre> "track":"Forget-me-not", "albumart_url":"/YamahaRemoteControl/AlbumART/AlbumART.jpg", "albumart_id":18, "usb_devicetype":"msc", "attribute":511 } </pre> |
|--|--|

7.3. setPlayback

For controlling playback status

Request Parameters

| name | type | required | description |
|----------|--------|----------|---|
| playback | string | yes | Specifies playback status Values: "play" / "stop" / "pause" / "play_pause" / "previous" / "next" / "fast_reverse_start" / "fast_reverse_end" / "fast_forward_start" / "fast_forward_end" |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/setPlayback?playback=<playback> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/setPlayback?playback=stop |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|--------------------------------------|
| Example Response | <pre> { "response_code":0 } </pre> |
|------------------|--------------------------------------|

7.4. setPlayPosition

For setting track play position. This API is available only when input is Server.

Request Parameters

| name | type | required | description |
|----------|---------|----------|---|
| position | integer | yes | Specifies play position (sec) Value : no fewer than total_time gotten via getPlayInfo, nor more than 0 |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/netusb/setPlayPosition?position=<position> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/setPlayPosition?position=123 |

Response Parameters

| name | type | description |
|---------------|---------|---------------------------------------|
| response_code | integer | 0: Successful request / Others: Error |

| | |
|------------------|---|
| | Refer to " Response Code List " for details |
| Example Response | <pre>{ "response_code":0 }</pre> |

7.5. setRepeat

For setting repeat. Available on after API version 1.19.

Request Parameters

| name | Type | required | description |
|------|--------|----------|---|
| mode | string | yes | Specifies the repeat setting Value : "off" / "one" / "all" |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/netusb/setRepeat?mode=<mode> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/setRepeat?mode=off |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

7.6. setShuffle

For setting shuffle. Available on after API version 1.19.

Request Parameters

| name | type | required | description |
|------|--------|----------|--|
| mode | string | yes | Specifies the shuffle setting Value : "off" / "on" / "songs" / "albums" |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/setShuffle?mode=<mode> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/setShuffle?mode=off |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

| | |
|--|---|
| | } |
|--|---|

7.7. toggleRepeat

For toggling repeat setting. No direct / discrete setting commands available

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/netusb/toggleRepeat |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/toggleRepeat |

Response Parameters

| name | type | Description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.8. toggleShuffle

For toggling shuffle setting. No direct / discrete setting commands available

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/toggleShuffle |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/toggleShuffle |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.9. getListInfo

For retrieving list information. Basically this info is available to all relevant inputs, not limited to or independent from current input

Request Parameters

| name | type | required | description |
|---------|--------|----------|--|
| list_id | string | no | Specifies list ID. If nothing specified, "main" is chosen implicitly Values: "main" (common for all Net/USB sources) "auto_complete" (Pandora) |

| | | | |
|--------------|---------|-----|---|
| | | | "search_artist" (Pandora) "search_track" (Pandora) |
| input | string | yes | Specifies target Input ID. Controls for setListControl are to work with the input specified here Values: Input IDs for Net/USB related sources |
| index | integer | no | Specifies the reference index (offset from the beginning of the list). Note that this index must be in multiple of 8. If nothing was specified, the reference index previously specified would be used Values: 0, 8, 16, 24, ..., 64984, 64992 |
| target_index | integer | no | Reserved |
| size | integer | yes | Specifies max list size retrieved at a time Value Range: 1 - 8 |
| lang | string | no | Specifies list language. But menu names or text info are not always necessarily pulled in a language specified here. If nothing specified, English ("en") is used implicitly Values: "en" (English)/ "ja" (Japanese)/ "fr" (French)/ "de" (German)/ "es" (Spanish)/ "ru" (Russian)/ "it" (Italy)/ "zh" (Chinese) |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/getListInfo?input=<input>&index=<index>&size=<size>&lang=<lang> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getListInfo?input=usb&index=32&size=8&lang=en |

Response Parameters

| name | type | description |
|---------------|---------|---|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details If codes shown below is returned, display appropriate messages to the external application user interface depending on which input current one is. List info is initialized once an error happens. 100 : Access Error (common for all Net/USB sources) 112 : Access Denied (Server) |
| input | string | Specifies target Input ID. (Available on and after API Version 1.17) |
| menu_layer | integer | Returns menu layer Value Range: 0 - 15 |
| max_line | integer | Returns max row number of the list Value Range: 0 - 65000 |
| index | integer | Returns the reference index of the list |
| playing_index | integer | Returns the index number in a list that is currently in playback. If no list element has playback status, or playback status wasn't found, returns -1 |
| menu_name | string | Returns menu name |
| list_info | array | Returns list info with the row number size specified by Request Parameter. Returns empty data if index or size wasn't specified. If the max row number is reached in the middle of this list info, the list ends at the max row. |
| - text | string | Returns text info to display |

| | | |
|--------------|--------------|--|
| - subtexts | string array | Returns sub text info. Returns in order of priority to display. |
| - thumbnail | string | Return a URL to retrieve thumbnail data. Returns "" (empty text) if no thumbnail is available |
| - attribute | integer | <p>Returns attribute info of list elements. Attributes are expressed as OR of bit field as shown below;</p> <p>b[0] Name exceeds max byte limit (common for all Net/USB sources)</p> <p>b[1] Capable of Select (common for all Net/USB sources)</p> <p>b[2] Capable of Play (common for all Net/USB sources)</p> <p>b[3] Capable of Search (Napster / JUKE)</p> <p>b[4] Album Art available (common for all Net/USB sources)</p> <p>b[5] Now Playing (Pandora)</p> <p>b[6] Capable of Add Bookmark/Favorite (Net Radio / TIDAL / Deezer)</p> <p>b[7] Capable of Add Track (Napster / JUKE / Qobuz)</p> <p>b[8] Capable of Add Album (Napster / JUKE / Qobuz)</p> <p>b[9] Capable of Add Channel (Napster / Pandora)</p> <p>b[10] Capable of Remove Bookmark/Favorite (Net Radio / TIDAL / Deezer)</p> <p>b[11] Capable of Remove Track (Napster / JUKE / Qobuz)</p> <p>b[12] Capable of Remove Album (Napster / JUKE / Qobuz)</p> <p>b[13] Capable of Remove Channel (Napster / Pandora)</p> <p>b[14] Capable of Remove Playlist (Napster / Qobuz)</p> <p>b[15] Playlist (JUKE / Qobuz)</p> <p>b[16] Radio (JUKE)</p> <p>b[17] Shuffle (Pandora)</p> <p>b[18] Shared Station (Pandora)</p> <p>b[19] Premium Item (radiko)</p> <p>b[20] Capable of Add Artist (Qobuz)</p> <p>b[21] Capable of Remove Artist (Qobuz)</p> <p>b[22] Capable of Add Playlist (Qobuz)</p> <p>b[23] Capable of Play Now</p> <p>b[24] Capable of Play Next</p> <p>b[25] Capable of Add Play Queue</p> <p>b[26] Capable of Add MusicCast Playlist</p> <p>b[27] Capable of Add to Playlist (TIDAL / Deezer)</p> <p>b[28] Capable of Remove from Playlist (TIDAL / Deezer)</p> <p>Regarding an element with its attributes of b[1] and b[2] both set as 1, it is valid to do both layer movement/shift and start playback by setListControl. If an element got neither b[1] = 0 nor b[2] = 0, it is unavailable content so apply appropriate UI reaction like making it gray-out etc.</p> |
| - appearance | string array | <p>Returns information related to appearance of list element. It is possible for a list element to be set multiple values.</p> <p>Value:</p> <p>"section" (TIDAL / Deezer)</p> <p>"show_more" (TIDAL / Deezer)</p> |

Example Response

{

```

"response_code":0,
"input":"usb",
"menu_layer":3,
"max_line":40,
"index":32,
"playing_index":-1,
"menu_name":"The Beatles",
"list_info":[
  {
    "text":"Please Please Me",
    "subtexts":[
      "The Beatles"
    ],
    "attribute":2,
    "appearance":[
    ]
  },
  ...
  {
    "text":"Let It Be",
    "subtexts":[
      "The Beatles"
    ],
    "attribute":20,
    "appearance":[
    ]
  }
]
}

```

7.10. setListControl

For control a list. Controllable list info is not limited to or independent from current input

Request Parameters

| name | type | required | description |
|---------|--------|----------|--|
| list_id | string | no | Specifies list ID. If nothing specified, "main" is chosen implicitly Values: "main" (common for all Net/USB sources) "auto_complete" (Pandora) "search_artist" (Pandora) "search_track" (Pandora) |
| type | string | yes | Specifies list transition type. "select" is to enter and get into one deeper layer than the current layer where the element specified by the index belongs to. "play" is to start playback current index element, "return" is to go back one upper layer than current. "select" and "play" needs to specify an index at the same time. |

| | | | |
|-------|---------|----|--|
| | | | In case to "select" an element with its attribute being "Capable of Search", specify search text using setSearchString in advance. (Or it is possible to specify search text and move layers at the same time by specifying an index in setSearchString) Values: "select" / "play" / "return" |
| index | integer | no | Specifies an element position in the list being selected (offset from the beginning of the list). This is mandatory to specify if the type is "select" or "play" Value Range: 0 - 64999 |
| zone | string | no | Specifies target zone to playback. In the specified zone, input change occurs at the same time of playback. This parameter is valid only when type "play" is specified. If nothing is specified, "main" is chosen implicitly 値 : "main" / "zone2" / "zone3" / "zone4" |

| | | | |
|-----------------|--|--|--|
| URI | <BaseURL>/v1/netusb/setListControl?list_id=<list_id>&type=<type>&index=<index>&zone=<zone> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/setListControl?list_id=main&type=play&index=50&zone=main | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.11. setSearchString

For setting search text. Specifies string executing this API before select an element with its attribute being "Capable of Search" or retrieve info about searching list(Pandora).

Request Parameters

| name | type | required | description |
|---------|---------|----------|--|
| list_id | string | no | Specifies list ID. If nothing specified, "main" is chosen implicitly Values : "main" (All) "auto_complete" (Pandora) "search_artist" (Pandora) "search_track" (Pandora) |
| string | string | yes | Setting search text |
| index | integer | no | Specifies an element position in the list being selected (offset from the beginning of the list). Valid only when the list_id is "main" Specifies index an element with its attribute being "Capable of Search" Controls same as setListControl "select" are to work with the index an element specified. If no index is specified, non-actions of select |

| | | |
|--|--|--------------------|
| | | Values : 0 ~ 64999 |
|--|--|--------------------|

| | |
|------------------------|---|
| URI | <BaseURL>/v1/netusb/setSearchString |
| Method | POST |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/netusb/setSearchString |
| Example Request (json) | { "list_id":"auto_complete", "string":"michael" } |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.12. recallPreset

For recalling a content preset

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| zone | string | yes | Specifies station recalling zone. This causes input change in specified zone Values: "main" / "zone2" / "zone3" / "zone4" |
| num | integer | yes | Specifies Preset number Value: one in the range gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/recallPreset?zone=<zone>&num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/recallPreset?zone=main&num=13 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.13. storePreset

For registering current content to a preset. Presets are common use among Net/USB related

input sources. Confirm the result whether register to a preset or not via netusb | - preset_control (11.3 Details of event data).

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| num | integer | yes | Specifying a preset number Value: one in the range gotten via /system/getFeatures |

| | | | |
|-----------------|--|--|--|
| URI | <BaseURL>/v1/netusb/storePreset?num=<num> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/storePreset?num=10 | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|-----------------------------|--|
| Example Response | { "response_code":0 } | |
|------------------|-----------------------------|--|

7.14. clearPreset

For clearing Preset

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| num | integer | yes | Specifies Preset number Values: one in the range gotten via /system/getFeatures |

| | | | |
|-----------------|--|--|--|
| URI | <BaseURL>/v1/netusb/clearPreset?num=<num> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/clearPreset?num=10 | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|-----------------------------|--|
| Example Response | { "response_code":0 } | |
|------------------|-----------------------------|--|

7.15. movePreset

For moving preset.

For example, if excute movePreset?from=4&to=2 for list {[A], [B], [C], [D], [E] ...}, list is arranged as {[A], [D], [B], [C], [E] ...}.

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| from | integer | yes | Specifies source preset number Values: one in the range gotten via /system/getFeatures |
| to | integer | yes | Specifies destination preset number Values: one in the range gotten via /system/getFeatures |

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/netusb/movePreset?from=<from>&to=<to> | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/movePreset?from=10&to=3 | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | | |
|------------------|-----------------------------|--|
| Example Response | { "response_code":0 } | |
|------------------|-----------------------------|--|

7.16. getSettings

For retrieving setup of Net/USB

Request Parameters

| | | | |
|-----------------|---|--|--|
| URI | <BaseURL>/v1/netusb/getSettings | | |
| Method | GET | | |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getSettings | | |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| qobuz | object | Returns information related to Qobuz. Retrievable only when products are equipped with Qobuz functions. |
| - quality | object | Returns information related to Streaming Quality |
| - value | string | Returns current Streaming Quality Values: "hr_192_24" (HiRes - 24bits / up to 192kHz) "hr_96_24" (HiRes - 24bits / up to 96kHz) "cd_44_16" (CD - 16bits / 44.1kHz) "mp3_320" (MP3 - 320kbps) |
| - value_list | array | Returns a list of Streaming Quality available |
| - value | string | Returns value Values: "hr_192_24" / "hr_96_24" / "cd_44_16" / "mp3_320" |
| - attribute | integer | Returns attribute info. Attributes are expressed as OR of bit field as |

| | | |
|--|--|--------------------|
| | | shown below; |
| | | b[0] Selectable |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "qobuz":{ "quality":{ "value":"hr_192_24", "value_list":[{ "value":"hr_192_24", "attribute":0 }, ... { "value":"mp3_320", "attribute":1 },] } } }</pre> |
|------------------|---|

7.17.setQuality

For setting the reproduction quality of streaming. Refer to available Input/setting value via /system/getSetting.

Request Parameters

| name | type | required | description |
|-------|--------|----------|---|
| input | string | yes | Specifies target Input ID Values: "qobuz" |
| value | string | yes | Specifies reproduction quality. Refer to available value in each input via /netusb/getSettings Values: "hr_192_24" / "hr_96_24" / "cd_44_16" / "mp3_320" |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/netusb/setQuality?input=<input>&value=<value> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/setQuality?input=qobuz&value=hr_192_24 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

| | |
|--|---|
| | } |
|--|---|

7.18. getRecentInfo

For retrieving playback history. History is shared among all Net/USB Input sources.

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/getRecentInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getRecentInfo |

Response Parameters

| name | type | description |
|----------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| recent_info | array | Returns playback history. Element number of an array can be gotten via system/getFeatures |
| - input | string | Returns Input ID |
| - text | string | Returns text information |
| - albumart_url | string | Returns a URL to retrieve album art data. Returns "" (empty text) if no URL is available. |
| - play_count | integer | Returns number of playback count. Playback count is cleared when it's cleared in playback history. |
| - attribute | integer | Reserved |

| | |
|------------------|---|
| Example Response | <pre>{ "response_code":0, "recent_info":[{ "input":"net_radio", "text":"CBC Radio Jazz", "albumart_url":"http://www.yamaha.com/001.jpg", "play_count":1, "attribute":0 }, { "input":"pandora", "text":"Queen Radio", "albumart_url":"http://www.yamaha.com/002.jpg", "play_count":3, "attribute":0 }, ... { "input":"unknown", "text":"", "albumart_url":"", "play_count":1, "attribute":0 }] }</pre> |
|------------------|---|

| | |
|--|--------------------------------------|
| | <pre> }] } </pre> |
|--|--------------------------------------|

7.19. recallRecentItem

For recalling a content via playback history

Request Parameters

| name | type | required | description |
|------|---------|----------|--|
| zone | string | yes | Specifies recalling zone. This causes input change in specified zone Values: "main" / "zone2" / "zone3" / "zone4" |
| num | integer | yes | Specifies number of memorable playback history. Values: one in the range gotten via /system/getFeatures |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/recallRecentItem?zone=<zone>&num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/recallRecentItem?zone=main&num=13 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|--------------------------------------|
| Example Response | <pre> { "response_code":0 } </pre> |
|------------------|--------------------------------------|

7.20. clearRecentInfo

For clearing all recent history information

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/clearRecentInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/clearRecentInfo |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|--------------------------------------|
| Example Response | <pre> { "response_code":0 } </pre> |
|------------------|--------------------------------------|

7.21. managePlay

For special processing for track

Request Parameters

| name | type | required | description |
|---------|---------|----------|---|
| type | string | yes | Specifies type of special processing Vale: "add_bookmark" (Net Radio / TIDAL / Deezer) "add_track" (Napster / Pandora / JUKE / Qobuz) "add_album" (Napster / JUKE) "add_channel_track" (Pandora) "add_channel_artist" (Pandora) "add_playlist" (Qobuz) "add_to_playlist" (TIDAL / Deezer) "thumbs_up" (Pandora) "thumbs_down" (Pandora) "mark_tired" (Pandora) |
| bank | integer | no | Reserved |
| timeout | integer | yes | Specifies timeout duration(ms) for this API process. If specifies 0, treat as maximum vale Value: 0 ~ 60000 |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/managePlay?type=<type>&timeout=<timeout> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/managePlay?type=add_bookmark&timeout=5000 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details If codes shown below is returned, display appropriate messages to the External application user interface. 100 : Access error (All) 110 : Read Only Mode (Pandora) 111 : Max Stations (Pandora) |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.22. manageList

For special processing for list

Request Parameters

| name | type | required | description |
|---------|---------|----------|--|
| list_id | string | no | Specifies list ID. If nothing specified, "main" is chosen implicitly. Values : "main" (All) "auto_complete" (Pandora) "search_artist" (Pandora) "search_track" (Pandora) |
| type | string | yes | Specifies type of special processing Value: "add_bookmark" (Net Radio / TIDAL / Deezer) "add_track" (Napster / JUKE / Qobuz) "add_album" (Napster / JUKE / Qobuz) "add_artist" (Qobuz) "add_channel" (Napster / Pandora) "add_playlist" (Qobuz) "remove_bookmark" (Net Radio / TIDAL / Deezer) "remove_track" (Napster / JUKE / Qobuz) "remove_album" (Napster / JUKE / Qobuz) "remove_artist" (Qobuz) "remove_channel" (Napster / Pandora) "remove_playlist" (Napster / Qobuz) "remove_from_playlist" (TIDAL / Deezer) "end_auto_complete" (Pandora) "end_auto_complete" must be excuted when make a Auto Complete window (Pandora) disappear. (certification requirement) |
| index | integer | no | Specifies the reference index (offset from the beginning of the list). No parameter set if type is "end_auto_complete" Vaule: 0 ~ 64999 |
| zone | string | no | Specifies recalling zone. This causes input change in specified zone Available only below case. 1) list_id is any one of "auto_complete" / "search_artist" / "search_track", and type is "add_channel" If nothing specified, "main" is chosen implicitly. Values: "main" / "zone2" / "zone3" / "zone4" |
| bank | integer | no | Reserved |
| timeout | integer | yes | Specifies timeout duration(ms) for this API process. If specifies 0, treat as maximum vale Value: 0 ~ 60000 |

| | |
|--------|--|
| URI | <BaseURL>/v1/netusb/manageList?list_id=<list_id>&type=<type>&index=<index>&zone=<zone>&bank=<bank>&timeout=<timeout> |
| Method | GET |

| | |
|-----------------|---|
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/manageList?list_id=main&type=add_bookmark&index=50&timeout=5000 |
|-----------------|---|

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | <p>0: Successful request / Others: Error Refer to "Response Code List" for details</p> <p>If codes shown below is returned, display appropriate messages to the External application user interface.</p> <p>100 : Access error (All) 110 : Read Only Mode (Pandora) 111 : Max Stations (Pandora)</p> |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.23. getPlayDescription

For retrieving track's detail information

Request Parameters

| name | type | required | description |
|---------|---------|----------|--|
| type | string | yes | Specifies type of special processing Value : "why_this_song" (Pandora) |
| timeout | integer | yes | Specifies timeout duration(ms) for this API process. If specifies 0, treat as maximum vale Value: 0 ~ 60000 |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/netusb/getPlayDescription?type=<type>&timeout=<timeout> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getPlayDescription?type=why_this_song&timeout=5000 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | <p>0: Successful request / Others: Error Refer to "Response Code List" for details</p> |
| description | string | Returns detail information |

| | |
|------------------|---|
| Example Response | { "response_code":0, "description":"Based on what you've told us so far, we're playing Sanctuary (Closing) by Utad because if features mellow rock instrumentation, electronica influences, interweaving vocal harmony, extensive vamping and acoustic rhythnm piano." } |
|------------------|---|

7.24. setListSortOption

For setting List sorting method. Retrieve List information via /netusb/getListInfo after setting.

Request Parameters

| name | type | required | description |
|-------|--------|----------|--|
| input | string | yes | Specifies target Input ID. Controls for setListControl are to work with the input specified here Value : "pandora" |
| type | string | yes | Specifies sorting method Value : values gotten via /system/getFeatures "sort_option_list" If Input is Pandora and there's no "sort_option_list", only "date" / "alphabet" is selectable. |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/netusb/setListSortOption?input=<input>&type=<type> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/setListSortOption?input=pandora&type=date |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

7.25. getAccountStatus

For retrieving account information registered on Device

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/netusb/getAccountStatus |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getAccountStatus |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |
| service_list | array | Returns a list of Streaming Service |
| - id | string | Returns current Input ID Refer to " All ID List " for details |

| | | |
|-------------------|---------|---|
| - registered | boolean | Returns whether account registered on device correctly. If input is Pandora, returns "false" if no registered account or not select to use registered account. |
| - login_status | string | Returns login status Value : "logged_in" (All) "logged_out" (All) "access_error" (All) "password_changed" (Napster / SiriusXM) "account_expired" (Napster / JUKE) "invalid_account" (Napster / Spotify) "suspended_account" (Pandora / Spotify) |
| - username | string | Reserved |
| - type | string | Returns account type Value: "formal" (official account) / "trial" (trial account) / "unpaid" (unpaid account) / "expired" (expired account) |
| - trial_time_left | integer | Returns remaining trial days only account type is "trial". If this value is 0, trial account is set to expire within 24 hours. Return -1 if trial account out of date. Return -2 if not retrieving information from server. |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "service_list":[{ "id":"napster", "registered":true, "login_status":"logged_in", "username":"user1", "type":"formal", "trial_time_left":0 }, { "id":"siriusxm", "registered":true, "login_status":"logged_in", "username":"", "type":"trial", "trial_time_left":7 }, ... { "id":"qobuz", "registered":false, "login_status":"logged_out", "username":"", "type":"formal", "trial_time_left":0 }] }</pre> |
|------------------|--|

| | |
|--|---|
| | } |
|--|---|

7.26. getServiceInfo

For retrieving information of various Streaming Service. The combination of Input/Type is available as follows;

| Input | Type |
|---------|---|
| Pandora | <p>Account List (account_list) : retrieving list of account registered on Device</p> <p>Licensing (licensing) : checking license</p> <p>Activation Code (activation_code) : retrieving Activation Code</p> <p>※Disable to check Napster license by referring the value of this APIs response_code. a Device issues events of netusb – account_updated by condition, retrieve the info excute /netusb/getAccountStatus. (Sometimes Device not issue events)</p> <p>※Before retrieve Activation Code, retrieve Account List and check not to reach Max about the num of registration.</p> |

Request Parameters

| name | type | required | description |
|---------|---------|----------|---|
| input | string | yes | Specifies target Input ID. Value: "pandora" / "napster" |
| type | string | yes | Specifies type of retrieving info Value: "account_list" (Pandora) "licensing" (Napster / Pandora) "activation_code" (Pandora) |
| timeout | integer | yes | Specifies timeout duration(ms) for this API process. If specifies 0, treat as maximum value. Value: 0 ~ 60000 |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/netusb/getServiceInfo?input=<input>&type=<type>&timeout=<timeout> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/netusb/getServiceInfo?input=pandora&type=account_list&timeout=10000 |

Response Parameters (Pandora – Account List)

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to “Response Code List” for details |
| account_list | array | Returns list of account |
| - index | integer | Returns index to discem account Value: 0 ~ 7 |
| - username | string | Reserved– |
| - selected | boolean | Returns whether this account is selected |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "account_list":[{ "index":0, "username": "", "selected":true }, ... { "index":7, "username": "", "selected":false }] }</pre> |
|------------------|--|

Response Parameters (Pandora – Licensing)

| name | type | description |
|---------------|---------|--|
| response_code | integer | <p>0: Successful request / Others: Error Refer to “Response Code List” for details</p> <p>If codes shown below is returned, display appropriate messages to the external application user interface.</p> <p>100 : Access error 109 : License error</p> |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

Response Parameters (Napster – Licensing)

| name | type | description |
|---------------|---------|---|
| response_code | integer | <p>0: Successful request / Others: Error Refer to “Response Code List” for details</p> <p>Note that disable to check license by referring the value of response_code.</p> |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

Response Parameters (Pandora – Activation Code)

| name | type | description |
|---------------|---------|--|
| response_code | integer | <p>0: Successful request / Others: Error Refer to “Response Code List” for details</p> <p>If codes shown below is returned, display appropriate messages to the external application user interface.</p> |

| | | |
|-------|---------|---|
| | | 100 : Access error 106 : reach account num ceiling 110 : Read Only Mode |
| url | string | Returns Activation URL |
| code | string | Returns Activation Code |
| index | integer | Returns index to discem account. Value: 0 ~ 7 |

| | |
|------------------|---|
| Example Response | { "response_code":0, "url":"http://www.pandora.com/yamaha", "code":"00000000", "index":0 } |
|------------------|---|

8. CD

APIs in regard to CD setting and getting information

8.1. getPlayInfo

For retrieving playback information of CD

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/cd/getPlayInfo |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/cd/getPlayInfo |

Response Parameters

| name | type | description |
|-------------------|--------------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |
| device_status | string | Returns current CD device status Values: "open" / "close" / "ready" / "not_ready" |
| playback | string | Returns playback status Values: "play" / "stop" / "pause" / "fast_reverse" / "fast_forward" |
| repeat | string | Returns repeat setting status Value: "off" / "one" / "all" / "folder" / "a-b" |
| shuffle | string | Returns shuffle setting status Values: "off" / "on" / "folder" / "program" |
| repeat_available | string array | Returns current settable repeat setting (Available on after API version 1.19) Values: "off" / "one" / "all" / "folder" |
| shuffle_available | string array | Returns current settable shuffle setting (Available on after API version 1.19) Values: "off" / "on" / "folder" |
| play_time | integer | Returns current playback time (unit in second). Value Range: -59999 ~ 59999 |
| total_time | integer | Returns current track total playback time (unit in second). Value Range: 0 ~ 59999 |
| disc_time | integer | Returns CD total playback time (unit in second). Value Range: 0 ~ 59999 |
| track_number | integer | Returns track number that is currently in playback. If no track, or playback status is complete stop, returns -1. Values: 0 ~ 512 |
| total_tracks | integer | Returns total track number Values: 0 ~ 512 |
| artist | string | Returns artist name. |
| album | string | Returns album name. |
| track | string | Returns track name. |

| | |
|------------------|--|
| Example Response | <pre>{ "response_code":0, "device_status":"ready", "playback":"play", "repeat":"all", "shuffle":"on", "repeat_available":["off", "one", "all", "folder"], "shuffle_available":["off", "on", "folder"], "play_time":100, "total_time":300, "track_number":5, "total_tracks":13, "artist":"Mr.Children", "album":"SUPERMARKET FANTASY", "track":"GIFT" }</pre> |
|------------------|--|

8.2. setPlayback

For controlling playback status

Request Parameters

| name | type | required | description |
|----------|---------|----------|---|
| playback | string | yes | Specifies playback status Values: "play" / "stop" / "pause" / "previous" / "next" / "fast_reverse_start" / "fast_reverse_end" / "fast_forward_start" / "fast_forward_end" / "track_select" |
| num | integer | no | Specifies target track number to playback. This parameter is valid only when playback "track_select" is specified. Values: 1 ~ 512 |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/cd/setPlayback?playback=<playback>&num=<num> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/cd/setPlayback?playback=stop |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

8.3. toggleTray

For toggling CD tray Open/Close setting

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/cd/toggleTray |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/cd/toggleTray |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

8.4. setRepeat

For setting repeat. Available on after API version 1.19.

Request Parameters

| name | type | required | description |
|------|--------|----------|--|
| mode | string | yes | Specifies repeat Values: "off" / "one" / "all" / "folder" |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/cd/setRepeat?mode=<mode> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/cd/setRepeat?mode=off |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

8.5. setShuffle

For setting shuffle. Available on after API version 1.19.

Request Parameters

| name | type | required | description |
|------|--------|----------|--|
| mode | string | yes | Specifies shuffle Values: "off" / "on" / "folder" |

| | |
|-----------------|---|
| URI | <BaseURL>/v1/cd/setShuffle?mode=<mode> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/cd/setShuffle?mode=off |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

8.6. toggleRepeat

For toggling repeat setting. No direct / discrete setting commands available

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/cd/toggleRepeat |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/cd/toggleRepeat |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

8.7. toggleShuffle

For toggling shuffle setting. No direct / discrete setting commands available

Request Parameters

| | |
|-----------------|---|
| URI | <BaseURL>/v1/cd/toggleShuffle |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/cd/toggleShuffle |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

9. Clock

APIs in regard to Clock setting and getting information

9.1. getSettings

For retrieving setting related to Clock function

Request Parameters

| | |
|-----------------|--|
| URI | <BaseURL>/v1/clock/getSettings |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/clock/getSettings |

Response Parameters

| name | type | description |
|-----------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |
| auto_sync | boolean | Returns clock time auto sync setting |
| format | string | Returns format of time display Values : "12h" (12-hour notation) / "24h" (24-hour notation) |
| alarm | object | Returns information related to alarm function |
| - alarm_on | boolean | Returns alarm function status on/off |
| - volume | integer | Returns alarm volume value Vaule Range : calculated by minimum/maximum/step value gotten via /system/getFeatures "alarm_volume" |
| - fade_interval | integer | Returns alarm fade interval (unit in second) Vaule Range : calculated by minimum/maximum/step value gotten via /system/getFeatures "alarm_fade" |
| - fade_type | integer | Returns alarm fade type Value : one in the range gotten via /system/getFeatures "alarm_fade_type_num" |
| - mode | string | Returns alarm mode Value : one gotten via /system/getFeatures "alarm_mode_list" |
| - repeat | boolean | Returns repeat setting. This parameter is valid only when alarm mode "oneday" is specified |
| - oneday | object | Returns detail information about alarm mode "oneday". This parameter is valid only when "oneday " exists in alarm mode |
| - enable | boolean | Returns whether or not "oneday" setup is valid |
| - time | string | Returns alarm start-up time. Format is "hhmm" Values : hh : 00 ~ 23 (Hour) mm : 00 ~ 59 (Minute) |
| - beep | boolean | Returns whether or not beep is valid |
| - playback_type | string | Returns playback type Value : "resume" / "preset" |
| - resume | object | Returns detail infomariion when resume is specified. This parameter is valid only when playback_type "resume" is specified. |
| - input | string | Returns target Input ID to playback |

| | | |
|---------------|---------|--|
| | | Values : Input IDs gotten via /system/getFeatures "alarm_input_list" |
| - preset | object | Returns detail information when preset is specified. This parameter is valid only when playback_type "preset" is specified. |
| - type | string | Returns preset type Values : Type gotten via /system/getFeatures "alarm_preset_list" |
| - num | integer | Returns preset number. Selectable preset number in each preset type is readable in /system/getFeatures. |
| - netusb_info | object | Returns preset information related to Net/USB input sources. This parameter is valid only when preset type "netusb" is specified. |
| - input | string | Returns Input ID. "unknown" when no registrations. |
| - text | string | Returns text information. "" (empty text) when no registrations. |
| - tuner_info | object | Returns preset information related to Tuner. This parameter is valid only when preset type "tuner_common" / "am" / "fm" / "dab" |
| - band | string | Returns Band information. "unknown" when no presets. Value : "am" / "fm" / "dab" / "unknown" |
| - number | integer | Returns; frequency (unit in kHz) (band = AM or FM) Station ID (band = DAB) 0 when there's no presets |
| - hd_program | integer | Reserved |
| - snooze | boolean | Returns snooze setting. Available only when "snooze" exists in func_list under /system/getFeatures. |
| - sunday | object | Returns sunday setup information when alarm mode "weekly". This parameter is valid only when " weekly " exists in alarm mode. Data format is same as alarm mode "oneday" above. |
| - monday | object | Returns monday setup information when alarm mode "weekly". This parameter is valid only when " weekly " exists in alarm mode. Data format is same as alarm mode "oneday" above. |
| - tuesday | object | Returns tuesday setup information when alarm mode "weekly". This parameter is valid only when " weekly " exists in alarm mode. Data format is same as alarm mode "oneday" above. |
| - wednesday | object | Returns wednesday setup information when alarm mode "weekly". This parameter is valid only when " weekly " exists in alarm mode. Data format is same as alarm mode "oneday" above. |
| - thursday | object | Returns thursday setup information when alarm mode "weekly". This parameter is valid only when " weekly " exists in alarm mode. Data format is same as alarm mode "oneday" above. |
| - friday | object | Returns friday setup information when alarm mode "weekly". This parameter is valid only when " weekly " exists in alarm mode. Data format is same as alarm mode "oneday" above. |
| - saturday | object | Returns Saturday setup information when alarm mode "weekly". This parameter is valid only when " weekly " exists in alarm mode. Data format is same as alarm mode "oneday" above. |

| | |
|------------------|---|
| Example Response | { "response_code":0, "auto_sync":true, "alarm":{ |
|------------------|---|

| | |
|--|---|
| | <pre> "alarm_on":true, "volume":40, "fade_interval":180, "fade_type":1, "mode":"oneday", "repeat":false, "oneday":{ "enable":true, "time":"0730", "beep":false, "playback_type":"preset", "preset":{ "type":"netusb", "num":8, "netusb_info":{ "input":"pandora", "text":"Queen Radio" } } }, ... "saturday":{ ... } } } </pre> |
|--|---|

9.2. setAutoSync

For setting clock time auto sync. Available only when "date_and_time" exists in clock - func_list under /system/getFeatures.

Request Parameters

| name | type | required | description |
|--------|---------|----------|---|
| enable | boolean | yes | Specifies whether or not clock auto sync is valid |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/clock/setAutoSync?enable=<enable> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/clock/setAutoSync?enable=true |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to "Response Code List" for details |

| | |
|------------------|--------------------------------------|
| Example Response | <pre> { "response_code":0 } </pre> |
|------------------|--------------------------------------|

9.3. setDateAndTime

For setting date and clock time. Available only when "date_and_time" exists in clock - func_list under /system/getFeatures.

Request Parameters

| name | type | required | description |
|-----------|--------|----------|---|
| date_time | string | yes | Specifies date and time set on device. Format is "YYMMDDhhmmss". Value : YY : 00 ~ 99 (Year / 2000 ~ 2099) MM : 01 ~ 12 (Month) DD : 01 ~ 31 (Day) hh : 00 ~ 23 (Hour) mm : 00 ~ 59 (Minute) ss : 00 ~ 59 (Second) |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/clock/setDateAndTime?date_time=<date_time> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/clock/setDateAndTime?date_time=150610224530 |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

9.4. setClockFormat

For setting format of time display. Available only when " clock_format " exists in clock - func_list under /system/getFeatures.

Request Parameters

| name | type | required | description |
|--------|--------|----------|--|
| format | string | yes | Returns format of time display Values : "12h" (12-hour notation) / "24h" (24-hour notation) |

| | |
|-----------------|--|
| URI | <BaseURL>/v1/clock/setClockFormat?format=<format> |
| Method | GET |
| Example Request | http://{host}/YamahaExtendedControl/v1/clock/setClockFormat?format=24h |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|-----------------------------|
| Example Response | { "response_code":0 } |
|------------------|-----------------------------|

9.5. setAlarmSettings

For setting alarm function

Request Parameters

| name | type | required | description |
|-----------------|---------|----------|---|
| alarm_on | boolean | no | Specifies alarm function status on/off |
| volume | integer | no | Specifies alarm volume value Value Range : calculated by minimum/maximum/step value gotten via /system/getFeatures "alarm_volume" |
| fade_interval | integer | no | Specifies alarm fade interval (unit in second) Value Range : calculated by minimum/maximum/step value gotten via /system/getFeatures "alarm_fade" |
| fade_type | integer | no | Specifies alarm fade type Value : 1 ~ fade_type_max (value gotten via /system/getFeatures) |
| mode | string | no | Specifies alarm mode Value : one gotten via /system/getFeatures "alarm_mode_list" |
| repeat | boolean | no | Specifies repeat setting. This parameter is valid only when alarm mode "oneday" is specified |
| detail | object | no | Setting detail information of alarm function |
| - day | string | no | Specifies target date for alarm setting. This parameter is specified certainly when set detail parameters. Value : "oneday" / "sunday" / "monday" / "tuesday" / "wednesday" / "thursday" / "friday" / "saturday" |
| - enable | boolean | no | 対象日のアラーム設定の有効/無効を指定します。 |
| - time | string | no | Specifies alarm start-up time. Format is "hhmm" Values : hh : 00 ~ 23 (Hour) mm : 00 ~ 59 (Minute) |
| - beep | boolean | no | Specifies whether or not beep is valid. |
| - playback_type | string | no | Specifies playback type Value : "resume" / "preset" |
| - resume | object | no | Specifies detail information when resume is specified. This parameter is valid only when playback_type "resume" is specified. |
| - input | string | no | Specifies target Input ID to playback. No playback when "none" is specified. Values : Input IDs gotten via /system/getFeatures "alarm_input_list" |
| - preset | object | no | Specifies detail information when preset is specified. This parameter is valid only when playback_type "preset" is specified. |
| - type | string | no | Specifies preset type Values : Type gotten via /system/getFeatures "alarm_preset_list" |
| - num | integer | no | Specifies preset number. Selectable preset number in each preset type is readable in /system/getFeatures. |

| | | | |
|----------|---------|----|---|
| - snooze | boolean | no | Returns snooze setting. Available only when "snooze" exists in func_list under /system/getFeatures. |
|----------|---------|----|---|

| | |
|------------------------|--|
| URI | <BaseURL>/v1/clock/setAlarmSettings |
| Method | POST |
| Example Request (URI) | http://{host}/YamahaExtendedControl/v1/clock/setAlarmSettings |
| Example Request (json) | <pre>{ "alarm_on":true, "volume":40, "fade_interval":180, "fade_type":1, "mode":"oneday", "repeat":false, "detail":{ "day":"oneday", "enable":true, "time":"0730", "beep":false, "playback_type":"preset", "preset":{ "type":"netusb", "num":8 } } }</pre> |

Response Parameters

| name | type | description |
|---------------|---------|--|
| response_code | integer | 0: Successful request / Others: Error Refer to " Response Code List " for details |

| | |
|------------------|------------------------------------|
| Example Response | <pre>{ "response_code":0 }</pre> |
|------------------|------------------------------------|

10. Response Code List

In a response contains one of Response Codes listed below. No other data is included to a response if its response code was other than '0' (Successful request)

| code | description |
|------|--|
| 0 | Successful request |
| 1 | Initializing |
| 2 | Internal Error |
| 3 | Invalid Request (A method did not exist, a method wasn't appropriate etc.) |
| 4 | Invalid Parameter (Out of range, invalid characters etc.) |
| 5 | Guarded (Unable to setup in current status etc.) |
| 6 | Time Out |
| 99 | Firmware Updating |
| | (100s are Streaming Service related errors) |
| 100 | Access Error |
| 101 | Other Errors |
| 102 | Wrong User Name |
| 103 | Wrong Password |
| 104 | Account Expired |
| 105 | Account Disconnected/Gone Off/Shut Down |
| 106 | Account Number Reached to the Limit |
| 107 | Server Maintenance |
| 108 | Invalid Account |
| 109 | License Error |
| 110 | Read Only Mode |
| 111 | Max Stations |
| 112 | Access Denied |
| 113 | There is a need to specify the additional destination Playlist |
| 114 | There is a need to create a new Playlist |
| 115 | Simultaneous logins has reached the upper limit |
| | (200s are distribution related errors) |
| 200 | Linking in progress |
| 201 | Unlinking in progress |

11. Events

11.1. Outline

Events are to notify Devices' status/setup changes immediately to external applications. Events are spread out as UDP unicast.

11.2. Conditions

When a request header from an external application contains fields shown below, a Device issues events of status changes. If no event is required, do not include the specified fields:

X-AppName:MusicCast/XXX(YYY)

X-AppPort:ZZZ

*Here XXX stands for an application version, YYY shows OS, ZZZ shows event receiving port.

Following is an example of MusicCast CONTROLLER:

X-AppName:MusicCast/1.40(iOS)

X-AppPort:41100

Event notification timeouts in 10 minutes if no further event request is sent from an IP address set as event receiving device. If another request is made within 10 minutes of previous request, the timeout duration is reset and extended.

Event receiving port will be overwritten if a different port number is sent as a request by the registered device using X-AppPort.

11.3. Details of event data

Following data sets only which had status/setting change and which are valid on each Device and each zone are to be notified by events.

Event Parameters

| name | type | Description |
|---------------------------------|---------|--|
| system | object | Returns System related information |
| - bluetooth_info_updated | boolean | Returns whether or not Bluetooth info has changed. If so, pull renewed info using /system/getBluetoothInfo |
| - bluetooth_device_list_updated | boolean | Returns whether or not Bluetooth (sink) device list has changed. If so, pull renewed info using /system/getBluetoothDeviceList |
| - func_status_updated | boolean | Returns whether or not System overall info has changed. If so, pull renewed info using /system/getFuncStatus |
| - speaker_settings_updated | boolean | Reserved |
| - name_text_updated | boolean | Returns whether or not name text info has changed. If so, pull renewed info using /system/getNameText . |
| - tag_updated | boolean | Reserved |
| - location_info_updated | boolean | Returns whether or not Location info has changed. If so, pull renewed info using /system/getLocationInfo |
| - stereo_pair_info_updated | boolean | Reserved |

| | | |
|------------------------|---------|--|
| main | object | Returns Main Zone related information |
| - power | string | Returns power status Values: "on" / "standby" |
| - input | string | Returns current Input ID Values: Input IDs gotten via /system/getFeature |
| - volume | integer | Returns volume value Values: Value range calculated by minimum/maximum/step values gotten via /system/getFeatures |
| - mute | boolean | Returns mute status |
| - status_updated | boolean | Returns whether or not other info has changed than main zone power/input/volume/mute status. If so, pull renewed info using /main/getStatus |
| - signal_info_updated | boolean | Returns whether or not signal info has changed. If so, pull renewed info using /main/getSignalInfo |
| zone2 | object | Returns information related to Zone2. This data format is same as main zone's one above. |
| zone3 | object | Returns information related to Zone3. This data format is same as main zone's one above. |
| zone4 | object | Returns information related to Zone4. This data format is same as main zone's one above. |
| tuner | object | Returns Tuner related information |
| - play_info_updated | boolean | Returns whether or not playback info has changed. If so, pull renewed info using /tuner/getPlayInfo |
| - preset_info_updated | boolean | Returns whether or not preset info has changed. If so, pull renewed info using /tuner/getPresetInfo |
| netusb | object | Returns Net/USB related information |
| - play_error | integer | Returns error codes happened during playback for displaying appropriate messages to the external application user interface. If multiple errors happen at the same time, refer to the value of multiple_play_errors sent together for proper messaging Values: 0: No Error 1: Access Error (common for all Net/USB sources) 2: Playback Unavailable (common for all Net/USB sources) 3: Skip Limit Reached (Napster / Pandora) 4: Invalid Session (Napster / SiriusXM) 5: High-Resolution File Not Playable at MusicCast Leaf (Server) 6: User Uncredentialed (Qobuz) 7: Track Restricted by Right Holders (Qobuz) 8: Sample Restricted by Right Holders (Qobuz) 9: Genre Restricted by Streaming Credentials (Qobuz) 10: Application Restricted by Streaming Credentials (Qobuz) 11: Intent Restricted by Streaming Credentials (Qobuz) 100: Multiple Errors (common for all Net/USB sources) |
| - multiple_play_errors | integer | Returns bit field flags of multiple playback errors. Flags are expressed as OR of bit field. play_error code x is stored as a flag in b[x] shown below. x=0 is reserved for it is for No Error, and x=100 is ignored here |

| | | |
|-----------------------|---------|--|
| | | b[0] reserved (for it's No Error) b[1] Access Error (common for all Net/USB sources) ... b[11] Intent Restricted by Streaming Credentials (Qobuz) |
| - play_message | string | Returns playback related message. Max size is 256 bytes |
| - account_updated | boolean | Returns whether or not account info has changed. If so, pull renewed info using /netusb/getAccountStatus |
| - play_time | integer | Returns current playback time (unit in second) Value: ranges -59999 - 59999 |
| - preset_info_updated | boolean | Returns whether or not preset info has changed. If so, pull renewed info using netusb/getPresetInfo |
| - recent_info_updated | boolean | Returns whether or not playback history info has changed. If so, pull renewed info using /netusb/getRecentInfo |
| - preset_control | object | Returns results of Preset operations |
| - type | string | Returns a type of Preset operations Values: "store" / "clear" / "recall" |
| - num | integer | Returns a Preset number being operated Value: one in the range gotten via /system/getFeatures |
| - result | string | Returns the result of operation Values: "success" (for all types) / "error" (for all types) / "empty" (only for recall) / "not_found" (only for recall) |
| - trial_status | object | Returns trial status of a Device |
| - input | string | Returns Input IDs related to Net/USB |
| - enable | boolean | Returns whether or not trial can be initiated. If false, new trial cannot get started due to a Device in trial status |
| - trial_time_left | object | Returns remaining time of a trial |
| - input | string | Returns Net/USB related Input IDs |
| - time | integer | Returns remaining days of trial. 0 means it expires within 24 hours. -1 means it has expired, -2 means no info is retrieved yet from the server |
| - play_info_updated | boolean | Returns whether or not playback info has changed. If so, pull renewed info using /netusb/getPlayInfo |
| - list_info_updated | boolean | Returns whether or not list info has changed. If so, pull renewed info using /netusb/getListInfo |
| cd | object | Returns CD related information |
| - device_status | string | Returns CD device status Values: "open" / "close" / "ready" / "not_ready" |
| - play_time | integer | Returns current playback time (unit in second). Value Range: -59999 ~ 59999 |
| - play_info_updated | boolean | Returns whether or not playback info has changed. If so, pull renewed info using /cd/getPlayInfo |
| dist | object | Returns Link distribution related information |
| - dist_info_updated | boolean | Returns whether or not Link distribution Device info has changed. If so, pull renewed info using /dist/getDistributionInfo |
| clock | object | Returns Clock related information |
| - settings_updated | boolean | Returns whether or not clock info has changed. If so, pull renewed info using /clock/getSettings |
| device_id | string | Return s Device ID.ID is same value using /system/getDeviceInfo |

| | |
|--|---|
| | Note: Available on and after API Version 1.17, the Device ID is always included in the notification data. |
|--|---|

Event Example

```
{
  "system":{
    "name_text_updated":true
  },
  "main":{
    "power":"on",
    "input":"siriusxm",
    "volume":30,
    "mute":false,
    "status_updated":true
  },
  "zone2":{
    "power":"on",
    "input":"cd",
    "volume":50,
    "mute":false
    "enhancer":false
  },
  "tuner":{
    "play_info_updated":false
  },
  "netusb":{
    "play_error ":0,
    "account_updated":true,
    "play_time":50,
    "trial_status":{
      "input":"siriusxm",
      "enable":false
    },
    "trial_time_left":{
      "input":"siriusxm",
      "time":5
    },
    "play_info_updated":false,
    "list_info_updated":false
  },
  "cd":{
    "tray_status":"ready",
    "play_time":100,
    "play_info_updated":false
  }
}
```

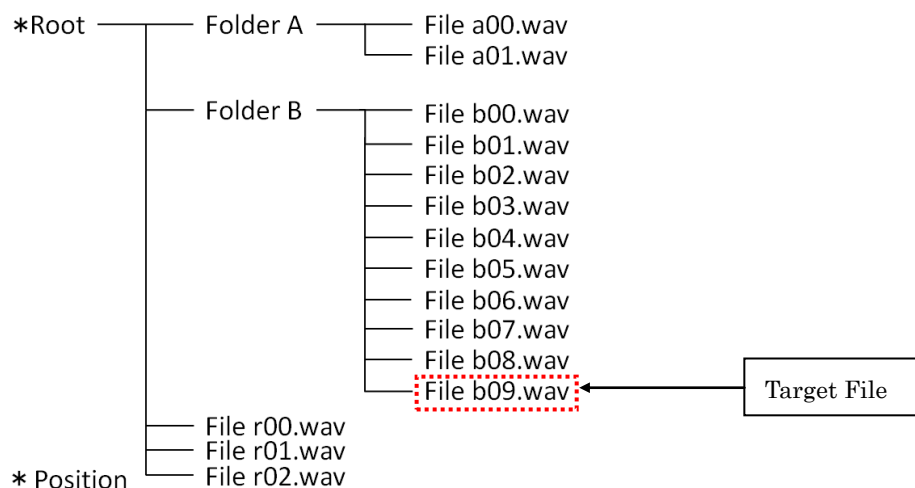
12. All ID List

| Type | ID |
|---------------|--|
| Zone | main / zone2 / zone3 / zone4 ※Zone A is handles as "main", Zone B is handles as "zone2" |
| Input | cd / tuner / multi_ch / phono / hdmi1 / hdmi2 / hdmi3 / hdmi4 / hdmi5 / hdmi6 / hdmi7 / hdmi8 / hdmi / av1 / av2 / av3 / av4 / av5 / av6 / av7 / v_aux / aux1 / aux2 / aux / audio1 / audio2 / audio3 / audio4 / audio5 / audio_cd / audio / optical1 / optical2 / optical / coaxial1 / coaxial2 / coaxial / digital1 / digital2 / digital / line1 / line2 / line3 / line_cd / analog / tv / bd_dvd / usb_dac / usb / bluetooth / server / net_radio / napster / pandora / siriusxm / spotify / juke / airplay / radiko / qobuz / tidal / deezer / mc_link / main_sync / none |
| Sound Program | munich_a / munich_b / munich / frankfurt / stuttgart / vienna / amsterdam / usa_a / usa_b / tokyo / freiburg / royaumont / chamber / concert / village_gate / village_vanguard / warehouse_loft / cellar_club / jazz_club / roxy_theatre / bottom_line / arena / sports / action_game / roleplaying_game / game / music_video / music / recital_opera / pavilion / disco / standard / spectacle / sci-fi / adventure / drama / talk_show / tv_program / mono_movie / movie / enhanced / 2ch_stereo / 5ch_stereo / 7ch_stereo / 9ch_stereo / 11ch_stereo / stereo / surr_decoder / my_surround / target / bass_booster / straight / off |

13. Application Notes

13.1. Example of List Control

This shows an example when you change a Device's input to USB, browse a USB memory which has folders/files as shown below and playback the target file "File b09.wav" in the Folder B



13.1.1. Preparation before start browsing

Send "prepare_input_change" to a Device in order to let it do necessary process before the input change

Request

`http://{host}/YamahaExtendedControl/v1/main/prepareInputChange?input=usb`

Response

```
{
  "response_code":0
}
```

If input change is expressly necessary, send "setInput" to do so.

Request

`http://{host}/YamahaExtendedControl/v1/main/setInput?input=usb&mode=autoplay_disabled`

Response

```
{
  "response_code":0
}
```

13.1.2. Retrieving list information (In case max line number is less than or equal to 8)

Use "getListInfo" command to get list information

Here shows how to get it at the root layer

Request

`http://{host}/YamahaExtendedControl/v1/netusb/getListInfo?input=usb&index=0&size=8&lang=en`

Response

```

{
  "response_code":0,
  "menu_layer":0,
  "max_line":5,
  "index":0,
  "playing_index":-1,
  "menu_name":"USB",
  "list_info":[
    {
      "text":"FolderA",
      "thumbnail":"",
      "attribute":2
    },
    {
      "text":"FolderB",
      "thumbnail":"",
      "attribute":2
    },
    {
      "text":"File r00",
      "thumbnail":"",
      "attribute":4
    },
    {
      "text":"File r01",
      "thumbnail":"",
      "attribute":4
    },
    {
      "text":"File r02",
      "thumbnail":"",
      "attribute":4
    }
  ]
}

```

← Capability bit[1]: Select bit equal to 1

13.1.3. Layer change

Use “setListControl” to move to Folder B layer. Confirm if the attribute of Response Parameter is selectable as described before.

Request

http://{host}/YamahaExtendedControl/v1/netusb/setListControl?list_id=main&type=select&index=1

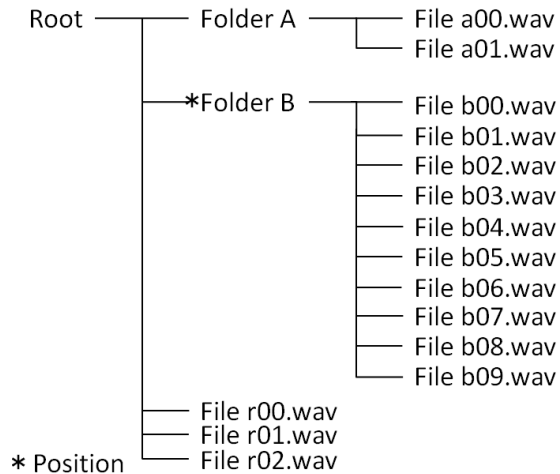
Response

```

{
  "response_code":0
}

```

Now the current position is moved to Folder B.



13.1.4. Retrieving list information (In case max line number is more than 8)

Use “getListInfo” to get list information.

Here shows how to get it of Folder B.

Request

`http://{host}/YamahaExtendedControl/v1/netusb/getListInfo?input=usb&index=0&size=8&lang=en`

Response

```

{
  "response_code":0,
  "menu_layer":1,
  "max_line": 10 ← Max line number = 10
  "index":0,
  "playing_index":-1,
  "menu_name":"Folder B",
  "list_info":[
    {
      "text":"File b00",
      "thumbnail":"",
      "attribute":4
    },
    {
      "text":"File b01",
      "thumbnail":"",
      "attribute":4
    },
    {
      "text":"File b02",
      "thumbnail":"",
      "attribute":4
    },
    {
      "text":"File b03",

```

```
        "thumbnail":"","  
        "attribute":4  
    }  
    {  
        "text":"File b04",  
        "thumbnail":"","  
        "attribute":4  
    }  
    {  
        "text":"File b05",  
        "thumbnail":"","  
        "attribute":4  
    }  
    {  
        "text":"File b06",  
        "thumbnail":"","  
        "attribute":4  
    }  
    {  
        "text":"File b07",  
        "thumbnail":"","  
        "attribute":4  
    }  
    ]  
}
```

With this example, max_line is 10 so the remaining information more than line 8 is needed.
To do so, set “index = 8” in the Request Parameter.

Request

http://{host}/YamahaExtendedControl/v1/netusb/getListInfo?input=usb&index=8&size=8&lang=en

Response

```
{  
    "response_code":0,  
    "menu_layer":1,  
    "max_line": 10  
    "index":8, ← Offset from the top = 8  
    "playing_index":-1,  
    "menu_name":"Folder B",  
    "list_info":[  
        {  
            "text":"File b08",  
            "thumbnail":"","  
            "attribute":4  
        },  
        {  
            "text":"File b09",  
            "thumbnail":"","
```

```

        },
    ],
}

```

"attribute":4 ← Capability bit[2]: Play bit equal to 1

13.1.5. Playback a file

Here shows how to specify and playback File b09. Confirm if the attribute of Response Parameter is playable. And the index of Request Parameter is 9.

Request

`http://{host}/YamahaExtendedControl/v1/netusb/setListControl?list_id=main&type=play&index=9`

Response

```

{
    "response_code":0
}

```

The File b09 in Folder B is now playback.

13.1.6. Moving back one layer

Here shows an example of how to move back to one layer.

Request

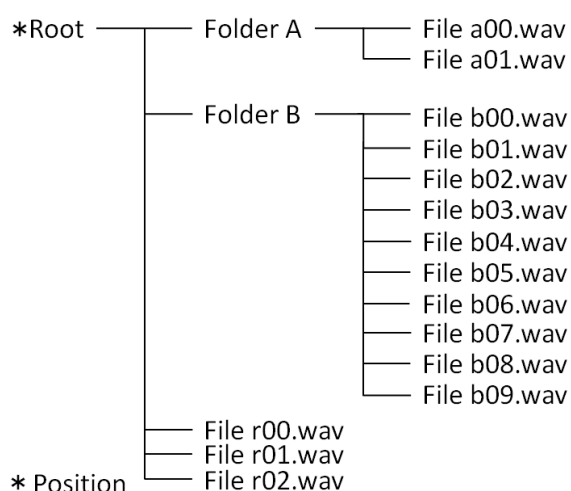
`http://{host}/YamahaExtendedControl/v1/netusb/setListControl
?list_id=main&type=return`

Response

```

{
    "response_code":0
}

```



*Note

getListInfo is the only command that blocks other commands execution. It may take up to 30 seconds to get the whole list information, and all other commands are not accepted all the while.

Retrieve list information via getListInfo after send setListControl:select command. It's possible to occur error if send setListControl:select command continuously.

- : setListControl:select -> getListInfo -> setListControl:select -> getListInfo
- × : setListControl:select -> setListControl:select -> getListInfo

13.2. Device Search

Here explains procedures of how to search MusicCast Devices

1. Specify MediaRenderer and issue M-Search.
2. Access to the URL of device description read from the Location header in the response.
3. Confirm tags shown below.

<manufacturer>Yamaha Corporation</manufacturer>

See if manufacturer name is "Yamaha Corporation"

<yamaha:X_device>

See if there is this Yamaha tag

<yamaha:X_URLBase>http://192.168.10.103:80/</yamaha:X_URLBase>

Confirm device's IP address

<yamaha:X_yxcControlURL>/YamahaExtendedControl/v1/</yamaha:X_yxcControlURL>

Check the URL of YXC control

[Example of device description of a MusicCast Device]

```
<?xml version="1.0" encoding="utf-8" ?>
<root xmlns="urn:schemas-upnp-org:device-1-0"
xmlns:yamaha="urn:schemas-yamaha-com:device-1-0">
<specVersion>
  <major>1</major>
  <minor>0</minor>
</specVersion>
<device>
  <dlna:X_DLNAID>
xmlns:dlna="urn:schemas-dlna-org:device-1-0">DMR-1.50</dlna:X_DLNAID>
  <deviceType>urn:schemas-upnp-org:device:MediaRenderer:1</deviceType>
  <friendlyName>Room A</friendlyName>
  <manufacturer>Yamaha Corporation</manufacturer>
  <manufacturerURL>http://www.yamaha.com/</manufacturerURL>
  <modelDescription>MusicCast</modelDescription>
  <modelName>WXC-50</modelName>
  <modelNumber>50</modelNumber>
  <modelURL>http://www.yamaha.com/</modelURL>
  <serialNumber>0DA27313</serialNumber>
  <UDN>uuid:9ab0c000-f668-11de-9976-00a0ded26c17</UDN>
  <iconList>
```

```
<icon>
  <mimetype>image/jpeg</mimetype>
  <width>48</width>
  <height>48</height>
  <depth>24</depth>
  <url>/Icons/48x48.jpg</url>
</icon>
<icon>
  <mimetype>image/jpeg</mimetype>
  <width>120</width>
  <height>120</height>
  <depth>24</depth>
  <url>/Icons/120x120.jpg</url>
</icon>
<icon>
  <mimetype>image/png</mimetype>
  <width>48</width>
  <height>48</height>
  <depth>24</depth>
  <url>/Icons/48x48.png</url>
</icon>
<icon>
  <mimetype>image/png</mimetype>
  <width>120</width>
  <height>120</height>
  <depth>24</depth>
  <url>/Icons/120x120.png</url>
</icon>
</iconList>
<serviceList>
<service>
  <serviceType>urn:schemas-upnp-org:service:AVTransport:1</serviceType>
  <serviceId>urn:upnp-org:serviceId:AVTransport</serviceId>
  <SCPDURL>/AVTransport/desc.xml</SCPDURL>
  <controlURL>/AVTransport/ctrl</controlURL>
  <eventSubURL>/AVTransport/event</eventSubURL>
</service>
<service>
  <serviceType>urn:schemas-upnp-org:service:RenderingControl:1</serviceType>
  <serviceId>urn:upnp-org:serviceId:RenderingControl</serviceId>
  <SCPDURL>/RenderingControl/desc.xml</SCPDURL>
  <controlURL>/RenderingControl/ctrl</controlURL>
  <eventSubURL>/RenderingControl/event</eventSubURL>
</service>
<service>
  <serviceType>urn:schemas-upnp-org:service:ConnectionManager:1</serviceType>
  <serviceId>urn:upnp-org:serviceId:ConnectionManager</serviceId>
  <SCPDURL>/ConnectionManager/desc.xml</SCPDURL>
  <controlURL>/ConnectionManager/ctrl</controlURL>
```

```

<eventSubURL>/ConnectionManager/event</eventSubURL>
</service>
</serviceList>
<presentationURL>http://192.168.10.103/</presentationURL>
</device>
<yamaha:X_device>
  <yamaha:X_URLBase>http://192.168.10.103:80/</yamaha:X_URLBase>
  <yamaha:X_serviceList>
    <yamaha:X_service>

<yamaha:X_specType>urn:schemas-yamaha-com:service:X_YamahaRemoteControl:1</yamaha:X
_specType>
  <yamaha:X_controlURL>/YamahaRemoteControl/ctrl</yamaha:X_controlURL>
  <yamaha:X_unitDescURL>/YamahaRemoteControl/desc.xml</yamaha:X_unitDescURL>
  </yamaha:X_service>
  <yamaha:X_service>

<yamaha:X_specType>urn:schemas-yamaha-com:service:X_YamahaExtendedControl:1</yamaha
:X_specType>
  <yamaha:X_yxcControlURL>/YamahaExtendedControl/v1/</yamaha:X_yxcControlURL>
  <yamaha:X_yxcVersion>0801</yamaha:X_yxcVersion>
  </yamaha:X_service>
  </yamaha:X_serviceList>
  </yamaha:X_device>
</root>

```

13.3. Event Process

Events are spread out as UDP unicast. Retrieve necessary info by polling because of UDP packet loss.

(Ex) getStatus, getPlayInfo

13.4. Stereo Pair

Establish Stereo Pair setting by operating Devices. Stereo Pair setting is established as following.



Confirm Stereo Pair status.

Request

http://{DeviceA}/YamahaExtendedControl/v1/system/getStereoPairInfo

Response

```

{
  "response_code":0,
  "status":"master_left",
  "pair_info":{

```

```
"alive":true,
"ip_address":"192.168.0.11",
"mac_address":"00A0DE012345"
}
```

Request

http://{DeviceB}/ YamahaExtendedControl/v1/system/getStereoPairInfo

Response

```
{
  "response_code":0,
  "status":"slave_right",
  "pair_info":{
    "alive":true,
    "ip_address":"192.168.0.10",
    "mac_address":"00A0DE012346"
  }
}
```

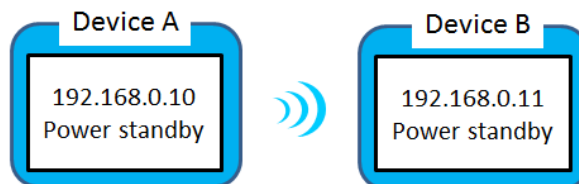
Control master device. Slave device operate simultaneously with master device.

Request

http://{DeviceA}/ YamahaExtendedControl/v1/main/setPower?power=standby

Response

```
{
  "response_code":0,
}
```



13.5. Polling

Polling interval of special application "MusicCast CONTROLLER".(reference information)

1. Always every 10 seconds for all rooms.
2. Always every 5 seconds for the selected MusicCast device.
(Since information can be acquired by events, please adjust the polling interval to an appropriate value depending on the system to be used.)

Polling is necessary for "get command" which may be updated in real time.

1. For all MusicCast devices being detected
[getLocationInfo](#)
2. For MusicCast devices of the same location only
[getDistributionInfo](#) (Please refer to YXC_API_Spec_Advanced.pdf)
3. For each room at the same location
/(zone)/[getStatus](#)
/(type)/[getPlayInfo](#) (Please use properly according to the current input, eg net/usb, tuner, cd...)

Revision History

| Rev. | Date | Contents | Author |
|------|-----------|---|----------|
| 1.00 | 7/7/2016 | First edition | Eto |
| 1.10 | 9/28/2016 | Expand control function. (Refer Revision_Modification.pdf for more detail) | Eto |
| 1.20 | 1/26/2017 | Add Stereo Pair control function. Add TIDAL/Deezer control function. Add remote management control function. Add note: storePreset, list control, and event process. (Refer Revision_Modification(Basic).pdf for more detail) | Eto |
| 1.30 | 11/8/2017 | Add note: polling Delete: switchAccount | Fukuyama |
| 2.00 | 5/11/2018 | Expand control function. (Refer Revision_Modification.pdf for more detail) | Fukuyama |
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