DSM-16 3rd Party Control
Protocol Guide

DSM-16 API

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SOUNDTUBE
E N T E R T A I N M E N T

Contents

1 - Overview

The SoundTube DSM-16 can be controlled remotely by 3rd party system. It utilizes WebSocket API to monitor and change parameters over the internet. With real-time control, the DSM-16s API can modify a subset of the product features. This document describes the protocol of the web API command interface.

2 - Command Message Format

The commands have simple format. The overall format of the message contains only printable ASCII characters so that they can be debugged easily. Each message contains several data fields separated by commas, braces, and brackets. The general format of a message is shown bellow:

{"from":"webui", "to":"mcu", "optCode":"", "value":{}}

Field Name	Description
from	Where does the message come from
to	Where does the message go
optcode	What to do
value	Incoming parameters (Can be an object or an array)

A typical command would look something like the following:

{"from":"webui", "to":"mcu", "optCode":"set.masterZoneVolume", "value":{ "accountId":"3", "currenthwZoneId":"1", "newVolume":"65"}}

NOTE:
Account ID relates to each zone. Account ID "3" represents the first zone created. Account ID "4" represents the second zone created, and so on.

CurrenthwzoneID relates to the created input sources. CurrenthwzoneID "1" represents the first source created. CurrenthwzoneID "2" represents the second source created, and so on.

2.1 - Command Responses

Like a command, the response only contains printable ASCII characters. Fields are separated by spaces, braces, and brackets. Errors are presented in the msg category at the end of the string. The general format of a response message is shown below.

{"from": "mcu", "optCode": "", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "value": [{}]}

Field Name	Description
from	Where does the message come from
optcode	What to do
product series	Product identifier
response	Operation results
to	Where does the message go
value	Incoming parameters (Can be an object or an array)

Please see the list of error codes and their descriptions below:

Error Code	Description
0	No error
101	Invalid request data
102	Incorrect data format
103	Cannot access device
104	Source not supported
106	Type not supported
115	File missing
119	Failed to send request

If the command is successful, the device will return a response. The response for our example command above would be:
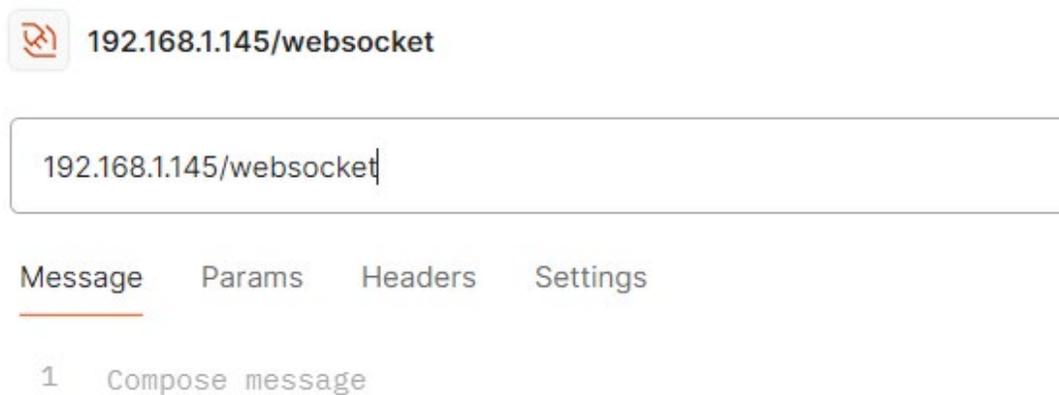
{"from": "mcu", "optCode": "set.masterZoneVolume", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "value": [{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "65"}, "group": "off"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "100"}, "group": "off"}]}

If the command is not successful, the device will return a response with an error code. In the event the "newVolume" category is left blank, the error message for our example message above would be:

{"from": "mcu", "optCode": "set.masterZoneVolume", "productseries": "DSM-16", "response": {"code": 102, "msg": "Missing necessary key values", "resetValue": 0}, "to": "web", "value": [{"newVolume": "NULL"}]}

2.2 - Using Websocket King Client extension for API communications

1) Download and Install Postman Client. LINK: https://www.postman.com/downloads/

2) When Postmann app opens, next to "My workspace" click the "New" button and select "Websocket".

3) In the URL box, enter client address for DSM-16: IP Address/websocket. The address should match the IP address found in Dante Controller. Then click "Connect".

4) In the message box, enter commands as defined in this document. Responses will be displayed on the bottom half of the page.

5) NOTE: If copy and pasting commands from this document, ensure that each command is pasted as ONE command. When pasting multiline commands from this document into postman, multiline commands will be pasted as two (or more) commands.

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3 - Commands

The following commands are available.

Command	Description
get.masterZoneList	This command retrieves all relevant information from all zones. Retrieves all group names, zone names, account IDs, source names, Source IDs, account names, EQs, volumes, mute statuses, meter statuses, and crossover information.
set.masterZoneSource	This command sets the source of a specified zone.
set.masterZoneEq	This command uses gain, frequency, and Q values to set a band of EQ for a specified zone.
set.masterZoneVolume	This command sets the volume level of a specified zone.
set.masterZoneMuteStatus	This command will enable the mute status of a specified zone.
get.masterGroupVolumeList	This command returns the volume level and status of each group.
set.masterGroupVolume	This command reassigns volume level to a group.
get.webPageTitle	This command will return the name of current account.
set.masterGroupSelect	This command sets the desired group for a zone. This function also returns the master group volume list and the master zone list.
get.dbPresetList	This command returns the names of all saved presets.
Load.dbPreset	This command loads a desired preset.

3.1 - get.masterZoneList

This command retrieves all relevant information from all zones. Retrieves all group names, zone names, account IDs, source names, Source IDs, account names, EQs, volumes, mute statuses, meter statuses, and crossover information. The command should be used as a baseline to retrieve all basic info about the current DSM-16 configuration. No value input is required.

Example command:
{"from":"webui", "to":"mcu", "optCode":"get.masterZoneList", "value":{}}

Example response:
{"from": "mcu", "optCode": "get.masterZoneList", "productseries": "DSM-16", "response": { "code": 0, "msg": "", "resetValue": 0}, "to": "web", "value":[{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "65"}, "group": "off"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1",

3.2 - set.masterZoneSource

This command sets the source of a specified zone. The input values required are the account ID (zone) and the currenthwZoneId (source). Specify the zone to modify and the desired source for that zone. By default, this command will also return the master zone list.

Example command:
{"from":"webui", "to":"mcu", "optCode":"set.masterZoneSource", "value":{"accountId": "3", "currenthwZoneId":"1"}}

Example response:
{"from": "mcu", "optCode": "set.masterZoneSource", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "value":[{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "65"}, "group": "off"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "100"}, "group": "off"}]}

3.3 - set.masterZoneEq

This command uses input parameters such as status, index, gain, frequency, and Q values to set a band of EQ for a specified zone. To select band of the EQ to modify, set index to the corresponding band, 1-8. By default, this command will also return the master zone list.

Example command:
{"from":"webui", "to":"mcu", "optCode":"set.masterZoneEq", "value":{"accountId":"3", "currenthwZoneId":"1", "status":"on", "index":"1", "F":"32", "G":"3", "Q":".3"}}

Example response:
{"from": "mcu", "optCode": "set.masterZoneEq", "productseries": "DSM-16", "response": { "code": 0, "msg": "", "resetValue": 0}, "to": "web", "value":[{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "3", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "65"}, "group": "off"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "100"}, "group": "off"}]}

3.4 - set.masterZoneVolume

This command sets a desired volume level of a source in a specified zone. By default, this command will also return the master zone list.

Example command:
{"from":"webui", "to":"mcu", "optCode":"set.masterZoneVolume", "value":{ "accountId":"3", "currenthwZoneId":"1", "newVolume":"65"}}

Example response:
{"from": "mcu", "optCode": "set.masterZoneVolume", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "value": [{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "65"}, "group": "off"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "100"}, "group": "off"}]}

3.5 - set.masterZoneMuteStatus

This command will enable or disable the mute status of a source in a specified zone. By default, this command will also return the master zone list.

Example command:
```
{"from":"webui", "to":"mcu", "optCode":"set.masterZoneMuteStatus", "value":{"accountId": "3", "currenthwZoneId": "2", "muteStatus":"on"}}
```

Example response:
```
{"from": "mcu", "optCode": "set.masterZoneMuteStatus", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "Value":[{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "on", "signalGenerator": "0", "volume": "0"}, "group": "off"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "100"}, "group": "off"}]}
```

3.6 - get.masterGroupVolumeList

This command retrieves details of all groups, active or inactive, such as group name, group status, and group volume. By default, this command will also return the master zone list.

Example command:
{"from":"webui", "to":"mcu", "optCode":"get.masterGroupVolumeList", "value":{"accountId": "3", "currenthwZoneId":"1"}}

Example response:
{"from": "mcu", "optCode": "get.masterGroupVolumeList", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "value": [{"groupName": "Group1", "groupStatus": "off", "groupVolume": "0"}, {"groupName": "Group2", "groupStatus": "off", "groupVolume": "0"}, {"groupName": "Group3", "groupStatus": "off", "groupVolume": "0"}]}

{"from": "mcu", "optCode": "get.masterZoneList", "productseries": "DSM-16", "response": { "code": 0, "msg": "", "resetValue": 0}, "to": "web", "value":[{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "65"}, "group": "off"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F":

"4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "100"}, "group": "off"}]}

3.7 - get.masterGroupVolumeList

This command sets a desired volume level to a specified group. The response will return the master group volume list, seen above. By default, this command will also return the master zone list.

Example command:
{"from":"webui", "to":"mcu", "optCode":"set.masterGroupVolume", "value":{"group":"Group1", "volume":"50"}}

Example response:
{"from": "mcu", "optCode": "set.masterGroupVolume", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "value": [{"groupName": "Group1", "groupStatus": "on", "groupVolume": "50"}, {"groupName": "Group2", "groupStatus": "off", "groupVolume": "0"}, { "groupName": "Group3", "groupStatus": "off", "groupVolume": "0"}]}

{"from": "mcu", "optCode": "get.masterZoneList", "productseries": "DSM-16", "response": { "code": 0, "msg": "", "resetValue": 0}, "to": "web", "value":[{"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "3", "accountName": "West", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F": "32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index":"3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "65"}, "group": "Group 1"}, {"AudioGroupList": [{"hwZoneId": "1", "hwZoneName": "Media"}, {"hwZoneId": "2", "hwZoneName": "BT"}], "accountId": "4", "accountName": "East", "currentGroup": {"crossover": {"highPass": [{"filterType": "6", "frequency": "20", "status": "off"}], "lowPass": [{ "filterType": "6", "frequency": "20", "status": "off"}]}, "delay": "0", "eightBandEq": [{"F":

"32", "G": "0", "Q": "0.3", "index": "1", "status": "on"}, {"F": "64", "G": "0", "Q": "0.3", "index": "2", "status": "on"}, {"F": "125", "G": "0", "Q": "0.3", "index": "3", "status": "on"}, {"F": "250", "G": "0", "Q": "0.3", "index": "4", "status": "on"}, {"F": "500", "G": "0", "Q": "0.3", "index": "5", "status": "on"}, {"F": "1000", "G": "0", "Q": "0.3", "index": "6", "status": "on"}, {"F": "2000", "G": "0", "Q": "0.3", "index": "7", "status": "on"}, {"F": "4000", "G": "0", "Q": "0.3", "index": "8", "status": "on"}, {"F": "100", "G": "0", "Q": "2.0", "index": "9", "status": "on"}, {"F": "1000", "G": "0", "Q": "2.0", "index": "10", "status": "on"}, {"F": "5000", "G": "0", "Q": "2.0", "index": "11", "status": "on"}], "hwZoneId": "1", "hwZoneName": "Media", "meter": "0", "muteStatus": "off", "signalGenerator": "0", "volume": "100"}, "group": "Group 1"}]}

3.8 - get.webPageTitle

This command will return the name of the admin page.

Example command:
{"from":"webui", "to":"mcu", "optCode":"get.webPageTitle", "value":{}}

Example response:
{"from": "mcu", "optCode": "get.webPageTitle", "productseries": "DSM-16", "response": {"code": 0, "msg": "", "resetValue": 0}, "to": "web", "value": [{ "accountType": "Admin", "pageTitle": "Master Page"}]}

3.9 - set.masterGroupSelect:

This command sets the desired group for a zone. This function also returns the master group volume list and the master zone list.

Example command: "from":"webui", "to":"mcu", "optCode":"set.masterGroupSelect", "value": {"accountId":"1", "group":"Group2"}

Example response:

{"from": "mcu","optCode": "set.masterGroupSelect","productseries": "mse-phase","response": {"code": 0,"msg": "","resetValue": 0},"to": "web","value": [{"AudioGroupList": [{"hwZoneId": "1","hwZoneName": "DVS"}],"accountId": "3","accountName": "zone 1","currentGroup": {"crossover": {"highPass": [{"filterType": "6","frequency": "20","status": "off"}],"lowPass": [{"filterType": "6","frequency": "20","status": "off"}]},"delay": "0","eightBandEq": [{"F": "32","G": "0","Q": "0.3","index": "1","status": "on"},{"F": "64","G": "0","Q": "0.3","index": "2","status": "on"},{"F": "125","G": "0","Q": "0.3","index": "3","status": "on"},{"F": "250","G": "0","Q": "0.3","index": "4","status": "on"},{"F": "500","G": "0","Q": "0.3","index": "5","status": "on"},{"F": "1000","G": "0","Q": "0.3","index": "6","status": "on"},{"F": "2000","G": "0","Q": "0.3","index": "7","status": "on"},{"F": "4000","G": "0","Q": "0.3","index": "8","status": "on"},{"F": "100","G": "0","Q": "2.0","index": "9","status": "on"},{"F": "1000","G": "0","Q": "2.0","index": "10","status": "on"},{"F": "5000", "G": "0","Q": "2.0","index": "11","status": "on"}],"hwZoneId": "1","hwZoneName": "DVS","meter": "20","muteStatus": "off","signalGenerator": "0","volume": "-48"},"group": "Group2"},{"AudioGroupList": [{"hwZoneId": "1","hwZoneName": "DVD"}],"accountId": "4","accountName": "zone 2","currentGroup": {"crossover": {"highPass": [{"filterType": "6","frequency": "20","status": "off"}],"lowPass":[{"filterType": "6","frequency": "20","status": "off"}]},"delay": "0","eightBandEq": [{"F": "32","G": "0","Q": "0.3","index": "1","status": "on"},{"F": "64","G": "0","Q": "0.3","index": "2","status": "on"},{"F": "125","G": "0","Q": "0.3","index": "3","status": "on"},{"F": "250","G": "0","Q": "0.3","index": "4","status": "on"},{"F": "500","G": "0","Q": "0.3","index": "5","status": "on"},{"F": "1000","G": "0","Q": "0.3","index": "6","status": "on"},{"F": "2000","G": "0","Q": "0.3","index": "7","status": "on"},{"F": "4000","G": "0","Q": "0.3","index": "8","status": "on"},{"F": "100","G": "0","Q": "2.0","index": "9","status": "on"},{"F": "1000","G": "0","Q": "2.0","index": "10","status": "on"},{"F": "5000","G": "0","Q": "2.0","index": "11","status": "on"}],"hwZoneId": "1","hwZoneName": "DVD","meter": "20","muteStatus": "off","signalGenerator": "0","volume": "0"},"group": "Group2"}]}

3.10 - get.dbPresetList

This command returns the names of all saved presets.

Example command: "from":"webui", "to":"mcu", "optCode":"get.dbPresetList", "value": {}

Example response:
{"from": "mcu","optCode": "get.dbPresetList","productseries": "mse-phase","response": {"code": 0,"msg": "","resetValue": 0},"to": "web","value": [{"dbPresetList": [{"dbBackup": "preset-1","dbPreset": "test1"},{"dbBackup": "preset-2","dbPreset": "test2"}]}]}

3.11 - load.dbPreset

This command loads a desired preset. This function also returns the master group volume list and the master zone list.

Example command: "from":"webui", "to":"mcu", "optCode":"load.dbPreset", "value": {"dbPreset":"test1"}

Example response: N/A

Document title:	DSM-16 3rd Patry Control
Document file name:	DSM-16 Party Software API.PDF
Revision number:	<01>
Issued by:	SoundTube
Issue Date:	10-02-2025
Status:	Issued

Revision	Date	Author	Description of Change
01	10-02-2025	RMP	Initial Draft