.Ovation Application Programming Interface (Server API - Summit)

Because this device uses the Logitech Media Server you can use any driver compatible with the LMS.

Please check the Fusion web site for the latest drivers for your control system.

API / Firmware Version

This document specifies the API as of firmware version 16.7.1.0 (and newer).

Older versions of firmware may not support all functionality, or may operate differently.

HTTP Requests

All control and media browsing happens through HTTP GET requests to the server. The server will respond with XML indicating the result of the request.

All requests are made to the server's IP address and control port (default 9720). The request is to the URI '/oms/api/1/control/lms?action=[action]' and can include the following parameters depending on the request: mac, path, start, count, param1

Parameters

All parameters (including the 'action' parameter) are passed as standard GET parameters.

Parameter	Explanation
action	Required. See below.
mac	MAC address of a player (xx:xx:xx:xx:xx:xx) being controlled.
path	When browsing the library, this is the path to get data for.
start	When browsing, this is the first record to return (zero (0) based).
count	When browsing, this is the number of records we would like returned.
search	When browsing, this provides a &search& parameter for a request.
param1	This varies depending on the command. See below.

Library Browsing

The **browse** action returns XML data for entries in the library for the path specified.

action	Parameters	Example
browse	mac (required for all non-local metadata)	action=browse&path=/
	start (optional, default = 0)	
	count (optional, default = -1 (all))	
	path (required)	action=browse&path=/local&start=0&count=1
	search (optional)	

Each entry contains a path that can then be followed to "open" that item (if openable).

Control

Commands to control the server are listed below with each of the required parameters along with an example.

action	Parameters	Example	Notes
get_version		action=get_version	The version of the server (and API).
power_off		action=power_off	Shut down the server (power off). Note: To "power on" the server, use Wake on LAN. Not applicable to OMS0.
reboot		action=reboot	Reboot the server.
Library Management			
rescan_library		action=rescan_library	Start a rescan of the media library.
get_library_rescan_status		action=get_library_rescan_status	Request status of a library rescan operation.

abort_library_rescan		action=abort_library_rescan	Abort a library rescan in progress.
Players			
get_player_list		action=get_player_list	List players known to this server
get_player_list_ex		action=get_player_list_ex	List players known to ALL servers
get_player_info	mac	action=get_player_info&mac=[mac]	Get info for a single player.
set_player_power	mac, param1 (true|false)	action=set_player_power&mac=[mac]&param1=[true|false]	Turn off the player.
set_player_power_all	param1 (true|false)	action=set_player_power_all&param1=[true|false]	Turn off all players.
cycle_player_power	mac (optional)	action=cycle_player_power	Momentarily power cycle a player (by mac) or all (with no mac).
set_player_sync_all	param1 (true|false)	action=set_player_sync_all&param1=true	Sync all players to this player (param1 must be true to sync or false to unsync all).
set_player_sync	mac, param1 (optional)	action=set_player_sync&mac=[mac]&param1=[mac]	Sync the player to the player specified in param1 (or unsync if param1 missing).
get_player_sync_groups		action=get_player_sync_group	Returns a set of player macs for each sync group.
disconnect_player	mac, param1	action=disconnect_player&mac=[mac]	Tell player to disconnect from its server and join ours. Param1 must be the remote server's IP address.
Queues			
get_queue_status	mac, param1 (optional)	action=get_queue_status&mac=[mac]&param1=[what]	Return status for the queue (of a player). Param1 is the field to return or blank for all status.
get_queue_entries	mac	action=get_queue_entries&mac=[mac]	Return a list of entries in the queue.

get_queue_entry	mac, param1	action=get_queue_entry&mac=[mac]&param1=[index]	Retrurn info for a single entry in the queue (param1 is the zero based index).
get_queue_index	mac	action=get_queue_index&mac=[mac]	Get the index of the currently playing (or active) item in the queue.
set_queue_index	mac, param1	action=set_queue_index&mac=[mac]&param1=[index]	Set the queue to play this entry. Param1 is the index in the queue.
get_queue_count	mac	action=get_queue_count&mac=[mac]	Return the number of items in the queue.
get_queue_transport	mac	action=get_queue_transport&mac=[mac]	Determine transport state of the queue.
set_queue_transport	mac, param1	action=set_queue_transport&mac=[mac]&param1=[play|pause|stop|toggle]	Play, pause or stop the playback. Param1 can be "play", "pause", "stop", "unpause", "toggle", "prev" or "next".
get_queue_position	mac	action=get_queue_position&mac=[mac]	Determine the current position (in the queue's current song) in seconds.
set_queue_position	mac, param1	action=get_queue_position&mac=[mac]&param1=[seconds]	Jump to the specified position (in seconds) in the current song.
get_queue_duration	mac	action=get_queue_duration&mac=[mac]	Determine the current duration (of the queue's current song) in seconds.
get_queue_volume	mac	action=get_queue_volume&mac=[mac]	Determine the current volume (0-100%) of the queue's playback.
set_queue_volume	mac, param1	action=set_queue_volume&mac=[mac]&param1=[volume]	Adjust playback volume (param1 can be 0-100)
get_queue_mute	mac	action=get_queue_mute&mac=[mac]	Determine the current volume

			mute setting of the queue's playback.
set_queue_mute	mac, param1	action=set_queue_mute&mac=[mac]&param1=[true|false|]	Mute (or unmute) playback. Param1 can be "true", "false", or missing for toggle.
get_queue_shuffle	mac	action=get_queue_shuffle&mac=[mac]	Get the queue's shuffle configuration.
set_queue_shuffle	mac, param1	action=set_queue_shuffle&mac=[mac]&param1=[none|song|album]	Set shuffle. Param1 can be "none", "song", "album" or none for next.
get_queue_repeat	mac	action=get_queue_repeat&mac=[mac]	Get the queue's repeat configuration.
set_queue_repeat	mac, param1	action=set_queue_repeat&mac=[mac]&param1=[none|song|playlist]	Set Repeat. Param1 can be "none", "song", "playlist" or none for next.
clear_queue	mac	action=clear_queue&mac=[mac]	Clear the player's queue.
save_queue_as	mac, param1	action=save_queue_as&mac=[mac]&param1=[playlist name]	Save the queue as a playlist with the name (param1).
delete_queue_item	mac, param1	action=delete_queue_item&mac=[mac]&param1=[index to remove]	Remove the item specified (param1, by index) from the queue.
Playlists			
playlist_delete	mac, playlist_id	action=playlist_delete&playlist_id=100	Delete the specified playlist
playlist_rename	mac, playlist_id, param1	action=playlist_rename&playlist_id=100&param1=New%20Name	Rename the specified playlist with the new name in param1
playlist_remove_item	mac, playlist_id,	action=playlist_remove_item&playlist_id=100&param1=2	Remove the item at the (zero based) index position specified in

	param1		param1
Playback			
play	mac, path, param1 (optional)	action=play&mac=[mac]&path=[path]&param1=[load|add|insert]	Play the thing (if appropriate) specified by the path. Param1 specifies how to play (load = replace current queue, add means add to end of queue and insert means insert at top of queue).
Art			
get_art	path	action=get_art&path=[art]	[art] is a partial url returned for an entry while library browsing Note: [art] may also be a full URL (starts with http://)
Miscelaneous			
rate_positive	mac	action=rate_positive&mac=[mac]	Rate the Pandora/SoundMachine track currently playing. (true = thumbs up).
rate_negative	mac	action=rate_negative&mac=[mac]	Rate the Pandora/SoundMachine track currently playing. (true = thumbs down).
Favorites			
favorite_exists	fav_url	action=favorite_exists&fav_url=[favorite url]	Returns true or false depending on whether the "favorite url" provided is currently a favorite.
favorite_add	fav_url, fav_name, fav_parent, fav_index	action=favorite_add&fav_url=[favorite url]&fav_name=[name]&fav_parent=[parent folder id]&fav_index=[insert position]	Insert favorite (url) using the name under the parent folder (optional ID derived from path) at the index specified (optional).

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favorite_add_folder	fav_name, fav_parent, fav_index	action=favorite_add_folder&fav_name=[name]&fav_parent=[parent folder id]&fav_index=[insert position]	Insert folder (url) using the name under the parent folder (optional ID derived from path) at the index specified (optional).
favorite_rename	fav_id, fav_name	action=favorite_rename&fav_id=[favorite id to rename]fav_name=[new name]	Rename the favorite specified by ID (derived from path) to the new name.
favorite_move	fav_id, fav_parent, fav_index	action=favorite_move&fav_id=[favorite id]&fav_parent=[parent folder id]&fav_index=[insert position]	Move the favorite specified by ID (derived from path) to the parent folder (optional ID derived from path) at the index specified (optional). Note: LMS may not honor the Index under all circumstances.
favorite_delete	fav_id	action=favorite_delete&fav_id=[favorite id]	Delete the favorite specified by ID (derived from path). When the path is "/favorite=1.2.3" then ID would be "1.2.3" (without quotes)

Feedback

Feedback is provided through XML messages delivered via a constant TCP connection to the server on port 9724.

Below is an example of an XML message from the server:
```
<?xml version="1.0"?>
<FusionResearchLMS>
        <feedback>
                <raw>98%3Afe%3A94%3A00%3A00%3A00 play</raw>
                <message from="98:fe:94:00:00:00" key="transport" value="play">
                        <field>play</field>
                </message>
        </feedback>
</FusionResearchLMS>
```

To receive these messages, open a connection (TCP) to the server on port 9724 and leave it open. As things change on the server, the messages will be sent. They are terminated with a carriage return. The "raw" component mimics the feedback from the LMS. The "message" component interprets the LMS data.

In addition to getting transport status messages (as above) you can receive messages that indicate a song has changed (see below)
```
<?xml version="1.0"?>

<FusionResearchLMS>

  <feedback>

    <raw>98%3Afe%3A95%3A00%3A00%3A00 playlist newsong Atlantic%20City 59</raw>

    <message from="98:fe:95:00:00:00" key="queue" value="newsong" title="Atlantic City" index="59">

      <field>playlist</field>

      <field>newsong</field>

      <field>Atlantic City</field>

      <field>59</field>

    </message>

  </feedback>
```

```
</FusionResearchLMS>
```

When receiving this message you may ask for the player's queue status (get_queue_status) and then fetch the current cover art to display metadata information to the user.

Handling types of feedback messages

There are a number of feedback messages that should be attended to for things like refreshing Queue contents, and Now Playing information.

When one of these is received, refresh the Now Playing information:

From	Key	Value	Action
[Player MAC] or Server	connected	true	Refresh Now Playing and Queue
[Player MAC] or Server	queue	loaded	Refresh Now Playing and Queue
[Player MAC] or Server	queue	addtracks	Refresh Now Playing and Queue
[Player MAC] or Server	queue	loadtracks	Refresh Now Playing and Queue
[Player MAC] or Server	queue	newsong	Refresh Now Playing and Queue
[Player MAC] or Server	queue	cleared	Refresh Now Playing and Queue
[Player MAC] or Server	queue	delete	Refresh Now Playing and Queue
[Player MAC] or Server	shuffle		Refresh Now Playing and Queue

Server Discovery

Ovation servers can be discovered using a UDP broadcast on port 9720. Listen on any UDP port between 1025 and 65535 and send a UDP broadcast containing the text message "Discover" to port 9720. All music servers will respond with a UDP packet to the sender's port (the "from port" with an XML message containing serial numbers, model and version information. Below is an example:

```xml
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<Configuration>
  <discovered_oms software_serial_number="ALEXTEST1" hardware_serial_number="000111" model="MS3"
     software_version="22.8.29.0" hardware_revision="a02082" os_version="10.7" access_control_server_password_md5=""
     access_control_server_requires_encryption="false" access_control_player_password_md5="" players_only="false"/>
</Configuration>
```