

My Music Player

My Music Player LE

TCP/IP Protocol User Guide

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1. Introduction

This document describes the protocol which allows to control My Music Player and My Music Player LE with TCP/IP commands.

The TCP/IP commands are sent on the IP address of the player (e.g. 192.168.0.21) or on its NetBIOS name (e.g. mmp-8b0a) through the 1234 port.

Each command is a frame of bytes build as follow:

1. A "number of fields which build the command" header on 4-byte formatted in 32 bit « little-endian ».
 2. A "type of command" field.
 3. A "name or code of command" field.
 4. A sequence of "parameter of command" fields which could be necessary to the command.
- Each field of the command is finished by a byte equal to 0.
 - the number of parameters depend of the command used.

Important: When a command is sent to the player, the TCP/IP socket is immediately closed. Reopen the TCP / IP socket will be necessary to send a new command.

1.1. Example 1 - Player Status Command

This command allows to receive the player status. It is build with 2 fields:

- Command type: `get`.
- Command name: `PlayerStatus`.

The frame of bytes building the command will be as follows:

| Byte | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|------|---|---|---|---|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Cmd | 2 | 0 | 0 | 0 | 'g' | 'e' | 't' | 0 | 'P' | 'l' | 'a' | 'y' | 'e' | 'r' | 'S' | 't' | 'a' | 't' | 'u' | 's' | 0 |
| Hex | 2 | 0 | 0 | 0 | 67 | 65 | 74 | 0 | 50 | 6c | 61 | 79 | 65 | 72 | 53 | 74 | 61 | 74 | 75 | 73 | 0 |

1.2. Example 2 - Playing Command of the Folder MUS021 in Random

This command allows to play the `MUSIC` folder number 21 (`MUS021`) in random mode. It is build with 4 fields:

- Command type: `cmd`.
- Command code (playing a `MUSIC` folder in random): `0`.
- The number of the folder: `21`.
- An empty command option: `0`.

The frame of bytes building the command will be as follows:

| Byte | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------|---|---|---|---|-----|-----|-----|---|-----|----|-----|-----|----|-----|----|
| Cmd | 4 | 0 | 0 | 0 | 'c' | 'm' | 'd' | 0 | '0' | 0 | '2' | '1' | 0 | '0' | 0 |
| Hex | 4 | 0 | 0 | 0 | 63 | 6d | 64 | 0 | 30 | 0 | 32 | 31 | 0 | 30 | 0 |

2. Command List

2.1. Commands of Status

| TCP/IP Command | Return Values | Description |
|---|--|--|
| 02h 00h 00h 00h get 00h PlayerStatus 00h | Playing or Stopped | Status of the player. |
| 02h 00h 00h 00h get 00h Source 00h | Internal USB, External USB, SD card, Internal HDD, Web radio, Aux input or USB | Name of the current played source. |
| 02h 00h 00h 00h get 00h FolderType 00h | MUS, PLS, SPT or OFF | Type of the current played folder. |
| 02h 00h 00h 00h get 00h FolderID 00h | From 1 to 999 | Number of the current played MUSIC folder. |
| 02h 00h 00h 00h get 00h FolderMode 00h | RND, RND+RST, SEQ or SEQ+RST | Playback mode of the current played MUSIC folder. |
| 02h 00h 00h 00h get 00h PlaylistID 00h | From 1 to 999 | Number of the current played PLAYLIST folder. |
| 02h 00h 00h 00h get 00h PlaylistMode 00h | RND, RND+RST, SEQ or SEQ+RST | Playback mode of the current played PLAYLIST folder. |
| 02h 00h 00h 00h get 00h SpotID 00h | From 1 to 999 | Number of the current played SPOT folder. |
| 02h 00h 00h 00h get 00h SpotMode 00h | RND or SEQ | Playback mode of the current played SPOT folder. |
| 02h 00h 00h 00h get 00h PlayingFile 00h | (string of characters) | Name of the current played file. |
| 02h 00h 00h 00h get 00h RemainingTime 00h | (hh:mm:ss) | Remaining time of the current playback. |
| 02h 00h 00h 00h get 00h VolumeLocalMusic 00h | From 0 to -64 | Value of the main volume. |
| 02h 00h 00h 00h get 00h WebRadioID 00h | From 1 to 10 | Number of the current played web radio. |
| 02h 00h 00h 00h get 00h WRadio1Name 00h | (string of characters) | Name of the web radio 1. |
| 02h 00h 00h 00h get 00h WRadio2Name 00h | (string of characters) | Name of the web radio 2. |
| 02h 00h 00h 00h get 00h WRadio3Name 00h | (string of characters) | Name of the web radio 3. |
| 02h 00h 00h 00h get 00h WRadio4Name 00h | (string of characters) | Name of the web radio 4 |
| 02h 00h 00h 00h get 00h WRadio5Name 00h | (string of characters) | Name of the web radio 5 |
| 02h 00h 00h 00h get 00h WRadio6Name 00h | (string of characters) | Name of the web radio 6 |
| 02h 00h 00h 00h get 00h WRadio7Name 00h | (string of characters) | Name of the web radio 7 |
| 02h 00h 00h 00h get 00h WRadio8Name 00h | (string of characters) | Name of the web radio 8 |

| | | |
|--|------------------------|--------------------------|
| 02h 00h 00h 00h get 00h WRadio9Name 00h | (string of characters) | Name of the web radio 9 |
| 02h 00h 00h 00h get 00h WRadio10Name 00h | (string of characters) | Name of the web radio 10 |

2.2. Commands of Playback

| TCP/IP Command | Parameters | Description |
|--|-------------------|--|
| 04h 00h 00h 00h cmd 00h 32 00h 255 00h 255 00h | (none) | Resume the playback. |
| 04h 00h 00h 00h cmd 00h 34 00h 255 00h 255 00h | (none) | Stop the playback. |
| 04h 00h 00h 00h cmd 00h 35 00h 255 00h 255 00h | (none) | Next file or web radio. |
| 04h 00h 00h 00h cmd 00h 36 00h 255 00h 255 00h | (none) | Previous file or web radio. |
| 04h 00h 00h 00h cmd 00h 0 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a MUSIC folder in random. |
| 04h 00h 00h 00h cmd 00h 1 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a MUSIC folder in random with reset option. |
| 04h 00h 00h 00h cmd 00h 2 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a MUSIC folder in sequential. |
| 04h 00h 00h 00h cmd 00h 3 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a MUSIC folder in sequential with reset option. |
| 04h 00h 00h 00h cmd 00h 8 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a PLAYLIST folder in random. |
| 04h 00h 00h 00h cmd 00h 9 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a PLAYLIST folder in random with reset option. |
| 04h 00h 00h 00h cmd 00h 10 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a PLAYLIST folder in sequential. |
| 04h 00h 00h 00h cmd 00h 11 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a PLAYLIST folder in sequential with reset option. |
| 04h 00h 00h 00h cmd 00h 16 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a SPOT folder in random. |
| 04h 00h 00h 00h cmd 00h 17 00h <x> 00h 0 00h | <x> from 1 to 999 | Play a SPOT folder in sequential. |
| 04h 00h 00h 00h cmd 00h 64 00h <x> 00h 0 00h | <x> from 1 to 10 | Play a web radio. |
| 04h 00h 00h 00h cmd 00h 81 00h 0 00h 0 00h | (none) | Play SD card storage device as an alternate source. |
| 04h 00h 00h 00h cmd 00h 82 00h 0 00h 0 00h | (none) | Play external USB storage device as an alternate source. |
| 04h 00h 00h 00h cmd 00h 83 00h 0 00h 0 00h | (none) | Play internal USB storage device as an alternate source. |
| 04h 00h 00h 00h cmd 00h 84 00h 0 00h 0 00h | (none) | Play SATA storage device as an alternate source. |
| 04h 00h 00h 00h cmd 00h 91 00h 0 00h 0 00h | (none) | Switch to the auxiliary input. |

2.3. Commands of Setting Parameters

| TCP/IP Command | Value | Description |
|--|---------------|----------------------------|
| 03h 00h 00h 00h set 00h VolumeLocalMusic 00h <x> 00h | From 0 to -64 | Set the main volume level. |

3. Send a Command with the Terminal Application of Linux

Into the terminal application of a Linux operating system, the commands `echo` and `nc` can be combined to send command over TCP/IP to the player. The bytes of the command that can not be represented by a visible ASCII character can be entered in hexadecimal by using the `\x` prefix and the parameter `-e`. The parameters of the command `nc` define the player IP address (or its NetBIOS name) and the port number for its control over TCP/IP.

Example 1

```
echo -e "\x02\x00\x00\x00get\x00WRadio3Name\x00" | nc 192.168.0.56 1234
```

The following command line sends on the port `1234` a request to know what is the name of the web radio 3 of the player having the IP address `192.168.0.56`.

Example 2

```
echo -e "\x04\x00\x00\x00cmd\x0034\x00255\x00255\x00" | nc mmp-8b0a 1234
```

The following command line sends on the port `1234` a request to stop the playback of the player having the NetBIOS name `mmp-8b0a`.

Example 3

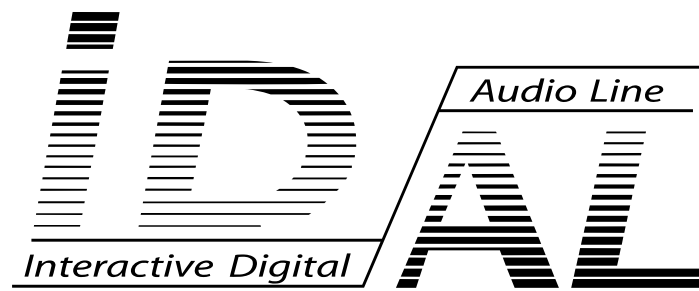
```
echo -e "\x04\x00\x00\x00cmd\x002\x00105\x000\x00" | nc 192.168.0.123 1234
```

The following command line sends on the port `1234` a request to play in sequential the folder `MUS105` of the player having the IP address `192.168.0.123`.

Example 4

```
echo -e "\x04\x00\x00\x00cmd\x0091\x000\x000\x00" | nc 192.168.1.201 1234
```

The following command line sends on the port `1234` a request to switch on the auxiliary input of the player having the NetBIOS name `mmp-b04f`.



by



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