

## **PMR4000RMKII**

### Control command list

# Command list PMR4000RMKII

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## 2. OBJECTIVE

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The objective of this manual is to help the installer to create an external control system which includes the Apart PMR4000RMKII via the Ethernet connection.

With this command list and programs such as commandfusion guiDesigner he will be capable to create a new app to control the PMR4000RMKII.

Beware: The manual doesn't explain programs like commandfusion guiDesigner. For more information about the program check their site

<http://www.commandfusion.com/software/guidesigner>

### 3. CONFIGURE THE COMMUNICATION

---

➤ First Step: Connect the PMR4000RMKII with the network

1. Press the MENU button
2. Go to "SYSTEM SETTINGS"
3. Go to "NETWORK"
4. Go to "MANUAL SETTINGS"
5. Select the network type "WIRED" or "WIRELESS"
6. Select between "DHCP enable" or "DHCP Disable"

➤ Second Step: Find the PMR4000RMKII IP-address

1. Press the MENU button
2. Go to "SYSTEM SETTING"
3. Go to "NETWORK"
4. Go to "VIEW SETTINGS"
5. IP address: **X.X.X.X**

➤ Third Step: Find the PMR4000RMKII NetRemote PIN

1. Press the MENU button
2. Go to "SYSTEM SETTINGS"
3. Go to "NETWORK"
4. Go to "NetRemote PIN Setup"
5. Installer enters a new PIN (4 Digits) and press OK

## 4. SEND COMMANDS TO PMR4000RMKII

---

The communication is platform independent. Any internet browser can be used for sending commands. (Internet Explorer, Firefox,...)



The basic command structure is as follows:

COMMAND = http://x.x.x.x/Command

1. Use the PMR4000RMKII IP-address → **X.X.X.X**

**X.X.X.X** is the PMR4000RMKII IP-address, 192.168.0.87 in the above example, this IP address will be used in all following examples, the real IP address of your device should be entered in each case.

2. The required command can be selected from the full command list below.

## 5. PMR4000RMKII Responses

---

When a command is sent to the unit, it will always send a response back.

### 5.1 REPLY

When the user sends a valid command and uses the current SessionID and PIN. The unit will reply with the requested information or with a valid response.

When one of these parameters isn't valid the reply will begin with an Error.

➤ 404 NOT FOUND

The user has send a wrong SessionId or invalid command

➤ 403 Forbidden

The user has send a invalid PIN

The unit will check the command and values and will send a reply according to the values.

➤ FS\_OK

When the value is valid and within the range of the command

➤ FS\_FAIL

When the value isn't in the range of the command, this means that the command hasn't been executed.

➤ FS\_PACKET\_BAD

When a command can't be SET, it will reply with "PACKET\_BAD"

➤ FS\_NODE\_BLOCKED

Certain commands can only be used when the unit is in the correct mode.

Commands to control the Music player can only be used when the unit system mode is set to "Music Player".

## 6. CONFIGURATION COMMANDS

### 6.1 GET DEVICE

This command is used to find the units name and version number.

This is the only command when you do not have to send the PIN number.

COMMAND = `http://192.168.0.87/device`



### 6.2 CREATE SESSION

There are two ways to control the unit:

SESSION		NO SESSION	
+	-	+	-
1 User	Need to create a new session every time	Multiple users	Possible conflict between users
No conflicts between users			

If only a single controlling device will be present then setting up a session is not required. If multiple controlling devices will be present then to avoid conflicts a session should be setup between each controlling device and the PMR4000RMKII.



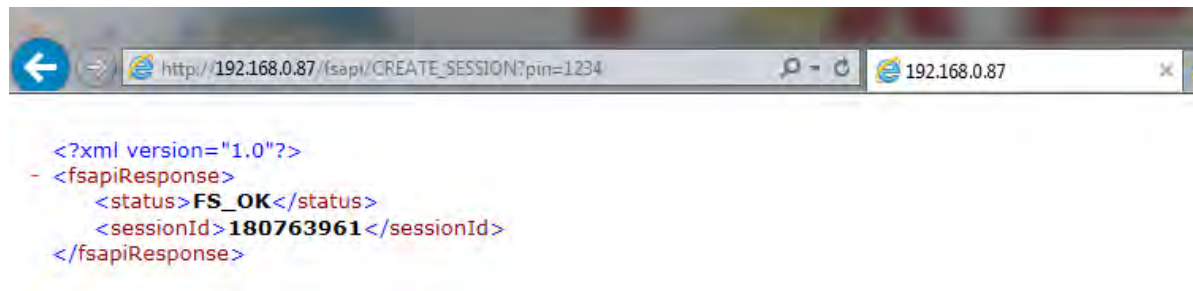
a. Session – setup a private session and use a sessionID

COMMAND = [http://192.168.0.87/fsapi/CREATE\\_SESSION?pin=1234](http://192.168.0.87/fsapi/CREATE_SESSION?pin=1234)

If you set up a private session, you need to enter the PIN that was entered in “3. Configure the communication”.

Each controlling device can create a private session, the unit would follow the commands until the session has ended or another user has created a new one.

As long you keep sending the current sessionID the unit will respond and execute the commands and other commands with a different sessionID will get a “404 NOT FOUND “ error.



Every user is always capable of starting a new session even when another user is already in a session. This means that the unit will listen to the new sessionID and ignore the previous sessionID.

- b. No Session - Send the command directly to the unit.

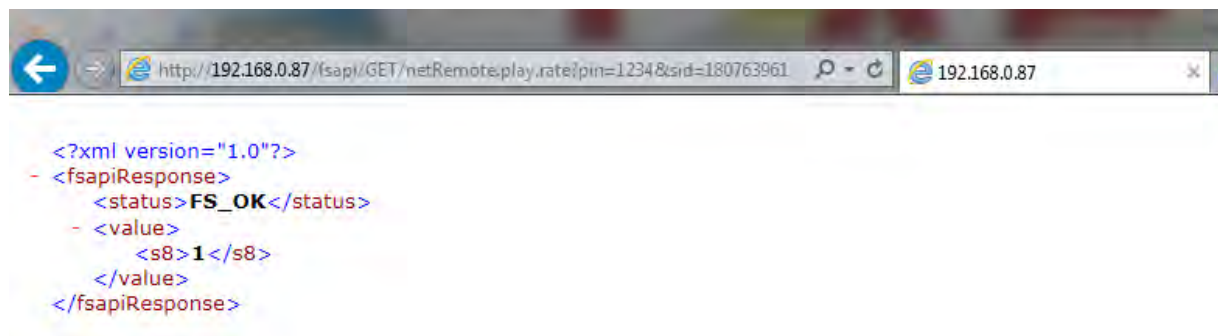
Every command that is sent straight to the unit will be executed. This will not end the current sessionID.

Examples:

Current SessionID = 180763961

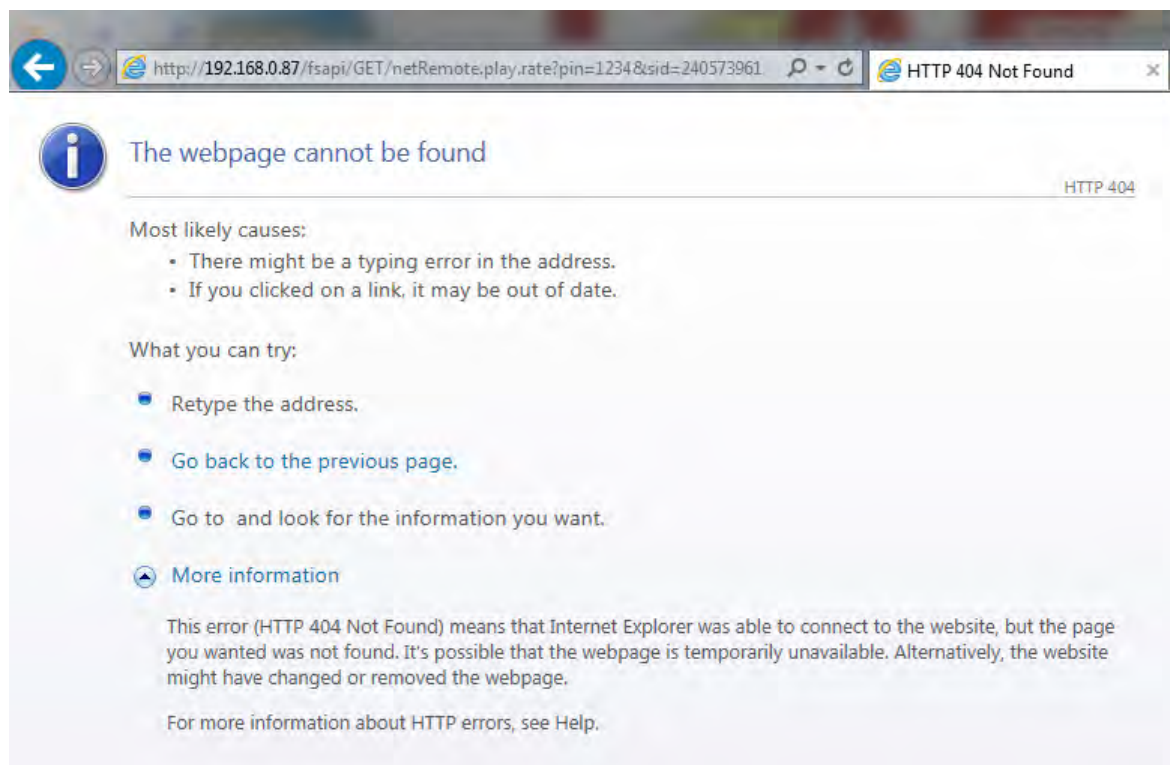
**1. The First command has used the correct sessionID**

- ⇒ **Valid answer**
- ⇒ **The command has been executed**



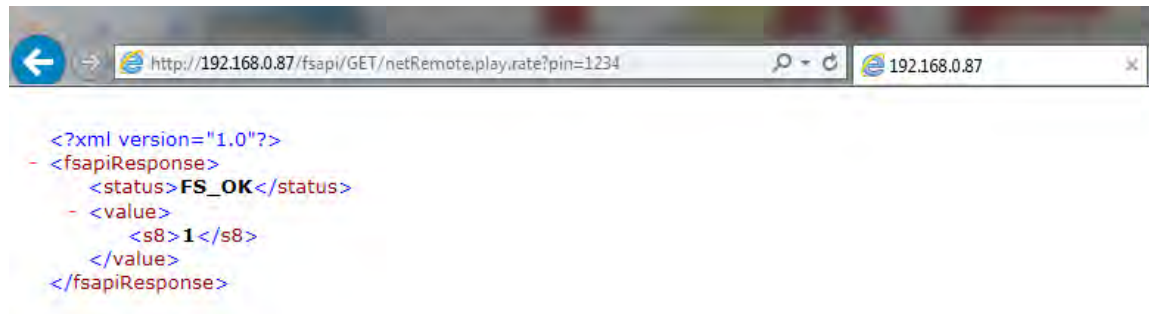
**2. The second command has used an incorrect sessionID**

- ⇒ **Invalid answer** "404 NOT FOUND"
- ⇒ **The command hasn't been executed**



The third command hasn't used a sessionID

- ⇒ Valid answer
- ⇒ The command has been executed



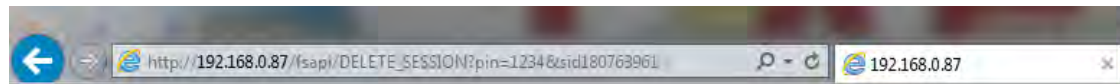
**NOTE:** Controllers with a different sessionID will get a “404 NOT FOUND” error.

**BUT,** a controller who doesn't use a sessionID will get a valid response and their commands will be executed.

### 6.3 DELETE SESSION

When a user wants to end the session, it is done by sending the following command.

COMMAND = http://192.168.0.87/fsapi/DELETE\_SESSION?pin=1234&sid180763961

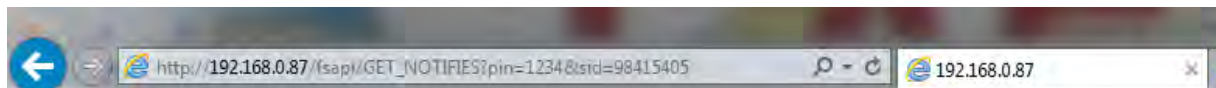


```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 6.4 GET NOTIFIES

This command can be used to retrieve information. The reply depends on the current system mode configuration.

COMMAND= http://192.168.0.87/fsapi/GET\_NOTIFIES?pin=1234&sid=98415405



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <notify node="netremote.sys.mode">
    - <value>
      <u32>0</u32>
    </value>
  </notify>
  - <notify node="netremote.play.info.name">
    - <value>
      <c8_array>105 Hip Hop & R'N'B</c8_array>
    </value>
  </notify>
  - <notify node="netremote.play.status">
    - <value>
      <u8>2</u8>
    </value>
  </notify>
</fsapiResponse>
```

**NOTE :** The unit will only execute this command if the user sends a Session ID.

If the user sends this command straight to the device (without a Session ID)

Reply:

HTTP/1.0 404 Not found  
Content-Type: text/xml

404 Error

## 7. CONTROL COMMANDS

---

In this chapter we will show and explain the commands to control the unit.

## 7.1 PLAY

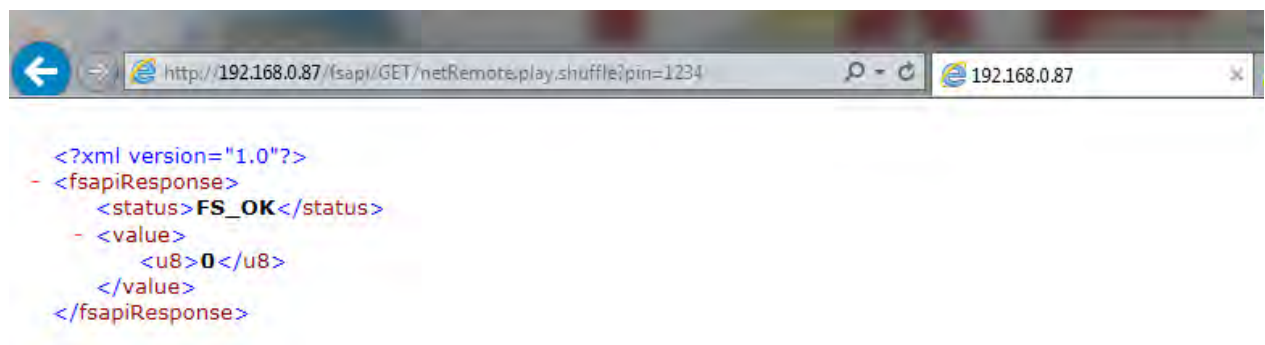
### 7.1.1 PLAY.SHUFFLE

The user can request the status of the music player shuffle mode or activate / deactivate the shuffle mode himself.

#### GET PLAY.SHUFFLE

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.play.shuffle?pin=1234`

*\*In these examples I send the commands straight to the device without setting up a session. To clearly show the important parts of the commands.*



The response value can be found in the line `<value><u8>0</u8></value>`

➔ The value of the shuffle = 0

Which means it's inactive.

VALUE	STATUS
1	Active
0	Inactive

## SET PLAY.SHUFFLE

COMMAND = `http://192.168.0.87/fsapi/SET/netRemote.play.shuffle?value=1&pin=1234`

There are two differences between the SET and GET commands.

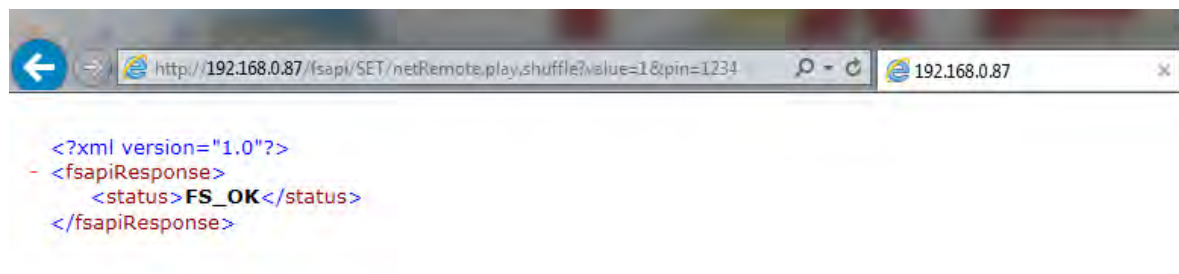
- GET ➔ SET

The third parameter change into a SET command.

- Value = 1

The new value needs to be added to the command. This part will be placed between the command and the PIN

**NOTE :** After the value there is a “&” symbol placed, this shows the unit where the command ends and that the PIN begins.



- Reply

Status = FS\_OK

Which means the value was accepted and executed

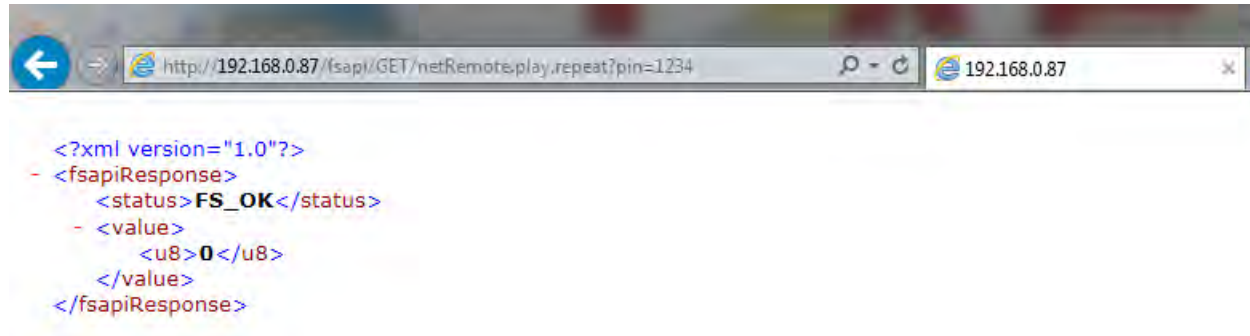
VALUE	STATUS
1	Activate
0	Deactivate

### 7.1.2 PLAY.REPEAT

The user can request the status of the music player repeat mode or activate / deactivate the repeat mode himself.

#### GET PLAY.REPEAT

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.play.repeat?pin=1234>



#### SET PLAY.REPEAT

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.play.repeat?value=1&pin=1234>

The repeat command has two possible values.

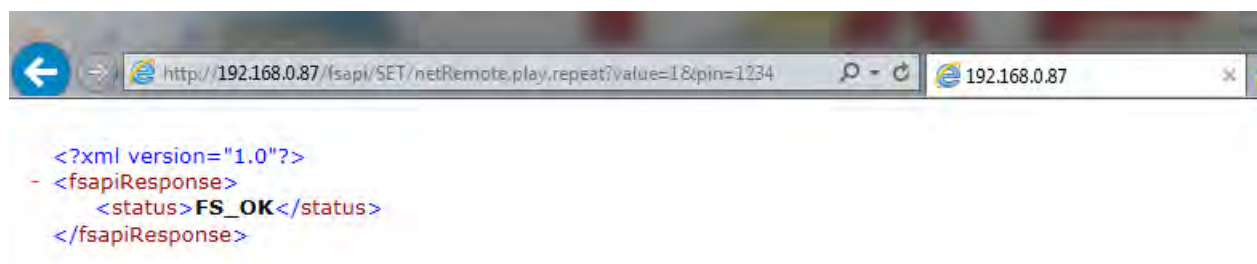
- Value = 1

VALUE	STATUS
1	Activate
0	Deactivate

When you want to activate the repeat mode, you need to send value = 1.

- Value = 0

When you want to deactivate the repeat mode, you need to send value = 0.



### 7.1.3 PLAY.RATE

With this command is the user capable of pause, play, fast forward and rewind the music.

The value has a range between -127 to 127. The value can be divided between 4 categories.

VALUE	STATUS
-127 to -1	Rewind
0	PAUSE
1	PLAY
2 to 127	Fast forward

➤ **-127 to -1**

When the user sends a negative value, the music player will rewind the track.

The speed depends on the value, - 10 will rewind faster than value -2

➤ **0**

When the user send rate = 0 ➔ the track will be paused

➤ **1**

The track will be played with normal speed

➤ **2 to 127**

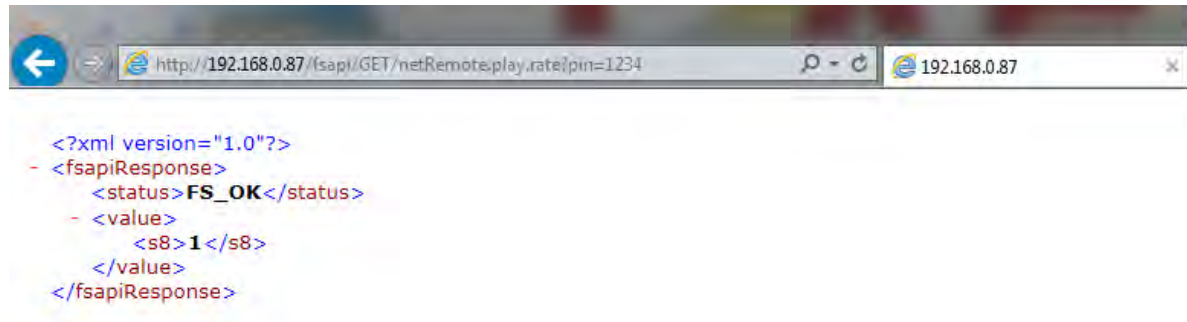
The track will be fast forwarded, the speed is here also dependable of the value

The speed of the fast forward is also dependable of the value ➔ 80 is faster than 10



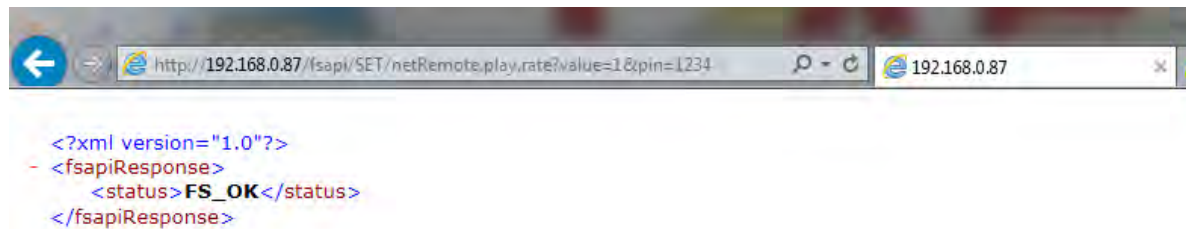
### GET PLAY.RATE

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.play.rate?pin=1234>



### SET PLAY.RATE

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.play.rate?value=1&pin=1234>



**NOTE : REWIND or FAST FORWARD is only activated for 1 track, when the track reaches the end. The music player will pause. The user needs to change the rate to value = 1 (it will start the next track after FAST FORWARD or play the same track after REWIND) OR give PREV or NEXT command to play the next /previous track (this track will be automatically played with rate 1 (normal speed)).**

#### 7.1.4 PLAY.POSITION

The user can jump to a specific moment of the track. This means that the range of the value is different with every track.

After the position is changed, the music player will continue to play the song (with the same rate).

**NOTE : The range of the value has no solid value, because the number of samples is different with every track.**

**To prevent sending an out of bound value. The user can request the number of samples of the track.**

How to get the range of a track?

The duration of a track can be requested with the following command.

`http://192.168.0.87/fsapi/GET/netRemote.play.info.duration?pin=1234`

#### GET PLAY.POSITION

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.play.position?pin=1234`



## SET PLAY.POSITION

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.play.position?value=4521&pin=1234>



### 7.1.5 PLAY.CONTROL

The control command has four different settings.

1 ➔ The current selected track will start playing

2 ➔ The current playing track will be paused

3 ➔

Media Player:

The next track will be selected and start playing. When the last item of the playlist is active, the unit will start the first track off the playlist.

Radio:

The unit will automatically scan on higher frequencies for the next available radio.

4 ➔

Media Player:

The previous track will start playing. If the first track is active, the unit will select the last track off the playlist.

Radio:

The unit will automatically scan on lower frequencies for the next available radio.

VALUE	STATUS
1	PLAY
2	PAUSE
3	NEXT
4	PREV

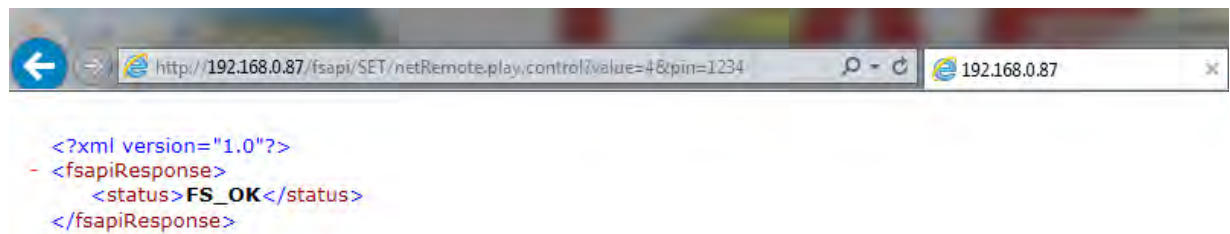
### GET PLAY.CONTROL

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.play.control?pin=1234>



### SET PLAY.CONTROL

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.play.control?value=4&pin=1234>



#### 7.1.6 PLAY.INFO

The user can retrieve information about the current track playing or selected on the unit.

These commands can only be used to get information from the unit, the third parameter will never be "SET".

When the unit doesn't have the specific information. (For example: the current playing song doesn't have the artist information.) The response from the unit will be empty.

**NOTE : When the track doesn't have the information → Unknown artist**

`<value><c8_array></c8_array></value>`

**The reply from the unit will be empty.**

#### 7.1.6.1 PLAY.INFO.DURATION

The specific duration of the current selected or playing track can be retrieved with this command. This is helpful when the user is going to jump to a specific part of the track and doesn't want to send an invalid command.

##### GET PLAY.INFO.DURATION

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.play.info.duration?pin=1234>

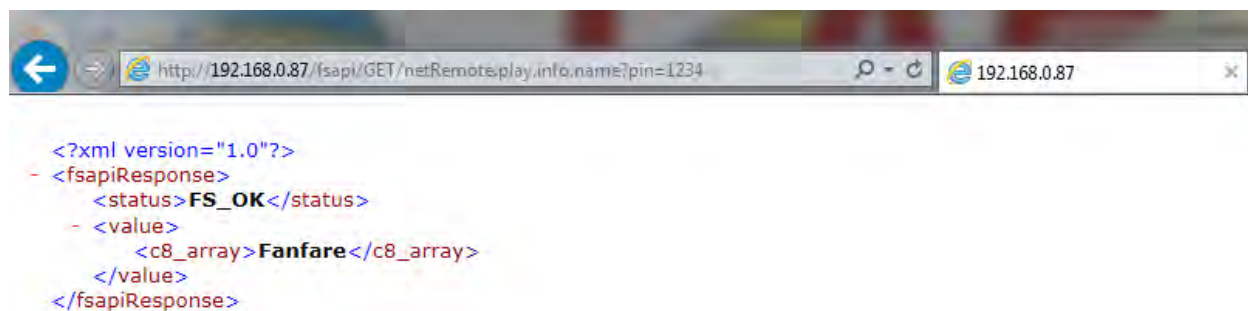


#### 7.1.6.2 PLAY.INFO.NAME

The name of the current selected or playing track can be retrieved with this command.

##### GET PLAY.INFO.NAME

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.play.info.name?pin=1234>

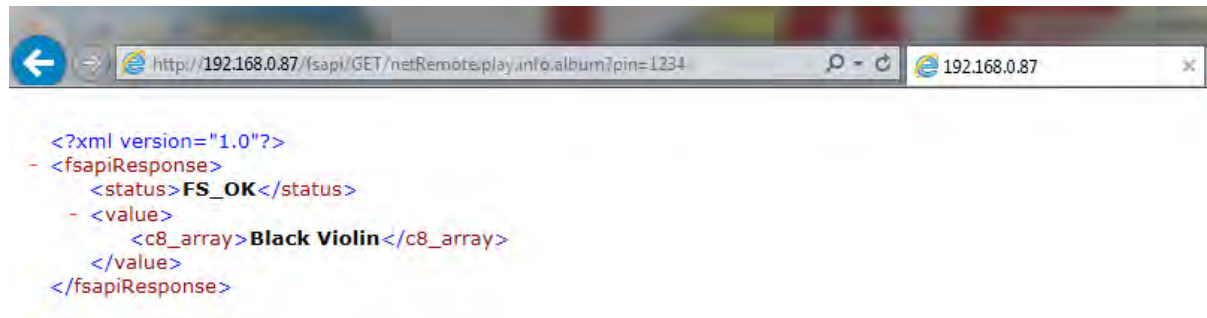


#### 7.1.6.3 PLAY.INFO.ALBUM

The name of the album of the current selected or playing track can be retrieved with this command.

##### GET PLAY.INFO.ALBUM

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.play.info.album?pin=1234`

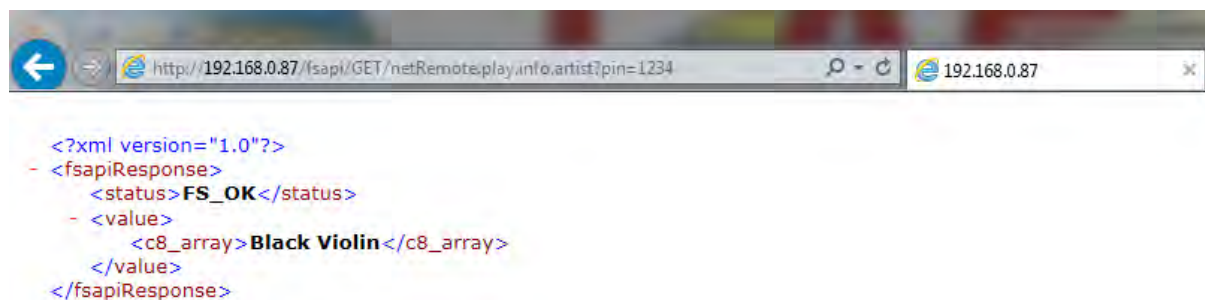


#### 7.1.6.4 PLAY.INFO.ARTIST

The name of the artist of the current selected or playing track can be retrieved with this command.

##### GET PLAY.INFO.ARTIST

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.play.info.artist?pin=1234`

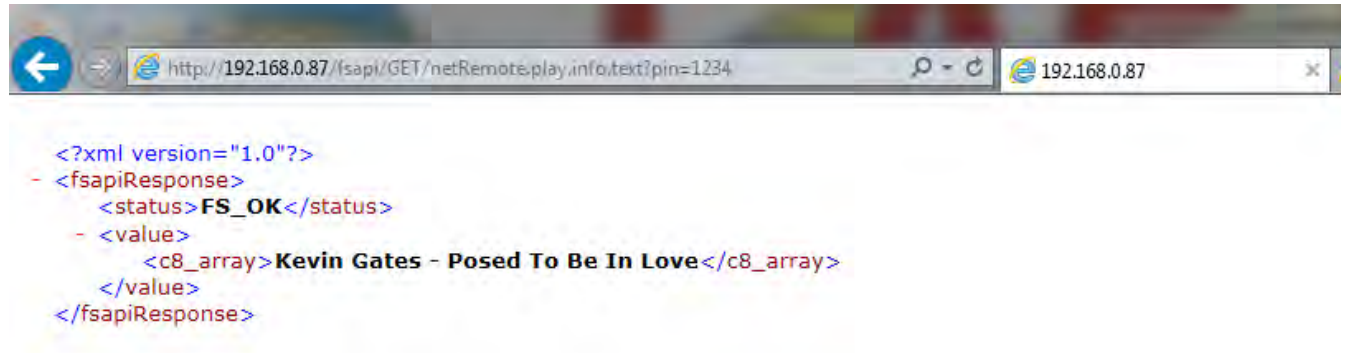


#### 7.1.6.5 PLAY.INFO.TEXT

The user can retrieve extra information of the track with this command or when the Ethernet radio is active, this command will retrieve the data that is showed on the display.

##### **GET PLAY.INFO.TEXT**

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.play.info.text?pin=1234`



#### 7.1.6.6 PLAY.INFO.GRAPHICURI

When the Ethernet radio is active, the unit will check on the online database of wifiradiofrontier.

The unit will automatically check if the current selected radio has a logo in the database and if possible returns the location.

##### **GET PLAY.INFO.GRAPHICURI**

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.play.info.graphicUri?pin=1234`





### 7.1.7 PLAY.STATUS

This command can only be used in a GET function. There are 3 different possible answers.

➤ 1

The unit is loading a track or scanning a radio preset

➤ 2

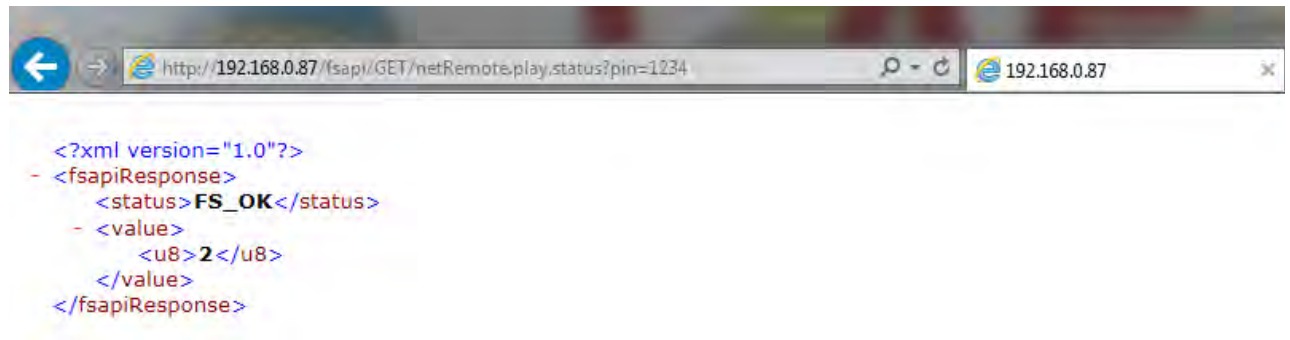
The unit is ready and playing a track or playing a radio post

➤ 3

The unit is ready and the track is paused.

#### GET PLAY.STATUS

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.play.status?pin=1234>



## 7.2 NAV

The NAV commands are used to navigate through the data and display them on the app.

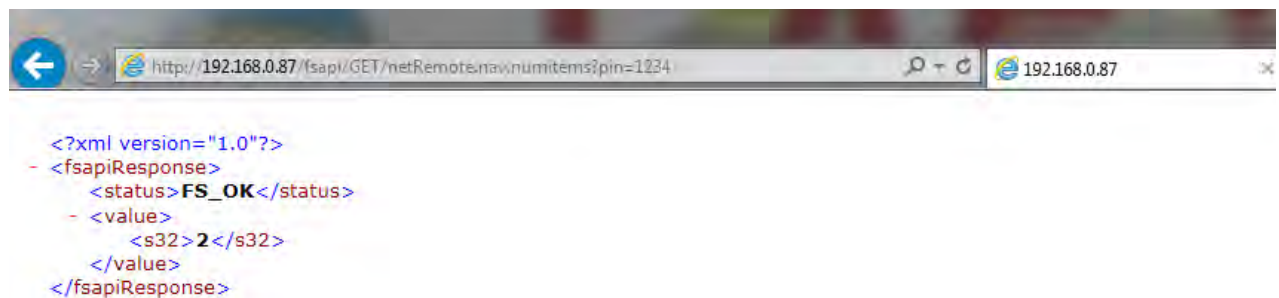
For example: when you want to browse through the USB (connected to the unit) map and want to list all the available documents.

### 7.2.1 NAV.NUMITEMS

Before you can retrieve the list, you need to know how many items there are.

#### GET NAV.NUMITEMS

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.nav.numitems?pin=1234`



### 7.2.2 NAV.LIST

The user can retrieve the list of available items with this command.

#### LIST\_GET\_NEXT NAV.LIST

COMMAND = `http://192.168.0.87/fsapi/LIST_GET_NEXT/netRemote.nav.list/-1?maxItems=25&pin=1234`

This isn't an ordinary GET function, for it will return an array (list) of data.

➤ -1

If the third parameter is "-1", the unit will reply with the entire list otherwise the list will start from the desired list number.

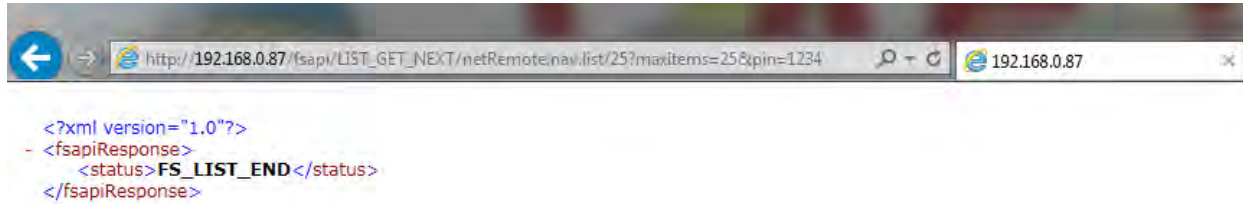
VALUE	STATUS
-1	All items
X	X = Start number

➤ maxItems=25

This parameter represents the maximal numbers of list items the reply will send.

Examples:

- If the third parameter > # available numbers & maxItems: 25



```
<?xml version="1.0"?>
<fsapiResponse>
  <status>FS_LIST_END</status>
</fsapiResponse>
```

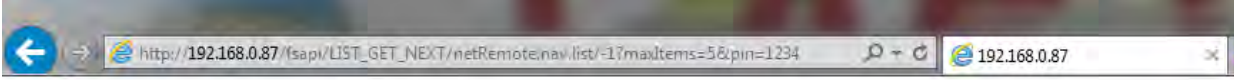
- Third parameter = 2 & maxItems: 2



```
<?xml version="1.0"?>
<fsapiResponse>
  <status>FS_OK</status>
  <item key="3">
    <field name="name">
      <c8_array>BOOTLO~1</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="4">
    <field name="name">
      <c8_array>DIMICR~1</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
</fsapiResponse>
```

- Third parameter = -1 & maxItems: 5

The unit will reply with the entire list:



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <item key="0">
    - <field name="name">
      <c8_array>AS88</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="1">
    - <field name="name">
      <c8_array>AUDIOC~1</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="2">
    - <field name="name">
      <c8_array>AUDIOP~1.004</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="3">
    - <field name="name">
      <c8_array>BOOTLO~1</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="4">
    - <field name="name">
      <c8_array>DIMICR~1</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
</fsapiResponse>
```

### 7.2.3 NAV.ACTION

These commands could be used to move in the map structure and open files.

#### 7.2.3.1 NAV.ACTION.NAVIGATE

This command is used to move through the map structure.

##### **SET NAV.ACTION.NAVIGATE**

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.nav.action.navigate?value=1&pin=1234>

##### ➤ SET

This command will execute an action.

##### ➤ Value

- 0xffffffff

The unit will select the map in an upper level.

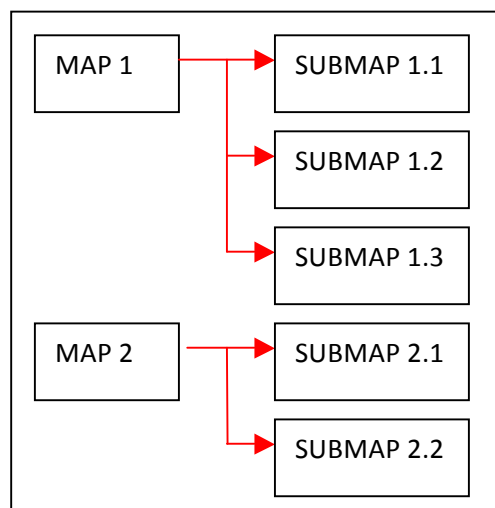
Example:

The user has selected SUBMAP 1.1. He can retrieve the items in this map.

➔ <http://192.168.0.87/fsapi/SET/netRemote.nav.action.navigate?value=0xffffffff&pin=1234>

The unit will move to an upper level and show the content of MAP 1.

USB



- X

The unit will enter the selected map and the user will be capable of retrieving the content.

Example:

The user has selected map 1

➔ <http://192.168.0.87/fsapi/SET/netRemote.nav.action.navigate?value=2&pin=1234>

The unit will open the second map (SUBMAP 1.2).

**NOTE : Different types:**

**0 = Map structure**

**1 = MP3**

**2 = MP4**

**This command will only work if the selected item is a type "0"**

```
<item key="0">
<field name="name"><c8_array>MAP1~1</c8_array></field>
<field name="type"><u8>0</u8></field>
<field name="subtype"><u8>0</u8></field>
```



### 7.2.3.2 NAV.ACTION.SELECTITEM

This command is used to open a file in the current selected map level.

#### **SET ACTION.SELECTITEM**

COMMAND = `http://192.168.0.87/fsapi/SET/netRemote.nav.action.selectItem?value=17&pin=1234`

- SET

This command will execute an action.

- Value=17

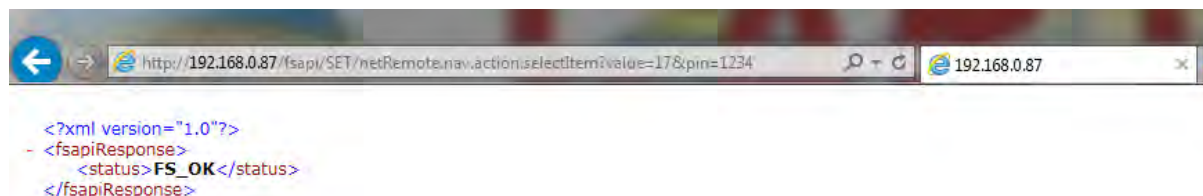
The selected value will open the item with the same item key.

**NOTE : This command can't be used to move through map levels.**

**It will only open the selected item if the item type isn't "0".**

```
- <item key="17">
  - <field name="name">
    <c8_array>12ME&M~1.MP3</c8_array>
  </field>
  - <field name="type">
    <u8>1</u8>
  </field>
  - <field name="subtype">
    <u8>3</u8>
  </field>
</item>
```

If a valid item has been selected, it will automatically start playing.



#### 7.2.4 NAV.STATE

Every time the system mode change, the nav commands will be disabled. Therefore they have to be enabled before they can be executed.

##### **GET NAV.STATE**

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.nav.state?pin=1234`

This command can be used to retrieve the current state

##### **SET NAV.STATE**

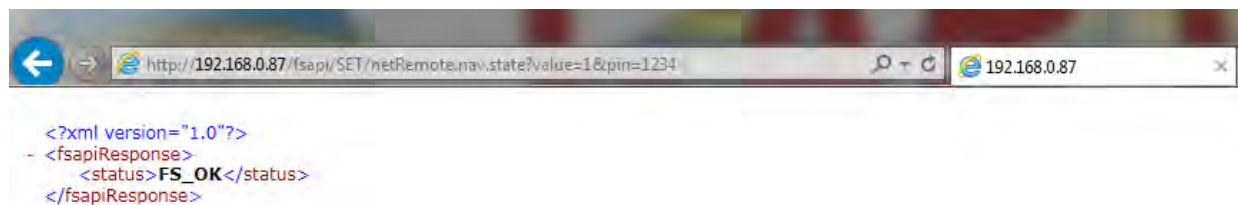
COMMAND = `http://192.168.0.87/fsapi/SET/netRemote.nav.state?value=1&pin=1234`

This command can be used to change the current state

- Value

To enable the nav commands, the nav.state needs to be set to "1" and to disable it needs to be set to "0".

VALUE	STATUS
0	Disable
1	Enable





Example:

'Ethernet radio is activated

Send command:

http://192.168.0.87/fsapi/**SET**/netRemote.sys.mode?**value=0**&pin=1234

Response:

<fsapiResponse><status>FS\_OK</status></fsapiResponse>

'Get the number of available list items

Send command:

http://192.168.0.87/fsapi/**GET**/netRemote.nav.numitems?pin=1234

Response:

<fsapiResponse><status>FS\_NODE\_BLOCKED</status></fsapiResponse>

'Check the nav.state

Send command:

http://192.168.0.87/fsapi/**GET**/netRemote.nav.state?pin=1234

Response:

<fsapiResponse><status>FS\_OK</status><value><u8>0</u8></value></fsapiResponse>

0 ➔ State = disabled

'Enable the nav commands.

Send command:

http://192.168.0.87/fsapi/**SET**/netRemote.nav.state?**value=1**&pin=1234

Response:

<fsapiResponse><status>FS\_OK</status></fsapiResponse>

'Get the number of available list items

Send command:

http://192.168.0.87/fsapi/**GET**/netRemote.nav.numitems?pin=1234

Response:

<fsapiResponse><status>FS\_OK</status><value><s32>6</s32></value></fsapiResponse>

### 5.2.3 NAV.STATUS

When the unit is still loading, it's not possible to read the data. To prevent errors or invalid answers it's best to always check the status after changing the system.mode before sending new commands.

This command has two possible answers

- 0

The unit is loading.

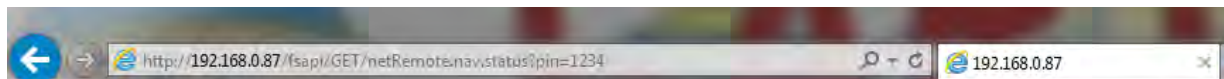
- 1

The unit is ready.

VALUE	STATUS
0	Loading
1	Ready

#### **GET NAV.STATUS**

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.nav.status?pin=1234`



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <value>
    <u8>1</u8>
  </value>
</fsapiResponse>
```

## 7.3 SYSTEM

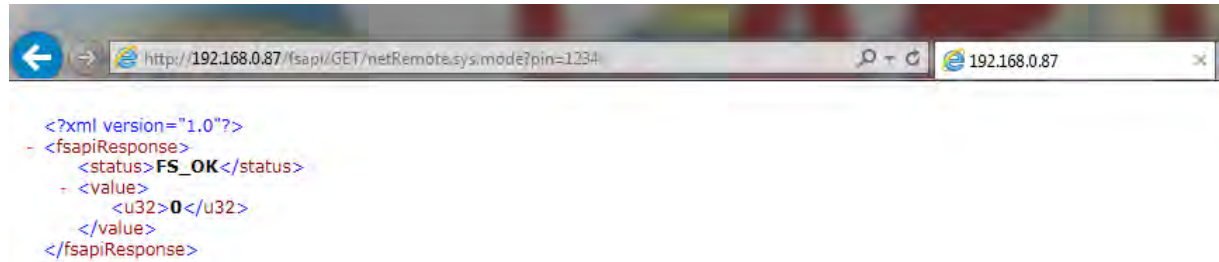
The system commands are used to GET/SET the system configuration.

### 7.3.1 SYSTEM.MODE

#### GET SYS.MODE

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.sys.mode?pin=1234`

The user can retrieve the current system configuration.



#### SET SYS.MODE

COMMAND = `http://192.168.0.87/fsapi/SET/netRemote.sys.mode?value=0&pin=1234`

The mode can be set to three different values.

- 0

This mode will select the Ethernet radio

- 1

This mode will select the Media Player

- 2

This mode will select the FM radio

VALUE	STATUS
0	Ethernet Radio
1	Music Player
2	FM Radio



### 7.3.2 SYSTEM.INFO

The INFO commands are used to GET/SET data which contain information of the unit.

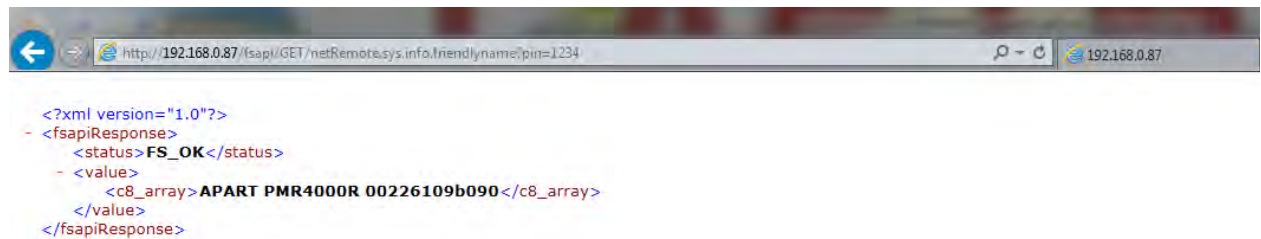
#### 7.3.2.1 SYSTEM.INFO.FRIENDLYNAME

The friendly name can be used to make it easier to identify certain units on the network.

This name will also be visible in the “http://192.168.0.87/device” command.

#### GET SYS.INFO.FRIENDLYNAME

COMMAND = http://192.168.0.87/fsapi/GET/netRemote.sys.info.friendlyname?pin=1234



#### SET SYS.INFO.FRIENDLYNAME

COMMAND= http://192.168.0.87/fsapi/SET/netRemote.sys.info.friendlyName?pin=1234&value=Test

- Value=

When the value is left empty, the friendly name will be restored to his default name.

➔ **APART PMR4000RMKII** xxxxxxxxxxxxxx (serial number)

- Value=New%20Name

The user can use every standard ASCII character in the new name.

Special characters can be added with their decimal value of the ASCII table.

Space ➔ %20


**NOTE :** Every command ends with the PINnumber (?value=x&pin=1234), but the SET SYS.INFO.FRIENDLYNAME command is an exception ➔ ?pin=1234&value=x

### 7.3.2.2 SYSTEM.INFO.VERSION

The user can request the unit his firmware version number. This information can only be requested and not be changed.

#### **GET SYS.INFO.VERSION**

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.sys.info.version?pin=1234>



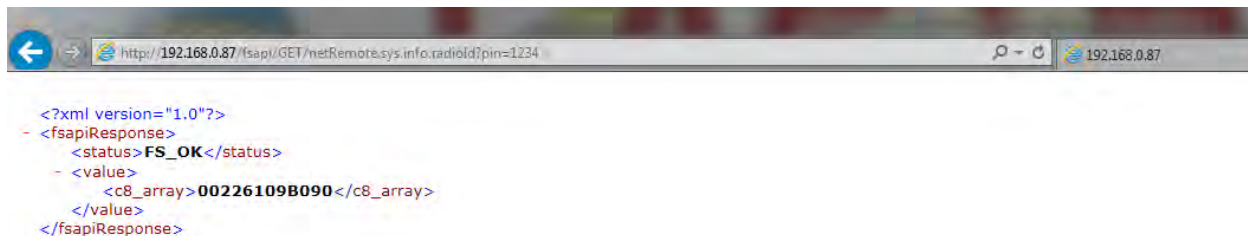
```
<?xml version="1.0"?>
<fsapiResponse>
  <status>FS_OK</status>
  <value>
    <c8_array>ir-mmi-FS2026-0500-0143_V2.6.12.EX51098-1A7</c8_array>
  </value>
</fsapiResponse>
```

### 7.3.2.3 SYSTEM.INFO.RADIOID

The user can request the unit his radio identity number. This information can only be requested and not be changed.

#### **GET SYSTEM.INFO.RADIOID**

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.sys.info.radioid?pin=1234>



```
<?xml version="1.0"?>
<fsapiResponse>
  <status>FS_OK</status>
  <value>
    <c8_array>002261098090</c8_array>
  </value>
</fsapiResponse>
```

### 7.3.3 SYSTEM.AUDIO

#### 7.3.3.1 SYSTEM.AUDIO.MUTE

The user can enable / disable the mute function or request the current status.

##### SET SYS.AUDIO.MUTE

COMMAND = `http://192.168.0.87/fsapi/SET/netRemote.sys.audio.mute?value=1&pin=1234`

The mode can be set to two values

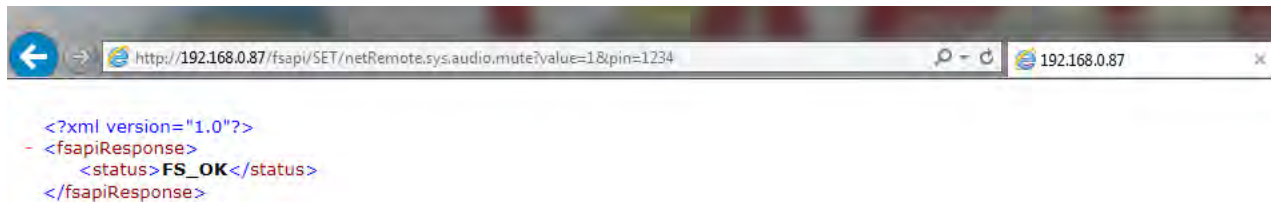
- 0

This mode will unmute the music.

- 1

This mode will mute the music.

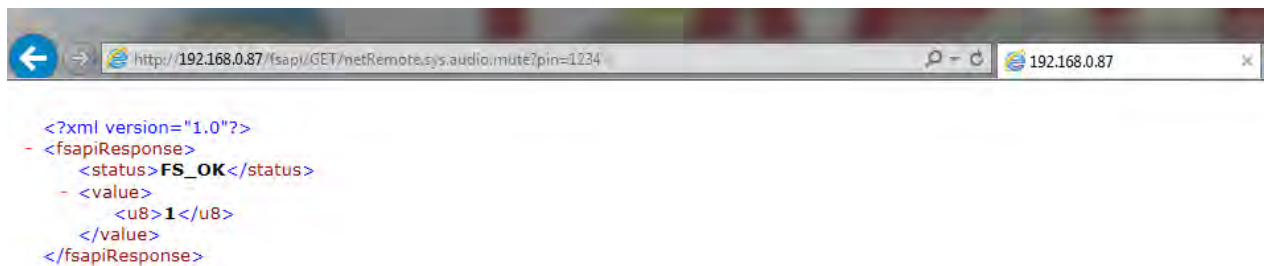
VALUE	STATUS
0	Unmute
1	Mute



##### GET SYS.AUDIO.MUTE

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.sys.audio.mute?pin=1234`

The user can retrieve the current state of the mute function.




### 7.3.3.2 SYSTEM.AUDIO.VOLUME

The user can retrieve or change the volume.

#### GET SYS.AUDIO.VOLUME

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.sys.audio.volume?pin=1234`

The user can retrieve the current value of the volume.



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u8>14</u8>
  </value>
</fsapiResponse>
```

#### SET SYS.AUDIO.VOLUME

COMMAND = `http://192.168.0.87/fsapi/SET/netRemote.sys.audio.volume?value=2&pin=1234`

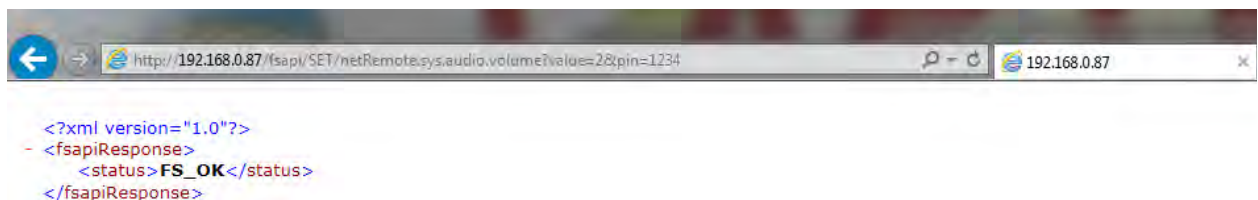
➤ 0

When the volume is set to the minimum value, it will activate the mute function.

VALUE	STATUS
0	Mute
1 - 32	Volume

➤ 1-32

The range of the volume is set from 1 to 32.



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

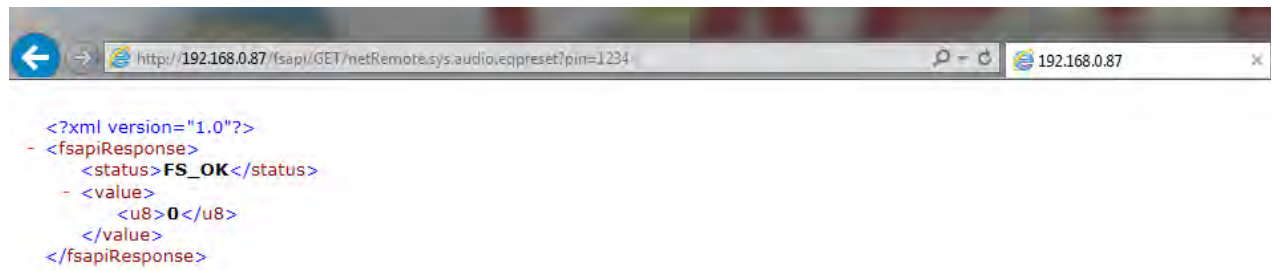
### 7.3.3.3 SYSTEM.AUDIO.EQPRESET

The user can retrieve or set the EQ configuration.

#### GET SYS.AUDIO.EQPRESET

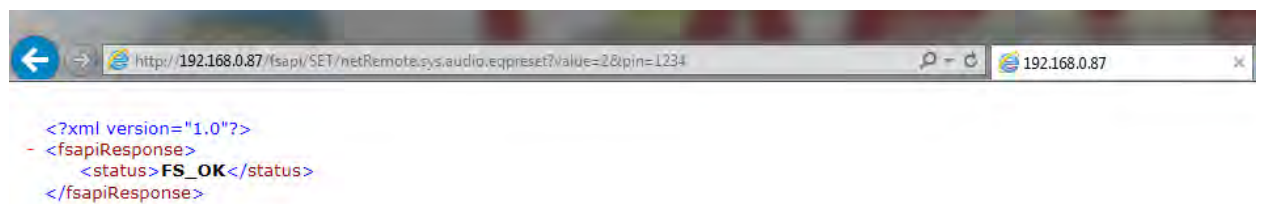
COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.sys.audio.eqpreset?pin=1234>

The user can retrieve the current selected EQ type.



#### SET SYS.AUDIO.EQPRESET

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.sys.audio.eqpreset?value=2&pin=1234>



There are two different types:

- My EQ

The user can create a personal EQ configuration.

The user can adjust the bass and treble levels and activate / deactivate the loudness.

- Preconfigured EQ

The user can choose between 8 different preconfigured EQ types:

Normal/Flat/Jazz/Rock/Movie/Classic/Pop and News.

VALUE	STATUS
0	My EQ
1	Normal
2	Flat
3	Jazz
4	Rock
5	Movie
6	Classic
7	Pop
8	News



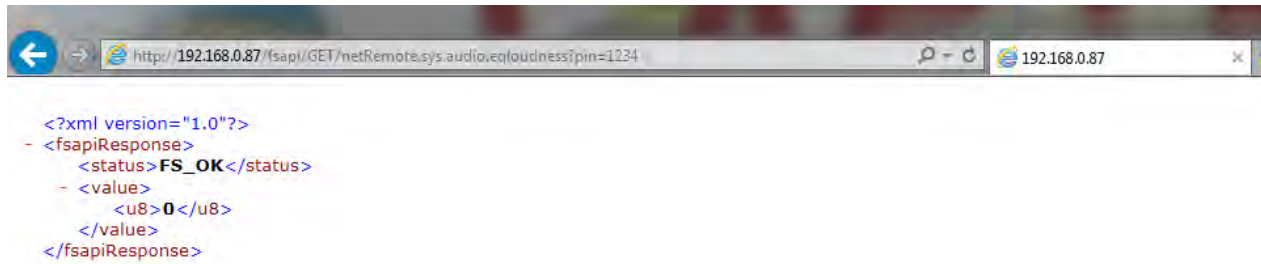
#### 7.3.3.4 SYSTEM.AUDIO.EQLOUDNESS

When the user has selected the “My EQ” configuration, he can manually activate /deactivate the loudness function.

##### GET SYS.AUDIO.EQLOUDNESS

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.sys.audio.eqloudness?pin=1234>

The user can retrieve the current state of the loudness function.



##### SET SYS.AUDIO.EQLOUDNESS

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.sys.audio.eqloudness?value=1&pin=1234>

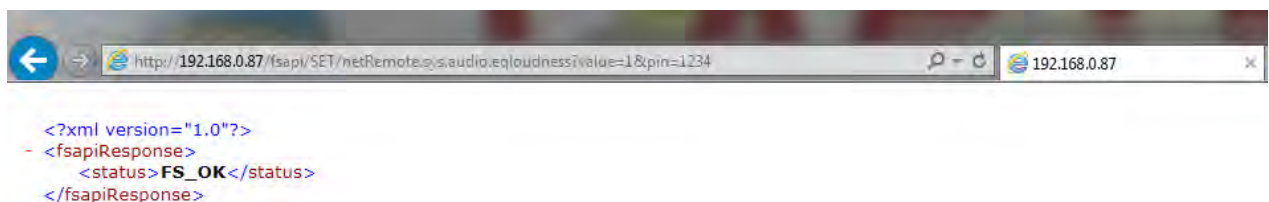
➤ 0

This will deactivate the loudness function

VALUE	STATUS
0	Deactivate
1	Activate

➤ 1

This will activate the loudness function.



### 7.3.3.5 SYSTEM.AUDIO.EQCUSTOM

The user can manually configure the EQ with this command

Bass = Param0

Treble = Param1

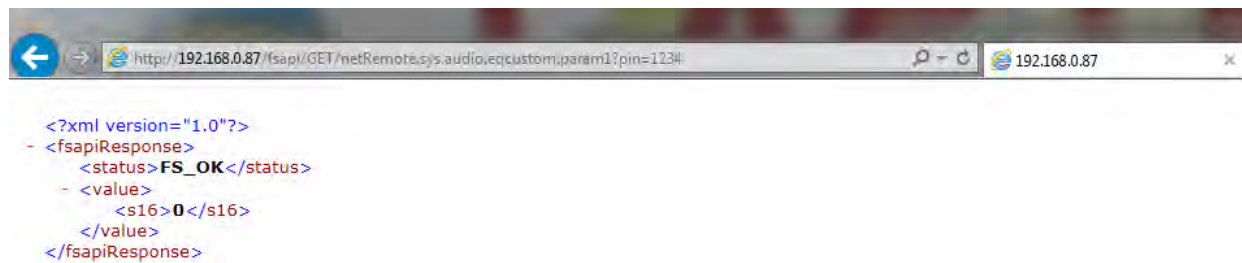
#### GET SYS.AUDIO.EQCUSTOM

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.sys.audio.eqcustom.param0?pin=1234`

This command can be used to retrieve the bass level.

COMMAND = `http://192.168.0.87/fsapi/GET/netRemote.sys.audio.eqcustom.param1?pin=1234`

This command can be used to retrieve the treble level.



#### SET SYS.AUDIO.EQCUSTOM

COMMAND =

`http://192.168.0.87/fsapi/SET/netRemote.sys.audio.eqcustom.param0?value=1&pin=1234`

This command can be used to set the bass level.

COMMAND =

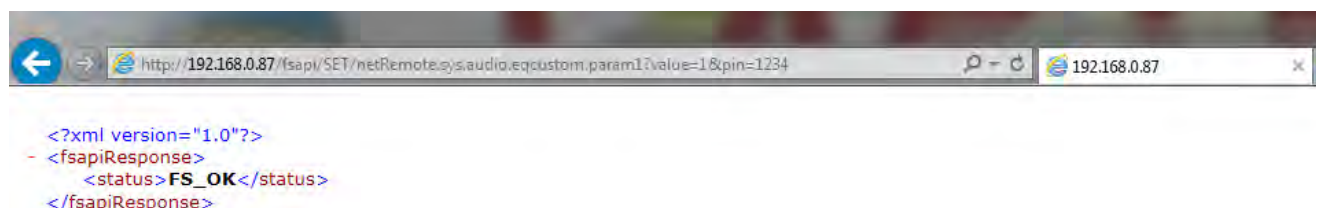
`http://192.168.0.87/fsapi/SET/netRemote.sys.audio.eqcustom.param1?value=1&pin=1234`

This command can be used to set the treble level.

➤ VALUE

	Param0 (bass)	Param1 (treble)
VALUE	-14 to 14	-14 to 14

The bass and treble levels have a range from -14 to 14.



#### 7.3.4 SYSTEM.POWER

The user can enable / disable the standby function with this command.

When the standby mode is active, the output will be muted and the display will be disabled.

**NOTE : The Ethernet or FM radio will reselect the last configured radio and automatically start playing.**

The music player will select the two main maps

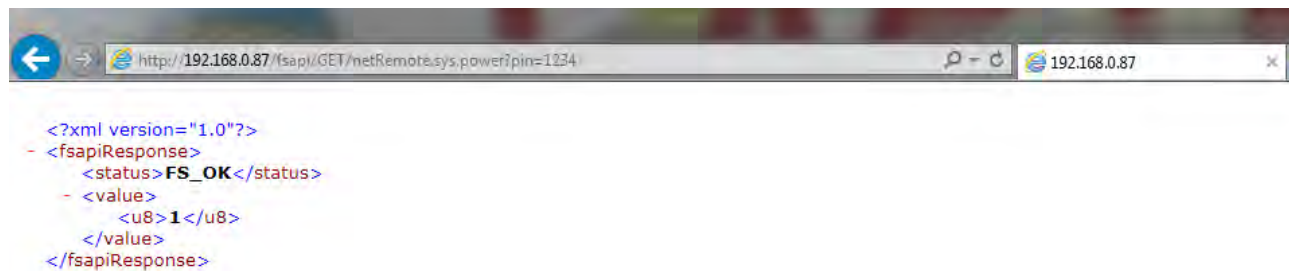
- Shared Media
- USB playback

➔ The unit wouldn't continue playing the last selected song.

#### GET SYS.POWER

COMMAND = <http://192.168.0.87/fsapi/GET/netRemote.sys.power?pin=1234>

The user can retrieve the current state of the standby mode.



## SET SYS.POWER

COMMAND = <http://192.168.0.87/fsapi/SET/netRemote.sys.power?value=1&pin=1234>

The user can enable / disable the standby mode.

➤ 1

This will disable the standby mode, the unit will return to his previous status.

VALUE	STANDBY
0	Enable
1	Disable

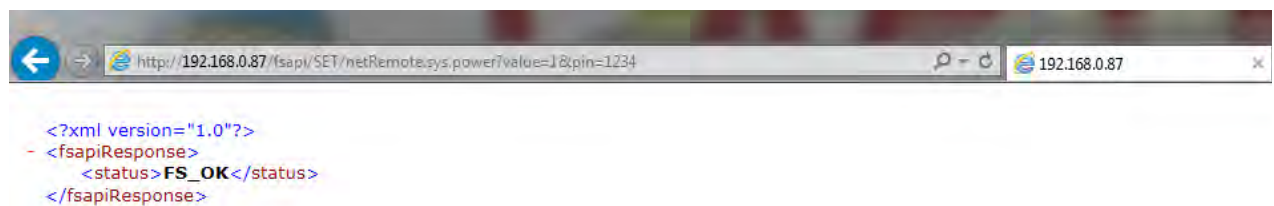
**NOTE : There are two possibilities to exit the standby mode.**

<http://192.168.0.87/fsapi/SET/netRemote.sys.power?value=1&pin=1234> **or send another command to the unit.**

**Set volume, change system settings ,...**

➤ 0

This will activate the standby mode.

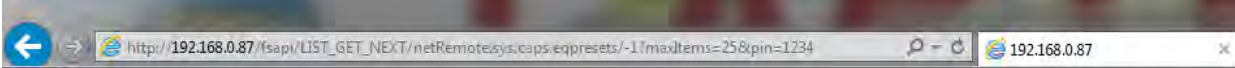


### 7.3.5 SYSTEM.CAPS.EQPRESETS

The user can retrieve the list with available EQ types.

#### LIST\_GET\_NEXT SYS.CAPS.EQPRESETS

COMMAND = [http://192.168.0.87/fsapi/LIST\\_GET\\_NEXT/netRemote.sys.caps.eqpresets/-1?](http://192.168.0.87/fsapi/LIST_GET_NEXT/netRemote.sys.caps.eqpresets/-1?maxItems=25&pin=1234)  
maxItems=25&pin=1234



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <item key="0">
    - <field name="label">
      <c8_array>My EQ</c8_array>
    </field>
  </item>
  - <item key="1">
    - <field name="label">
      <c8_array>Normal</c8_array>
    </field>
  </item>
  - <item key="2">
    - <field name="label">
      <c8_array>Flat</c8_array>
    </field>
  </item>
  - <item key="3">
    - <field name="label">
      <c8_array>Jazz</c8_array>
    </field>
  </item>
  - <item key="4">
    - <field name="label">
      <c8_array>Rock</c8_array>
    </field>
  </item>
  - <item key="5">
    - <field name="label">
      <c8_array>Movie</c8_array>
    </field>
  </item>
  - <item key="6">
    - <field name="label">
      <c8_array>Classic</c8_array>
    </field>
  </item>
  - <item key="7">
    - <field name="label">
      <c8_array>Pop</c8_array>
    </field>
  </item>
  - <item key="8">
    - <field name="label">
      <c8_array>News</c8_array>
    </field>
  </item>
</listend/>
</fsapiResponse>
```

## 8. SUMMARY

---

**A. Every command ends with pin number and sessionID (optional)**

Exceptions: Device / CREATE\_SESSION / DELETE\_SESSION

How to change between a SET and a GET command.

`http://192.168.0.87/fsapi/GET/netRemote.play.shuffle?pin=1234`

➔ `http://192.168.0.87/fsapi/SET/netRemote.play.shuffle?value=1&pin=1234`

**B. Every command ends with the PINnumber (?value=x&pin=1234)**

, but the SET SYS.INFO.FRIENDLYNAME command is an exception ➔ `?pin=1234&value=x`

**C. REWIND or FAST FORWARD is only activated for 1 track, when the track reaches the end.**

The music player will pause. The user needs to change the rate to value = 1 (it will start the next track after FAST FORWARD or play the same track after REWIND) OR give PREV or NEXT command to play the next /previous track (this track will be automatically played with rate 1 (normal speed))

**D. There are two possibilities to exit the standby mode.**

`http://192.168.0.87/fsapi/SET/netRemote.sys.power?value=1&pin=1234` or send another command to the unit.

Set volume, change system settings ,...

\*For further information: use the command list or the examples in this manual.

http://192.168.0.87/device		Retrieve the units name and version number.
http://192.168.0.87/fsapi/CREATE_SESSION?pin=1234		Create a private session.
http://192.168.0.87/fsapi/DELETE_SESSION?pin=1234		Delete a private session.
http://192.168.0.87/fsapi/GET_NOTIFIES?pin=1234&sid=98415405  <b>!!! sessionID is required !!!</b>		Retrieve extra information. (reply depends on the current system mode configuration)
http://192.168.0.87/fsapi/GET/netRemote.play.shuffle?pin=1234	GET & SET	0 Deactivate 1 Activate
http://192.168.0.87/fsapi/GET/netRemote.play.repeat?pin=1234	GET & SET	0 Deactivate 1 Activate
http://192.168.0.87/fsapi/GET/netRemote.play.rate?pin=1234	GET & SET	-127 to -1 Rewind 0 Pause 1 Play 2 to 127 Fast forward
http://192.168.0.87/fsapi/GET/netRemote.play.position?pin=1234	GET & SET	Jump to specific moment of the track.
http://192.168.0.87/fsapi/GET/netRemote.play.control?pin=1234	GET & SET	1 Play 2 Pause 3 Next 4 Prev
http://192.168.0.87/fsapi/GET/netRemote.play.info.duration?pin=1234	GET only	Retrieve the specific duration of the current selected or playing track.
http://192.168.0.87/fsapi/GET/netRemote.play.info.name?pin=1234	GET only	Retrieve the name of the current selected or playing track.
http://192.168.0.87/fsapi/GET/netRemote.play.info.album?pin=1234	GET only	Retrieve the album name of the current selected or playing track.
http://192.168.0.87/fsapi/GET/netRemote.play.info.artist?pin=1234	GET only	Retrieve the artist name of the current selected or playing track.
http://192.168.0.87/fsapi/GET/netRemote.play.info.text?pin=1234	GET only	Retrieve extra information of the track or radio.

http://192.168.0.87/fsapi/GET/netRemote.play.info.graphicUri?pin=1234	GET only	Retrieve the location of an available logo.
http://192.168.0.87/fsapi/GET/netRemote.play.status?pin=1234	GET only	1 Loading a track or scanning a radio preset. 2 Unit is ready and playing a track or playing a radio preset. 3 Unit is ready and the track is paused.
http://192.168.0.87/fsapi/GET/netRemote.nav.numitems?pin=1234	GET only	Retrieve the number of available list items.
http://192.168.0.87/fsapi/LIST_GET_NEXT/netRemote.nav.list/-1?maxItems=25&pin=1234	LIST_GET_NEXT only	Retrieve the list data.
http://192.168.0.87/fsapi/SET/netRemote.nav.action.navigate?value=1&pin=1234	SET only	Used to move through the map structure.
http://192.168.0.87/fsapi/SET/netRemote.nav.action.selectItem?value=17&pin=1234	SET only	Open a file in the current selected map level.
http://192.168.0.87/fsapi/GET/netRemote.nav.state?pin=1234	GET & SET	0 Disable 1 Enable
http://192.168.0.87/fsapi/GET/netRemote.nav.status?pin=1234	GET & SET	0 Loading 1 Ready
http://192.168.0.87/fsapi/SET/netRemote.sys.mode?value=0&pin=1234	GET & SET	0 Ethernet radio 1 Music player 2 FM radio
http://192.168.0.87/fsapi/GET/netRemote.sys.info.friendlyname?pin=1234	GET & SET	Retrieve or change the name of the unit.
http://192.168.0.87/fsapi/GET/netRemote.sys.info.version?pin=1234	GET only	Retrieve the firmware version number
http://192.168.0.87/fsapi/GET/netRemote.sys.info.radioid?pin=1234	GET only	Retrieve the radio identity number
http://192.168.0.87/fsapi/GET/netRemote.sys.audio.mute?pin=1234	GET & SET	0 Unmute 1 Mute



http://192.168.0.87/fsapi/GET/netRemote.sys.audio.volume?pin=1234	GET & SET	0 Mute 1 – 32 Volume
http://192.168.0.87/fsapi/GET/netRemote.sys.audio.eqpreset?pin=1234	GET & SET	0 My EQ 1 Normal 2 Flat 3 Jazz 4 Rock 5 Movie 6 Classic 7 Pop 8 News
http://192.168.0.87/fsapi/GET/netRemote.sys.audio.eqloudness?pin=1234	GET & SET	0 Deactivate 1 Activate
http://192.168.0.87/fsapi/GET/netRemote.sys.audio.eqcustom.param0?pin=1234	GET & SET	Retrieve /set the Bass and Treble level. Bass Param0 Treble Param1
http://192.168.0.87/fsapi/GET/netRemote.sys.power?pin=1234	GET & SET	0 Deactivate standby 1 Activate standby
http://192.168.0.87/fsapi/LIST_GET_NEXT/netRemote.sys.caps.eqpresets/-1?maxItems=25&pin=1234	LIST_GET_NEXT only	Retrieve the list with available EQ types.

## 9. EXAMPLES

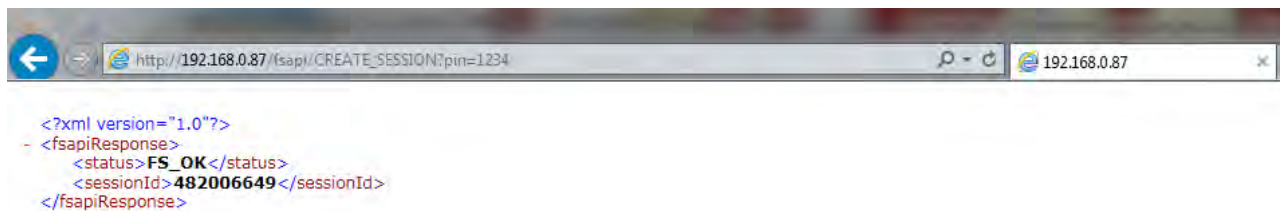
### 9.1 Example 1: How to activate Media player and select a song.

#### 'Find device'



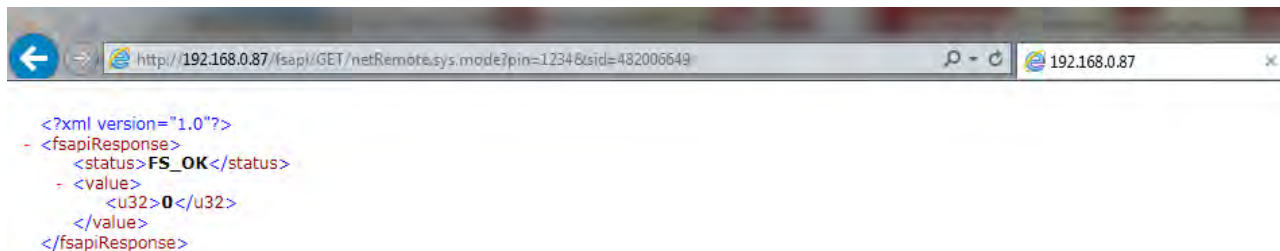
```
<?xml version="1.0"?>
- <netRemote>
  <friendlyName>New Name</friendlyName>
  <version>ir-mmi-FS2026-0500-0143_V2.6.12.EX51098-1A7</version>
  <webfsapi>http://192.168.0.87:80/fsapi</webfsapi>
</netRemote>
```

#### 'Create Session'



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <sessionId>482006649</sessionId>
</fsapiResponse>
```

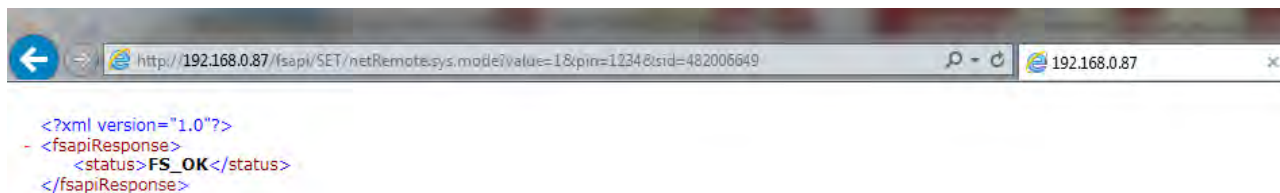
#### 'Get system mode'



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u32>0</u32>
  </value>
</fsapiResponse>
```

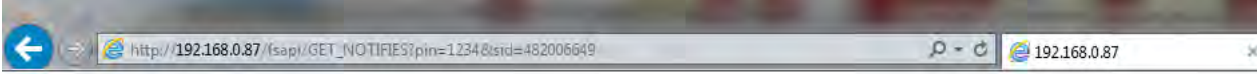
0 → Ethernet Radio

#### 'Set system mode: Media Player'



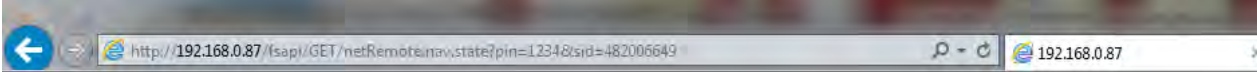
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

## 'Get notifies



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <notify node="netremote.play.status">
    + <value>
      <u8>0</u8>
    </value>
  </notify>
  - <notify node="netremote.play.info.name">
    - <value>
      <c8_array/>
    </value>
  </notify>
  + <notify node="netremote.play.info.text">
    + <value>
      <c8_array/>
    </value>
  </notify>
  - <notify node="netremote.sys.mode">
    - <value>
      <u32>1</u32>
    </value>
  </notify>
</fsapiResponse>
```

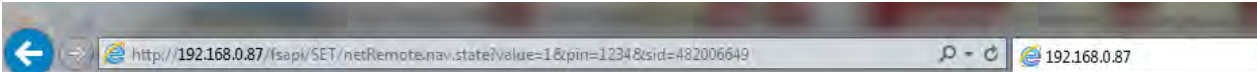
## 'Get nav.state



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <value>
    <u8>0</u8>
  </value>
</fsapiResponse>
```

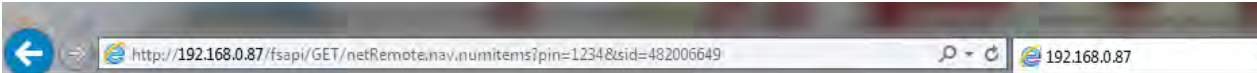
0 ➔ Disable

## 'Set nav.state: enable



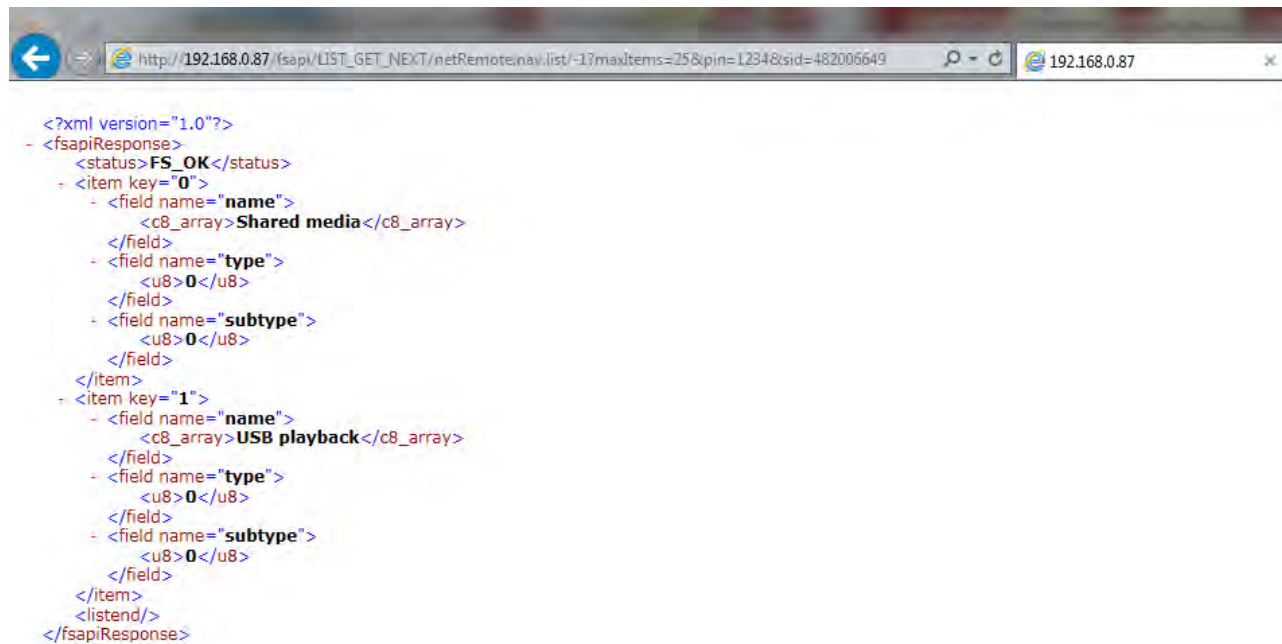
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

## 'Get nav.numitems



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <value>
    <s32>2</s32>
  </value>
</fsapiResponse>
```

### 'Get nav.list



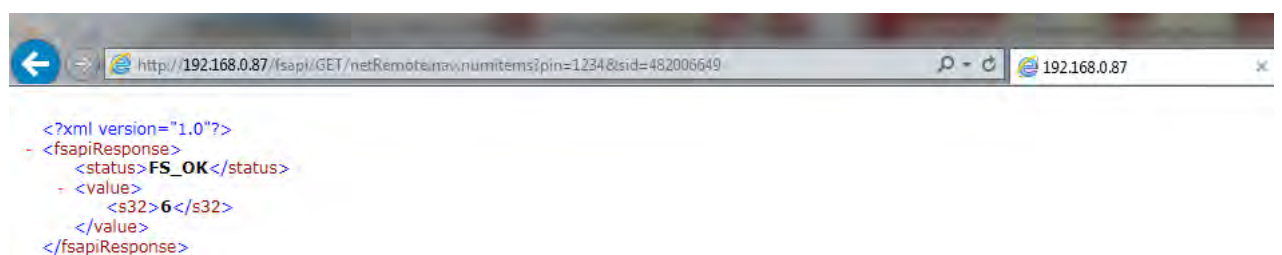
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <item key="0">
    - <field name="name">
      <c8_array>Shared media</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  + <item key="1">
    - <field name="name">
      <c8_array>USB playback</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
</listend/>
</fsapiResponse>
```

### 'Open map: USB Playback



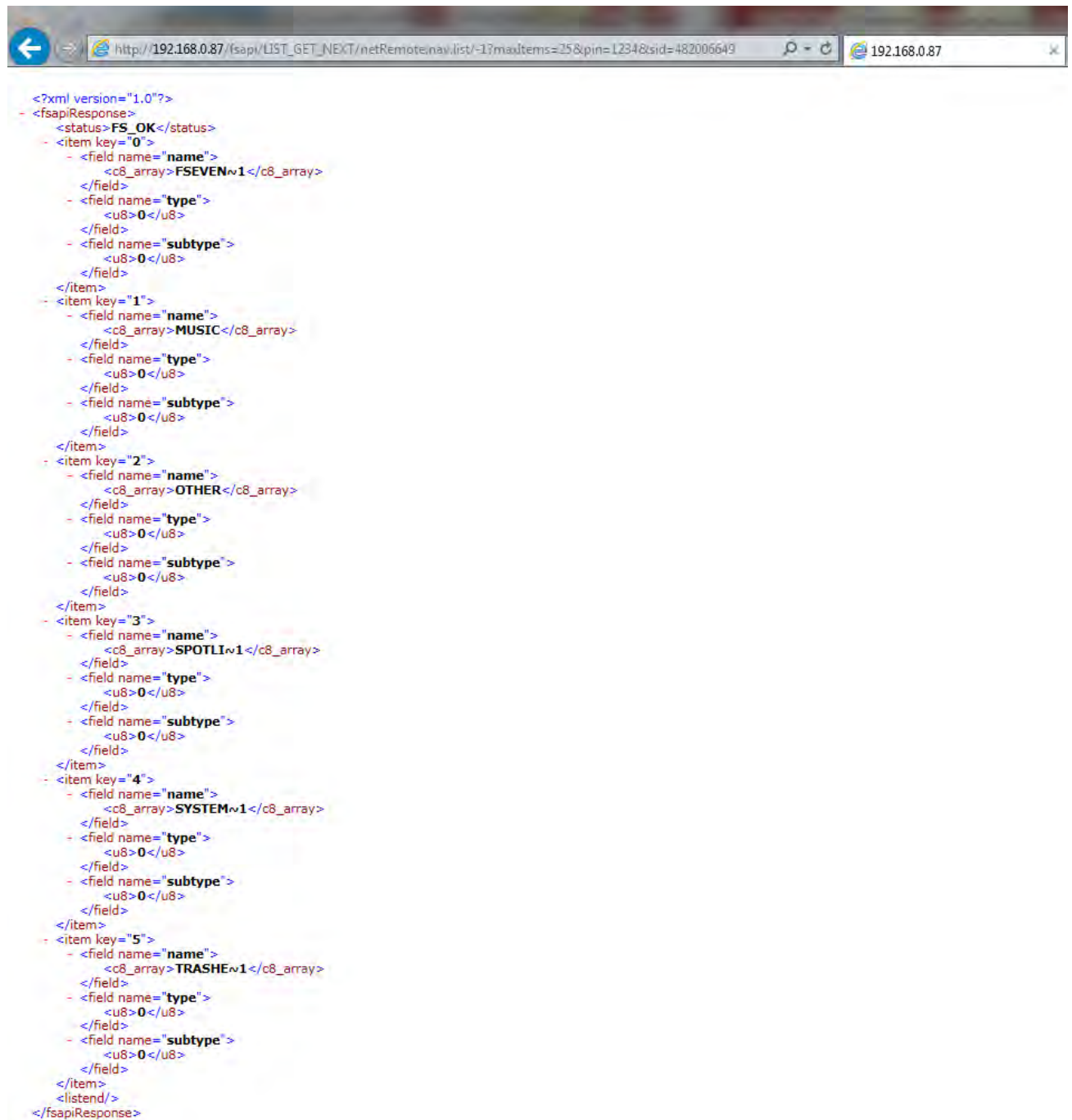
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get nav.numitems



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <value>
    <s32>6</s32>
  </value>
</fsapiResponse>
```

## 'Get nav.list



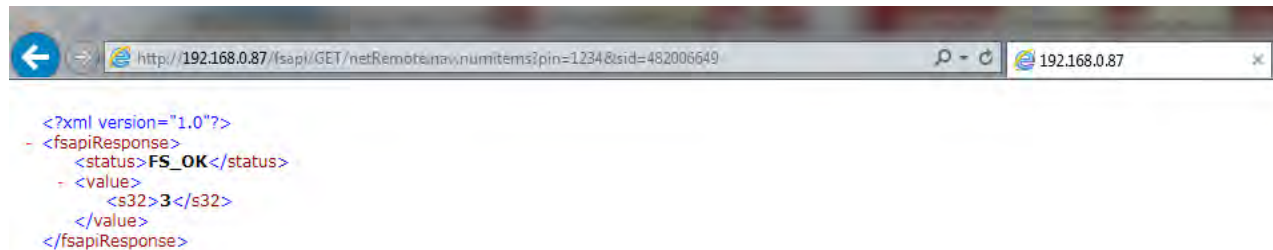
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <item key="0">
    - <field name="name">
      <c8_array>FSEVEN~1</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="1">
    - <field name="name">
      <c8_array>MUSIC</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="2">
    - <field name="name">
      <c8_array>OTHER</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="3">
    - <field name="name">
      <c8_array>SPOTLI~1</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="4">
    - <field name="name">
      <c8_array>SYSTEM~1</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="5">
    - <field name="name">
      <c8_array>TRASHE~1</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  </listend/>
</fsapiResponse>
```

## 'Open map: Music



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

## 'Get nav.numitems



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <s32>3</s32>
  </value>
</fsapiResponse>
```

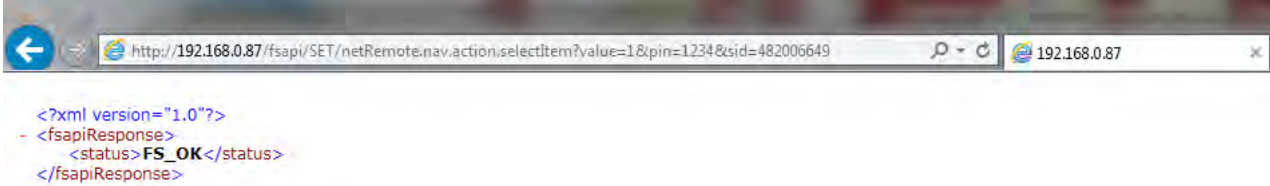
## 'Get nav.list



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <item key="0">
    <field name="name">
      <c8_array>BEYOND~1.MP3</c8_array>
    </field>
    <field name="type">
      <u8>1</u8>
    </field>
    <field name="subtype">
      <u8>3</u8>
    </field>
  </item>
  <item key="1">
    <field name="name">
      <c8_array>BLACKV~1.MP3</c8_array>
    </field>
    <field name="type">
      <u8>3</u8>
    </field>
    <field name="subtype">
      <u8>3</u8>
    </field>
  </item>
  <item key="2">
    <field name="name">
      <c8_array>_LORDO~1.MP3</c8_array>
    </field>
    <field name="type">
      <u8>1</u8>
    </field>
    <field name="subtype">
      <u8>3</u8>
    </field>
  </item>
</listend/>
</fsapiResponse>
```

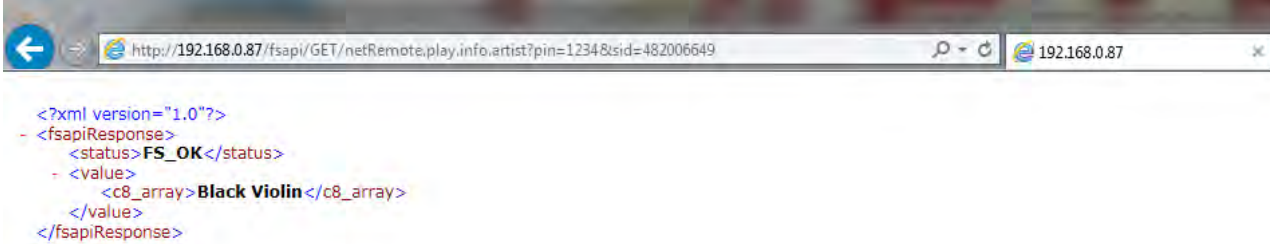


### 'Select item 1: BLACKVIOLIN.MP3



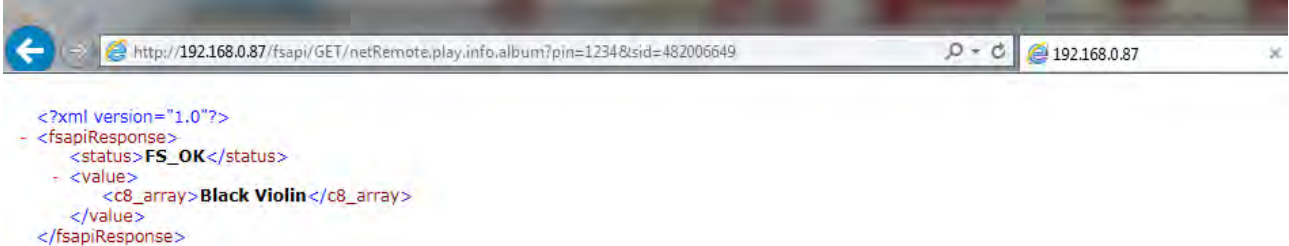
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get Artist information



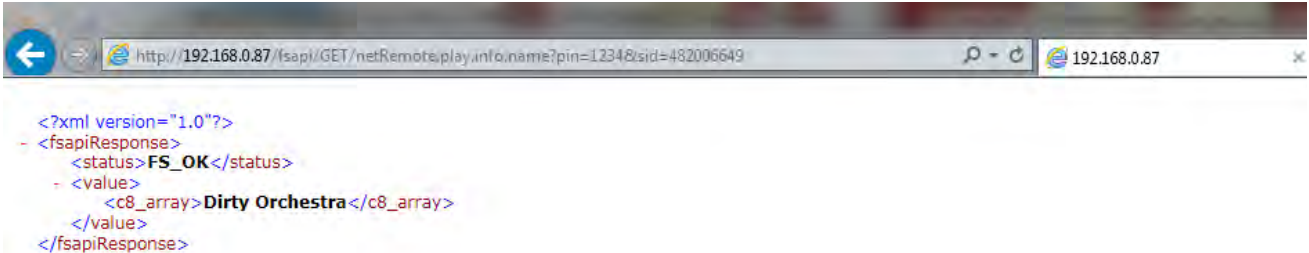
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <c8_array>Black Violin</c8_array>
  </value>
</fsapiResponse>
```

### 'Get Album information



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <c8_array>Black Violin</c8_array>
  </value>
</fsapiResponse>
```

### 'Get Track info



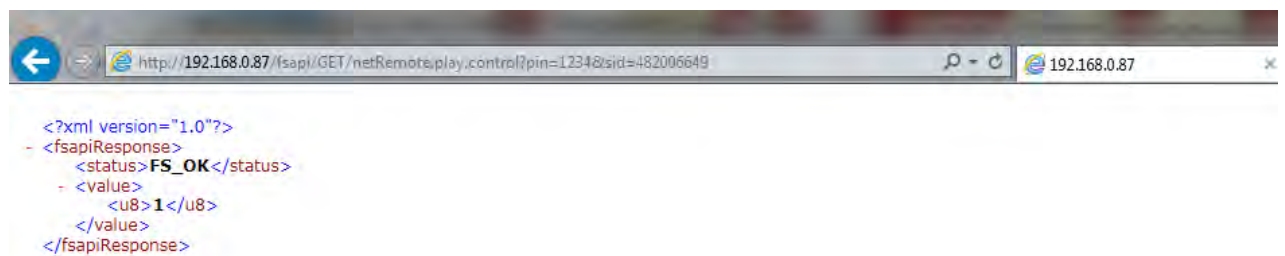
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <c8_array>Dirty Orchestra</c8_array>
  </value>
</fsapiResponse>
```

### 'Get track duration



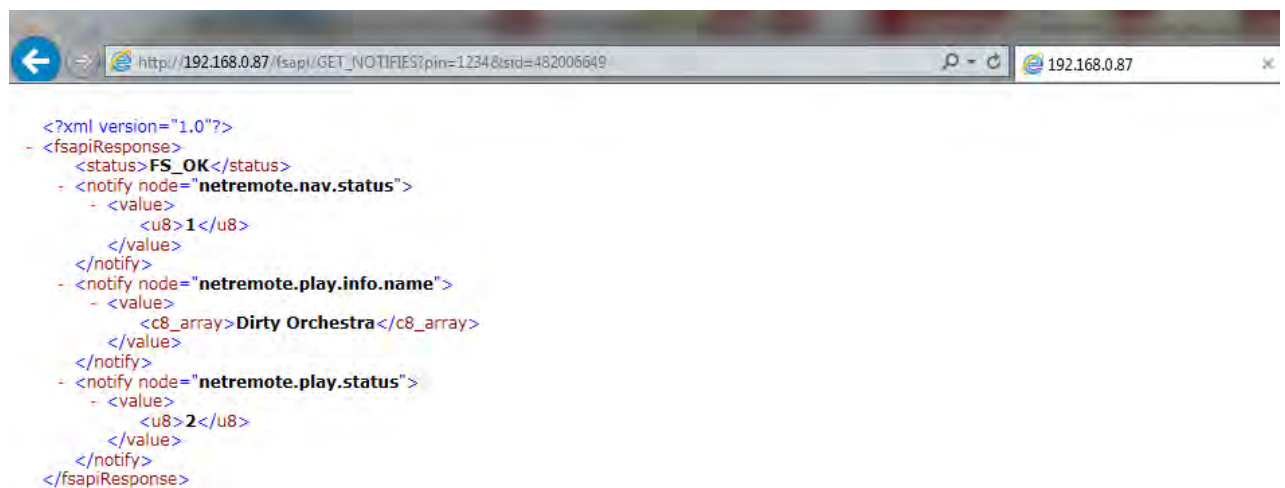
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u32>169808</u32>
  </value>
</fsapiResponse>
```

### 'Get play.control



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u8>1</u8>
  </value>
</fsapiResponse>
```

### 'Get notifies

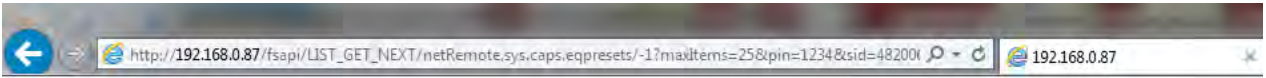


```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <notify node="netremote.nav.status">
    <value>
      <u8>1</u8>
    </value>
  </notify>
  <notify node="netremote.play.info.name">
    <value>
      <c8_array>Dirty Orchestra</c8_array>
    </value>
  </notify>
  <notify node="netremote.play.status">
    <value>
      <u8>2</u8>
    </value>
  </notify>
</fsapiResponse>
```



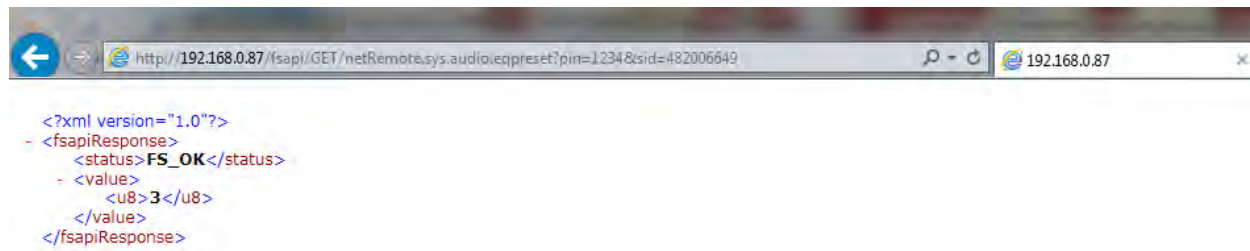
## 9.2 Example 2: How to configure the EQ

### 'Get EQ list



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <item key="0">
    <field name="label">
      <c8_array>My EQ</c8_array>
    </field>
  </item>
  <item key="1">
    <field name="label">
      <c8_array>Normal</c8_array>
    </field>
  </item>
  <item key="2">
    <field name="label">
      <c8_array>Flat</c8_array>
    </field>
  </item>
  <item key="3">
    <field name="label">
      <c8_array>Jazz</c8_array>
    </field>
  </item>
  <item key="4">
    <field name="label">
      <c8_array>Rock</c8_array>
    </field>
  </item>
  <item key="5">
    <field name="label">
      <c8_array>Movie</c8_array>
    </field>
  </item>
  <item key="6">
    <field name="label">
      <c8_array>Classic</c8_array>
    </field>
  </item>
  <item key="7">
    <field name="label">
      <c8_array>Pop</c8_array>
    </field>
  </item>
  <item key="8">
    <field name="label">
      <c8_array>News</c8_array>
    </field>
  </item>
</listend/>
</fsapiResponse>
```

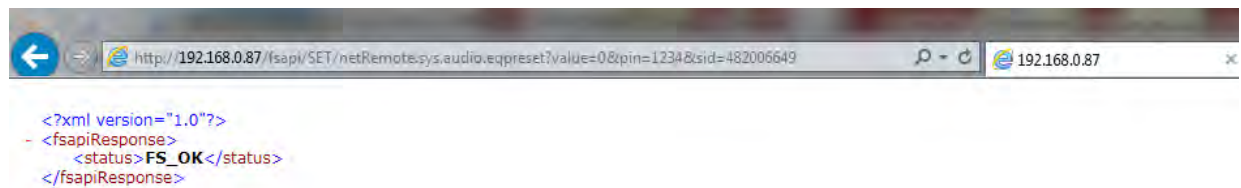
### 'Get the EQpreset



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u8>3</u8>
  </value>
</fsapiResponse>
```

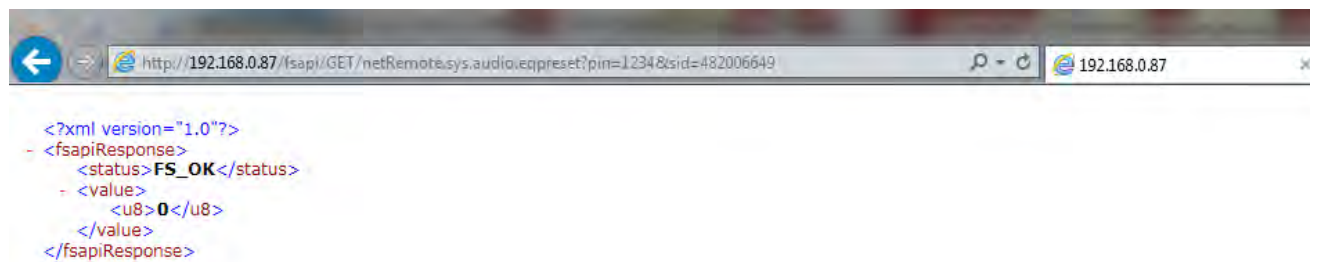
3 → Jazz

### 'Set EQ type: My EQ



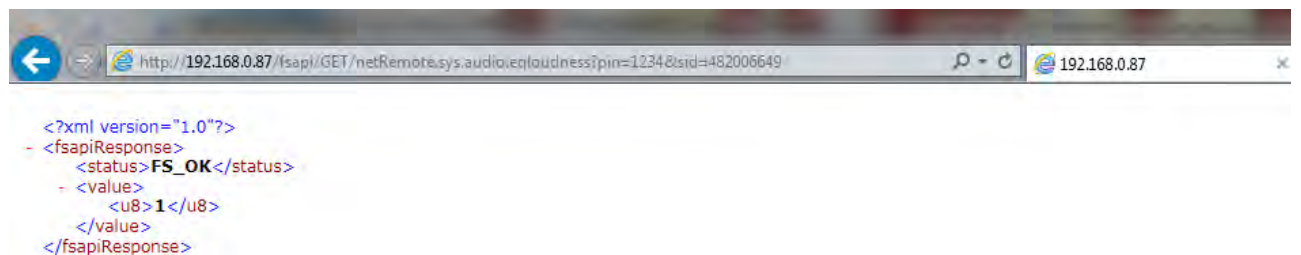
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get the EQpreset



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u8>0</u8>
  </value>
</fsapiResponse>
```

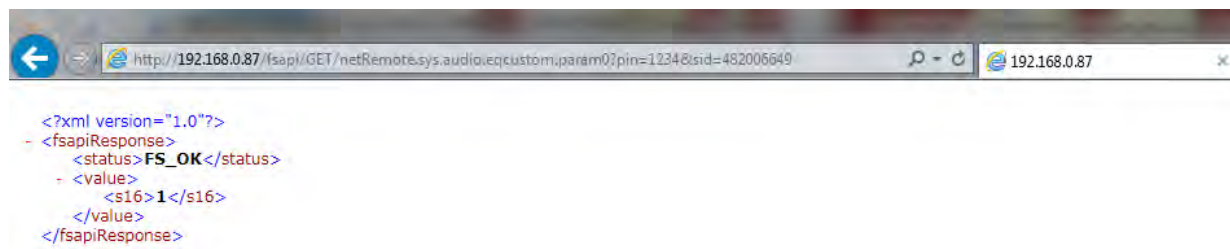
### 'Get Eqloudness



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u8>1</u8>
  </value>
</fsapiResponse>
```

1 → Active

### 'Get bass level'



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <s16>1</s16>
  </value>
</fsapiResponse>
```

Bass level → 1

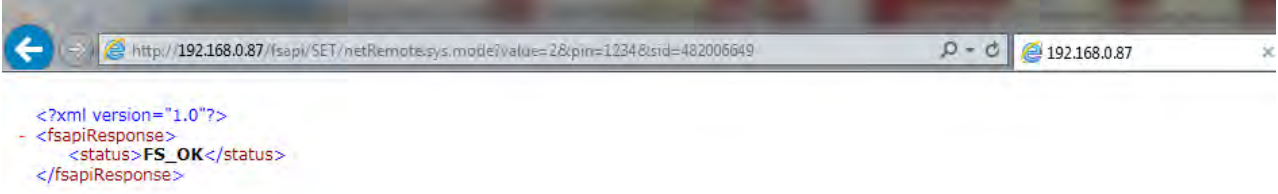
### 'Get treble level'



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <s16>1</s16>
  </value>
</fsapiResponse>
```

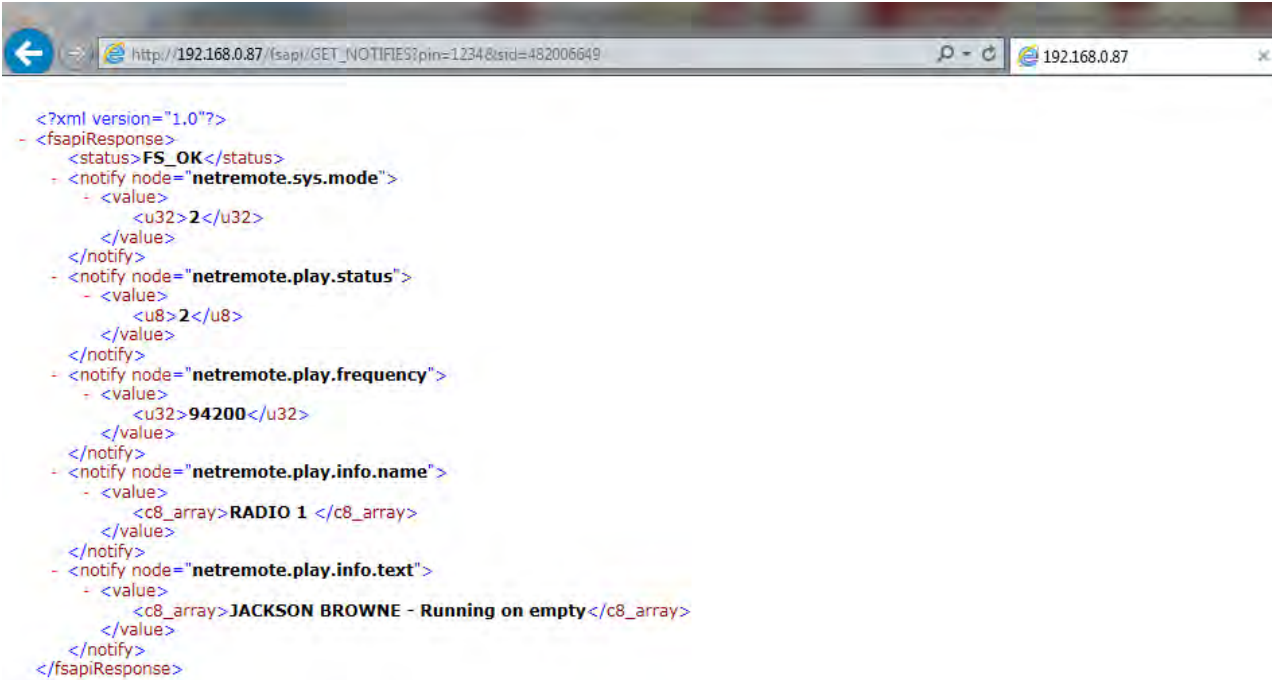
### 9.3 Example 3: How to select FM radio and change the channel

#### 'Set system mode: FM radio



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

#### 'Get notifies



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <notify node="netremote.sys.mode">
    <value>
      <u32>2</u32>
    </value>
  </notify>
  <notify node="netremote.play.status">
    <value>
      <u8>2</u8>
    </value>
  </notify>
  <notify node="netremote.play.frequency">
    <value>
      <u32>94200</u32>
    </value>
  </notify>
  <notify node="netremote.play.info.name">
    <value>
      <c8_array>RADIO 1 </c8_array>
    </value>
  </notify>
  <notify node="netremote.play.info.text">
    <value>
      <c8_array>JACKSON BROWNE - Running on empty</c8_array>
    </value>
  </notify>
</fsapiResponse>
```

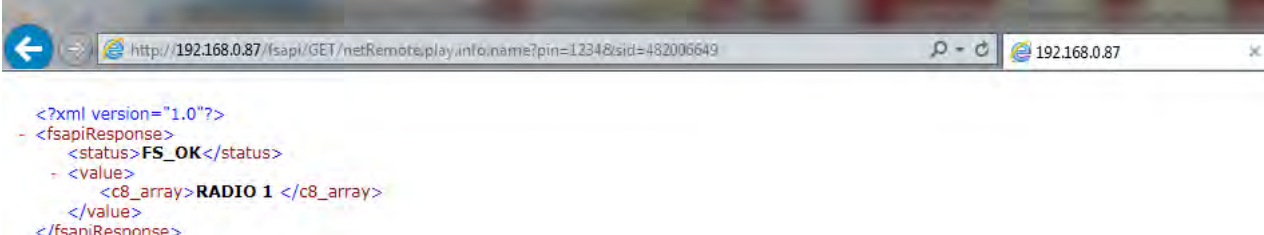
#### 'Get Volume level



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <u8>18</u8>
  </value>
</fsapiResponse>
```

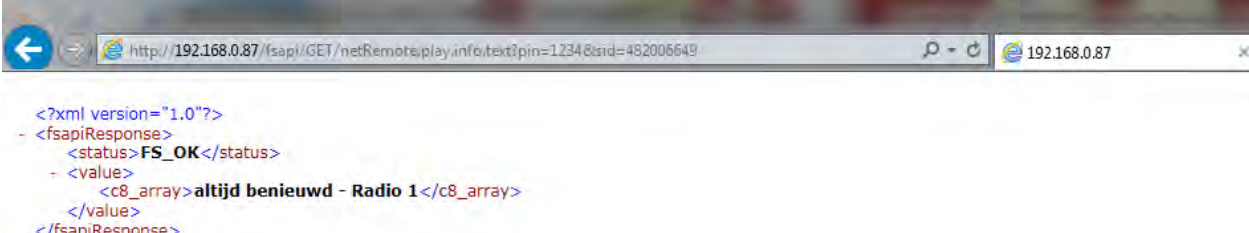
Volume → 18

### 'Get info name



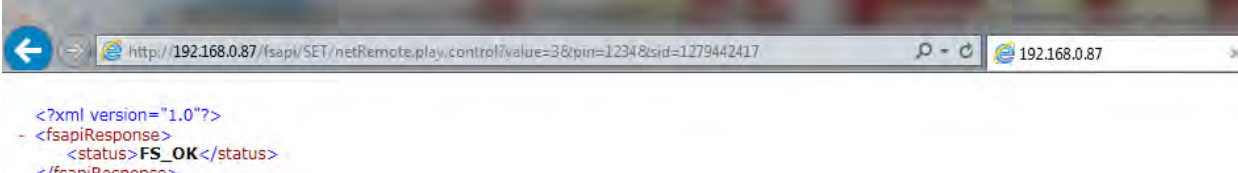
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <c8_array>RADIO 1 </c8_array>
  </value>
</fsapiResponse>
```

### 'RDS information



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <c8_array>altijd benieuwd - Radio 1</c8_array>
  </value>
</fsapiResponse>
```

### 'Scan for the next available radio



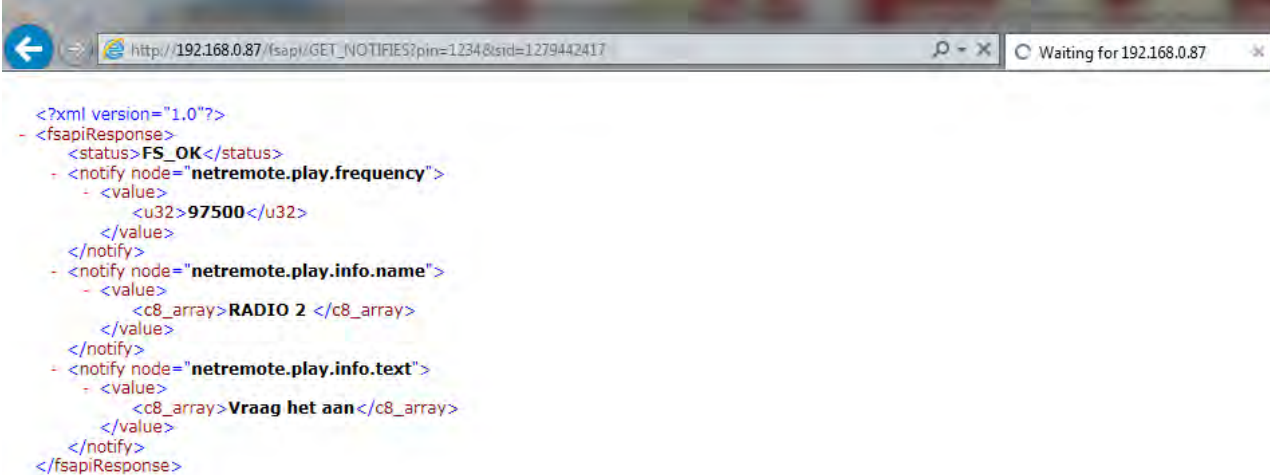
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get notifies



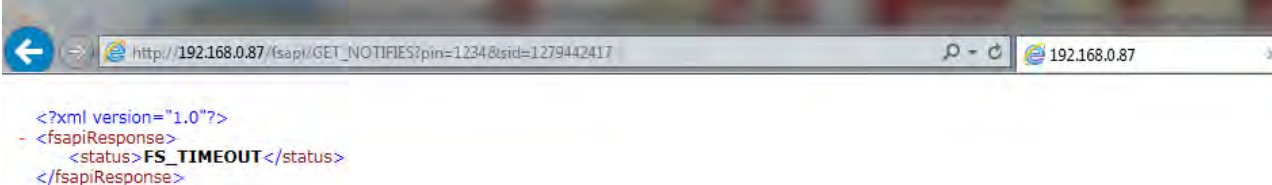
```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <notify node="netremote.play.frequency">
    <value>
      <u32>97500</u32>
    </value>
  </notify>
  <notify node="netremote.play.info.name">
    <value>
      <c8_array>RADIO 2 </c8_array>
    </value>
  </notify>
</fsapiResponse>
```

### 'Get notifies



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <notify node="netremote.play.frequency">
    - <value>
      <u32>97500</u32>
    </value>
  </notify>
  - <notify node="netremote.play.info.name">
    - <value>
      <c8_array>RADIO 2 </c8_array>
    </value>
  </notify>
  - <notify node="netremote.play.info.text">
    - <value>
      <c8_array>Vraag het aan</c8_array>
    </value>
  </notify>
</fsapiResponse>
```

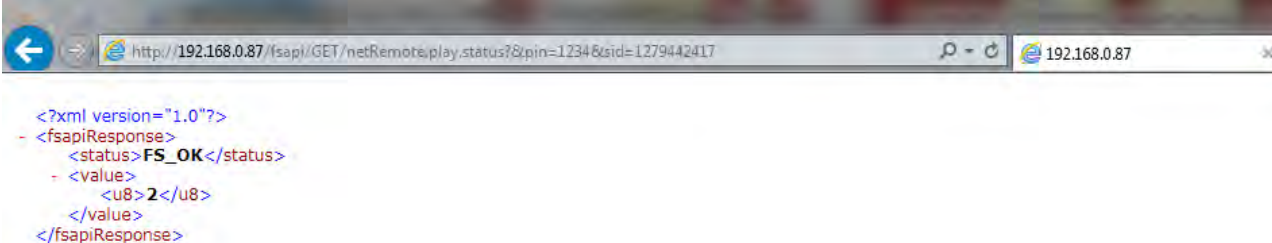
### 'Get notifies



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_TIMEOUT</status>
</fsapiResponse>
```

FS\_TIMEOUT → No new information

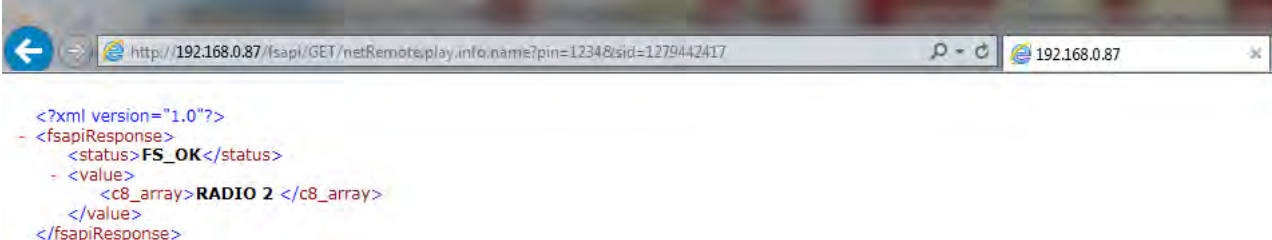
### 'Get play.status



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <value>
    <u8>2</u8>
  </value>
</fsapiResponse>
```

2 → Unit has finished scanning

### 'Get info name

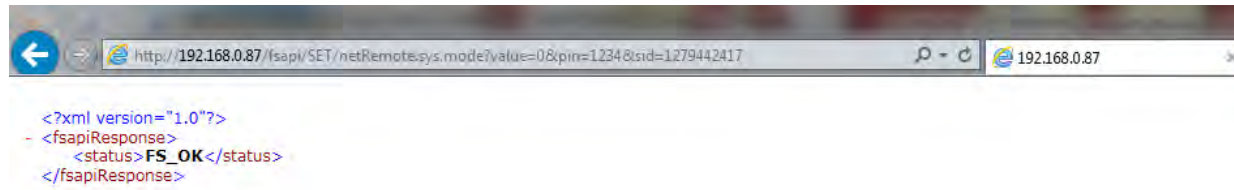


```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <value>
    <c8_array>RADIO 2 </c8_array>
  </value>
</fsapiResponse>
```

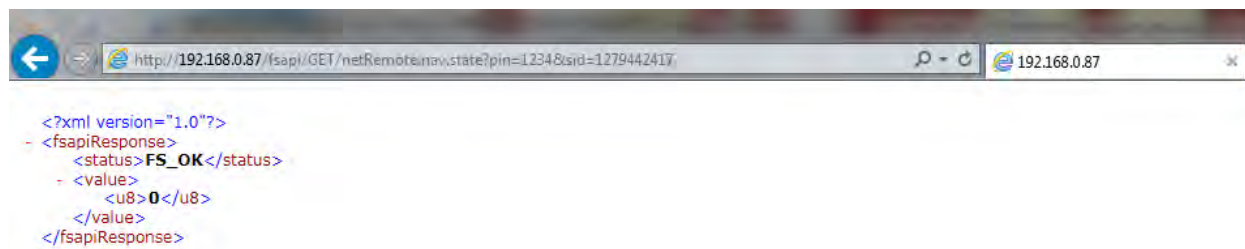


## 9.4 Example 4: How to select Ethernet radio

### 'Set system mode: Ethernet radio

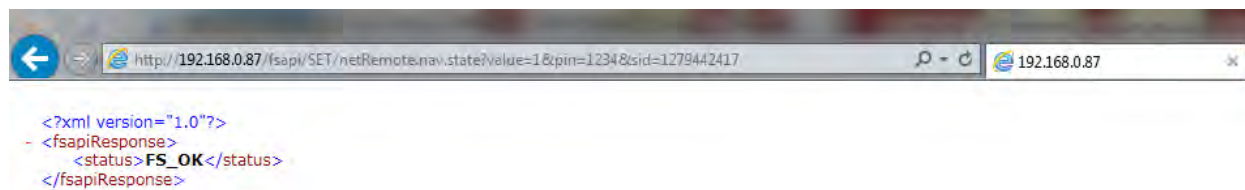


### 'Get nav.state

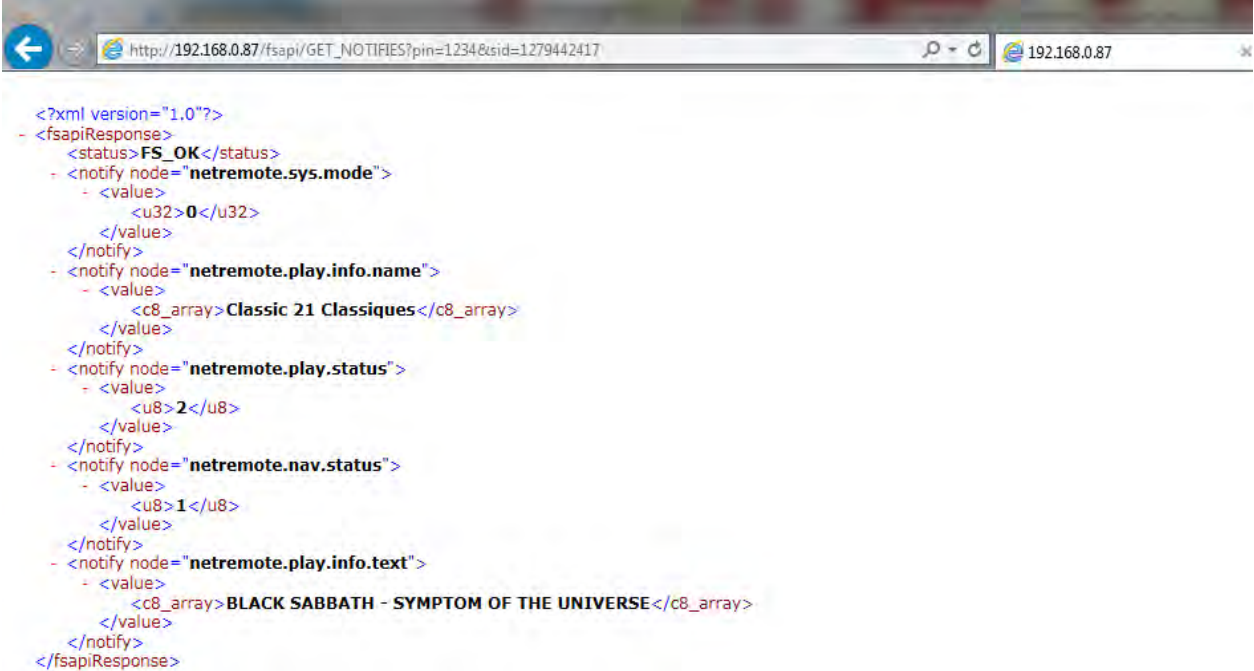


0 ➔ Disabled

### 'Set nav.state: enable

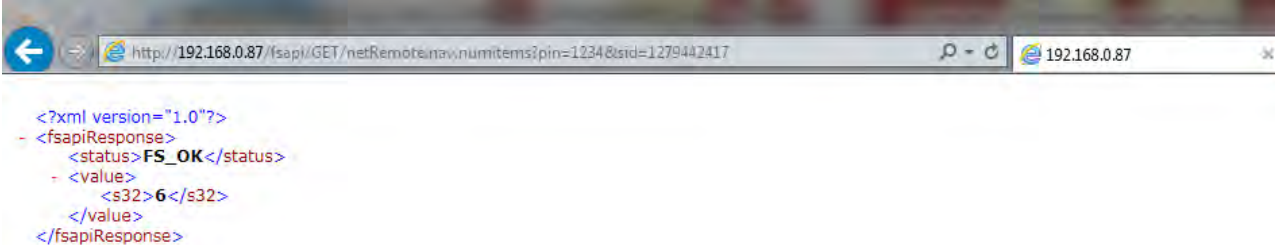


## 'Get notifies



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <notify node="netremote.sys.mode">
    - <value>
      <u32>0</u32>
    </value>
  </notify>
  - <notify node="netremote.play.info.name">
    - <value>
      <c8_array>Classic 21 Classiques</c8_array>
    </value>
  </notify>
  - <notify node="netremote.play.status">
    - <value>
      <u8>2</u8>
    </value>
  </notify>
  - <notify node="netremote.nav.status">
    - <value>
      <u8>1</u8>
    </value>
  </notify>
  - <notify node="netremote.play.info.text">
    - <value>
      <c8_array>BLACK SABBATH - SYMPTOM OF THE UNIVERSE</c8_array>
    </value>
  </notify>
</fsapiResponse>
```

## 'Get nav.numitems

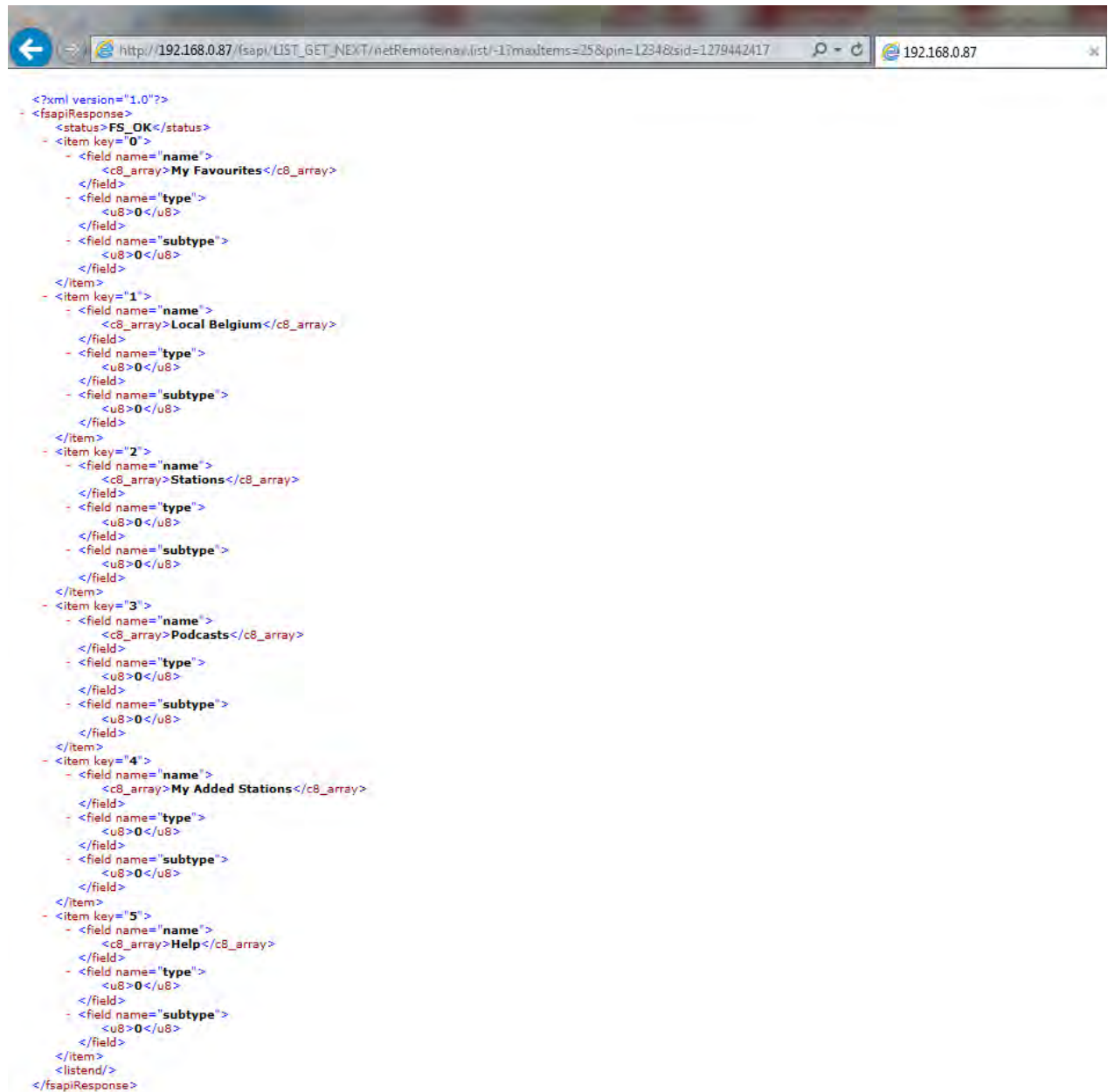


```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  + <value>
    <s32>6</s32>
  </value>
</fsapiResponse>
```

6 ➔ # available items

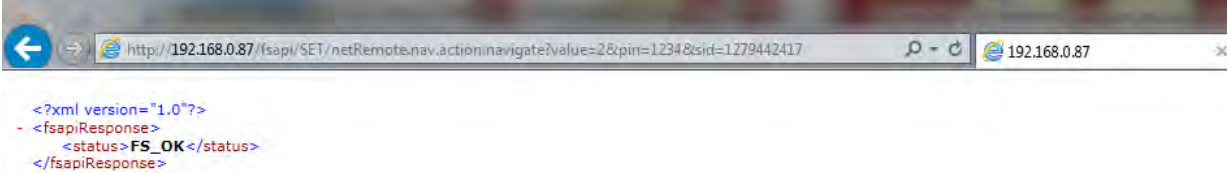


## 'Get nav.list



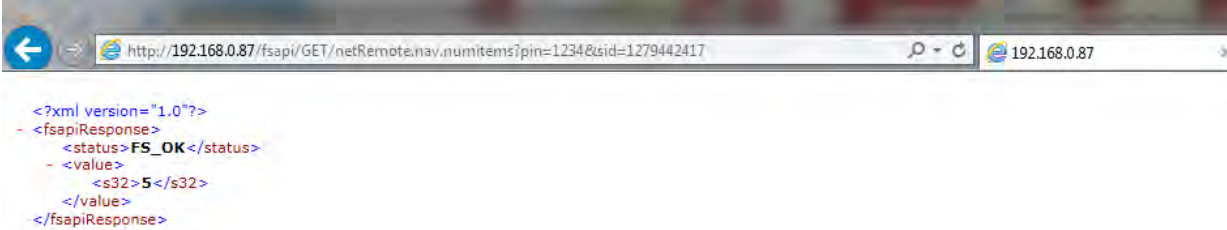
```
<?xml version="1.0"?>
<fsapiResponse>
  <status>FS_OK</status>
  <item key="0">
    <field name="name">
      <c8_array>My Favourites</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="1">
    <field name="name">
      <c8_array>Local Belgium</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="2">
    <field name="name">
      <c8_array>Stations</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="3">
    <field name="name">
      <c8_array>Podcasts</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="4">
    <field name="name">
      <c8_array>My Added Stations</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="5">
    <field name="name">
      <c8_array>Help</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
</listend/>
</fsapiResponse>
```

### 'Open map: Stations



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get nav.numitems



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <value>
    <s32>5</s32>
  </value>
</fsapiResponse>
```

5 ➔ # available items

## 'Get nav.list

```
http://192.168.0.87/fsapi/LIST_GET_NEXT/netRemote.nav.list/-1?maxItems=25&pin=1234&ssid=1279442417 192.168.0.87

<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  - <item key="0">
    - <field name="name">
      <c8_array>Location</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="1">
    - <field name="name">
      <c8_array>Genre</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="2">
    - <field name="name">
      <c8_array>Search stations</c8_array>
    </field>
    - <field name="type">
      <u8>2</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="3">
    - <field name="name">
      <c8_array>Popular stations</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  - <item key="4">
    - <field name="name">
      <c8_array>New stations</c8_array>
    </field>
    - <field name="type">
      <u8>0</u8>
    </field>
    - <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  </listend/>
</fsapiResponse>
```

## 'Open map: "Genre"

```
http://192.168.0.87/fsapi/SET/netRemote.nav.action.navigate?value=1&pin=1234&sid=1279442417

<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

## 'Get nav.numitems

```
http://192.168.0.87/fsapi/GET/netRemote.nav.numitems?pin=1234&sid=1279442417

<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <s32>54</s32>
  </value>
</fsapiResponse>
```

54 → # available items

## 'Get nav.list (first 3 radios)

```
http://192.168.0.87/fsapi/LIST_GET_NEXT/netRemote.nav.list/-1?maxItems=3&pin=1234&sid=1279442417

<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <item key="0">
    <field name="name">
      <c8_array>Alternative</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="1">
    <field name="name">
      <c8_array>Ambient</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="2">
    <field name="name">
      <c8_array>Big Band</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
</fsapiResponse>
```

### 'Select the second genre: "Ambient"'

```
http://192.168.0.87/fsapi/SET/netRemote.nav.actioninavigate?value=1&pin=1234&sid=1279442417

<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get nav.numitems

```
http://192.168.0.87/fsapi/GET/netRemote.nav.numitems?pin=1234&sid=1279442417

<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <s32>43</s32>
  </value>
</fsapiResponse>
```

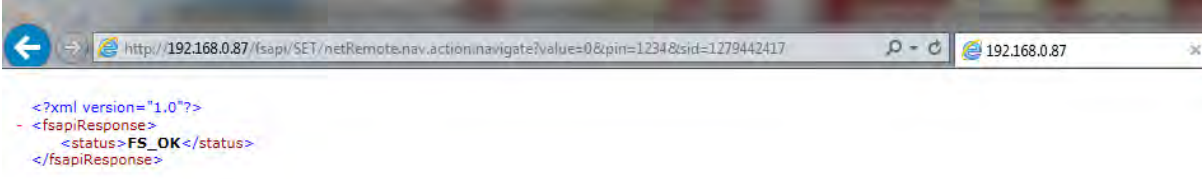
43 ➔ # available items

### 'Get nav.list (first 3 maps)

```
http://192.168.0.87/fsapi/LIST_GET_NEXT/netRemote.nav.list/-1?maxitems=3&pin=1234&sid=1279442417

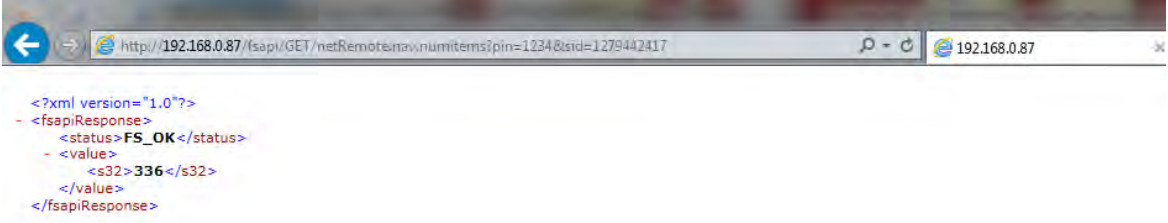
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <item key="0">
    <field name="name">
      <c8_array>All Stations</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="1">
    <field name="name">
      <c8_array>Highlighted Stations</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
  <item key="2">
    <field name="name">
      <c8_array>Argentina</c8_array>
    </field>
    <field name="type">
      <u8>0</u8>
    </field>
    <field name="subtype">
      <u8>0</u8>
    </field>
  </item>
</fsapiResponse>
```

### 'Select the first map: "All stations"'



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get nav.numitems



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <value>
    <s32>336</s32>
  </value>
</fsapiResponse>
```

336 ➔ # available items

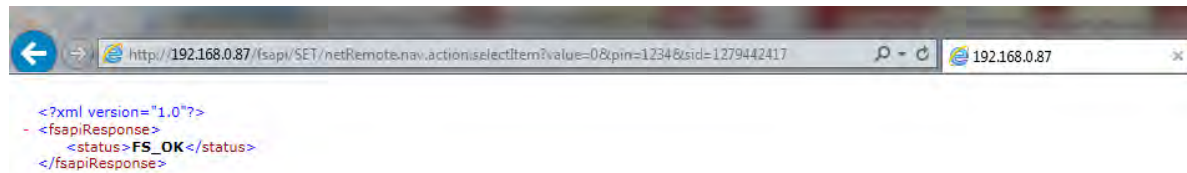
### 'Get nav.list (first 3 stations)



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <item key="0">
    <field name="name">
      <c8_array>1.fm Brazilian Birds Radio</c8_array>
    </field>
    <field name="type">
      <u8>1</u8>
    </field>
    <field name="subtype">
      <u8>1</u8>
    </field>
  </item>
  <item key="1">
    <field name="name">
      <c8_array>1.fm Chillout Lounge</c8_array>
    </field>
    <field name="type">
      <u8>1</u8>
    </field>
    <field name="subtype">
      <u8>1</u8>
    </field>
  </item>
  <item key="2">
    <field name="name">
      <c8_array>1.fm Costa Del Mar - Chillout</c8_array>
    </field>
    <field name="type">
      <u8>1</u8>
    </field>
    <field name="subtype">
      <u8>1</u8>
    </field>
  </item>
</fsapiResponse>
```



### 'Select the first radio: "1.fm Brazilian Birds Radio"'



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
</fsapiResponse>
```

### 'Get notifies'



```
<?xml version="1.0"?>
- <fsapiResponse>
  <status>FS_OK</status>
  <notify node="netremote.nav.status">
    <value>
      <u8>1</u8>
    </value>
  </notify>
  <notify node="netremote.play.info.name">
    <value>
      <c8_array>1.fm Brazilian Birds Radio</c8_array>
    </value>
  </notify>
  <notify node="netremote.play.info.text">
    <value>
      <c8_array>BRAZILIAN BIRDS - RAINFOREST (1)</c8_array>
    </value>
  </notify>
  <notify node="netremote.play.status">
    <value>
      <u8>2</u8>
    </value>
  </notify>
</fsapiResponse>
```

**developed  
by**  
Audioprof nv  
Industriepark Brechtsebaan 8 bus 1  
2900 Schoten - Belgium

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