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# **domogik-plugin-rfplayer**

***Release 0.1***

**May 02, 2017**



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# CHAPTER 1

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## Plugin documentation

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## Last changes

New instructions to apply changes from immediately previous version.

- 0.1.1 : (22-04-2017) udev-rules updated with ziblue dongle identification, add X10/CHACON/BLISS commands.
- Previous change

## Purpose

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**Note:** Please notice that this plugin is **still in development!**

If you find any issue, please create a ticket on the Github repository : <https://github.com/Nico0084/domogik-plugin-rfplayer/issues>

In the same way, if something is not clear or wrong in this documentation, feel free to open a ticket!

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Plugin to handle dongle RFPLAYER RFP1000 by [Ziblue](#).

RFPLAYER is a new generation radio Frequency device. It looks like USB key with 2 independent Radio Frequency transceivers 433 Mhz and 868 Mhz dedicated to a Home Automation usage.

The RFP1000 can be used in 2 ways :

- Plugged to a Domogik, it will perform as a bidirectional radio GATEWAY to a multitude of Legacy Home Automation protocols. It can also be used as “PAROT : Learn & Play”, ie being able to recognize or generate unknown protocols that have been learned by the RFP1000.
- Used in Stand Alonemode, it can then act as Plug & Play REPEATER with the possibility to do a TRANSCODING on 32 voices a RF protocol to another protocol. This mode is not used by domogi plugin.

Protocols handled : VISONIC, CHACON/DIO, DOMIA, X10, DELTADORE, SOMFY, BLYSS (433Mhz), KD101, PARROT, Scientific Oregon, OWL Firmware is upgradable. Supported by Domogik >=0.5.0 Development is in progress, features will get gradually

## Steps to set up your first rfplayer device

To set up your first rfplayer device, you will have to :

- install this plugin on Domogik (see [install a plugin on Domogik](#))
- install this plugin dependencies
- create an udev rule for your rfplayer dongle (the usb device you plug on the computer)
- configure this plugin
- create a Domogik device for your rfp1000 dongle
- start the plugin
- in the *Detected devices* pages, look for your devices and get informations about them
- create the Domogik device for your devices

## Dependencies

- pyserial (>=3.0)

## Install the RFPlayer usb device

### Create an udev rule

You may create a udev rule for this device. You can find sample udev rules in the **udev\_rules/** folder of this plugin.

RFPLAYER dongle model	udev rule file	device declared
	97-usbrfp1000.rules	/dev/rfp1000

To install a udev rule, copy the appropriate file in the udev rules folder on your system. Example

```
$ sudo cp udev_rules/97-usbrfp1000.rules /etc/udev/rules.d/
```

Then, you can use the following command to apply the udev rule, or unplug/plug the dongle.

```
$ sudo udevadm control --reload-rules
$ sudo udevadm trigger
```

## Plugin configuration

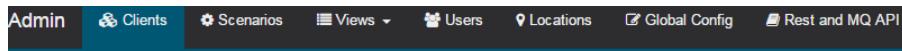
### Configuration

In Domogik administration section, go to client plugin-nutserve details page.

Key	Default value	Description
startup-plugin	false	Automatically start plugin at Domogik startup

### Creating devices for RFPlayer Client

In clients page of admin UI, go to **plugin-rfplayer.<your\_host\_domogik>**, select tab “Devices”, “New” to create your devices.



### Client plugin-rfplayer.<your\_host\_domogik>

rfplayer alive Informations Configuration Domogik devices Timeline Brain details Advance

#### Create a new device

##### Create by device type

Dimmer X10-433 Switch X10-433 Dimmer CHACON-DIO Switch CHACON-DIO Dongle RFP1000  
Temperature/Humidity/pressure Oregon Temperature Oregon Rain Oregon UV Oregon Wind spee

##### Dongle RFP1000

Dongle RFPLAYER RFP1000

Chose one way creation by product or instance type.

**Instance-type : rfplayer.rfp1000 (Dongle RFP1000)**

Key	Example	Description
Device	My_RFPlayer	The display name for this device. Used by device with command (switch/dimmer...) This is the way to identify which dongle control devices.
Description	What you want	A short description for this device.
Global device	/dev/rfp1000	The path to the RFXCOM RFP1000 device. See udev rule to avoid /dev/ttyUSBx and changed port
<b>Global</b> timer_status	60	Timer (seconds) for poll RFP status “0”: desactivat polling. Status is sended to domogik only on change.

## Devices capabilities

### Protocoles and device\_type

Select corresponding device :

Type	device type	Protocols	Model	key	Example	Description
Temperature sensors	rfplayer.temperature	OREGON	THN122/132/... THC238/268 THRN122 AW129/131	device	0x0000.0.3	Device address retrieve from device detected
Temperature/Humidity sensors	rfplayer.temperature.lowbattery	OREGON	THGR122/228/238 /328/810/918/928 THGN50/122/123 /132/800 THGRN228 RTGR328	device	0x1A2D.1.2	Device address retrieve from device detected
Temperature/Humidity Pressure sensors	rfplayer.temperature.pressure.lowbattery	OREGON	THGR918N	device	0x5A6D.2.8	Device address retrieve from device detected
Wind speed sensor	rfplayer.wind_speed	OREGON	WGR800	device	0x1A89.3.2	Device address retrieve from device detected
UV sensors	rfplayer.uv	OREGON	UVN800	device	0xDA78.1.0	Device address retrieve from device detected
Rain sensor	rfplayer.total_rain	OREGON	PCR800	device	0x2A19.1.4	Device address retrieve from device detected

**Devices command**

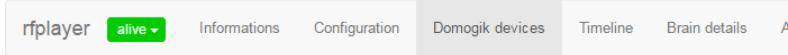
Dimmer X10	rfplayer.1.dimme	X10	dongle_id device	<i>My_RFPlayer</i> A2	Dongle identification name which control dimmer Device house and unit cod
Switch X10	rfplayer.1.switch	X10	dongle_id device	<i>My_RFPlayer</i> A3	Dongle identification name which control switch Device house and unit cod
<b>1.6. Devices capabilities</b>					<b>5</b>
Dimmer BLISS	rfplayer.3.dimme	BLISS	dongle_id device	<i>My_RFPlayer</i> B2	Dongle identification

## Detected devices

In clients page of admin UI, go to **plugin-rfplayer.<your\_host\_domogik>**, select tab “Devices”, “Detected devices” to get list of all sensors devices not created.



### Client plugin-rfplayer.<your\_host\_domogik>



## Detected devices

### Device informations

- Device type : rfplayer.temperature.lowbattery
- Reference : Protocol OREGON

### Main parameters

- device : 0x0000.10.1

Only devices sending sensors value himself can be detected. Use it to find device address for new or change.

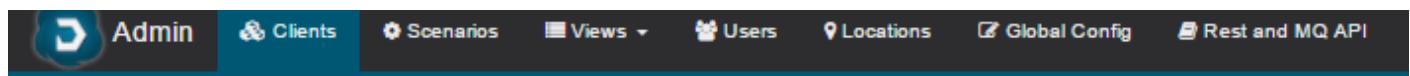
## CHAPTER 2

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Advanced Admin

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## Client plugin-rfplayer.<your\_host\_domogik>

The screenshot shows the Domogik interface with the 'rfplayer' tab selected. A message indicates '1 RFPlayer detected'. A specific device, 'RFP1000.517', is highlighted in green. The main panel displays various parameters and a 'System status' section with the following details:

- ClusterID : 0
- Factory : 1400000031
- LBT : 16
- Mac : 0xF6C09FDD
- MaskA : 0xFFFFFFFF
- MaskT : 0xFFFFFFFF
- RTdenials : 0
- Time : 12181
- Version : 1.15

In plugin **Advanced** page

- Select tab of your RFPLAYER
- Select item on popup left menu for dongle administration

## General

*For moment infomations are only on read.*

Give information about system and protocoles activation

You can start a monitoring of all dongle data. Usefull to debug and join it to issue on plugin github repository.

**General administration**

**System info**

**Serial parameters**

- baudrate : 115200
- bytesize : 8
- dstrdt : null
- parity : N
- rtscs : 1
- stopbits : 1
- timeout : 0.1
- xonxoff : 0

**System status**

- ClusterID : 0
- Factory : 14000000031
- LBT : 16
- Mac : 0xF6C09FDD
- MaskA : 0xFFFFFFFF
- MaskT : 0xFFFFFFFF
- RTdenials : 0
- Time : 12181
- Version : 1.15

**Protocols**

Receiver	Repeater	Transmitter
<input checked="" type="checkbox"/> BLYSS	<input type="checkbox"/> BLYSS	<input type="checkbox"/> BLYSS
<input type="checkbox"/> CHACON	<input type="checkbox"/> CHACON	<input type="checkbox"/> CHACON

**Start monitoring**

## Reception

For moment infomations are only on read.

Give infomations about protoles reception and radio band configuration.

**Reception administration**

**Protocols status**

BLYSS	CHACON	DOMIA	KD101	OREGONV1	OREGONV2	OREGONV3/OWL	PARROT
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> RTS	<input checked="" type="checkbox"/> VISONIC	<input checked="" type="checkbox"/> X10	<input checked="" type="checkbox"/> X2D				

**Radio band 433Mhz**

**Desactivate**

DspTrigger : <input type="button" value="i"/>	FloorNoise : -101 dBm (Very small noise)	Frequency : <input type="button" value="i"/>	RFlink : 1 ( Enabled)
8 dBm		433.920 Mhz (Default)	RFlinkTrigger : <input type="button" value="i"/>
Selectivity : <input type="button" value="i"/>	discFrames : 0	dutyCycle : 360000 ms/h ( by ETSI)	remainDC : 360000 ms
Medium selectivity (300Khz)			sentFrames : 0

**Radio band 868Mhz**

**Desactivate**

DspTrigger : <input type="button" value="i"/>	FloorNoise : -107 dBm ( Very	Frequency : <input type="button" value="i"/>	RFlink : 1 ( Enabled)
	small noise)		

## Emission

Under construction

## Parrot

Under construction

## Transcoder

*Under construction*

## System

*Under construction*

## Repeater

*Under construction*

## Update

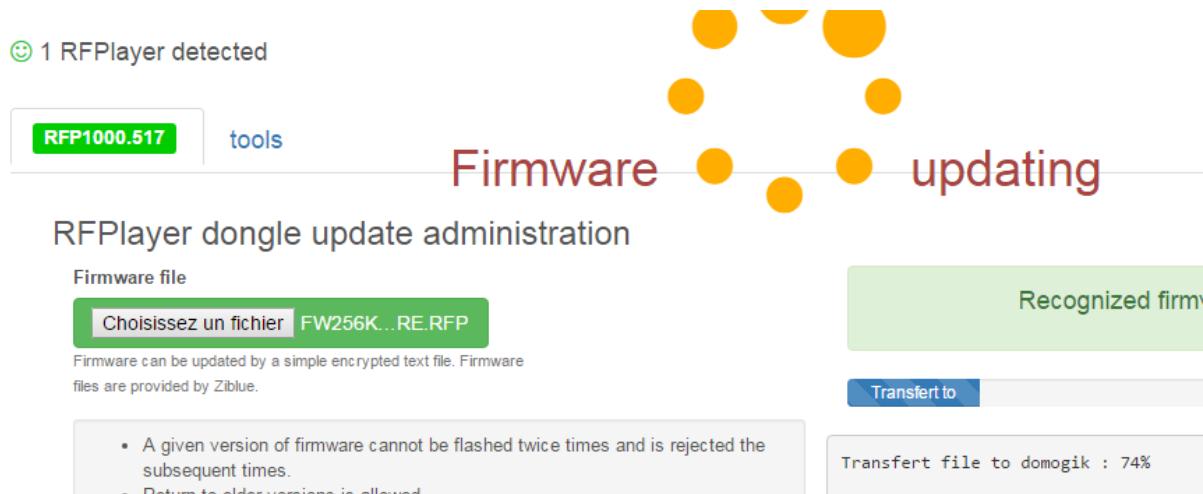
Menu to update the dongle firmware

- Please, pay attention to the displayed instructions.
- Choose a official Ziblue Firmware, It will be checked and a **Start** button will appear.

### Client plugin-rfplayer.<your\_host\_domogik>

The screenshot shows a web-based administration interface for an RFPlayer. At the top, there is a navigation bar with tabs: rfplayer (selected), alive (highlighted in green), Informations, Configuration, Domogik devices, Timeline, Brain details, Advanced, and Documentation. Below the navigation bar, a message indicates "1 RFPlayer detected". Under the "alive" tab, there is a "tools" section containing a button labeled "RFP1000.517". The main content area is titled "RFPlayer dongle update administration". It features a "Firmware file" input field with the placeholder "Choisissez un fichier FW256K..RE.RFP" and a "START" button. A note below the input field states: "Firmware can be updated by a simple encrypted text file. Firmware files are provided by Ziblue." To the right, a green box displays the message "Recognized firmware revision : 115". A small note at the bottom left says: "• A given version of firmware cannot be flashed twice times and is rejected the".

- Process information will display during all update process.





# CHAPTER 3

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Manager tools

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*Page to get log and others plugin manager info*



# CHAPTER 4

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Development informations

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## xPL messages

No xPL message handle, use only 0MQ

## RFPlayer driver compatibility

Plugin just need serial connection for working with RFPlayer dongle.

### Driver identification to UDEV Rules

### InfoType structure



# CHAPTER 5

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## Changelog

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### 0.1.1 (22-04-2017)

- Update udev rules **97-usbrfp1000.rules** with ziblue dongle identification
- Add X10/CHACON/BLISS commands.
- Update doc.

### 0.1.0 (12-04-2017)

- domogik 0.5 compatibility
- Plugin creation