



JavaRemote

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1. Introduction

JavaRemote is a Web App that turns your standard Internet Browser into a programmable remote. The only software needed is a Web browser with enabled JavaScript. No further hardware or software is needed.

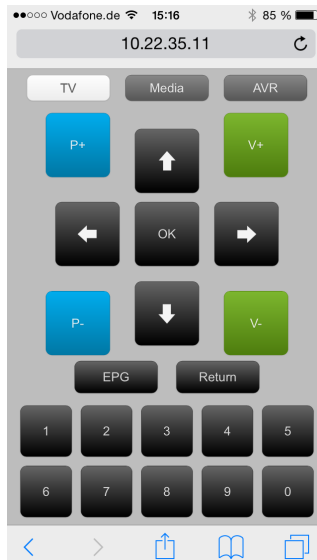
JavaRemote can be used on all third generation IRTrans Ethernet devices with IRDB. These are:

- IRTrans Ethernet IRDB V3.5
- IRTrans Ethernet PoE IRDB V3.5
- IRTrans LAN Controller / LAN Controller XL V2.3
- IRTrans LAN Controller Multistream V2.0

These IRTrans devices feature an integrated web server. The browser on any device such as a smartphone or tablet or PC can connect to this server and thus become a universal remote.

JavaRemote comes with pre programmed web pages for use with a TV a media player such as BluRay or DVD and an AVR. The only thing left to do is learning the IR codes.

Experienced users can use the features provided by JavaRemote to create their own custom web pages for IR controlling whatever they want.

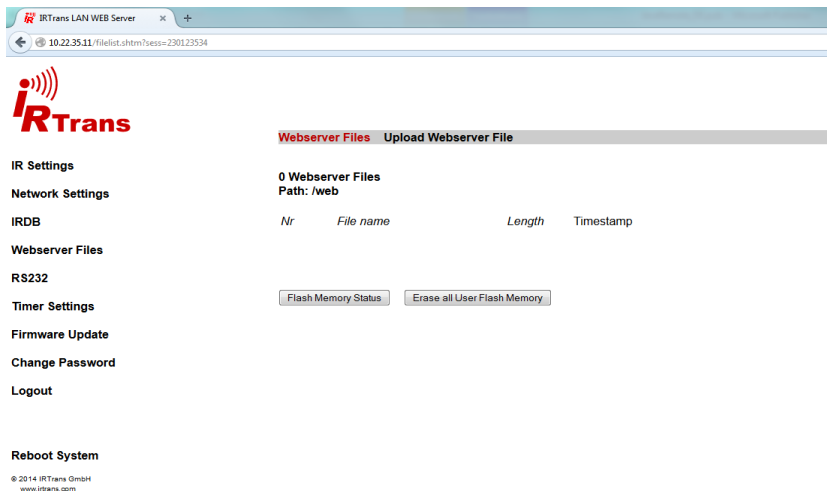


2. Uploading of web files, learning IR codes

The JavaRemote package features three websites to control a TV, a mediaplayer and an AVR. The files for the websites need only be uploaded to the IRTrans' webserver and the appropriate IR codes be learned. Everything can be done via the IRTrans Web Interface, no additional software is needed. Further details on how to set up your IRTrans and basic setup are described in the Web Interface manual. This manual only covers the relevant steps for JavaRemote.

2.1 uploading files

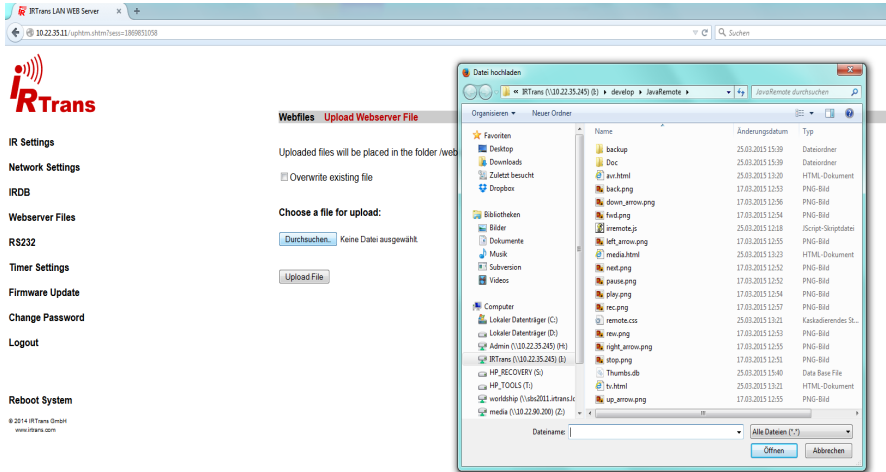
Connect to the IRTrans and navigate to the page „Webserver Files“. On this page a list of files is displayed. This list should be empty or contain any files you might have uploded already.



The following 16 files are required for JavaRemote to work correctly:

back.png	down_arrow.png	fwd.png
left_arrow.png	next.png	pause.png
play.png	rew.png	right_arrow.png
stop.png	up_arrow.png	avr.html
media.html	tv.html	irremote.js
remote.css		

Upload the files with the function „Upload Webserver File“.



„Browse“ opens a window where a file can be selected. Navigate to the JavaRemote folder and select a file. „Open“ and consecutively „Upload File“ starts the upload. Repeat this process until all files are uploaded.

2.2. Learning IR codes

Now the appropriate IR codes have to be learned. This chapter contains list of the names of remote and commands to be used. You must use exactly the same names otherwise JavaRemote will not find the command and it will not work.

You need to create three IR remotes. Change to the page IRDB -> IR Learn and enter remote name and command name as needed. Then click „Learn IR Code“ and press the button on the remote shortly. Learning IR codes is covered in further detail in the Web Interface manual and the software manual. The default settings however should work fine so normally there is need to change anything on the Learn IR page.

2.2.1 TV

This is the remote for your TV screen. It is called tv - the individual commands and their meaning are as shown in the list below.

Remote name: tv

Commands:

- **power** Power
- **up** Up Arrow
- **down** Down Arrow
- **left** Left Arrow
- **right** Right Arrow
- **ok** OK
- **p+** next channel
- **p-** previous channel
- **v+** increase volume
- **v-** decrease volume
- **epg** Electronic Program Guide
- **return** back to last channel
- **1** numeric key 1
- **2** numeric key 2
- **3** numeric key 3
- **4** numeric key 4
- **5** numeric key 5
- **6** numeric key 6
- **7** numeric key 7
- **8** numeric key 8
- **9** numeric key 9
- **0** numeric key 0

2.2.2 Media

This is the remote for your media player - a BluRay player for example. The remote name is media, the commands as follows:

Remote name: media

Commands:

- **power** Power
- **up** Up Arrow
- **down** Down Arrow
- **left** Left Arrow
- **right** Right Arrow
- **ok** OK
- **rew** Rewind
- **play** Play
- **pause** Pause
- **fwd** Forward
- **back** Previous chapter
- **stop** Stop
- **rec** Record
- **next** Next Chapter
- **menu** Title menu
- **audio** Audio menu
- **subtitle** Subtitle menu

2.2.3 AVR

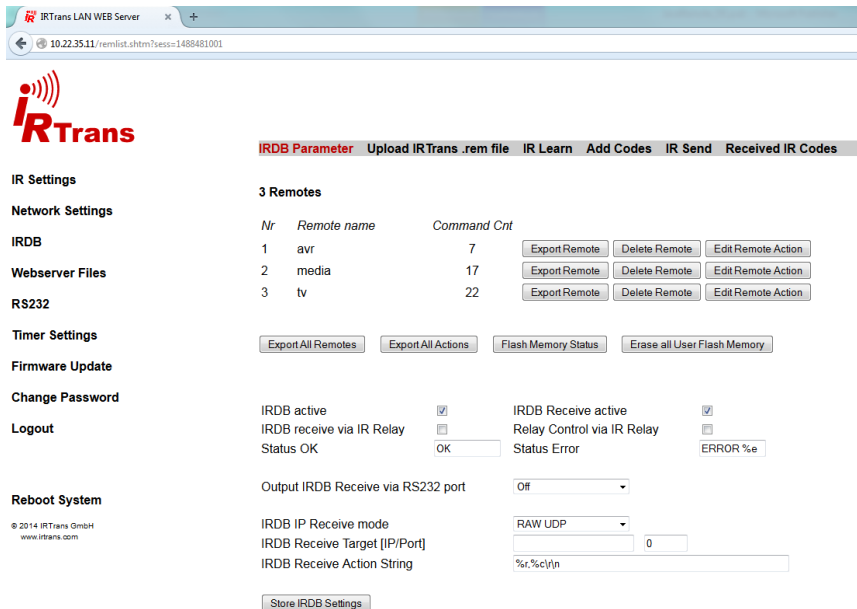
This is the remote for your AVR. The remote name is avr, the commands as follows:

Remote name: avr

Commands:

- **power** Power
- **v+** Increase volume
- **v-** Decrease volume
- **hdmi1** Input HDMI 1
- **hdmi2** Input HDMI 2
- **hdmi3** Input HDMI 3
- **hdmi4** Input HDMI 4

The learning should now be finished. The list of remote on the IRDB Parameter page should contain three remotes named „avr“, „media“ and „tv“ with 7, 17 and 22 commands respectively:



IRDB Parameter Upload IRTrans .rem file IR Learn Add Codes IR Send Received IR Codes

IR Settings

Network Settings

IRDB

Webserver Files

RS232

Timer Settings

Firmware Update

Change Password

Logout

Reboot System

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3 Remotes

Nr	Remote name	Command Cnt			
1	avr	7	Export Remote	Delete Remote	Edit Remote Action
2	media	17	Export Remote	Delete Remote	Edit Remote Action
3	tv	22	Export Remote	Delete Remote	Edit Remote Action

Export All Remotes Export All Actions Flash Memory Status Erase all User Flash Memory

IRDB active IRDB Receive active

IRDB receive via IR Relay Relay Control via IR Relay

Status OK OK Status Error ERROR %e

Output IRDB Receive via RS232 port Off

IRDB IP Receive mode RAW UDP

IRDB Receive Target [IP/Port] 0

IRDB Receive Action String %r.%c%\n

Store IRDB Settings

3. Using the web remote

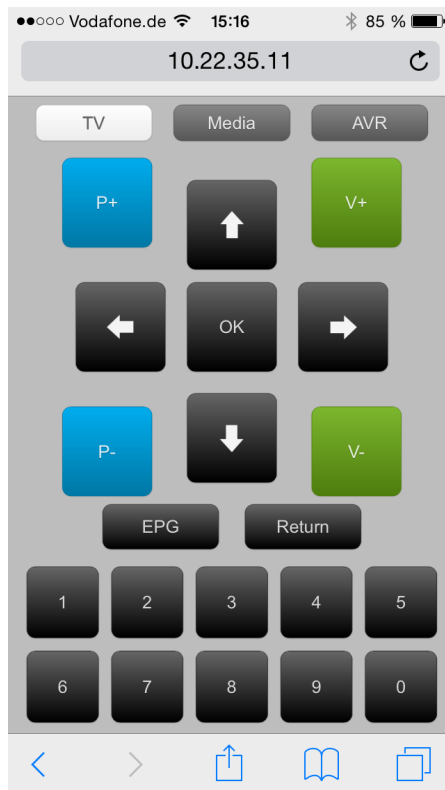
JavaRemote is now available in the /web directory of the IRTrans. To open the web remote enter the following URL into your web browser:

`http://<ip_address_irtrans>/web/tv.html`

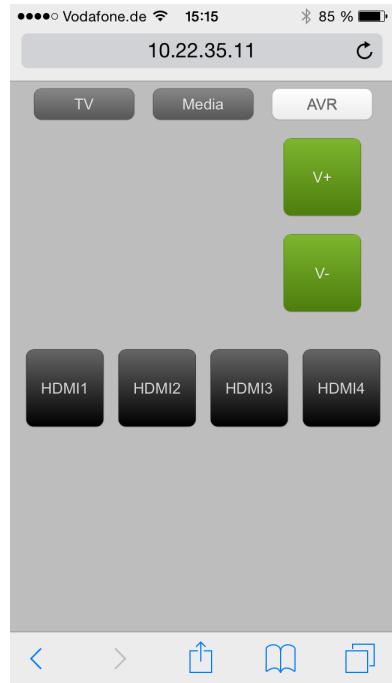
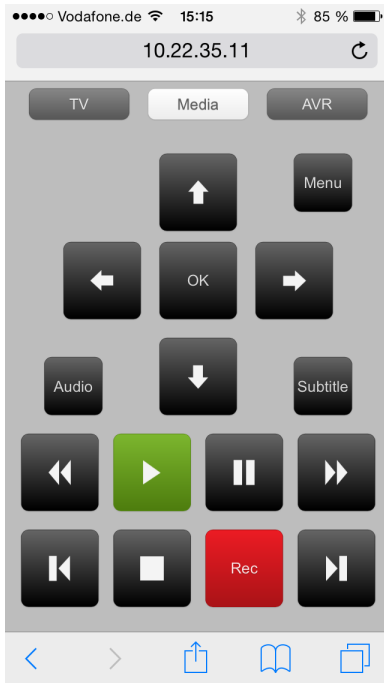
The <ip_address_irtrans> spacer needs to be replaced by your IRTrans' IP address. The same address has already been used to enter the configuration Web Interface. No password is needed for JavaRemote.

It is advisable to assign a fixed IP address to the IRTrans module either by entering a fixed address in the network settings or by making a reservation in your DHCP server.

You should now see this page (this example is shown on an iPhone):



In the upper part there are three buttons to select which device to control. The white button shows the active page and furthermore is used as power button for the active device. The two grey buttons are used to change to the other pages. The other buttons are just like buttons on the devices remote. They are used to send the equivalent IR code.



The websites are programmed thus that they automatically size to the width of the device. They are optimized for use with an iPhone in portrait orientation but should be displayed correctly on any other device as well.

4. irremote.js

This chapter is aimed at more experienced users who want to create their own web pages for IR control.

The IR control functions are provided in the file `irremote.js`.

Two functions are defined to create buttons for sending IR codes. The html documents only contain calls to these functions to create and display the buttons.

4.1 AddRemoteButtonText

This function creates a button with a text label. Position, size, color and Text for the label are passed as arguments.

```
function AddRemoteButtonText(num, posx, posy, wx, wy, color, label, remote, command, initial_delay, repeat_delay)
```

These are the required arguments:

num - ID, must be unique inside one html document.

posx - Position of the upper left corner in x-axis (left-right). Measured in px.

posy - Position of the upper left corner in y-axis (up-down). Measured in px.

wx - Width in px.

wy - Height in px.

color - Color, for further details and own changes look at `remote.css`. Valid values are: black, gray, white, red, green, blue, orange, rosy, pink

label - Text displayed on the button

remote - remote name of the corresponding IR Code

command - command name of the corresponding IR Code

initial delay - If the button is held this is the time until the IR code is repeated for the first time.

repeat delay - time in between further repetitions if the button is held.

4.2 AddRemoteButtonPicture

Similar to the function AddRemoteButtonText this function is used to draw a button with a picture. The picture is scaled to one third of the width and height of the button and displayed centered.

```
function AddRemoteButtonPicture(num, posx, posy, wx, wy, color, picture, alt, remote, command, initial_delay, repeat_delay)
```

These are the required arguments:

num - ID, must be unique inside one html document.

posx - Position of the upper left corner in x-axis (left-right). Measured in px.

posy - Position of the upper left corner in y-axis (up-down). Measured in px.

wx - Width in px.

wy - Height in px.

color - Color, for further details and own changes look at remote.css. Valid values are: black, gray, white, red, green, blue, orange, rosy, pink

picture - filename of the picture

alt - alternative label in case the picture file is unavailable.

remote - remote name of the corresponding IR Code

command - command name of the corresponding IR Code

initial delay - If the button is held this is the time until the IR code is repeated for the first time.

repeat delay - time in between further repetitions if the button is held.

Using these two functions it is possible to create own remotes with very little effort. The JavaRemote html files can be used as guidance. Any desired changes to the design can be made in the remote.css file.

