



# Web Interface

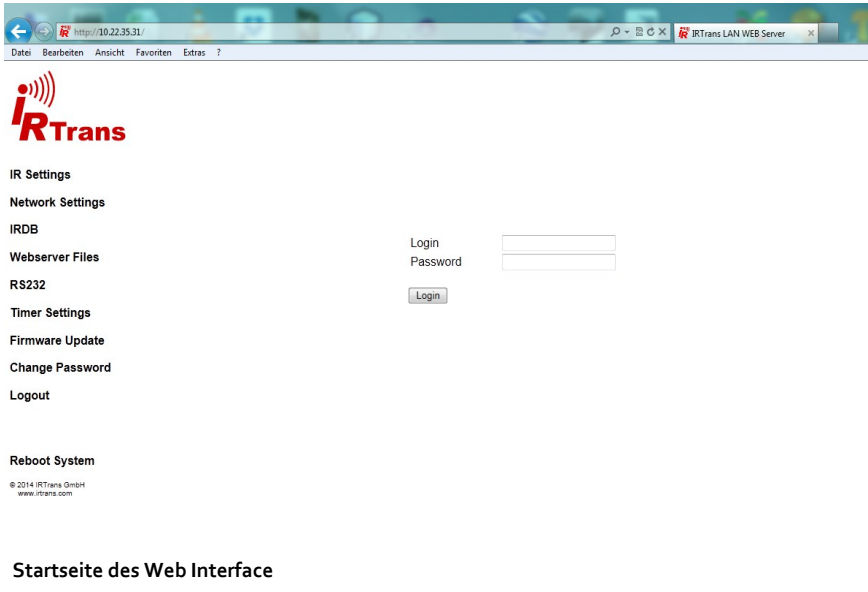
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## 1. Introduction

The latest generation of IRTrans IR Transceiver modules features a new, more powerful web interface. It is now possible to do the complete setup and configuration (including learning IR Codes on devices with IRDB) using only a web browser.



To reach the web interface simply put the IRTrans' IP address into any standard web browser (Internet Explorer, Chrome, Firefox, Safari etc.)

The fully functional web interface referenced in this manual is available on devices starting with the following hardware revisions:

- 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

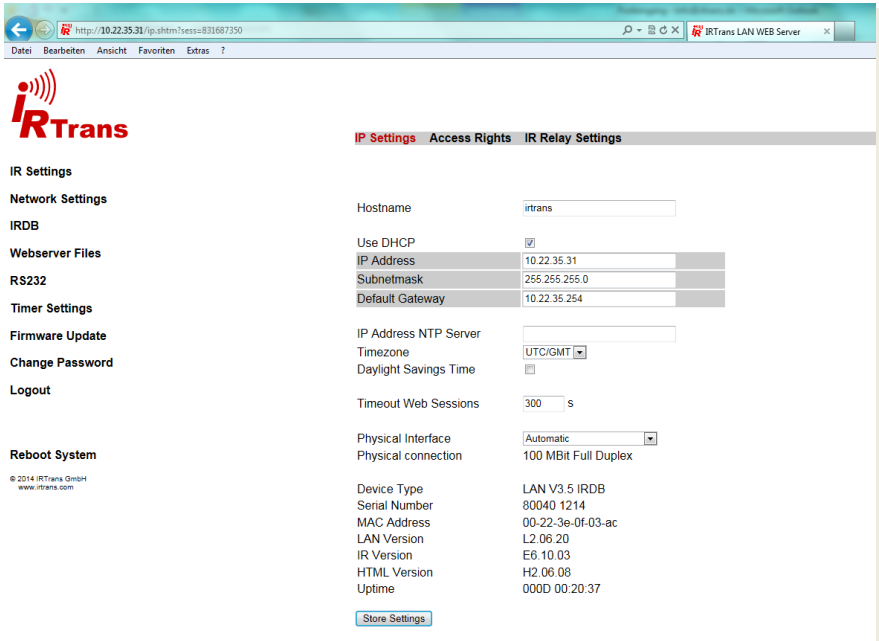
For the first log in use the default login data:

**Login:** admin  
**Passwort:** irtrans

The web interface is only available in english language.

## 2. Network Settings

### 2.1 IP Settings



IR Settings

Network Settings

IRDB

Webservers Files

RS232

Timer Settings

Firmware Update

Change Password

Logout

Reboot System

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**IP Settings** Access Rights IR Relay Settings

Hostname

Use DHCP

IP Address	<input type="text" value="10.22.35.31"/>
Subnetmask	<input type="text" value="255.255.255.0"/>
Default Gateway	<input type="text" value="10.22.35.254"/>

IP Address NTP Server

Timezone

Daylight Savings Time

Timeout Web Sessions  s

Physical Interface

Physical connection

Device Type LAN V3.5 IRDB

Serial Number 80040 1214

MAC Address 00-22-3e-0f-03-ac

LAN Version L2.06.20

IR Version E6.10.03

HTML Version H2.06.08

Uptime 000D 00:20:37

[Store Settings](#)

Here basic IP configuration is done:

**Hostname:** DNS Hostname for the IRTrans.

**Use DHCP:** Use DHCP to get an IP address automatically or manual configuration.

If DHCP is enabled no further input is required. If you want to set a fixed IP address enter the values for IP, netmask and gateway as appropriate.

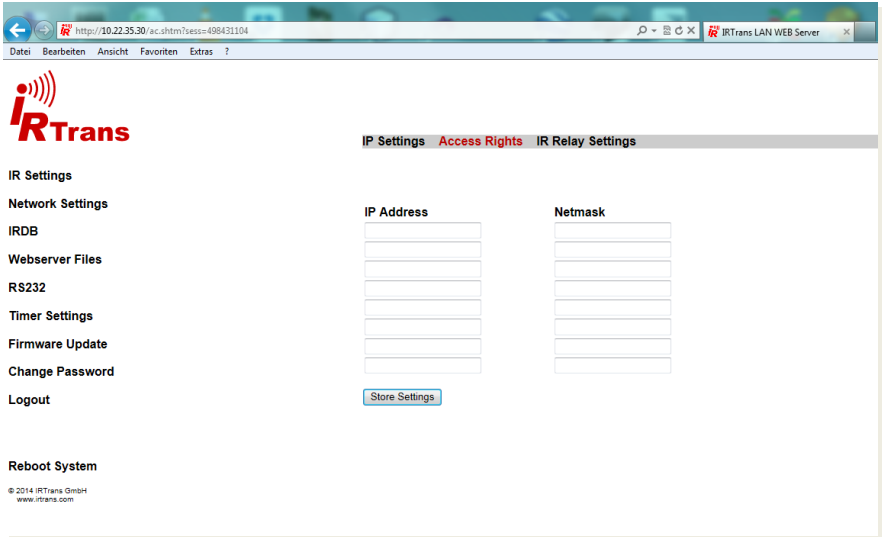
The use of an NTP server is optional. If available a NTP server and your timezone can be entered here.

**Timeout Web Sessions:** The web session times out after a certain amount of inactive time. The default value is 300 seconds equal to 5 minutes. Setting this value to 0 disables the timeout altogether.

**Physical Interface:** Normally the physical interface (connection speed) is selected by the IRTrans device and the ethernet switch automatically. If a certain physical interface is desired it can be selected here. Most users should leave this value on „Automatic“

Additionally there is information displayed about the device such as type, serial number, firmware versions and uptime.

## 2.2. Access Rights



Using the IP access tab access to the IRTrans can be restricted. Access to the web based configuration frontend is never blocked from the subnet the IRTrans is connected to. This will protect against locking out oneself.

For example entering the IP 192.168.0.0 with netmask 255.255.255.0 will allow all clients from the subnet 192.168.0.X to access the IRTrans.

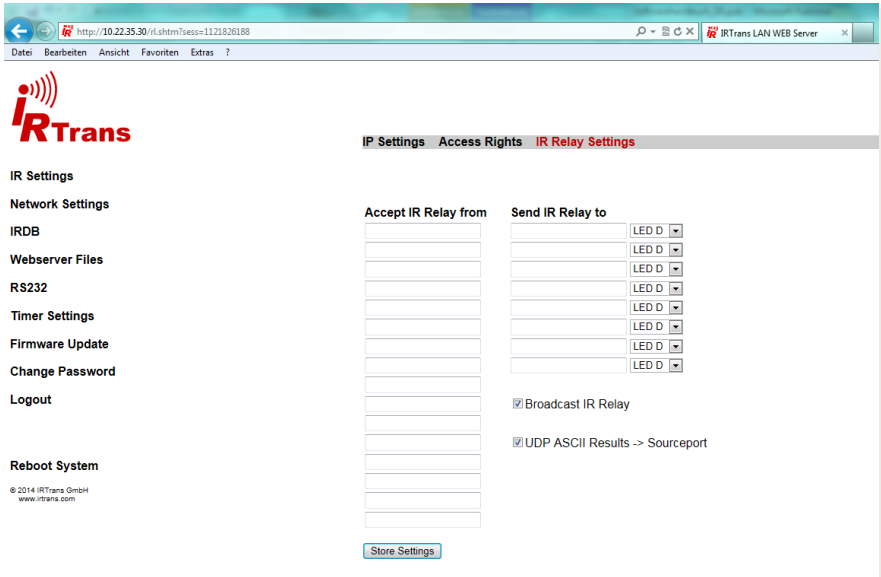
Entering 192.168.0.3 with 255.255.255.255 will only allow access to the client using the IP address 192.168.0.3.

If nothing is entered here there are no access restrictions to the IRTrans.



**Due to limited computing power it is not possible to fully protect an microcontroller against attacks. Therefore setting up a firewall to protect the IRTrans in hostile environments is strongly recommended.**

## 2.3 IR Relay Settings



IP Settings Access Rights **IR Relay Settings**

IR Settings

Network Settings

IRDB

Webservice Files

RS232

Timer Settings

Firmware Update

Change Password

Logout

Reboot System

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Accept IR Relay from

Send IR Relay to

LED D

LED D

LED D

LED D

LED D

LED D

LED D

LED D

LED D

LED D

Broadcast IR Relay

UDP ASCII Results -> Sourceport

Store Settings

IP Relay allows using Ethernet to relay IR code to other IRTrans devices. This works without additional hardware, Servers and IRDB.

By default alle received IR commands are distributed as broadcast to the network and transmitted by all IRTrans devices.

**Accept IR Relay from:** This can be used to accept IR relay only from specific IP addresses.

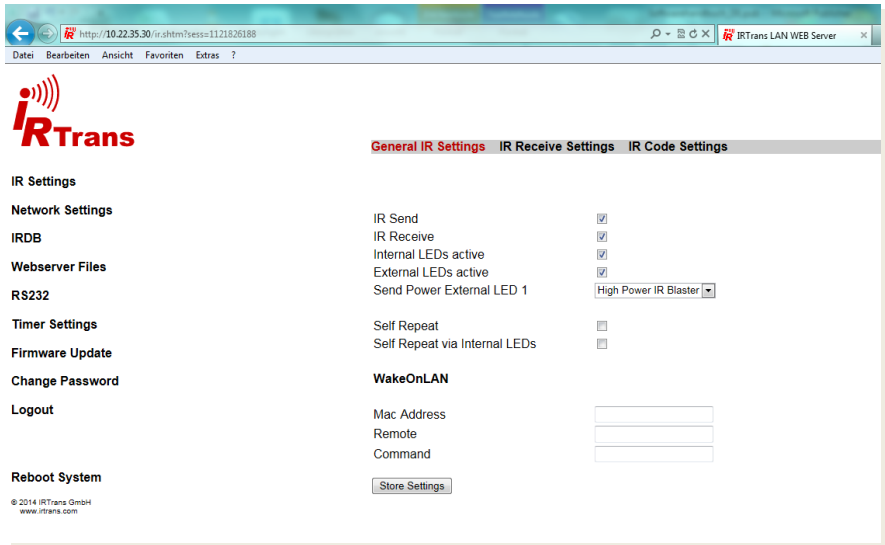
**Send IR Relay to:** Here specific targets for IP relay can be configured. Normally it is sufficient to use broadcasts but when relaying to a different network specific targets must be entered. Broadcasts will not be routed.

**Broadcast IR Relay:** Sends out a bradcast for every IR code received (default: active).

**Send UDP ASCII Results to Sourceport:** When receiving commands via the UDP ASCII interface the IRTrans can send the acknowledgement either to the sourceport or the default IRTrans port (21000). Selection is made by checking or unchecking this box.

### 3. IR Settings

#### 3.1 General IR Settings



**IR send / receive:** Can be used to disable the sending or receiving function of the IRTrans. (default: both on)

**Internal LEDs active:** This allows disabling the internal LEDs. This does not override a direct selection of LEDs by a client using the IRTrans API.

**External LEDs active:** same as with internal LEDs.

**Send Power External LED 1:** The send power for the external transmitter #1 can be selected here. Possible values for the stick on mini-transmitters are „low“, „medium“ and „high“. „High Power IR Blaster“ must only be used with a high power IR blaster. **Caution: When used with a mini-transmitter the „High Power IR Blaster“ setting may damage the transmitter!**

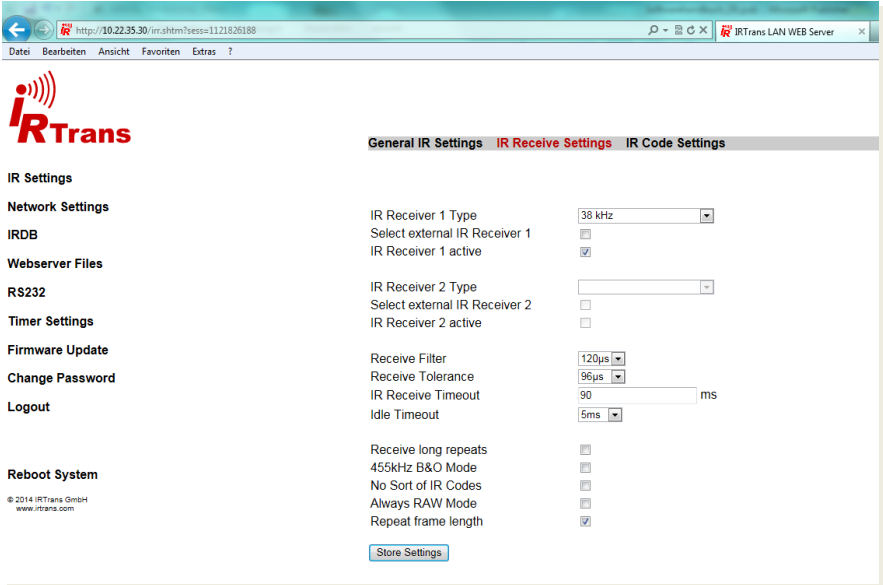
**Self Repeat:** Using this option the IRTrans can be used as a repeater. Received codes will be transmitted by the same IRTrans. An example would be relaying IR transmissions into a closet.

**Self Repeat via internal LEDs:** Activates self repeat with internal LEDs. This can lead to echoes or endless loops of commands if the IRTrans can „see“ its own transmission or the remote device receives both the original and the IRTrans' code.

**WakeOnLAN:** If the specified IR Code (remote/command) is received a Wake-OnLAN Magic Packet is sent to the specific MAC address. This can be used to wake up a WakeOnLAN compatible PC from standby.



### 3.2 IR Receive Settings:



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**IR Receiver 1 / 2:** Here the receiver type can be selected. To use an external receiver check the „Select external Receiver“ checkbox active. Only the receiver enabled „active“ is receiving. It is recommended to only use one active receiver at a time.



**Selecting a wrong type of receiver (e.g. wrong modulation frequency) will cause the IR reception to fail.**

**Receive Filter:** Use this to filter IR noise. Pulses shorter than the specified time will be discarded. The larger this value the more resistant the iRTrans will be to noise. However this value must be smaller than the shortest IR pulses used in the commands.

**Receive Toleranz:** This value defines the tolerance when receiving IR signals. Larger values make the iRTrans less susceptible to inaccuracies of the IR codes but might cause other devices not to receive the iRTrans' codes correctly.



**Selecting too large values for these two options will cause the iRTrans not to distinguish between small differences in the codes. This may lead to errors. The standard values usually yield good results.**

**IR Receive Timeout:** This value controls maximum pause lengths within an IR code. A pause longer than the specified value will terminate the code. Setting this value too small will cause the IRTrans to stop receiving prematurely. On the other hand smaller values can improve performance with repeated codes. When altering this value it is recommended to make small steps and test the results.



When learning codes for the database the timeout value should better be too large rather than too small. Otherwise it can happen that codes are not learned completely.

**Idle Timeout:** This timeout is used to resynchronize between two different IR codes. It is the minimum time between discrete IR commands. The standard value (5ms) is usually suitable for most scenarios, smaller values might improve the repeat speed when holding a button depressed.

**Lange Repeats Empfang:** Normally 2 IR repeats are evaluated when receiving an IR code. Rarely IR codes consist of 2 repeats and a 3rd different code. This option can be used to relay such codes. Normal learning is not affected because during learning the IRTrans uses more repeat cycles. Checking whether this option is needed is pretty straightforward: Relaying doesn't work and the codes in the .rem file are longer than the codes displayed by „Detected IR commands“.

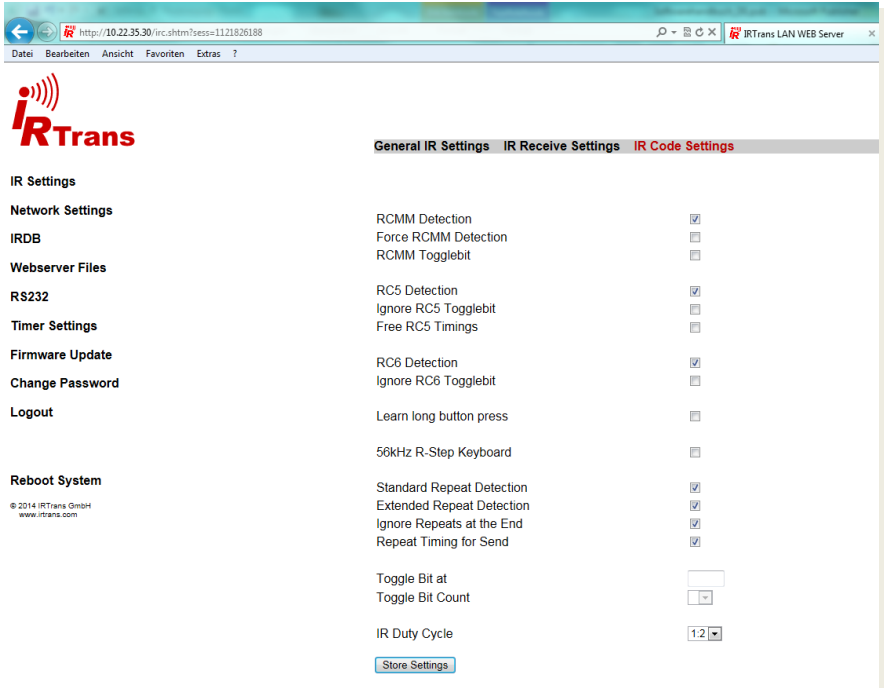
**455 kHz B&O Codes:** Using this checkbox learning of 455kHz B&O codes will be enabled. This will only work when a 455kHz receiver is selected (either Universal colearning receiver, 455kHz receiver or 455kHz plasma shielded receiver). All other learn / receive options are set to optimized values for B&O codes automatically

**Keine Sortierung IR Codes:** Received IR codes will not be sorted according pulse length. This might ease recognition of codes especially with codes that use many different timings.

**Immer RAW Modus:** All IR codes will be received in RAW mode. Also all IR codes will be relayed in RAW mode. This option is rarely needed.

**Framelength für IR Repeat:** When measuring timings for IR repeats the whole code frame length will be used (IR code + pause). Without this option the pause length will be measured. This was the operating mode of earlier firmware versions. Normally the new mode will work more reliable, this option is available only to be compatible to earlier versions and should normally be left activated.

### 3.3 IR Code Settings



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**RCMM Detection:** The IRTrans will try to decode IR code to the RCMM standard. If codes should be misidentified as RCMM codes this option may be disabled. In most cases this will not be needed.

**Force RCMM Detection:** This will improve RCMM detection by widening the detection windows. This will improve the probability that RCMM codes are correctly detected but at the same time increase the risk of non RCMM codes being falsely identified as RCMM. This will work most efficiently with a special (fast) IR receiver.

**RCMM Togglebit:** Some devices use RCMM with an additional toggle bit. Examples are some Kathrein STBs. Using this option the IRTrans will automatically generate the toggle bits. RCMM devices not using toggle bits will not work correctly when this option is enabled.

**RC5 / RC 6 Codes erkennen:** Enables automatic RC5 / RC 6 detection. Some devices use codes similar to RC5 / RC6 code which are then falsely identified as RC5 / RC6. In this case automatic detection may be disabled.

**RC5 / RC6 Togglebit ignorieren:** RC5 and RC6 codes normally use toggle-bits. There are a few remotes that use RC5 / RC6 without toggle bits. In this case automatic toggle bit handling can be disabled. Standard RC5 / RC6 remote will not work correctly when this option is disabled.

**Free RC5 Timings:** RC5 defines fixed pulse-pause timing values. Some codes however use different timing values. When this option is enabled the timing values are recorded as well and RC5 codes with custom timings can be learned correctly.

**56kHz R-Step Keyboard:** Allows using an IR keyboard with R-Step protocol. A 56kHz receiver is needed.

**Lange Tastendrücke lernen:** Some devices use long button presses (several seconds) to call up configuration menus for example. Using this option these codes can be learned. In contrast to the normal learning procedure the button needs to be depressed as long as needed when using this option.

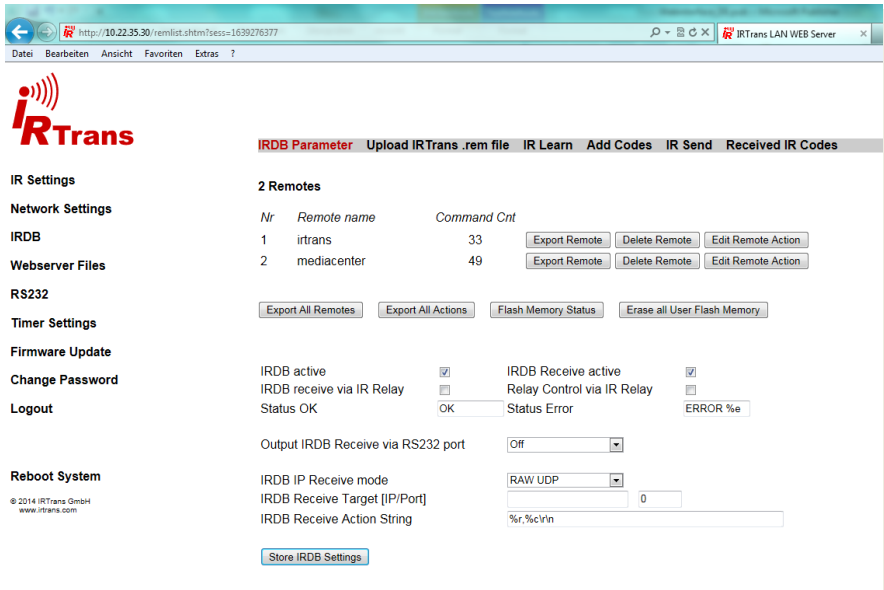
**Togglebit an Position / Anzahl Togglebits:** This allows manually mapping out toggle bits in an IR code. To do that the position of the toggle bit(s) has to be set (0..62). Furthermore the Number of togglebits must be selected. The codes have to be learned using this setting and the option „map out toggle bit“ of the learn dialogue.

**IR Duty Cycle:** The IRTrans devices have high power IR transmitters. Sometimes these transmitters are too powerful so the receiver will be overdriven and receive errors occur. The parameter duty cycle allows to reduce transmitting power. (Standard: 1:2 = high power)

## 4. IRDB

If your IRTrans device has the IRDB functionality the IR Code database can be set up here. It is possible to learn new codes, upload and download remote files to use with other IRTrans modules.

### 4.1 IRDB Parameter



The screenshot shows the IRTrans LAN WEB Server interface. The main content area is titled "IRDB Parameter" and contains the following elements:

- Navigation Menu:** IRDB Parameter, Upload IRTrans .rem file, IR Learn, Add Codes, IR Send, Received IR Codes
- Left Sidebar:** IR Settings, Network Settings, IRDB, Webservice Files, RS232, Timer Settings, Firmware Update, Change Password, Logout, Reboot System
- 2 Remotes Table:**

Nr	Remote name	Command Cnt			
1	irtrans	33	Export Remote	Delete Remote	Edit Remote Action
2	mediacenter	49	Export Remote	Delete Remote	Edit Remote Action
- Buttons:** Export All Remotes, Export All Actions, Flash Memory Status, Erase all User Flash Memory
- Configuration Options:**
  - 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\r\n
- Bottom Button:** Store IRDB Settings

Here a list of the available remotes is displayed. In the example depicted above there are 2 remotes with 33 and 49 button/codes respectively. Use the buttons on the right to download or delete the remote. The button „Edit remote Action“ opens a new page where some additional options are available (see chapter 4.1.1) A click on the remote name opens a page with the list of commands available in this remote.

Below there are some general options for using the IRDB.

The IRDB functionality can be disabled by unchecking the box „IRDB active“.

„IRDB Receive active“ means that the IRTrans will search for the IR command in its database and send the decoded command to the network..

„IRDB Receive via IR Relay“ uses the IRDB to decode IR codes forwarded via the network from other IRTrans modules.

„Output IRDB Receive via RS232 Port“: If a RS232 port is available and active the received code can be sent to RS232.

„IRDB IP Receive Mode“ selects whether to use a UDP or TCP connection to send received data.

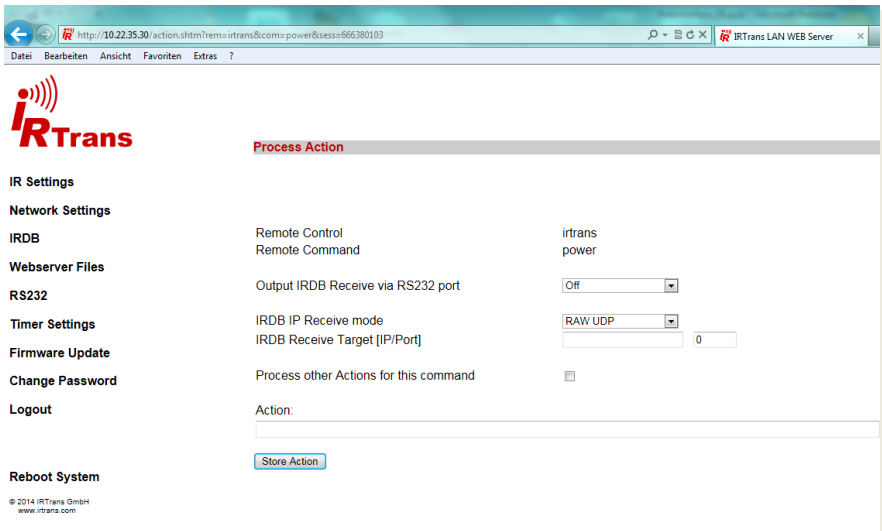
„IRDB IP Receive Target“ host where received code are sent to.

„IRDB Receive Action String“ sets what gets sent to the target. The default setting „%r,%c/r/n“ causes the IRTrans to broadcast the received command to the network. „%r“ stands for the remote, „%c“ stands for the command. „/r/n“ are ASCII control characters for carriage return and new line.Ähnlich können auch die Status Meldungen konfiguriert werden. „%e“ ist ein Platzhalter für den Error Code des IRTrans.

### 4.1.1 Edit Remote Action / Edit Command Action

In addition to the globally active settings described above it is possible to configure different settings for a specific remote or even specific commands. Settings at the command level have higher priority over the settings at remote level which in turn have priority over the global settings.

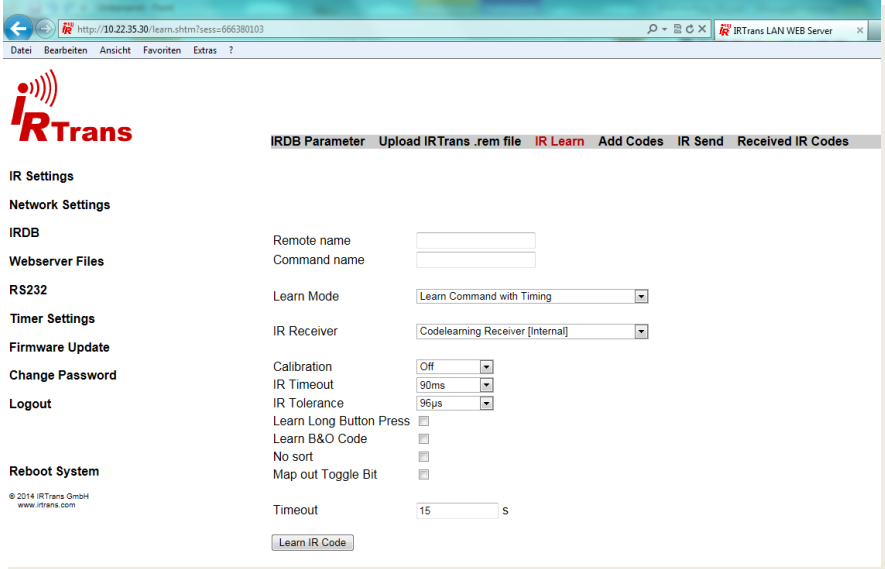
The page shown below opens when clicking on a button „Edit remote action“ or „Edit command action“. The settings available are identical the the global settings.



### 4.2 Upload IRTrans .rem file

A remote file (.rem file) can be uploaded here and thus be imported into the devices IR database.

### 4.3 IR Learn



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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Remote name

Command name

Learn Mode

IR Receiver

Calibration

IR Timeout

IR Tolerance

Learn Long Button Press

Learn B&O Code

No sort

Map out Toggle Bit

Timeout  s

First a remote must be selected. Enter a new name to the textbox or select a remote in the dropdown menu.

This name is also the filename for the IR command database file.

When selecting an existing remote this database file will be amended with new commands and already existing commands will be overwritten.



Remote and command names are not case sensitive. All names and commands are converted to lowercase during execution.



iRTrans only supports basic ASCII characters. Special characters and mutated vowels will result in errors.

After naming the remote commands can be learned. For learning the remote should be held at a distance of about 0.5m/2ft from the iRTrans. Holding the remote closer to the iRTrans may result in overdriving the receiver. Then the IR codes will not work correctly. Additionally the button of the remote should only be pressed as short as possible.

Normally it is not necessary to change any of the other settings for learning IR codes.

### 4.3.1 special learn modes

The default settings most likely do not need to be modified but there are few cases when special learning modes are delivering better results.

#### Learning Repeat Codes

Some remotes use a different code when holding a button. This mode can be used to learn these type of codes. When using this learning mode hold down the button for a few seconds.

#### RAW mode

The IRTrans firmware normally decodes IR commands and stores them in a less space consuming format. Refer to database format for details. In rare cases this will not work correctly so it may be necessary to store the command as raw data. Storing commands this way requires multiple times the memory so this mode is only recommended if the remote cannot be learned any other way.

#### RAW Repeat

It is possible to learn repeat codes in raw mode as well. As when learning normal repeat codes hold down the button on the remote.

#### Toggle Command

Very rarely remotes use multiple commands in turns when buttons are pressed repeatedly. Use the Toggle Command mode to learn this type of commands.

### 4.3.2 additional parameters

#### receiver

Here the receiver for learning IR codes can be selected. IRTrans devices with only one receiver offer only the active receiver to select aside external receivers. Receiver types are configured using the device settings dialogue.

#### calibration

When learning very long IR Codes (especially for air conditioners) rounding errors might add up so that the IR code might no longer be recognized.

This option allows to record additional calibration data with the IR code. When the codes are sent these calibration data is used to correct the rounding errors.

These rounding errors only occur for IR codes longer than 50-80 bytes. Therefore that option generally is only needed for the IR Codes used by air conditioners.

The different values define how often the calibration data inserted into the IR Code (every 10, 30 or 75 bytes). Using more calibration data will limit the available memory for the IR code itself. In most cases it will be enough to use the 30 or 75 byte option.



### **IR Timeout**

This value controls maximum pause lengths within an IR code. A pause longer than the specified value will terminate the code. Setting this value too small will cause the IRTrans to stop receiving prematurely. On the other hand smaller values can improve performance with repeated codes. When altering this value it is recommended to make small steps and test the results.



When learning codes for the database the timeout value should better be too large rather than too small. Otherwise it can happen that codes are not learned completely.

### **IR Toleranz**

This value defines the tolerance when receiving IR signals. Larger values make the IRTrans less susceptible to inaccuracies of the IR codes but might cause other devices not to receive the IRTrans' codes correctly.

### **Learn long button presses**

Some devices require long (several seconds) button presses for example to call a configuration menu. Using the Option learn long button presses those codes can be learned. In contrast to the usual learning procedure the button must be held down as long as is required by the device.

### **Learn B&O Code**

This enables to learn the special B&O IR codes. If no appropriate receiver is selected (Universal codelearning receiver, 455kHz receiver, 455kHz plasma shielded receiver) this option will have no effect.

### **No sort**

IR codes normally are sorted according impulse length. This deactivates the sorting function.

### **Map out Togglebit**

This allows manually mapping out toggle bits in an IR code. To do that the position of the toggle bit(s) has to be set (0..62). Furthermore the Number of togglebits must be selected. The codes have to be learned using this setting and the option „map out toggle bit“ of the learn dialogue.

### **Wait Timeout**

Time in seconds available for learning a code. If no code is received withing the speciefic period learning terminates with a timeout error.

**IR Receive Timeout:** This value controls maximum pause lengths within an IR code. A pause longer than the specified value will terminate the code. Setting this value too small will cause the IRTrans to stop receiving prematurely. On the other hand smaller values can improve performance with repeated codes. When altering this value it is recommended to make small steps and test the results.



When learning codes for the database the timeout value should better be too large rather than too small. Otherwise it can happen that codes are not learned completely.

**Idle Timeout:** This timeout is used to resynchronize between two different IR codes. It is the minimum time between discrete IR commands. The standard value (5ms) is usually suitable for most scenarios, smaller values might improve the repeat speed when holding a button depressed.

**Receive long repeats:** Normally 2 IR repeats are evaluated when receiving an IR code. Rarely IR codes consist of 2 repeats and a 3rd different code. This option can be used to relay such codes. Normal learning is not affected because during learning the IRTrans uses more repeat cycles. Checking whether this option is needed is pretty straightforward: Relaying doesn't work and the codes in the .rem file are longer than the codes displayed by „Detected IR commands“.

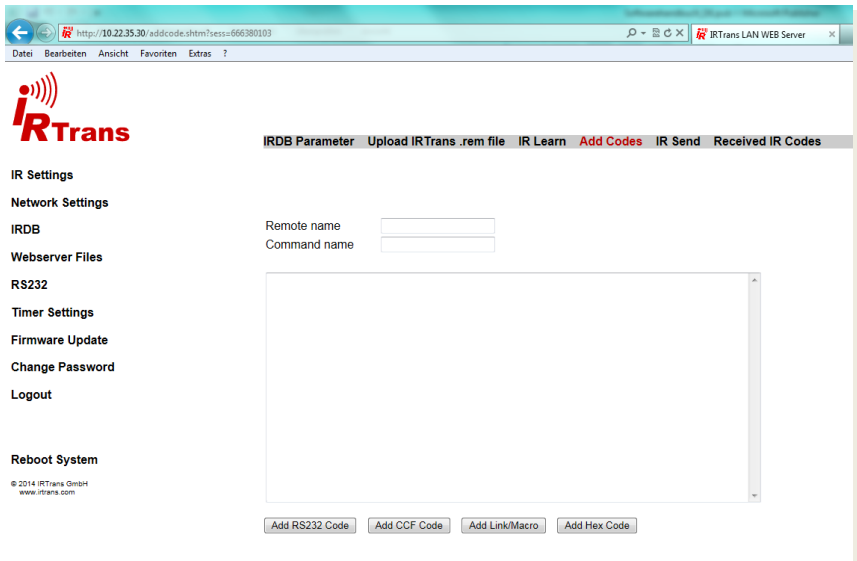
**455 kHz B&O Codes:** Using this checkbox learning of 455kHz B&O codes will be enabled. This will only work when a 455kHz receiver is selected (either Universal colearning receiver, 455kHz receiver or 455kHz plasma shielded receiver). All other learn / receive options are set to optimized values for B&O codes automatically

**No sort of IR Codes:** Received IR codes will not be sorted according pulse length. This might ease recognition of codes especially with codes that use many different timings.

**Always RAW Mode:** All IR codes will be received in RAW mode. Also all IR codes will be relayed in RAW mode. This option is rarely needed.

**Framelength for IR Repeat:** When measuring timings for IR repeats the whole code frame length will be used (IR code + pause). Without this option the pause length will be measured. This was the operating mode of earlier firmware versions. Normally the new mode will work more reliable, this option is available only to be compatible to earlier versions and should normally be left activated.

## 4.4 Add Code



### 4.4.1 Add RS232 Code

An RS232 Code will not be sent via IR. It will be sent via the devices RS232 interface - as long as there is one and it is enabled.

Bytes coded in hexadecimal notation are preceded by „x“ followed by two characters representing the byte (each 0..F).

Bytes in decimal notation consist of „a“ and three numbers (0..9).

\n and \r are ASCII control characters and stand for newline and carriage return respectively.

All characters will be transmitted. Blanks between bytes in hexadecimal or decimal notation will be sent as well.

### 4.4.2 Add CCF Code

The CCF Standard allows the huge IR Code database of the Philips Pronto® system with iRTrans as well. Currently all Mode 0, 1, 5 and 6 Codes are supported (First Block 0001, 0002, 0005, 0006). CCF Codes for many devices can be found on the internet (e.g. [www.remotecentral.com](http://www.remotecentral.com)). For further information about Philips Pronto® go to [www.pronto.philips.com](http://www.pronto.philips.com).

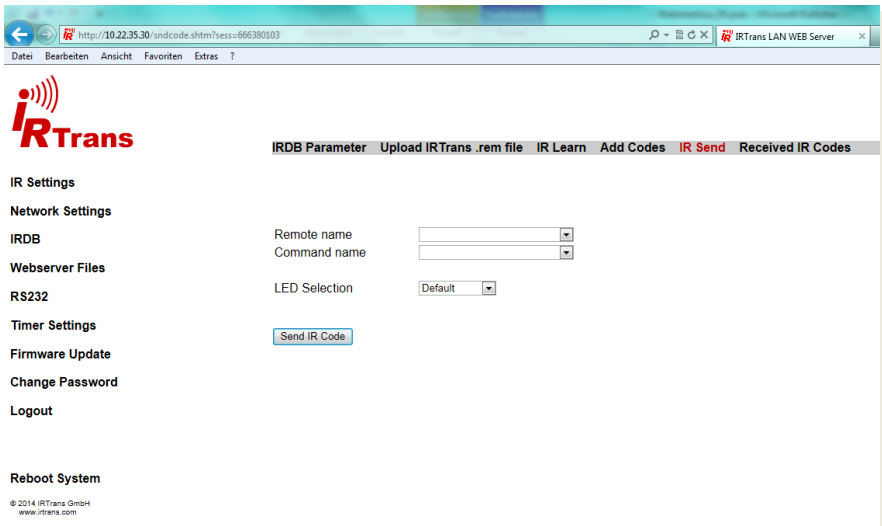
## 4.4.3 Add Link

Already learned commands can be linked to other remotes. After selecting the remote and naming the command click on „add link“. Now select the remote and command the link will point to.

## 4.4.4 Add Hex Code

IR command data in the IRTrans Hex format can be pasted directly using the import IRTrans Hex feature. To get IRTrans Hex data call „get IRTrans Hex“ from the IRServers context menu.

## 4.5 IR Send



The code selected by the remote and command boxes can be sent here.

The „Default“ setting for LED selection is sending via all available transmitters unless they are deactivated with the device settings. Other options include

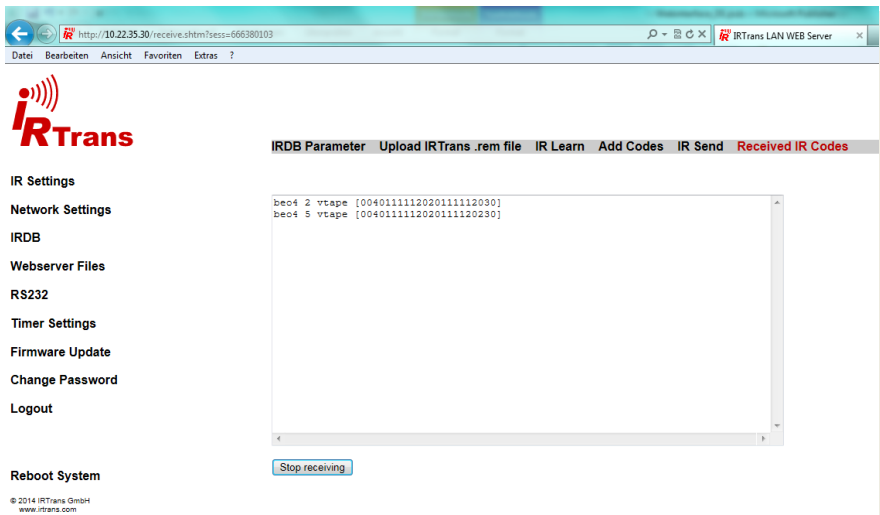
- All internal transmitters
- All external transmitters
- External transmitter connected to port X

## 4.6 Received IR Codes

On this page received IR code are listed. Unknown or not correctly detected codes are shown as raw data. Codes that have been correctly recognized as one of the codes in the database are shown with remote name and command name.

This page is a helpful tool when problems with IR reception are encountered. Press one button multiple times on the remote. If for example only every other command is detected there is a problem with togglebits. This can be verified with checking the raw command data.

If an IR code contains very many different timings (counting starts with 0. 3-5 are normal) this can point to either a wrong receiver setting or too much IR background noise. Further information and help can be obtained by contacting the technical support staff.



http://10.22.35.30/receive.shtml?sess=666380103

IRTrans LAN WEB Server

**iRTrans**

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

```
hex4 2 vtape [0040111112020111112030]
hex4 5 vtape [0040111112020111120230]
```

Stop receiving

Reboot System

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## 5. Webserver Files

The IRTrans' webserver can also be used to display custom web pages. The IRTrans has 4096kB flash memory available (Firmware, IR Code database, own websites etc.)

The webserver is not suitable for very complex designs and has only limited space available. However building an on web based IR remote is no problem.

### 5.1 Webserver Files

Displays a list with all files uploaded to the webserver. „Delete File“ deletes the corresponding file..

„Delete All User Flash Memory“ formats the flash memory. All user data as well as remote files will be erased!

### 5.2 Upload Webserver File

Use this to upload webserver files to display your own website.

### 5.3 sending IR codes via http

After IR Codes have been flashed to the IRDB or learned via the web interface they can be sent with any web browser. Just open a link similar to this

`http://<ip_adresse_irtrans>/send.htm?remote=<remote>&command=<command>`

The following parameters must be set:

<code>&lt;ip_adresse_irtrans&gt;</code>	IP address of the IRTrans module with IRDB
<code>&lt;remote&gt;</code>	Remote name
<code>&lt;command&gt;</code>	Command name

Additionally these parameters may be specified:

<code>led=&lt;led&gt;</code>	LED selection
<code>quiet</code>	only return a blank page
<code>back</code>	return to the previous page.

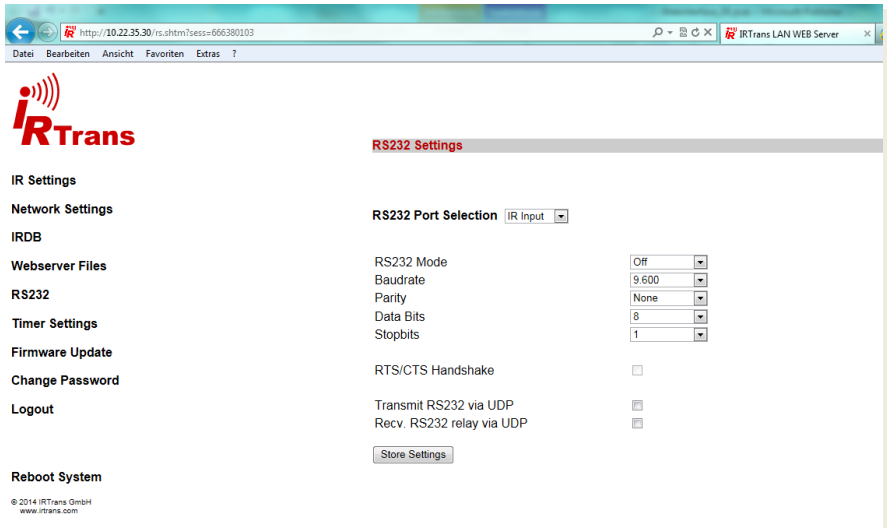
For example the link to send the code „play“ of the remote „dvd“ via external led 1 looks like this:

`http://192.168.0.32/send.htm?remote=dvd&command=play&led=1`

With a number of links a simple web based remote can be programmed. There is some memory inside the IRTrans to store own web pages.

## 6. RS232

There are several ways how a RS232 connection can be established with the IRTrans. The necessary configuration is done on this page.



The screenshot shows the IRTrans LAN WEB Server interface. The browser address bar displays the URL `http://10.22.35.30/rs.s.htm?sess=666380103`. The page title is "IRTrans LAN WEB Server". The main content area is titled "RS232 Settings" and contains the following configuration options:

- RS232 Port Selection:** IR Input (dropdown menu)
- RS232 Mode:** Off (dropdown menu)
- Baudrate:** 9.600 (dropdown menu)
- Parity:** None (dropdown menu)
- Data Bits:** 8 (dropdown menu)
- Stopbits:** 1 (dropdown menu)
- RTS/CTS Handshake:**
- Transmit RS232 via UDP:**
- Recv. RS232 relay via UDP:**

At the bottom of the settings area, there is a "Store Settings" button. On the left side of the page, there is a navigation menu with the following items:

- IR Settings
- Network Settings
- IRDB
- Websserver Files
- RS232
- Timer Settings
- Firmware Update
- Change Password
- Logout
- Reboot System

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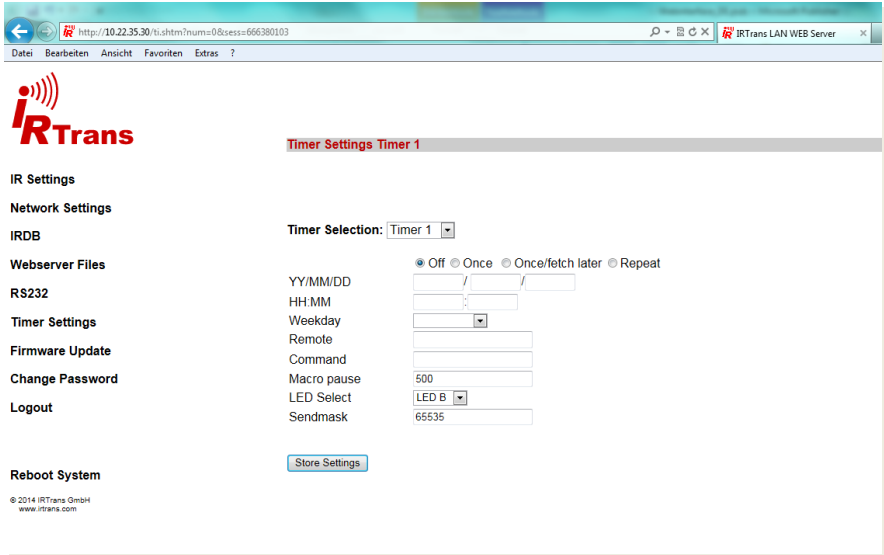
There are IRTrans modules with their own RS232 interface chip (RS232 option). This connection is named „AUX RS232“ and can be used with a passive cable. The AUX RS232 port is bidirectional.

In addition free ports on the IRTrans can be used to emulate RS232 ports by software. These ports are only unidirectional meaning they can either send or receive - not both. An active RS232 cable is required.

Select where the RS232 connection will be used then set the connection speed as appropriate.

## 7. Timer

There are 16 timers that can be used to send IR codes at specific times. To ensure correct timing a NTP server must be available. If the IRTrans does not get a correct time from a NTP server the timers will not work.



### Timer Selection

select the timer you want to modify

### Timer Modus

„Once“ - send once. „Repeat“ - repeat as configured

### YY/MM/DD und HH:MM

Year, month, day and time of first execution

### Weekday

if a repeat timer is configured set the repeat interval here. For example always on Mondays.

### Remote/Command

Enter remote and command(s) to be sent. A macro consisting of multiple codes from one remote can be sent by entering multiple commands separated with „,“. For example a video beamer is commonly switched off by sending the toggle power command twice: „Power;Power“ „Macro Pause“ defines the pause between two commands in ms.



## **8. Firmware Update**

On this page firmware updates can be uploaded to the device. Firmware updates are provided upon request by technical support.

## **9. Change Password**

Change the device password using this page. The default password should be changed to prevent unauthorized access to the IRTrans. The password is needed to change device settings and IP settings with the IPAssing app.

## **10. Reboot System**

Forces the system to reboot.





