

IRTrans Mediacontroller

The IRTrans Mediacontroller is based on the IRTrans RS232. It has got a larger Microcontroller (64K) and an included IR Database with additional 64K flash memory. The memory is large enough to store about 1000 IR Commands. These commands are learned first and then transferred using the IRTrans PC Software.

The Mediacontroller can be further extended to a multizone system with IRTrans Bus Modules. In these configurations the Mediacontroller supplies all devices with IR Codes from its integrated IR Database. That means that a configuration for up to 15 additional rooms can be set up using only one Mediacontroller.

These are the differences compared to the standard devices:

RS232 Baud rate: In the dialog *Mode - Device Status* a new option has been added to set up the RS232 Baud rate (not SBUS Baud rate). The selected value will be permanently stored in Flash Memory. Available values are 9600, 19200 and 38400 Baud.

If a baud rate other than the standard of 38400 baud is selected, this baud rate has to be used for IRServer start up, too (e.g.

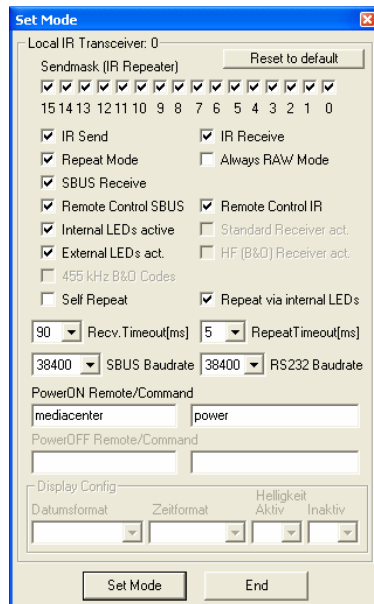
```
irserver -baudrate 9600 com1
or
irtranstray -baudrate 9600 com1!
```

Power Supply: Due to the additional functions the device draws more current than RS232 standard devices. Therefore an external Power Supply is always needed. The device might work without a power supply; however it will not work reliable.

Device Database: If the internal IR Database is active, PC Control via IR (IR Receiving) is no longer possible using the IRTrans Software. Learning and sending of commands is, of course, still possible.

Serial Bus: The Mediacontroller has got additional drivers for the Serial Bus. Therefore the Serial Bus is more powerful and can drive more devices and longer cables.

Integrated Relay: The Mediacontroller includes a small Reedrelais, than can be controlled via IR commands. The contact of that relay is connected to two pins of the MiniDIN 8 socket (-> IRTrans manual). The pin configuration of that socket is described in the IRTrans manual.



Programming the Device Database

Using *Mode – Device database* the integrated IR Database can be configured using the IRTrans GUI client.

A remote control is selected with the right mouse button. Selected remote controls are marked with a “*”. All selected remote controls with all their commands will be stored in the device database.

The “Default Action” text box defines the string that will be sent via the RS232 interface when an IR command is received. If the field is empty, only commands with their own action will be sent over the serial interface.

The following macros are available:

```
%r Name of the remote control
%c Name of the IR command
%a Address of the device on the serial bus
```

Carriage returns can be sent using “\r” and line feeds via “\n”.

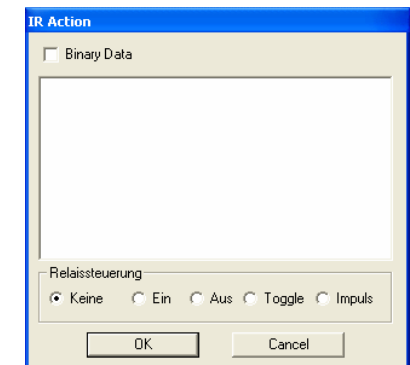
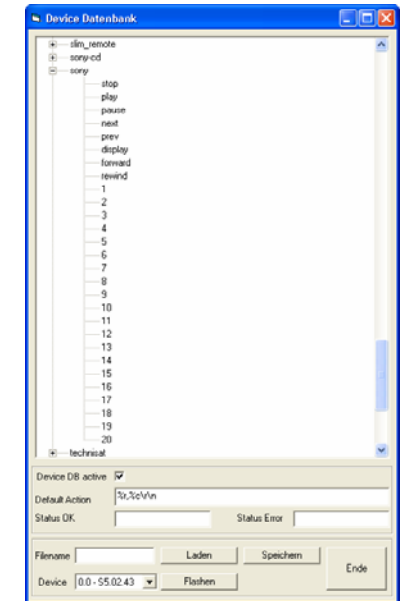
The checkbox “Device DB active” allows to switch the IR Database on or off.

Furthermore an individual string can be defined for each IR Command. After opening the remote control each command can be selected using the right mouse button. Now an ASCII or binary string can be stored. Binary data is stored via 2 digit Hex codes with a space as a separator (e.g. 20 43 0D 0A). This string will be sent via the serial interface when the selected command is received. In the ASCII mode Carriage Return and Linefeed can be generated using “\r” and “\n”.

The Relay Control allows controlling the integrated relay via IR Commands. The options can be used to switch the relay On (On), Off (Off), to toggle it (Toggle) and to pulse it (Pulse).

The relay contact is wired to two contacts of the MiniDIN 8 socket (-> IRTrans Manual). The Relay can switch up to 20V / 250mA.

The relay may never be used to directly switch high voltage / high power!



Loading and Storing the Device Database

The Device Database will always be stored on the server side. It will be stored in the remotes folder that is also used to store the IR Commands.



- Store** – Stores the device database using the given name
- Load** – Loads the database definition
- Flash** – Transfers the device database to the flash memory of the device

An arbitrary number of configurations can be stored on the server. However, only one active configuration can be downloaded to the device.

Of course an arbitrary number of remote controls and commands can be selected in the IR Database – as long as they fit into the 64k of memory inside the device.

Sending IR Commands

Commands in the IR Device Database can be sent using simple ASCII Commands:

```
snd <remote>,<command>,[ledselect],[sendmask]
```

remote : Name of the remote control

command : Name of the IR command
Macros can be sent by entering more than one command of a single remote control separated by “;”.

ledselect : Selection of the internal or external IR LEDs (Optional)

- I Internal
- E External
- B Both

sendmask : Bit mask for the device selection of the IRTrans Serial Bus (Optional)

The parameters *ledselect* and *sendmask* are optional and can be omitted. If they are not used the LED selection in the device setting will be used. If the *sendmask* parameter is omitted the code will be sent by all devices connected to the serial bus.

The string has to be sent at once. Transmitting character by character e.g. using a terminal program is not possible because after 20ms without a new character a timeout will be generated. This has to be done that way to be able to use the device with the IRTrans software that has a completely different command structure.

The fields “Status OK“ and “Status Error“ are used to define return codes. These return codes are used to signal if a command was successful or not.

