IRTrans Translator

1. General

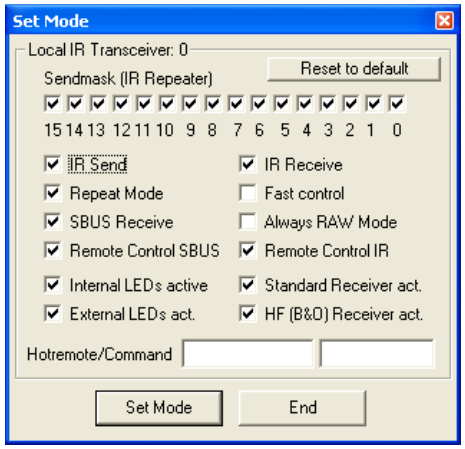
The IRTrans Translator is a IRTrans USB Version with the following extensions:

- 455kHz and 38kHz IR Receivers (For Standard & B&O® Codes)
- Larger (64KB) Microcontroller
- 64KB Flash Memory to store IR Codes
- Includes IR Code translator to translate Codes from one system to another.
- IR Output with separate Driver allows to use Internal & External Transmitters independently. Furthermore external High Power Transmitters are possible.

This manual describes Hardware and Software differences and additional functions.

The Translator can be used the same way as a standard IRTrans USB Unit. Furthermore it can receive 455kHz (B&O®) and standard Codes at the same time. As both receivers are active at the same time, care should be taken to keep some distance (> 30cm) from the unit when controlling it. When using a powerful remotecontrol at a very low distance the wrong receiver might be triggered by the high IR intensity.

2. Translator Settings



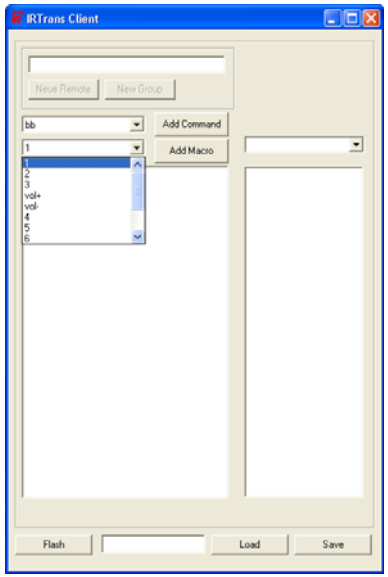
As the Translator has some more Hardware features it has got an extended settings dialog. It allows to Switch On/Off the additional Hardware:

- Internal LEDs
- External LEDs
- Standard Receiver
- HF (B&O®) Receiver

Important: Using an older Version of the IRTrans Server or Client that does not support the additional features might switch off all Receivers & Transmitters. Do not use any older versions than the ones that came with the unit.

3. Programming the Translator

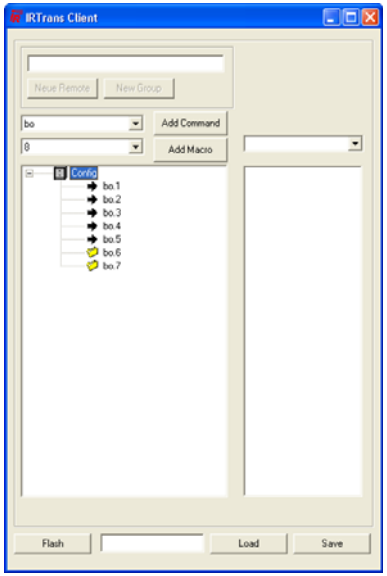
To Programm the Translator the Codes need first to be learned using the Standard Functions of the IRTrans System as described in the IRTrans Users Manual. After Learning the Codes they should be tested using the Standard Client and the Debug Window of the server. After all codes have beed verified the Translation Table can be build. That is done using the IRTrans GUI Client. The “Mode” Menu contains an item called Translator. It opens up the Configuration Dialog for the Translator. Please be aware that this Menu Item only appears if an IRTrans Translator is connected to the system.



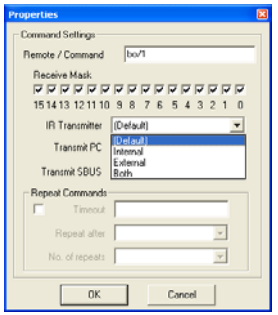
The picture on the left shows the Configuration Dialog for the Translation Table. The Translation Table consists of the following elements:

- **Remotes** are elements to structure the Translations. They are only needed for complex configuration utilizing several Groups.
- **Groups** allow one set of Remote buttons to be used for different devices. Each Group has a “trigger” command that activates this group. At the same time all other Groups in the same Remote are disabled. That allows to use the Up/Down or Vol+/Vol- buttons for different devices. Commands that should always be active have to be placed outside the Group
- **Commands** are the commands that are *received* by the system.
- **Macros** allow a group of commands to be triggered by one received command. (up to 200).

Simple configurations do not need any Remotes or Groups. Commands can also be placed directly in the main layer of the system. A new user should start with a simple configuration fist. To do that select a remote control (in the upper left Combobox). Now all the commands in this Remote are shown in the Combobox below. By pressing “Add Command” that command will be added to the Command List on the left.

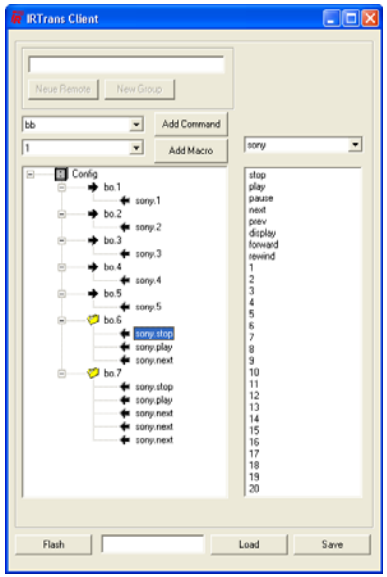


This picture shows a translation table with 5 Commands triggered by the Remote Commands bo.1 – bo.5 and two Macros triggered by bo.6 & bo.7.



The Properties dialog allows to set the properties for every received command. It allows to set from where a command is accepted and how to send the IR Code and the Command data: Using Internal and/or external Transmitters and sending Translated or original command via the Serial Bus & USB.

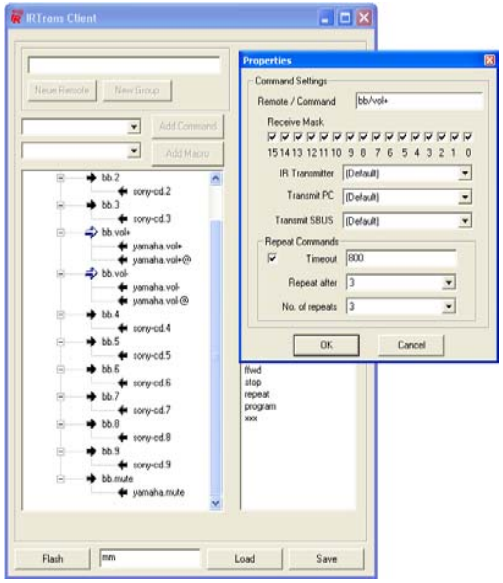
Each Command should only be placed once in the receiving part of the system. Otherwise only one of the actions will be triggered.



Now the commands that should be sent can be added:

1. Select a remote Control in the right Combo Box.
2. Take a command from the list on the right and simply drag it on the Receiving command or macro.
3. Repeat Steps 1 & 2 until all commands are added. Of course different remotes & commands can be used. When you are using macros more then one command can be added.

When Repeated Commands (like Volume Up) should be translated the Repeat Accelerator can be used. In general repeating of commands is slower as normal because every code is first received and then sent again. Then the next code is received. The repeat Accelerator overcomes this by automagically sending an IR Code more then once.



- The setting is done in the Properties dialog for a received command. First the Checkbox in Repeat Commands has to be activated.
- The parameter *Timeout* is the maximum time the system waits for the next repeated command. It should be set to 800-1000 ms. If very long codes are used, longer values might be needed.
- *Repeat after* is the number of Key Repeats the Translator waits until it repeats a command *No. of repeats* times.
- An Accelerator Command can have a second Send Command. This command is sent for the fast repeat. Some devices (e.g. Yamaha) use special Repeat codes. The Repeat command is simply dragged as a second command on the Received command.

Once the configuration is ready it can be saved and flashed:

- To store a translation table simply choose a name, type it into the name field below the list and click on the *Save* button. The translation table will be saved on the server in the remotes folder. The name will be <your name>.tra.
- To load a saved configuration enter the filename (without the trailing .tra) and press *Load*. That will load the configuration through the server on the client.
- To download the configuration to the IRTrans Translator only the *Flash* button needs to be pressed. Now the Configuration is downloaded into the IRTrans Translator and saved in the Flash Memory. While Flashing the LED of the IRTrans blinks fast Red/Green.

4. Additional Infos

- When there is a valid Translation Table in the Flash Memory of the Translator the LED blinks on powerup first Red (long) and then short Red/Green twice.
- When IR System with similar Carrier Frequencies are used to Send & Receive (Like Philips & Sony) both signals might overlay each other. That might only lead to problems when a button is held pressed. That is a physical problem – like it is impossible to receive to radio stations with one receiver at the same time.
  However, due to the very high Sending Power of the IRTrans Translator these problems are not very common. When translating HighFrequency Signals (B&O®) to other Code Systems these problems never occur.
- For Repeated Codes (e.g. Volume Up) the Repeat Accelerator should be used. It is described in section three of this manual.
- When a Remote Control uses different Codes for one command (Toggle Codes) a Translation for every toggle code can be stored. Normally that means that for different received commands the same code is sent.
- The 64Kbyte Flashmemory stores 500 – 800 IR Codes & Translations.
- The PowerOn Option works the same way like in standard IRTrans Modules.