

IR-Slave

Infrared Interface for Amiga Computers
Version 1.1

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1 What Is IR-Slave

With the IR-Slave you can control your Amiga via any remote control!

Therefore you can learn different infra-red signals of your remote control (e.g. the remote control of your tv set) and assign different commands/scripts to them.

Then, whenever the IR-Slave hardware detects a infra red signal which was been learned before, the assigned command/script will be executed. You can for example show a picture when pressing the power key on a remote control or start an arexx-script etc.

The IR-Slave can also do its work hidden, because it is a commodity. Up to 254 different commands can be learned.

See Section 4.2 [Hardware], page 6.

2 Installation

Requirements:

- Kickstart 2.04
- Workbench 2.1 or higher If you want to use the `locale.library`

Installation:

The installation is very easy. No additional libraries are needed - no assigns must be done.

The only thing which should be noticed is that the IR-Slave should be copied to a directory which is in the path of the workbench (e.g. `'sys:utilities/'`). Then the projects can be started from anywhere with a doubleclick.

For user of workbench 2.1 or higher:

If you want to install the german catalog you have to copy `'IR-Slave.catalog'` to `'Locale:catalogs/deutsch/'` or to `'catalogs/deutsch/'` in the same directory of the IR-Slave.

If you want to install the german catalog it Locale: you have to type:

```
1> cd IR-Slave_Registered:
1> copy catalogs/deutsch/ir-slave.catalog to Locale:catalogs/deutsch/
```

3 How To Use

3.1 Menus

3.1.1 Project

<i>New</i>	Deletes all the commands. A new project can be edited.
<i>Load...</i>	Loads an already existing project.
<i>Save</i>	Saves the actually edited project with the current name.
<i>Save as...</i>	Saves the actually edited project. The path/name can be given via a filerequester.
<i>Info...</i>	Gives some information about the authors and the project.
<i>Hide</i>	Closes the GUI of the IR-Slave. Although the IR-Slave stays active. To reopen the GUI use commodities exchange.
<i>Quit</i>	Quits the IR-Slave.

3.1.2 Edit

<i>New</i>	Creates a new ir-command-entry. In the "name"-gadget you can name this function - like "Tv set, power". In the action-gadget you can type a command to be executed when the specific ir signal is recognized. This line will be interpreted like a command line in the shell.
<i>Cut</i>	The current entry will be cut to an internal buffer and can be inserted anywhere (with paste).
<i>Copy</i>	Does the same as <i>cut</i> - the current entry stays in the list.
<i>Paste</i>	The entry in the internal buffer will be inserted in the command list.
<i>Sort</i>	The command list will be sorted.

3.2 Gadgets

3.2.1 Commands

List Here, all the commands are listed by name. A '-' in front of the name means, that no ir-code is learned for this command.

Learn Use this gadget to assign an ir-code to an entry in the command list. Whenever the ir-signal is recognized by the hardware (and watching is enabled) the relating command will be executed.

After learning, the received ir data will be displayed.

Name Here you can type any name - this will help you to remember which command is assigned to which ir code.

Action/Test

In this string gadget you can type a command line which will be executed whenever the specific infra red signal is recognized by the IR-Slave hardware (or by pressing the test gadget). This string will be interpreted as a command line typed in a shell.

3.2.2 Configuration

Protocol In this gadget you can type a file name for the protocol file of received ir signals.

Tolerance The higher this value is the exacter the received ir signal and the lerned signal must match. Values between 5 and 8 should work fine.

Code The half code is an optimized way to store the ir-data. This format is faster but does not work with all remote controls. So you should simply try if it works.

Watching If "watching" is switched on, the ir-slave recognizes ir signals. This works only when all ir-commands are learned.

Rate A high rate means that the hardware is checked very often for incoming ir signals. A low rate means that the hardware is not checked so often - uses less cpu power.

3.3 Tooltypes

If you start the ir slave by doubleclick the tooltypes of its icon will be used. If you doubleclick on a project (or shift doubleclick it) the tooltypes of the project will be used.

If you start the ir slave from the shell, you can use the same arguments as the tooltypes.
E.g. `1> IR-Slave demos/demo1.slaved CX_POPUP=NO CX_POPKEY=f10`

The following tooltypes are supported:

CX_POPUP=

YES open GUI on startup

NO start hidden

CX_POPKEY=

Key on which the GUI should pop up. e.g. `control s` default ist `lalt esc`

PUBSCREEN=

Name of a public screen which should be preferred for the GUI.

LEFT= Left edge of the gui window.

TOP= Top edge of the gui window.

RATE= See Section 3.2.2 [Gadgets], page 4.

TOLERANCE=

See Section 3.2.2 [Gadgets], page 4, and Chapter 5 [IR-Learning], page 7.

OUTPUT=

Protocol file. See Section 3.2.2 [Gadgets], page 4, and Chapter 5 [IR-Learning], page 7.

PROTOCOL=

YES Echo all the received signals and report executed commands.

NO Do create a log flie.

PROJECT=

Only in the IR-Slave icon: Datafile which should be loaded on startup.

4 Hardware

4.1 General Information

The hardware consists of a receiver unit which is half SMD (surface mounted device). The hardware is connected to the joystickport. The hardware can only be ordered by the authors - See Appendix B [Registering], page 9. You may order either documents for the hardware, the construction kit without PCB, the construction kit with PCB or the complete hardware.

If you want to order a construction kit you should have some experience with this electrical stuff! Although you need not be a profi...

The hardware works with all remote controls which have a pulse frequency between 30 kHz and 40 kHz and with a minimum impulse length of 20 μ s (Philips, Blaupunkt, Panasonic etc.). If you want to know if your remote control will work with the ir-slave simply contact one of the authors (Jürgen Frank).

The range of the ir slave is about 4-6 m depending on your remote control.

The IR-Slave is compatible to the IR-Master (also by Jürgen Frank & Michael Watzl). They can be used both on a Y-Adapter.

4.2 Trouble shooting

If your hardware won't work after it is finished so this may have one of the following reasons:

Error in the construction

Check cable, connectors and components

Receiver too near to an interfering field like a monitor, bright light, etc.

Place the receiver to a sheltered place.

Amiga learns badly or not at all

Batteries in the remote control are too weak

5 IR-Learning

1. Choose an entry in the list
2. Click on "learn"
↳ the pointer will be frozen
3. Aim with your remote control on the sensor of the ir slave hardware. The distance should be about the half of the distance in the later use. So if you normally lie on your couch 4 meters away from your amiga - you should learn the commands with a distance of 2 meters.
4. Press the button on the remote control and hold it down until the ir slave has recognized the signal. If you press the right mouse button the learn action will be cancelled.

Important notes

- It is possible that the ir-slave will not react on your actions the first time. In this case you should test the ir-slave with other remote controls and try other values for tolerance and rate.
- Successful learning depends on the distance. So if it does not work fine you should try relearning in different distances between 1 and 2 meters.
- If the batteries of the remote control are weak the ir signal is not very exact. This can lead to an incomplete learned ir signal. The ir slave won't recognize the signals correctly.

In such a case you should use new batteries.

If you own a tool by Akai, Blaupunkt, Fisher, Technics, Philips or Sony you can be sure that they will work with the ir slave.

Appendix A Support & Bugreports

New versions of the ir slave software can be downloaded in JESOLO-BBS

Jesolo, BBS of the "Amiga Freunde Ries"
24H online
2400-19200 Baud, 8N1
Tel: +49 906 28851

Login: GAST

The latest revision of the ir slave can be found in:

‘/PD_POOL/PD-Anwendungen/ANW-Sonstiges/’

Or you can send a disk + stamps with a little letter (demanding a software update) to:

Michael Watzl	or	Juergen Frank
Konradstr. 11		Wittelsbacherweg 7
86609 Donauwoerth		86609 Donauwoerth
Germany		Germany
Tel.: +49 906 5834		Tel: +49 906 1057
Fax : +49 906 28851		

Bugreports & suggestions can also be sendt to these addresses (and they are welcome!).

If you have questions to the hardware contact Juergen Frank. For questions to the software and the gui contact Michael Watzl.

Appendix B Registering

REGISTRATION-FORM:

FIRM: -----
 NAME: -----
 STEET: -----
 ZIP: -----
 CITY: -----
 COUNTRY: -----
 TEL: -----

I want to become registered user of the ir-slave, therefore

- o I enclose a check
 (european: euro cheque
 others : drawn on a german bank)
- o transfer payment to Michael Watzl:
 Raiffeisen-Volksbank Donauwoerth eG
 86609 Donauwoerth
 Acc: 4185455 Bank code: 722 901 00
 for payment reference use: "IR-SLAVE REGISTRATION"

Please send me:

- o newest version + documents for the hardware
 for the price of \$15 / DM 25
- o newset version of this package + hardware pieces (w/o PCB)
 for the price of: \$25 / DM 40
- o newset version of this package + hardware pieces (incl. PCB)
 for the price of: \$28 / DM 45
- o newset version of this package + complete hardware
 for the price of: \$40 / DM 60

 date, locality

 sign

Appendix C History

V1.0 first Release

V1.1 localisation + german catalogs

TODO:

- arexx port

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