

# **IRMaster**

Michael Watzl

Copyright © Copyright © 1994 Michael Watzl

---

**COLLABORATORS**

	<i>TITLE :</i> IRMaster		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY	Michael Watzl	January 5, 2023	

**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME

# Contents

<b>1</b>	<b>IRMaster</b>	<b>1</b>
1.1	main	1
1.2	contents	1
1.3	shareware_info	2
1.4	1.	3
1.5	2.	3
1.6	3.1.1	4
1.7	3.1.2	4
1.8	3.1.3	5
1.9	3.1.4	5
1.10	3.2.1	6
1.11	3.2.2	6
1.12	3.2.3	6
1.13	3.2.4	6
1.14	3.2.5	6
1.15	3.2.6	7
1.16	3.2.7	7
1.17	3.2.8	7
1.18	3.2.9	7
1.19	3.2.10	7
1.20	3.3	8
1.21	3.4	9
1.22	4.1	10
1.23	4.2.1	10
1.24	4.2.2	10
1.25	4.2.3	11
1.26	4.2.4	11
1.27	4.3.1	11
1.28	4.3.2	11
1.29	4.3.3	12

---

---

1.30	4.3.4	12
1.31	4.3.5	12
1.32	4.3.6	12
1.33	4.3.7	12
1.34	4.4	12
1.35	5.	13
1.36	6.	14
1.37	7.	15
1.38	rtpatch	15
1.39	req.library	16
1.40	reqtools.library	16

---

# Chapter 1

## IRMaste

### 1.1 main

```
+-----+
| ##### |
| ## # # |
| ## ##### |
| ##### # # # |
+-----+
```

Written in 1993-94 by Jürgen Frank & Michael Watzl

© 1993-94 by Jürgen Frank & Michael Watzl

[Contents](#) [Shareware](#) [Info](#)

### 1.2 contents

-----  
Contents:  
-----

1. What it does
2. Installation
3. IR-Editor
  - 3.1 Menus
    - 3.1.1 Project
    - 3.1.2 Edit
    - 3.1.3 Arrange
    - 3.1.4 Environment
  - 3.2 Toolbox
    - 3.2.1 New Gadget
    - 3.2.2 Move Gadget(s)

- 3.2.3 Attache Grafik To Gadget(s)
  - 3.2.4 Attache Text To Gadget(s)
  - 3.2.5 Learn IR Data
  - 3.2.6 Kill Gadget(s)
  - 3.2.7 Size Gadget
  - 3.2.8 Load background grafic
  - 3.2.9 Change Font Of Gadget(s)
  - 3.2.10 Test IR Data
  - 3.3 A Word About Learning IR
  - 3.4 Drag & Drop
  - 4. IR-Runner
    - 4.1 Starting The Runner
    - 4.2 The Menus
      - 4.2.1 Hide
      - 4.2.2 About
      - 4.2.3 Fix Position
      - 4.2.4 Quit
    - 4.3 Arexx port
      - 4.3.1 IR\_Send
      - 4.3.2 IR\_Move
      - 4.3.3 IR\_Quit
      - 4.3.4 IR\_Disappear
      - 4.3.5 IR\_Appear
      - 4.3.6 IR\_Disable
      - 4.3.7 IR\_Enable
    - 4.4 ToolTypes
  - 5. Tuning the Hardware
  - 6. Credits, Support & Bugreports
  - 7. Registration
  - 8. History
  - 9. The Construction Kit [view within the guide only with OS3.0]
- 

## 1.3 shareware\_info

This package is shareware - it may be freely distributet.

But if you want to use it frequently you have to **register** ...

THIS PACKAGE CAN'T BE USED - THERE IS NO HARDWARE. BUT YOU CAN  
TEST THE EDITOR AND THE RUNNER AND YOU CAN THINK ABOUT IT.

---

BE SURE THAT NEARLY EVERY REMOTE CONTROL CAN BE SIMULATED BY THE IRMASTER. FOR MORE INFORMATION READ CHAPTER 3.3 OF THE DOCS.

The prices:

This package + documents for the hardware \$15 / DM 25

This package + documents + pieces \$25 / DM 40

This package + complete hardware \$40 / DM 60

## 1.4 1.

1. What it does

=====

The IRMaster is a package which enables you to control nearly any appliance working via a remote control (infra red). You can use the **IR-Editor** to create a window with gadgets - your remote control on the Amiga screen. Then you can make your Amiga learn the ir-commands.

With the **IR-Runner** you can bring up the window you edited and control e.g. your tv set by the Amiga.

## 1.5 2.

2. Installation

=====

Requirements:

- **req.library** may not be included in this package, but can be easily found - it's freely distributable and written by Colin

Fox (Pyramid Designs) and Bruce Dawson (Cygnus Software).

- Kick/WB 1.x for the poor and old (but working!) version

look at Readme13

- Kick/WB 2.x/3.x for the fine and new (also working :- )version.

1. Copy the req.library to your LIBS: drawer of your boot disk.

A patch (like **RTPatch** from Nico François) is recommended to patch the req.library calls to the much better looking **reqtools.library**

(also from Nico François ->thanks).

2. Create a directory for the IR-Editor and the IR-Runner.

Copy them to this directory.

However, it is not needed for the two programmes to be in a certain drawer.

No assigns are needed.

Note:



Your IR-Runner should be placed in a directory which is in the workbench search path (this is declared in your startup-sequence before loadwb) - so the projects can surely find the default tool.

If you use WB 2.1 or higher:

3. Copy the languages-catalog(s) you want to use from "catalogs/<language>" to "LOCALE:catalogs/<language>".

At the moment there is only german and english (built-in).

## 1.6 3.1.1

### 3. The IR-Editor

=====

With the IR-Editor you can create a remote control on your Amiga screen.

#### 3.1 Menus

-----

##### 3.1.1 Project

"Load..." Pops up a requester to load a saved set of gadgets.

"Save" Saves the current set of gadgets.

"Saves as..." Pops up a requester to save the current gadget.

-----

"Info" Gives some information about the used memory etc.

"About" Credits...

-----

Save Prefs Saves the current settings, like position of the toolbox, size of project window...

Iconify Closes screen, frees memory and puts an app icon

-----

"Quit" Quits the editor.

## 1.7 3.1.2

### 3.1.2 Edit

Cut Cuts the selected Gadgets to a internal buffer. That means they will be deleted in the projectwindow and they can be pasted back anywhere.

Copy Copies the selected Gadgets to a internal buffer. With "paste" you can insert this gadgets wherever you want.

Note: If the buffer is not empty and you cut/copy gadgets than the gadgets already in the buffer will be overwritten!

Paste Paste back gadgets in the internal buffer.

Info Gives an information of the gadgets which are stored in the buffer.

Flush Clears the internal buffer.

## 1.8 3.1.3

### 3.1.3 Arrange

Note: The reference gadget is always the first selected. That means, if I first select a big gad and than 2 small gads and I select 'clone size' then all gadgets will be big...

Align Gadgets aligns the selected gadgets

Left by the left edge or

Top by the top edge

Spread Gadgets

Horizontally pops up a requester which asks how many pixels

Vertically should be placed between each of the selected gadgets in the selected direction...

Clone Size Clones the sizes of the selected gadgets.

-----

Coordinates Opens/Closes the coordinates window.

Only if 1 (!) gadget is selected the coordinates will be shown and can be directly edited.

## 1.9 3.1.4

### 3.1.4 Environment

Palette Pops up the standard palette requester.

Font Brings a font requester to the front.

The selected font will only be used for the editor's screen. To change the font of the gadgets you have to use the font gadget in the toolbox.

ScreenMode Pops up a screenmode requester.

On Public Screen Tries to close the IRMaster screen and reopen on the default public screen (mostly the wb).

Make Screen Public Tries to close the current IRMaster GUI and reopen it as a public screen.

Show IR-Code Shows the IR-Code of the current gadget (if learned).

It is designed like an oszillator, so you can easily decide if the last learn action was successful!

Length specifies the amount of memory which is used to send this command. The percentage shows how much of the memory reserved for this command is used.

Show IR-Config Shows the IR-configuration of the current gadget. For more information about the ir-configuration, please consult chapter 3.3 .

## 1.10 3.2.1

### 3.2 Toolbox

-----

#### 3.2.1 NewGadget, shortcut F1

This function brings you to the "new gadget mode". You can see a border attached to your pointer. With a mouseclick you can place the new gadget. A new gadget is always named 'New' and its size is  $50 \times 20$  pixels.

## 1.11 3.2.2

#### 3.2.2 Move Gadget(s), shortcut F2

If you have some gadgets selected and you press the move button or the move shortcut the selected gadgets will be represented by borders which stick to your mouse pointer. With a click you can put the gadgets to their new position.

## 1.12 3.2.3

#### 3.2.3 Attache graphic to gadget(s) shortcut F3

For each of the selected gadget a file requester pops to the front, asking you for an icon/brush. This image will be used as gadget imaginary.

## 1.13 3.2.4

#### 3.2.4 Attache text to gadget(s) shortcut F4

Pops a text requester to the front (for each gadget). You can type any text. The length is not checked! It doesn't have any serious consequences if the text is too wide for the gadget - it simply looks awful.

## 1.14 3.2.5

#### 3.2.5 Learn IR data shortcut F5

With this gadget you can switch to the learn mode. The pointer will remind you being in this mode. If you click a gadget, the AMIGA is frozen and waits for IR input to the IR-Sensor. For information about learning IR data read chapter [3.3](#).

## 1.15 3.2.6

### 3.2.6 Kill Gadget(s) shortcut F6

Removes all selected gadgets **WITHOUT WARNING!**

They are unrecoverably lost.

## 1.16 3.2.7

### 3.2.7 Size Gadget shortcut F7

Switches to the size mode. A border is drawn - the lower right corner sticks to the pointer.

After a mouseclick the gadget will be resized and the text/grafic will be centered in the gadget.

## 1.17 3.2.8

### 3.2.8 Load background grafic shortcut F8

Pops up a requester. Here you can select any ilbm picture to be used as background grafik for your remote control. This grafik's name and path will be set in the tooltypes of the project when it is saved.

Therefore the grafik must be there when the project is run.

The palette of the picture won't be used! I'm sure you like your wb-colors more!

To clear the backgroiund again, click this gadget (or press F8) an select cancel in the filerequester.

## 1.18 3.2.9

### 3.2.9 Change Font shortcut F9

Pops up a font requester for each (!) of the selected gadgets.

Now you can select an other font for this gadget. Make sure that this font is also available for the **IR\_Runner** .

## 1.19 3.2.10

### 3.2.10 Test IR Data shortcut F10

Switches to the test mode. The pointer reminds you being in the test mode. To test learned ir sets, click on the gadgets and the ir data will be sent by the hardware...

## 1.20 3.3

### 3.3 A Word About Learning IR

-----

Learn ir-commands:

- toggle to learn mode (by pressing **F5** or the equivalent gadget)
- click on the gadget with function you want to "learn"
- > pointer is frozen...
- point your remote control to the ir-sensor  
(distance ca. 1-15 cm)
- hold the button down 'till the pointer can be moved again

Test ir-commands

- switch to test mode (by pressing **F10** or the equivalent gadget)
- hold transmitter in direction to the ir-receiver of the implement with a distance of 1-30 cm.
- click on the gadget you want to test
- > command will be sent

Important notes

-----

- It is possible that the implement (like CD, Videorecorder, TV set, ...) won't react on the ir-master the first time.

In this case you have to change the parameters in the **config-requester**.

To get to the configrequester you must:

- click on the gadget the config should be changed
- click on the config gadget in the toolbox (the '?')

All the changes (but not wobblecode) can be tested without learning it again.

Config menu:

37 kHz -> Carrier frequency of the ir signal is 37 kHz

matches for ca. 70% of all implements

45 kHz -> Carrier frequency is 45 kHz

matches for ca. 10%

66 kHz -> Carrier frequency is 66 kHz

matches for some implements

Unpulsed -> no carrier frequency

ca. 8%

Send command slider

This indicates how often the ir command should be sent.

Normally 3-5 times is enough.

Wobbelcode

This is a special form of the ir code. An implement which uses Wobbelcode (e.g. Grundig tools) sends code A the first time and the next time it sends (for the same function) code B.

In this case you have to learn twice. To learn this type of code you must click on Wobbelcode in the config menu and then click on learn and follow the messages in the status bar.

You can recognize Wobbelcode implements when the implement reacts the first time at once but the second time it does nothing or it reacts very late.

- The learning of ir commands depends on the distance between remote control and ir sensor. After a fault try you should attempt it again with different distances between 0 and 20 cm.
  - If the batteries of the remote control are weak you should use new batteries.
  - In general all (!) impements can be controlled except Telefunken.
- For this type of implements we offer a special hardware - simply contact us and describe your implement.
- Finally:

The parameters in the **config requester** are the most common but if it does not work - use trial an error. You can't damage your hardware by changing the parameters... believe me ;-)

If you own a Akai, Blaupunkt, Fisher, Technics, Philips, Grundig, Panasonic, Sony... you can learn the command set by nearly 100%.  
(tested very (!) often...)

YOU CAN ALSO USE UP TO 5 (WITH Y-ADAPTERS) IR TRANSMITTER IN YOUR JOYSTICKPORT.

## 1.21 3.4

### 3.4 Drag & Drop

-----

Drag & Drop is a Feature of AmigaDOS 2.04 and above which enables you to drag an icon and drop it onto a special window causing a special action.

This is - of course - only possible when the applikation has windows opened on the workbench.

---

To open your ir-editor on the workbench see chapter [3.1.3/On Publicscreen](#) .

This feature is implemented in the following way:

You can drag an iff-ilbm-picture onto the project/toolbox-window. This pic will be loaded as background grafik.

You can also drop a project's icon onto the window. Then, this project will be loaded at once.

The file type recognition works via the file name. If the name's suffix is .iff, .ilbm or .brush the editor assumes a picture file.

If the suffix is .irm the editor tries to load a project.

## 1.22 4.1

### 4. IR\_Runner

=====

#### 4.1 Starting The IR-Runner

-----

If you have created a remote control and saved it you surely want to use it...

Therefore you have to start the IR-Runner:

Shell/Cli:

```
1> IRRunner <projectname.irm>
```

Workbench:

Click on IRRunner (once) + shift-doubleclick on the project's icon or Make sure that the IR\_Runner is in the workench searchpath (the path set up before loadwb is called in the startup-sequence, e.g. C:)

Doubleclick the project's icon. (default tool must be correctly set)

If you doubleclick the ir-runner a filerequester will appear...

## 1.23 4.2.1

### 4.2 The Menus

-----

Each remote control has its own gui and its own menu:

#### 4.2.1 About

Gives you VERY important information about you, god and the universe.

## 1.24 4.2.2

### 4.2.2 Hide

Closes the gui. The [arexx port](#) will be still available.

## 1.25 4.2.3

### 4.2.3 Fix Position

Saves the current IR-Runner window position to the project's icon (as tooltypes).

## 1.26 4.2.4

### 4.2.4 Quit

Quits this remote control.

## 1.27 4.3.1

### 4.3 ARexx Port

-----

The IR-Runner has it's own rexx port. The port name depends on the project's name:

Project name: CD\_Player.irm -> port name: CD\_Player\_rexx

Now the commands:

#### 4.3.1 IR\_Send

The IR\_Send command needs one parameter:

either: the gadget number (the number shown in the editor when the gadget is selected)

or: the gadget's text (is it is no grafic!)

Therefore you must specify a '\$' followed by the gadget text.

From the shell this could look like this:

```
l> rx "address 'CD_Player_rexx' IR_Send 3"
```

or in a rexx script:

```
/* cd player -> play */
```

```
address 'CD_Player_rexx'
```

```
IR_Send '$Play' /* assuming that the gadget has 'Play' as Gadgettext */
```

```
exit
```

## 1.28 4.3.2

### 4.3.2 IR\_Move

With the IR\_Move command you can move the window (if opened).

This command needs two arguments, the x and y coordinate of the new window position.

example:

```
IR_Move 100 120
```

---



**1.29 4.3.3**

## 4.3.3 IR\_Quit

Quits the application.

**1.30 4.3.4**

## 4.3.4 IR\_Disappear

Closes the gui without closing the rexx port. It acts like selecting hide from the menu/clicking hide in commodities exchange.

No arguments are needed.

**1.31 4.3.5**

## 4.3.5 IR\_Appear

Opens the gui (if cosed) and (if cosed) reopens the rexx port.

No args.

**1.32 4.3.6**

## 4.3.6 IR\_Disable

Acts like IR\_Disappear but the rexx port is closed, too. More memory is freed again.

No args.

**1.33 4.3.7**

## 4.3.7 IR\_Enable

Reopens (if closed) the rexx port and reopens (if closed) the gui.

No args.

**1.34 4.4**

## 4.4 ToolTypes

The IR-Runner recognizes the following tooltypes, when given in the project icon:

`CX_POPKEY="string"`

Here you can specify a hotkey - with this shortcut, you can activate this IR-Runner project

Example: `CX_POPKEY=lalt f10`

---

If you hold left-alt and press f10, this IR-Runner project will be activated.

CX\_POPUP=YES/NO

If you specify "NO", no window will be opened when starting this project.

You can control this project only via ARexx and Commodities-Exchange.

However you can open the project's window by ARexx/Cx.

LEFT=xxx

Here you can specify the default left coordinate of the window. This tooltype is automatically generated when selecting "fix position" in the menu.

TOP=yyy

The default top coordinate of the window.

BACKGROUND=name Here the background grafik is specified.

## 1.35 5.

### 5. Tuning The Hardware

To expand the range of the you can tune the hardware:

The normal range of the IR-Master is ca. 1-2 m.

There are several possibilities to tune your hardware:

- exchange R2 with 150 Ohm - ca 3 m
- exchange R2 with 100-120 Ohm - ca 4 m \*)
- 2 \* D1 in row, R2:100 Ohm - ca 5 m
- 2 \* D1 in row, R2:82 Ohm - ca 6 m \*)
- exchange D1 with LDR 273 or

SFH 485 (e.g. Konrad Elec.) - bis 10 m

and R2 : 75 - 100 Ohm

**IMPORTANT:**

The configurations which are marked with a '\*' must only be plugged in when the port is initialized, that means when IR-Editor/IR-Runner is already started.

**IF NOT, THE IR-SENDER WILL BE DAMAGED AFTER A WHILE.**

Now have fun.....

---

## 1.36 6.

### 6. Credits, Support and Bugreports

=====

#### Credits

-----

First of all we (Juergen Frank & Michael Watzl) want to thank our special beta tester Klaus (KLAUSBAP@JESOLO.zer.sub.org).

He was our first registered user (Version 1.0 - very poor) and he had (and still has) a lot of suggestions to improve the IRMaster package.

The IR-Master Package is © 1993-94 by Juergen Frank & Michael Watzl

It is freely distributable as long as no profit is made.

NO WARRANTY FOR ANY DAMAGE CAN BE GIVEN - YOU USE IRMASTER AT YOUR OWN RISK.

(no problem: Klaus uses the IRMaster for a long time now and his A2000 is still alive :->)

#### Support

-----

New versions can be found in:

Jesolo BBS, Mailbox of AFR (Amiga Freunde Ries)

+49-906-28851 (8N1 - 2400-19200)

24H online

look in 'PD\_Pool/PD-Anwendungen/ANW-Sonstiges'.

Or send a disk + stamps to

Michael Watzl or Juergen Frank

Konradstr. 11 Wittelsbacherweg 7

86609 Donauwoerth 86609 Donauwoerth

Germany Germany

The new version will be immediately sent back.

#### Bugreports

-----

Please send bugreports or suggestions to the same addresses or via EMail:

Z-Netz:

SYSOP@JESOLO.zer.sub.org for Michael Watzl

or HACKER@JESOLO.zer.sub.org for Jürgen Frank

Make sure, that the bugreport describes the bug AND your configuration as well as possible.

Thanx a lot.

**1.37 7.**

## 7. Registration

=====

-----&gt; cut here &lt;-----

## REGISTRATION FORM

COMPANY: \_\_\_\_\_

NAME: \_\_\_\_\_

STREET: \_\_\_\_\_

CITY: \_\_\_\_\_

POSTALCODE: \_\_\_\_\_

COUNTRY: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

I want to become registered user of the IRMaster. Therefore I  
 o enclose a cheque (if from foreign countries - 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: "IRMASTER REGISTRATION"

Please send me:

o newest version of this package + documents for the hardware

for the price of: \$15 / DM 25

o newest version of this package + hardware pieces (incl. docs)

for the price of: \$25 / DM 40

o newest version of this package + complete hardware (incl. docs)

for the price of: \$40 / DM 60

\_\_\_\_\_  
 date, locality sign

-----> cut here <-----

**1.38 rtpatch**

Taken from RTPatch.doc:

"The programs and files in this distribution are freely distributable, but are also copyright (c) Nico François. They may be freely distributed as long as no more than a nominal fee is charged to cover time and copying costs.

No commercial usage is permitted without written permission from the author. Everything in this distribution must be kept together, in original

unmodified form.

The above is generally known as freeware.

If you have suggestions or remarks about this program, or if you find any bugs, please let me know.

Contacting the author:

Fido: 2:292/603.10 (Nico Francois)

Internet: nico@augfl.be

Mail: Nico François

Corbielaan 13

B-3060 Bertem

BELGIUM

If you can please use e-mail. That way you'll stand a much better chance of getting a reply quickly."

### **1.39 req.library**

Taken from "req.doc" (description on req.library):

"The req.library is a run time re-entrant library that is designed to make it easier for programmers to use powerful, easy to use requesters for communicating with users. The requester library includes such functions as a color requester, file requester, message display requester and many functions to make the creation of gadgets for your own custom requesters easier.

Req.library was written by Colin Fox (of Pyramyd Designs) and Bruce Dawson (of CygnusSoft Software). Req.library is a freely distributable library that may be used in commercial products without paying any royalties. We encourage you to use the requester library in all of your programs, to make them easier to write, and to use.

Req.library is not public domain. The requester library and all documentation and example programs are all copyright 1989."

### **1.40 reqtools.library**

Taken from reqtools-distribution's readme file:

"reqtools.library is a standard Amiga shared, runtime library. The purpose of ReqTools is to make it a lot quicker and easier to build standard requesters into your programs. ReqTools is designed with Commodore's style guidelines in mind, all requesters have the look-and-feel of AmigaDOS Release 2.

If you use ReqTools in your programs you do not have to worry about

---

requesters too much. You'll have a lot more time to concentrate on the really important stuff your program does.

The library has been inspired by req.library (by Colin Fox & Bruce Dawson) and Commodore's own asl.library. You will find it shares a lot of the features with these two libraries, while it has some additional ones as well. While asl.library was great in look-and-feel I felt it lacked quite a bit in the power department. This power `_is_` mostly available in req.library, but this doesn't fit in too well with AmigaDOS Release 2. So the idea for a new requester library was born.

I tried to make all requesters in ReqTools very powerful, easy to use and with a very nice new-look 3D interface. Efficiency was also considered very important. The 2.0 version of the library is about 38K large. I'm sure you will agree this is not too much considering what ReqTools offers.

ReqTools features the following requesters: a query requester, a string requester, a number requester, a file requester, a font requester, a palette requester and new in release 2.0 of ReqTools a volume requester and a screen mode requester."

---