

# **RCON\_V1.0**

Gerhard Radatz

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<b>COLLABORATORS</b>
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# Chapter 1

## RCON\_V1.0

### 1.1 RCON Version 1.0 Console Driver Demonstration version

Welcome to RCON Version 1.0, the enhanced Console Driver package for the Amiga. This software is a demo version of a SHAREWARE product. Please be sure to read and understand the copyright restrictions before using this software. To do so, click the button below.

[Copyright Notice](#)

[Disclaimer](#)

[Overview of Features](#)

[Installing RCON](#)

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RCON V1.0 (c) 1993 by Gerhard Radatz

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### 1.2 Copyright

COPYRIGHT

This is the demonstration version of the software product RCON Version 1.0.

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This software and the related documentation are copyright by RSD and G. Radatz. You may not use, copy, modify or transfer the programs or documentation or any copy of the whole product or parts of it except as expressly provided in this document or by a written permission from the author.

These programs and the related documentation may be redistributed to and by public networks or individuals only in whole, and only for a basic fee covering the distribution overhead. The RCON software product and its related documentation must not be distributed as part of any other product without a written permission from the author.

The demonstration distribution of RCON may be archived and transferred onto BBS systems, as long as no files are added to, or removed from the original distribution. BBS owners may add the usual "Readme" and BBS banner files to the distribution archive.

You may not electronically transfer the registered version of RCON or any copy of it, over a network, or otherwise distribute it to others in any form. You may make any number of backups of the program and documentation, but all backups must always remain in your immediate possession.

It is strictly prohibited to reverse-engineer the RCON executables, in order to find out anything about the internal workings of the program (or for any other reason). It is also strictly forbidden to modify the RCON executable in any way, except for compressing it for storage considerations. You must not run any "patch" type program that removes any of the restrictions present in the demonstration version of RCON, or in fact does anything at all to change the way RCON behaves, either dynamically (after it is launched) or statically (on-disk).

Where clarification is required on any of the above paragraphs, the author of RCON shall decide the clarification.

To obtain a fully featured version of RCON, please contact the author as described in the section on .

By using and/or installing the whole or parts of the product on your computer -- either the demonstration version or the registered version -- you agree with this terms of copyright.

### **1.3 Program Disclaimer & Liability**

#### **DISCLAIMER & LIABILITY**

This product is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The entire risk

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as to the results and performance of this program is assumed by you.

Should the program prove defective, you alone assume the entire cost of all necessary servicing, repair, or correction. Further, the author of RCON neither warrants, guarantees, nor makes any representations regarding the use of, or the results of the use of, the program in terms of corrections, accuracy, reliability, currentness, or otherwise; and you rely on the program and results solely at your own risk.

The author of RCON can in no event be held responsible for any data or information which may be lost or rendered inaccurate by RCON, even if the author has been advised of the possibility of such damages.

## 1.4 Overview of Features of RCON Version 1.0

RCON was designed to be fully compatible with the CON: Handler of Amiga-OS 2.

This means that it provides all features that are built into CON: and all new features are completely transparent to the system and the programs using RCON. However, there are some design decisions which made it difficult or impossible to implement all features of CON. See below for a list of details.

**Features available in CON but not in RCON**

**Features available in RCON**

## 1.5 Features of CON not implemented in RCON

Please note that this section is most likely of interest for programmers only.

Startup-Parameters SIMPLE and SMART.

In contrary to CON, RCON uses always SMARTrefresh windows.

WINDOW Parameter not supported.

The Window Parameter, which is a feature to bind a CON-Handler to an already open Intuition window, is not supported by RCON, since it cannot be guaranteed that the window will have the right properties needed by RCON. Instead, you should use the SCREEN Parameter if you want to open an RCON window on a public screen other than the default. Note that you **MUST** give the name of a PUBLIC screen - this restriction is arguably correct since RCON is a separate process which opens windows on a screen created by another process.

See also the **Future Improvements** section for a list of features which have not yet been implemented.

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## 1.6 Features unique to RCON

Below there is a list of features which are entirely unique to RCON or replace features of the CON-Handler in a more convenient way.

- Scroll back lines which have been moved out of the window using the vertical scroll bar (maximum of 9999 lines)
- User-selectable default background and text colors
- Change the font without running a new handler
- Enhanced Copy and Paste Support (see [Copy and Paste Operations](#) ).
- Modifiable Window-Title
- Support of User Operation via Intuition Menus
- Run the Preferences Editor as standalone utility or directly from the console handler using menu operations.
- Synchronous type ahead (see [Input Processing](#) )
- Install as Workbench Application Window to catch Icons dropped on the console window.
- Auto-size itself to an integral number of lines and characters per line.

See also the [Future Improvements](#) section for a list of features which have not yet been implemented.

## 1.7 Future Improvements

There are many ideas for future improvements to RCON. Since I will not have the time to implement all of them, I would like to get some response from you to see which features you would like most of all.

[Features missing from a complete CON emulation](#)

[Features extending RCON's usability](#)

## 1.8 Features missing from a complete CON emulation

- Wrapping lines which extend beyond the window width is not yet implemented.
  - asynchronous typeahead as used by CON is not supported.
  - The keyboard commands <ctrl>-<K> and <ctrl>-<Y> have not been implemented.
  - The WAIT startup keyword is recognized but its behaviour is not yet implemented.
-

## 1.9 Features extending RCON's usability

- As an alternative to wrapping long lines, it could be possible to scroll the text horizontally using the already existing horizontal scrollbar. This scrollbar is not yet functional and has been implemented for this purpose.
- blinking text cursor
- Iconify Gadget for completely hiding the window and displaying an Application Icon instead (a la OSF/Motif)
- Printing some or all of the window contents to a file or to the printer
- User definable strings for function keys
- adding arrows to the scroll bars

## 1.10 Using RCON

Since this console handler should completely emulate the default CON handler, its handling is much the same as working with CON. However, there are some differences which are explained below:

[Specifying Startup Parameters](#)

[Using the Mouse for Copy and Paste Operations](#)

[Input processing performed by RCON](#)

[Using the Menus](#)

[Using the Scrollbars](#)

## 1.11 Specifying Startup Parameters

The following startup parameter keywords are recognized by RCON:  
 if the keyword is negatable, the negative form is NO<keyword>; e.g. the negative form of ICONIFY is NOICONIFY.

Name | negatable | default | Remark

-----+-----+-----+-----

CLOSE | yes | CLOSE |

BACKDROP | yes | NOBACKDROP |

ICONIFY | yes | ICONIFY | not yet implemented

DRAG | yes | DRAG |

SIZE | yes | SIZE |

DEPTH | yes | DEPTH |

ZOOM | yes | ZOOM |

MENUS | yes | MENUS | if NOMENUS, the menus are not attached to the window

BORDER | yes | BORDER |

AUTO | no | ---- |

WAIT | no | WAIT | not yet implemented

SCREEN | no | ---- | needs the name of the Public Screen to open as

||| parameter value

## 1.12 Using the RCON menus

Project Edit Commands Print

Window Preferences Copy Refresh Window Selected Range

Print Preferences Paste Clear Window Window Contents

Quit Reset Scroll Region

Clear Scroll Region All Text

## 1.13 mn\_winprefs

This menu item starts the [Preferences Editor](#) .

## 1.14 mn\_printprefs

This menu item is not yet implemented.

## 1.15 mn\_quit

Selecting the quit menu item is the same as pressing <ctrl>-<w> or pressing the Closewindow button.

## 1.16 mn\_copy

This command is used to copy selected text to the clipboard. See [Copy and Paste Operations](#) for further details.

## 1.17 mn\_paste

This command is used to paste text from the clipboard as command lines. See [Copy and Paste Operations](#) for further details.

## 1.18 mn\_refreshwin

If for some reason the window does not display correct information, you can use this command to refresh the entire window.

## 1.19 mn\_clearwin

This menu item is not yet implemented.

---

## 1.20 mn\_reset

This menu item is not yet implemented.

## 1.21 mn\_clearscroll

This menu item is not yet implemented. It is intended to free memory which has been allocated for the saveback region.

## 1.22 mn\_prselected

All menu items from the print menu are not yet implemented.

## 1.23 mn\_prwindow

All menu items from the print menu are not yet implemented.

## 1.24 mn\_prscrollregion

All menu items from the print menu are not yet implemented.

## 1.25 mn\_pralltext

All menu items from the print menu are not yet implemented.

## 1.26 Using the Scrollbars

To get some text back which has already been scrolled out of the window, use the vertical scroll bar in the right border. When scrolling up, the text will reappear.

Note that you can use the [Preferences Editor](#) to limit the number of lines which will be saved for scrolling back. If you type in commands, or if the shell wants to send output, the window will jump back to the bottom of the saveback region and then display the new output. You can prevent this by pressing the [F1 key](#) to stop output.

## 1.27 Using the Mouse for Copy and Paste Operations

Copying and Pasting has been significantly improved compared to CON.

Selecting Text with the Mouse:

There are three modes of selection - character mode, word mode, line mode.

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To Select Text in character mode, click on the start position and drag the mouse to the end of the portion of text you would like to select.

To Select Text in word mode, that is, always selecting whole words of the text, move the mouse to the first word you want to select and double click on it. Then drag the mouse until you reach the last word you want to select.

To Select whole lines of text, move the mouse to the first line you want to select, and triple-click on it. Then drag the mouse until you reach the last line you want to select.

After having selected text, you have to copy it to the clipboard to be available for further use. Do this in one of the following ways:

- ) use the keyboard command <Amiga>-<C>.
- ) use the menu command "Edit/Copy".
- ) without having released the select button of the mouse before, press the menu button.
- ) if you own a three-button mouse, release the select button and press the middle button.

In either case, the selected area will be copied to the clipboard and the text will be redisplayed in its original color.

Pasting Text:

To paste text into the window, use one of the following methods:

- ) use the keyboard command <Amiga>-<V>.
- ) use the menu command "Edit/Paste".
- ) press and hold the select button, then press the menu button of the mouse
- ) if you own a three-button mouse, press the middle button.

## 1.28 Input processing performed by RCON

Input processing in RCON is performed synchronously. That is, you may type whatever you like into the window, but if the current program or the shell does not request input, your keystrokes will not be echoed on screen. However, they will be remembered and displayed correctly as soon as the shell requests input again. This way, program output will not be interrupted by your keystrokes and you can type in quickly command lines when the program is still busy displaying output.

However, since you may well like to interrupt program output sometimes, the function key F1 has been assigned this special action.

Whenever you press F1, program output will be stopped. When you press F1 again it will continue. As an alternative, you may press <ctrl>-<S> to stop program output, and <ctrl>-<Q> to resume.

Use <ctrl>-<A> to toggle the editing mode between inserting and overwriting text

## 1.29 Limitations imposed by the Demo version

The demo version of RCON has some limitations built in that let you fully explore all the facilities of this product, yet should encourage you to either register it if you like it or do not use it over a long period of time without paying your shareware fee.

Note that registering the product will help both the users and the author, since the author gets some feedback from the user including suggestions on the product and can see how many people use it and how they like it. This again helps improving the product and thus will help the registered users again.

It is therefore that RCON has the following "handicaps" built into the demonstration version:

After a period of 27 minutes from having started the handler, it will display a warning message in its window telling that it will terminate the session in 3 minutes.

After this time (that is, 30 minutes after startup), the handler will not accept anymore keyboard input.

However, it will continue to display output from such processes, as long as the window is not closed by you.

Note that you can close such a window only by clicking the CLOSE gadget or selecting the QUIT menu item.

## 1.30 Thanks to ...

People from SAS institute for their great C compiler and their support via Electronic mail.

Stefan Becker for his great program "Toolmanager" -- The font selector button in the preferences editor was taken from its source code.

Gregor Kuhlmann for some (alpha and) beta testing.

## 1.31 Known Bugs in Version 1.0

There are currently a few known bugs which will be removed in future releases

- ) memory loss. Each console handler fails to free some amount of memory on exiting (approximately 300 bytes).
  - ) AUTO windows: when opening AUTO windows the first time, the cursor will not be correctly positioned.
  - ) Selecting text in a window which has just been activated with the initial select click does not work properly. To work around, click once to
-

activate the window, then click once again to start the select operation.

-) the window width and window height settings in the preferences editor have no safety check. This means that you may type in any number, even if the number results in a window larger than the current screen dimensions.

Although this does not produce a crash, the window may look a little crumbled then. To correct this problem, just type in a lower number.

-) the number of saveback lines in the preferences editor does not have a safety check against the minimum acceptable value, which is the maximum number of lines visible at once in the window. If you type in a value which is too small here, this WILL most likely result in a crash, so don't be too restrictive here!

## 1.32 How to Install RCON

To install RCON, use the supplied Installer Script. This will perform all tasks for you.

There are some special problem which may arise if you decide to install RCON as the default console handler and you have placed a command in your S:user-startup file to open a command shell on booting:

1) Installer inserts the commands necessary to mount RCON at the END of S:user-startup. This means you have to move them manually to a location before your 'newshell' or 'newcli' command

2) If you have set the 'catch Icons' facility in RCON-Prefs, this will not work on a shell opened from S:user-startup since Workbench has not yet been started this time and thus the AddAppWindow() call will fail.

To get a workaround, create a script as the following (named s:startshell):

```
<s:startshell>
```

```
wait 5 secs
```

```
newshell <params>
```

Then replace the 'newshell' command in your S:user-startup by the command 'run execute s:startshell'.

This will make the shell wait until Workbench has started. Note that if you are booting from floppy disk or have commands in your s:user-startup which take a long time to perform, the specified time of 5 seconds may not suffice.

Try higher values in this case.

## 1.33 prefs

[Starting RCON-Prefs](#)

[Understanding Controls](#)

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## 1.34 How to start RCON-Prefs

There are two different methods to start the preferences editor:

- Use the **Menus** of the RCON-Handler window to run editor.

This means that the settings displayed in the window are taken from the handler window from which you started the editor. These settings may well vary from the settings in ENV:RCON/rconprefs.

However, if you press the Use button, the settings will be applied to the handler window AND will be stored in the ENV:RCON/rconprefs file, which means that they will apply to any newly created RCON window, too.

- Open the RCON-Prefs Icon from your sys:Prefs drawer.

This implies that the settings displayed in the window are taken from the file ENV:RCON/rconprefs. When you change settings and select the Use button, settings will be stored there again.

## 1.35 Understanding the Controls of RCON-Prefs

"Insert Mode" (toggle button)

If selected, the default mode for command line editing is inserting characters.

If non-selected, the default mode is overwriting. The mode can be toggled by pressing <ctrl>-<A> during editing, but will be reset to the default mode each time when you press the return key.

"catch Icons" (toggle button)

If selected and the RCON-window is opened on the Workbench screen, it will be installed as an AppWindow. Then you can drop icons over it and a specified action will occur.

"CD immediately" (toggle button)

If selected, then if you drop a disk or drawer icon onto the RCON window, the handler will immediately send a 'CD' command to the shell.

If not selected, only the path to the icon will be put into the editing buffer and you may continue to edit the input.

This toggle button is disabled if "catch Icons" is not selected.

"execute immediately" (toggle button)

If selected, then if you drop a disk or drawer icon onto the RCON window, the handler will immediately send the name of the icon as a command to the shell.

If not selected, only the path to the icon will be put into the editing buffer and you may continue to edit the input.

This toggle button is disabled if "catch Icons" is not selected.

"clipboard unit" (integer input)

---



The number of the clipboard unit to use for copy and paste operations. This should normally be unit 0.

"Font" (push button and string gadget)

If you press the push button (thanks to Stephan Becker for this one), a font requester will be opened which lets you select any fixed-pitch font for the RCON-Handler window display. As an alternative, you may type in the fontname and size directly using the string gadget to the right of the button.

"saveback lines" (integer input)

the maximum number of saveback lines available for backscrolling. Note that this number includes the lines currently visible in the RCON window. Currently there is no safety check on the minimum number of lines, so you should not enter a number less than about 50 (depending on font height and screen resolution).

"background color"

"text color"

the default background and text colors. These colors will be used whenever the ANSI-Sequence SELECT GRAPHIC RENDITION with a mode parameter of zero (plain text) is encountered.

"window width"

the width of the window measured in characters per line.

"window height"

the height of the window measured in the number of lines visible.

"window title"

the title of the console window

"icon name"

this is not yet implemented.

## 1.36 Explanation of Error Messages from RCON

Errors reported by the RCON-Handler

Errors reported by the Preferences Editor

Errors reported by the RCON Server process

## 1.37 Errors reported by the RCON-Handler

Errors reported by the Handler may show up only at handler initialization time, that is, when the newshell command has been issued.

The message than will read something like this:

```
'newshell: <msg>
```

```
newshell failed'
```

---

possible <msg> strings and their meaning are:

"object not found": means that a library could not be opened or that the RCON-Server is not running. This normally means that something went wrong in the installation procedure.

"not enough memory available": self-explanatory

### **1.38 Errors reported by the RCON-Prefs utility**

"Failed to save preferences file"

the editor was unable to store your preferences to the directory ENV:RCON or ENVARC:RCON. This may occur due to disk space allocation failure (if the disk where ENV: or ENVARC: is located is full) or due to write protection.

"Could not open preferences file"

the editor was unable to load a preferences file you specified

"Font description is invalid"

This message may put up if you type in a font string which is syntactically incorrect. Font strings must conform to the following syntax:

<fontname>.font <size>

example: "topaz.font 20"

### **1.39 Errors reported by the RCON Server process**

The RCON server process acts as a background process which is normally not visible to you. However, there are some circumstances when the RCON-Server will directly message you an unusual event. These messages are:

"Could not start RCON-Prefs"

This message may appear if the RCON-Prefs utility failed to start. One reason may be that it was removed from its usual location, which is the sys:Prefs directory.

"Unable to shutdown current RCON-Server"

This message may appear only if you run RCON-Server when there was already one running. If there was any RCON window open at this time, the old server will refuse to terminate and the new one will send this message and terminate itself. However, the old process will remember the termination request and shutdown as soon as the last RCON window has closed.

## 1.40 Notes for Programmers

RCON uses dynamic memory allocation for all its internal backing stores, which are:

the saveback region

the command line history

and some other.

This means that for testing programs to check if they have some memory loss it is not wise to use RCON, since on every scroll operation and after each command stored in the history buffer you will get different results for available memory.

Perhaps I will change this behaviour to be configurable to fixed size memory allocation one day.

## 1.41 Informations on How to Register

RCON is a shareware product. This means that if you use the software continuously, you have to register with the author. To encourage you to register, there are a few **limitations** built into the demo version.

To register the full, unhandicapped version of RCON, please send the amount of 300 ATS (austrian shillings) or the equivalent of 30 US-Dollars together with the **registration form** to the author (see

**author's address** ). If you send 450 ATS or 45 US-Dollars, you will get the registered version AND a registered copy of the next major release of RCON. Naturally, higher donations are welcome, too.

Even though it entails a slight risk, the most convenient (and cheapest) way for you may be to send actual currency in normal envelopes, since there are no bank charges. If you send checks, please add another 6 US \$ to cover bank charges. Naturally, you may pay via postal money orders, too.

## 1.42 Print this page and complete it to register

RCON Registration form

-----  
Please print this page, complete it and send it to the author together with your registration fee.

-----  
Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Postal Code \_\_\_\_\_

---

Country \_\_\_\_\_

Payment:  cash or check enclosed

postal money order

I have read and accepted the copyright notice and program disclaimer and want to register the fully featured version of RCON V1.0.

\_\_\_\_\_  
Date Signation

Comments on the program:

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### 1.43 Where you can reach the author

If you have any suggestions, bug reports, or comments on the program, or if you want to register, please contact the author on one of the following addresses:

Gerhard Radatz  
 Hauptstraße 48  
 A-2443 Leithaprodersdorf  
 Austria

or

from october till june

Gerhard Radatz  
 Hagenmüllergasse 27-29  
 A-1030 Wien  
 Austria

### 1.44 Sending Bug Reports

If you find any bug or unexpected behaviour of RCON, please send a bug report containing the following information:

- ) What you did to produce the erroneous behaviour
- ) Your system's configuration (type of CPU, OS version, and so on)

- ) If the bug produced a crash and you have Enforcer installed, please send a complete copy of enforcers messages (to do so, type in 'enforcer parallel' if your printer is connected to the parallel.device).
  - ) If the erroneous behaviour was produced by the output of a certain program using RCON's window, please tell me the name and version of this program and send a copy of the output
  - ) the version of RCON you are running
  - ) If you are a registered user, send your registration number
- See [author's address](#) on where to send bug reports.
-