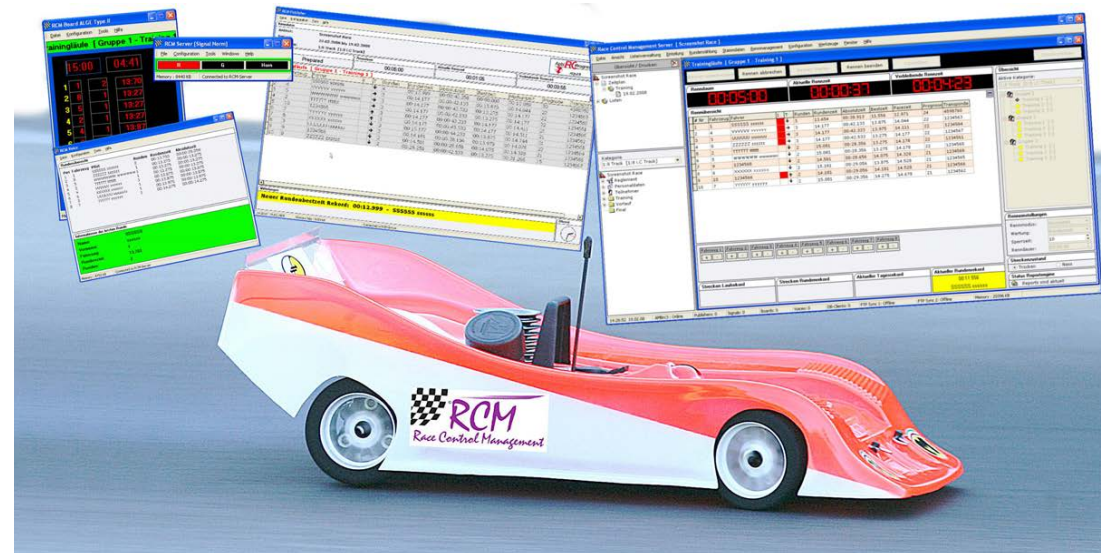


# RCM<sup>®</sup> Race Control Management

## User Manual RCM Signal





9.2 Info

Here you find the release version of RCM Signal.



10 Concluding remarks

We hope you enjoy RCM Signal. If you have any questions or any problems please contact us. Simply write an email to support@rcp.ch. Please do not forget to include the program name and the version number you are using. This will help us to answer your questions without any delay. If you are not known to us as a contact person of one of our customers, we should also know the contract number.  
RC-Timing  
Felix Romer  
Talackerstrasse 45  
CH-8156 Oberhasli

User Manual  
RCM Signal Version 2.0.1.1

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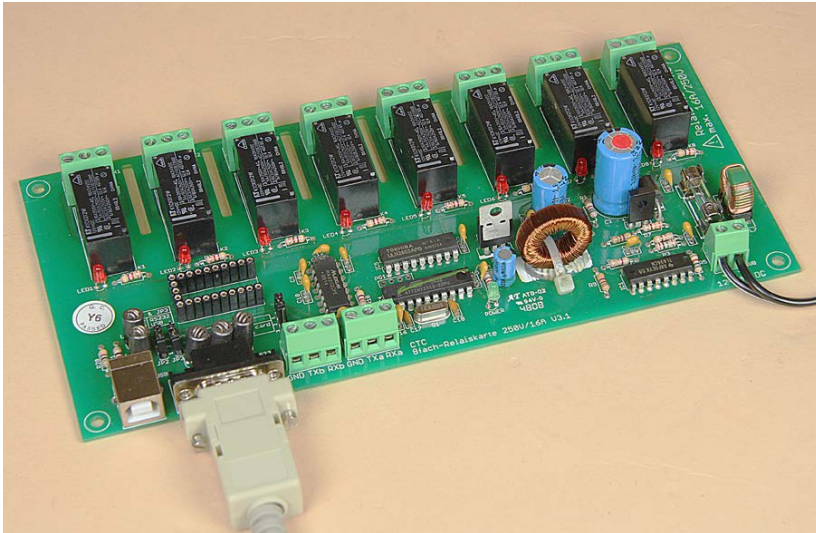
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RC-Timing  
Oberhasli, Switzerland

## 1 Introduction

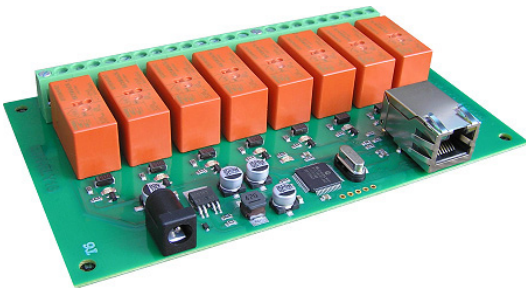
RCM Signal controls traffic lights and a audible horn. You can use RCM Signal when you have bought an RCM Signal Controller from RC-Timing.  
RCM Signal needs the timekeeping software RCM Ultimate or other programs from RC-Timing like RCM Advanced or RCM Professional.  
This User manual describes the installation of RCM Signal with RCM Ultimate.  
RCM Signal can be connected to other programs from RC-Timing, which support RCM Signal, in a similar way.

## 2 RCM Signal Converter/Hardware

RCM Signal is used either with the 8-way relay board from Conrad Electronic (order-no. 19 77 30 - 62). The connection to the computer is described in the manual for the board. Please note, that the jumpers JP2 and JP3 are set in RS232-mode. JP1 must be set to 1-2 cause RCM Signal only communicates with one board.



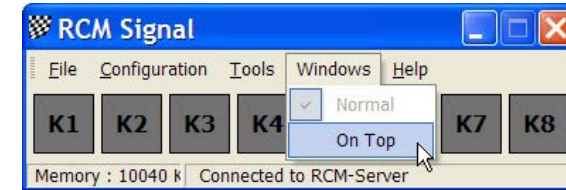
Further on, RCM Signal can be used with the the 8-way relay board from Devantech (order-no. ETH-RLY16). Regarding the settings of this board please refer to the manual you get with the relay board.



## 8 Windows

### 8.1 Normal/On Top

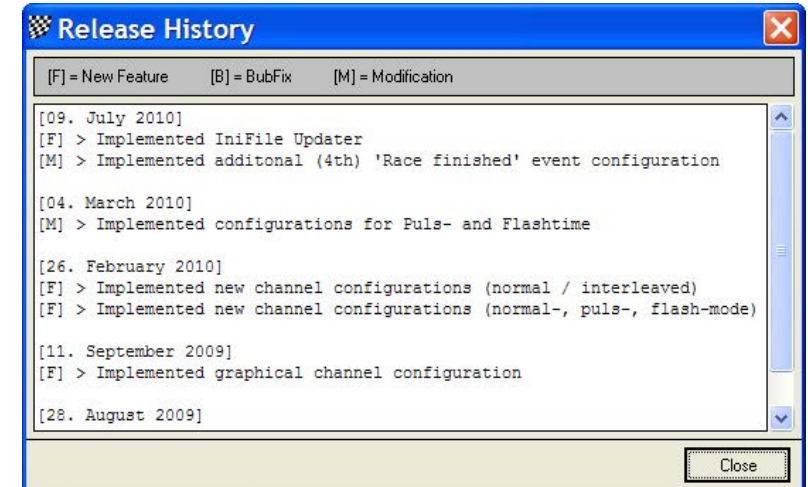
This is a toggle function enables you to put RCM Signal permanently in the foreground of the Desktop of Windows. If the function to normal, RCM Signal can be handled on the Desktop of Windows like all other windows. If it is set to On Top, RCM Signal is always in the foreground. This means, that it is displayed in front of all other windows.



## 9 Help

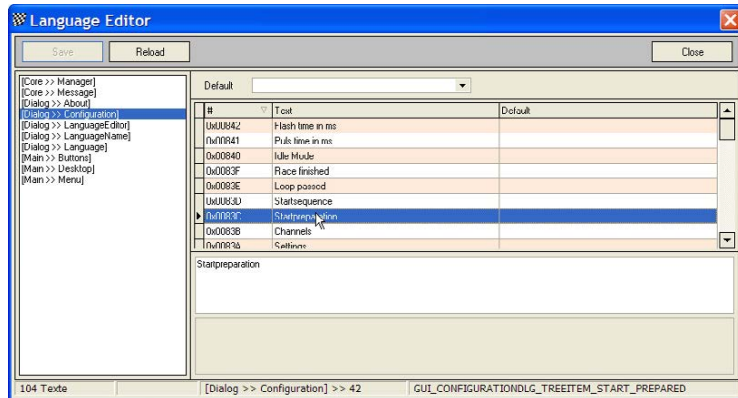
### 9.1 Release history

The release history is a text file with comments to all changes/developments have been made for this application. The single entries are marked with letters: [M] = modification, [B] = bug fixing and [F]= new function.

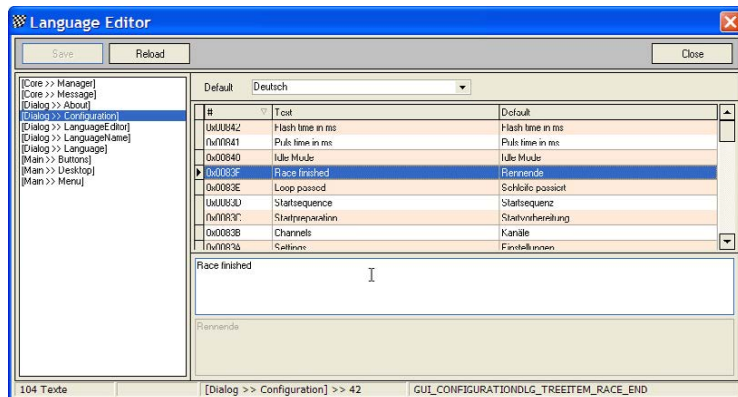
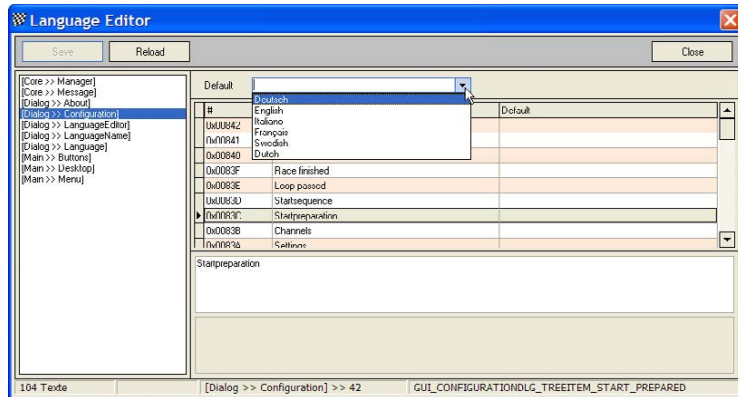


When you get a new version we recommend that you read the release history to be informed on the news of RCM Signal.



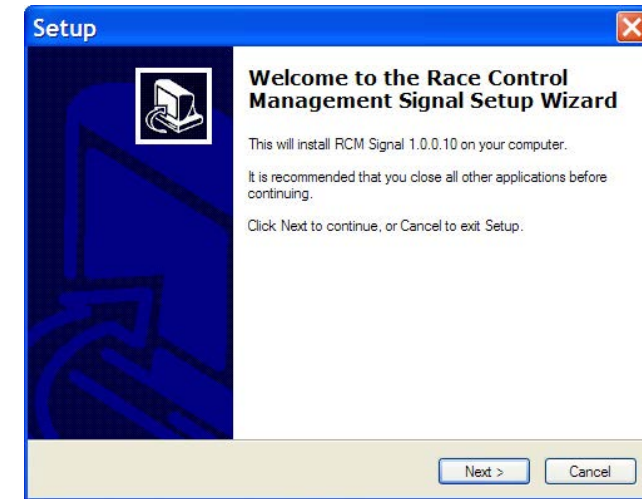


For a better understanding of all text we recommend, that you use the default-setting of the language editor to have the text also displayed in that language you are familiar. Please note again, that you have to save (with the Save button) all your changes before you select another topic in the left column of the language editor.

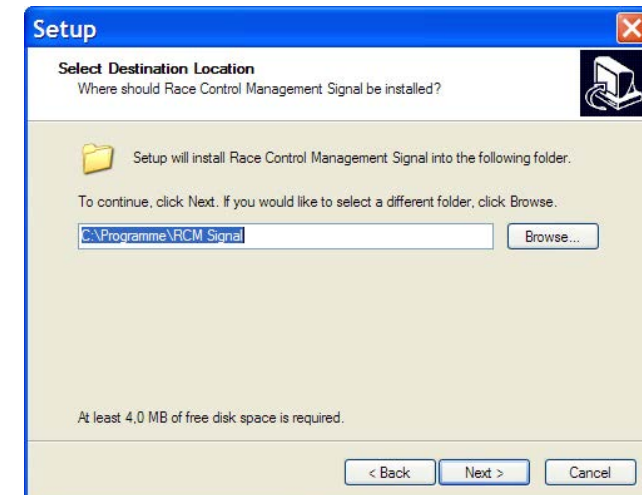


### 3 Installation of RCM Signal

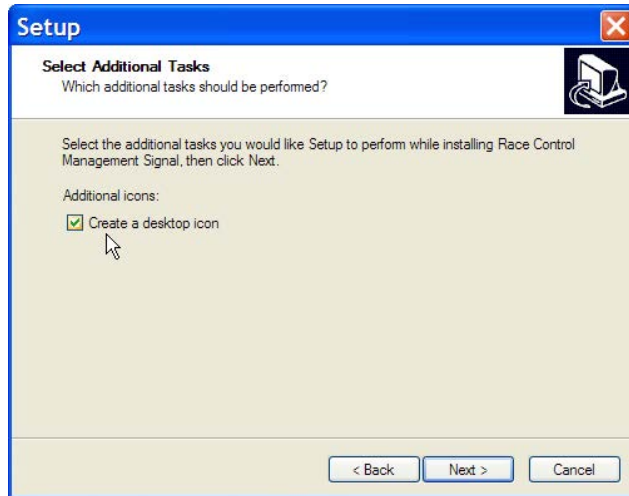
RCM Signal is delivered as executable setup-file. Installing RCM Signal the first time you have to use the full version. Otherwise you can use the update-version. To start the installation you have to run the setup file (double click in the Windows Explorer on the filename like "RCM.Signal(v1.0.0.10-F)" or use start/run of the main menu of Windows).



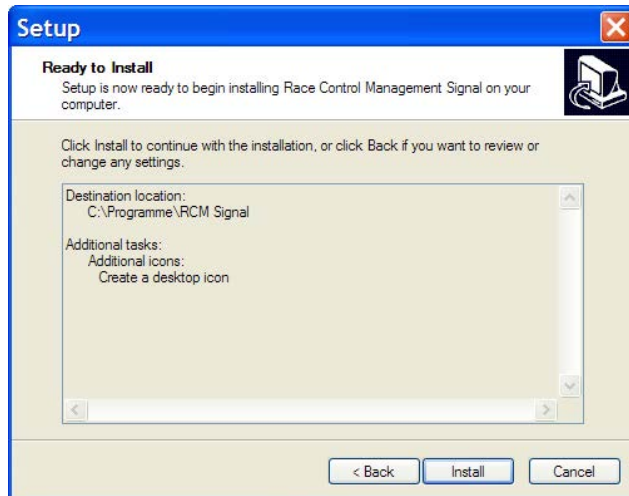
Before you run an update we recommend to you to make a complete backup of the RCM Signal folders. Please do not delete these folders or delete files in it. Please note, that the update version is mostly newer than the full version. If you install RCM Signal the first time you should run an update directly after the installation.



After the welcome screen (please click here on Next), the next windows shows you the destination folder. Preferable this is "C:\program files\RCM Signal" or "C:\RC-Timing\RCM Signal". You should never use the folder "program files" when using Windows Vista, Windows 7 or higher. Install the program in a different folder like C:\RC-Timing\RCM Signal". Due to the handling of the user rights in these versions of Windows The program will not work correctly if it is installed in C:\program files".



Again you click on next and in the following window you can determine whether setup creates an icon on the desktop for starting RCM Signal. The next window shows you a summary of the actions setup will execute.



### 7.1.2 Delete a Language

With Configuration/Language you can also delete a language, except German, English, Italian and French. Left click on the language and click on the square with the cross in the upper left corner.



You will be asked if you really want to delete the language. Confirming this with Ok, the language will be deleted. Please be careful using this function cause it takes a lot of time to make a translation.

### 7.1.3 Language editor

The Language editor allows to you to change all the text used by RCM Signal. Furthermore it is possible to generate new language sets and to translate all the text into a desired language.



The windows of the language editor shows you in the left column a menu ordered to topics which are based on the use of windows and/or functions. If one of these topics are marked, you see in the right column a table of all the text definitions related to this topic. On top of the right column you can define a default language. This will be active, when you mark another topic on the left side. After having selected a topic in the left column you have to mark the text in the right column. You can change the text below in the field Texttranslation. Please note, that the changes will only be effective, when you finish by clicking the Save-button.

If you have created a new language file and want to translate it, make sure that RCM Signal uses this language (Configuration/Language/RCM Language). Cause the new set is based on the English Set, all text is now in English. The next step is to translate all text with the language editor.

## 7 Tools

### 7.1 Language Editor

#### 7.1.1 Create a new language

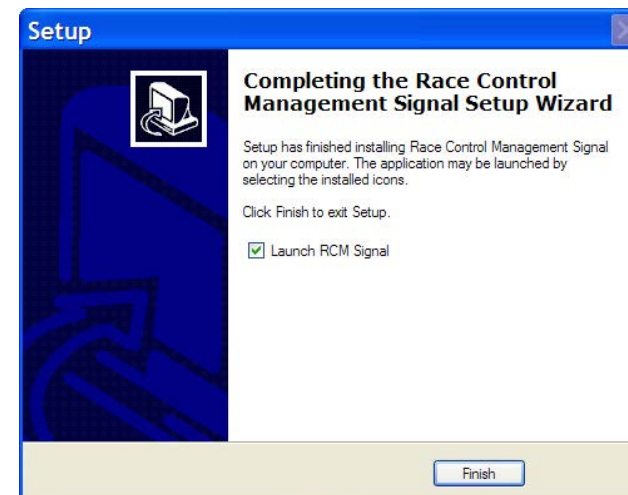
The language editor can be used to create a new language set. The name of the new language must be created in the menu Configuration/Language. Left click on English and click on the notepad-field in the upper left corner.



This opens a window in which you have to type in the new name of the Language you want to create. You have only to type in the name in the Language field. The filename will be automatically created and should not be changed. For the name of the language please use the English description. When you confirm your input with Ok, a new set based on the English set will be created. Now you can translate all text with the language editor.

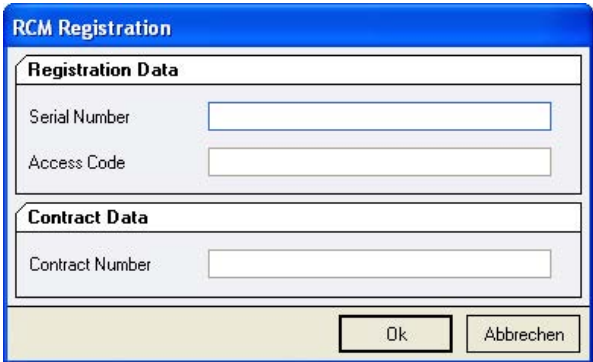


With clicking on Install you will start the setup process.



### 3.1 Registration

To activate the program you need the contract number, the serial code and the access code. You have received these information with your order from RCM. Launching the application the first time you have to type in these information before you can use the program.

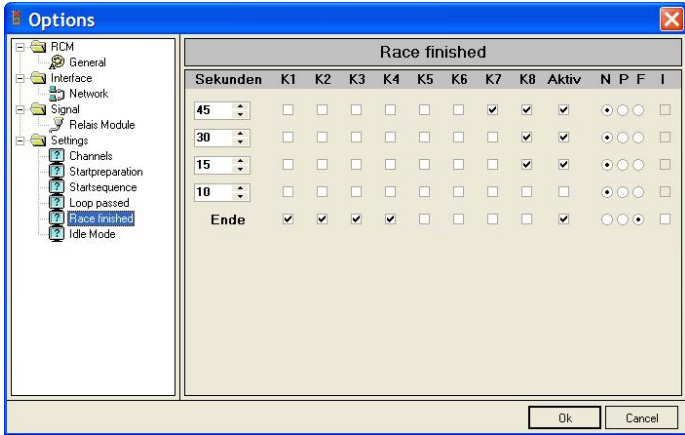


The RCM Registration dialog box contains two sections: 'Registration Data' and 'Contract Data'. The 'Registration Data' section has input fields for 'Serial Number' and 'Access Code'. The 'Contract Data' section has an input field for 'Contract Number'. At the bottom are 'Ok' and 'Abbrechen' buttons.

The application language is set to English by default. For changing this language please refer to Configuration/Language later in the manual.

### 6.2.8 Settings/Race finished

The settings for the finish of a race are made here.



The 'Options - Race finished' dialog box shows a table for configuring race finish settings. The left sidebar lists various settings, with 'Race finished' selected. The table has columns for 'Sekunden' (45, 30, 15, 10, Ende), 'K1' through 'K8', 'Aktiv', 'N', 'P', 'F', and 'I'. Checkmarks indicate active settings.

Sekunden	K1	K2	K3	K4	K5	K6	K7	K8	Aktiv	N	P	F	I
45													
30													
15													
10													
Ende													

The function for 5 different conditions can be set. In the left column the time before end is set, at which the function is executed. Below the channels K1 to K8 the lights will be activated., which will be switched on or of. The column "Aktiv" must be activated, that the function is performed. The Columns N, P and F mean:  
N = normal persistent light  
P = short one time flashing  
F = continuous flashing  
The column "I" is only active if P or F is activated. When I is activated, the functions is performed interleaved. This means, that the previous function is performed furthermore. The set lights/channels remain on or off, the setting of a flashing is performed in addition.

### 6.2.9 Settings/Idle Mode

Here the signals are set, which will be displayed, when no race is in progress.



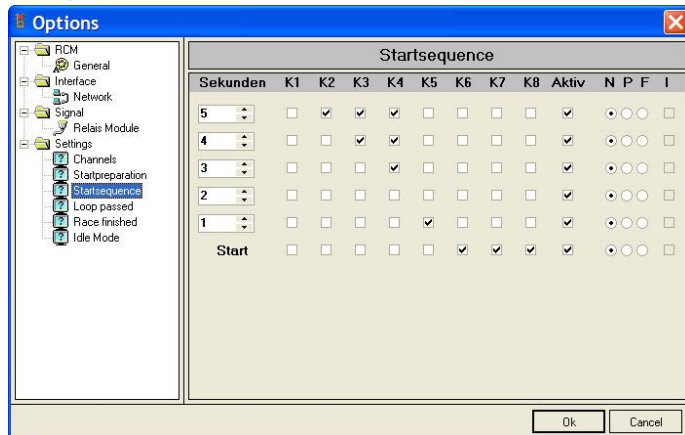
The 'Options - Idle Mode' dialog box shows a table for configuring idle mode settings. The left sidebar lists various settings, with 'Idle Mode' selected. The table has columns for 'K1' through 'K8', 'Aktiv', 'N', 'P', 'F', and 'I'. Checkmarks indicate active settings.

K1	K2	K3	K4	K5	K6	K7	K8	Aktiv	N	P	F	I



## 6.2.6 Settings/Startsequence

The signals for the direct start will be set here.



The function for 5 different conditions can be set. In the left column the time before start is set, at which the function is executed. Below the channels K1 to K8 the lights will be activated., which will be switched on or of.

The column "Aktiv" must be activated, that the function is performed. The Columns N, P and F mean:

N = normal persistent light

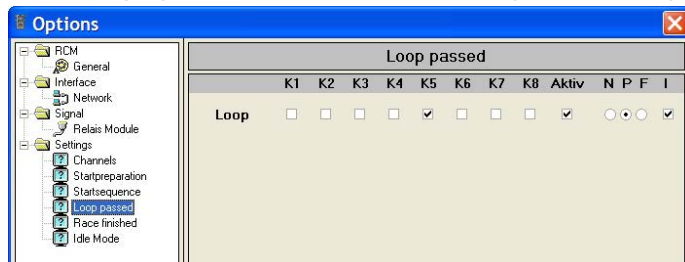
P = short one time flashing

F = continuous flashing

The column "I" is only active if P or F is activated. When I is activated, the functions is performed interleaved. This means, that the previous function is performed furthermore. The set lights/channels remain on or off, the setting of a flashing is performed in addition.

## 6.2.7 Settings/Loop passed

This setting does a signal, when a car passes the loop. This should be set as a one time flashing together with activated "I" to not change the normal signals.



## 4 First steps

### 4.1 Configuration of the network

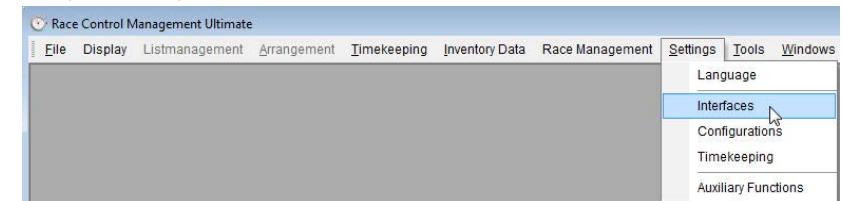
The timekeeping software of RC-Timing (RCM Ultimate, RCM Professional, RCM Advanced, RCM Beginners and RCM Kart) is equipped with a Service-Discovery-Manager, which enables an automatic connection to the clients like RCM Signal, RCM Voice and all the others.

But first of all, the interface in the timekeeping software has to be enabled. Please run RCM Ultimate (or another application RCM Signal is cooperating) and go to Settings/Interfaces. The checkbox "Signal Interface activated" must be activated. If not, please do it and confirm this change with Save. Depending on the number of Signal programs you have installed in your network, the number of connections must be set high enough.

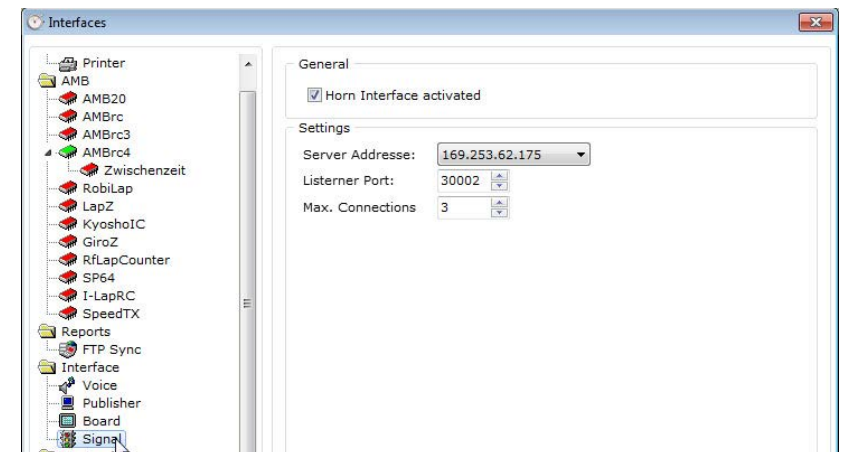
Now you start RCM Signal and the program find the connection automatically, shown by the hint in the footline „Connected to RCM Signal Interface“.

If this is not the case and in the footline "Connection Timeout!!!" is written, RCM Signal is not connected to RCM Ultimate. In addition the bar just below the displayed clocks is colored red. You have to set the IP-address of the server manually.

Please run again RCM Ultimate (or another application RCM Signal is cooperating) and go to Settings/Interfaces.

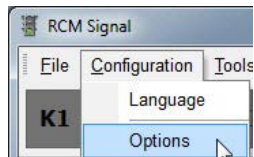


In the left column of the window you mark Signal.

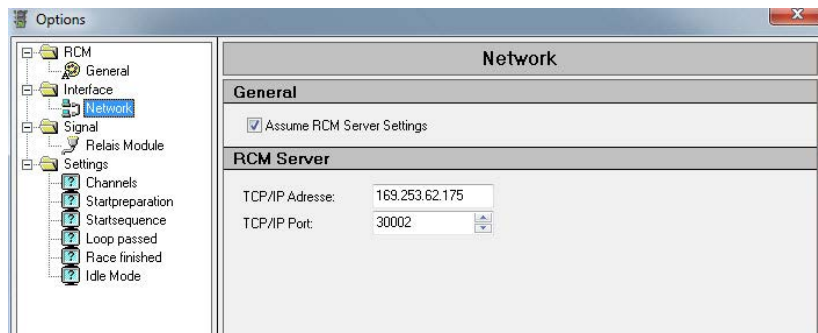


In the right column you now see the Server-IP-Address which must be set in RCM Signal.

In RCM Signal you choose Configuration/Options.



In this windows you mark on the left column Network and type the IP-Address you have found in RCM Ultimate into the field TCP/IP-Address.

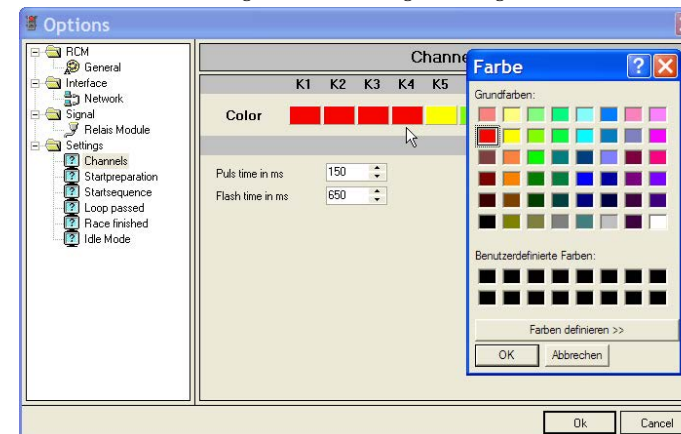


Please leave the number of the TCP/IP Port at 30002. Only with this port RCM Signal is able to receive the necessary information from RCM Ultimate. Confirm your settings by clicking Ok. Now the footer line changes to “Connected to RCM-Signal Interface” and the color of the bar will change to white. Please consider, that it can take several seconds until RCM Signal has found the connection to RCM Ultimate. In the footer line of RCM Ultimate you will find the information “Signal: 1”.

If RCM Signal can not establish a connection your network may be does not work properly. To check this, please open a Command Shell and type in PING <ip-adresse> (for example PING 255.255.255.158). If you got an error message (time limit exceeded), your network is not working properly and you have first to check the connections.

## 6.2.4 Settings/Channels

The colour of the display of the channels in RCM Signal can be defined. In addition the time for the blinking and the flashing of the lights can be set.



Just click on one of the color fields below the channel numbers K1 to K8 and a color table is opened from which you select the desired color. Below in the window the pulse time for the one time flashing of the lights and the frequency of the continuous flashing (flash time) can be set in milliseconds.

## 6.2.5 Settings/Startpreparation

The signals for the start preparation will be set here.



The function for 5 different conditions can be set. In the left column the time before start is set, at which the function is executed. Below the channels K1 to K8 the lights will be activated., which will be switched on or of.

The column “Aktiv” must be activated, that the function is performed. The Columns N, P and F mean:

N = normal persistent light

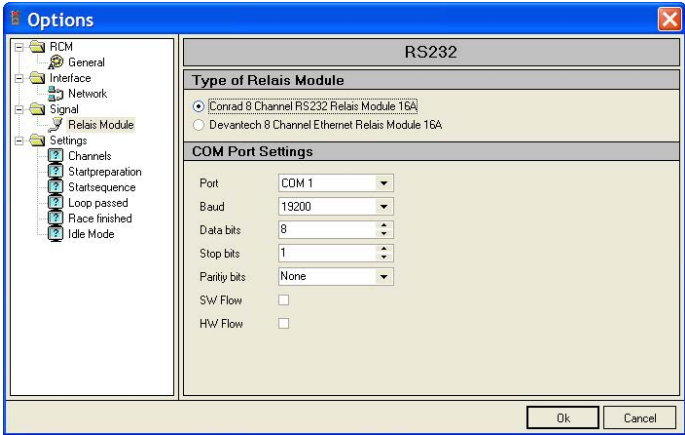
P = short one time flashing

F = continuous flashing

The column “I” is only active if P or F is activated. When I is activated, the functions is performed interleaved. This means, that the previous function is performed furthermore. The set lights/channels remain on or off, the setting of a flashing is performed in addition.

### 6.2.3 Signal/Relay Module

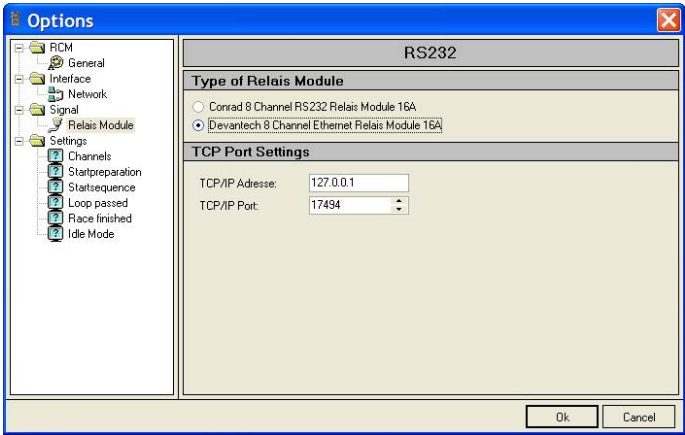
On Top you are selecting the Relay Board you are using. When selecting the Conrad board, you have to set the number of the RS232-Port below.



All other settings should not be changed. They have to be set to

Baud 9600  
Data bits 8  
Stop bits 1  
Parity bits None  
SW Flow None  
HW Flow None

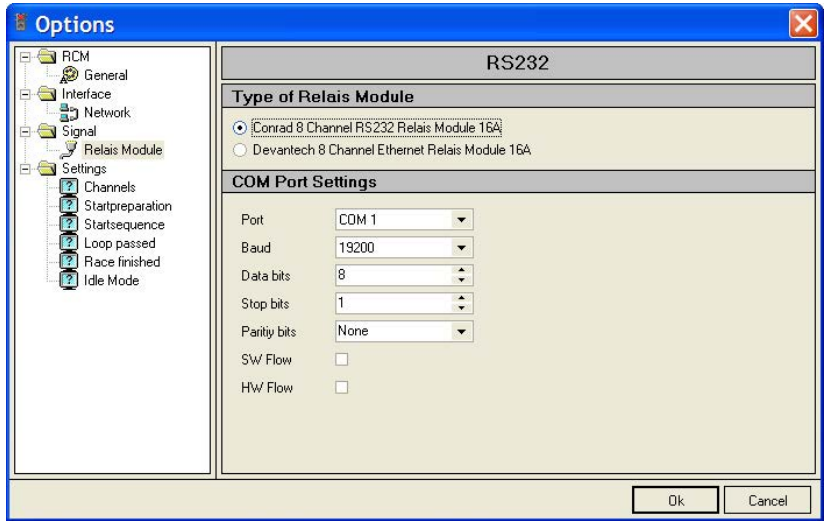
When selecting the Devantech Module, you have to type in the TCP/IP-address of the module. Do not chnge the number of the TCP/IP Port.



### 4.2 Configuration of the Signal-Port

Depending on the Relay Converter you are using, RCM Signal needs also a RS232 Port configuration, where the Signal Converter is connected to. If there is one free RS232 port on the computer RCM Ultimate is running, you can install RCM Signal on the same computer where RCM Ultimate is running on. You can connect the RCM Signal Converter to this port. But you can also use an additional PC connected to the network to use the ports of this PC.

The settings of the port where the RCM Signal Converter is connected to, can be changed in Configuration/Options. Left click in the left column on Signal/Relay Module. In the right column you can choose the module and below the number of the port.



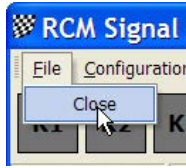
All other settings should not be changed. They have to be set to

Baud 19200  
Data bits 8  
Stop bits 1  
Parity bits None  
SW Flow None  
HW Flow None

## 5 File

### 5.1 Close

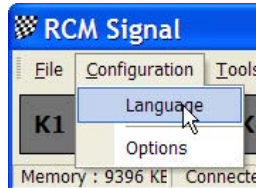
RCM Signal will be closed.



## 6 Configuration

### 6.1 Language

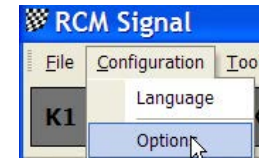
With Configuration/Language you can set the languages used by RCM Signal.



All available languages are displayed and you can set one language to be used for the application. Confirm your selection with OK and all text will now displayed in this language.

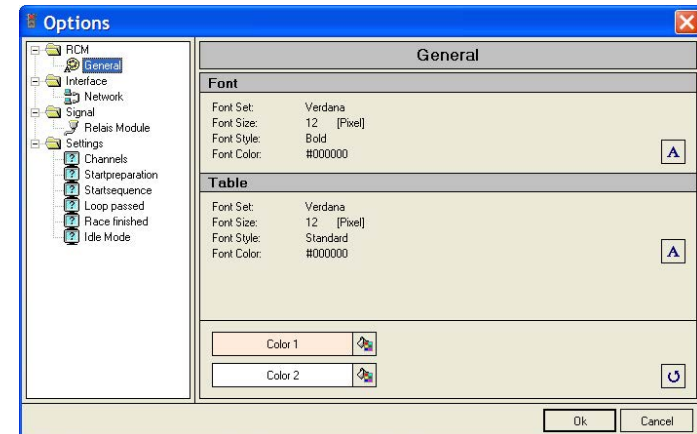


### 6.2 Options



#### 6.2.1 RCM/General

Marking in the left column General, you can set up the fonts, the fonts size and colours used by RCM Signal. The settings for tables are not used by RCM Signal.



#### 6.2.2 Interface/Network

RCM Signal needs a network connection to the timekeeping computer, as described in first steps. We recommend to activate "Assume RCM Ultimate Settings". The TCP/IP Port is set to the correct number by default. You should not change this number.

