RENNBAHNTECHNIK

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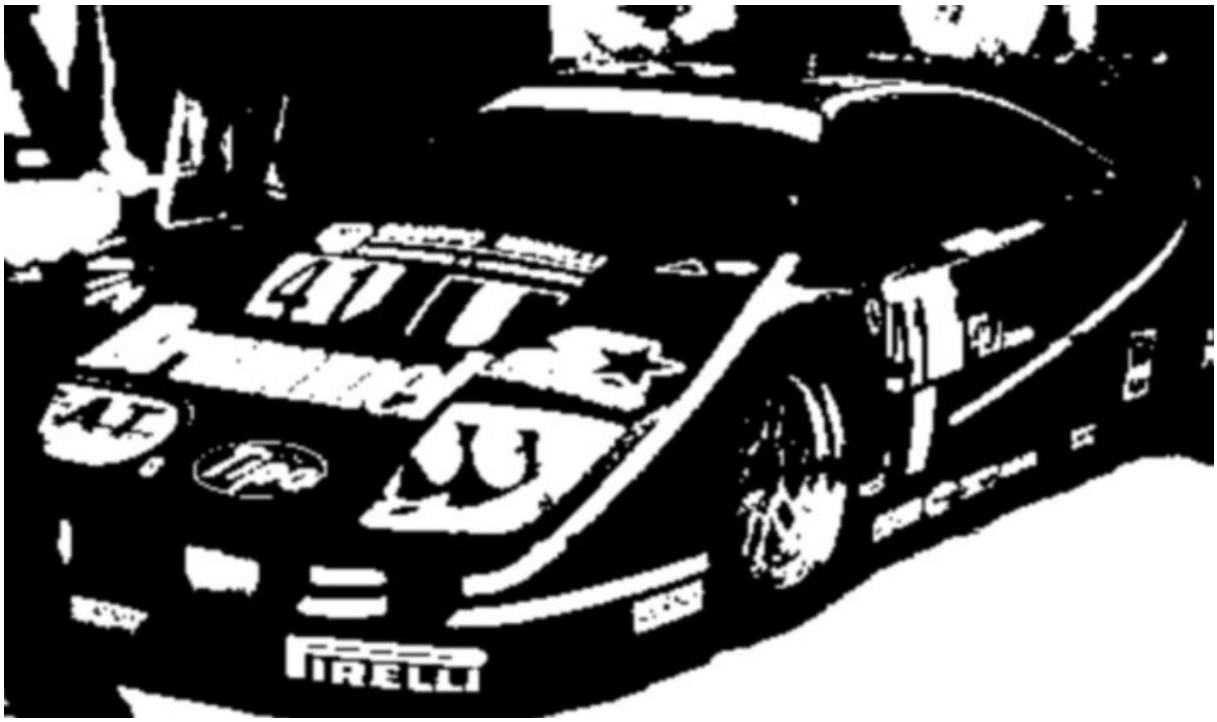


Contens

1. Initiation

General:
Changeable values and texts are marked yellow
- Values are validated. Therefore they have to be overwritten.
- To close windows or abort press **[ESC].**

Computer requirement:

Windows 95 (with ActiveX) or better, minimum 200 MHz, screen resolution minimum 800x600

NOTE: Do NOT extend the serial connection cable (light grey cable between PC and interface).

2. Installation

1. Start „Setup“ from CD-ROM.
2. Follow the setup. Maybe the PC has to be rebooted.
3. If the message „MSVCRT.DLL can’t be overwritten“ or „Protected ... MSVCRT.DLL“ occurs, continue with „IGNORE“ and continue the installation.
4. If you PC contents newer system files please do not overwrite.

3. First start - Filesystem

When the program is started first, the required files will be generated.
WinRbm is connected to the database WinRbmDat.MDB. The database has to be located in the WinRbm path.

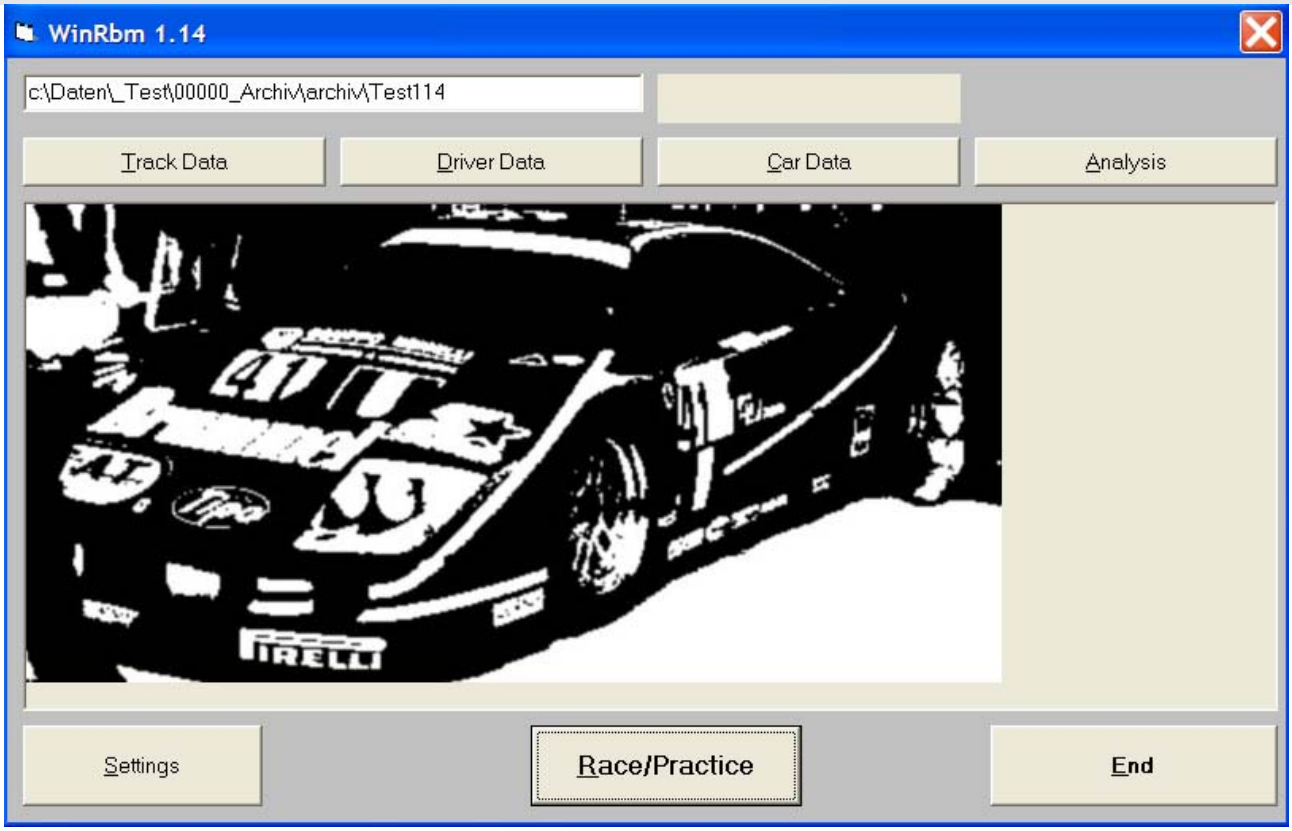
4. Commisioning

Check communication between PC and interface before install all hardware components

- Switch off PC
- Connect COM-ports via light grey cable
- Connect power supply, the red LED’s have to be illuminated
- Connect photocell’s due to wiring diagram
- Let light shine on each photocell, the particular LED must get off
- Switch on PC
- Start WinRbm
- WinRbm is now searching fort he INTERFACE. If it’s found you get a message.

If the last point will not succeed, try another COM-port of the PC.
Is everything working you can install and connect all components at the right location.
Next helpful steps:
- Edit settings
- Edit driver and track database

5. Main menu



5.1 Connect

Try to connect to interface ➔ 6 Connect

5.2 Track Data

Edit database ➔ 7.1 Track Data

5.3 Driver Data

Edit database ➔ 7.2 Driver Data

5.4 Car Data

Edit database ➔ 7.3 Car Data

5.5 Analysis

Edit database race results ➔ 8 Analysis

5.6 Settings

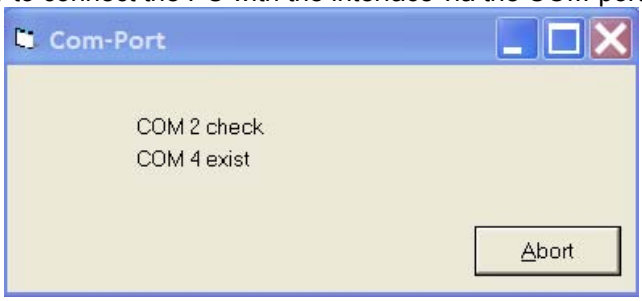
Edit settings ➔ 9 Settings

5.7 Race / Practice

Start counter/timer mode ➔ 10 Race / Practice

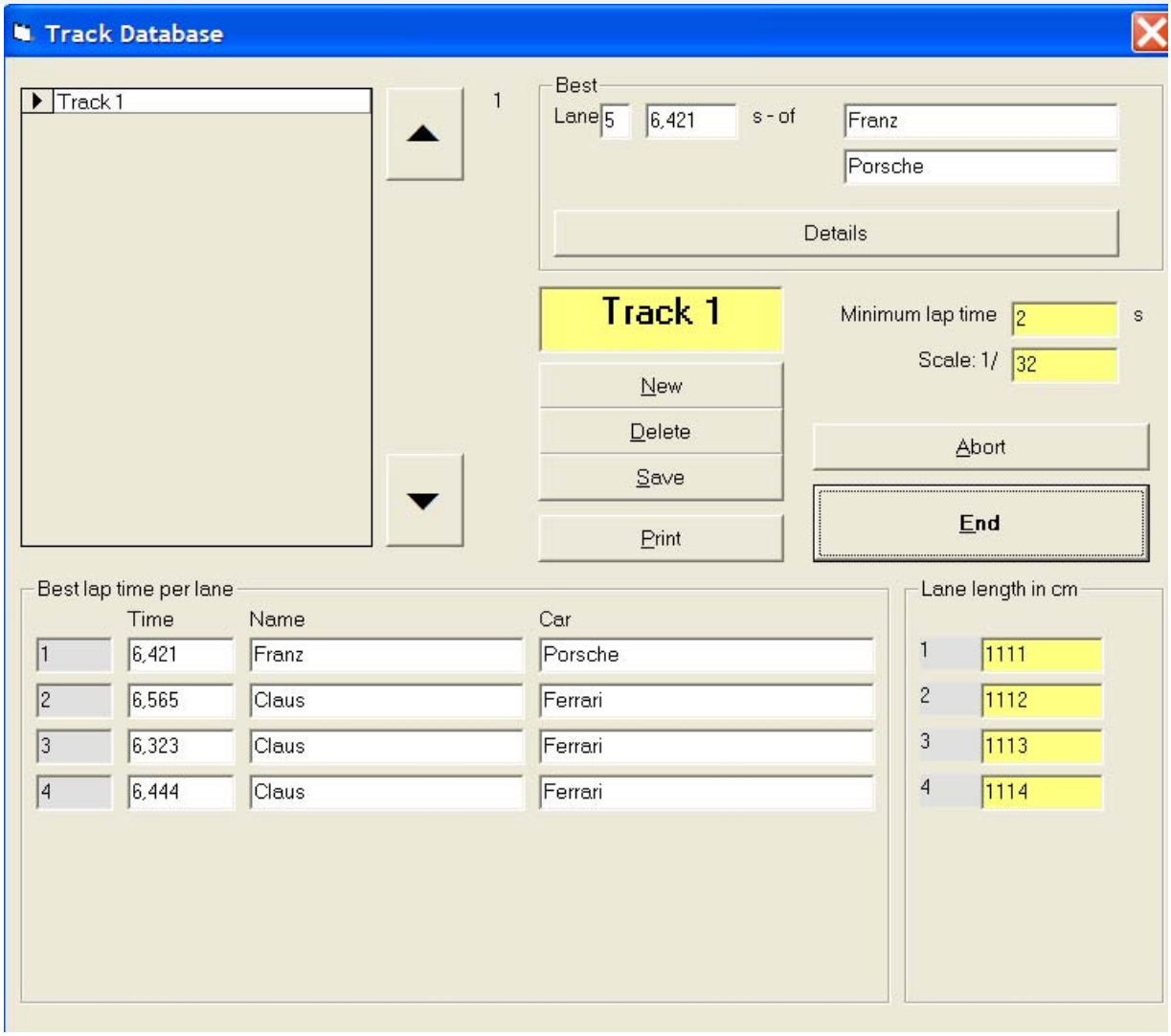
6. Connect

Try to connect the PC with the interface via the COM-port's. If the connect succeeds the window will close.



7. Track / Driver / Car database

7.1 Track database



It is possible to save tracks with their own data like minimum lap time, track length of each lane, scale etc. Each lane and track is monitored for best lap time.
For example:

Track1	NINCO Standard	min lap time 6 s	record 6,443s	scale 1/32
Track2	GT	min lap time 4,5 s	record 5,121s	scale 1/32
Track3	Carrera	min lap time 5,5s	record 5,988s	scale 1/24

usw.

The yellow marked fields are editable.

With buttons **New**, **Delete** und **Save** the desired function will be executed.

7.1.1 Details

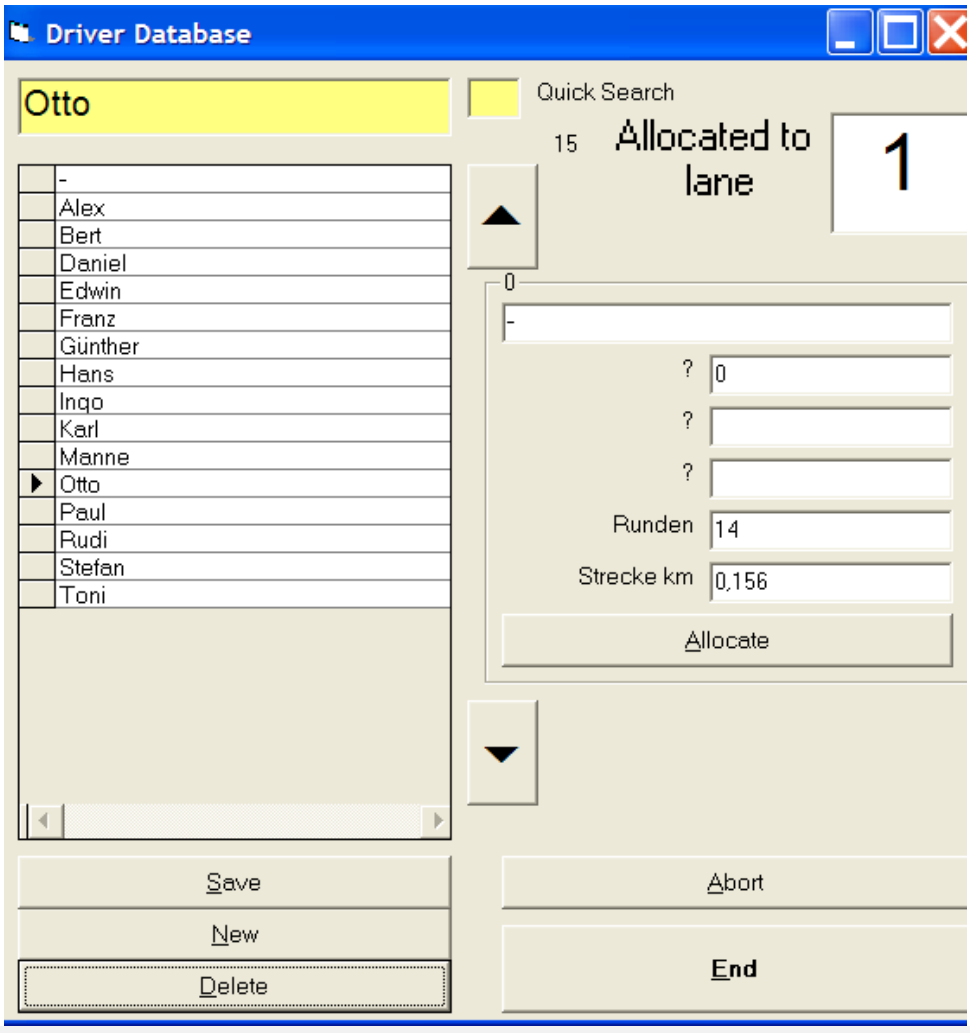
Edit or delete lane records. The selected lane is marked red. The allocated car with the additional data is shown as well.

7.1.2 Print

Print ALL / ONE track with all information.

7.2 Driver data

The yellow marked fields are editable.
With buttons **New**, **Delete** und **Save** the desired function will be executed.

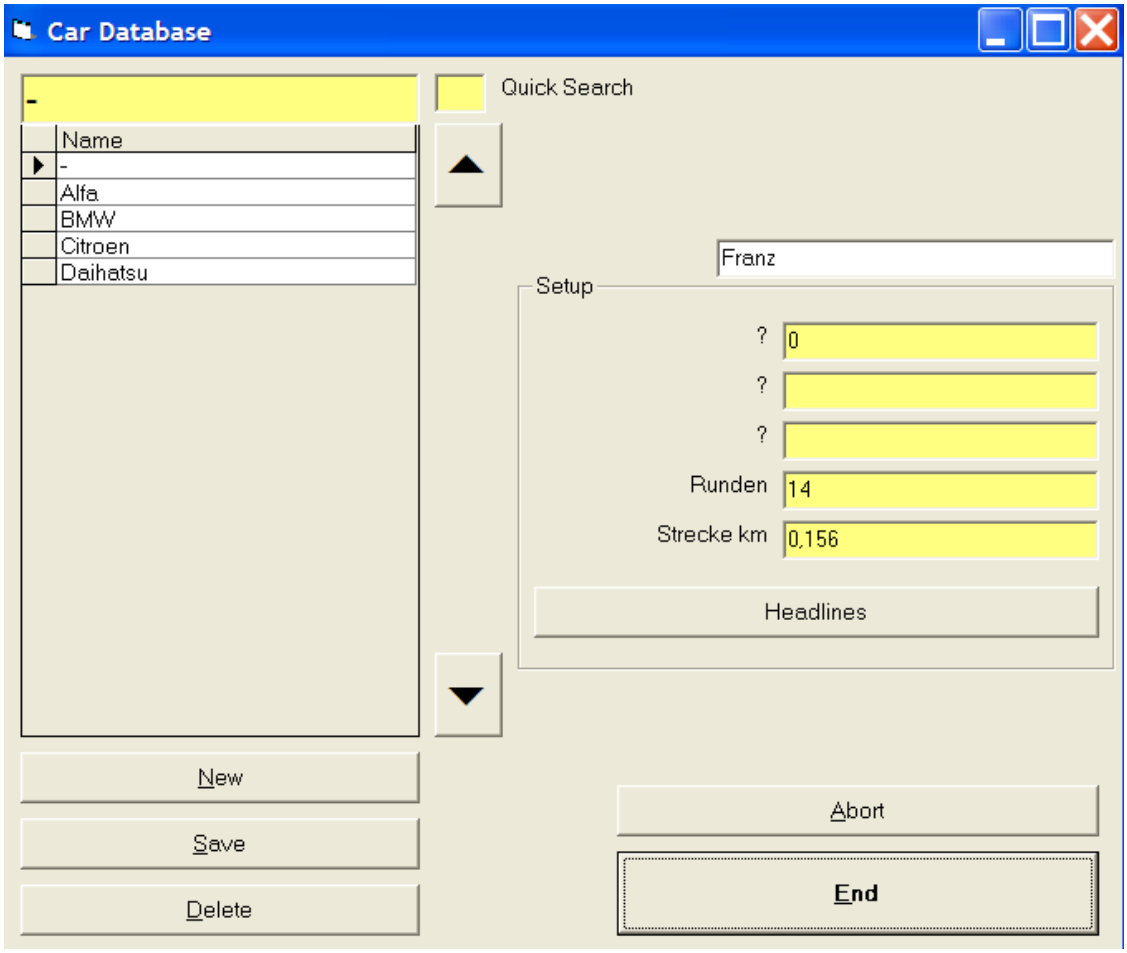


7.2.1 Allocate

Allocate a car to the selected driver.

7.3 Car data

The yellow marked fields are editable
With buttons **New**, **Delete** und **Save** the desired function will be executed.



7.3.1 Headlines setup

Five text fields are aviable for each car. To identify the fields edit the headlines.

8. Race data analysis

Select the recordset and press Show to display.
The yellow marked fields are editable.
With buttons **New**, **Delete** und **Save** the desired function will be executed.
Keep the database small. A big number of recordsets will decrease the performance of the system.

8.1 Options of monitoring

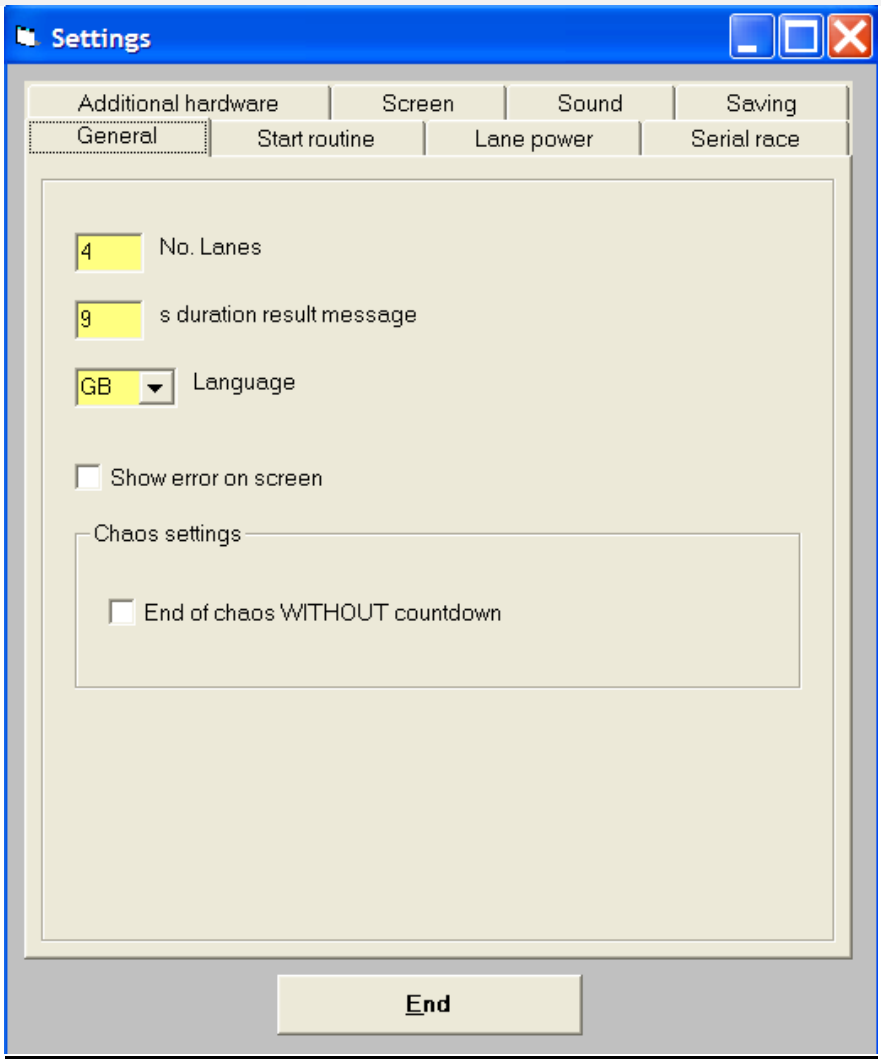
- Result
Result with overview of each heat
- Short result
Result without overview of each heat
- Result with lap times
Result with each lap time
- with Setup-Detail
With car and setup data
- mit Distance/Speed
Distance and calculated speed
- Lane overview
Result of each land is monitored
- Track-Detail
With track data
- Track best lap
With best lap times

8.2 Export

The data with the selected options are saved in a CSV-file.
Open the file out of MS-Excel, edit and save as XLS-file if required.
Path: WinRbm-path\Export.

9. Settings

9.1 General



- Number of lanes
Edit no. Of lanes

- Duration result message
Time (seconds) of message after each heat to watch the result.

- Language
Select language
Is the language not saved in the database, execute program **RBMTEXT** in WinRbm path. Watch appendix.

- Show error on screen
System error messages are saved in the file Fehler.txt in WinRbm path. With this option tey are displayed on the screen.

- End of chaos without countdown
After chaos sequence the lane relays switch on without delay.

9.2 Start routine

- Starttime

- Starttime fix

- Starttime randomized
The starttime is generated via randomizer, that means the random time (in between the limits) is added to the startime.

- Early start control
- with early start control
The lane relays switch on at the beginning of the start routine. The control is activated.
- with early start control
The lane relays switch on at the end of the start routine. The control is deactivated. Tere is no erly start possible

- Penalty early start
Time switch off the lane when an early start is detected

- Abort startroutine
The start routine will be repeated

- Traffic light control

- 1 x red – 1x green
Switch between red and green light

- 4 x rot – 1 x grün
Four red lights will illuminate, then they switch off and the green light illuminate.

- 5 x rot
Equal to the screen 5 red lichts illuminat then they switch off.

9.3 Lane power

- Off delay time race
Off delay to count the rolling cars after the lane power is off.

- Lane power always on
The lane power switches on back again after a delay time. So the cars can be driven to the driver.

- Penalty start crossing start line
The penalty time will start after crossing the start line, otherwise dircetly with activating..

- Penalty time heat
Presetting of the penatly.

9.4 Serial race

- Lane change 1-3-5
Lane change f.e. 6 lanes 1-3-5-6-4-2.

- Lane change 1-2-3
Lane change ascending f.e, 6 lanes 1-2-3-4-5.

- Group change after each heat
After each heat a new group hs to drive.

- Group change when group is ready
Each group drive their heats until the new group starts.

- Show total laps
Show the added laps of all heats

- Enable add data last race
Continue a race and add the laps at the end in a final result.

- Limit break betwenn heats
Limit the time between two heats.

9.5 Screen

Mark 1. in heat
The leader of the heat is marked.

Change lane order
The first line is displayed on the right side / at the bottom .

Rest time display
Activate time bar.

9.5.1 Colors

Change front and backcolours with drag and drop.

9.6 Sound

At the events Wav-files will be played. The files are saved in the WinRbm path ..\Sound. There you can add own files.
Open list with the event button. Select the sound with a doubleclick.
Hear the sound with the play button .

9.7 Save

To keep the database small, select the saving options.
The performance of the system is according to the data volume

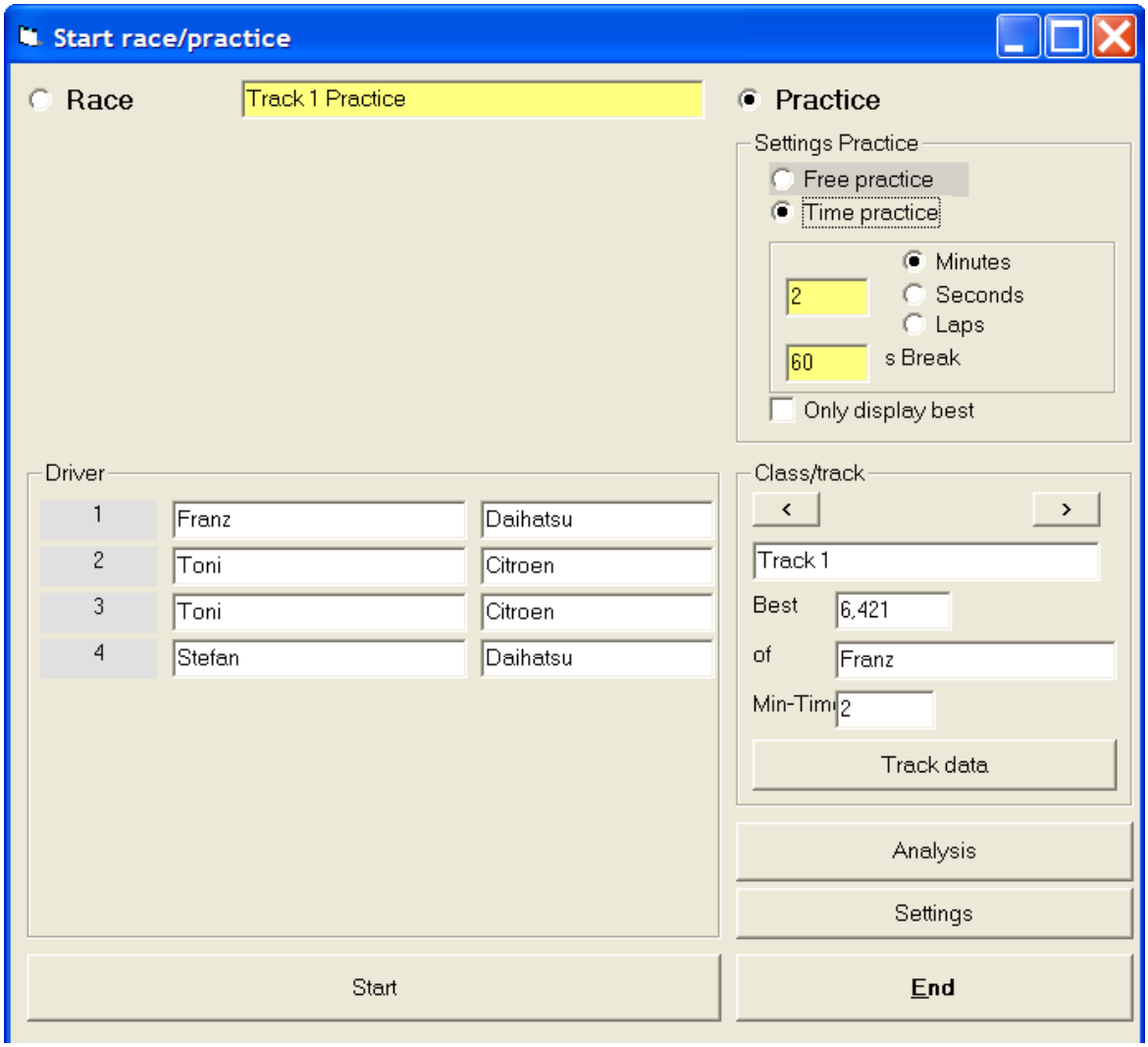
- always

- never

- confirm
Confirm saving

- auto. delete of result data
Edit the time range.

10. Race / Practice



10.1 Practice

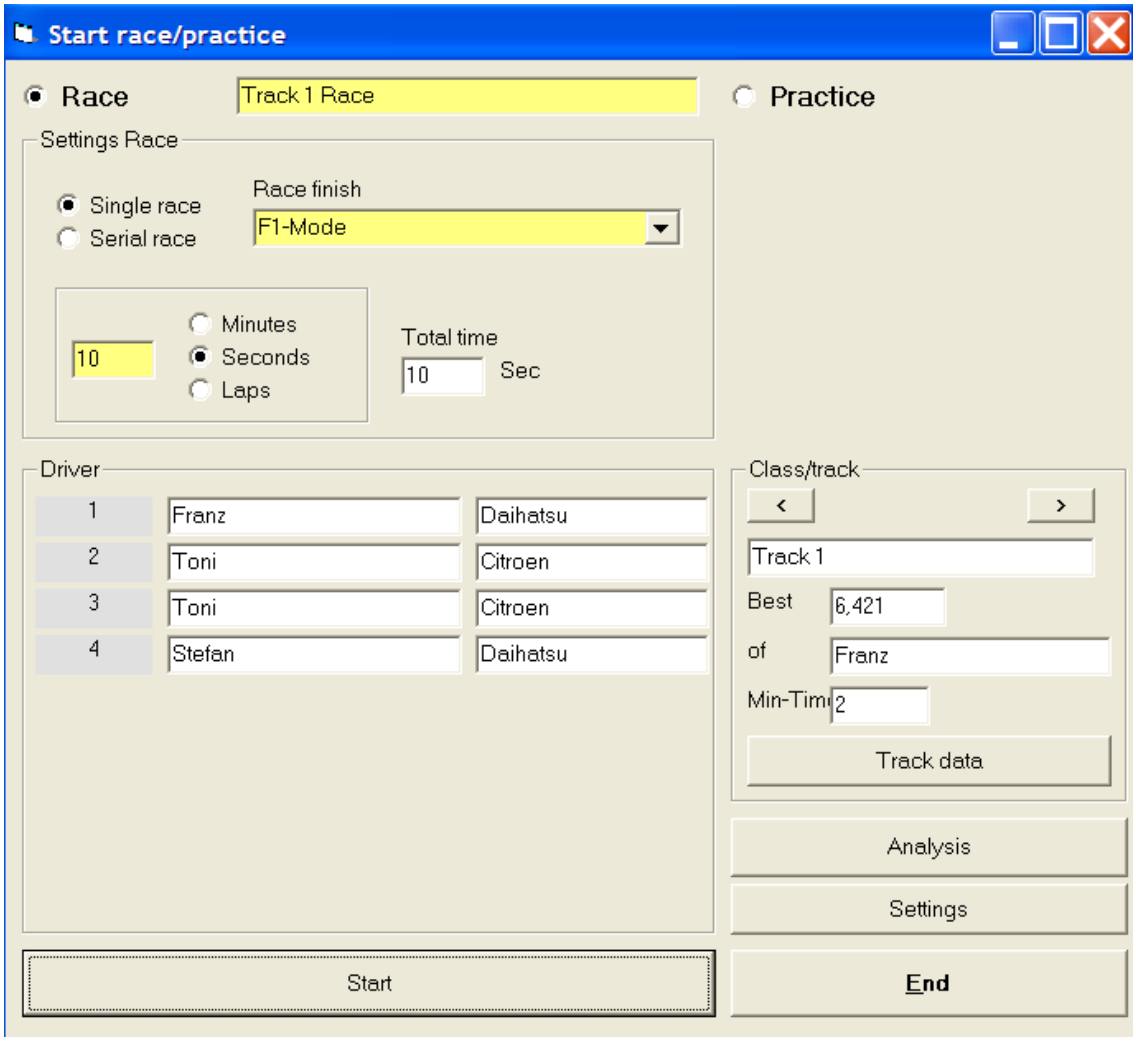
Select driver and car via doubleclick on the required lane field.

- free practice
Practice without limit. Abort with **ESC** or button **Abbruch**

- time practice
Practice with limit. Ends when the limit is reached or pressing **ESC**.
Continue the practice by pressing **Continue.**
Edit breaktime for automatically continuing.

- only display best
The best lap time is displayed.

10.2 Race



10.2.1 Race mode

10.2.1 Time race

- Slotmode

The race is finished, when the time is reached. After the last heat the komma laps have to be edited.
In serial race the cars and drivers change to the next lane at the position wher the car stopped.
The next heat starts without start sequence.

- F1-Mode

The race is finished, when the time is reached **and** each car crossed start line. The result is generated with laps **and** total time. Only complete laps are couted.
In serial race the cars and drivers change to the next lane at the start line.
The next heat starts with start sequence.

10.2.2 Lap race

In serial race the cars and drivers change to the next lane at the start line.
The next heat starts with start sequence.

- Slot-Mode

The heat is finished, if the first has reached the no. of laps.

- F1-Mode

The heat is finished, if the first has reached the no. of laps **and** each car crossed start line.

- All full distance

Everybody has to drive the complete no. of laps.

10.2.2 Single race

Only one heat.

10.2.3 Serial race

10.2.3.1 Discription serial race

To get a fair result, everybody has to drive the same time on each lane and add all laps.
Example:
You have a 4 lane track and 4 drivers will take part in the race. The winner is the driver with most laps after the 4. heat.

	Driver A	Driver B	Driver C	Driver D
1. Heat	Lane 1	Lane 2	Lane 3	Lane 4
2. Heat	Lane 2	Lane 3	Lane 4	Lane 1
3. Heat	Lane 3	Lane 4	Lane 1	Lane 2
4. Heat	Lane 4	Lane 1	Lane 2	Lane 3

These 4 drivers are one **Group.**
If you are 8 drivers, it will be 2 groups (A+B).
These groups drive their heats one after the other. Fist group B the group A, that means total 8 heats.
Winner is the driver with most laps after his 4 heats.
Are there only 7 drivers, one group has only 3 drivers. One lane will be free. The group has to drive 4 heats.

Special case f.e. 5 driver:
You can generate 2 groups with 2 and 3 drivers. But more workable is to generate one group with 5 drivesr.
The program is now running as if there are 5 lanes. The driver on lane 5 makes a break. The race contents 5 heats. The limt is 15 drivers per group.

Order:

- Select driver
- Drive qualifiing if required. The drivers are sorted according to their best lap times The fastest drivers are in group A, the slowest in the last group
- Start with the last group
- After the complete race the drivers are sorted according their result in the driver list

10.2.3.2 Order serial race

Select driver.

If required drive qualifiing ➔ 10.2.3.3 Qualifiing

Press **Group generating**
Driver per group change by mouse click to the yellow marked field.
Change driver via drag and drop overall groups.

If required **select your own group order**

- The group order is displayed.
- Fix the order with Random or own selection by pressing button heats.

- **Starting first heat**

- **The race starts with the last group**
- Starting grid
- After each heat the yellow marked fields are editable.

  Repeat heat or **Start next heat**

- This continues until all heats are driven.
- Display final result
- End, the drivers are sorted in order of the result in the driver list and you can start the next race.

Everbody against everybody – only aviable with 2 lanes

10.2.3.3 Qualifiing

- Lane
Select lane

- Qualify duration

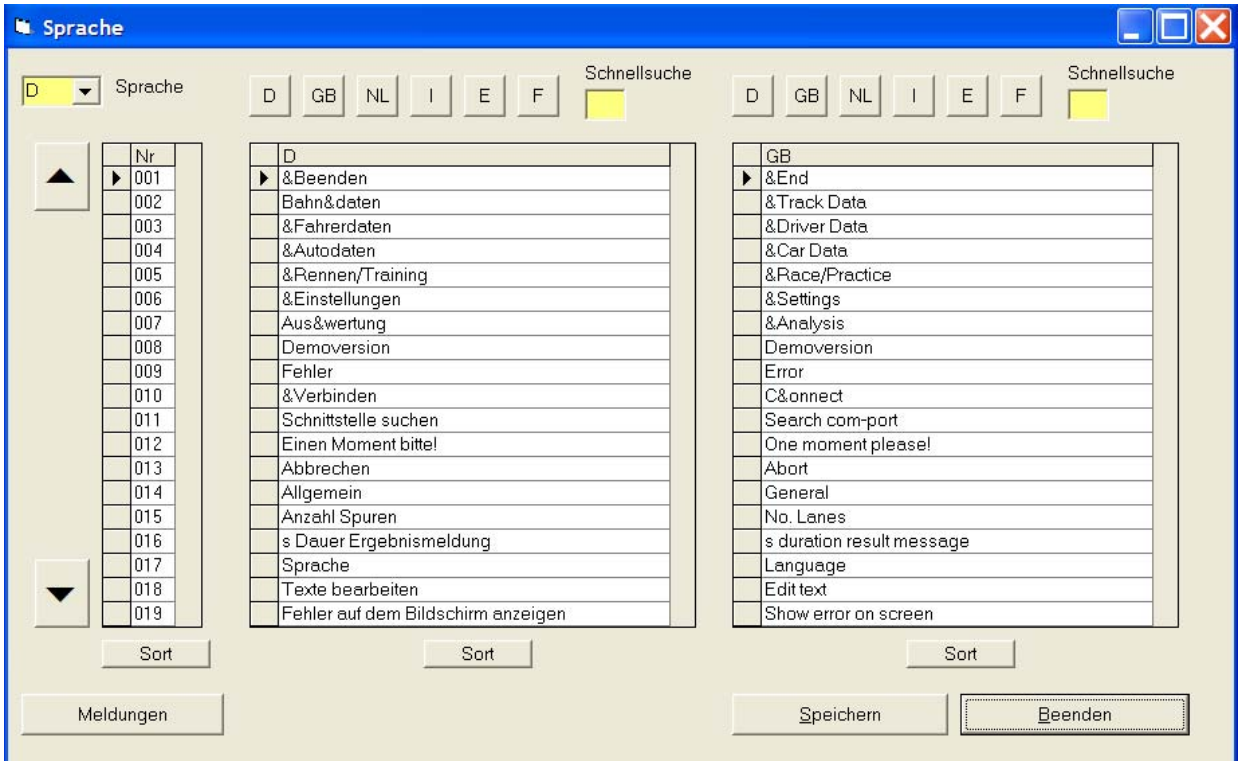
- Order
Randomize the order by pressing Random

10.2.3.4 Long distance race

Repeat the serial races fort he edited number.

Example:
4 lane track, 4 driver, 3 heats per lane Spur a 5 minutes
4 x 3 heats = 12 x 5 minutes = 60 minutes total time

11. Appendix edit tanslation



Select the required language.
Dont forget the messages.
German / english and dutch are at this time aviable.
Is in the text „&“ included, the letter of the button is underlined an can be activated by pressing ALT and the letter.

Example for italian: