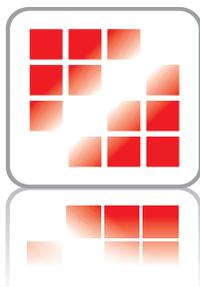


RCM

Race Control Management

Instructions

The first race



RCM-Timing

Instructions

The first race with RCM Ultimate

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RC-Timing

Oberhasli, Switzerland

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1 Introduction

These instructions describe all necessary steps to run an event with RCM software. This is mainly for the newcomer, who runs an event the first time. This instructions are only an addition to the user manual of the timekeeping software. This instructions are based on RCM Ultimate, but apply also to RCM Advanced and RCM Kart.

2 Inventory data

RCM Ultimate is very user friendly and you will be familiar with the handling quite shortly. Before you can use the program it is necessary to enter some data needed to race an event. We recommend that you follow this chapter first.

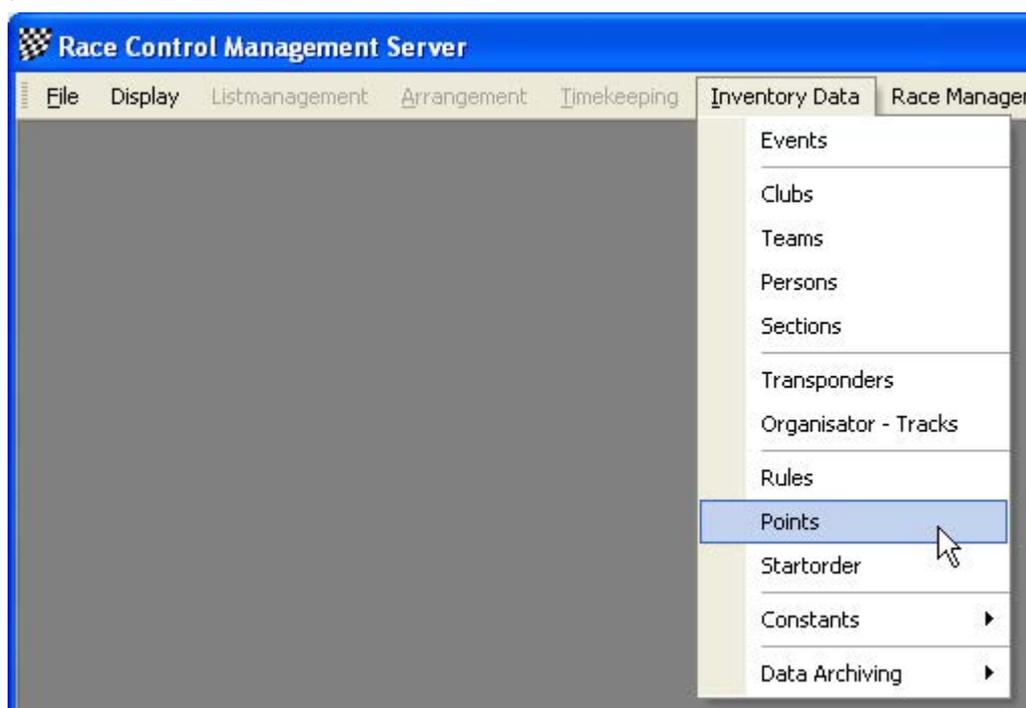
2.1 Data input

The data managed by RCM Ultimate relate to each other. Therefore it is important, that all basic data has been entered before you can start a race event. Please refer to the appropriate chapters in this manual.

- * Does this race is ranked with a championship?
- * Which rules are needed?
- * Which sections will be run?
- * Who is the organizer and on which racetrack will be run?
- * Which transponder set will be used?
- * Which drivers will participate?

2.2 Which Championship

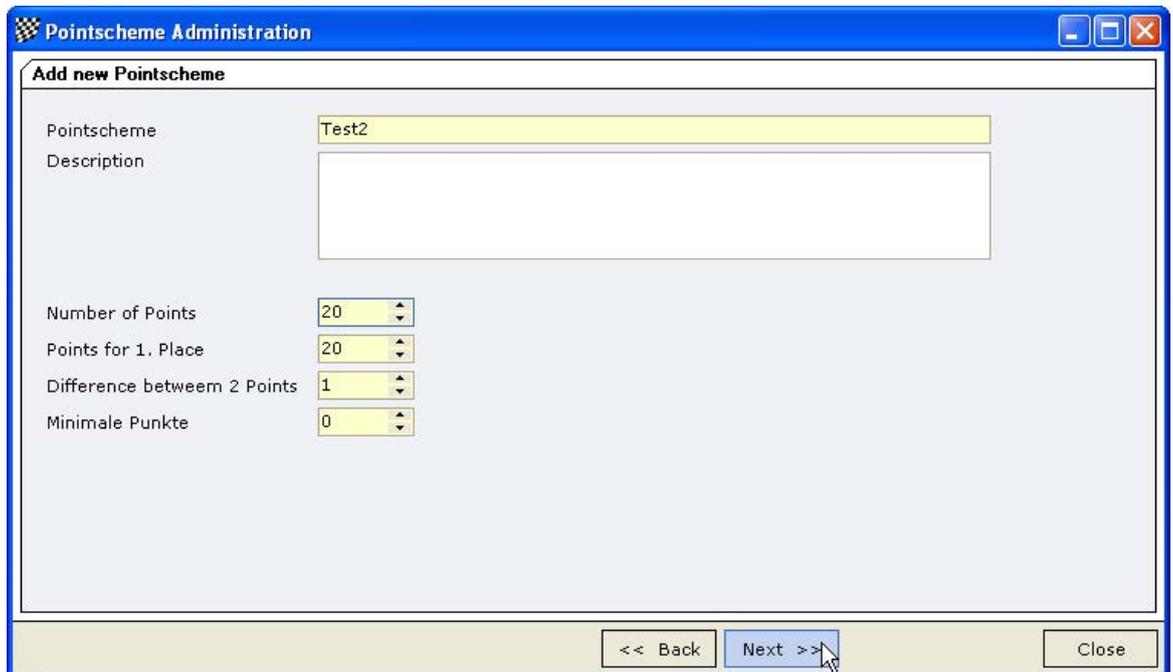
You need a point schema before you can rank a race with a championship. This schema describes the number of points a driver gets for the championship result according to the ranking of the race. If your race dos not count for a championship you can move to the next item.



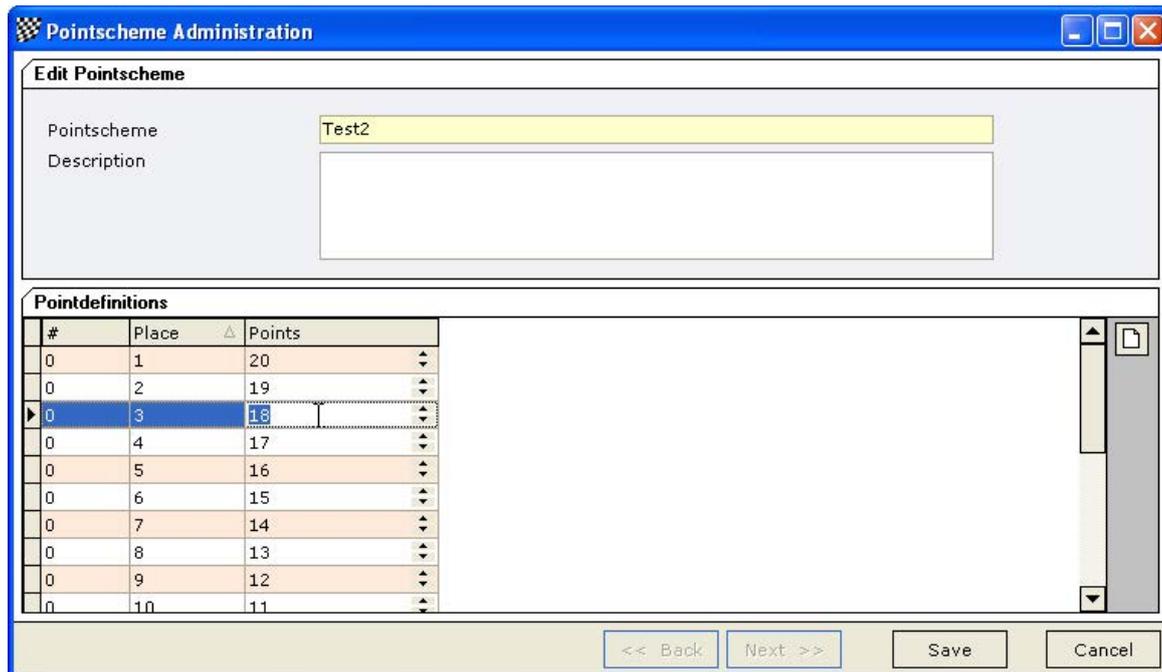
Create and check the pointscheme: This is done with Inventory Data/Points. Then select Add ne pointscheme.



Now you have to enter some basic data in the following window. After that the point scheme will be created automatically but can be easily edited. First of all you have to give it a name. The description is optional. Now you have to enter the number of points (number of point definitions), the points for the first place, the difference between two point definitions and the minimal points.



Clicking on next opens a new windows for editing the point definitions.

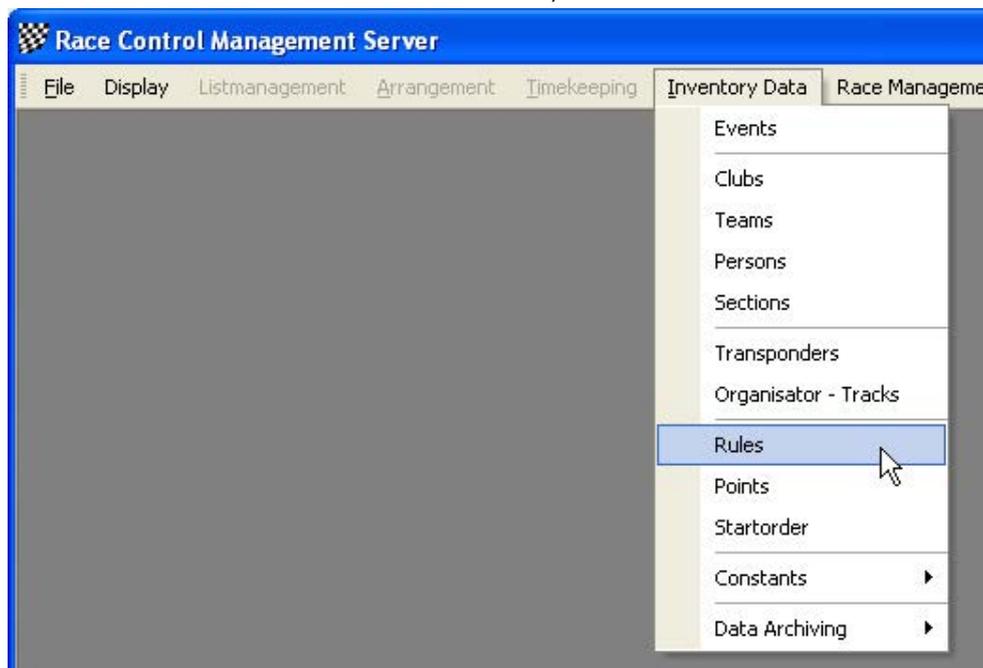


For championships normally a descending point system is used. If you want to add now a single point definition, just click on the edit button on the right side of the lower line. If you want to change a point definition, click in the table at the point definition and you can edit it.

Please note, that you have to save your work before closing this windows.

2.3 Which rules?

We recommend that you create a rule for each section. This rule describes the complete race format. You define the arrangement of the heats, the qualification, the race time, how the heats and finales will be ranked and how the finals are run. Part of the rule is also the point schema for a championship. A new rule can be added with Inventory Data/Rules.



The rules include information on the number of drivers per heat, the race times, the scoring of the results and the move up in the finals. The setting of a rule is also used to generate the time schedule. A wizard leads you through all definitions of the rule. But it is important, that you know the rule exactly and check your inputs carefully.

2.3.1 General about rules

First of all you have to make a selection whether you want to mutate an existing rule, create a new rule, copy a rule or delete a rule.

The selection leads you to window with a table of all existing rules. Left click on the rule and click on the next-button.

Load and mutate a rule: You can select a rule and change or check this rule. If you change the name of the rule, the name will also be changed in all sections assigned to this rule.

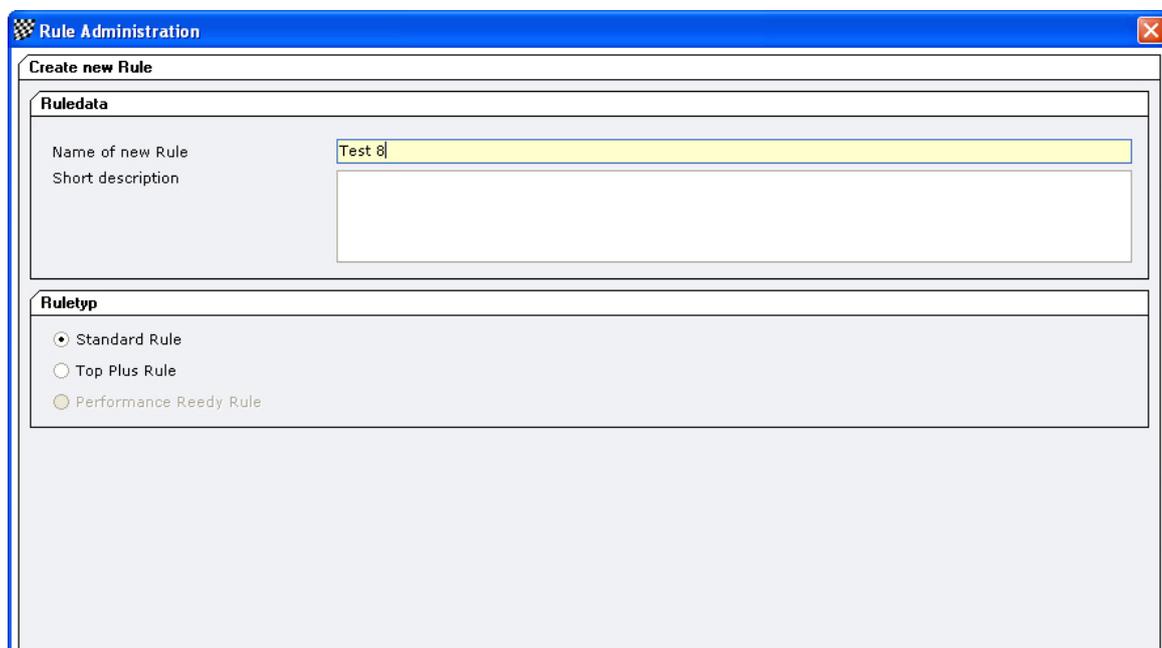
Copy a rule: An existent rule will be copied to a new name. First you have to select the existent rule and then you have to enter the new name.

When copying a rule, you have to type in the new name in the lower part of the window.

Delete a rule: the selected rule will be deleted. If you delete a rule, you can only execute delete after marking the rule. Before the rule will really deleted you will be asked once more, if you really want to delete the rule.



Create a new rule: First you have to enter a name for the new rule and you can configure the rule.



There are two basic types of rules available: Standard and Top Plus. Standard is used if the rule is applied to all drivers. Top Plus means that the drivers are divided in two shares after practice or qualification (according to the ranking list). You can set different rules for the top drivers and the lower drivers. If you select Top Plus Rule a window opens where you can set the rule for the top section and the Plus section. You can define which heats will be run together. Further on you have to input the number of drivers for the Top section and the number of drivers for the Plus section.

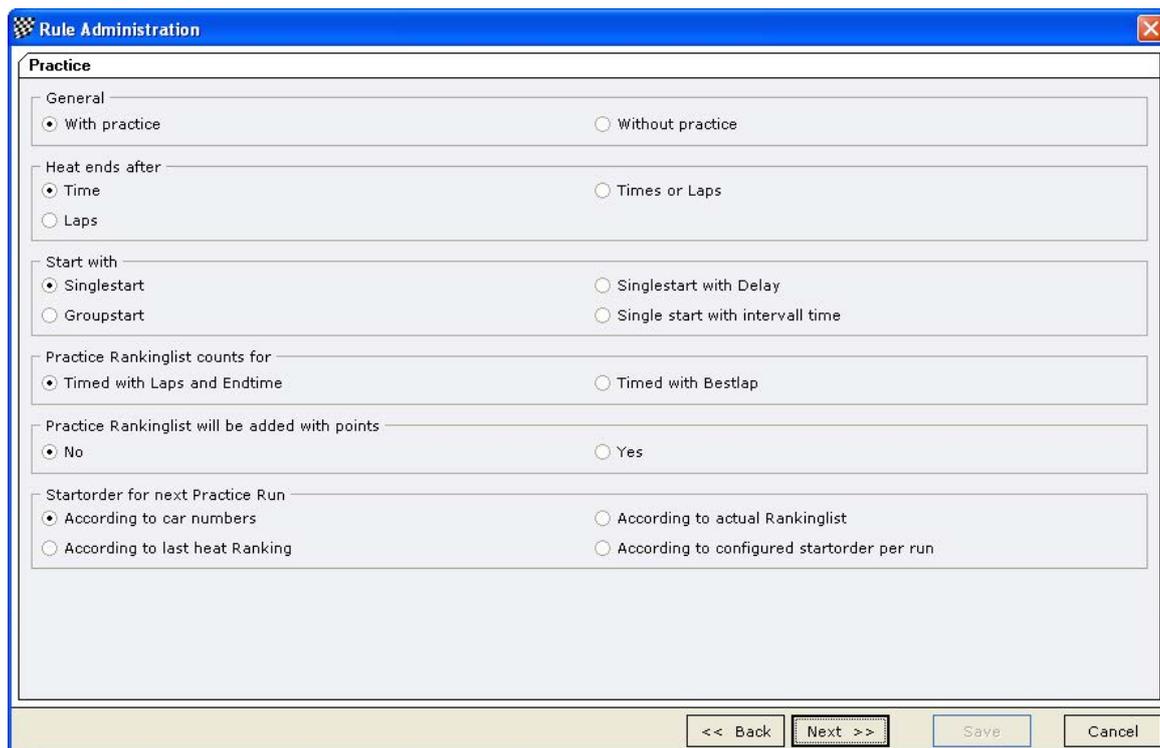
2.3.2 Validation of the rule

Several configurations depend on other values. For example it is not possible to count more heats than raced. Such errors are logical errors and will be displayed in magenta.

Several inputs have to be in a specific range. For example the number of drivers per heat can not be 0 or the race time can not be 0. This mistakes are marked blue. All errors must be corrected before you can go on.

2.3.3 Practice rules

General: To run the race with practice heats you have to activate “with”. If non is activated, you can not start any practice heats and you can not arrange practice heats.



The screenshot shows the 'Rule Administration' window with the 'Practice' tab selected. The configuration options are as follows:

- General:** With practice, Without practice
- Heat ends after:** Time, Times or Laps, Laps
- Start with:** Singlestart, Groupstart, Singlestart with Delay, Single start with interval time
- Practice Rankinglist counts for:** Timed with Laps and Endtime, Timed with Bestlap
- Practice Rankinglist will be added with points:** No, Yes
- Startorder for next Practice Run:** According to car numbers, According to last heat Ranking, According to actual Rankinglist, According to configured startorder per run

At the bottom of the window, there are buttons for '<< Back', 'Next >>', 'Save', and 'Cancel'.

Heats end after: Time: The heats will be finished after a specific time. Times or laps: The heats will be finished after the number of laps or after the race time is over. Laps: The heats will be finished after a specific number of laps.

Start with: RCM Ultimates offers to you several start modes. Please refer to the chapter “start modes”.

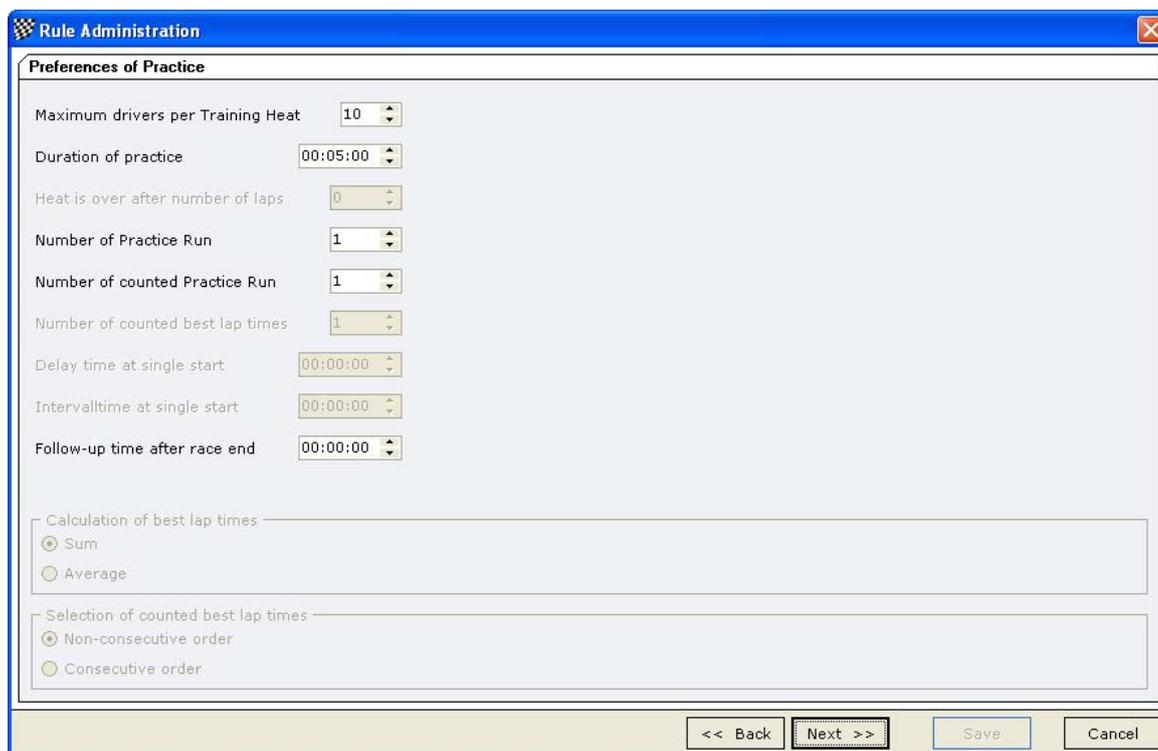
Practice ranking list counts for: The scoring of the practice ranking can be determined by laps and time or by the best laptime of a driver.

Practice rankinglist will be added with points: Yes: The heats will be counted by points. This means, that each round will be counted by laps and time, this ranking

is the basic for a point ranking. The point rankings from the different rounds results in the final qualification result. No: The qualification ranking will be determined by laps and times.

Startorder for the next practice run: You can select whether the starting order is done according to the car numbers, according to the actual ranking list (overall ranking list), according to the result of the last heat or according to a configured starting order (this order can be set in the inventory data).

Depending on the values you entered, you will be led to one or two more windows to enter more details for the practice heats.



Maximum driver per training heat: This is the maximum number of drivers in each heat used at the arrangement of practice heats.

Duration of Practice: time for each practice heat.

Heat is over after number of laps: If the heats are finished after a specific number of laps, enter the value here.

Number of practice run: Enter the number of rounds for the practice.

Number of counted practice run: Enter the number of the best heats being counted for the practice rankinglist. Setting to 1 means that only the best heat is counted, 2 means, that the two best heats are counted.

Number of counted best lap times: If you have selected, that the rankinglist is timed with bestlap, you can enter here the number of best laps to be counted.

Delaytime at single start: If you have selected "Single Start with Delay" you have to enter the delay time here.

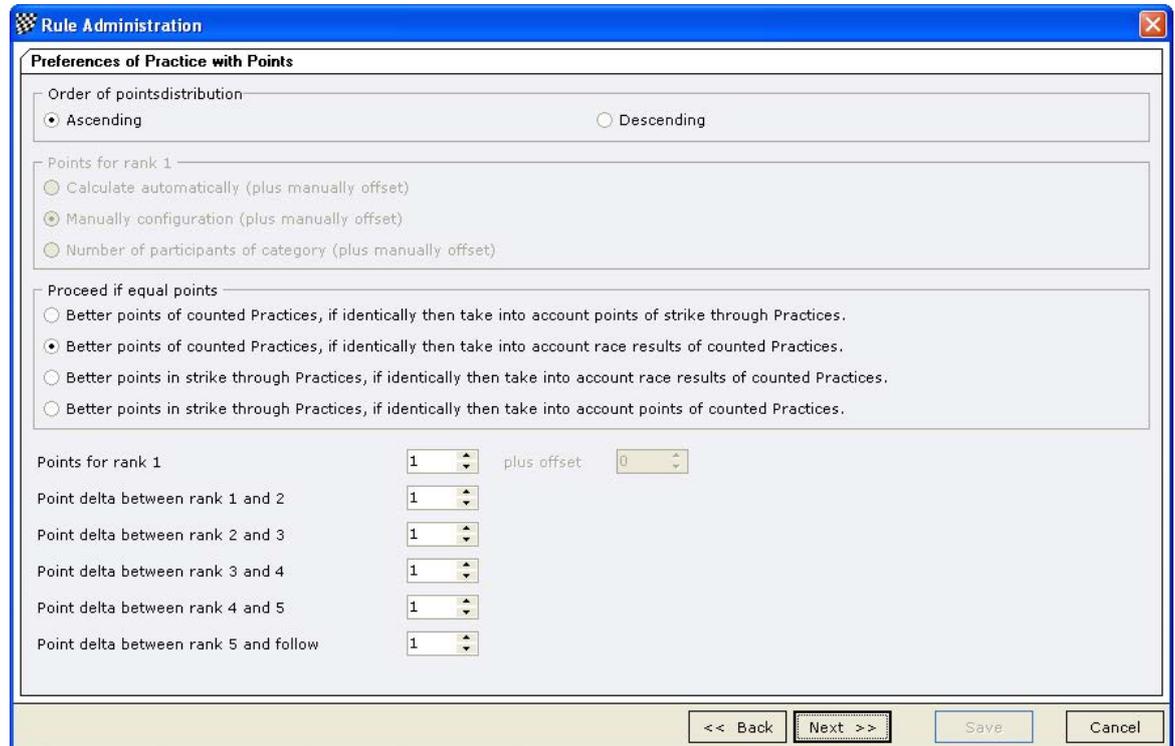
Intervalltime at single start: If you have selected "Single Start with Interval" you have to enter the interval time here.

Follow-up Time after race end: This is the time the timekeeping systems waits after the race end for the drivers to complete their last lap. If it is set to 00:00:00 the timekeeping does not use it.

Calculation of best lap times: You can choose whether the sum of all best times or the average is used.

Selection of counted best lap times: You can select if the best laptimes have to run in consecutive order or not.

If you have activated “Practice rankinglist will be added with points”, the next window allows to you to specify the point system. Otherwise the wizard leads you directly to the qualification.



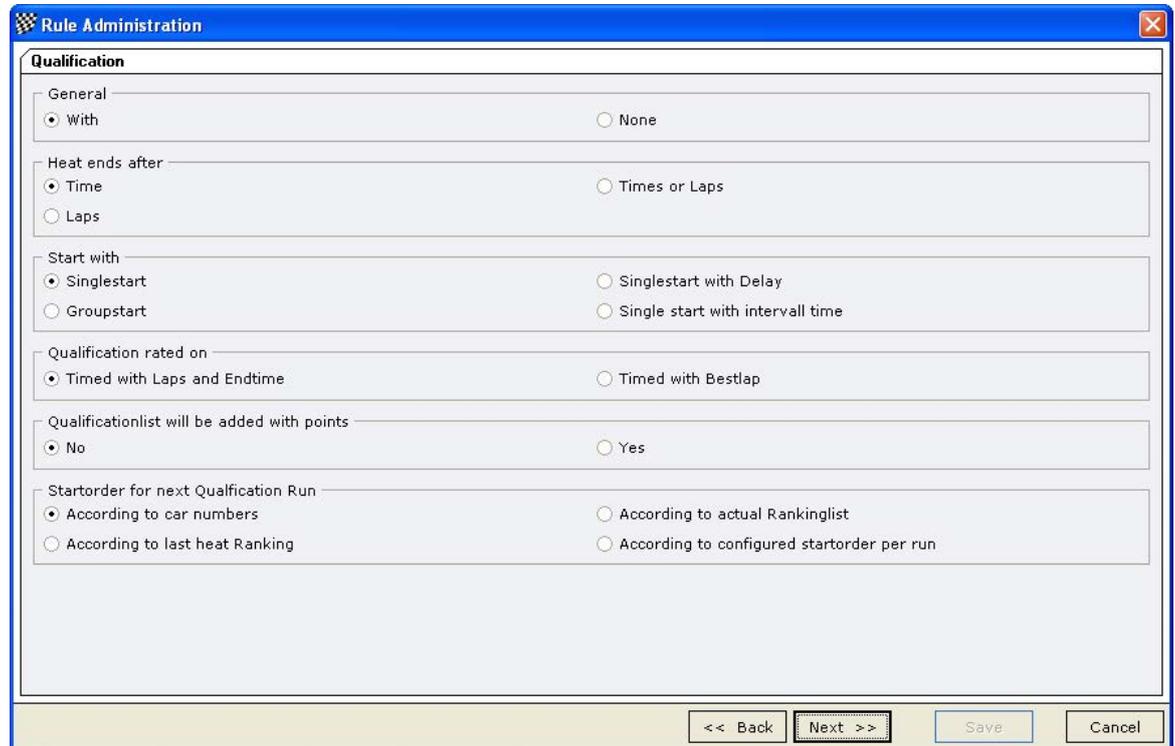
Order of the pointsdistribution: Ascending means, that the first driver has the smallest number of points, descending is the opposite.

If you select the descending point system you can specify, how the points for the first driver will generated. This can be done automatically, manual and according to the number of participants.

In the lower part of the window you can specify, how the points are generated. With the points difference between the first places you can set a bonus for the first places. Further on you can select in this windows how RCM Ultimate resolves tied positions after several heats.

2.3.4 Qualification rules

General: To run the race with qualification heats you have to activate “with”. If non is activated, you can not start any qualification heats and you can not arrange qualification heats.



The screenshot shows the 'Rule Administration' dialog box with the 'Qualification' tab selected. The settings are as follows:

- General:** With, None
- Heat ends after:** Time, Times or Laps
- Start with:** Singlestart, Singlestart with Delay, Groupstart, Single start with interval time
- Qualification rated on:** Timed with Laps and Endtime, Timed with Bestlap
- Qualificationlist will be added with points:** No, Yes
- Startorder for next Qualification Run:** According to car numbers, According to actual Rankinglist, According to last heat Ranking, According to configured startorder per run

At the bottom of the dialog, there are four buttons: '<< Back', 'Next >>', 'Save', and 'Cancel'.

Heats end after: Time: The heats will be finished after a specific time. Times or laps: The heats will be finished after the number of laps or after the race time is over.

Laps: The heats will be finished after a specific number of laps.

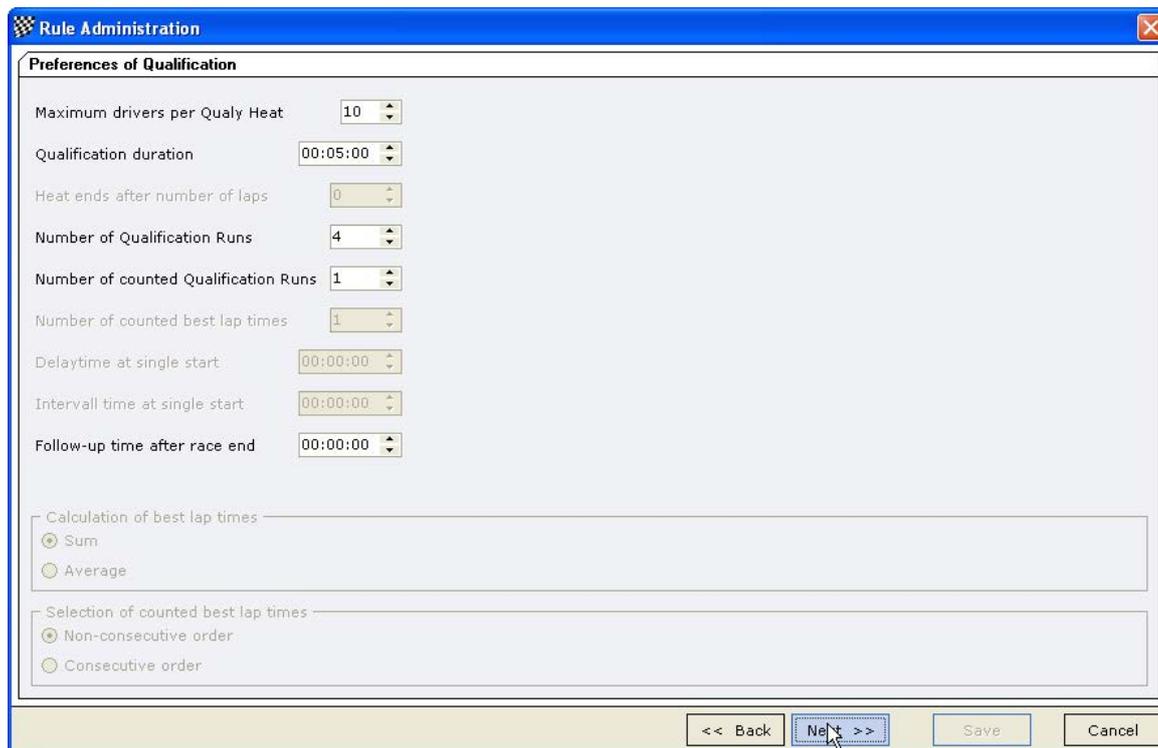
Start with: RCM Ultimates offers to you several start modes. Please refer to the chapter “start modes”.

Qualification ranking list counts for: The scoring of the qualification ranking can be determined by laps and time or by the best lapttime of a driver.

Qualification rankinglist will be added with points: Yes: The heats will be counted by points. This means, that each round will be counted by laps and time, this ranking is the basic for a point ranking. The point rankings from the different rounds results in the final qualification result. No: The qualification ranking will be determined by laps and times.

Startorder for the next qualification run: You can select whether the starting order is done according to the car numbers, according to the actual ranking list (overall ranking list), according to the result of the last heat or according to a configured starting order (this order can be set in the inventory data).

Depending on the values you entered, you will be led to one or two more windows to enter more details for the qualification heats.



Maximum driver per qualification heat: This is the maximum number of drivers in each heat used at the arrangement of qualification heats.

Duration of Qualification: time for each qualification heat.

Heat is over after number of laps: If the heats are finished after a specific number of laps, enter the value here.

Number of qualification run: Enter the number of rounds for the qualification.

Number of counted qualification run: Enter the number of the best heats being counted for the qualification rankinglist. Setting to 1 means that only the best heat is counted, 2 means, that the two best heats are counted.

Number of counted best lap times: If you have selected, that the rankinglist is timed with bestlap, you can enter here the number of best laps to be counted.

Delaytime at single start: If you have selected "Single Start with Delay" you have to enter the delay time here.

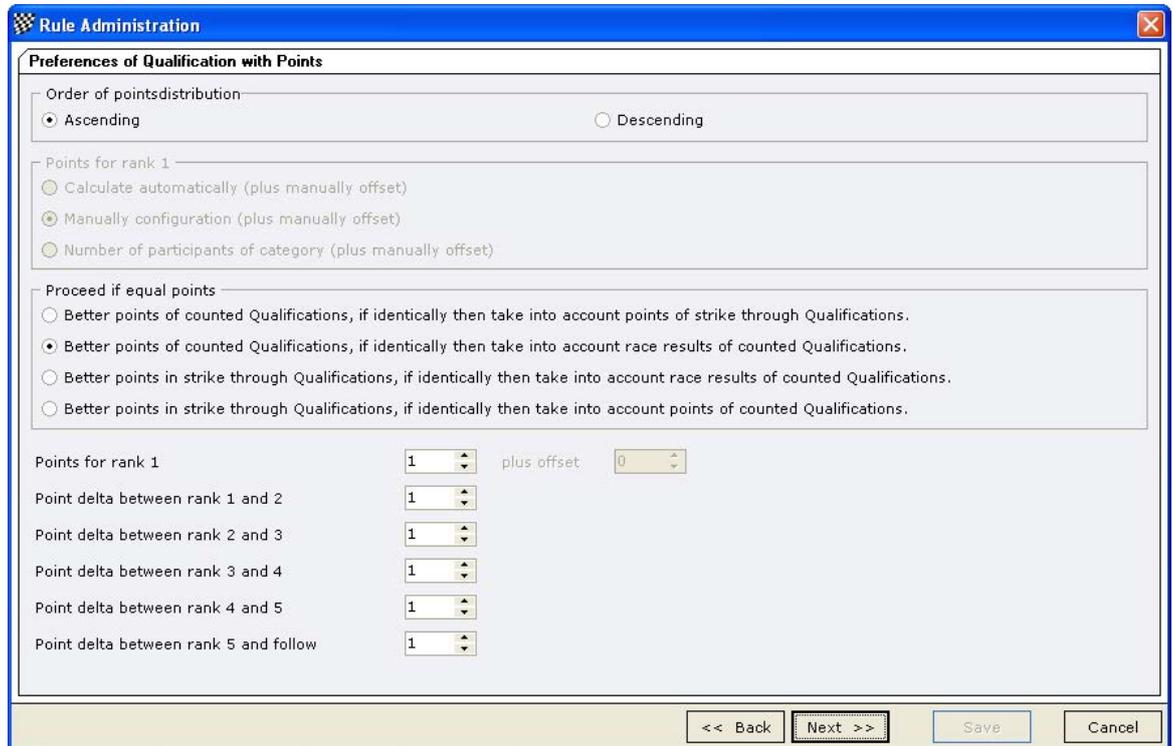
Intervaltime at single start: If you have selected "Single Start with Interval" you have to enter the interval time here.

Follow-up Time after race end: This is the time the timekeeping systems waits after the race end for the drivers to complete their last lap. If it is set to 00:00:00 the timekeeping does not use it.

Calculation of best lap times: You can choose whether the sum of all best times or the average is used.

Selection of counted best lap times: You can select if the best laptimes have to run in consecutive order or not.

If you have activated “Qualification rankinglist will be added with points”, the next window allows to you to specify the point system. Otherwise the wizard leads you directly to the finals.



Order of the pointsdistribution: Ascending means, that the first driver has the smallest number of points, descending is the opposite.

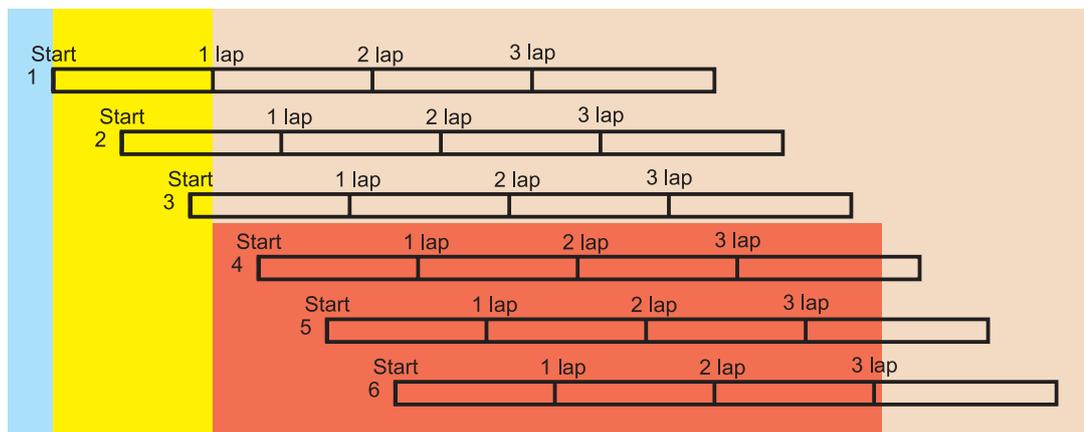
If you select the descending point system you can specify, how the points for the first driver will generated. This can be done automatically, manual and according to the number of participants.

In the lower part of the window you can specify, how the points are generated. With the points difference between the first places you can set a bonus for the first places. Further on you can select in this windows how RCM Ultimate resolves tied positions after several qualification heats.

2.3.5 Start mode

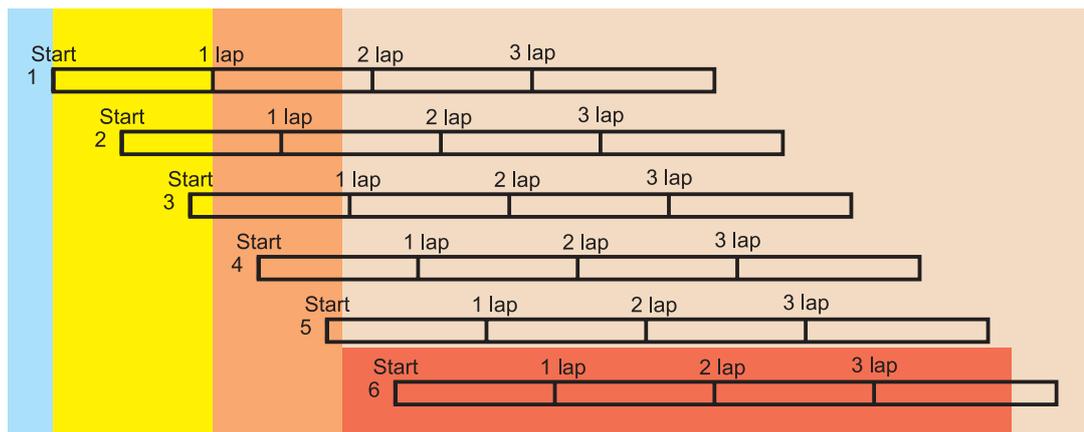
Singlestart: The clock of all drivers not having passed the starting line will be started when the first driver has finished his first lap. These drivers can not race for the full racetime.

The following graphic shows the preparation time in light blue. The time the drivers must start is yellow. The clock for all drivers not having passed the starting line will be started when the first driver has finished his first lap. This is shown red in the graphic. The cars number 4, 5 and 6 can not race anymore the full racetime.



Singlestart with delay: Works similar as the single start. After the first driver has finished his first lap, there is an additional delaytime, giving the drivers more time for the start. In between this delaytime, the driver can start as well. The clocks of the drivers not having passed the starting line will be started after the delaytime. Drivers starting after the delaytime can not race the full racetime anymore.

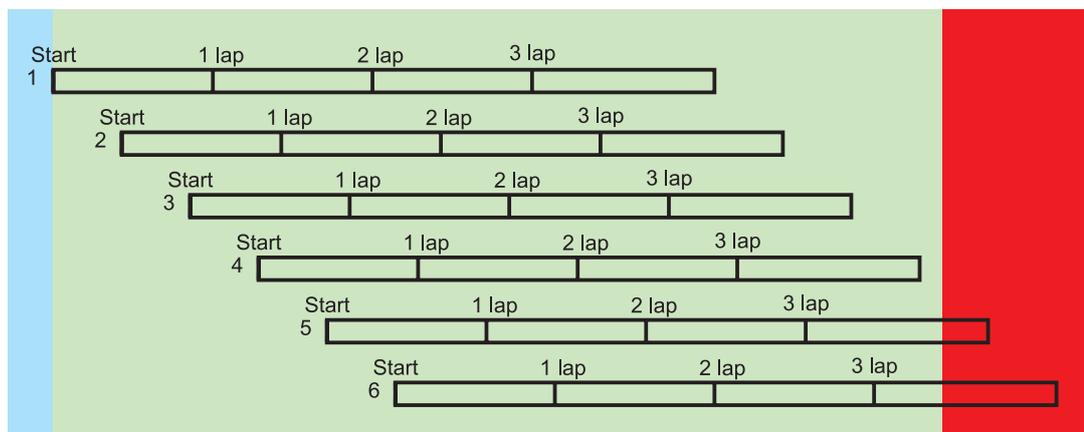
The following graphic shows the preparation time in light blue. The time the first driver needs to finish his first lap is yellow. After that the delaytime begins (orange). Only if the delaytime is gone, the clocks for all cars will be started not having passed the starting line. This is shown red in the graphic. Only car number 6 is starting too late and can not run the full racetime.



Singlestart with interval: When the first driver is passing the starting line after the preparation time, the interval time is activated. In between that interval time all drivers can race their race. When the interval time is finished, the race will be finished. An example: The race time is 5 minutes and the interval time is 7 minutes. After the first driver passed the starting line, the other drivers have 2 minutes time to start their race. Do they start after these 2 minutes, they can not run the full racetime of 5 minutes.

The following graphic shows the preparation time in light blue. The start of the first car activates the interval time (light green), in which the drivers have to run their

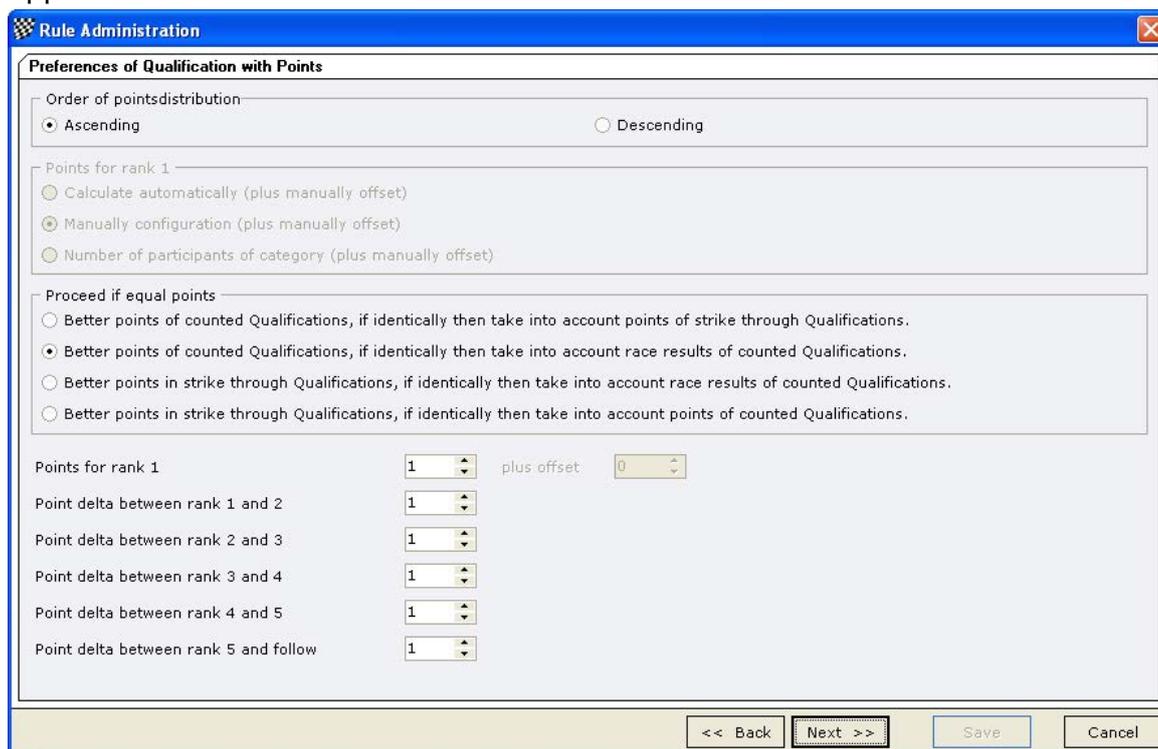
race. If the interval time is finished, the race will be finished. In the graphic car 5 and 6 can not run the full racetime, cause they have not completed their racetime when the interval time was over (red).



Groupstart: The clocks of all drivers start running with the starting signal.

2.3.6 Points in heats

Order of the pointsdistribution: Ascending means, that the first driver gets the smallest number of points and the other drivers get more points , descending is the opposite.



If you select the descending point system you can specify, how the points for the first driver will generated. This can be done automatically, manual and according to the number of participants.

In the lower part of the window you can specify, how the points are generated. With the points difference between the first places you can set a bonus for the first places.

Examples:

Ascending: To produce the following rankinglist the settings have to be: Ascending and below the points have to set to 0, 2, 1, 1, 1. This setting results in the following rankinglist:

1. Name 1 15 05:01:15 0
2. Name 2 15 05:02:25 2
3. Name 3 15 05:03:35 3
4. Name 4 15 05:04:45 4
5. Name 5 15 05:05:55 5
6. Name 6 14 05:01:65 6
7. Name 7 14 05:03:75 7
8. Name 8 14 05:05:85 8
9. Name 9 14 05:07:95 9 and so on

Descending: To produce the following rankinglist the settings have to be:

Descending and below the points have to set to 35, Offset 0, 1, 1, 1, 1. This setting results in the following rankinglist:

1. Name 1 15 05:01:15 35
2. Name 2 15 05:02:25 34
3. Name 3 15 05:03:35 33
4. Name 4 15 05:05:55 32
5. Name 5 15 05:05:55 32
6. Name 6 14 05:01:65 30
7. Name 7 14 05:03:75 29
8. Name 8 14 05:05:85 28
9. Name 9 14 05:07:95 27 and so on

Place 4 and 5 shows, that the points are equal for an equal result.

Procedure in case of a tied position: This procedure is only used, if the points are calculated for more than one round of heats.

Better points of counted Qualification, if identically than take into account points of strike through Qualifications: First the single point values of the counted rounds are compared. If the drivers have identical point values, the points of the rounds not counted will be compared.

Better points of counted Qualifications, if identically than take into account race results of counted Qualifications: First the single point values of the counted rounds are compared. If the drivers have identical point values, the number of laps/time of the counted rounds will be compared.

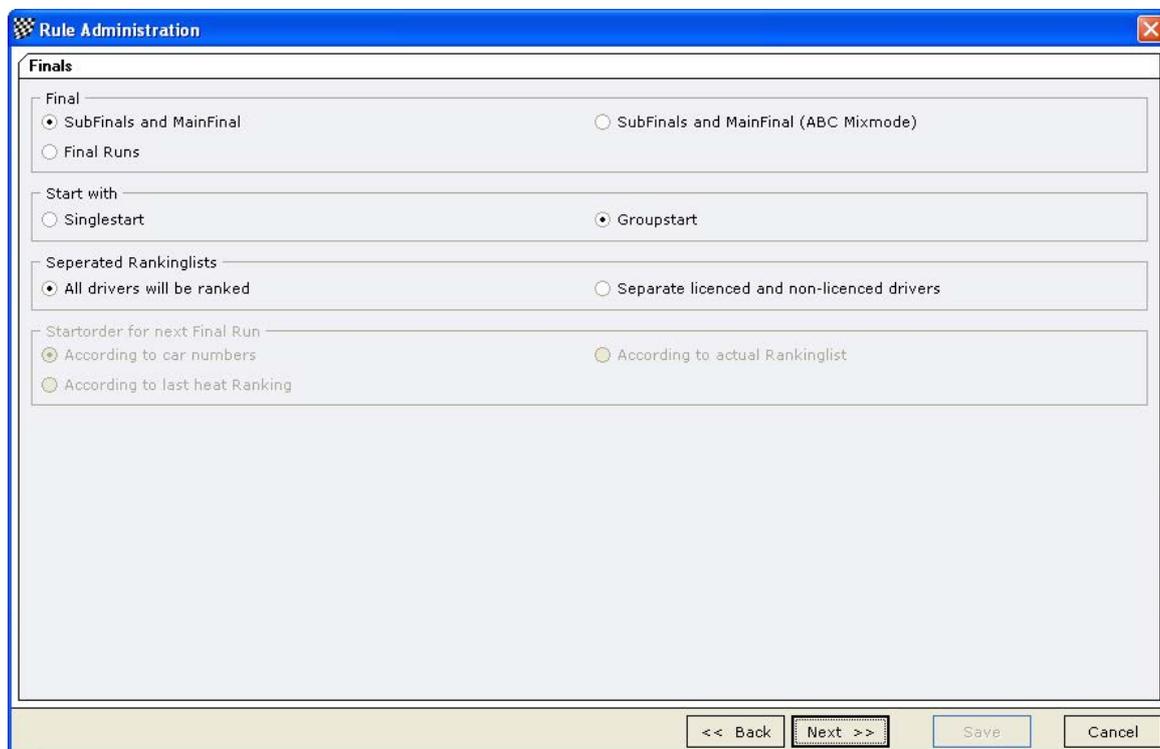
Better points in strike through Qualifications, if identically than take into account the race results of counted Qualifications: First the single point values of the not counted rounds are compared. If the drivers have identical point values, the number of laps/time of the counted rounds will be compared.

Better points in strike through Qualifications, if identically than take into account points of counted Qualifications: First the single point values of the not counted rounds are compared. If the drivers have identical point values, the single point values of the counted rounds are compared.

Points for rank 1: This setting is only for the descending order. The number of drivers will be counted and the points will be given according to this number. For example: if you have 37 drivers, 37 is the basis for the first place. To give more points to the better drivers, you can add an Offset to the first place as well as distance to the next placed drivers can be defined.

2.3.7 Rules for the finals

The main selection for the finals is the question to run subfinals and mainfinal or only Finals (Heart of America System). Additional you can select subfinal and mainfinal (ABC Mixmode). In this mode you run the subfinals with drivers moving up but after the subfinals you will have more finals for the lower placed drivers. For example the drivers of place 11th to 20th, 31st to 30th run finals too.



Start with Singlestart: The finals will be started with singlestart.

Start with groupstart: The finals will be started with groupstart.

Separate Rankinglists: You can choose, whether all drivers will be in one rankinglist or if the rankinglists are generated for licensed and not licensed separately. A licensed driver is set in the inventory data/persons, the field licensed must be activated. If this is not activated, the driver is handled as a non licensed driver, independent from inputs in the other fields of the license.

The startorder for the next final run is only active when Final runs are selected.

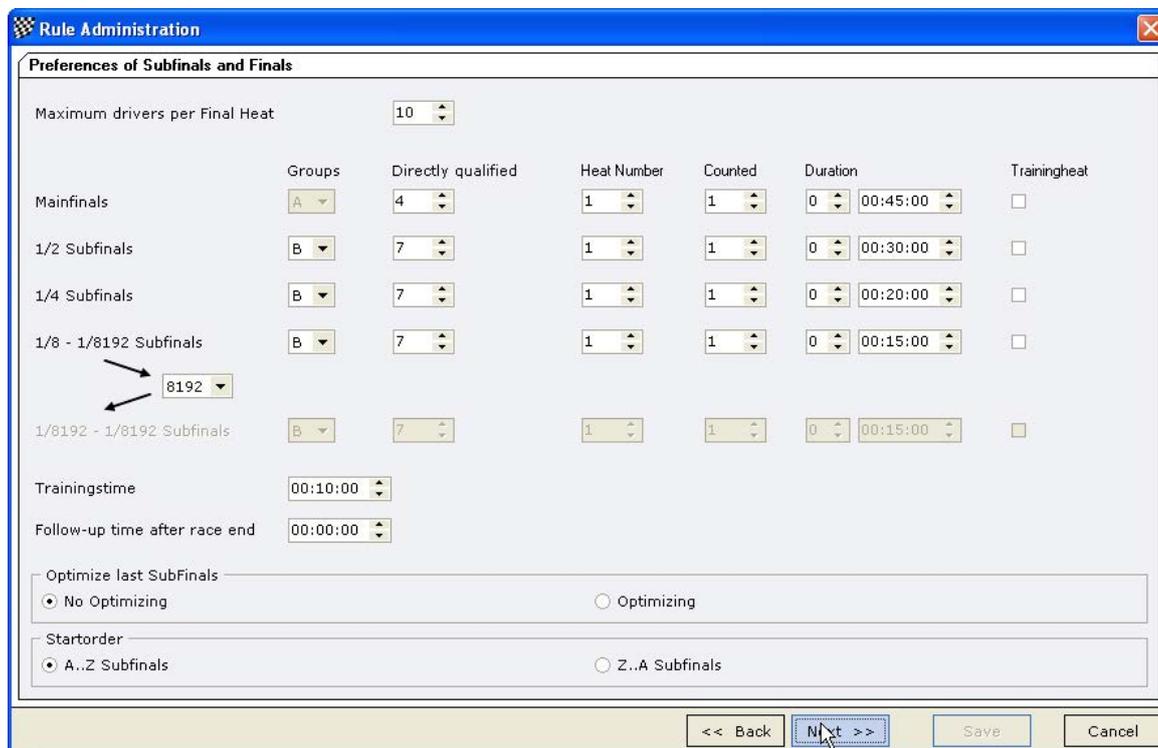
According to car number: The starting order will always be 1 to 10 independent of the results of any final.

According to actual rankinglist: The final will be shown in the race overview (time keeping) in the order of the ranking list and this will be the start order.

According to last heart ranking: The next final will be shown in the race overview according to the result of the last run of this final. The cars are started in that order.

2.3.8 Subfinals and Mainfinal

This system is widely known as Christmas tree and includes one mainfinal and the subfinals in arms (normally two, A and B, but you can select other values).



The screenshot shows a software window titled "Rule Administration" with a sub-header "Preferences of Subfinals and Finals". It contains several configuration options:

- Maximum drivers per Final Heat:** A dropdown menu set to "10".
- Mainfinals:** A table with columns: Groups (A), Directly qualified (4), Heat Number (1), Counted (1), Duration (0 00:45:00), and Trainingheat (checkbox).
- 1/2 Subfinals:** Groups (B), Directly qualified (7), Heat Number (1), Counted (1), Duration (0 00:30:00), Trainingheat (checkbox).
- 1/4 Subfinals:** Groups (B), Directly qualified (7), Heat Number (1), Counted (1), Duration (0 00:20:00), Trainingheat (checkbox).
- 1/8 - 1/8192 Subfinals:** Groups (B), Directly qualified (7), Heat Number (1), Counted (1), Duration (0 00:15:00), Trainingheat (checkbox).
- 1/8192 - 1/8192 Subfinals:** Groups (B), Directly qualified (7), Heat Number (1), Counted (1), Duration (0 00:15:00), Trainingheat (checkbox). A dropdown menu next to it is set to "8192".
- Trainingtime:** A time input field set to "00:10:00".
- Follow-up time after race end:** A time input field set to "00:00:00".
- Optimize last SubFinals:** Radio buttons for "No Optimizing" (selected) and "Optimizing".
- Startorder:** Radio buttons for "A..Z Subfinals" (selected) and "Z..A Subfinals".

At the bottom of the window are buttons for "<< Back", "Next >>", "Save", and "Cancel".

Maximum driver per final heat: Number of the drivers in each final, normally the finals will be run with 10 drivers.

Groups: Defines how many lines are run (A, B, C etc,) For the normal Christmas tree system select A for the mainfinal and B for the subfinals.

Directly qualified: The number of drivers taking part in that final according to the ranking after the qualification.

Heat number: The number of heats are run for a final. Normally it is set to 1.

Counted: If you run more than one heat per final, you can select how many of the heats are counted.

Duration. Here you have to specify the race time. The first box is the day. A 24-h-race has to be configured as 1 00:00:00.

Trainingheat: If activated, the drivers for that final have the possibility to run a practice round. The result of this practice does not affect the final ranking list.

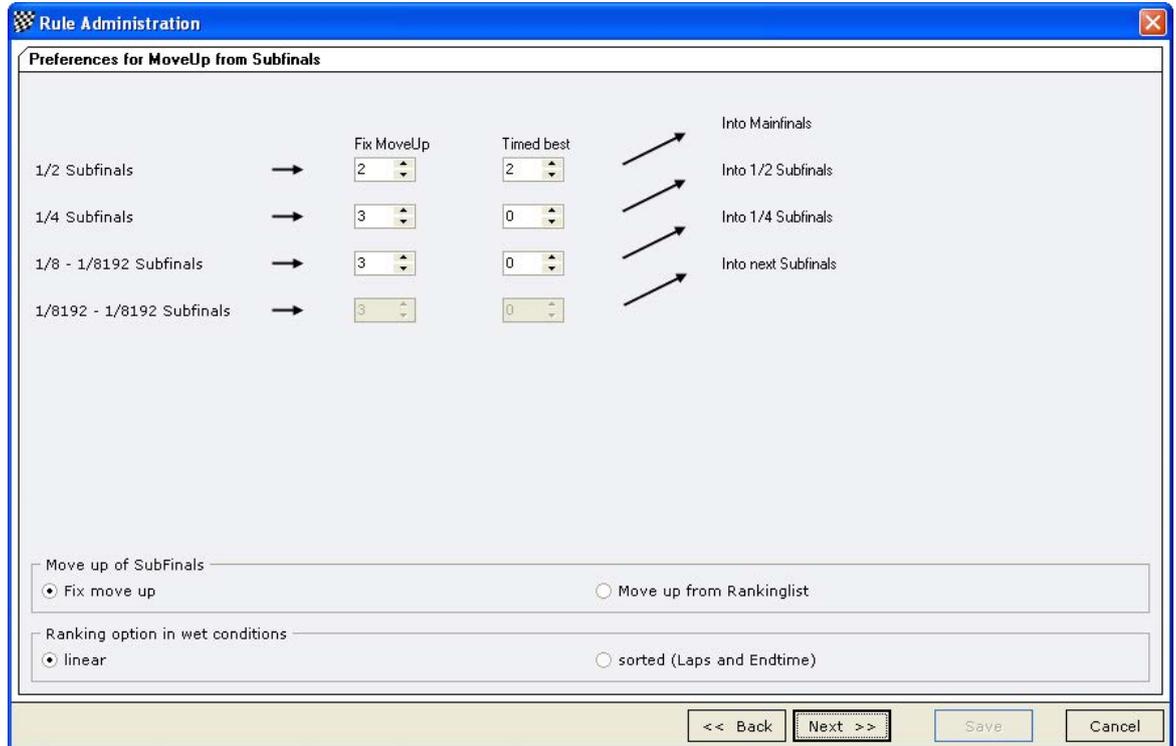
Trainingtime: The duration for the practice round.

Follow-up Time after race end: This is the time the timekeeping systems waits after the race end for the drivers to complete their last lap. If it is set to 00:00:00 the timekeeping does not use it.

Optimize last subfinals: If you select Optimizing, the last subfinals will be combined if the number of drivers is less or equal to the Maximum drivers per Final Heat. This saves sometimes a Final. Selecting No Optimizing means, that the subfinals will be run in the number of the selected lines.

Startorder: This will define the order of the finals. A ... Z Subfinals starts with the A-Subfinal followed by B, C and so on. Z ... A Subfinals starts with the Z-Subfinal (having selected two lines with B under Groups the B-Final will be started first).

In the next window you can specify the preferences for the moveup from subfinals. Fix move up: The number of drivers moving up according to the result of the subfinal (place).



Subfinal Type	Fix MoveUp	Timed best	Destination
1/2 Subfinals	2	2	Into Mainfinals
1/4 Subfinals	3	0	Into 1/2 Subfinals
1/8 - 1/8192 Subfinals	3	0	Into 1/4 Subfinals
1/8192 - 1/8192 Subfinals	3	0	Into next Subfinals

Move up of SubFinals
 Fix move up Move up from Rankinglist

Ranking option in wet conditions
 linear sorted (Laps and Endtime)

Timed best: Number of drivers moving up to the next upper final by a mixed result of all lines (A, B, C ...) with the best laps and times.

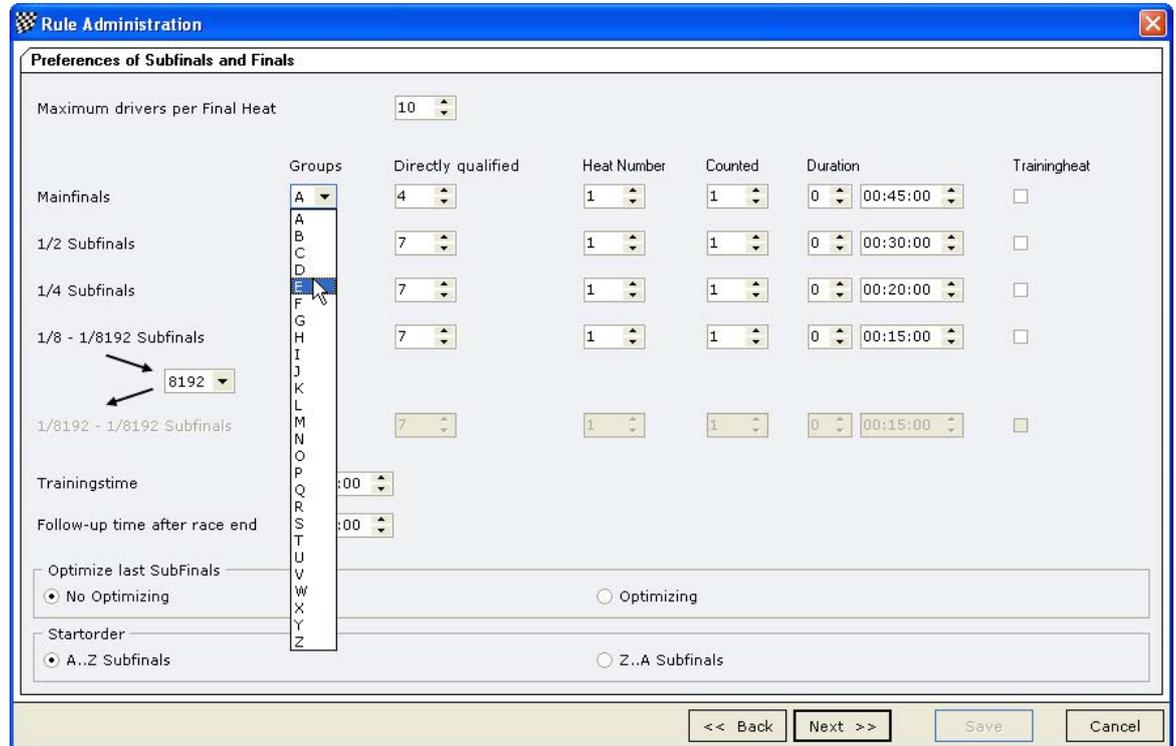
The move up of subfinals: Fix move up means, that the drivers move up in the groups (A, B or C ...), for example the best drivers from the B subfinal move up to the next higher B-subfinal. Move up from rankinglist means, that a rankinglist is made for the drivers moving up and the first will move up to the next higher A-subfinal, the second to the B-subfinal and so on.

Ranking Option in wet condition: Linear means, that the drivers move up according to their position in the subfinal and no timed best result is used. The places for the best timed drivers will be spread out to the subfinals and there are only fixed move ups.

Sorted (laps and times) means that the configuration of best timed move ups are changed to fixed. All first places are compared and the fastest driver will be moved up to the next higher A-final, the second best in the B-Final and so on.

2.3.9 Subfinals and Mainfinal (ABC Mixmode)

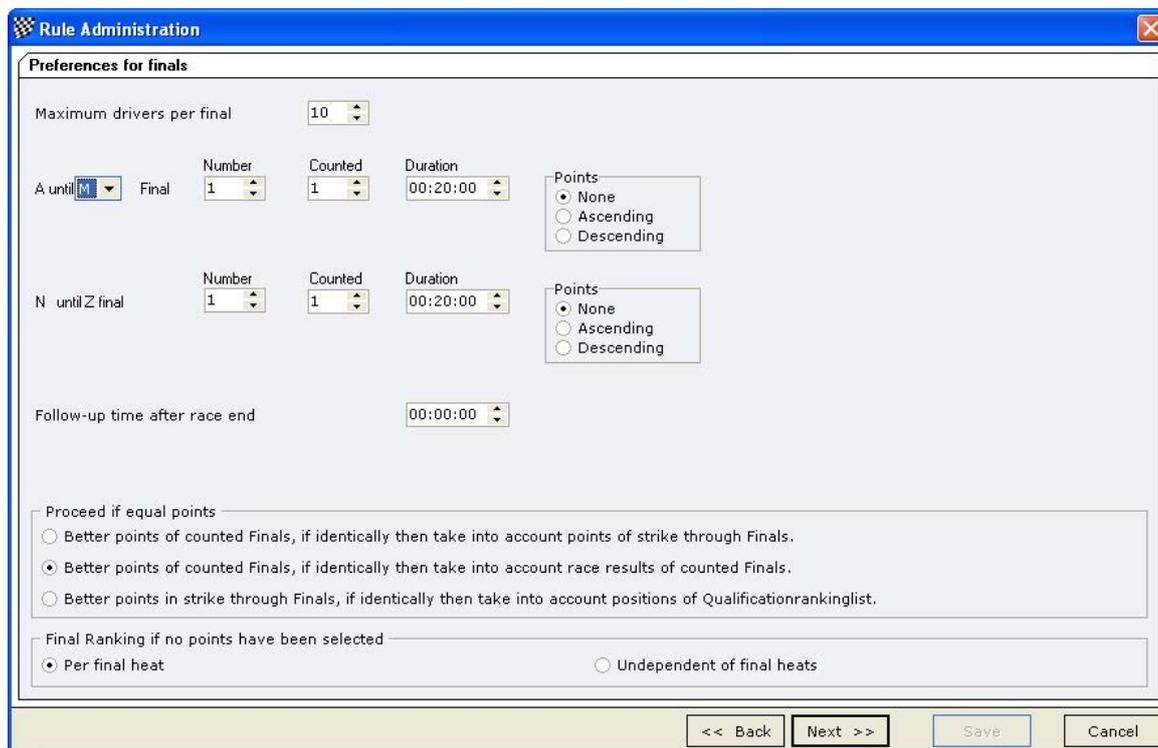
This window is the same as Subfinal and Mainfinal. It only differs in the handling of selection of groups at the mainfinal.



If you select more heats for the mainfinal you run additional finals for the lower placed drivers (after the subfinals have been run). If you enter "C" for example, there will be 3 mainfinals run. This means, that there were additional mainfinals generated for the drivers placed 11th to 20th and 21st to 30th after the subfinals.

2.3.10 Finals

If you select only final runs, other inputs are necessary.



The screenshot shows the 'Rule Administration' window with the following settings:

- Maximum drivers per final: 10
- A until: M Final, Number: 1, Counted: 1, Duration: 00:20:00, Points: None (selected), Ascending, Descending
- N until Z final, Number: 1, Counted: 1, Duration: 00:20:00, Points: None (selected), Ascending, Descending
- Follow-up time after race end: 00:00:00
- Proceed if equal points:
 - Better points of counted Finals, if identically then take into account points of strike through Finals.
 - Better points of counted Finals, if identically then take into account race results of counted Finals.
 - Better points in strike through Finals, if identically then take into account positions of Qualificationrankinglist.
- Final Ranking if no points have been selected:
 - Per final heat
 - Independent of final heats

Buttons at the bottom: << Back, Next >>, Save, Cancel

Maximum driver per final heat: You can set the number of the drivers of the finals. Normally the finals will be run with 10 drivers. The program automatically generates the number of finals needed according to this number. The finals are named in alphabetically order (A to Z).

In this window you can divide the finals in two groups and set the number of final heats, how many rounds are counted and the duration of the finals separate. For example if you specify in the upper line "A until A Finals" , a number of 3, counted 2, you run the A-Final 3 times and you can set for the B- to Z-Finals different values (Number = 1).

Number: Defines how many rounds of finals will be run

Counted: If the finals are run more than one time, you can select, how many results will be counted for the final ranking list.

Duration: The race time for each final.

The finals can be scored with a point system. If you select "none" laps and time will be counted. Selecting ascending means, that the first place gets one point, the second 2 points and so on. Descending is the opposite, the first place gets 10 points (if you have 10 drivers in the finals), the second 9 points and so on.

Follow-up Time after race end: This is the time the timekeeping systems waits after the race end for the drivers to complete their last lap. If it is set to 00:00:00 the timekeeping does not use it.

Proceed if equal points: This is the procedure in case of a tied position. This procedure is only used, if the points are calculated for more than one round of heats.

Better points of counted Finals, if identically than take into account points of strike through Finals: First the single point values of the counted rounds are compared. If the drivers have identical point values, the points of the rounds not counted will be compared.

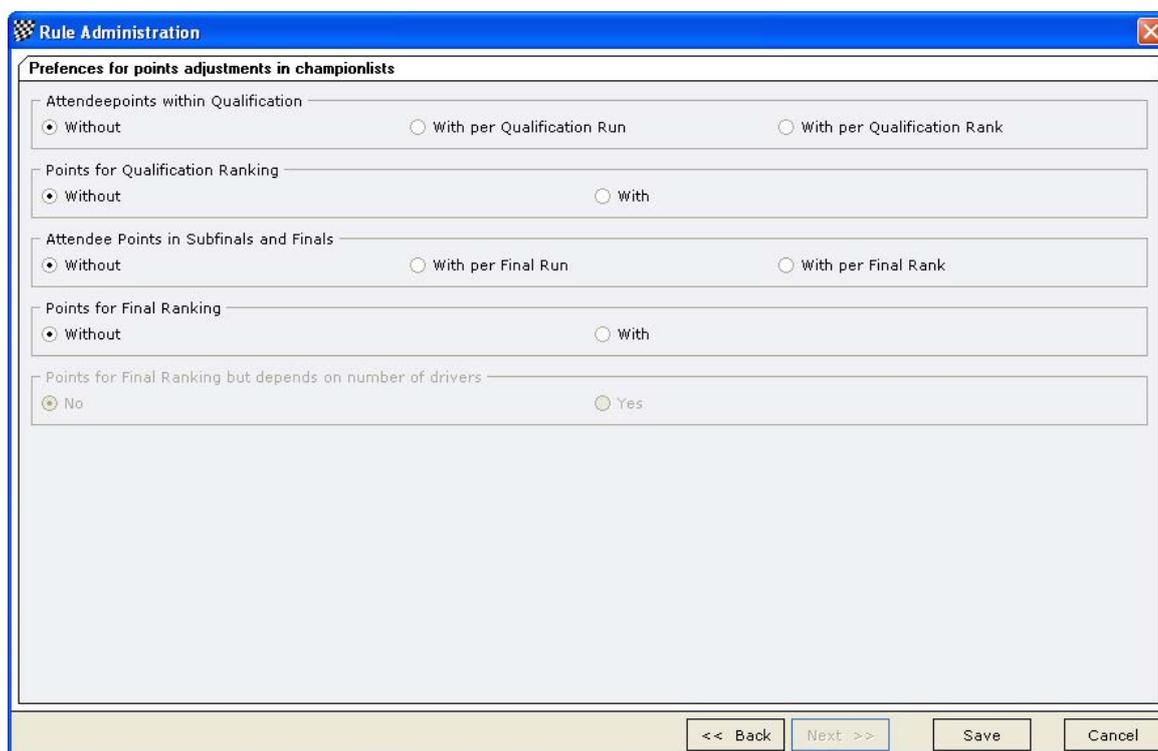
Better points of counted Finals, if identically than take into account race results of counted Finals: First the single point values of the counted rounds are compared.

If the drivers have identical point values, the number of laps/time of the counted rounds will be compared.

Better points in strike through Finals, if identically than take into account positions of Qualification rankinglist: First the single point values of the not counted rounds are compared. If the drivers have identical point values, the tie will be decided by the ranking of the Qualification.

Selecting no point system, you can specify if the final ranking list is determined per final heat or independent of the finals. In the last case a driver of the B-Final with better laps and time than a driver from the A-Final will be placed in front of the driver of the A-final in the final result.

2.3.11 Preferences for Championship point calculation



Attendeepoints within Qualification; Without: no points will be given. With per Qualification round: Independent from the result, points will be given for the attendance in each heat. With per Qualification Rank: A driver gets points if he is present in the qualification ranking list.

Points for Qualification Ranking: The Qualification ranking list is completed with points according to the defined point scheme.

Attendee Points in Subfinals and Finals: Without: no points will be given. With per final run: Independent from the result, points will be given for the attendance in each final. With per Final: A driver gets points if he is present in the final ranking list.

Points for Final Ranking: Without: no points will be given. With: the final ranking list is completed with points according to the defined point scheme.

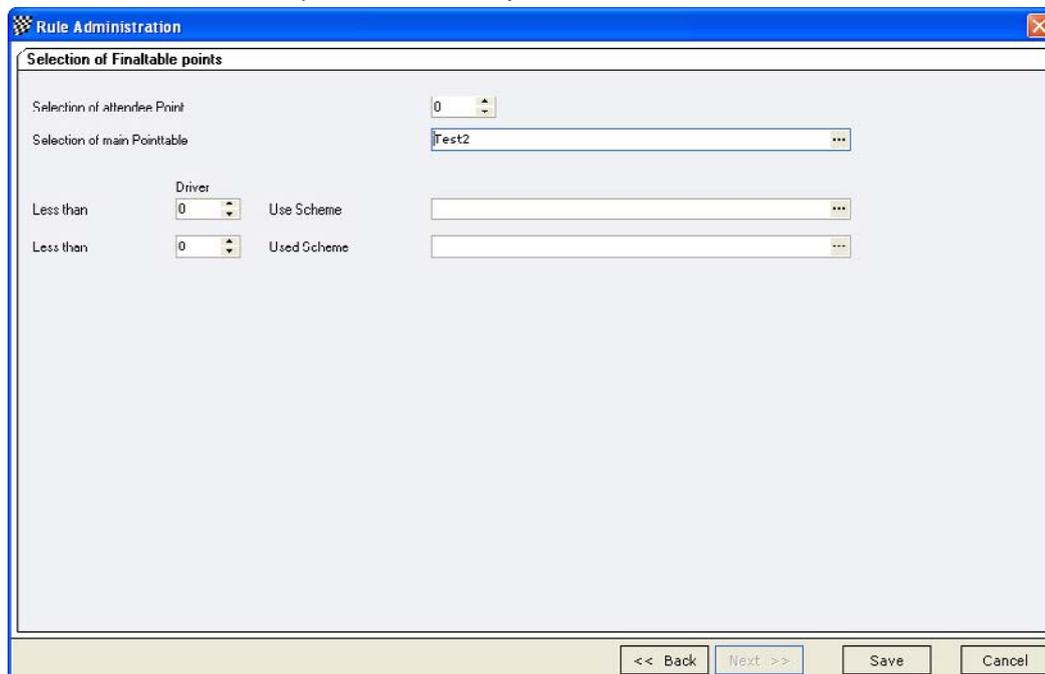
Points for Final Ranking but depends on number of drivers: Yes: According to the number of drivers in the final ranking list you can select different pointschemes.

The picture shows a lot of different settings. Normally points will be only given for the final ranking list..

Clicking on Next opens a windows to define the points for the qualification.

Attendee points data entry: You can specify the points for scoring just the presence

of a driver (as specified in the previous window .
 Selection of Qualification of pointtable: You have to select the point scheme for the Qualification ranking list.
 The next window let you define the points for the finals.



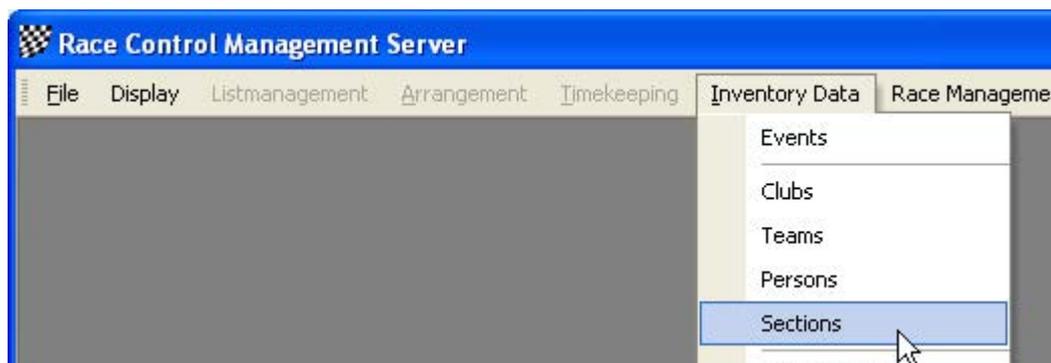
Selection of attendee point: Number of points valid for all drivers attending a final. Then you have to select the point scheme for the final ranking list. If there is no point scheme in the inventory data you have to enter one before. If you have selected, that the point scheme depends on the number of drivers, you can enter two more point schemes with the limits which determine the use of the specified pointscheme.

2.3.12 Finalize the rule configuration

You have to save your work on the last window of the rule configuration. If you click on cancel all of your work is lost. After you have saved your selections, the wizard leads you back to the rule administration.

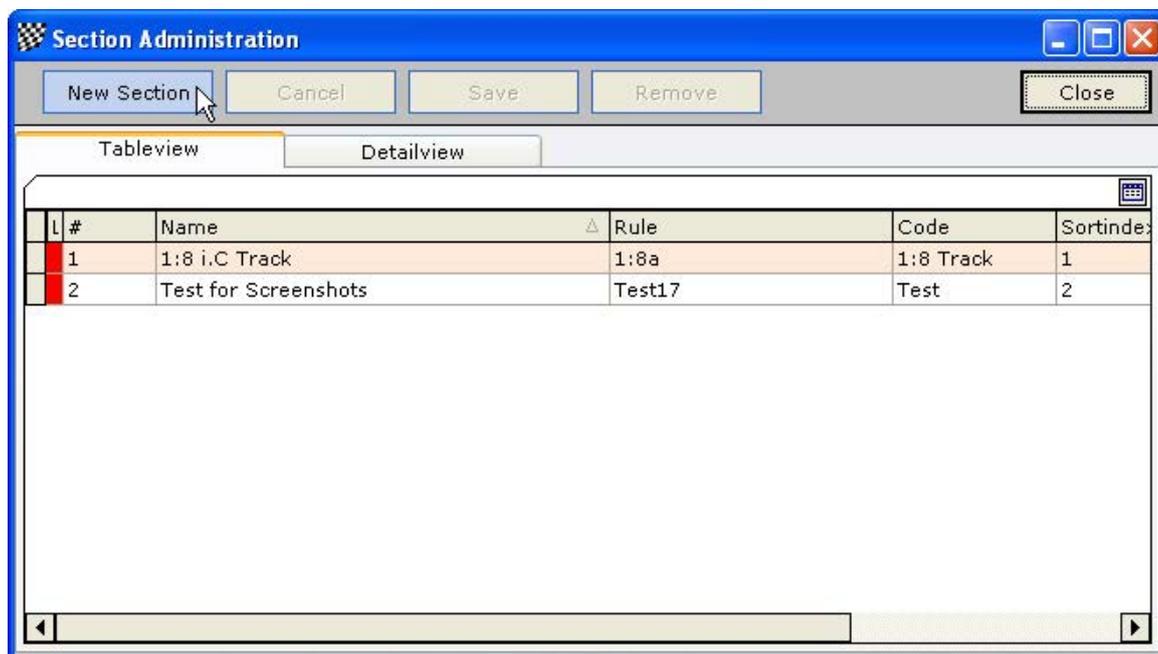
2.4 Which sections

You have to enter all sections needed. If a section does not exist, you have to create it. It is important to assign the appropriate rule to a section. A section is created under Inventory Data/Sections.



In this window you can create a section, change the data of a section and delete a section. To change the data you have to select the section in the list and then use the detail view tab.

To create a new section use the new section button on top of the window.



In the detail view you can enter the following data:

Code: Nickname for the section.

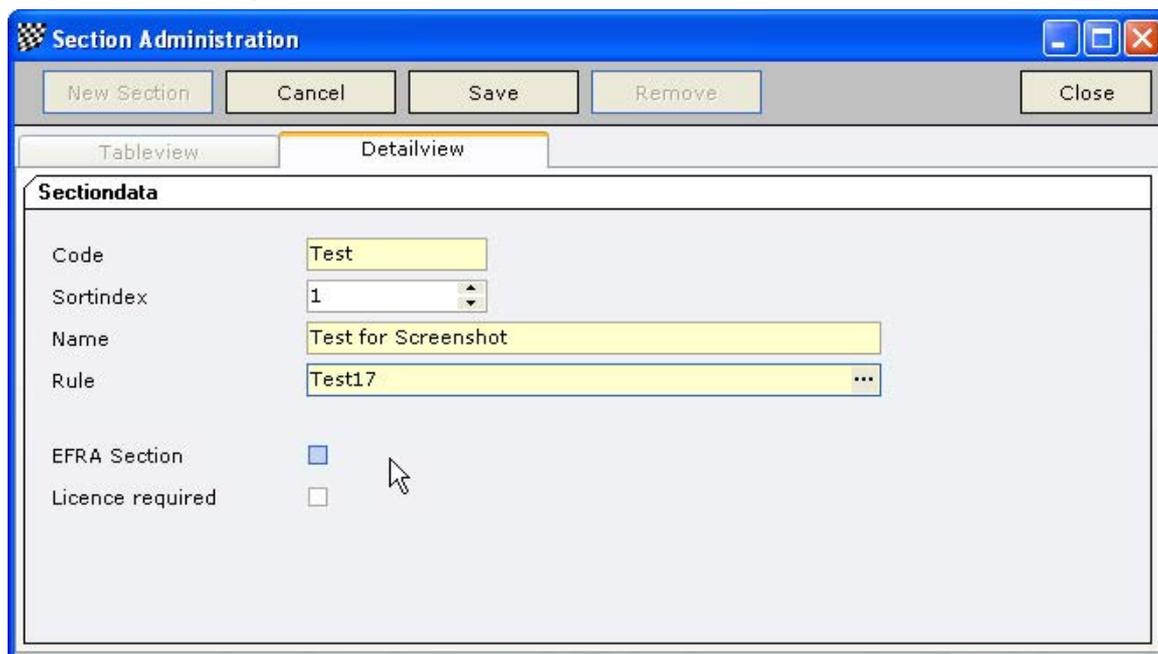
Sortindex: Determine how this section is handled compared with other sections.

The order of the lists for example is affected. Enter 1 for this section which should be on top of the lists, 2 for the second section and so on.

Name: Name of the section in detail.

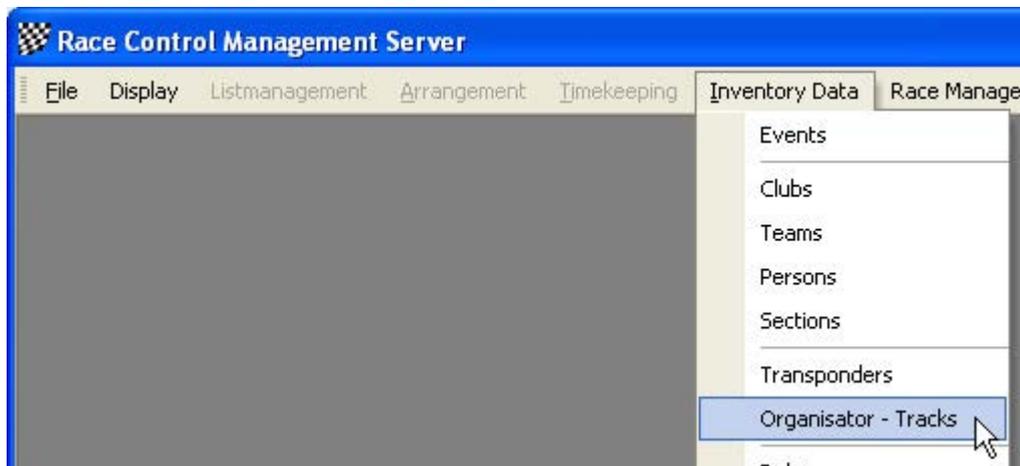
Rule: According to which rule the section is run. It is necessary that a rule is entered and that this rule exist in the database. It must be already defined in inventory data/ rules.

License required: If activated, the license data are assigned to the section and must be entered to the personal data in the sectiona area.



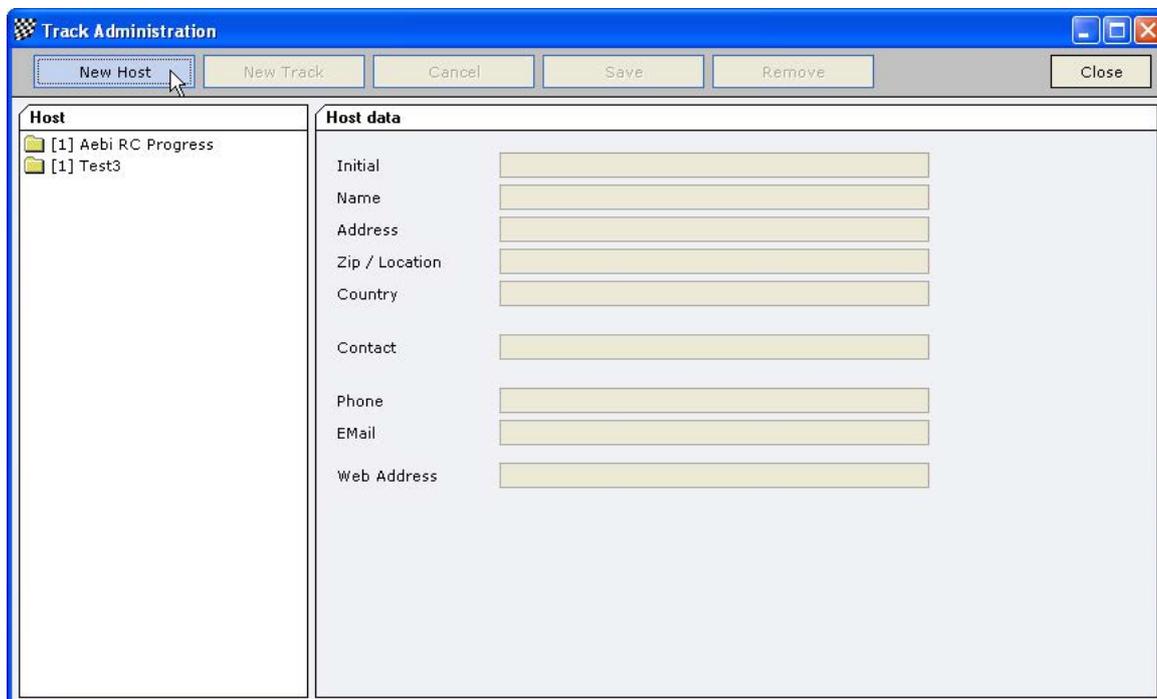
2.5 Which organizer, which track

You have to enter the organizer and the corresponding race tracks. This is usually your own host-name of the organizer, host club or federation. You need to assign one track for minimum. You can add as much tracks as you want if your track has a flexibility in length e.g. or your club uses several race tracks. A Organizer can be entered under Inventory Data/Organisator - Tracks.



2.5.1 Organizer

Organizer are the clubs or persons hosting an event. It is important to have at least one track assigned to an organizer.

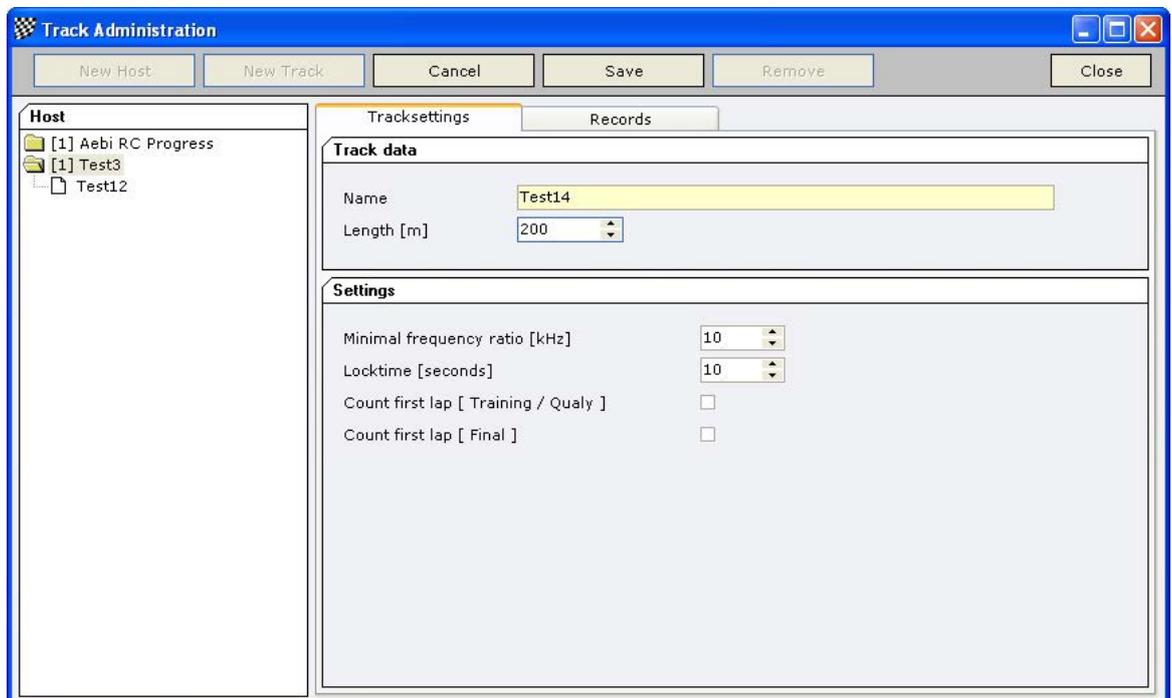
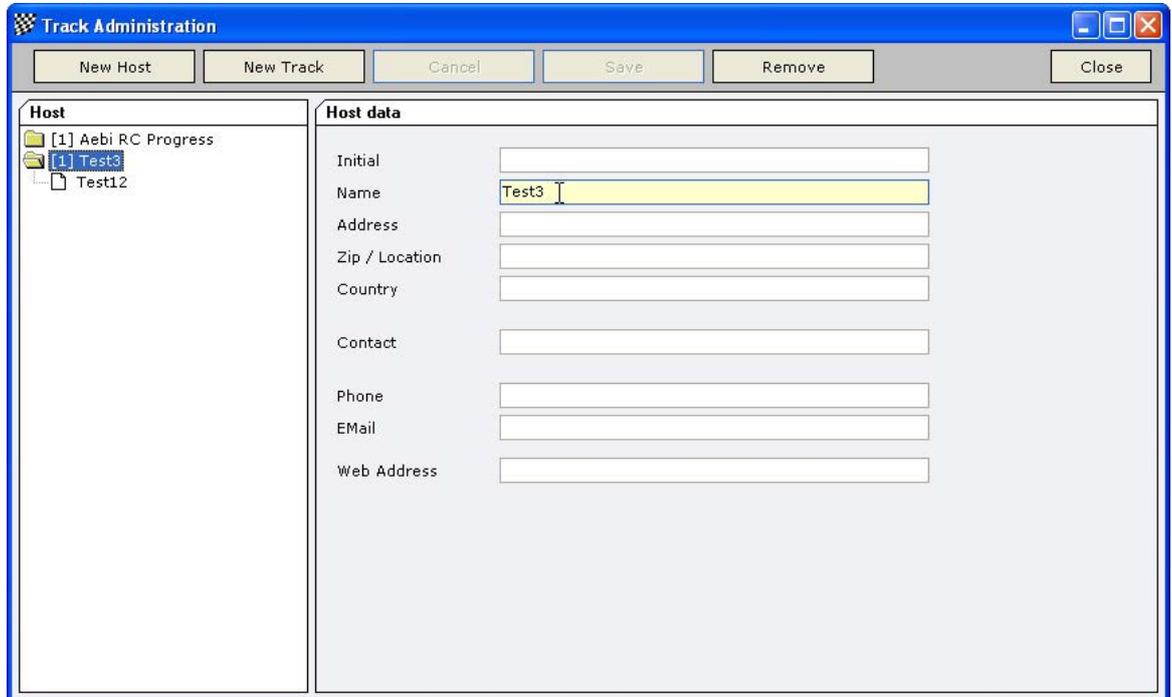


In the left column of the window all organizer are displayed. The number in brackets is the number of the tracks of an organizer. To see the details of an organizer just left click on the name in the list. To create a new organizer use the new host button on the top of the window. At least you have to enter a name - the other fields are not mandatory.

Remark: Without organizer and tracks it is not possible to create an event or you can not add drivers to the driver list.

2.5.2 Tracks

Just click on the organizers name in the left column and you see the tracks just below the organizer. If you want to create a new track, use the new track button on top of the window. This will assign a new track to an organizer. Left clicking on a track will display in the right column the details of the track.



The length of the track is only for information but the minimal frequency ratio is used for the arrangements of the heats and to detect frequency conflicts. Also important is the locktime for the time keeping to avoid very short lap times. Whether the first lap is counted or not depends on the track and is only valid for groupstarts. Counting the first lap can be set different for Practice/Qualification and Finals.

With the Records tab the saved records of the track are displayed.

In the lower part of the right column the historical records and in the upper part the actual records are displayed.

Remove a record: You mark the record in the upper or in the lower list and click on the cross-button right of the table.

Deactivate records: You should preferable use this function instead of removing records. Mark the record in the upper list and click on the arrow down button right of the list. This moves the record to the list of inactivate records. If in a race new records have been run, RCM Ultimate sets the old records to inactive and adds the new records to the active records list.

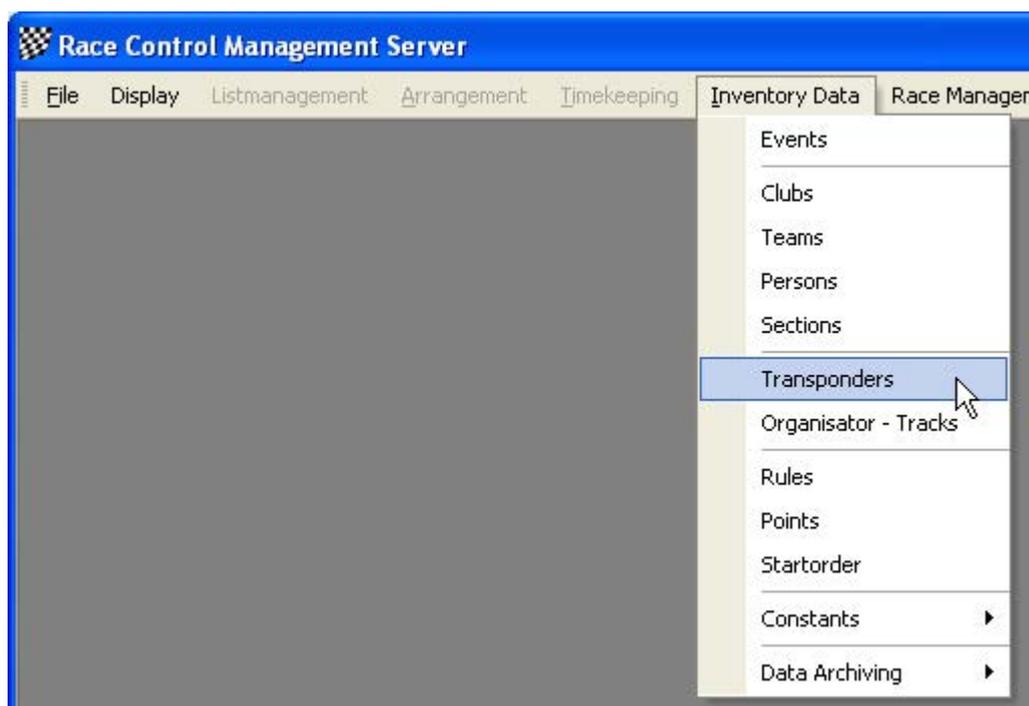
To reactivate a record from the inactive records list mark it in the list and click on the arrow up button right of the list.

Further on you can edit the records as well as add new records. If you want to add a new record, click on the notepad-button on the left and the input dialog for the new record appears. If you want to edit a record, click left on the report and then click on the pencil-button on the left. The details of the record will be displayed and you can edit these.

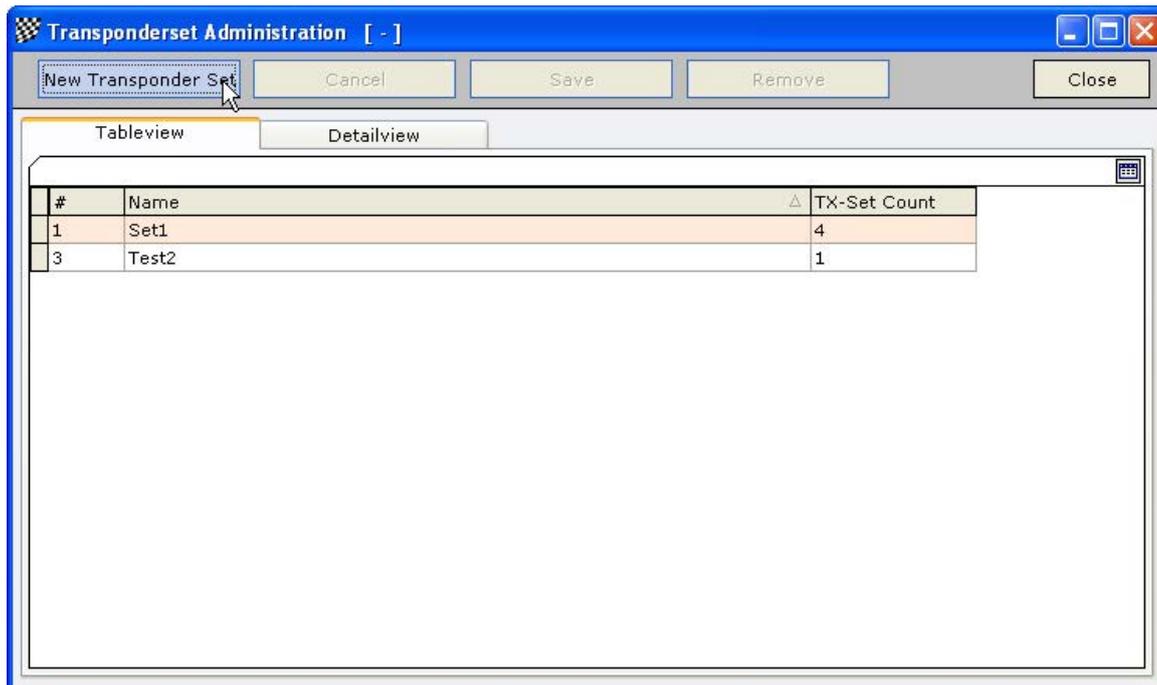
2.6 Which transponder

If the organiser uses handout transponders beside the personal transponders for drivers who have no personal transponder, the transponder numbers have to be entered. RCM Ultimate recognize, whether it will be a personal or a handout transponder.

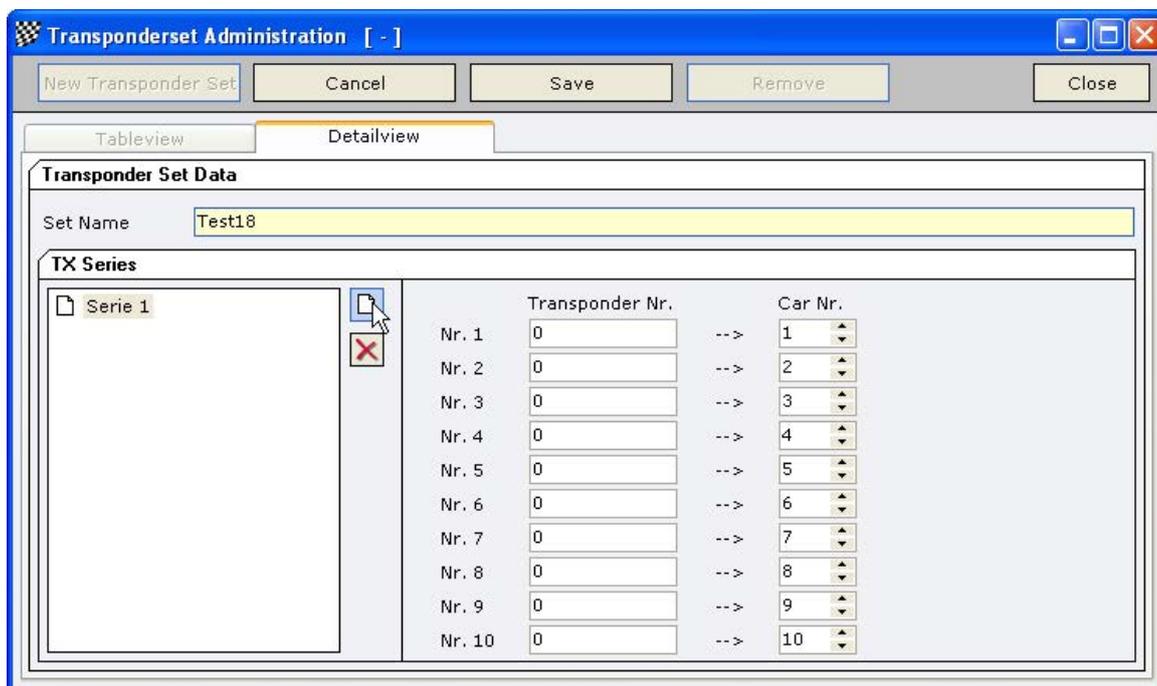
Handout transponders can be used on two different ways. If the transponders are given to the drivers in each heat (by their number), you have to set the transponder set to active. If the transponders are handed out for the whole day, the transponder set have to be set to INACTIVE (menu Tools). In this case, we are speaking of temporary transponders. These have to be entered in the driver data as temporary transponder in each section. There is a routine in RCM Ultimate to delete all temporary transponders in the drivers data. This will normally done at the end of the day after the race.



The transponders have to be entered under Inventory Data/Transponders.



First you have to create a new set using the new transponder set button. After that you have to give the set a name. Using the detail view tab you can enter the transponder numbers in sets of 10.



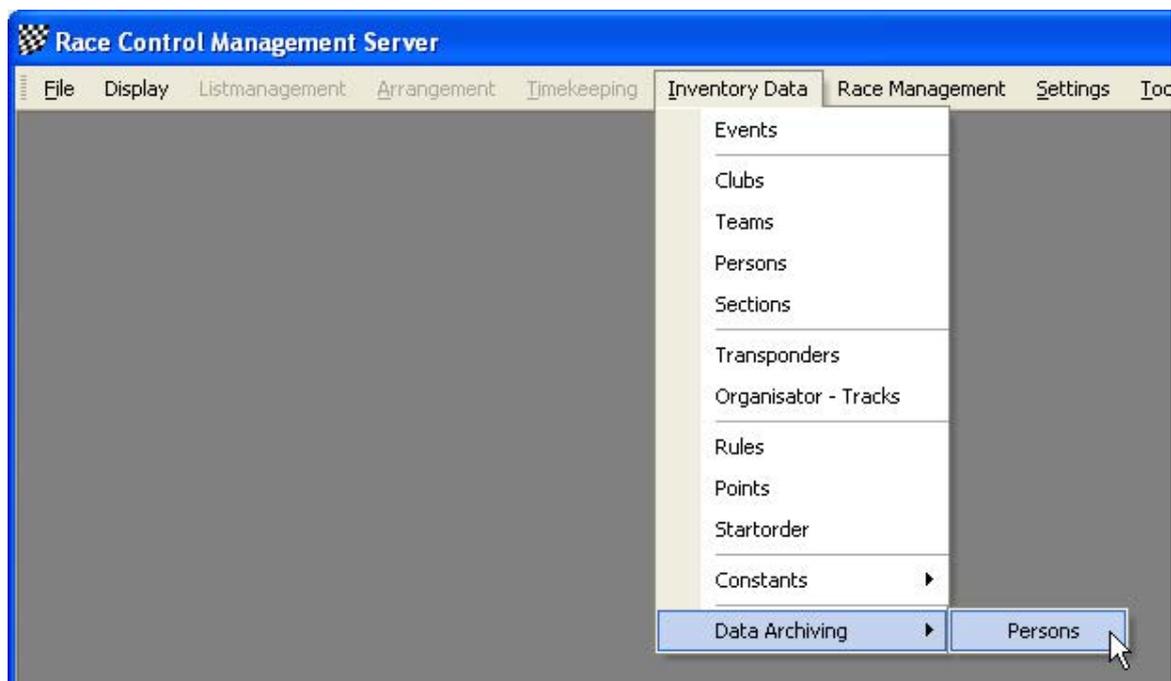
Default is one series. You can add a second series to your set by clicking on the “memo-pad” button (upper button just right of the windows where the series are listed). Please save your work before closing this window. The transponder set marked green in the table view is the active transponder set. Please save your work before you close this window.

2.7 Which drivers

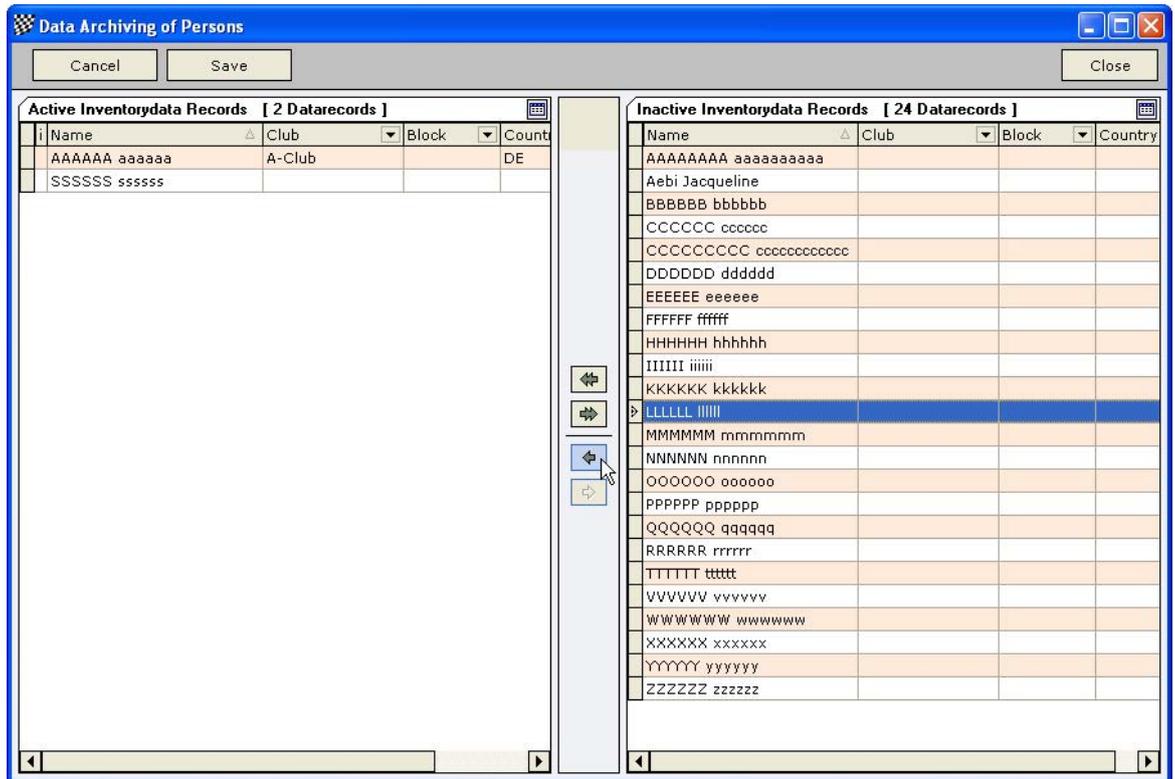
Each driver must be registered at least with his name (the other data is not necessary). Further on, you have to assign the appropriate section to the driver. In the section data, the frequency and the transponder numbers must be entered. If driver is already registered and assigned to the section which will be run, he can be easily added to the driver list of the event. If you add a driver not assigned to the section which will be run, this section will be automatically assigned to the driver but you have to enter the section data (frequency and transponder).

2.7.1 Data archive

Usually the persons in the inventory data will be created by an import of data placed by your national federation for disposal. But not all clubs need all the data. Therefore RCM Ultimate provides a function to archive the personal data. Needed single drivers can be reactivated from the archive. Importing the federation data the drivers will be entered to the archive. Do active drivers exist, the data will be synchronised. If a driver is no more in the federation data, it is assumed that the driver does not have a licence anymore. This driver is automatically set to inactive.



When opening Data Archiving/Persons you see in the left column all activated drivers and in the right column the inactive (archived) drivers.



A driver can be set active by left clicking on his name in the right column and clicking on the left arrow button in the middle between the both columns. To set a driver to inactive left click on his name in the left column and use the right arrow button. Using a filter and/or a multiple selection (press the Ctrl or Shift key when you click on the drivers name) you can set several drivers to active or inactive simultaneous.

The green marked drivers in the left column are participants of the event loaded. These can not be set to inactive.

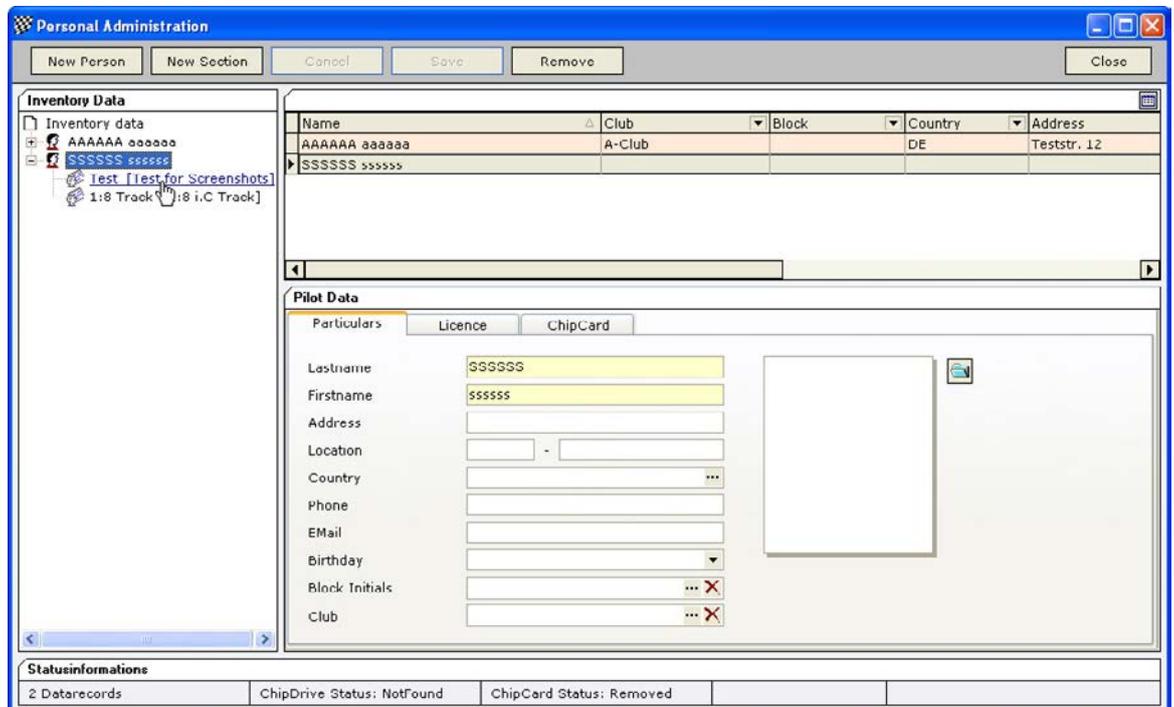
Please note, that you have to use the Save button before closing the window.

2.7.2 Personal data

If there is no data from a federation available or the drivers are not in the federation data, you have to enter the driver under Inventory Data/Persons.



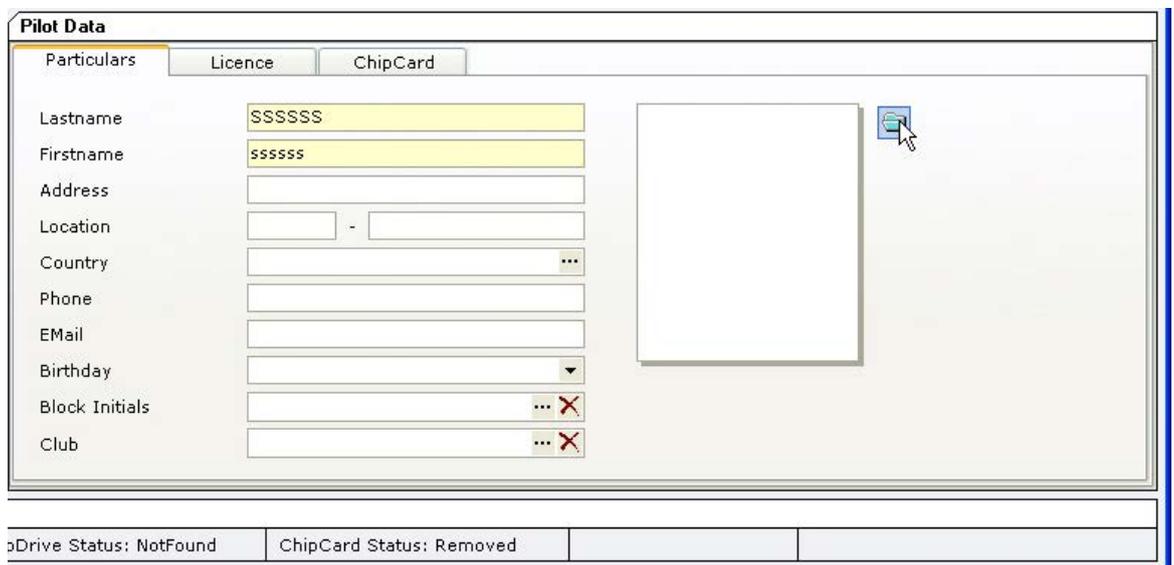
From the list in the right or the left column you can select the person. Left clicking on a person in a list will display the personal data in the lower part of the right column. There you can correct the data. Please note, that if you change or add some data, you have to save it before switching to another person. If a driver is not in the database, you can create a new entry by clicking on the new person button on the top left edge of the window.



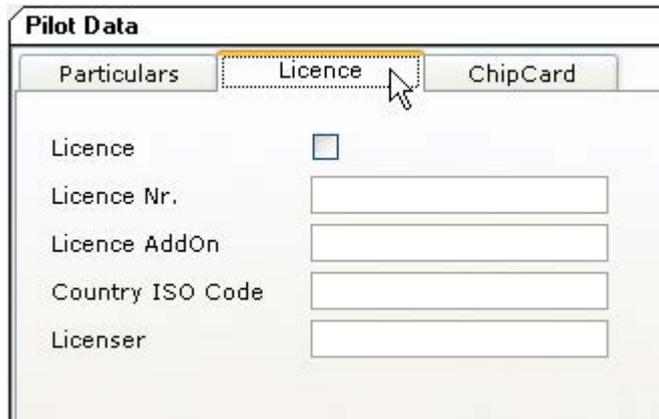
The list of the master data can be searched and navigated as described in chapter 4 in this handbook. By the way, all sorting definitions will be deleted if you close the window and reopen it.

The pilot data in the lower part of the right column is divided in two parts: The particular tab shows all personal data.

Here you can enter name (this is mandatory), address, telephone number, email-address and birth date, the block and the membership of a club. Further on you can affiliate a picture with the driver. Just click on the open button right in the driver data windows. The picture should respect to the following conditions: 150 x 170 pixel, 96 dpi, bmp- or jpg-format.



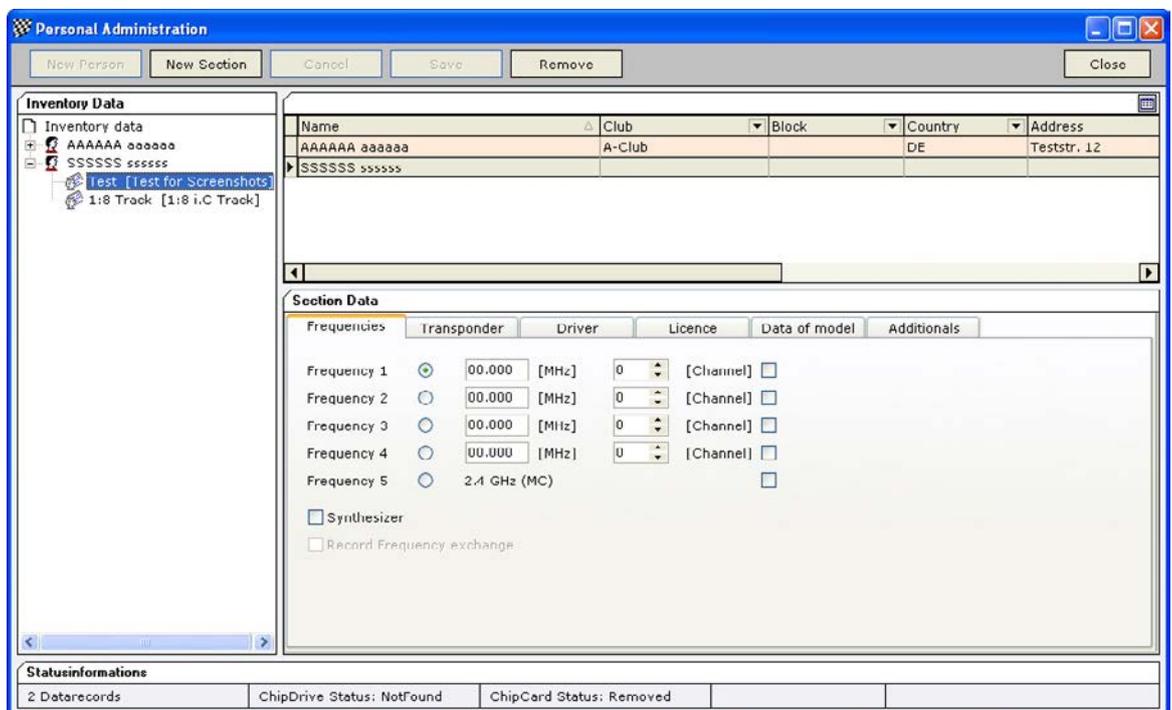
The license can be related to a section and/or to a person. This depends on the data entered in a section. If a license is necessary for a section, the license data is available through the section data. If you race at least one section, where no section license is necessary, you can enter the license information in the pilot data with the license tab.



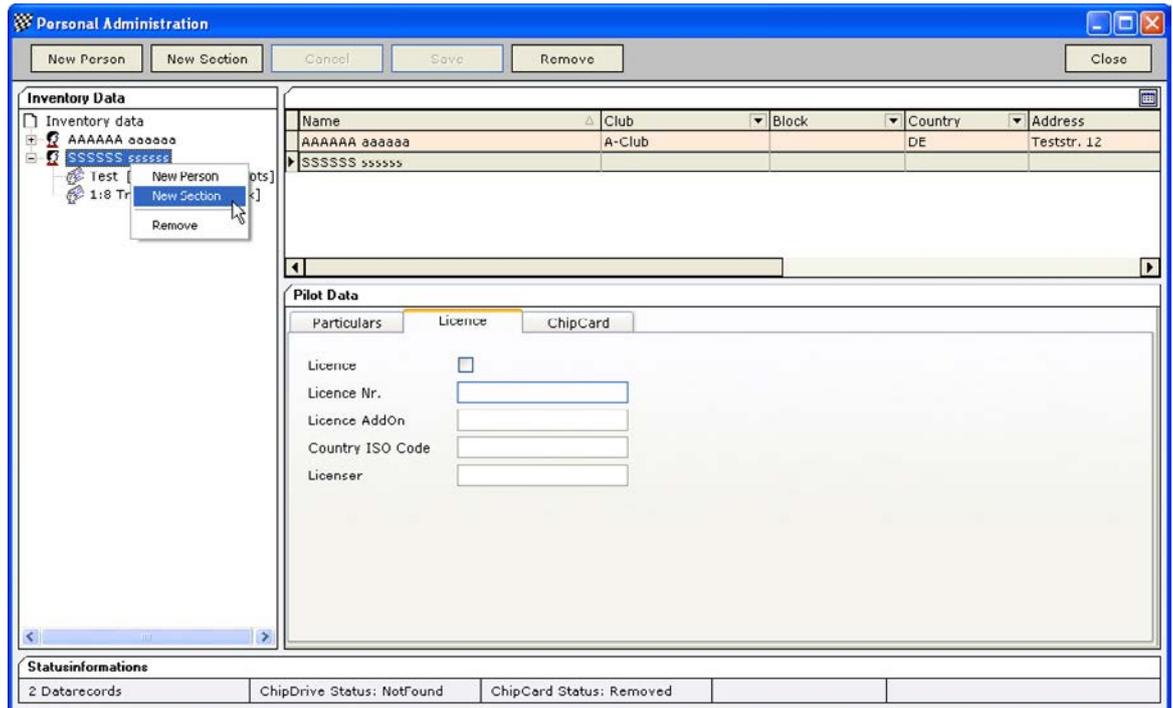
Here you can enter the license number, an add on text, the country code and the licenser. Activating the license box means, that the driver has a license. Please note, that you have to save all changes before moving to another person.

2.7.3 Section based personal data

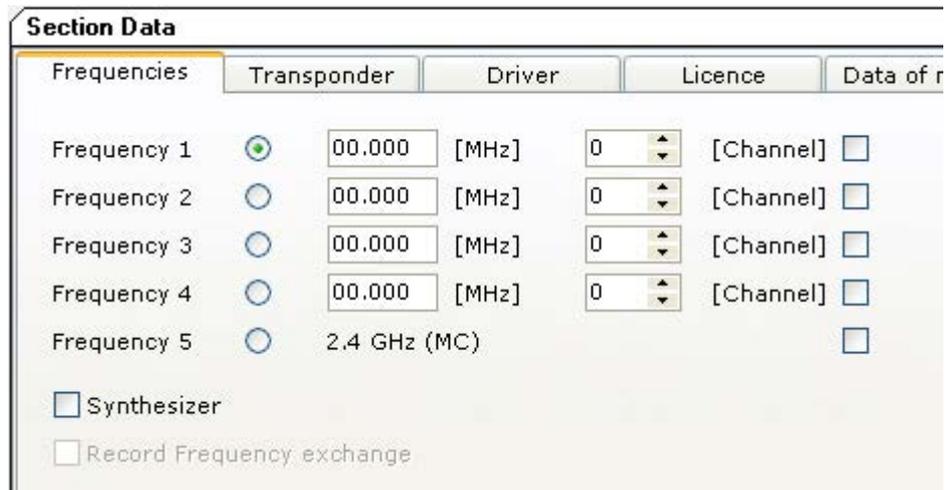
A selected person of the main list is also highlighted in the left column. Drivers marked with a + sing in front are related to sections. You can add a section to a driver by right clicking on his name and selecting new section.



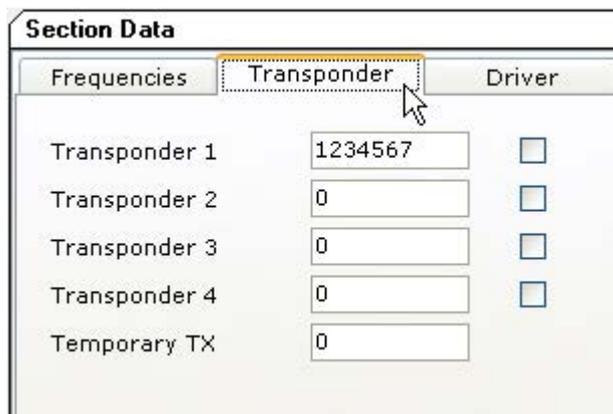
You can also use the new section button on the top of the window. If you mark the persons by clicking while holding the Ctrl-Key pressed you can assign a section to all highlighted persons. Clicking right on a section of a driver you can adopt the data of another section. Deleting a section from a driver is also been done with the submenu you see by right clicking on the section.



If you click on a section of a driver, you will see the section data related to that driver on the lower right column. Frequencies, transponders etc. can be entered for this section.



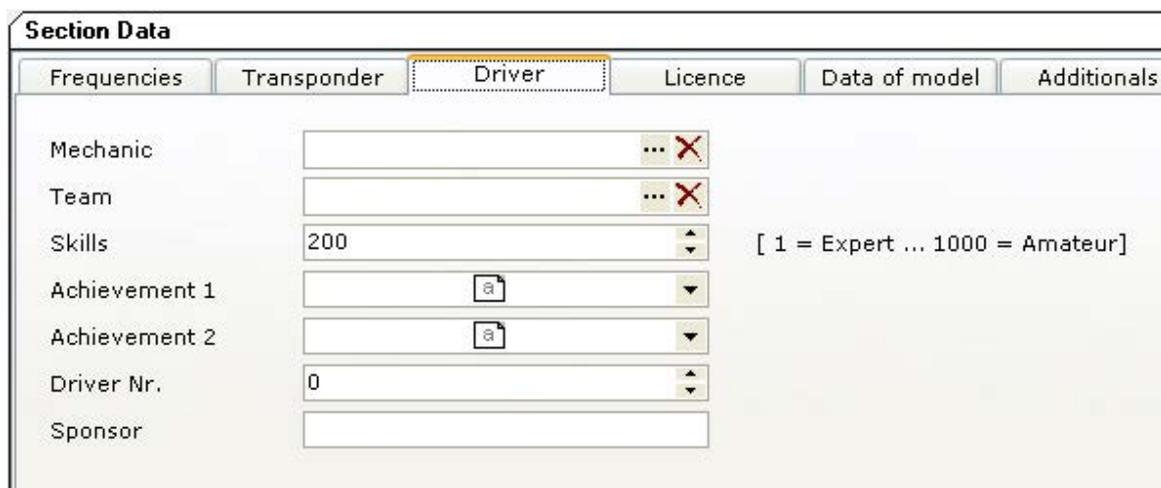
Under the frequency tab you enter the frequencies the driver is using. Alternatively you can enter the frequency in MHz or the channel number. RCM Ultimate allows you to store four frequencies and a multi channel system. If you enter the frequencies the first time, the first frequency will automatically marked as being used. This is marked by a green dot in the circle left of the frequency. If the drivers uses another frequency, just click in the circle left of the correct frequency. Further on you can enter if the driver uses a synthesizer radio control and if frequency exchanges should be recorded.



Section Data		
Frequencies	Transponder	Driver
Transponder 1	1234567	<input type="checkbox"/>
Transponder 2	0	<input type="checkbox"/>
Transponder 3	0	<input type="checkbox"/>
Transponder 4	0	<input type="checkbox"/>
Temporary TX	0	

The transponder tab allow you to enter four personal transponder and one temporary transponder. The box temporary transponder will be used for the hand out transponder of your club. The temporary transponder is exactly the same as the personal transponder, but RCM Ultimate offers a subroutine to delete all entries of the temporary transponders at the end of a race day.

The use of temporary transponders only works properly, if the transponders are entered as a transponder set and the use of the transponder set is set to inactive (please refer to the tools menu). If a transponder not registered to a driver passes the loop the transponder number can be assigned to a driver. The program recognize if it is a personal or a temporary transponder.



Section Data					
Frequencies	Transponder	Driver	Licence	Data of model	Additional
Mechanic					
Team					
Skills	200				[1 = Expert ... 1000 = Amateur]
Achievement 1					
Achievement 2					
Driver Nr.	0				
Sponsor					

The data under the driver tab are optional, but can make the race organization easier and contain further information:

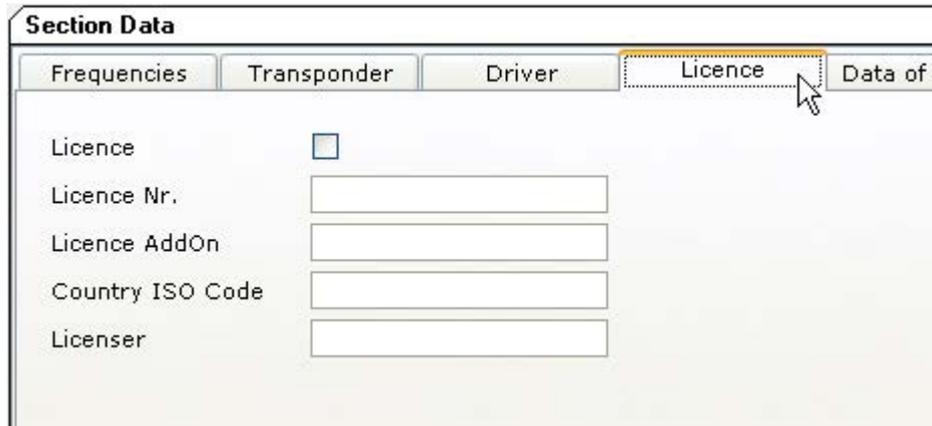
Mechanic: If another driver acts as a mechanic for this driver, you should enter here the name of the driver. RCM Ultimate avoids to arrange these both drivers in the same group.

Team: If you use the teamcup-functions, the team must be entered here.

Skills: RCM Ultimate supports performance categories. You can enter a value between 1 (Expert) and 1000 (Amateur). The skill can be used for the arrangements of heats.

Achievement 1 and 2: Here you can enter good results of the driver.

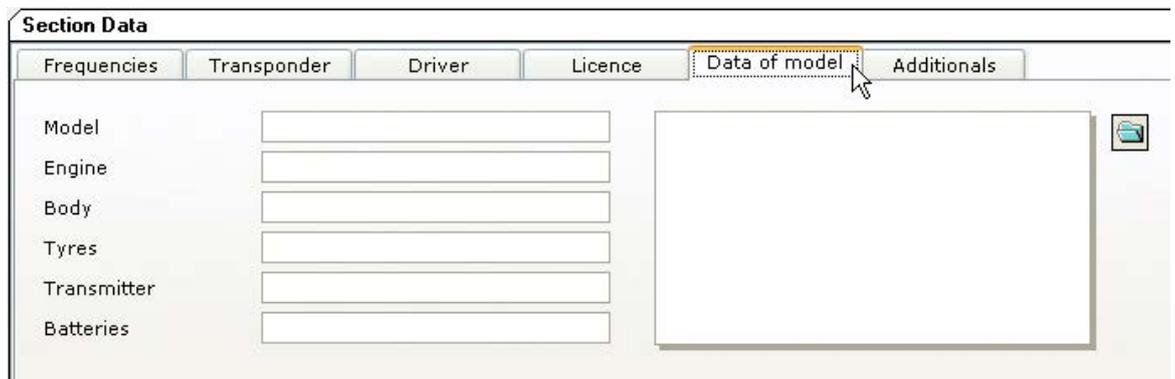
Sponsor: This is for information only.



The screenshot shows the 'Section Data' form with the 'Licence' tab selected. The form contains the following fields:

- Licence:
- Licence Nr.:
- Licence AddOn:
- Country ISO Code:
- Licenser:

The licence tab is only available, if section licenses are used. The data to enter is the same like in the personal data.



The screenshot shows the 'Section Data' form with the 'Data of model' tab selected. The form contains the following fields:

- Model:
- Engine:
- Body:
- Tyres:
- Transmitter:
- Batteries:
- Data of model:
- Additional:

There is also a file upload icon on the right side of the 'Data of model' field.

The tab Data of model allows you to enter information about the products used by the driver. Information about the car, engine, body, tires, transmitter and batteries can be entered. In addition you can save a picture of the car. The format of this picture should be: 260 x 140 pixel, 96 dpi, bmp- or jpg-format.



The screenshot shows the 'Section Data' form with the 'Additional' tab selected. The form contains the following fields:

- Technical Complain:
- Comments:

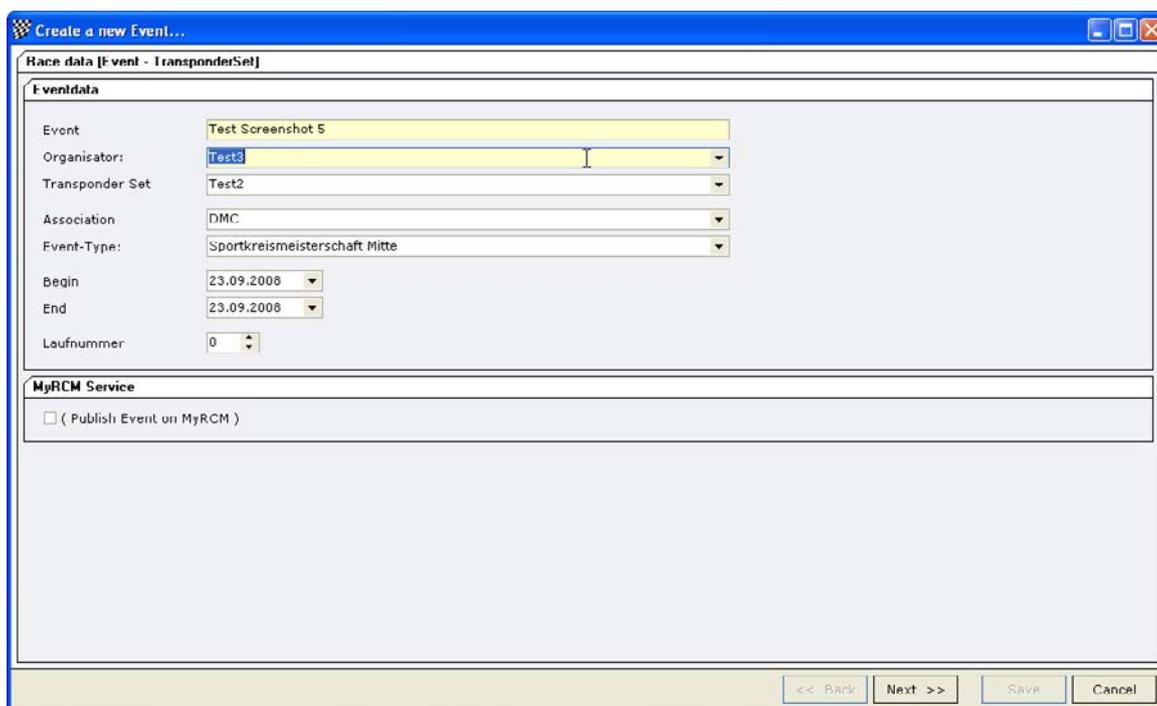
Under the tab additional you have the possibility to enter technical complaints with a comment.

3 Create a new event

To create a new event you go to the file menu and then new event. A wizard is started which led you through all necessary details.

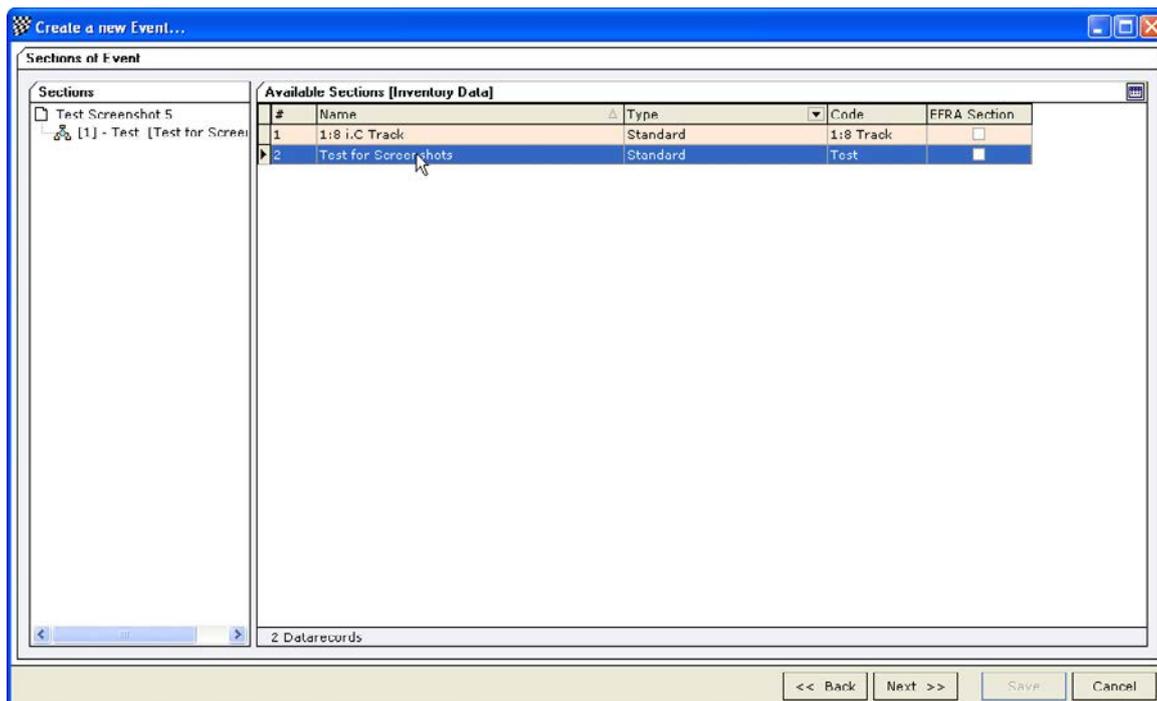


First you have to enter the name of the event, the organiser, the transponder set, the federation, the event-type, the date of the event and the number of the race in the championship.



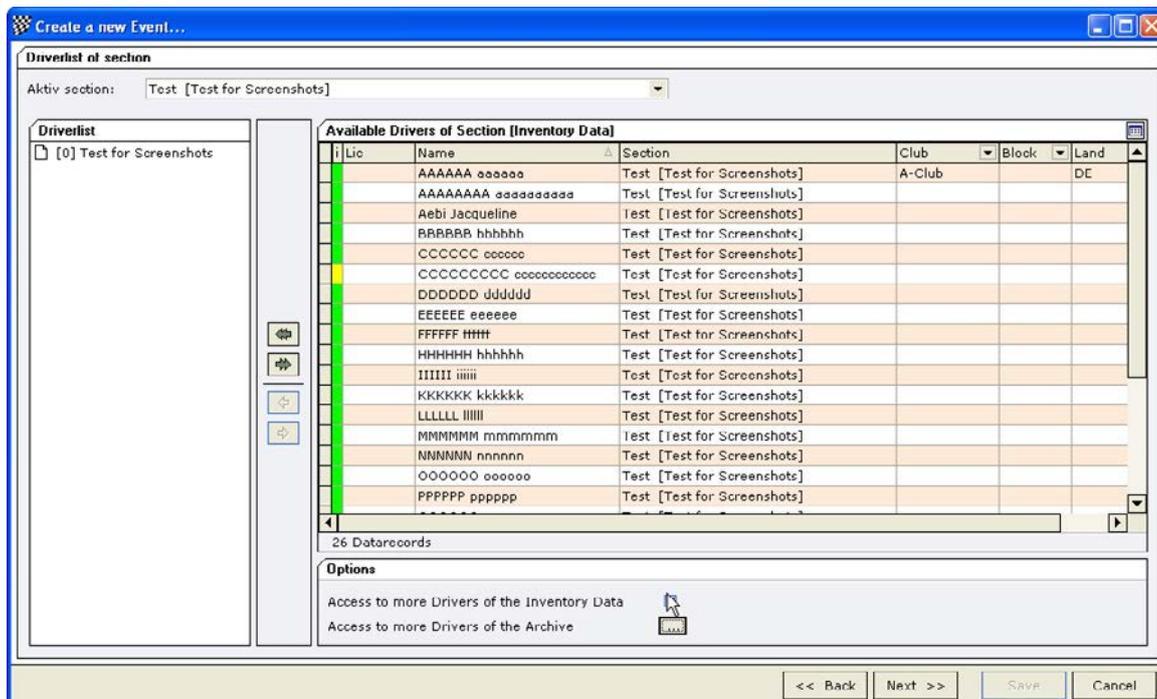
You can only enter an organiser already registered. To choose one of a list, click left on the arrow at the input box. You see a list of all registered organizer and you can choose one with a mouse click. You can do the same for the transponder set, the association and the event-type. The event-types are entered in the inventory data/constants/associations. Further on you can select if the results will be published on MyRCM. Please activate this function only if your time keeping computer has access to the internet. Finish this window with clicking on next.

In the next window you will be asked for the sections. In the right column of the window you see all sections already entered in the inventory data. If you double click on a section, it will be added to the list of sections of the event.



If a organizer has more than one track, you will be asked on which track the race will be held. If you want to remove a section from the race, just click with the left mouse key on it, hold the key pressed and draw the section into the right column. You can also use the arrow-buttons in the middle of the window. You finish this window by clicking on Next.

Now, you have to add drivers in each section to the driver list. On the top of the window you first have to choose the active section. Please note, that you add drivers to all sections of your event.

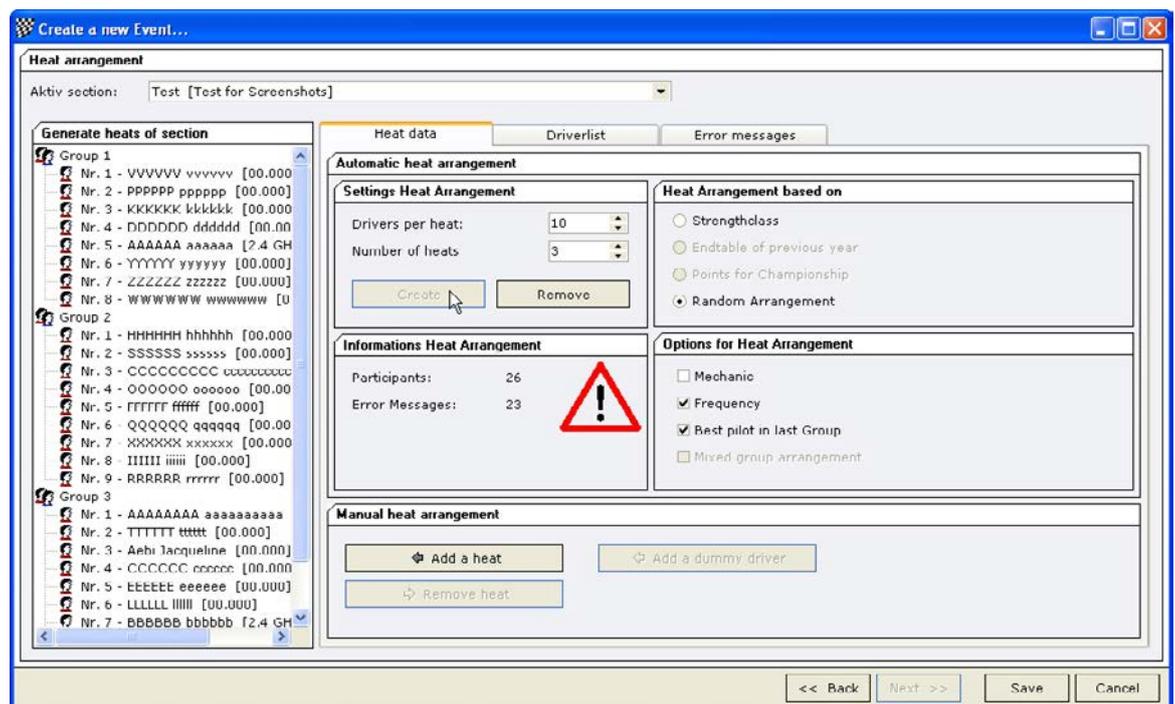


You see the drivers already assigned to this section in the right column of the window. These drivers can easily added to the driver list. If you miss a driver, you expand the list by activating “access to more drivers of the inventory data” in the lower part of the right column. You have also access to more drivers in the archive.

Click on “...” button and a new window and a new window opens, giving you access to the archive of inactive drivers which you have created under inventory data/data archiving/persons.

If you add a driver not already assigned to this section from the inventory data to the driver list, the section will automatically assigned to the driver. Please note, that you have to enter the frequencies and the transponder number in the section data for such drivers. If you have added all participating drivers to the driver list in all sections, finish this window by clicking on next.

The next step is the arrangement of heats. This can be done automatically or manual. You have to arrange the heats by section and you have to choose the required section on top of the window. First determine the number of drivers you want to have in each heat.



By clicking on the create button the arrangement will be done automatically in respect to the frequencies. You can see error messages (frequency problems) by clicking on the errormessages tab. The tab “driverlist” allows you to move single drivers from one heat to another.

Remark: When you create a new event, the arrangement of heats for practice and qualification is the same. If you change the practice heats afterwards, this changes do not automatically affect the qualification heats. If you want to use the same arrangement of heats in qualification as you used for practice you have to copy the practice heats to the qualification heats, This is done under arrangement/qualification and then use heat arrangement based on the heat arrangement practice.

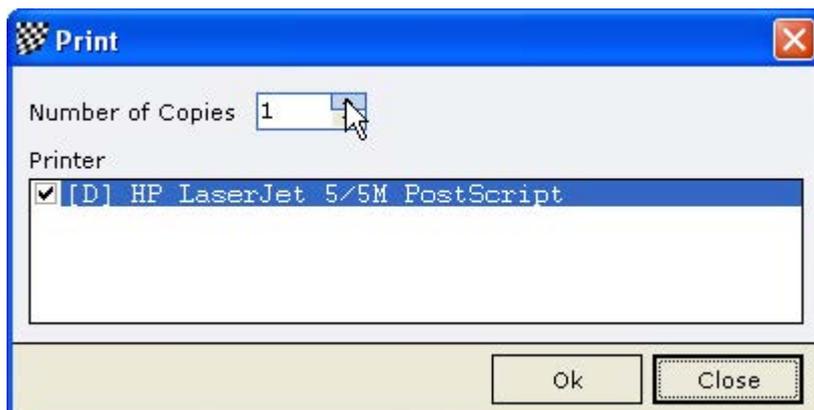
Please finish your work by clicking on the save button. Changes can be done later. You can add drivers for example even when the race was started. With this step you have finished with entering the necessary data.

4 Printing

The print menu is accessible through Display/Overview/Print or by pressing the F2-key.

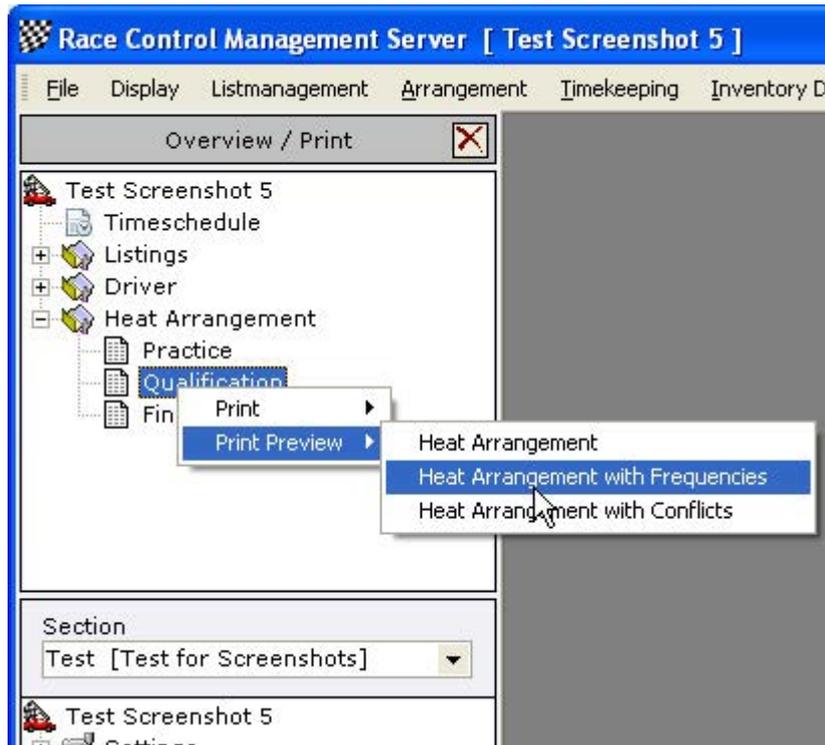


It displays a menu tree in which you see all reports structured. You must have selected at least one printer (see settings/interfaces) to print from that menu. In the menu-tree you see all items of the event. If one item is marked with a + sign in front you can enlarge this item by clicking left on this sign. If you have selected the item you need, you click right on that item and a submenu is opened. Before printing you can choose if you want to print directly or to see a preview on the screen. When you start printing, you can select on which printer and the number of copies you want to print. The number of copies can be set different for each printer. Just double click on that printer and select the number of copies for this specific printer.



All reports refer to the section which is selected in the middle of the overview/print window. In this menu you only print the reports which have already been generated according to the course of the race (automatically by RCM Ultimate or manually). The status of the reports is always up-to-date. If you make corrections somewhere in RCM Ultimate all affected reports will be generated or changed.

4.0.1 Driver list and other static data



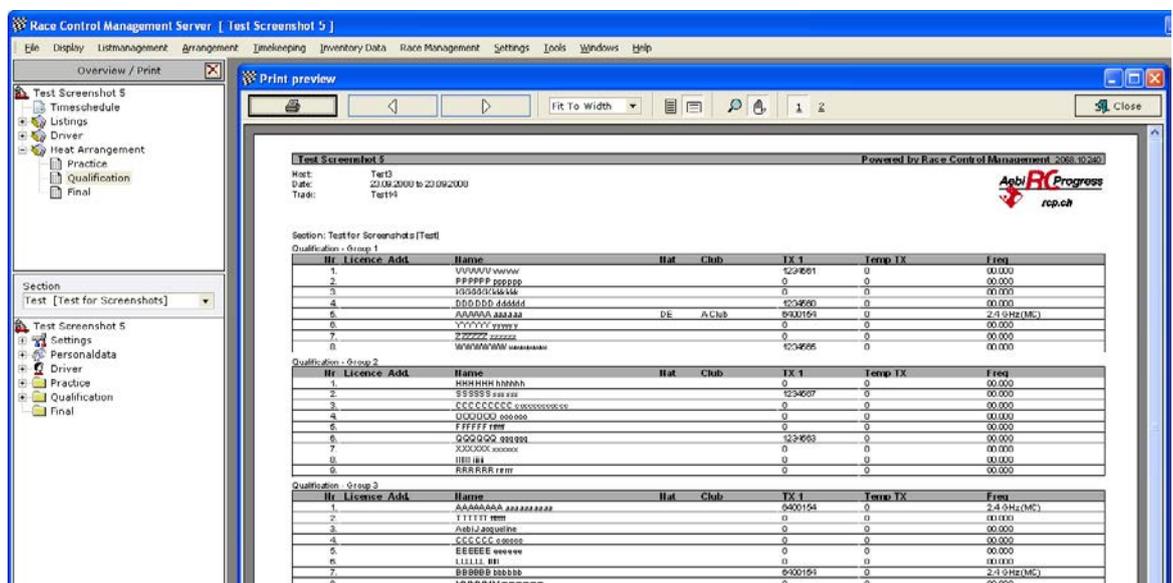
Overview/print is structured in the following items:

On top you will find a general part with the time schedules and lists of all penalties and warnings. In the general part you can select "Driver" and heat arrangements. Here you can print these lists overlapping for all sections. This means that you can print the lists for all sections according to the sortindex set in the definitions of the sections.

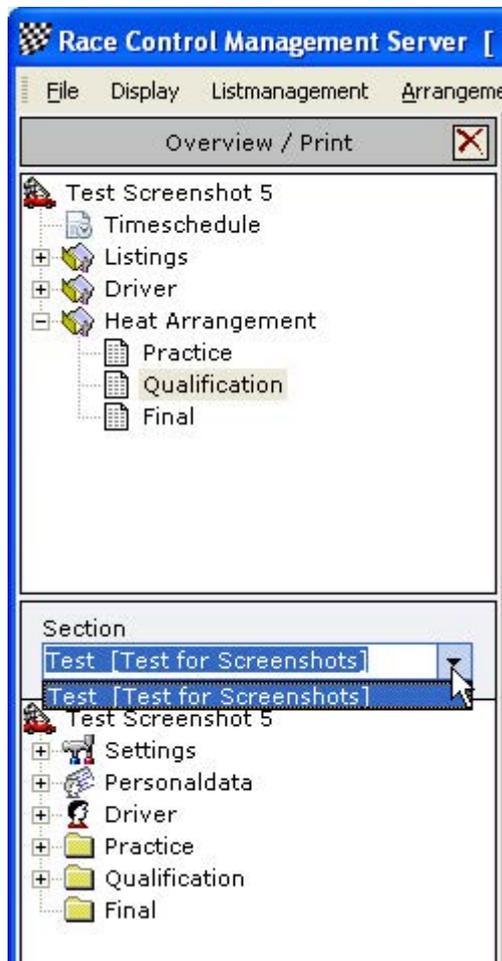
Below are the details of the race displayed. These are selected according to the section set in the middle of the window.

Settings: Here you can print the rules of the selected section for practice, qualification and finals separately.

Personal data: A data sheet for each driver can be printed, selectable by country. Included in this sheet are all particulars of the driver as well as details to the used products (if entered in the inventory data). You should let the driver sign this sheet to be sure that all the details are correct.



Driver: Different lists for the participants of the event are available. The content of the lists can be changed with Tools/Templates/Template Editor. The participantlist [Web] is used for the publication on the internet. The participantlist [per country] opens a dialogue for printing the lists all countries or only a specific one. The participantlist [per Team] prints all teams and the affiliated drivers. If you configure a teamcup, all results are not only referred to a driver but also to the team the driver belongs to.



Practice - Qualification - Final: If you enlarge this item, you will find all single heats. You get the heat-list as well as ranking lists by clicking right on the main item . Results of the heats can be printed by clicking right on the specific heat. You can only print the result of heats which have already been run.

Description of the signs: A yellow circle means, that this heat has not yet any results. A green circle without question mark means, that the heat has been finished and has been confirmed. A green circle with question mark means, that this heat has finished but has not been conformed.

In some cases (especially if you import the race data from another computer) it is possible that no reports are available. If this happens, please use the rebuild report function in the timekeeping survey. When doing this, the ranking lists will be created too.

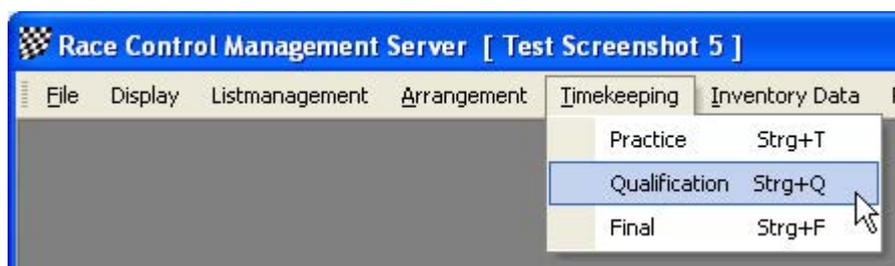
Ranking lists: The program generates the ranking lists as soon as race results are available. The ranking lists can be printed by right clicking on the main menu item (Practice, Qualification and Final). For Practice and Qualification you will find a special submenu (manual selection) to print the ranking of the heats in different combinations.

The Eventrankinglist is used for the championship administration and is based on the point schema defined for this championship. Depending on the definitions made in the rule, this eventrankinglist is not only based on the final result but can include the qualification ranking.

Remark: An eventrankinglist can only be created, if a point schema is in the inventory data and this point schema is defined in the rule. You can check this under the menu inventory data/rules on the last page of the rule wizard.

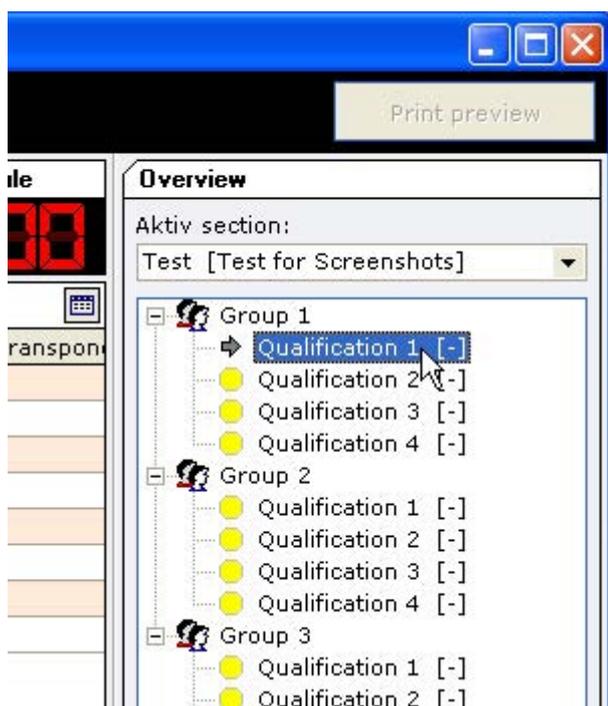
5 Run practice and heats

After you have finished the arrangement of heats and you have solved all frequency problems, you can start the race heat by heat. For this purpose you open the racing grid through timekeeping/practice or qualification.

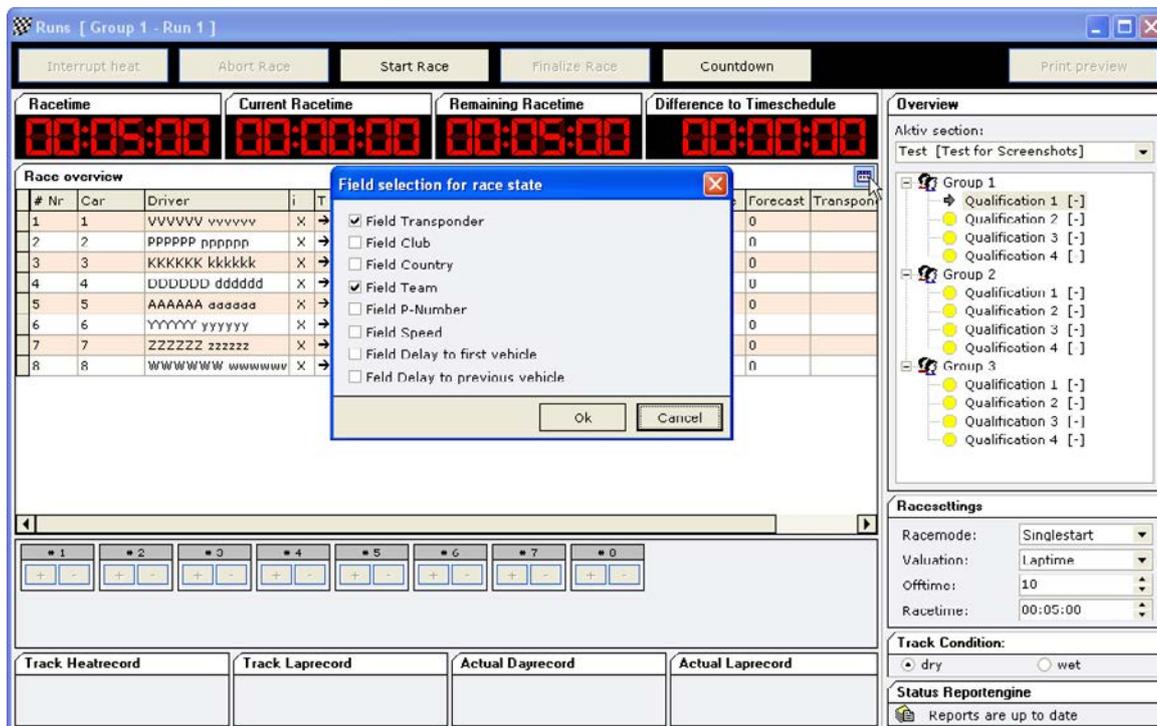


5.1 Prepare a heat

Please select first in the right column the section and the heat of the final you want to run. The drivers of that heat/final will be displayed left. If there are frequency conflicts in a selected heat, you will see an corresponding error message. You can edit the transponder and frequencies of a driver here. Just click right on the drivers name and select transponder or frequency from the submenu. Please check in the right column the race settings. If necessary you can correct now these settings. The start mode, the valuation, the locktime and the racetime can be changed. Further on you can set the track condition to dry or wet.



Clicking on the button just below the display difference to the time schedule you can activate additional columns for the race overview. Especially for the speaker the column "delay to the first car" is quite interesting.



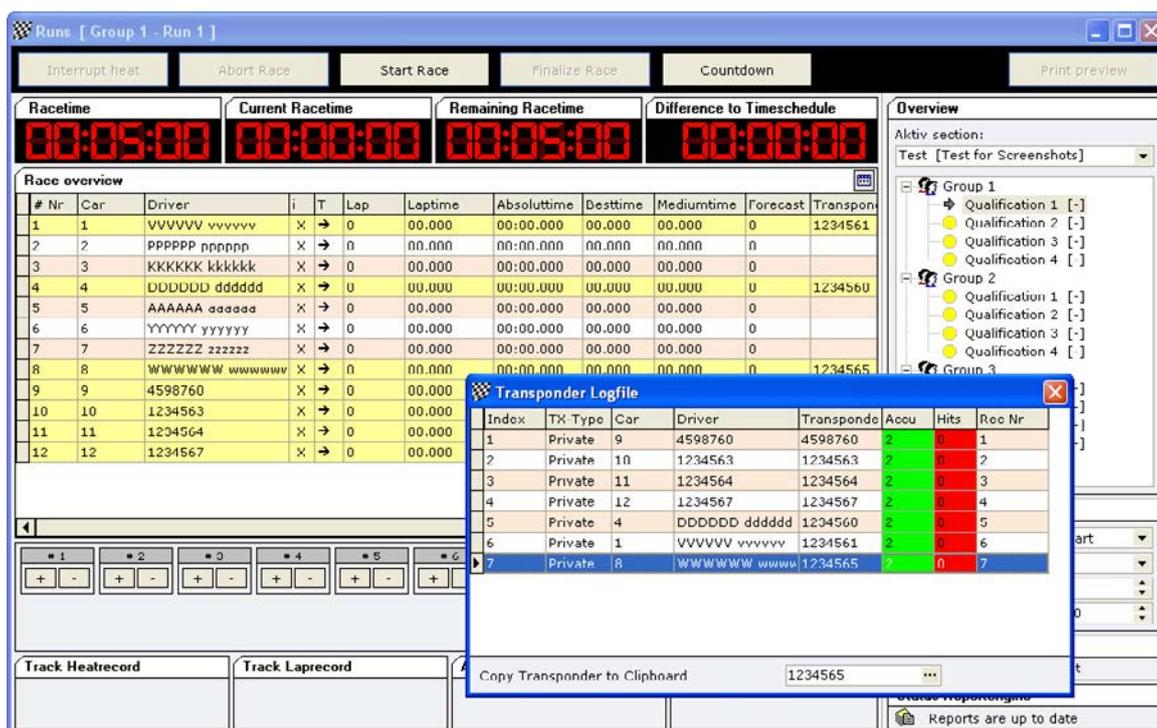
The screenshot shows the RCM software interface with a 'Field selection for race state' dialog box open. The dialog box contains the following options:

- Field Transponder
- Field Club
- Field Country
- Field Team
- Field P-Number
- Field Speed
- Field Delay to first vehicle
- Field Delay to previous vehicle

The background interface shows a 'Race overview' table with columns: #, Nr, Car, Driver, i, T, Forecast, and Transpon. The race time is 00:05:00, current race time is 00:00:00, and remaining race time is 00:05:00.

5.2 Warm-up time and transponder check

Normally the drivers drive some laps on the track before you start the heat. Use this time to check the proper working of all transmitters and to check whether all drivers are on the track or not. If a transponder passes the loop, the corresponding driver will be marked yellow. This means, that his transponder number is correctly registered.



The screenshot shows the RCM software interface with a 'Transponder logfile' dialog box open. The dialog box contains the following data:

Index	TX Type	Car	Driver	Transpon	Accu	Hits	Rec Nr
1	Private	9	4598760	4598760	2	0	1
2	Private	10	1234563	1234563	2	0	2
3	Private	11	1234564	1234564	2	0	3
4	Private	12	1234567	1234567	2	0	4
5	Private	4	DDDDDD dddddd	1234560	2	0	5
6	Private	1	VVVVVV vvvvvv	1234561	2	0	6
7	Private	8	WWWWWW wwwwww	1234565	2	0	7

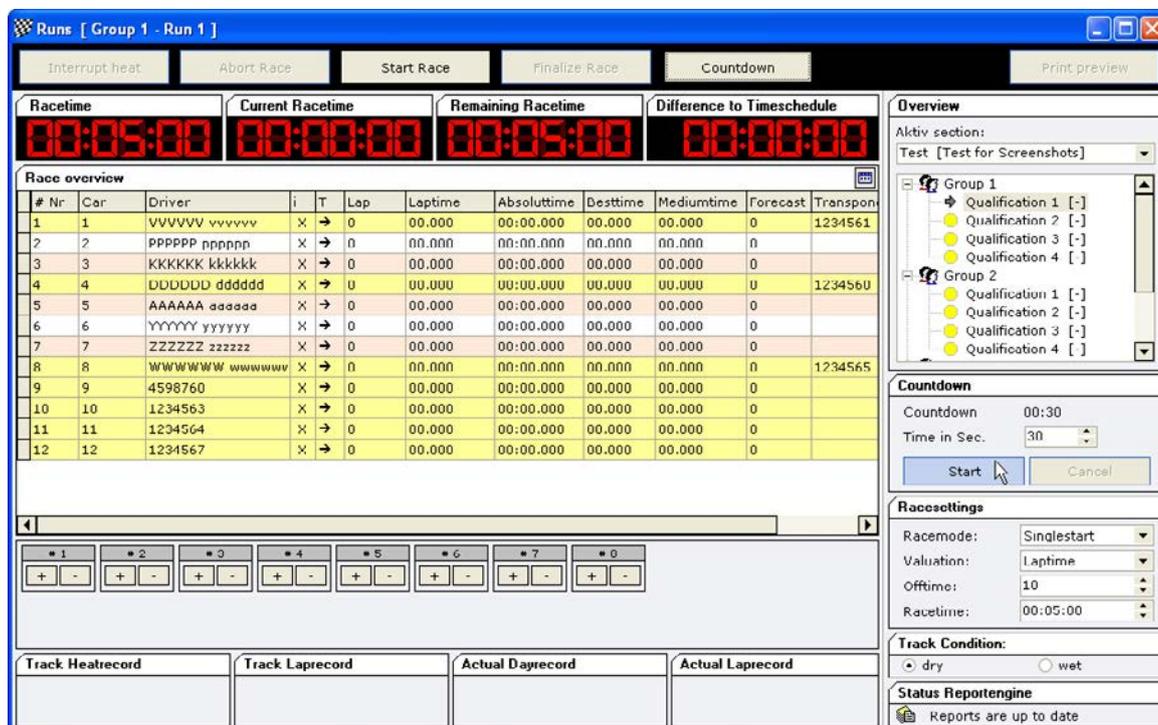
The background interface shows a 'Race overview' table with columns: #, Nr, Car, Driver, i, T, Lap, Laptime, Absolutime, Desttime, Mediumtime, Forecast, and Transpon. The race time is 00:05:00, current race time is 00:00:00, and remaining race time is 00:05:00.

You can also open the transponder log file with the F4 key. Here you can see if all of the transponders are assigned to a driver. If a car passes the loop and you see no name in the transponder log file but a transponder number (in the race overview you see this transponder on the last row red marked) you have to find out, which driver is using this transponder. Double clicking on the transponder (in the race overview) will open a new window displaying all drivers which have not already passed the loop with a registered transponder.

If you know the driver, you can easily assign this transponder to this driver. Just double click on the drivers name. You can do it even after the race has been started. This means you can start the race and assign this transponder to a driver between the race time. The laps and the times will be assigned to the driver and will not be lost. If it is a personal transponder it will be registered in the first empty field of the transponder settings of the driver. If no field is empty, the first will be overwritten. If the transponder is one of the hand out transponder it will be assigned to the field temporary transponder.

5.3 Countdown

Directly from, RCM Ultimate or with the optional program RCM Voice you can automate the starting procedure. Clicking on the countdown button will open another window, where you can adjust the preparation time. The countdown is started by clicking the start button in this window. Via a sound card in your computer the remaining preparation time will be announced in certain time intervals. Further on the race will be started after the preparation time. The announcements can be defined under racemanagement/messages/announcements of in RCM Ultimate or RCM Voice. You can close this window by clicking again on the countdown button.



The screenshot shows the RCM Ultimate software interface. At the top, there are buttons for 'Interrupt heat', 'Abort Race', 'Start Race', 'Finalize Race', 'Countdown', and 'Print preview'. Below these are four digital displays for 'Racetime', 'Current Racetime', 'Remaining Racetime', and 'Difference to Timeschedule', all showing '00:05:00'.

The main area is a 'Race overview' table with the following data:

#	Nr	Car	Driver	i	T	Lap	Laptime	Absoluttime	Desttime	Mediumtime	Forecast	Transpon
1	1	VVVVVV	vvvvvv	X	→	0	00.000	00:00.000	00.000	00.000	0	1234561
2	2	PPPPPP	pppppp	X	→	0	00.000	00:00.000	00.000	00.000	0	
3	3	KKKKKK	kkkkkk	X	→	0	00.000	00:00.000	00.000	00.000	0	
4	4	DDDDDD	dddddd	X	→	0	00.000	00:00.000	00.000	00.000	0	
5	5	AAAAAA	aaaaaa	X	→	0	00.000	00:00.000	00.000	00.000	0	
6	6	YYYYYY	yyyyyy	X	→	0	00.000	00:00.000	00.000	00.000	0	
7	7	ZZZZZZ	zzzzzz	X	→	0	00.000	00:00.000	00.000	00.000	0	
8	8	WWWWWW	wwwwww	X	→	0	00.000	00:00.000	00.000	00.000	0	1234565
9	9	4598760		X	→	0	00.000	00:00.000	00.000	00.000	0	
10	10	1234563		X	→	0	00.000	00:00.000	00.000	00.000	0	
11	11	1234564		X	→	0	00.000	00:00.000	00.000	00.000	0	
12	12	1234567		X	→	0	00.000	00:00.000	00.000	00.000	0	

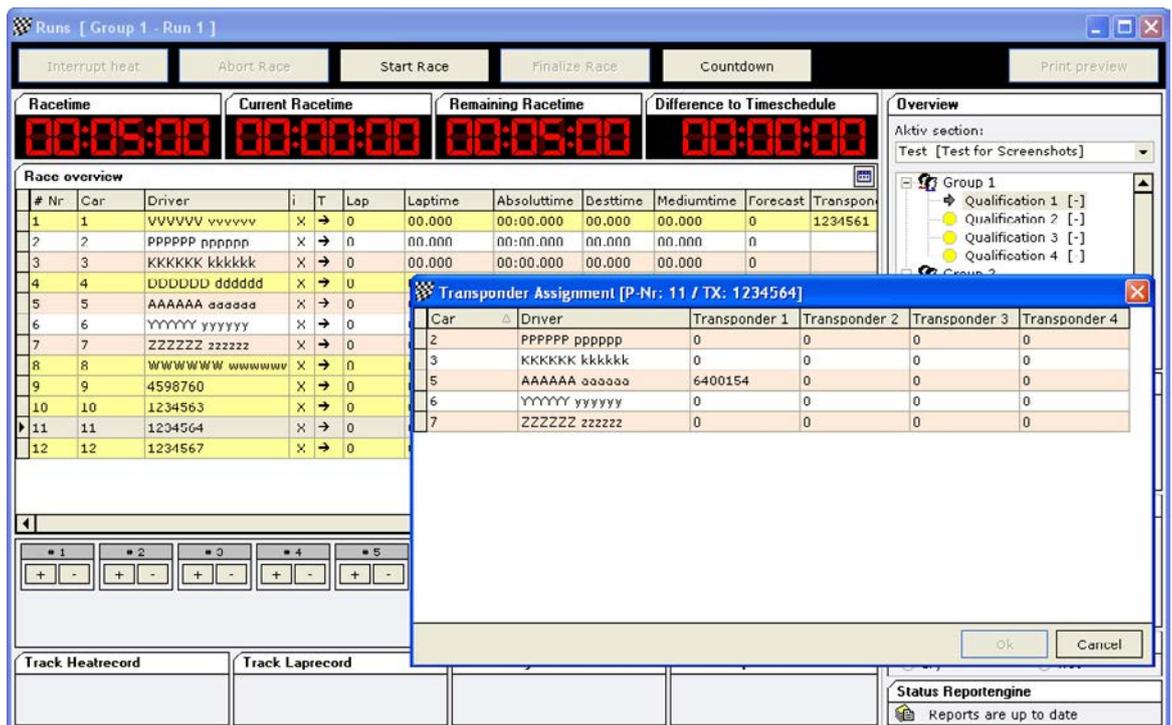
Below the table are buttons for lap adjustments (*1 to *8) and a 'Track Condition' section with 'dry' selected. The 'Countdown' window on the right shows a 'Countdown' of 00:30 and a 'Time in Sec.' of 30. The 'Racesettings' section shows 'Racemode: Singlestart', 'Valuation: Laptime', 'Offtime: 10', and 'Racetime: 00:05:00'. The 'Status Reportengine' section shows 'Reports are up to date'.

5.4 Start the heat

You start the heat or the final by clicking on the start race button (if you do not use the countdown feature). According to the selected rule a delayed start or a groupstart will be executed. A small red marking in a drivers row shows the blocking time. No laps will be counted within this time, but the passing will be registered in the background. This prevents illegitimate corner cutting.



If now a transponder number is displayed in the race overview, this transponder can be assigned to a driver as described above. A double click on the transponder number opens a window showing all drivers to which this transponder can be assigned. The laps and times counted for this transponder will be assigned to the driver and will not be lost.



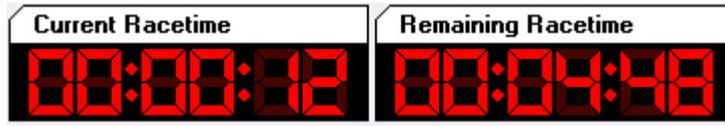
You can make corrections to the transponder numbers and frequencies for each driver by clicking right on the driver's name. In the submenu select what you want to change. But here you have to type in the information.

If a Teamcup is activated under Settings/timekeeping you see in the right column below Additional Options the Teamcup Lapoverview. Clicking on that text opens a window displaying the teamcup results.

5.5 Control instruments during the active heat

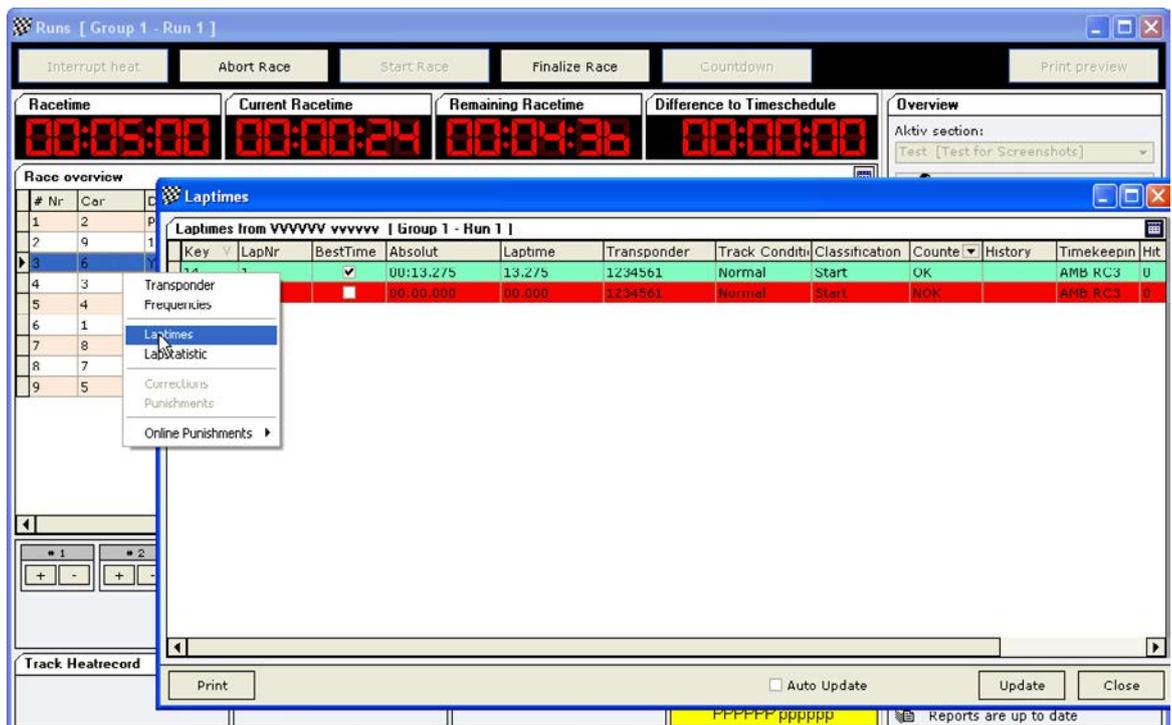
5.5.1 Race time

On top of the race overview the race time, the current racetime and the remaining racetime is displayed. If you have activated to show the time difference to the timeschedule in Settings/Timekeeping/Timeschedule the difference to the time schedule will also displayed.



5.5.2 Lap times

Click right on a driver name and select from the submenu laptimes. All lap times of this drivers will be displayed in a new window and can easily be checked. Further on you can open a lap statistic for each driver. This statistic shows the laptimes in a graphic format and can also be printed.



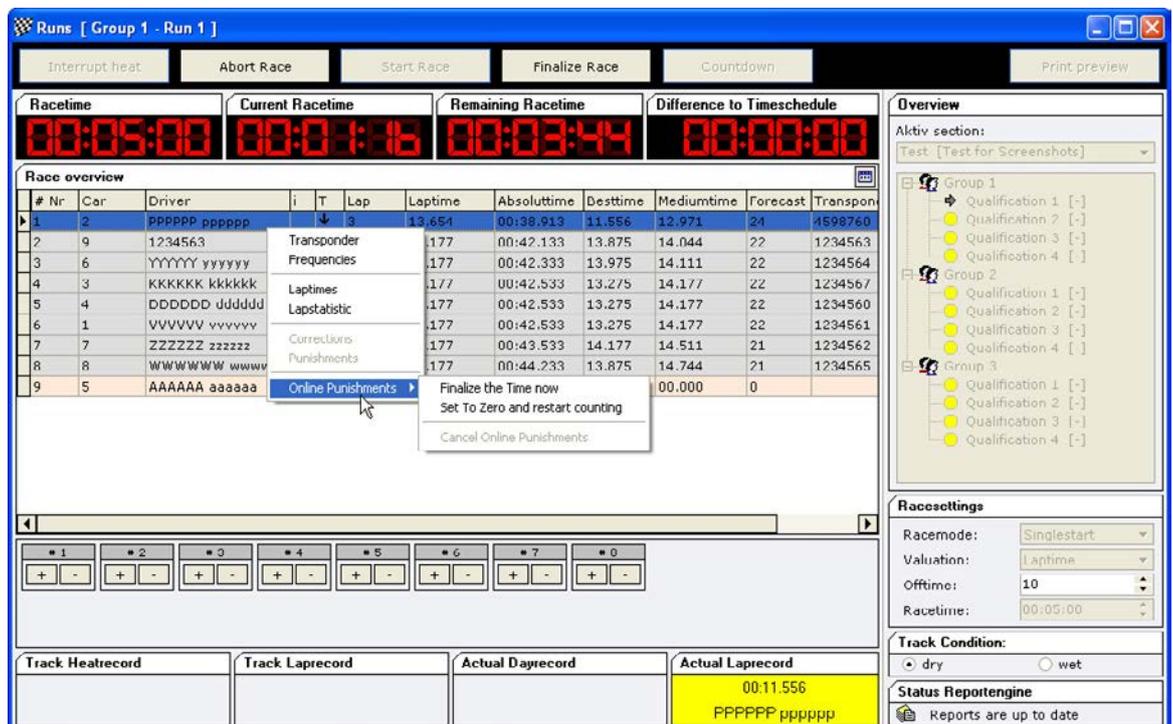
Key	LapNr	BestTime	Absolut	Laptime	Transponder	Track Condition	Classification	Counts	History	Timekeepin	Hit
✓		00:13.275	13.275	1234561	Normal	Start	OK			AMB RC3	U
■		00:00.000	00.000	1234561	Normal	Start	NOK			AMB RC3	P

5.5.3 Online corrections

During the time keeping of a heat, the correction menu is not available. You can only count manual laps for specific drivers. In the window below the race overview you find a counting box for each driver. The number identifying the counting box is the pilotnumber when available. If the pilotnumber is not set, the car number will be displayed. You can add laps (by clicking on the + sign) or reduce laps (by clicking on the - sign).



This interactions will be logged and registered as corrections. We can not recommend to count a driver manual for the whole heat. It should be good enough to inform the driver, that he has no transmitter in his car and that he should correct this situation. Manual counted laps will be marked on the result sheet From the submenu which can be accessed through right clicking on the drivers name, you can access online punishments.



The screenshot shows the RCM software interface with the following components:

- Buttons:** Interrupt heat, Abort Race, Start Race, Finalize Race, Countdown, Print preview.
- Racetime:** 00:05:00
- Current Racetime:** 00:01:16
- Remaining Racetime:** 00:03:44
- Difference to Timeschedule:** 00:00:00
- Race overview table:**

#	Nr	Car	Driver	i	T	Lap	Laptime	Absoluttime	Desttime	Mediumtime	Forecast	Transpon
1	2	PPPPPP	pppppp			3	13.651	00:38.913	11.556	12.971	21	4598760
2	9	1234563					177	00:42.133	13.875	14.044	22	1234563
3	6	YYYYYY	yyyyyy				177	00:42.333	13.975	14.111	22	1234564
4	3	KKKKKK	kkkkkk				177	00:42.533	13.275	14.177	22	1234567
5	4	DDDDDD	ddddd				177	00:42.533	13.275	14.177	22	1234560
6	1	VVVVVV	vvvvvv				177	00:42.533	13.275	14.177	22	1234561
7	7	ZZZZZZ	zzzzzz				177	00:43.533	14.177	14.511	21	1234562
8	8	WWWWWW	wwww				177	00:44.233	13.875	14.744	21	1234565
9	5	AAAAAA	aaaaaa							00.000	0	
- Context Menu (for driver #9):**
 - Transponder
 - Frequencies
 - Laptimes
 - Lapstatistic
 - Corrections
 - Punishments
 - Online Punishments (selected)
- Online Punishments Submenu:**
 - Finalize the Time now
 - Set To Zero and restart counting
 - Cancel Online Punishments
- Overview:**
 - Group 1: Qualification 1-4
 - Group 2: Qualification 1-4
 - Group 3: Qualification 1-4
- Racesettings:**
 - Racemode: Singlestart
 - Valuation: Laptime
 - Offtime: 10
 - Racetime: 00:05:00
- Track Condition:**
 - dry (selected)
 - wet
- Status Reportengine:** Reports are up to date
- Bottom Row:**
 - Track Heatrecord
 - Track Laprecord
 - Actual Dayrecord
 - Actual Laprecord: 00:11.556 Pppppp pppppp

Set to zero and restart counting: Set the laps of a driver to zero and starts again to count.

Finalize the time now: The race will be finished for this driver and no more laps will be counted. The laps already counted will be kept.

Track condition: You can set the track condition to dry or wet when the race is running. The laptimes will be marked with wet or dry. You can set the track condition after the race too. Right click on the heat in the Overview and select from the menu Dry- or Wet-Rating.

5.6 Abort a race

If you have to abort a race due to essential reasons, you can do it by clicking on the abort race button. The race will be aborted if you confirm it once again. All results will be set to 0.



5.7 Finalize race

After the race time is finished, the last lap of all drivers will be counted and the drivers, who have finished the race will be marked blue in the race overview. After all drivers have finished their race, you click on the finalize race button. The race will also be finished after the follow-up time.



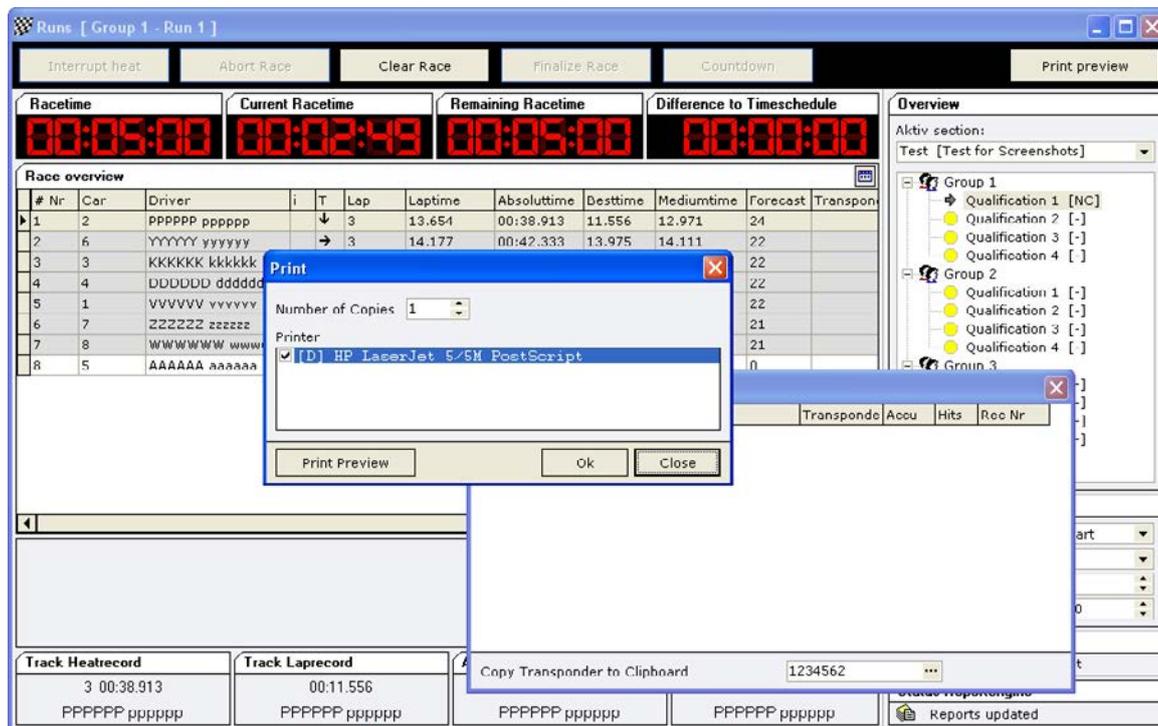
First you have to confirm new records (if there are some in that heat). New records will be saved in the inventory data affiliated to the race track and are printed on the result sheet. RCM Ultimate handles four different types of records: actual best lap, actual best result, best lap ever on this track, best result ever on this track.

The results are saved and according to the settings a database backup will be performed. Now all the reports necessary are generated. This process can take some seconds and the progress is displayed in a small window.

The print menu will be displayed and after printing you are ready for the next heat.

5.7.1 Print results

When a heat is finished, the printing menu will be displayed, You can select the printers and the number of copies to be printed.



Further more you can select whether to print directly or to preview the results. If you need another copy of the result, you can print it using the print preview button on the top right edge of the overview window.

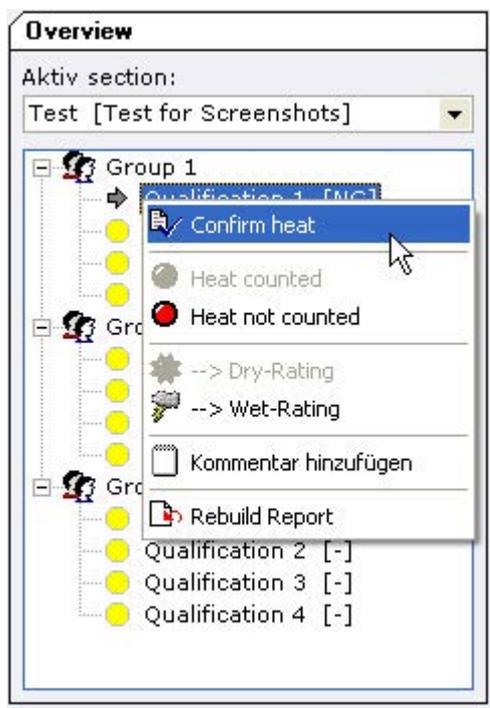
If a transponder number is printed instead of a driver name, please mark this heat in the right column overview, click right on the heat and select rebuilt report. The transponder number will now be deleted.

The result sheet can also be printed in the Display/Overview print menu (F2).

5.7.2 Confirmed - not confirmed

This is used for technical inspection. During qualification it is not necessary to confirm a heat. But during finals this feature will be used for the move up of drivers to the next higher final. Only if a final is confirmed, the drivers can move up. If you have to made corrections to the result of a final, you have to reconfirm this final. You confirm a heat/final by right clicking on the heat/final in the overview section. From the menu select confirm. When confirming a subfinal the move up of drivers

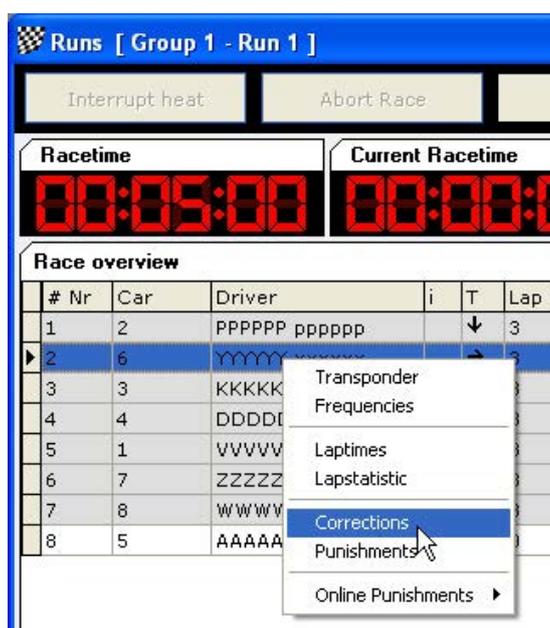
will be done automatically by RCM Ultimate. If there are frequency conflicts in the higher subfinal due to the move up of drivers you see an error message with the frequency conflict.



Heat not counted: In the same menu you find the option, that this heat will not be counted. The result remains and can be printed, but the result is not used for the ranking list or the overall result. If necessary you can cancel this setting by selecting Heat Counted from the menu.

5.8 Corrections

In the race overview and after the race is finished you right click on a driver and choose corrections from the submenu.



A Jury comment will be added automatically. You can make changes on the heat results of the laps and of the end time.

Corrections X

Driver : YYYYYY yyyyyy

Modified Result	Origin Result
Laps: <input style="width: 80%;" type="text" value="3"/>	Laps: <input style="width: 80%;" type="text" value="3"/>
Endtime: <input style="width: 80%;" type="text" value="00:00:42.333"/>	Endtime: <input style="width: 80%;" type="text" value="00:00:42.333"/>
Besttime: <input style="width: 80%;" type="text" value="00:13.975"/> ...	Besttime: <input style="width: 80%;" type="text" value="00:13.975"/>
Besttime [N]: <input style="width: 80%;" type="text" value="00:00.000"/> ...	Besttime [N]: <input style="width: 80%;" type="text" value="00:00.000"/>

Jury Notes

Automatic Commentary:	Commentary:

List of Corrections

Single laps can be set to invalid. To do so, just click on the button with the three dots at the right end of the input field for the besttime. A window with all laptimes opens. Right click on the lap and select from the menu Lock Lap.

After a correction all necessary reports and ranking lists will generated. This makes sure, that the rankinglists are always actual.

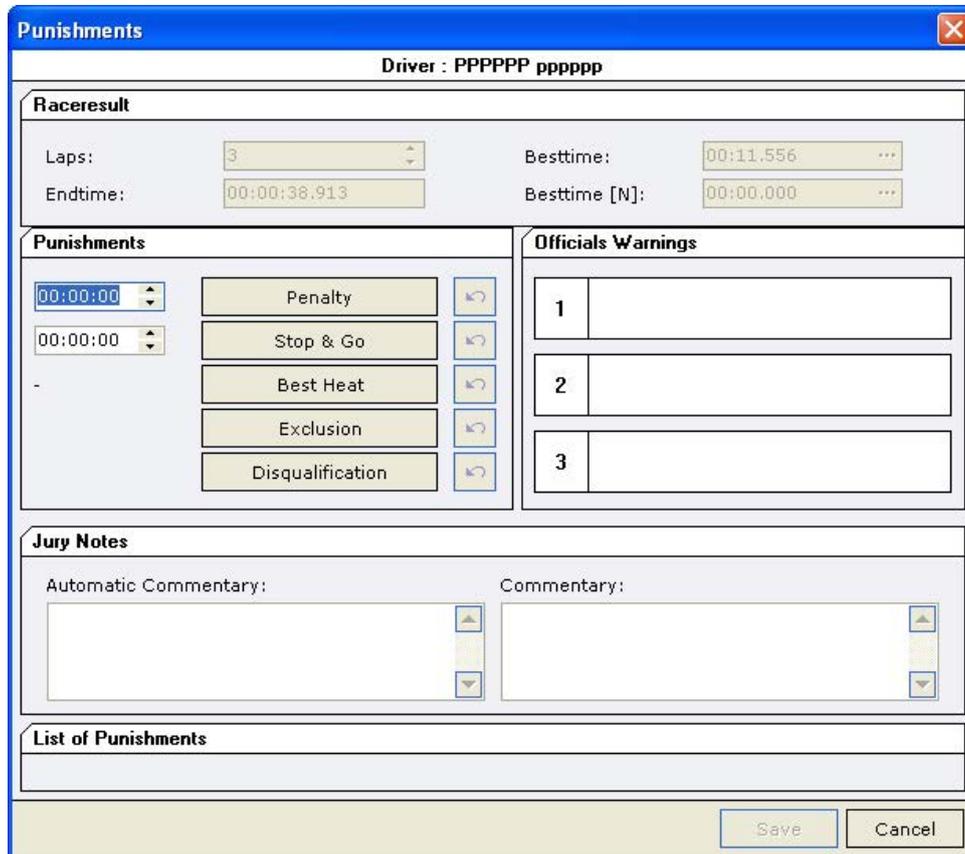
If you have made some wrong corrections by mistake, you can cancel these by clicking on the restore button.

On the printouts corrections are marked by only one character:

- L means correction of laps
- E means correction of the time
- B means correction of best time.

5.9 Punishments

Right clicking on a driver in the race overview shows you a submenu where you can select punishments. A window similar to the correction window opens. Here you find punishments based on the rules of EFRA and IFMAR as well as some other federations.



Warnings can be entered and are saved. Therefore you know at any time how many warnings a driver has. You can cancel all punishments by using the button right of the punishment button.

RCM Ultimate can handle the following punishments:

Penalty: This is a time penalty and the time must be entered left of the penalty button.

Stop & Go: This is used if a driver was not able to complete stop & go penalty. Left you have to enter the amount of seconds. The configured time in seconds at the left side will be reduced and the laps decreased by 1, when the seconds are higher than the end time after the race duration. Otherwise the time will be added.

Best heat: The best heat of a driver will not be counted. This is calculated new after each round of heats. This option can be used repeatedly, for example if you do not want to count the second best result of a driver too.

Exclusion: The result of this heat will be set to zero.

Disqualification: The driver will be excluded from the whole race. The results are not in the ranking list. The disqualification can be set in any time. When you do this during qualification the driver will not be in the ranking list and cannot drive the finals. When you do this in finals the driver can not move up into the next final, the next best driver will move up. When you disqualify a driver at the end of a race the driver will be eliminated from the ranking list and the following drivers move one place up.

Warnings 1 - 3: You can write a comment for official warnings. The warnings are stored and it is visible at any time how many warnings a driver already has.

Automatic Commentary: All punishments will automatically recorded and result in a automatic commentary in the Jury notes. This comment will be printed on the result sheet.

Commentary: Additional commentary can be added and is registered on the result sheet.

5.10 Rerun a heat

If you have to rerun a heat/final (for what reasons ever), you have to select the heat in the overview in the right column. Before you can start this race again, you have to click on the clear race button.

You have to confirm the question “really to clear the race” by clicking on the ok button before the results of the already finished heat will be deleted. Now you can rerun the heat/final.



6 Final arrangement

After the heats are finished, you can make the arrangement of the finals with Arrangement/Finals.



Before creating the finals you can see under the driver tab a list of all drivers having a valid qualification for the finals (depending on the rule for the selected section). Before you arrange the finals, you can specify whether not qualified pilots should be included in the arrangement or not.

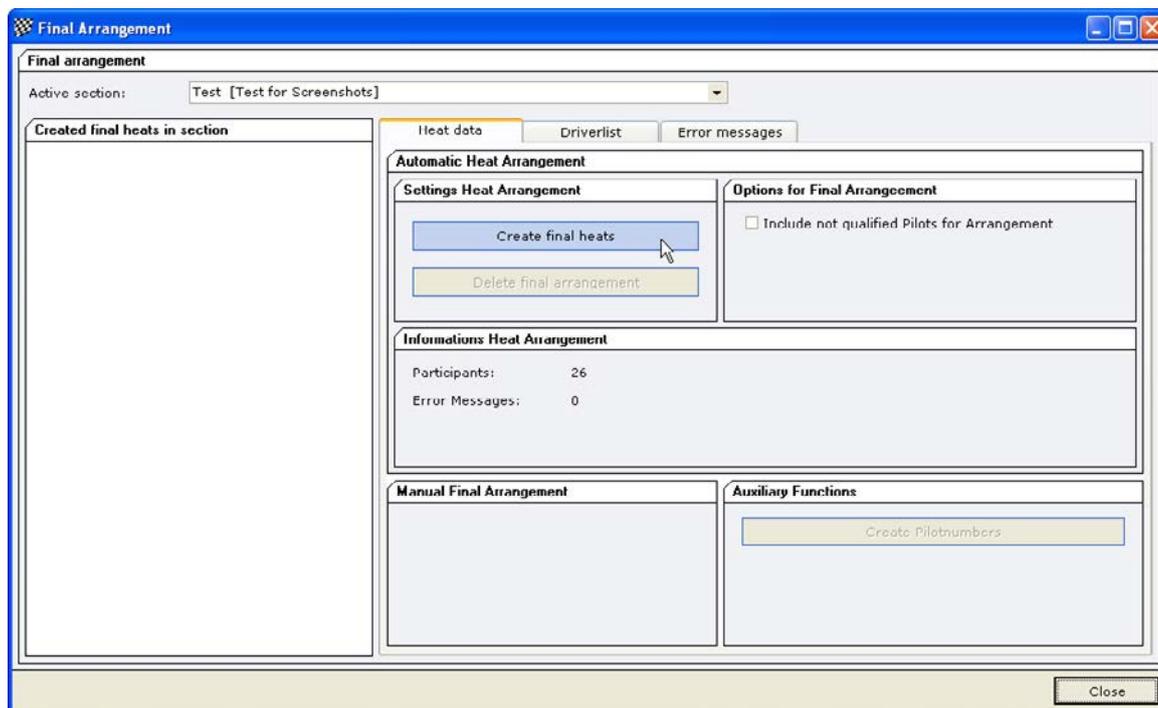
Under the heat data tab you can now click on the button create final heats and the arrangement of all finals will be automatically done according to the rule of the selected section and the result of the qualification. With the error messages tab you see frequency problems. These can be solved as described in the arrangement of the qualification heats.

You can change the order of the drivers in the finals by simply drag&drop one or another driver to another position. But, please note, that the program may be not calculate these drivers correctly, when these drivers will moved up from a lower to the higher final. You have to correct this manual.

The printing of the arrangement of the finals will be done through the overview/print menu.

Remark: All corrections in the qualification heats affecting the ranking list should be

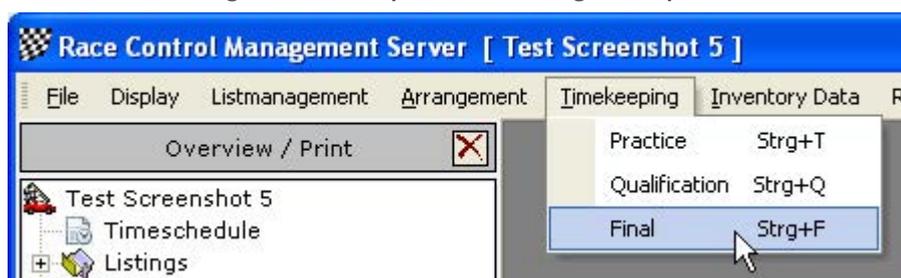
finished before arranging the finals. If you already have arranged the finals and are forced to make a correction in the qualification heats please delete the arrangement of the finals and create new final heats.



7 Run the finals

This is done through Timekeeping/Finals. Regarding the timekeeping by itself please refer to the explanation in "Run practice and heats". Please note, that you run a christmas tree format, the moving up of drivers from one subfinal to another is done by RCM Ultimate when you confirm the subfinal.

The final rankinglist can be printed through the print menu as described above.



8 Concluding remarks

We hope you enjoy RCM Ultimate. Please refer to the user manual of RCM Ultimate for detailed descriptions also of further functions.

If you have any questions or any problems please contact us. Simply write an email to support@rc-timing.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.

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