INTERNATIONAL SLOTCAR CHAMPIONSHIP

March 14/15, 2015

SCALEXTRIC -shop.dk

Route 1 Racing

scorpius wireless
www.scorpiuswireless.com

SLOTCARS
JUST LIKE REAL RACING ONLY SMALLER
www.slotcar.co.nz

DiSCA

2-3-2015, Rev.3

Marcel Minnaard (Minardi)

Contact/information: www.slotforum.com , rcs64rms@gmail.com

1. BRIEFING

Welcome racers, to the first online digital international slotrace ever ! Thank you for participating and making this event possible.

Imagine roaring GT's from all over the world, revving their engines, ready for the challenge, battling for victory. All this is now possible from your local track in your living room or club, connected by the internet you feel the pressure of the drivers at the other end of the world and see how the race evolves. After 2 hours of endurance racing we know which team gets the honour to be the first Digital Online World Champion! I am ready for It. I hope this document helps you prepare for the event to make It something we will never forget and hopefully is the start of a new chapter in SSD racing.

Marcel

2. Timing:

Since the race is held at different locations around the world, we have to deal with time differences. For this race the times will be;

UK It will be March 14. Practice start 20:00. Qualify 20:30, 21:00 start race (2 hours endurance)

the Netherlands and France +1 hr. (22:00 race start)

USA (Pacific) March 14, practice 13:00, qualify 13:30, race 14:00

New Zealand Sunday March 15, practice 09:00 qualify 09:30, race 10:00

Check your local time here:

http://www.timeanddate.com/worldclock/meet...2=16&p3=234

3. CARS (DiSCA DPR GT CLASS B)

STANDARD modern Scalextric GT with interior and lights (Super Resistant cars not allowed)

(* - in addition to DiSCA DPR GT allowed for the ISC64 event March 14/15-2015)

(C-numbers as reference);

- *Aston Martin DBR 9 – C3196*
- *Audi R8 – C3386*
- *Chevrolet Corvette C6r – C 3189*
- *Ferrari F430*
- *Ford GT – C3088 (road version allowed)(*)*
- *Jaguar XKR GT3 – C3081*
- *Lotus Evora – C33871*
- *McLaren MP4 – C3389 (road version also allowed)(*)*
- *Porsche 911 GT3R – C3194*
- *Bentley GT3*
- *Maserati Trofeo*
- *Lotus Exige(*)*
- *Chevrolet Camaro GT – C3391*

Examples of liveries:

4. CAR SETUP

BASICS

Our cars fit the DiSCA DPR GT CLASS B. See Appendix 3.

The following is important;

- NO MAGNET
- TYRES ; Route1Racing Urethane Medium Compound (Shore A50) size MSN or MSW for back tyres

1 set of rear tyres allowed, in case of failure of tyres (highly unlikely), replace by original stock scalextric tyres.

Front tyres; stock tyres (modifying for less grip allowed)

ALLOWED

Glueing in the motor, axles bushings

Glueing the rear hubs

Spacer in the rear axle to avoid having the tyres wobbling around

Putting ferrite man on leads

Lubrication

Spacer for recessed guides

Adding 10 grams of weight is allowed (anywhere)

Truing rear tyres

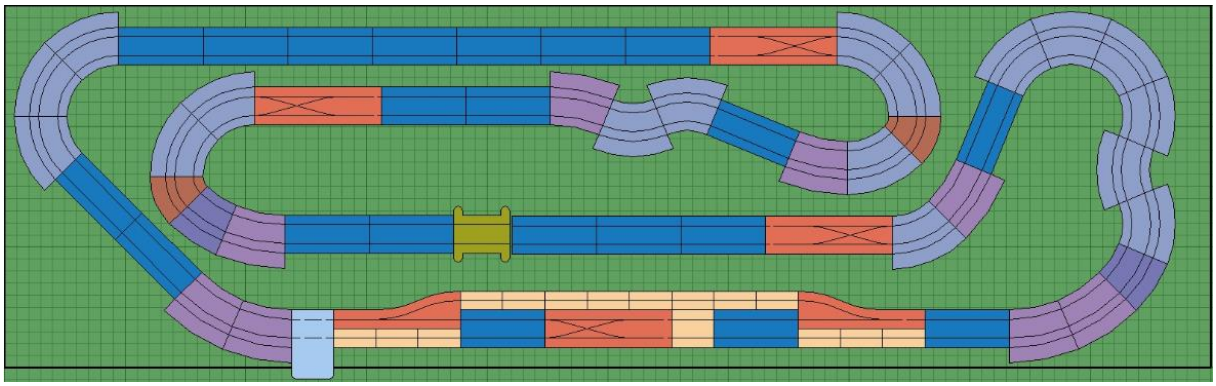
NOT ALLOWED

Uprated chips

Minimizing weight (removing (plastic) parts of interior, filing etc.

Pictures of winning cars (race winner, fastest race lap, fastest qualify lap) interiors and proof of weight after the event.

5. Track:



Scalextric Sport

R1 - Orange. 2 pieces
R2 - light blue. 17 pieces
R3 - Deep Purple. 2 pieces
R4 - Violet. 8 pieces.

Track length to be entered in race management tab : 17 m.

ALLOWED

Power taps

Borders/custom borders – anywhere

Less / More XLC's

Exchanging full straight by 2 half straight

Shorter pitlane/Pitlane on left or right side

INOX/Wd40

Crimping the rails

Individually powered LC's

NOT ALLOWED

Guard rails

CLC's

Painting the track

6. Hardware

Powerbase: Scalextric C7042 APB-firmware 1.09

At least 1 x Standard Scalextric PSU 15V, 4 Amps, alternative Toshiba laptop PSU with same specs allowed. (2 standard PSU's allowed)

High Power Variable Voltage Mod allowed, set voltage on 12,5 V

Controllers: All types of controllers allowed.

Teams should inform race organisation about their track and accessoires (controllers, power taps) set up and proof of voltage setting for variable PSU's.

Powerbase separated from track piece allowed.

7. Software-RMS

Race Control System 64 version F1 edition (See amendment 2 for version info)

We will race this event with FUEL LOAD SIMULATION and TYRE WEAR SIMULATION.

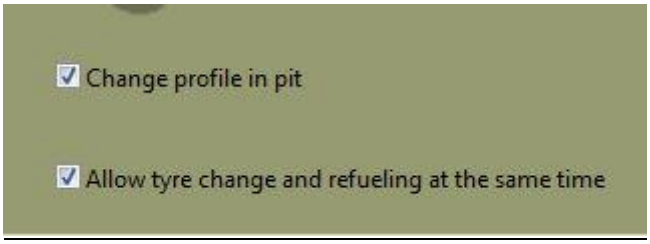
RCS64 has a Youtube channel with instruction video's and a manual on the www.rcs64.com website.

In this document I will highlight the specific settings for this event. Make sure you are familiair with RCS64 and at least have practiced pit stops and tested fuel load simulation and tyre wear.

MAIN PAGE IMPORTANT SETTINGS

Make sure you have the F1 edition of RCS64.

It is allowed to use any throttle profile you wish. You can use the defaults, change them or make new profiles, and decide what profiles should be connected to your team controller (selectable) in the driver setup. **You can than change the profile during pit stops**. That is what the check mark is for. If you are ok with a profile (linear for example) and do not intend to change profile during the race, It is advised to turn this option of to prevent mistakes during pit stop.



It is allowed to **change tyres and refuel at the same time**. For this event, refuelling from 0-100% will last about 30 seconds, tyre change 20 seconds. If you start refuelling you can now scroll to tyre change and start the change in parallel.

Other things to check in Main Page are the **minimum lap time setting** (for this track 5 seconds will do) and the way you want the pit menu to open. Personally I prefer LC pressed for 2 seconds to **open pit menu.**

RACE MANAGEMENT

Make a NEW event : For the official race this should be: ISC64

This event name is very important for the live web page standings!

For practice, qualify or race (endurance) simply select one of the led's;

And after you have chosen the right setting (time, laps), SAVE and Start Event 

Check your settings before Start Event

Burn Fuel

Fuel load simulation

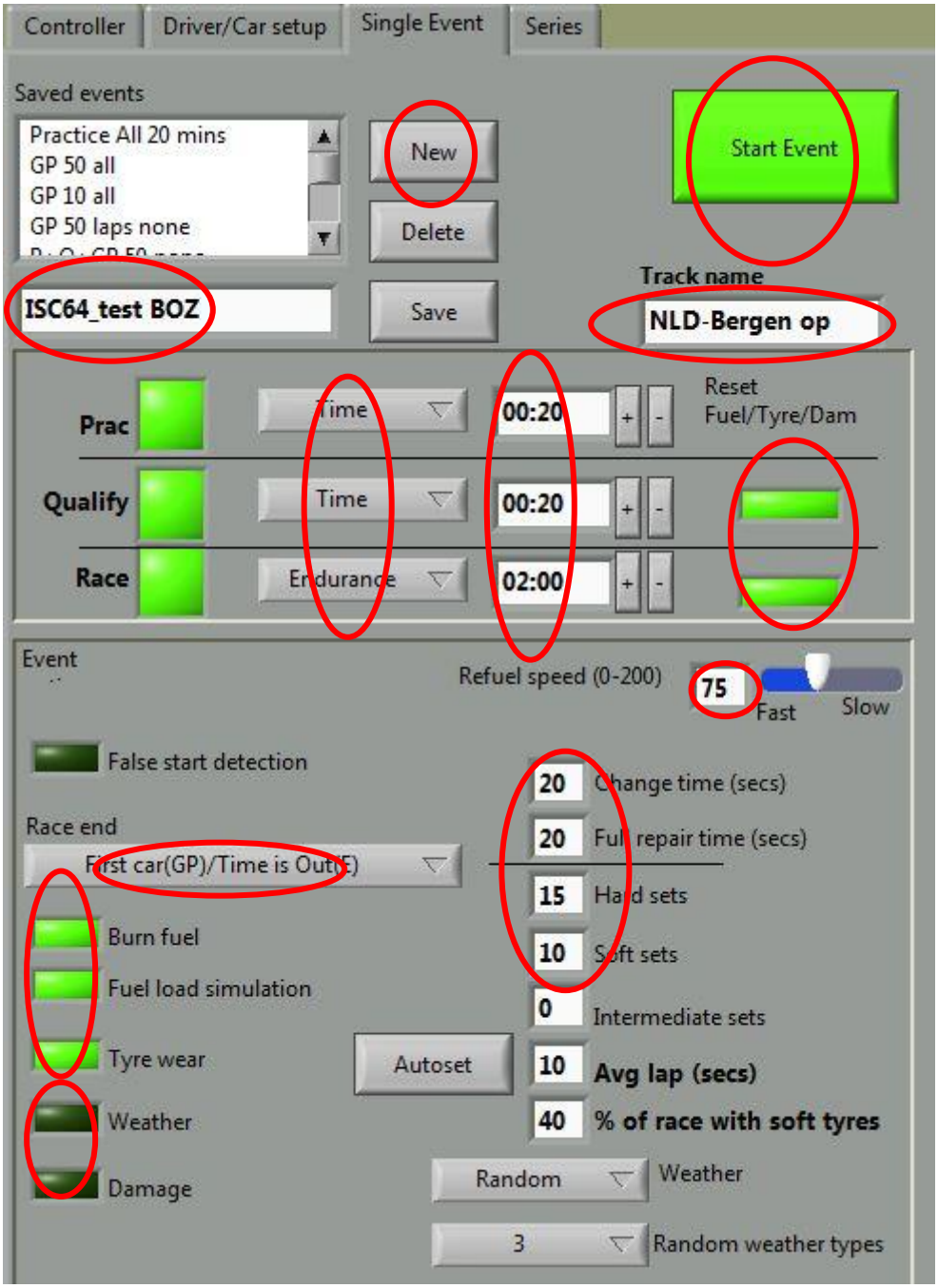
Tyre wear

Make sure damage and weather is unchecked.

Make sure False Start Detection is OFF

Note: If you want RCS64 to guide you from Practice to Qualify to Race, than select all 3 led's.

If you choose 3 individual events, make sure you use the same name to be able to see the results in the live web page. With an individual event, you can change the start fuel for that event. If you make 1 event with all 3 sessions(P/Q/R) included, start fuel will be the same for all sessions.



IMPORTANT SETTINGS;

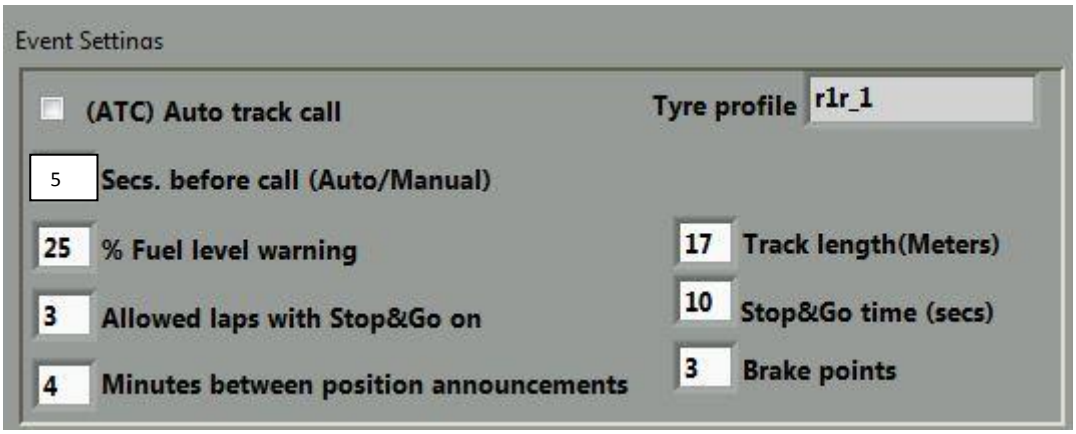
- REFUEL SPEED: **[75]**
- RACE END: First Car (GP)/Time is Out (E)
- CHANGE TIME **[20]** seconds (TYRE CHANGE)
- **[15] HARD SETS**
- **[10] SOFT SETS**
- Select the Practice/Qualify/Race settings - Time/Time/Endurance
- Set times you want for testing.
- Click the LEDS for Reset Fuel/tyre/dam after qualify and race. (otherwise you start with less fuel/less tyres)
- TRACK NAME: country-location, e.g. NZ-Auckland, NLD-Bergen op Zoom

For the OFFICAL RACE:

PRACTICE 20 MINUTES

QUALIFY 20 MINUTES

ENDURANCE 2 HOURS



Other important settings:

AUTO TRACK CALL NOT ACTIVATED !

(at least) [1] sec before track call. Advised to set this high (5 sec) to prevent unwanted calls.

[25%] Fuel level warning: This is up to you, It is the % you get an audio warning

[3] Laps Allowed before Stop&Go has to be taken (from 4th lap, laps won't count)

[17] m. track length (only for post race analysis)

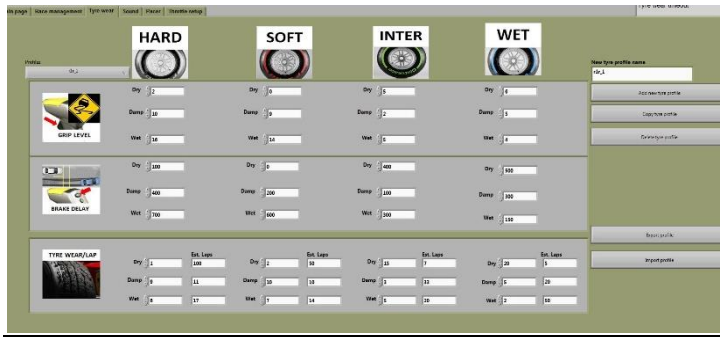
[10] seconds Stop & Go time

[3] brake points. Brake more than 3 times in a lap is extra tyre wear. (1% / lap more for each extra tap on brake/dynamic brake)

[2] min. between position announcements. RCS64 will inform you about the standings for your track every x minutes. Change this to whatever you want.

NOTE THE SELECTED TYRE PROFILE, THIS IS THE PROFILE USED IN THE EVENT, r1r_1

TYRE WEAR

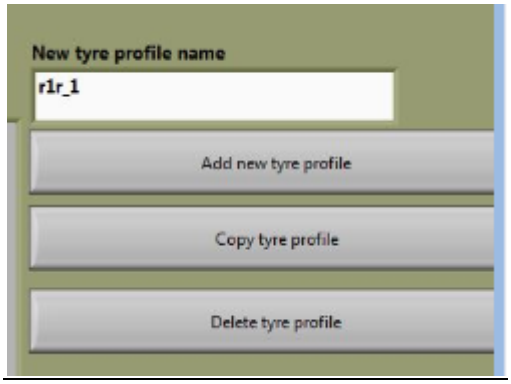


Since we don't use weather simulation, only settings for HARD and SOFt tyres on DRY track are applicable

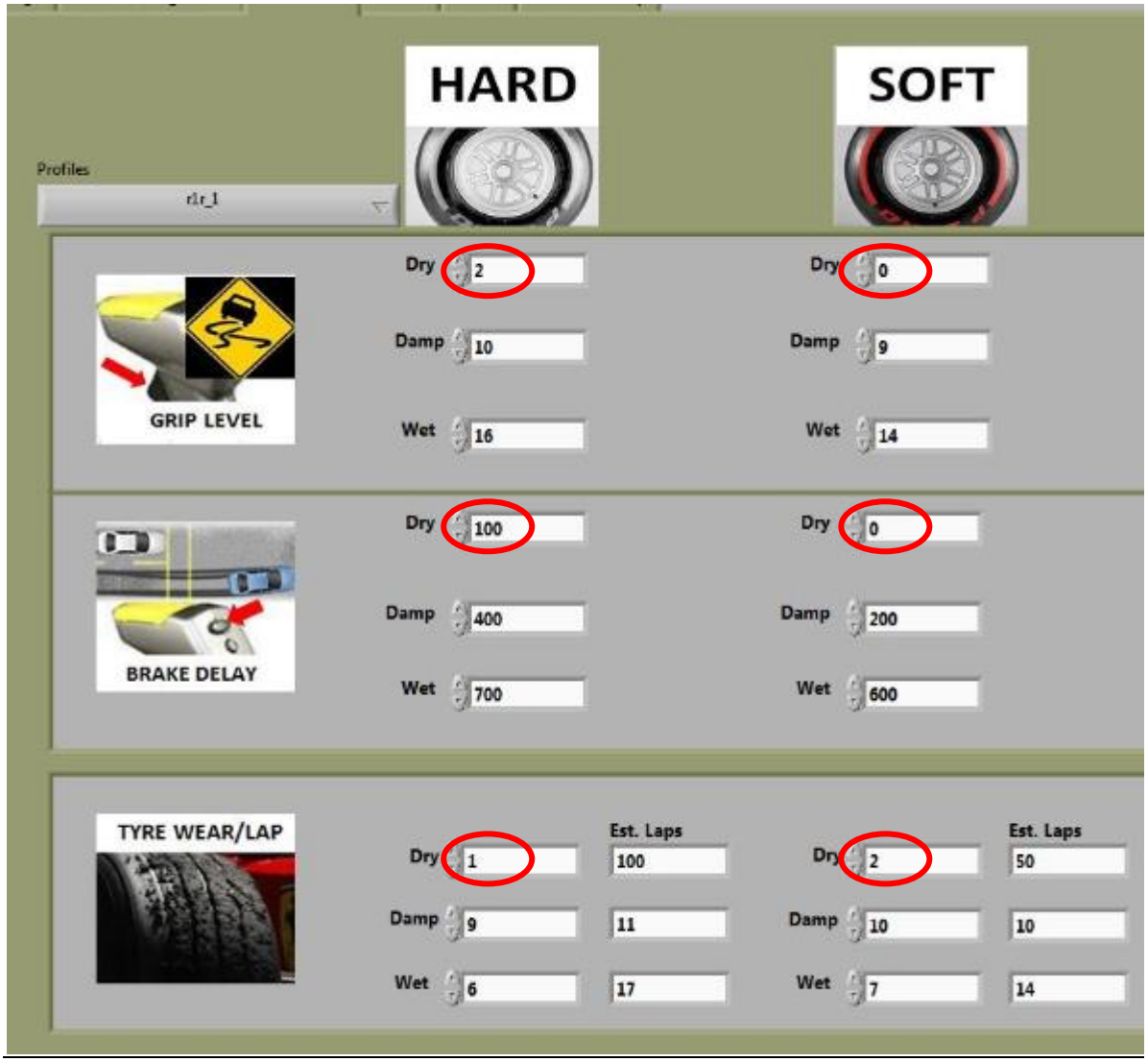
The easiest way to make the r1r_1 profile is to to select the default NoMagnetti profile.

Select NoMagnetti at drop down.

Than select 'Copy Tyre Profile'



Change the name to r1r_1



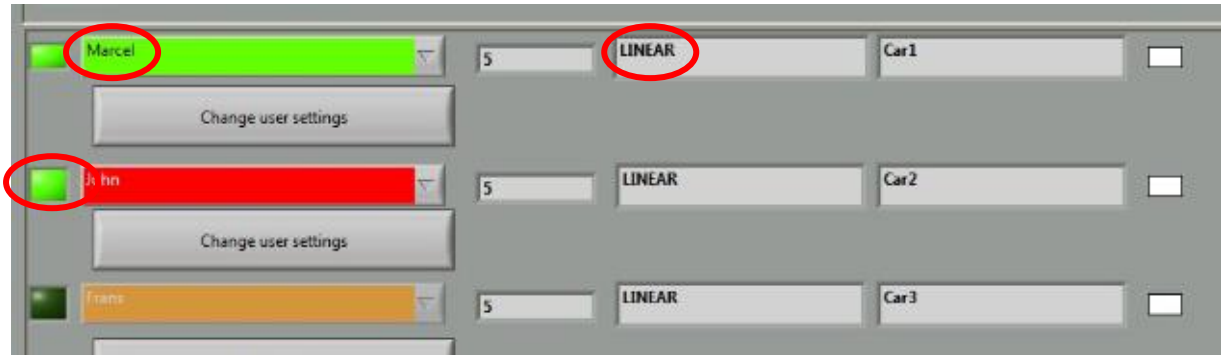
Change/check the values in the red circles. Other values are not important for this event.

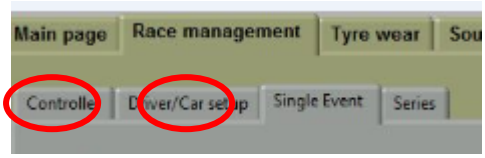
There is no SAVE button, just click in the screen.

Make sure the r1r1_1 is selected in the dropdown, and is now the selected profile in Race Management tab/Single Event.

DRIVERS/TEAMS/CARS

In the Race Management tab/Single Event you will find the driver/controller/car combination





Before you can select a name, you have to make sure this exists.

Add (team)names in the driver/car set up tab. In the driver/car set up tab you can select your preference for braking (dynamic, button) and default throttle profile, as well as the profiles you may wish to select during pit stops. Alternatively, click 'Change User Settings'

In the controller tab you indicate the kind of controller you are using and enable/disable controllers, select car and ***select fuel level at start.***

To set up the cars, click on the driver/car set up tab, and than **SET UP CARS.**

Click on an available default car to change name and picture, or add NEW car.

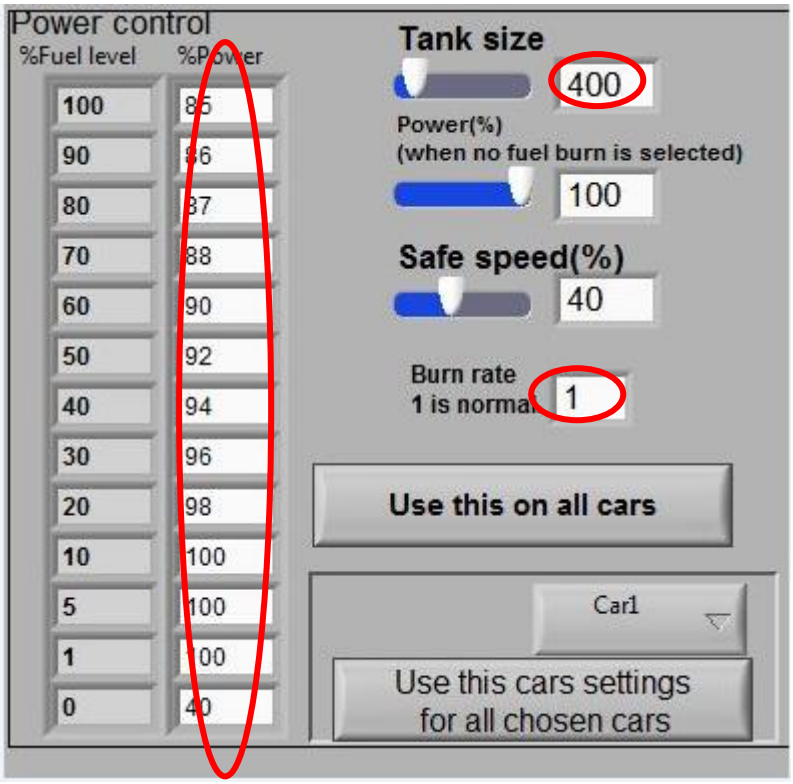
What is important, is to set the **TANK SIZE to 400**

All other values are default ,but please check them.

Once you changed the value(s), select the other cars for this event with CTRL, and select 'Use this setting for all cars'

Double check to see if the cars now have a tank size of 400.

The power related to fuel level is default.



I refer to the RCS64 you tube channel for information on how this all works, but should be straight forward.

You can add a picture if you wish.

8. RACING AND RULES

The goal is to to race a 2 hours endurance race at different locations around the world at the same time, with the same type of cars, same software, same track lay-out and same rules.

At this point it seems we will manage to have a special build of RCS64 which has the ability to upload data every x seconds to a website that mixes this data semi-real time so we will see live standings of all locations on one web site.

In any case, if this for some reason may not work, RCS64 will always generate a post race html with results. Besides that, the result viewer on the main page can export laptimes of the event to an excel file for post race analysis. And than can of course be mixed with the files of the other locations.

It will be clear that the winning team is the team with the most completed laps after 2 hours of racing. In case of a tie, qualification result counts.

For this endurance race (and practice/qualify), fuel load simulation and tyre wear will be used. Settings for tank sizes and tyres are discussed earlier in this document.

Fuel load simulation

Tank size is set at 400, burn rate 1.

The more fuel in the car, the less power. A full tank will give you 85% power.

Your driving style/throttle use influences the fuel burn. Since it lasts about 20-30 seconds for a full tank to be filled, you can imagine that saving a pit stop for fuel might be just enough to win this event.

When in the pit lane, you can open the pit menu and start refuelling. You can always cancel the refuelling at any stage and exit the pitlane.

Use practice and qualify sessions to learn about fuel burn rate, tyre wear, lap times and length of pit stops.

Tyre wear

Just like in real racing, your tyres will wear, simulated by the software. For this race you will have enough sets of tyres to finish the race with and still have some left. Learn which tyre feels best for you to set the fastest lap time, or gives you the most confidence to stay on track.

RESPONSE TO THROTTLE

RCS64 will influence the response of the car in relation to the throttle. Hard tyres have a small delay on throttle input. Soft tyres delay is 0, immediate response. The setting for Hard tyres this event is something you hardly feel, but it is present. This is for DRY track.

RESPONSE TO BRAKE BUTTON

For this track, we set amount of brake points to 3. This means, normally I would tap the brake button 3 times in a lap.
Tyre wear/lap for Soft tyres = 2%. This means as long as you drive your laps and don't brake more than 3 times, wear will be 2%/lap. Brake 4 times, wear will be +1% = 3%.

If you use dynamic brakes, It counts the amount of times you release the trigger.

If you don't brake at all, your wear will be less. Not braking will save you tyres and fuel, but are you as fast as a car that brakes ?

For Hard tyres, we use a setting '100'. This means as tyres wear, response to brake command increases every lap until 100. Translate this to the track; first lap your can brake 20 cm before the corner, this distance becomes longer every lap, and at tyre level 20% It is very well possible the brake distance is 50 cm., so you have to brake earlier.

Either team can choose to brake with the brake button, dynamic by releasing trigger or no brakes at all. All these settings have their pros and cons, think good and practice to decide what works best for your team.

Throttle profile

RCS64 has quite a few interesting default throttle profiles. A throttle profile is the link between the trigger of the throttle and the motor. Default is linear, but you can use (or make/edit) profiles that make the motor react differenton the throttle, like for instance more 'feel'in the lower part, or with a limited maximum to save fuel (but will give you less top speed).

Practice and test as much as you can and think good about which profiles you want to assign to the driver (team). You can switch profiles during pit stops, but the more you have connected, the longer It will take to scroll. Or maybe you are happy with one profile, in that case you can uncheck the option in the main screen to change profiles during pit stops and will limit the chance you make a mistake. It is up to the team!

TEAMS

A team consists of 2,3 or 4 drivers. Every team has 1 main car and 1 replacement car. Drivers rotate with the intention that every driver races about the same amount of time.

How a team divides the race time is up to the team.

However, **changing of driver is only allowed during a pit stop.**

Important !

- Team members that are not racing should act as an independent, unbiased marshall. However, fuel/tyre information can be passed on to your team mate while marshalling. Always keep an eye on the track. Marshalls are allowed to decide about stop and go penalties. There should be no discussion, if a marshalls calls for a stop and go, the person closest to the keyboard (or the race engineer) awards the stop and go manually by entering the F1-F6 keys. (Car ID).
- If a location has 2 human team, a constant speed pace car should be placed on track during all sessions. The pace car should be in the lane where pit in is located.
- If a location has 1 human team, 2 constant speed pace cars should be placed on track during all sessions, one in each lane.
- If a location decides to divide all the drivers over all the cars of that location, authorisation for his has to be given by the race organisation. In any case, all the drivers have to race about the same amount of time and the drivers / teams have to decide in advance about what to do when they win a price.
- Every team is allowed to have 1 spare car. Once placed on track, there is no turning back, the race MUST be finished with the spare car. Spare car should be set up according to the rules.
- During pit stops, It is allowed to pick up the car while the refuelling/tyre change process is ongoing for (quick) maintenance like cleaning tyres, changing braids, remove dust etc.
- In case of bad rear tyres, THE ORIGINAL SCALEXTRIC STOCK TYRES SHOULD BE USED TO FINISH THE RACE.

When entering the pit lane, drive the car as far as possible in the pitlane, so other cars can stop behind you.

If the pit stop of the following car is faster, than so be It, he has to wait unless the car is removed of the track for maintenance.

STOP AND GO

STOP and GO penalties can be applied by when a car hits another car from behind, or hits a car during the lane change. Changing car is always the car that should get the penalty. A car that exits pit lane and hits car on main straight should get a stop and go penalty.

Stop and go penalties to be served in the pit lane. It is not allowed (and technically not possible) to combine a stop and go with a regular stop for fuel or tyres.

BLUE FLAG;

NO BLUE FLAG! Meaning, slower cars are allowed to fight faster cars, It is up to the faster car to make a pass.

PRACTICE

No limit in changing drivers. Use practice time to test car and keep an eye on fuel burn and tyre wear.

QUALIFY

Qualify decides the start position of the race. Pole position (fastest driver) start on first track piece before start/finish on inner lane. 2 nd position start in inner lane the length of a l full straight behind etc. R2, R3 and R4 count as full straight, meaning that start position 20 is at the XLC before the final combination of bends.

RACE

Standing start based on qualifying results. Race length 120 minutes.

The winning team is the team with the most completed laps after 120 minutes.

In case of a tie, qualify result counts.

Winning country is the country with the best average of completed laps. Total laps per country divided by amount of teams.

PACE CARS

Pace cars should be set up the best way to keep them on track, so at least fitted with a magnet.

They should be set up with constant speed and no lane changing.

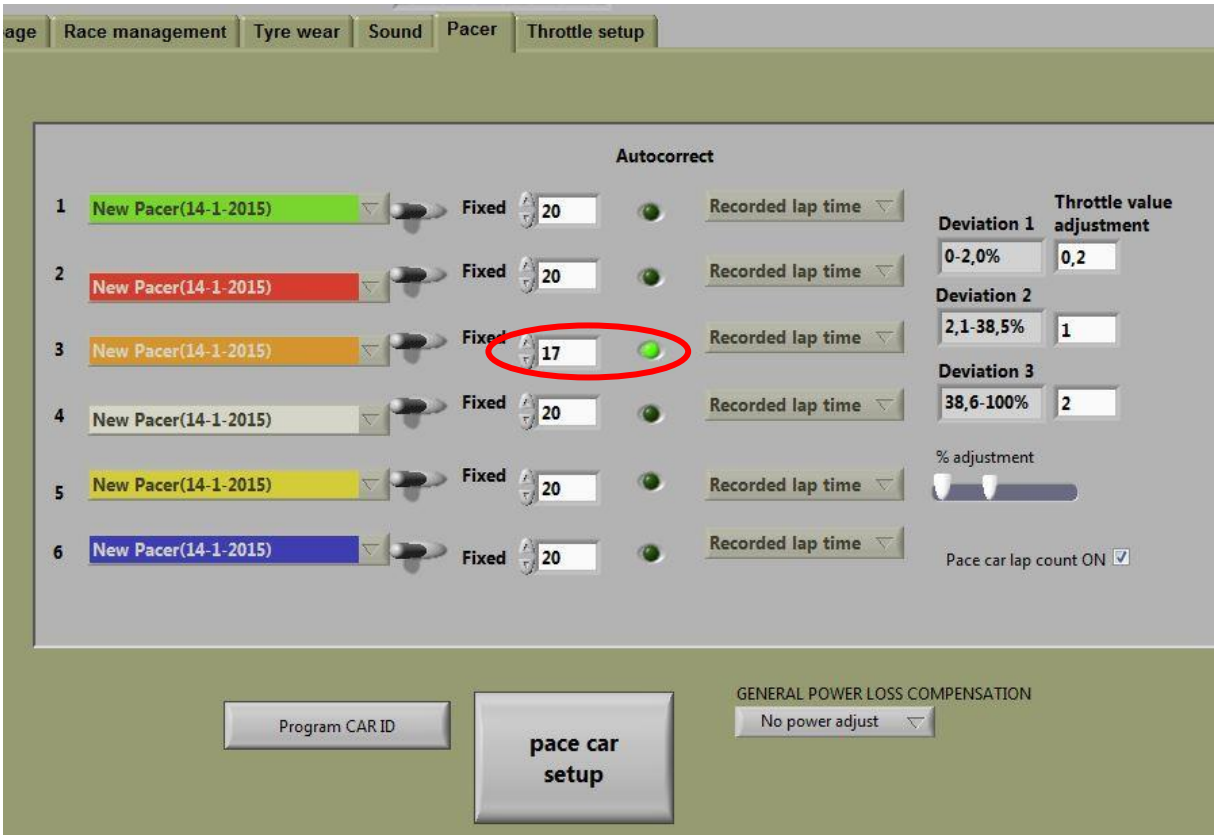
SET UP A FIXED SPEED PACE CAR

- **There should always be 3 cars on track. If you have 1 human team, add 2 pacers, 1 in each lane. No lane changing. If you have 2 human teams, add 1 pacer in the lane the pit in/out is in.**

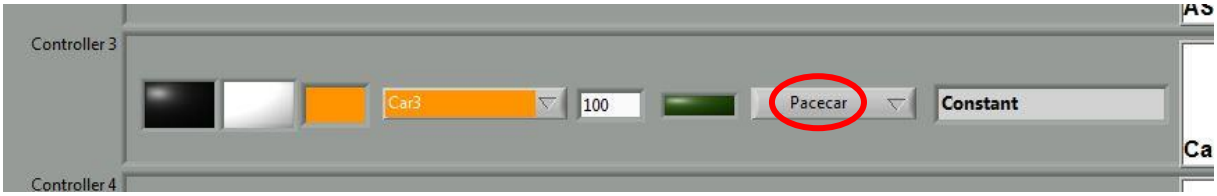
See example for ID 3

For this track, if you use a standard scalextric car with magnet, like the Lamborghini SR, a value of 17 will do. Check the autocorrect LED.

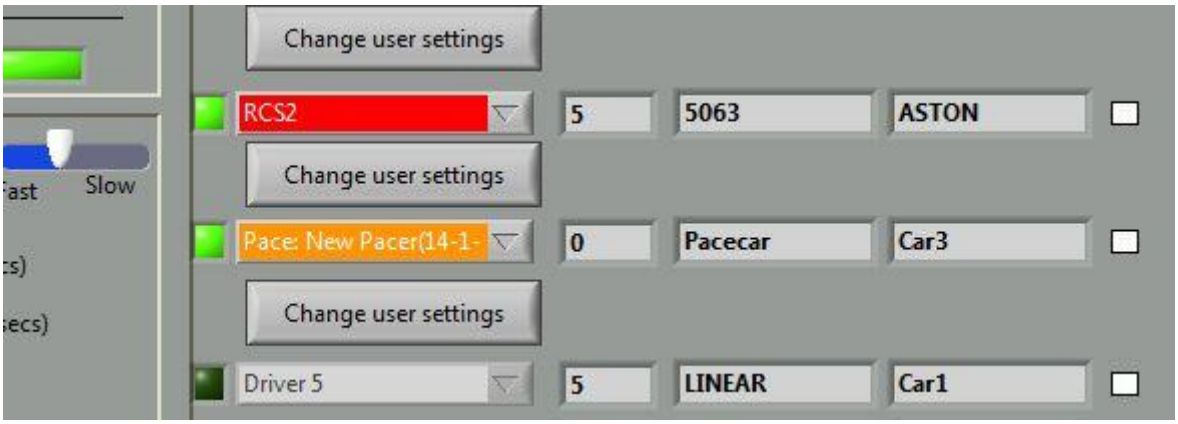
No power adjustment necessary. Leave the adjustments as default.



In the controller tab, select PACECAR as controller type for the desired controller/ID;



In the single event page It will look like this;



In the race screen, you can see the pace car and you will see It adjust speed.

PRICES

First Price : 2 SCORPIUS controllers and 2 dongles (Most completed laps)
Second Price : 1 SCORPIUS controller and 1 dongle (Runner up)

Third Price : 1x Scalextric Ford GT (C3290) (Fastest Race Lap)

Fourth Price : 1x Scalextric Ford GT (C3290) (Fastest Qualify Lap)

- Laptime not valid when car deslots after passing Start/Finish !
- Team that wins price for the fastest qualify lap, can not win the price for fastest race lap. And the other way around. Price goes the team with the 2nd fastest lap time in that case.

Appendix 1

LOCATIONS & TEAMS & CARS

The Netherlands:

Minardi,

Track name: NLD-Bergen op Zoom
Teams:

RCS1
RCS2

Thoefnagel,

Track name: NLD-Urk

Morning star
NLD2-2

United Kingdom

Mr Modifier,

Track name: UK-Ammanford
UK1-1
UK1-2

Wraith,

Track name: UK-Windsor

For Queen and Slot Cars
British Slot Crusaders
Fish & Digital Chips

New Zealand
Grunz,

Track name: NZ-Auckland

NZ1-K9

Damo,

Track name: NZ-Ohope

NZ2-1
NZ2-2

USA
Mr Flippant,

Trackname: USA -Auburn WA

USA1-Flippin'Racin'
USA1-2

Denmark
Fdlg,

Trackname DK-Ringsted

Ringsted Rumstat Racing 1
Ringsted Rumstat Racing 2
Ringsted Rumstat Racing 3
Ringsted Rumstat Racing 4

Per Nielsen,

Track name: DK-Rodovre

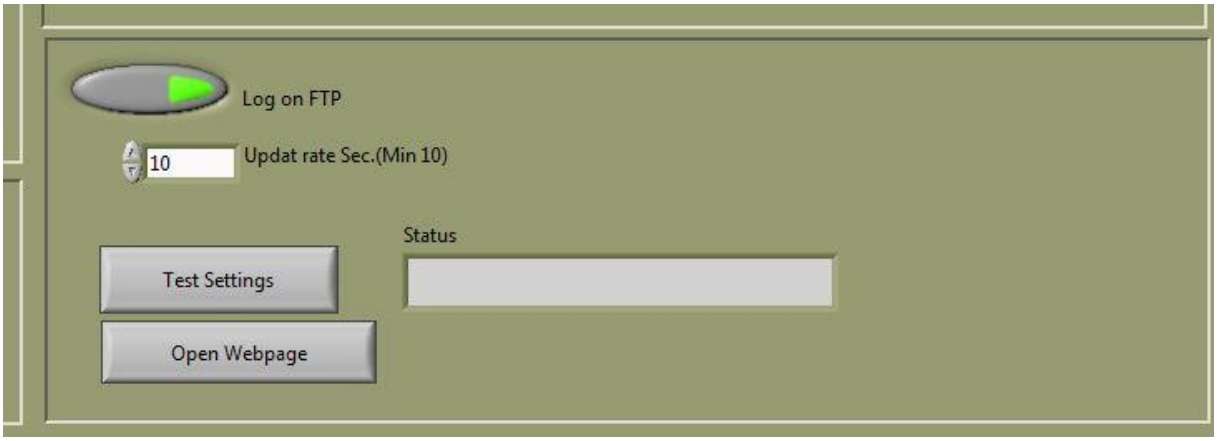
Scalextric Shop 1
Scalextric Shop 2
Scalextric Shop 3

Canada
Vector, port sydney, 1 team
CAN1-1

To be updated

Appendix 2

RCS 64 version number xxxx has a feature to connect to the www.connectedslotracers.com website. Make sure to highlight the 'Log on FTP'led in RCS64 Main screen.



You can test the connection by pressing 'Test settings'

'Open web page'takes you to the semi-live website. Go to 'Races' and select the RCS64 Event to see live results. You can acces this site from every PC (or phone/tablet) with internet connection!

For the actual race, MAKE SURE EVENT NAME IS: ISC64

To be updated

GP 50 all

Practice

Position	Track Name	Driver Name	Car Name	Lap Count	Fastest Lap	Elapsed
1	RCS64 HomeTrack	Driver 3	Car3	10	2.063	10/ 10
2	RCS64 HomeTrack	Driver 1	Test Car	0	0.000	4/ 10

Qualifying

Position	Track Name	Driver Name	Car Name	Lap Count	Fastest Lap	Elapsed
1	RCS64 HomeTrack	Driver 1	Test Car	10	1.915	10/ 10
2	RCS64 HomeTrack	Driver 3	Car3	9	1.796	9/ 10

Race

Appendix 3

DiSCA

The Digital Slot Car Association
Standards - Scalextric DPR GT

PREAMBLE
These standards apply to contemporary GT cars manufactured by Scalextric[1]. A list of eligible models is included in Appendix A. Where applicable, all referenced part numbers are for parts fitted to models as original equipment, or approved upgrade components. Cars may be run with or without traction magnets, at the organiser's discretion.

To facilitate out-of-the-box racing, and racing with tuned cars, two categories are defined as follows;

Class B: Stock
Class A: Modified

The principal difference is that Class A has freedom over gears and axel assemblies. Both classes retain the standard 18,000rpm motor.

1. Body
- 1.1. Minimum body mass 18.0g
- 1.2. Bodies must be decorated with an authentic racing livery
- 1.3. Windows and glass may be clear with cockpit fitted, or tinted black where no cockpit is fitted
- 1.4. A driver's cockpit is not required
- 1.5. Spoilers and wings must be fitted at all times
- 1.6. Vulnerable parts may be rubber-mounted. Modifications must be sympathetic to the final appearance of the model.

2. Chassis
- 2.1. Chassis must be original and unmodified, as supplied with the model from new. A list of chassis part codes is given in Appendix A
- 2.2. Body must be mounted to the chassis using the original fixing locations and methods
- 2.3. Screws and washers are free
- 2.4. All screw holes must be covered to prevent loose screws dropping onto the track rails

3. Motor and Pinion
- 3.1. The following motor is allowed; C8146
- 3.2. The following pinion is allowed; W8200
- 3.3. The motor shaft may be shortened on the can side only
- 3.4. The motor can must be insulated from the circuit rails
- 3.5. Any other modification to the motor is illegal

4. Axels, gears and wheels
- 4.1. Class B cars must retain the axel assemblies fitted as original equipment, listed in Appendix A
- 4.2. Class A cars have freedom regarding the axel assembly, subject to the following restrictions;
  - 4.2.1. Axels are free
  - 4.2.2. Axels must not protrude from wheels
  - 4.2.3. Wheels are free
  - 4.2.4. The minimum diameter for wheel and tyre on front axel is 16.0mm
  - 4.2.5. All wheels must have the correct wheel inserts or machined style for the model. 2D colour printed wheel inserts are allowed
  - 4.2.6. Gears are free
  - 4.2.7. Axel bearings are free
  - 4.2.8. Tyre edges must not extend beyond 1mm from the widest point of the wheel arch

5. Tyres are free to be specified at the discretion of the race organizer. Where possible it is recommended the original equipment tyre is used.

6. Digital Chip
- 6.1. The following digital chips are allowed;
  - 6.1.1. C8515 EasyFit Digital Plug
  - 6.1.2. C7005 retro-fit digital chip
  - 6.1.3. C7006 retro-fit digital chip
- 6.2. Any modification necessary to fit a digital chip will not render a car illegal

7. Guide flag, cables, and braid
- 7.1. Guide flag must be C8329 and must not be modified
- 7.2. Cables is free
- 7.3. Braid is free
- 7.4. Braid must be trimmed to a length shorter than the guide blade

8. General
- 8.1. Minimum ground clearance is 1.5mm

[1] a.k.a. Superslot in Spanish market

APPENDIX A

Model	Chassis	Axel assembly (Class B)
Audi R8 LMS GT3	W9619 W10146	W9621
Aston Martin DBR-9	W9294 W9582 W9735	W9295 W9583 W9997
Bentley Continental GT3		
Chevrolet Camaro GT-R	W10330	W10283 W10331
Chevrolet Corvette C6R GT2	W10346	W9749 W9816
Ferrari F430 GT2	W9840	W9841 W9949
Jaguar XKR GT3	W9826	W9827
Lamborghini Gallardo GT-R	W9940	W9941
Lotus Evora GT4	W10424	W10425
Maserati Trofeo Granturismo MC		
McLaren MP4-12C GT3	W10349	W10650
Nissan R35 GT-R	W9885	
Porsche 997 GT3 RS	W9547 W9881	W9575 W9812 W10288

NB. Not all codes are shown. Subject to availability, axel assemblies may be swapped between car models.

APPENDIX B
Additional regulations for ISC64 International Slot Car Championship

I. Super resistant cars are not allowed. All cars must have fully detailed interiors. This excludes Nissan R35 GT-R and Porsche 997 GT3 RS from the eligibility list in Appendix A.
II. Additional eligible models are as follows;

Model	Chassis	Axel assembly (Class B)
Ford GT	W9260 W9446 W10064	W8965 W10063
Lotus Evora	W10424	W10425
Porsche 911 (996) GT3R	W9253	W9254

III. Maximum ballast is 10.0g
IV. Braid is limited to original equipment