MANUAL

Pc Lap Counter

This manual is not up to date, you will find explanation of new features of Pc Lap Counter here:
http://www.pclapcounter.be/pc_lap_counter_presentation.html
and also on the Pc Lap Counter Forum here:
http://pclapcounter.winnerbb.net/

PC LAP COUNTER SCREEN

Pc Lap Counter screen is divided in 5 parts :
- Results : classification of the race.
- Messages : Information and alert messages.
- Best time : Race runners best times.
- Race management : buttons permitting management of the race.
- Data setting :buttons permitting settings of descriptive (driver ,team…. .)

Results

each time a driver passes the start line.

Race time left - Elapsed :

If the race is set in time limit those fields shows you the left time before ending of the race and the elapsed time since the start of the race.

Record Lap :

Indicates the record time and the name of the owner.

Relay time left :

If the race is set in time limit and a relay is foreseen, this field indicates the left time before ending of the relay.

Best Lap :

Indicates the best executed time since the beginning of the race ; this time is reset to zero at each ending relay.

Due to fact of reset to zero at each end of a relay this is not the real time since beginning of the race but there is a solution:

To obtain the best time since beginning of the race you must before starting the race reset to zero the best time of the track so that the new record time will represent the best time since beginning of the race.

Pos :

Driver or team position in the race.

Team :

Team name.

Driver :

Driver name.

Lap :

Total number of laps executed by driver or team since departure of the race.

Lap Time :

Last lap time executed by driver/team.

This time will appear in red if time is higher than the authorized maximum time and also in red if time is less than minimum authorized time.

Gap :

Difference in number of laps with the first driver and with the previous driver (version 3.20).

If this difference is less than one lap Pc Lap Counter will show you the difference in seconds.

Best lap time :

Driver best time.

This time will appear in :

- Orange : if driver beats his best time in race (not his record time but his best time in race)
- Green : if driver beats the lap record.

This time resets to zero at each track change or driver change.

Average:

Time average from driver/team since departure of the race.

P.Lap :

Number of laps executed by driver/team since beginning of his relay.

This number of laps resets to zero at each track change (Version 3.20 don't reset anymore when driver change).

P.Pos :

Driver position in his relay in keeping with the other drivers.

(See also OPTIONS).

P.Average :

Time average from driver since beginning of his relay.

This average resets to zero at each track change or driver change.

LANE/ IO:

Indicates you on witch track the driver/team is running and also the track colour.

Penality :

Indicates the number of penality lap(s) received by driver/team.

Previous lap time:

Indicates the previous lap time and the difference with the last lap executed by driver.

Pit stop time:

Indicates the time driver/team elapsed during pit stop.

Pitstop laps :

Indicates lap(s)where pit stop is foreseen.

You can modify this field at any moment by inserting the lap(s)where a pit stop is foreseen (if more than one pit stop separate laps with ' ;').

Race Time:

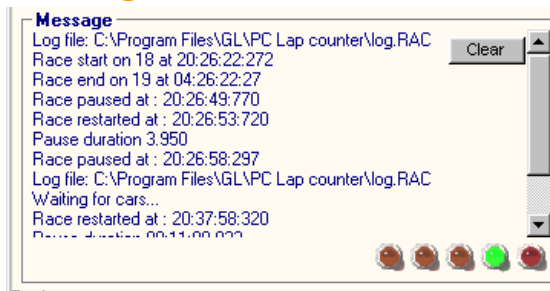Total laps executed by driver/team since departure of the race.

On :

When you are using the track control system this field indicates if track is under tension or not.

You can modify this field at any moment which will have for effect that the track is under tension or not

(See OPTIONS and DETECTION for more information).

Messages

Message
Log file: C:\Program Files\GL\PC Lap counter\log.RAC
Race start on 18 at 20:26:22:272
Race end on 19 at 04:26:22:27
Race paused at : 20:26:49:770
Race restarted at : 20:26:53:720
Pause duration 3.950
Race paused at : 20:26:58:297
Log file: C:\Program Files\GL\PC Lap counter\log.RAC
Waiting for cars...
Race restarted at : 20:37:58:320

appear information messages this to alert for sample that one lap was not accepted.

The five LED show you the state of the starting lights (see section 'starting lights')

Best time

Best time on Spa

Best race time: Reset   Update...

Pilote	Best Lap time	Time on Track	Tot Lap	Best Race
B. Bertrand				
B. Degrave	8.069			
B. Devos				
C. Daeleman	7.250			
C. Paulus	8.069			
C. Colot	8.068			
C. Mignot				

for the concerned track and also some statistics about the running race.

Driver :
Driver name.

Best Lap time :
Best time executed by driver on this track.

Time on track :
Make appear the driver total time passed on track since departure of the race.
This field is updated after each end of a relay and each track change or driver change.

Tot Lap :
Total lap cumulation for the driver since departure of the race.
This field is updated after each end of a relay and each track change or driver change.

Best Race Time:
Makes appear the best time for driver to run x laps.
This will only appear if race is configured in numbers of laps.

Average:
Gives you the driver average to run x laps.
This will only appear if race is configured in numbers of laps

Setting of a race

Before you start a race you first have to specify to Pc Lap Counter which are the parameters needed (Duration of the race, driver(s)/team(s), duration of relay(s) ….)
Once done with race configuration Pc Lap Counter will make appear the runners in the result part following order of tracks and button "GO" will activate.
In the part race management of Pc Lap Counter , click on « Race Setting » and the parameters of the race screen will appear.

Driver/team/Serie
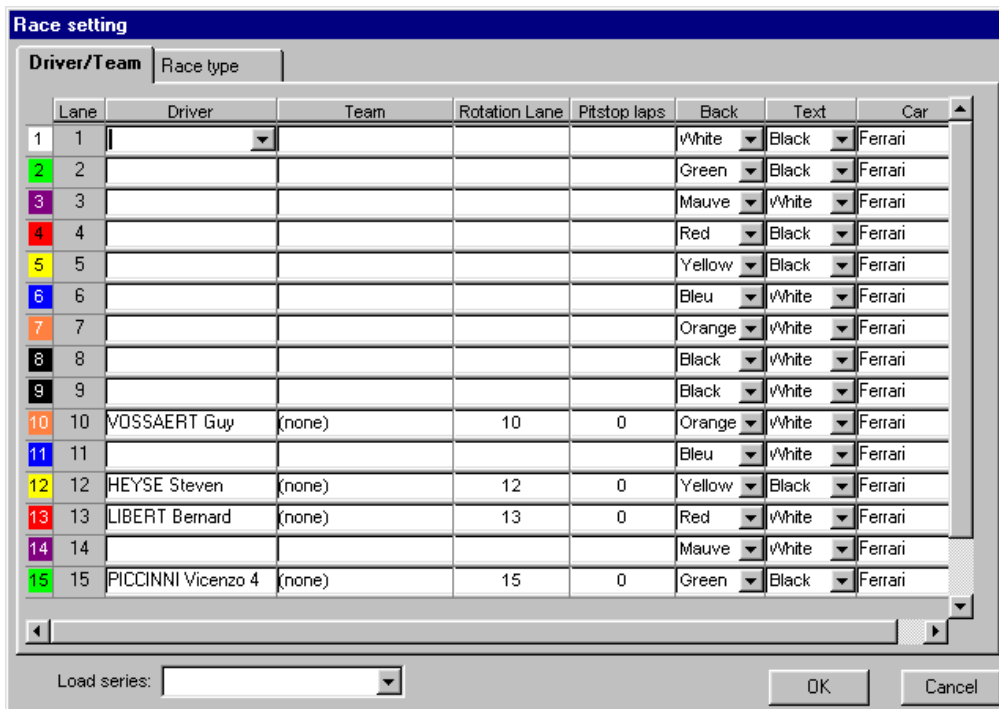
Pc Lap Counter shows you all the available tracks (17 at this moment).
In look of each track you use, specify the driver or team participating at the race.

Explication of fields:

LANE/IO :

In case of a detection via the parallel port the lane represents the pin number of the parallel port (for sample the lane 1 is pin 1 on port LPT1)
In case you use a detection via the K8000 kit from Velleman the lane represents the IO CHANNEL from your K8000 (for sample, the lane 1 is IO channel 1 on your K8000).

Driver :

Insert the driver name who will run on this track.
You can select the driver from the list or enter his ID directly (See Driver management to create a new driver).
Select driver '(**none**)' or enter **0** in case there is no driver on this track.
Rem :
If you specify a team Pc Lap Counter will only show you the drivers belonging to this team (the driver '(**none**)' is not available anymore)

Back and text :

Select colour of the track (Font colour and text colour).
This colour makes it easy for you to identify the track in the result screen from Pc Lap Counter.

Rotation lane/Shift IO :

Rotation allows you to operate automatic track changes .
Enter lane number where your driver will go at first track change
Sample:
Rotation 6 for lane 5 means that when you operate track change, driver running on lane 5 will go on lane 6.

Team :

Enter team running on this track..
You can select the team from the list or enter directly its ID (See team management to create new team).
Select team '(**none**)' or enter **0** in case there is no team/driver on the concerned track
Rem :
When you insert a team Pc Lap Counter will automatically show you the first driver of the team in look of the concerned track.

Pitstop laps :

This allows you to make an automatic pit stop at a precise moment..
Enter the lap number(s) when you want the driver/team to operate pit stop..
Once the driver/team reaches the laps number Pc Lap Counter will put automatically driver/team in pit stop with a parameered duration in tab 'race type' field 'pitstop length'.
Rem :
If you want to make more than one pit stop , use ' ;' to separate the different laps.
For sample : 20 ;50 means that Pc Lap Counter will put driver/team automatically in pit stop when reach lap 20 and 50.

Car:

Enter the car type the driver/team is using for the race.

Load series (Version 3.21):

Pc Lap Counter will put the drivers of the serie 1 and at the end of each relay will automatically change drivers with the drivers of the next serie.

Race type

Here you have to specify duration of the race or the number of laps runners will have to execute as well as the characteristics of the track you run on.

Explication of fields:

Sound **start:**
Pc Lap Counter is able to play a sound for the departure of the race.
Enter here the sound file you want to hear at departure (file WAV)

Sound **relay :**
Pc Lap Counter is able to play a sound when relay is touching at its end..
Enter here the sound file you want to hear when relay is touching at its end (file WAV).

Sound **Start after:**
Pc Lap Counter is able take a sound decreasing count before departure of the race
Enter here the number of seconds Pc Lap Counter has to decrease count before departure of the race.

Sound **Pitstop length :**
When you have foreseen to operate automatic pit stops this field permits you to enter duration of pit stops.

Track **Track :**

If you run on more than one track enter here the name of the track you're running on.
Rem:
When you enter the name of the track Pc Lap Counter will automatically put the length as well as min/max time.

Track **Length :**

Enter here the length of the track so that Pc Lap Counter can calculate the speed.

Track **Min lap time :**

Enter here the minimum time to execute one lap on the track, this time will permit Pc Lap Counter to detect any detection error.
Sample : a car getting out of its line and passes another detector.
Rem :
If time of a lap is less than the minimum time Pc Lap Counter will refuse the lap and a message will appear.

Track **Alert lap time :**

Enter here the maximum time to execute one lap on the track, this time will permit Pc lap Counter to detect any detection error.
Rem :
If the lap time is higher than the maximum time Pc Lap Counter makes appear the time in red but will not refuse it.

Race **Championship :** see championship mode.

Race **Grand Prix** : see championship mode.

Race **First driver making / Stop after**

Via those two options you can specify which type of race you want to do, or the race is limited in numbers of laps, for this use « First driver making » or use « Stop after» for a limited time race.

First driver making:

When you select this type of race you have to specify the numbers of laps to reach. The first driver reaching this number will be the winner of the race.
Rem :
In this mode there is no possibility to specify relay moments .

Stop after :

When you select this type of race you have to specify the duration of the race. The winner will be the driver who made the highest number of laps at the end of duration Maximum duration for a race is 23H59M59S.

For this type of race you can specify a relay duration via field '**Relay after'.**
Let's say you specify the duration of a relay at 30min, this means there will be a driver switch or a pause every 30min..

Option **'Pause race during relay'** will put the race in mode 'PAUSE' and at each end of relay you will have to restart the race manually with button 'Restart 'available in part Race management from Pc Lap Counter.

Option '**At the race end the drivers must finish their lap**' (↳ version 3.17) means that at the end of the race Pc Lap Counter will wait that all the drivers finish their lap before stopping completely the race.

In order that the drivers can finish their last lap Pc Lap Counter will only allow one passage for each driver.

AVAILABLE FONCTIONS IN RACE

In the part 'Race management' once you configured the race , a few buttons gets activated and allows you to manage the race.

Basic buttons

Go – Pause – Restart – Stop – 10..0:

Go:
After you configured the race this button will allow you to start the race.
Rem :
Pc Lap Counter will make a SONORATED decreasing count.
If you activated track control, the button 'GO' will put track under tension.

Pause :
This button will put the race in mode PAUSE.
If a driver pass the detector while race is in pause mode Pc Lap Counter will refuse the lap and a message will appear.
Rem :
Once the race is in pause mode Pc Lap Counter will refresh the classification. If you activated track control the button 'Pause' will put track out of tension.

Restart:
This button allows you to restart the race if it is in PAUSE mode.
Rem :
If you activated track control the button 'Restart' will put track under tension.
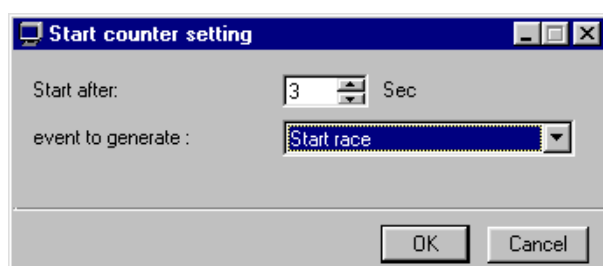
Stop:
Stop button allows you to stop definitely the race , you can not restart the race (but it's always possible to save the race).
If you activated track control the button 'Stop' will put track out of tension.

10..0 Automatic decreasing count
This button allows you to operate a decreasing count before pause, a relay, a stop or a start/restart.

After you click on '10..0' the window 'start counter setting' will appear and there you can specify the number of seconds for decreasing count and also the event to generate (pause, stop, restart…)

The window decreasing count takes in fact the state of the race (you can not operate pause action if the race didn't start yet).

Advanced buttons

Update – Shift – Detail – Print - Zoom

Button Update…:

This button allows you to put a driver ,in pit stop as well as change his total numbers of laps (up and down).

It's via this button you can operate manual changes of tracks and change the race and the relay length (version 3.20).
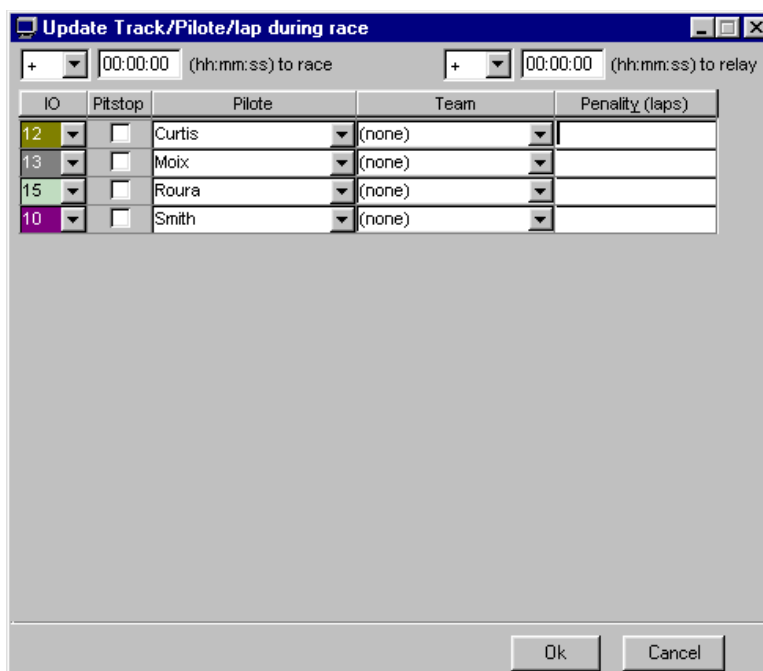
When you click on Udpate Pc Lap Counter runners of the race will appear in alphabetical order (drivers and teams)

Available fields in window pitstop :

Lane/IO :

Represents the lane number on which the driver or team is running. If you want a driver or a team to change lane enter here the new lane number on which you want them to run

Rem :

When you change lane, Pc Lap Counter will reset the executed laps of driver (the total number of laps will not change)as well as his best time during the race.

Pitstop :

This field allows you to put a driver in pit stop and a decreasing count of time in stop will update in the classification.
When driver is in pit stop Pc Lap Counter will refuse any passage for this driver and a message will appear
If you activated track control system, Pc Lap Counter will cut tension on track.
REM :If the driver is already in pit stop the field will be ticked , you just have to tick off the field to end pit stop.
If you activated the track control system, Pc Lap Counter will put track under tension .

Driver :

If you want to change the driver running on the concerned track enter here the new driver.
You can select the driver in the list or enter directly his ID (See driver management to create new driver).
Rem :
If team is specify Pc Lap counter only allows you to select a driver belonging to this team.

Team:

If you want to change the team running on the concerned track enter here the next team.
You can select the team in the list or enter directly his ID (See team management to create new team).

Rem :
When you change team Pc Lap Counter will put as driver the first driver from the concerned team.
When you change driver, Pc Lap Counter will reset to zero the executed laps by driver (the total laps number will not change thus .as his best time in the race).

Penality (laps):

If you want to change the total number of laps executed by a driver/team enter here number of laps to add or to diminish.
> 0 Pc Lap Counter add specify laps number
< 0 Pc Lap Counter diminish specify laps number.
Rem :
Pc lap counter will update the classification and makes appear the number of penality laps.

Button rotation (Automatic track change)

This button allows you to operate automatic track changes :
In function on what you specify in part Race settings and in driver changes inside the teams Pc Lap Counter will operate automatically change of driver and track.
When you change driver, Pc Lap Counter will reset to zero the executed laps by driver (the total laps number will not change thus .as his best time in the race).

Sample: Change of track and driver.
Let's suppose you configured the race for 2 tracks like this :

Lane	Driver	Rotation	Team
10	Albert	11	SCALEX
11	Jean	10	NINCO

and SCALEX team is configured like this:

Driver	Shift Driver
Albert	Paul
Paul	Albert

AND NINCO team is configured like this :

Driver	Shift Driver
Jean	Eric
Eric	Jean

When you are going to click SHIFT for the first time PC Lap Counter will make the next changes:

Lane	Driver	Team
10	Eric	NINCO
11	Paul	SCALEX

When you are going to click SHIFT for the second time PC Lap Counter will make the next changes:

Lane	Driver	Team
10	Albert	SCALEX
11	Jean	NINCO

Button Detail (historic of laps)

This button allows you to see the historic of laps executed by driver/team.

Lap	Lap time	Pilotename	Average	Previous lap	Gap	Racetime	Pits
2	10.165	R. Antonsen	10.165	0.000 +10,165	0.010	10.165	
3	9.019	R. Antonsen	9.783	10.165 --1,146	0.010	19.184	
4	9.023	R. Antonsen	9.593	9.019 +0,004	0.006	28.207	
5	9.005	R. Antonsen	9.475	9.023 --0,018	0.001	37.212	
6	9.019	R. Antonsen	9.399	9.005 +0,014	0.002	46.231	
7	9.018	R. Antonsen	9.345	9.019 --0,001	0.017	55.249	
8	9.059	R. Antonsen	9.309	9.018 +0,041	0.002	00:01:04.308	
9	8.993	R. Antonsen	9.274	9.059 --0,066	0.015	00:01:13.301	

Average: 9.274
RaceTime: 00:01:13.301

To select a driver or a team position yourself in classification (with mouse select in classification the driver then click on button 'Detail').
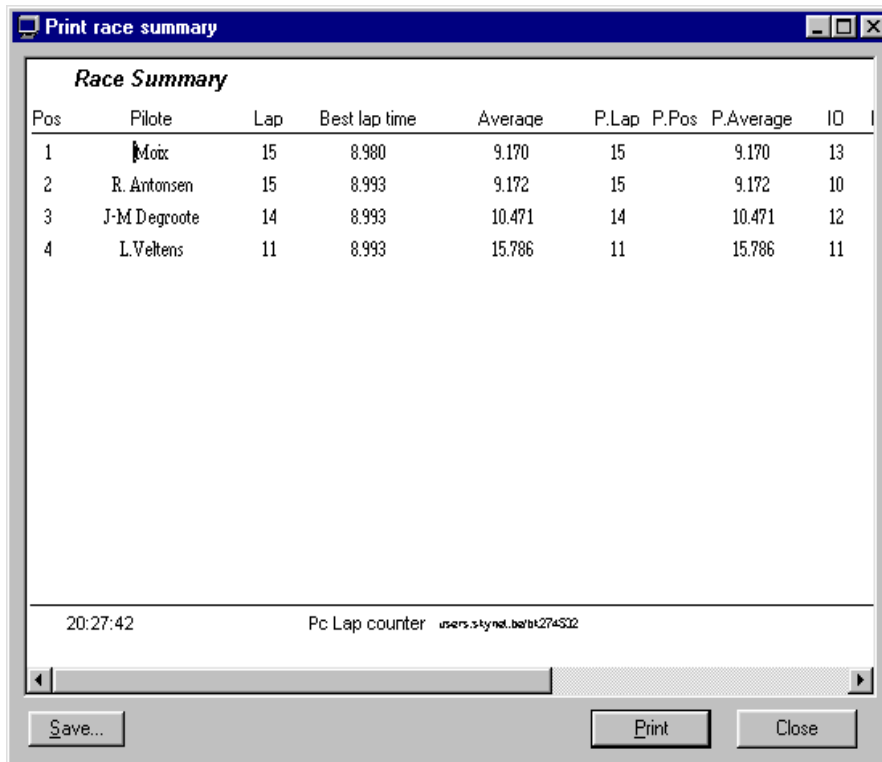In window Detail you have possibility to print, to save or import the laps historic
Rem :
When you open the window ' Detail' while race is going on , historic of laps is automatically updated.
You can open several historic (one by driver or team)

Button Print (summary of the race)

This button allows you to print and save reports of the race.

Print/view menu

- Race summary...
- On track since...
- Pilote total laps...

Apply...   Close

Print race summary

Race Summary

Pos	Pilote	Lap	Best lap time	Average	P.Lap	P.Pos	P.Average	IO
1	Moix	15	8.980	9.170	15		9.170	13
2	R. Antonsen	15	8.993	9.172	15		9.172	10
3	J-M Degroote	14	8.993	10.471	14		10.471	12
4	L.Veltens	11	8.993	15.786	11		15.786	11

20:27:42   Pc Lap counter   users.skynet.be/bt274S02
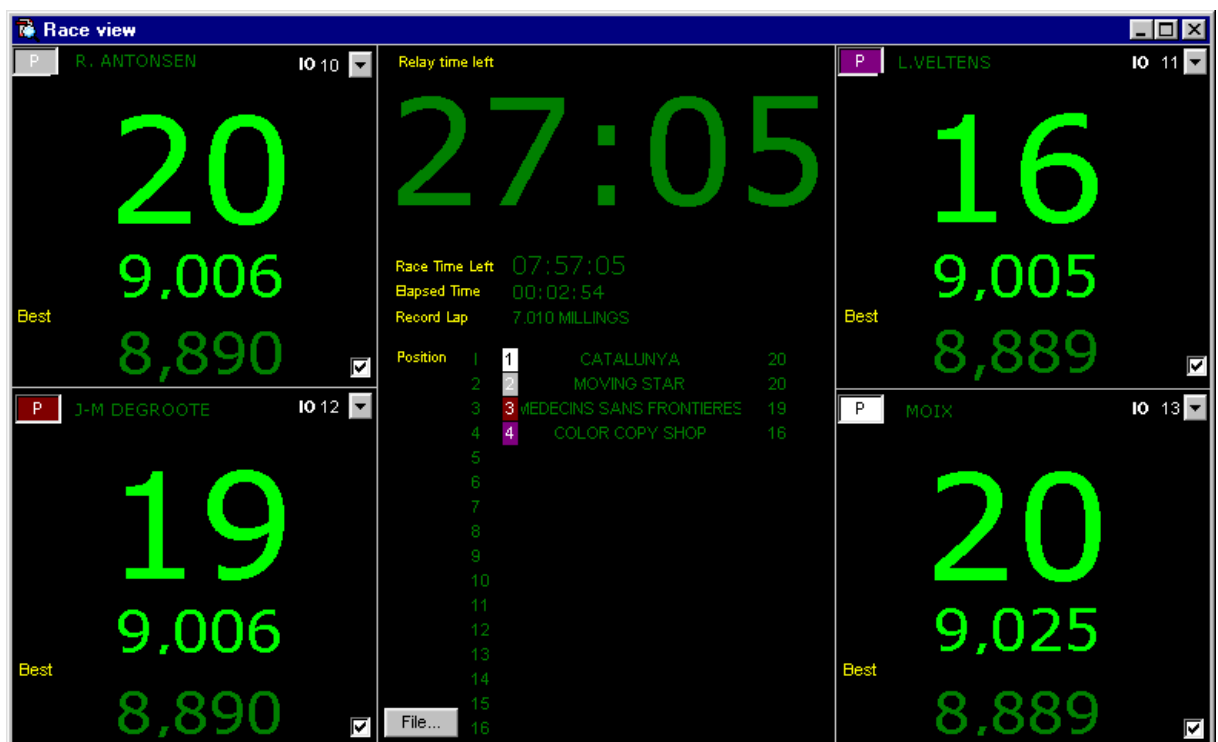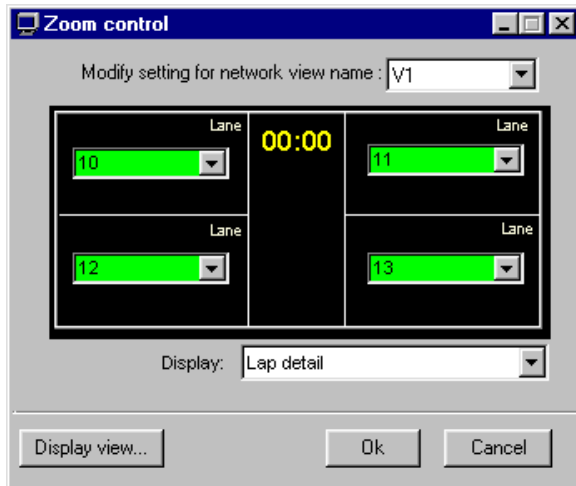
Save...   Print   Close

Rem :
If your printer is connected on port LPT1 and you use the same port for detection there is some risk of detection errors when you print the summary.

Button Zoom (Large Display screen)

This button permits to display a supplementary screen recovering the classification and a large display foreseen for 4 lanes.

In this screen you can specify which tracks must be large displayed by selecting the channel corresponding to the lane that you want to see display.
(See OPTIONS for more information)

Buttons Save and Open :

The buttons Save and Open permits you to save the result of a race to be loaded later.
When you save a race Pc Lap Counter will not only save the classification but also the detail and the configuration of the race.
Pc Lap Counter will also save possible display modifications
When you open a saved file Pc Lap Counter gives you the possibility between :
continue the race or simply load the parameters of the race.
You can also choose to load or not possible display modifications (Font, Colour, Column breadth……)

Rem:
While a race Pc Lap Counter makes an automatic save in file LOG.RAC
In case of electric cut or program breakdown you just have to load file LOG.RAC and continue the race.

Best Times

Two buttons in part Best Times allows you to update the best times of current race.

Reset :

This button resets to zero all the best times for all drivers from current race.

Update...

This button permits you to update the best time of driver for the current race
To update a best time click on the driver in part 'best times then click on button 'Maj…'and the window 'best times' will display.
This window allows you to update best time of the selected driver thus as the name of driver owner of record time on current race.

Save Best Time

In part 'race management' you will find a field called 'SAVE BEST TIME'
This field when not activated makes that Pc Lap Counter doesn't record the possible best laps executed by drivers anymore.
This can be use full when you test the Pc Lap Counter.

DETECTION

For car detection Pc Lap Counter supplies 3 interfaces who allows to read the data send by your detectors.
Interface LPT1 : for a direct reading on port LPT1
Interface K8000 : for the reading of kit Velleman K8000.
Scalextric RMS : For the reading of Scalextric RMS detector.

Those interfaces are in reality programs turning separately from program Pc Lap Counter. When you open Pc Lap counter ,the program starts by default LPT1 interface (See OPTION to change interface when Pc Lap Counter starts) that means you always have two programs displayed in the task bar of windows (Pc Lap Counter and detection interface).
To accede detection interface click on interface LPT1 or interface K8000 which will display in task bar.

LPT1 interface parameters
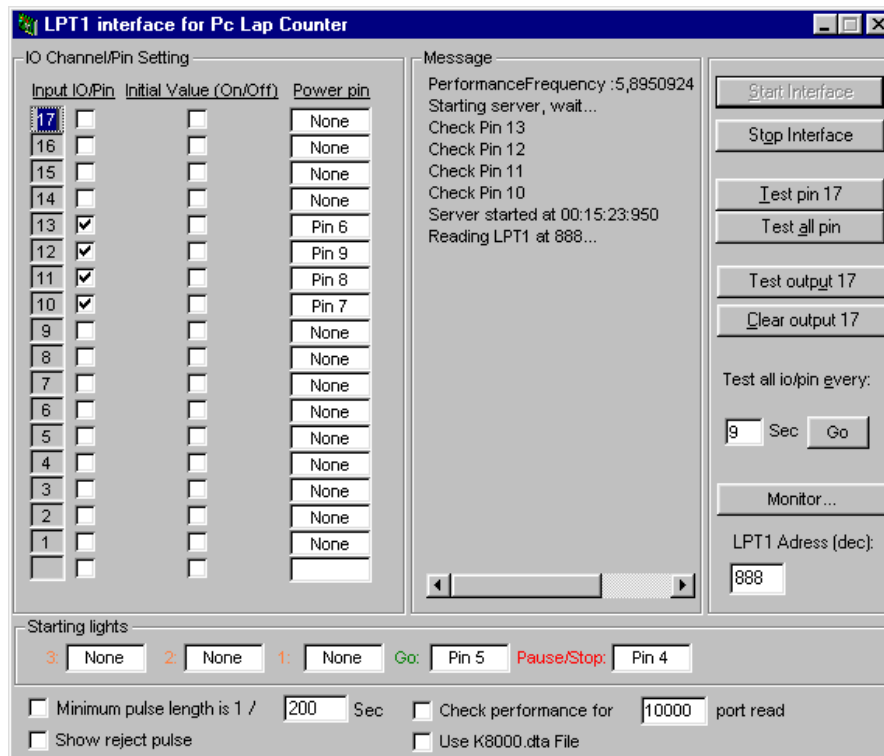
LPT1 interface allows to specify which are the entry pin (pin activated by your detectors) and which are their correspondances in output (in case you have track control system).
The interface allows you also to change address of LPT1 port..
REM :
In case LPT1 interface don't start anymore when you execute Pc Lap Counter go in the options screen in Pc Lap Counter and click on the button 'Start Interface Now'.

When you change configuration of LPT1 interface this one will stop turning and you will have to click on button "Start interface" so that interface can restart with the new parameters.

Lane / Input pin:
Tick the pin activated by detectors when passage of a car.
REM :
Tick off the pin not activated by detectors ,this will have for effect a better performance of interface as it has not to read all the never activated pin.(the number of reading by seconds from pin will raise significantly)

Initial value (On/Off) :
This field represents the value of the entering pin when it is in 'pause' state.

Tick on this field in case of your detectors activates the pin without any passage of a car (when no activity is registered by your detectors).
REM :
To see the state of your pin at any moment use program 'Parallel port monitor'.

Power pin :
For each entering pin you can specify which outgoing pin allows you to put track under tension.
Pc lap Counter supposes that track is under tension when pin is in ACTIF state.
Utilisation of outgoing pin supposes that you connected a mechanical or electronical relay at this pin.
REM :See also in OPTIONS part from Pc Lap Counter to manage track control.

LPT1 adress :
Address of port LPT1 in DECIMAL (378 in hexadecimal = 888 in Decimal).

Test pin and test all pin
If for sample you don't have your detectors yet and you want to test Pc Lap Counter this button allows you to simulate the passage of one car or more.

Test all IO/pin every :
If for sample you don't have your detectors yet and you want to test Pc Lap Counter the button GO allows you to simulate a passage taking in count the pin you configured By default Pc Lap Counter will simulate a passage every 9 seconds, you can change this time.

Test output and clear output:
This button allows you to simulate an activation of a pin this to see if your relays react correctly to the information.

Monitor (↖ Version 3.17):
Allows you to control activation of pin as well as the duration of the impulse incoming on those same pin

Check performance for :

If you activate this field, LPT1 interface will display the time needed to make a certain number of readings on LPT1 port in function of pin configurations.
By default , the number of readings is 10000.

Minimum pulse length is 1 / n Sec - Show reject pulse

Here you can specify the minimum time for an impulse for LPT interface can take it in count.
For sample, you specify 200 this means that if the impulse send by your detectors on pin of LPT1 port is less than 0.005 sec (1/200 = 0.002) LPT1 interface will reject this impulse.
Option 'Show reject pulse' allows display of the LPT1 interface rejected impulses.

Use K8000.dta file (↖ Version 3.17) :

See Section Pc Lap Counter on network.

Starting Lights (Version 3.22):

See section starting lights.

Link between LPT1 interface and Pc Lap Counter

In LPT1 interface you specify which are the incoming pin activated by your detectors
In Pc Lap Counter you specify in regard with of the lane the driver/team who is running Lane in Pc Lap Counter must correspond with an incoming pin specify in LPT1 interface.

If for sample LPT interface uses pin 10,11,12,13, you must specify the drivers in regard of lane 10,11,12,13, (in part Race Config) from Pc Lap Counter.
If you specify drivers on other lane's than the one configured in LPT1 interface , Pc Lap Counter will never detect a passage on those tracks.
Let's say now LPT1 interface uses as incoming pin 10,11,12,13, and you didn't specify for sample the driver on lane 11 in Pc Lap Counter; Pc Lap Counter will display a message as what he detected a passage on a track but no driver.

K8000 interface parameters

The principle is exactly the same as LPT1 interface exept you don't configure pin but IO CHANNELS.
If you want to control the tension on tracks you must foreseen outgoing IO Channels at the time you assembly K8000 Velleman kit (see K8000 manual)
Option **IC2BusDelay (↖ Version 3.17)** is a slowing down factor to adapt the maximal communication speed to the computer speed (See K8000 manual for more information)
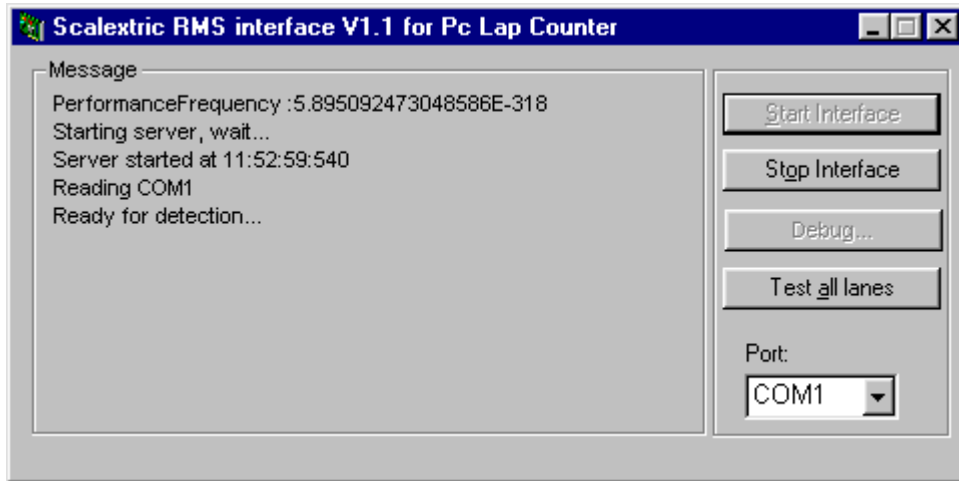REM :
In case K8000 interface don't start anymore when you execute Pc Lap Counter go in the options screen in Pc Lap Counter and click on the button 'Start Interface Now'.

Scalextric RMS interface parameters

This interface read Scalextric RMS detector and is very simple because the only thing you have to change is the COM port.
By default the Scalextric RMS interface read COM1
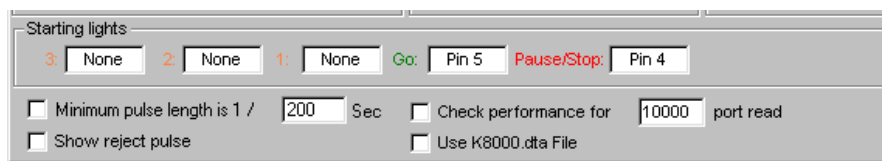

REM :
In case Scalextric RMS interface don't start anymore when you execute Pc Lap Counter go in the options screen in Pc Lap Counter and click on the button 'Start Interface Now'.

STARTING LIGHTS (Version 3.22)

Pc Lap Counter can control to five different lights : three lights for decreasing count, one for the departure and one the race pause.

Configuration of starting lights is done in LPT1 interface or in the K8000 interface according to the material which you use.
In these interface you must associate each light a PIN that Pc Lap Counter will activate (IO in case of K8000 interface).

LIGHTS 3, 2, 1

Lights 3,2,1 will be ON when Pc Lap Counter make a decreasing count.
These lights will be also ON when you use the button 10..0.

LIGHTS GO,STOP

The Light GO will be ON to give the starting signal of the race.
The Light STOP will be ON when the race is stopped or paused.

REM :
LED posted in 'MESSAGES' part of Pc Lap Counter indicates the state of each light.

OPTIONS

Via the button 'options' you can parameter Pc Lap Counter in accordance with your needs.
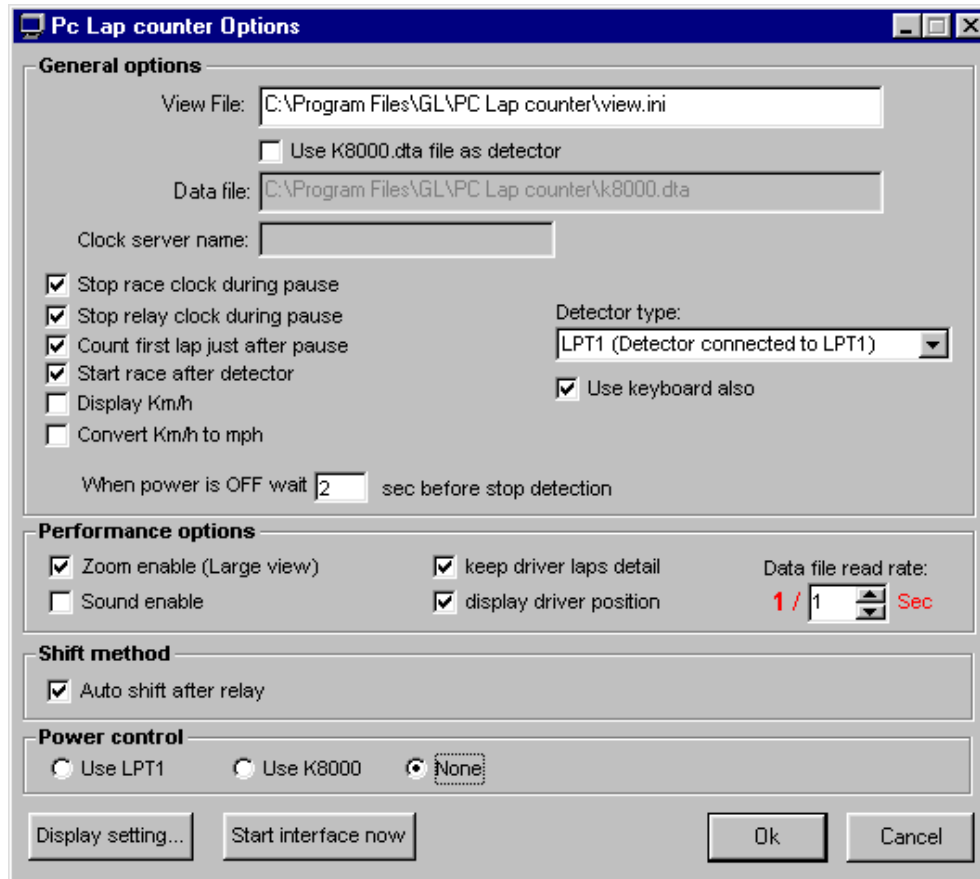
General options

View file :

Here you specify the place of file view.ini on witch is based the large display (see button 'zoom' in part race management of Pc Lap Counter).
This file view.ini is updated at any car passage.
The program large view can be started from button 'zoom' or outside Pc Lap Counter via the Windows menu (Start/Programs/Pc Lap Counter/Race View).
Trick :
If you parameter the place of file view.ini on a shared disc you can run the program Race View on several computers.

Data file – Clock server name (↖ Version 3.17):

See Section Pc Lap Counter on network.

Display Km/h and convert Km/h to Mph :

If you activate Display Km/h, Pc Lap Counter will display the time but also the real speed (in Km/h or Mph)

Detector type:

This option allows you to say witch interface will start automatically with Pc Lap Counter .

When you change this option the old interface stop and the new start automatically.

Use Keyboard Also:

With this option you can simulate lap using keyboard

Numeric key 1 to 9 for lane 1 to 9.

Numeric key 0 for lane 10.

Function key F1 to F6 for lane 11 to 16

Stop race clock during pause:

If you tick on this option and the race is configured in time (not in number of laps) ,Pc Lap Counter will stop the remaining race count time while pause.

You can run a pause manually via 'pause' button or automatically at the end of a relay (See race configuration) .

If you tick off this option and the race is configured in time (not in number of laps) Pc lap Counter will continue to count the remaining time of the race while a pause.

Stop relay clock during pause :

If you tick on this option and the race is configured in time (not in number of laps) ,Pc Lap Counter will stop the remaining relay count time while manually pause.

REM :

A pause caused by the end of a relay stops the count of the relay and means this option has no use in this case .

Count the lap just after a pause :

Ticked on means that at the end of a relay you let the cars on their positions and the next passage will be counted normally (time of pause will be added to lap time)

Ticked off means that at the end of relay you position the cars just before the detectors.

Start Race after detector :

Ticked on means that when departure of the race, the cars are positioned just after the detectors, ticked off means that when departure of the race the cars are positioned just before the detectors.

This option is only valid for the race departure procedure.

After track power if OFF wait n sec before stop detection :

Here you specify number of seconds that Pc Lap Counter has to wait before refusing the passages while race s interrupted by a manual or automatically pause.

Suppose that you interrupted the race via a cut system, in spit of no tension on tracks the cars will not stop immediately (speed/weight) and could pass the detectors and count you a passage.

Or you estimate that this passage is valid and you enter the sec needed for the car to stop or you estimate the passage is not valid and you enter 0 seconds so that once tension cut no passage is allowed.

Performances options

Via these options you can raise the performances of Pc Lap Counter following the capacity of your computer.

Zoom enable (large display) :

You must know that the large display of screen is using several scripts in file view.ini and this at each passage of a car
If you don't need the large display, tick off this option and you will raise the performance of Pc Lap Counter.

Sound enable :

Pc Lap Counter permits you to play sounds at each passage of a car (See Driver management) but of course this needs a supplementary process.
If you don't need sound, tick off this option and you will raise the performance of Pc Lap Counter.

Keep driver laps detail :

Pc Lap Counter keeps the lap details for each driver (you can consult lap details via button 'detail' in part race management) but of course this needs a supplementary process (and also memory)
If you don't need to visualize the lap details, , tick off this option and you will raise the performance of Pc Lap Counter.

Display driver position :

This option allows to display the position of driver in his relay (field P.Pos, P.Lap , P.Average in part results of Pc Lap Counter)
This needs a supplementary process.
If you don't need to visualize the position of driver in his relay, , tick off this option and you will raise the performance of Pc Lap Counter.

Data file read rate (↖ Version 3.17):

See Section Pc Lap Counter on network.

Shift method

Auto shift after relay:

Tick on this option if you want Pc Lap Counter to operate automatic hanges of tracks and drivers at the end of each relay.
Pc Lap Counter will do exactly the same operation than when you click on 'shift' button in part Race management.

Power control

Pc Lap Counter permits to control the electric supply of tracks, for this you first have to connect a relay system on tracks.
For that Pc Lap Counter can manage those relays you have to connect them to your PC via the parallel port or via K8000 kit from Velleman.

Use LPT 1 :

You connected the relays on Parallel port..
Rem :
The parameters settings of outgoing pin is operate in LPT1 interface.

Use K8000 :

You connected the relays to kit Velleman K8000
Rem :
The parameters settings of outgoing IO is operate in K8000 interface
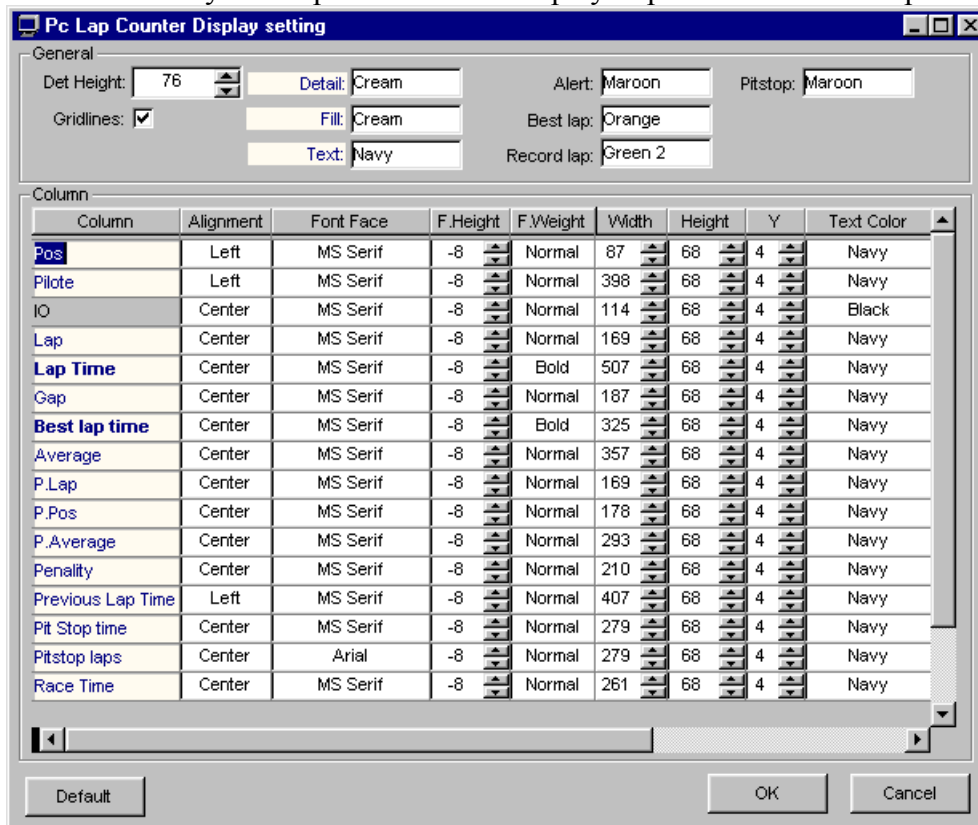
None:

Track control is not activated.

Start interface now:

This boutton allow you to start manually the interface specify in the field detector type.
Use this boutton when Pc Lap Counter don't start the interface automatically, for example when you Pc crash.

Display setting...

Via this button you can personalize the display in part results of Pc Lap Counter.

Pc Lap Counter Will show you immediately the change effect in part results.
Rem :
The button display don't allow you to change the columns order because you can do it directly in part results by moving the columns via the mouse.

Det height :

Line height in result part.

Grid:

Display or not of a grid (vertical line between each column and horizontal line between each driver).

Detail :

Font colour in result part.

Fill:

Font colour in part Messages and Best times.

Text :

Text colour in part result, messages and best times.

Alert :

Colour of field 'time' when this one is higher than the maximum time or less than the minimum time.

Best lap:

Colour of the field 'time' when driver beats his best time.

Record lap :

Colour of field 'time' when driver beats the lap record..

For each column of part result you can change :

Alignment:

Here you can choose if column must be aligned to the left , right or centered

Font Face, F.Height, F.Weigth :

Here you can specify the font of column as well as the size and it's style.
Height of font: < 0 makes police seams to be bigger, > 0 makes font seams to be smaller
F.Weigth : Normal, bold

Width, Height :

Here you specify the width and the height of column :
The height of column must be smaller than the height of lines(Det height).

Y :

Here you specify the place where display of text in the column is beginning .

Text color , back color :

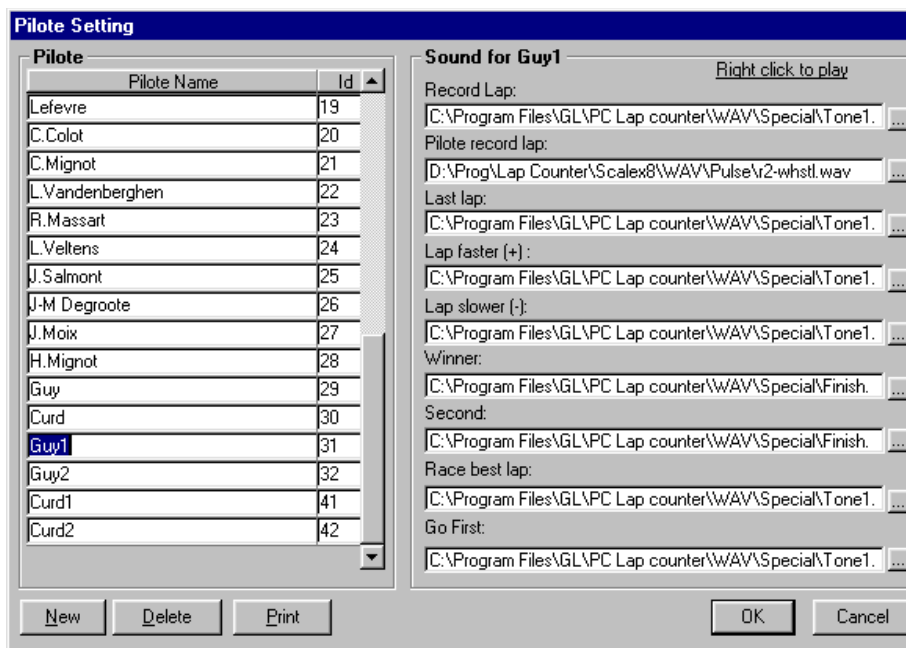Here you specify the font colour and text colour from column.

Default :

This button allows you to reset the display parameters at their default value.

Descriptives

The descriptive part allows you to manage the inputs such as : driver/team list and tracks.

Driver

Here you can add , delete a driver and also print the list of existing drivers .
Enter the name of the driver thus his ID witch will allow you a more easy encoding later.
For sample, in the race configuration instead of choosing the driver in the list , just type his ID and Pc Lap Counter will automatically display his name.
For each driver you can associate a sound witch belongs only to him and this for 9 different situations (To play the sound right click on the name of file).
REM:
You can add driver during the race, Pc Lap Counter will update his driver list.

Record lap :
Warns driver that he beats the track record.

Driver record lap :
Warns the driver that he beats his own lap record (his personal record).

Last lap :
Warns the driver that he is running his last lap.

This is only working for number limited lap races.

Lap Faster :
Warns the driver that he runs faster than the previous lap.

Lap Slower :
Warns the driver that he runs slower than the previous lap.

Winner :
Warns the driver by this sound that he finished the race in first position.
This only works for number limited lap races.

Second :
Warns the driver by this sound that he finished the race in second position.
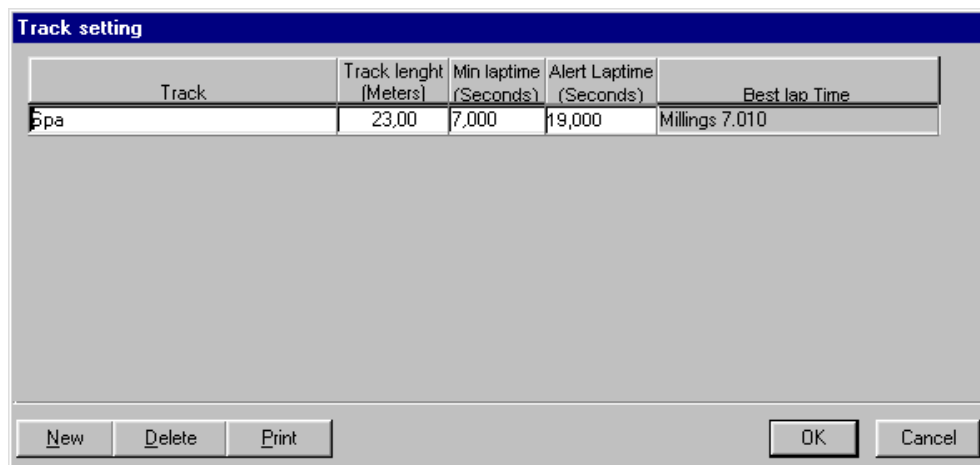This only works for number limited lap races.

Race best lap:
Warns the driver that he beats the best race time.

Go first:
Warns the driver that he passed in first position.

Track

Here you can add, delete a track and also print the existing tracks .
Pc Lap Counter displays for each track the owner of time record thus as the time itself.
The inputs relatives to tracks such as the length, the min/max time will be displayed when you select the track in part Race Management..
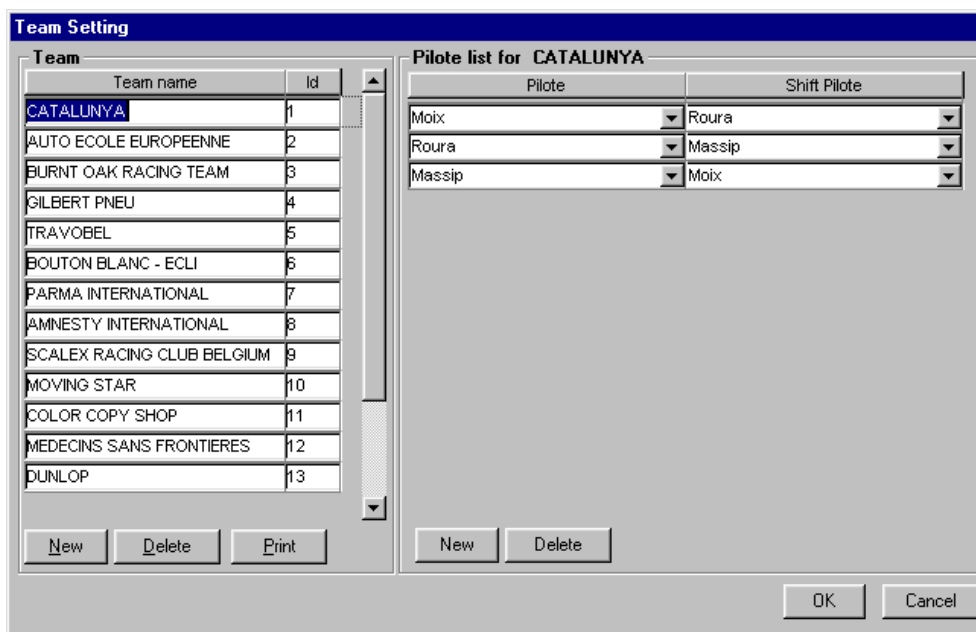REM:
You can modify Track length, min laptime and alert laptime during the race, Pc Lap Counter will take account changes.

Cars
Here you can add, delete a car and also print the list of existing cars.

Team

Here you can add, delete a team and also print the list of existing teams.
Enter the name of the team thus as it's ID witch will allow you an easier encoding later.
For sample, in the race configuration instead of choosing the teams in the list, just type it's ID and Pc Lap Counter will automatically display the driver name.

For each team you can associate drivers and also specify the eventual changes of driver via field ' shift driver'.
REM :
You can add a driver in a team during the race, Pc Lap Counter will update his driver list inside the team.

Driver and Shift driver :

In the field 'shift driver' you specify the person who will take the place of the driver at the end of his relay.
In field 'Shift Driver' Pc Lap Counter only displays drivers belonging to the team.
(See button SHIFT for explanation about track changes and drivers).

Series (Version 3.21)

Series Setting

Series List

Pilote list for Sample

Serie Name
Sample

Serie	Pilote 1	Pilote 2	Pilote 3	Pilote 4	Pilote 5	Pilote 6
1	Curtis	Moix				
2	Roura	Smith				

New   Delete

New   Delete

OK   Cancel

Championship mode

Pc lap Counter permits you to compete for a championship and also the obtain of a classification following the executed 'Grand Prix'.
Before participating a championship you must configure it..

Configuration Of a Championship

In part 'descriptives' of Pc Lap Counter Click on championship….

To create a new championship position yourself on field '**Championship list**' and enter the name of your championship.
By default Pc Lap Counter proposes 16 grand prix, but you can change this number in field **number of 'grand prix'**
Give a name to the different grand prix who makes up your championship and specify the track on witch they will go on.

Laps - Duration – relay :

For each grand prix who makes up the championship you have to specify if this grand prix is limited in number of laps and in this case enter the number of laps in field 'Laps' or grand prix is limited in time then you have to specify the duration of the grand prix in field 'Duration' in HH:MM and eventually specify relay duration in field 'relay' in HH:MM
For a championship you also have to specify the awarding rule of points .
(this points will be award at the end of a grand prix).

Pos :

Represents the position on witch a driver finished a grand prix.

Point :

Here you specify the number of points to be award to a driver finishing the grand prix at the specified position in field ' pos '.

Delay laps:

For a same position you can award different points following the number of laps behind obtained by a driver at the end of a grand prix..

The number of behind laps is given in relation with previous position, sample :

Pos	Points	Laps behind
1	10	0
2	8	0
2	6	1
2	4	2
3	2	0
3	1	1

in this sample:
- A driver finishing first will have 10 pts
- A driver finishing second in the same lap as the first one will have 8 pts.
- A driver finishing second with one lap behind with the first one will have 6 pts
- A driver finishing second with two laps behind with the first one will have 4 pts
- A driver finishing third in the same lap as the second one will have 2 pts.
- A driver finishing third with one lap behind with the second one will have 1pt.

Championship classification

Via the button classification in part 'descriptives' from Pc Lap Counter you can obtain the classification of the drivers in the selected championship.

The classification gives you for each driver the number of finished grand prix thus as the total obtained points.

For each driver you can obtain the detail of grand prix with the result he obtained, the number of laps he executed , his position and number of points he obtained for this grand prix

Configure a race for a championship

To participate at a grand prix making part of a championship tick on the field 'championship' in the screen race configuration(Tab race type) and choose the grand prix.

The type of race (race in laps or time limit) will be filled automatically by Pc Lap Counter in function of the grand prix you choose.

To know

Version Pc Lap Counter

To know witch version of Pc Lap Counter you own, click on button 'About' in part Race management.
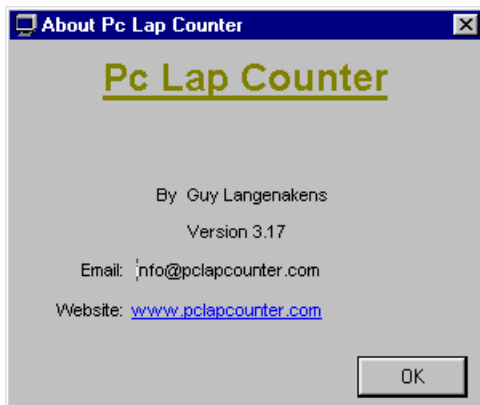
Demo version limitation

The pc Lap Counter demo version contains all functions but is limited to maximum 5 laps and you can not change the number of total laps (button pitstop/penality).
To obtain a complete version, you have to register the demo version with an activation key that you enter in registration window (field ' activation key).
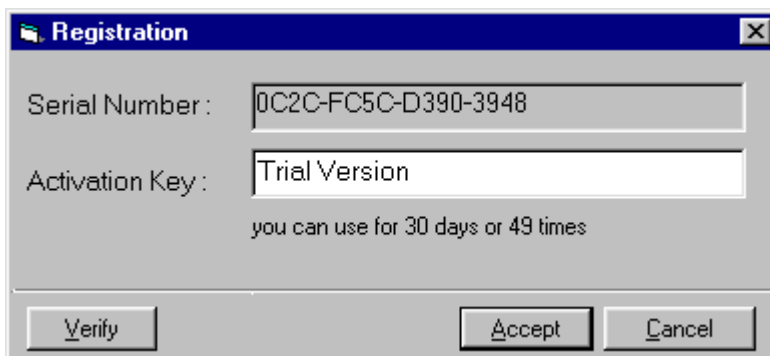
Serial Number :

Serial number of your Pc Lap Counter.

Activation Key :

Activation key

Verify :

After you entered activation key this button will verify if the key is working.

Accept :

After you entered the activation key this button will transform your demo version in a complete version.
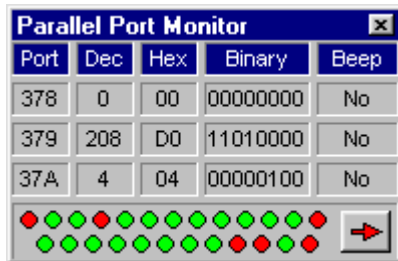

REM :
You must quit Pc Lap Counter just after you register the demo version.

How to get an activation key ? :
Via the internet site http://www.pclapcounter.com (section How to buy).

Parallel port Monitor

The program 'Parallel port monitor' supplied with Pc Lap Counter permits you to see the state of each pin of parallel port.

This program is very interesting in case you want to know witch pin is activated by your detectors and also to know if your detectors are working well.
REM :
For more information on this program: http://www.geekhideout.com

Test Pc Lap Counter without detectors

To simulate car detection without detectors you must first set the race then start the race with the button GO from Pc Lap Counter.
After that you can simulate lap with the keyboard (Version 3.18).
Key list :
Track 1 to 10 use numeric pad key 1,2,3,4,5,6,7,8,9,0 and for track 11 to 16 use function key F1,F2,F3,F4,F5,F6.

In case of problems

Known problems :
-   If your PC crash after an electrical cut the interfaces LPT1 or K8000 or RMS will not run anymore:
    Go in the option screen and click on the 'start interface now button'

-   Pc Lap Counter don't react to your detectors
    Did you start the race (button Go in parts race management)?

    Did you specify the good drivers on the good tracks in part Race configuration ?

    Is interface LPT1 or K8000 interface started ?

    Is the Parallel port address corresponding with what you specify in interface LPT1 ?

Are the pin from parallel port activated by the detectors or not, to know use program Parallel Port Monitor furnished with Pc Lap Counter.