

## Pitstop: Quick start

Pitstop is a game of strategy and planning in which you are the manager of a grand prix racing team. Your team comprises two cars, two drivers, a pit crew and your sponsor.

Objective: The aim of the game is to win a grand prix and, ultimately, the constructors' championship by winning as many races and securing as many points as possible throughout the season. Your sponsor will provide you with a fixed six figure sum for every one of the 17 races in the season.



## Known issues

Note that there are a few minor differences between the game and current reality, such as the circuit names and order. Those used in Pitstop were researched from the 1997 season. Also, the final Qualifying lap session isn't done in strict reverse order from practice and you don't currently get a chance to specify how much race fuel you want to put in for the qualifying lap. Watch this space for further tweaks to the game!

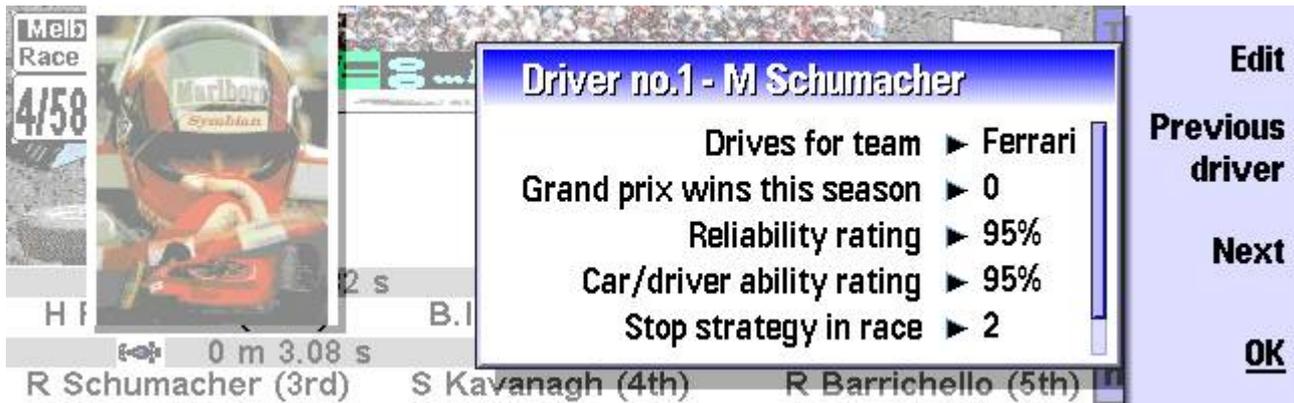
## Your drivers

Once registered, you can change the driver names using the Preferences command on the Tools menu. Until you register, you're limited to the default names. Similarly with the default team name, though these are the *only* restrictions in the unregistered game - the whole thing is 100% fully working.

Your first driver's chief strengths are concentration and reliability, rarely doing anything foolish.

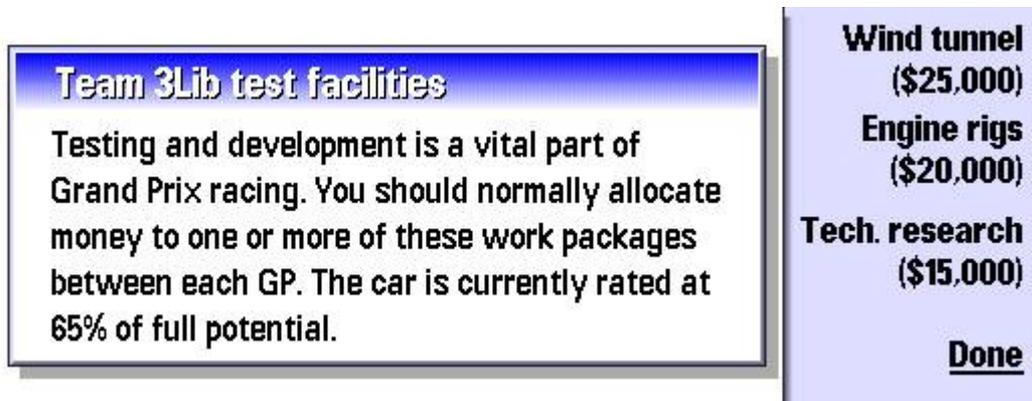
Your second driver, on the other hand, is a more cavalier driver, willing to try anything and everything in order to go faster. Immensely talented, he or she makes an ideal foil to the previous driver's clinical way of working.

Note: If you wish to change the names of the other drivers and teams, you can edit them using the driver and team browser functions on Pitstop's menu. Updates mirroring the names relevant to the real world are released each season on the Pitstop web page, which may save you some typing...



## Finances

At the start of the season, you can start to tackle your team finances by preparing the budget for the first race. You have a starting balance and income from your sponsor, but you may wish to spend money on testing, hospitality, or allocate funds to research and development.



You should authorise testing and development, specifying how much you want to spend and which type of technology you wish to use. This will help to improve the potential of the car. In general, you should make a commitment to new technologies as this will bring benefits in the long run.

You may also want to look at or adjust your other costs, such as the hospitality you offer your sponsors, by pressing Adjust other costs.

Note: Don't worry if finances seem a little low at the start of the season, if you manage the team correctly then you'll soon be scoring points and bringing in prize money. The tyre company may also reward you for doing well on their tyres, which will help you financially.

If you win, the prize money will appear on your budget sheet. Be sure to spend your money wisely. Remember to keep an eye on your cashflow by monitoring your budget and talking to your sponsors regularly using the commands on the Team menu.

## Viewing the race circuit

Each circuit has its own characteristics and will require a different car setup for your team to perform well. Circuits are different in other ways too, perhaps being hot and rough and thus causing high tyre wear. Or perhaps being a high-profile circuit where you need to do well to impress your sponsors!

Before the practice session begins, you will be given a circuit analysis which includes the lap distance, race distance and other useful information about the race. Use this information to guide your choice of initial car setup parameters.

Make sure that you take account of the circuit analysis for the track using the command on the Circuit menu so that you can adjust your car setup.



## Checking the weather

Weather conditions are crucial throughout the race.

It is a good idea to check the weather before the race begins by selecting Weather forecast and Weather now?. Use the weather information and forecast to decide which sort of tyres your cars should start the race on.

You can keep track of the weather during the race using the commands on the Race menu.

In particular, if there's rain around and water on the track then lap times for all drivers can be as much as 20 seconds or so slower than in the dry. In general, intermediate tyres should be used if it's currently raining steadily (i.e. it's wet but there's no standing water on the track) and rain tyres if it's raining hard.

Note: Do bear in mind that predicting the weather is a complicated business and sometimes forecasts may not be terribly accurate!

## Practice laps

Your drivers are allowed three free practice laps each, during which you must configure the cars for optimal performance by judging the circuit and track conditions. Use the Send out on circuit command or the Send out button on the Toolbar to send one of your drivers out for a practice lap.

At the end of each practice lap, the driver will return to the pits and you will be given the lap time. If there are any obvious problems with the car's setup or performance then the driver will tell you. Select Car Setup to adjust the car's parameters. You might need to select Key to car setup to view a summary of the setup parameters. You will need to make a number of adjustments, as each can affect the performance and handling of the car.

Keep an eye on other drivers' times so you know how your team are performing.

If you are happy with your free practice times before your drivers have completed their quota of practice laps, you can go straight to the sudden death Qualifying session by selecting Next (go to Qualifying) from the File menu.

## Setting up the car

Select Car Setup to adjust the car's parameters. You might need to select Key to car setup to view a summary of the setup parameters.

Note: Don't change too many car parameters at once, as you'll find it difficult to match lap time changes to specific setup parameters. In addition, watch the lap times as well - don't just rely on feedback from your drivers.



The settings that you can play with include:

**Tyre type:** "Slicks" are the normal plain or slightly grooved tyres used in good conditions or in very light rain. "Rain" tyres are deeply grooved and patterned to clear water away from the tyre's tread as quickly as possible and are best used when it's raining very hard and there is standing water on the track. "Intermediates" are somewhere between the two previous types and should be used if it's raining 'steadily'.

**Rear wing angle:** The higher the angle of the main rear aerofoil on the car, the more aerodynamic downforce will be generated at high speed. This has the effect of increasing the car's grip on the track, but has the disadvantage of increasing the drag and thus reducing its top speed on the straights. Conversely, a slight wing angle gives the car more straight line speed at the expense of grip round the rest of the track.

**Front wing angle:** As with the rear wing, increasing the angle increases the downforce. There is not so much of a drag penalty, though, and the main thing is to match the downforce being created at the back of the car, thus balancing its handling. Too much front wing will tend to make the car 'oversteer'. Too little, and you'll see 'understeer'.

**Tyre pressure:** This can affect both ride-height over the track and car handling. Setting this correctly is usually a matter of trial and error, though as a very general rule the faster the track the higher the pressure needed. Tyre pressures that are too high mean less tyre surface in contact with the track and therefore less grip. Pressures that are too low will lead to sluggish handling and a low 'ride-height'.

**Gear spacing:** This represents the difference in gear ratios between top and bottom gears. Setting too high a spacing means that gear changes will take too long, too low a spacing and the engine will be beyond its usual optimum limits at one or other of the ends of the speed spectrum.

**Gear ratios:** This represents the actual gear ratios themselves. Setting them too high will result in a labouring engine at low speed and poor acceleration in general, setting them too low will reduce the car's top speed by limiting the engine revolutions.

**Brake balance:** It is important for the car's handling to have braking of the front and rear of the car happening in a balanced manner. If balance is biased too far one way or the other, the wheels at the appropriate end of the car will lock up too soon, decreasing braking efficiency and damaging the tyres.

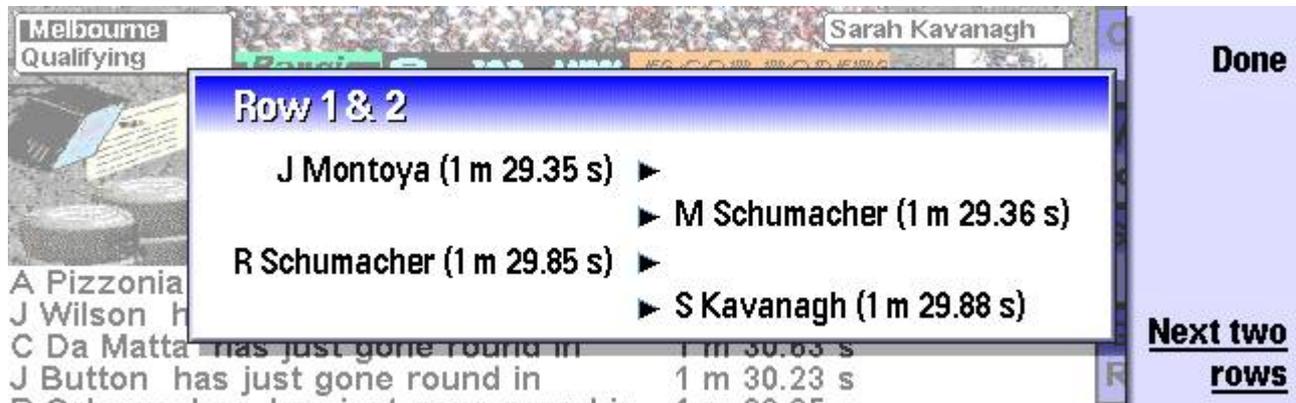
Once you've got a car set up as best you can, you can use the appropriate toolbar button or menu option to copy these settings to the other driver's car and then carry on with him or her if there's time.

## Qualifying lap

Once your drivers have completed their practice laps, they must fight for the best grid position by clocking the fastest qualifying time possible. If there is anything wrong with the car setup then this is the last opportunity you have to change it before the race, perhaps also making sure the best setup is copied to both of your cars.

It is important that your drivers' morale is high so it is a good idea to select Talk to Drivers from the Car & Driver menu periodically.

Once your drivers have completed their qualifying lap, select the Next (Go to race) command from the File menu. You will be given a run-down of the grid positions so that you know who you will be trying to steal positions from.



## The Grand Prix race

The race is your team's opportunity to win valuable points, money and the confidence of your sponsors.

Once the race is under way, you will be constantly updated with events of the race.

The display at the bottom of the screen gives you an indication of both driver's positions and lap times.

You can contact your drivers and ask them to change their style of driving or come into the pits by selecting the Talk to driver button. In addition, the drivers may automatically come into the pits at certain times, depending on the pit-stop strategy you chose at the beginning of the race.

It is wise to press the Telemetry button periodically to make sure that everything is how it should be with your cars, or advise your drivers.

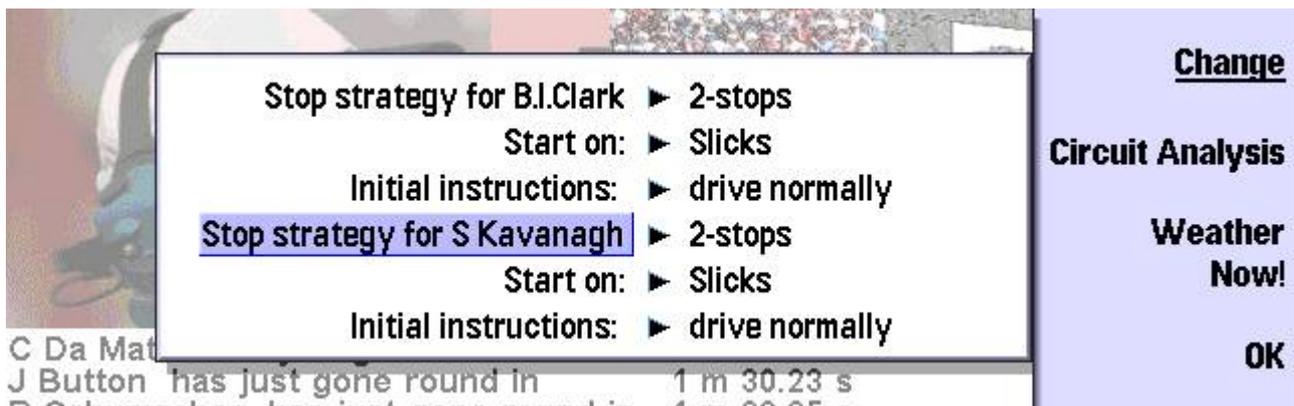
Note: Pushing a driver and car hard will give better lap times at the higher risk of breaking down and retiring. Asking a driver to hold right back will do the opposite, i.e. slower lap times and less chance of mechanical failure or spinning off.

If at any time you want to view your overall season position then choose Constructors championship or Drivers championship from the Team menu.

Once the race is over, you will be presented with a run-down of points and prizes. It's then time to move on to the next race in the season.

## Pit-stop strategies

One decision you'll have to make for each car before the race starts is whether you're going to bring the car into the pits once, twice or three times for fuel and tyres. Although a pit-stop can lose you 30 seconds or so in all on the rest of the field, the car will benefit a lot from the fresh tyres and so will usually make up the lost time within 20 or so laps. Stopping more than once on high tyre-wear circuits will help avoid having to run the cars for long on severely blistered tyres.



## Fuel

The amount of fuel put into each car is calculated automatically, with the longest a car being able to run on a full tank being half the race distance. So be warned, if you bring the car in early on a one-stop strategy it will have to stop again before the end of the race to pick up more fuel.

## Points & prizes

Prizes and points are awarded for both the drivers and teams who finish in the first eight positions:

- 1st - 10 points
- 2nd - 8 points
- 3rd - 6 points
- 4th - 5 points
- 5th - 4 points
- 6th - 3 points
- 7th - 2 points
- 8th - 1 point.

Prize money is awarded at \$10000 per point.

## Retiring from the race

Use the command on the Car & Driver menu to retire both drivers from the race. This is useful if both cars are trailing dismally last and you can see no hope of them getting into the points.

Retiring both Team drivers will speed up display of the race enormously. The retirements might not endear you to the sponsors, though!

## Starting a new season

If you wish to start a new game from the start of the season, select New game from the File menu. For your second and subsequent attempts at a Pitstop season, the game remembers your car settings for each circuit so that you have more chance to achieve the optimum settings within the allowed laps.

Note: In the course of a game, Pitstop stores information about your preferences and car setups for each track in a series of small .INI files, kept in the folder \System\Apps\Pitstop. If you wish to restart the game from the very beginning, delete these files.

## Setting the sound

You can specify the sound settings for the game when you first start Pitstop, or you can change these later using the Preferences command on the Tools menu.

## Saving & exiting Pitstop

You can leave the game running most of the time. If you wish, you can use other programs on the palmtop and switch back to Pitstop whenever you wish to check your progress.

If you prefer, use the Pause race command on the File menu to pause the game. You can still switch to other programs but you can now return to Pitstop and press Enter to continue from the same point.

If you wish to close the program and save the game, select Close from the File menu. Note that the game will be saved as it was at the start of the current section, so things you've done since that point not be saved. For example, if you close the game during the qualifying laps, you will restart at the start of a new qualifying section.

If you wish to start a new game from the start of the season, select New game from the File menu. For your second and subsequent attempts at a Pitstop season, the game remembers your car settings for each circuit so that you have more chance to achieve the optimum settings within the allowed practice laps.

## Your sponsors

The most vital part of running a team is finding a nice rich company to sponsor you. Costs can easily rise to many hundreds of thousands of dollars per race and the sponsor is going to want a lot of exposure of their name for the money.

The best exposure for a sponsor is to have a car bearing its name winning, or at least finishing in the points. It's also a very good thing to do this at a high profile TV circuit like Monte Carlo, Magny-Cours or Silverstone.

Something else sponsors like is personal attention for their directors and their guests when they come visiting, so it pays to give them some time even in the middle of a busy grand prix weekend.



**3Lib have agreed a basic per race sponsorship contract with us. \$350,000 a race will allow the new Team 3Lib to compete properly in today's grand prix scene. Thank you.**

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## Hints & tips

Your drivers may well pass comment on how the car is handling, giving you clues as to the parameters that need tweaking for that particular circuit. Their feedback is very accurate for tracking down incorrect wing settings, but less accurate for the other car setup items, which they'll only pick up on if the parameter is set horribly wrong.

Other factors that affect the success of your cars include the morale and health of your drivers. You can help both of these factors by pampering the drivers should you get a chance, though finishing a grand prix in the points is the best morale-booster of all!

A useful tip is to push a driver and car hard a few laps before coming into the pits. That way you'll reap the benefits of a few quick laps without having to live with the consequences (worn or blistered tyres).

Pushing hard for just a few laps can also be very useful to overtake a stubborn driver or two!

Money ploughed into testing and development will reap huge benefits in terms of car performance and reliability as the team progresses through the season. Aim to put money into at least one testing work package before each race. At the start of the season, it's sometimes a good gamble to put money into all the testing packages. This will help get the Team cars up to scratch more quickly.

Note that the other (computer-controlled) teams will also be doing testing and development and may also improve as the season goes on, though (hopefully) to a lesser degree than yours.

As you put money into testing and development, the team cars will improve in performance. And the second time through the season, the cars will automatically start practice with your final setups from the previous run-through, giving you the chance of doing more fine-tuning. As your team starts to do better, morale will rise, budgets will swell, sponsors will favour you and life will become a lot more rosy.

## **About Pitstop**

© Steve Litchfield, 1998, 1999, 2000, 2001, 2002, 2003

Released as fully-working shareware.

Pitstop is not in any way associated with the official bodies of motor racing. The track details are all based on the 1997 grand prix season, but the driver and team details, the practice/qualifying setup and the points system have all been brought up to date (2003).

Future updated driver and team databases may be available on <http://3lib.ukonline.co.uk/>

The game was written by Steve Litchfield. Much of the code and concept is derived from the classic 'Team Psion', which I wrote for Psion Computers in 1997, for their 'Games Arcade' (now long deleted). In addition to being rewritten for the Nokia 9200 series, a number of gameplay tweaks have been made to improve the game, to better represent the real motor racing world and to update proceedings to more closely resemble F1 in 2003.

Thanks to Neil Whiley and Mark Avey for the circuit diagrams.

## **Registering Pitstop**

If you are reading this on the Nokia Software Market, just click on 'Buy'!

Also available from my web site, Pitstop is fully-working shareware, released as such so that you can fully evaluate the game.

If you're enjoying Pitstop and wish to reward me for my efforts, please register. Once registered, I will send you a special code which will remove the occasional 'advert' screens and let you customise the driver and team names.

Registration direct through me is £12 and can be done by credit card on the 'net (<http://3lib.ukonline.co.uk/register.htm>) or cash or Sterling cheque by post at:

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