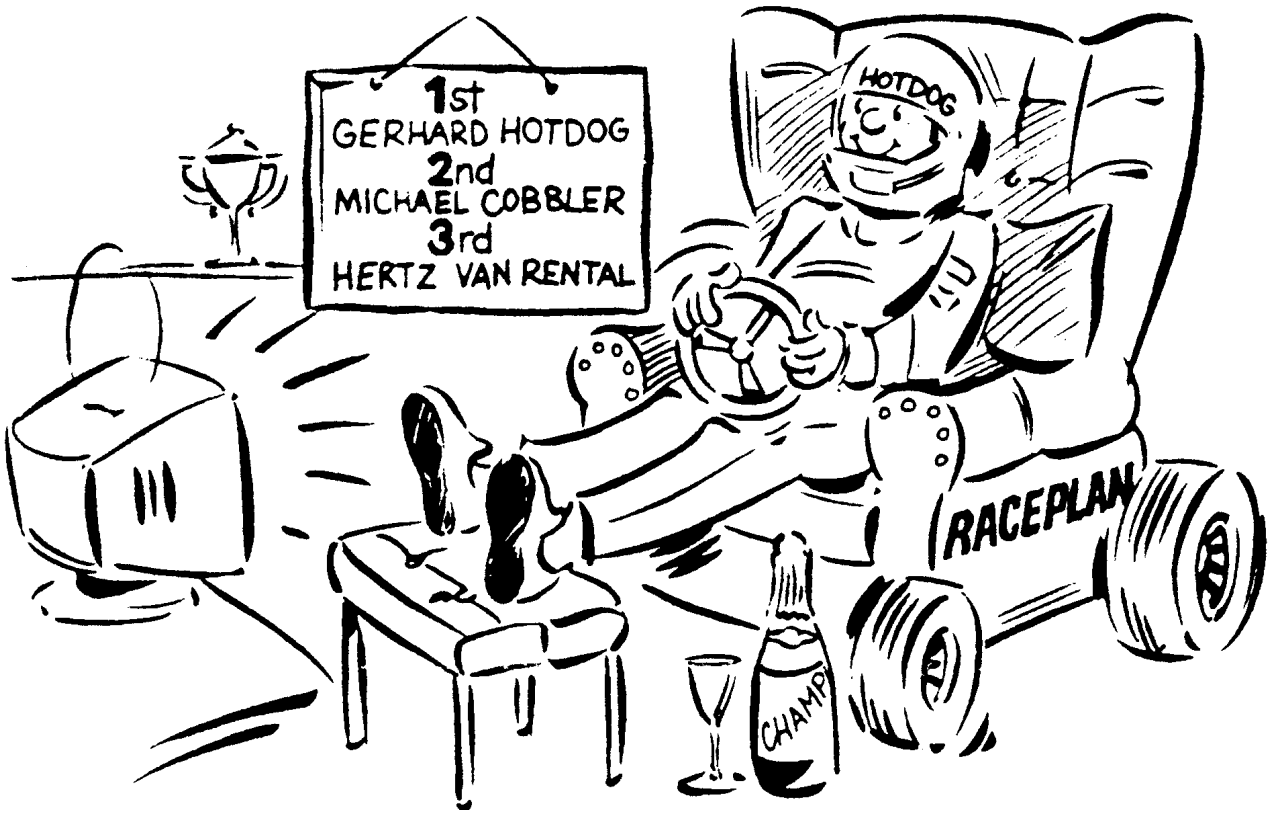
RACEPLAN ADVANCED

F1 Motor Racing Simulation



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WELCOME TO RACEPLAN

Welcome to Raceplan and Play-By-Mail Grand Prix Racing. Raceplan is the original Play-By-Mail Grand Prix game and comes from award winning designers of Sports Games in the UK with more than ten years of experience. This is your chance to run your own F1 team – your chance to show that you can do a better job of team management than the real-life owners – your chance to show you are the best owner and your team is the best team.

In Raceplan we try and make sure things work just the same as in real-life. Although your cars and drivers are simulations, their skills and abilities work just the same as in real-life. You have to work out how best to make use of their strengths and weaknesses and it's your decisions that will determine your success or failure.

Whether you're new to play-by-mail or not you'll probably find this rulebook fairly hard going. The rulebook itself is written mainly for use as reference, once you're already playing the game, and the need to state every rule with the greatest possible precision does not make for easy reading.

In this edition we've included a fairly lengthy introduction and outline of the rules, intended to make it easier for you to work your way into the game. You will probably do best to start by reading through this introduction and the outline of the rules before trying to tackle the reference rules that make up the bulk of the rulebook. You will probably find that the best thing is then to join a game, and once you have a set of actual game reports in front of you then you will find it easier to digest the rules.

RACEPLAN GRAND PRIX AND ADVANCED

Raceplan is a game with two versions, Raceplan Grand Prix and Raceplan Advanced. This rulebook is written for Raceplan Advanced, the full version of the game. Raceplan Grand Prix is primarily aimed at younger and newer fans of Grand Prix Racing and those with limited finances. The basic turnfee in Raceplan Grand Prix is kept as low as possible, and the more complicated rules have not been included to keep game play as fluid and easy to follow as possible.

If you're interested in Raceplan Grand Prix then you should ask for a copy of the Grand Prix Rulebook. As a rule of thumb if you read through the Advanced Rulebook and find it straightforward, and you can afford the higher turnfee, then you'll probably enjoy playing the Advanced Game more. If you aren't sure, then as long as you can afford the higher turnfees and aren't totally confused by the rules then I recommend that you start by playing the Advanced game. If you join Raceplan Advanced and find it too heavy going after a few turns you can always changed to Raceplan Grand Prix at a later stage.

WHAT IS PLAY BY MAIL?

In a Play-By-Mail game you are competing against other players throughout the country, sending in your turns and receiving your results through the post. You do not need a computer to play; just a pen, envelope and a postage stamp. Now you have received your rulebook and starter pack you can begin playing the game and managing your team.

Every two weeks you are sent details of your team's results from the previous turn. You then complete the turnsheet enclosed (checking your rulebook to make sure you don't make any mistakes) in time for the deadline set and we then process your instructions, the computer running every race minute by minute. Remember that you are not playing against the computer, you are playing against other players throughout the country. The turnsheet and rules may seem a little complicated at the start, but you'll soon find that if you follow the rulebook it will all become clear.

Most established players will tell you that postal games are an exciting way to play. Two weeks per turn may seem slow at first, but you'll soon find that you're using a lot of the time for thinking and planning. You'll probably find yourself patrolling the doormat or inbox each morning in anticipation of receiving your results.

One unique feature of PBM games is that the GM only makes money if you continue to play for a reasonable length of time. The cost of design, development, advertising, producing rulebooks, buying computers and so forth is much higher than the amount you pay to join the game. In a PBM game no-one is going to make any money if you don't like the game and don't play for long.

Another important feature of PBM games is that the designers are able to make improvements while the game is in play. We adopt a policy of "continuous development" where the game is constantly evolving, improving and expanding. This is particularly appropriate for sports simulation games, where the rules in real-life are often changing as well.

OUTLINE RULES

In Raceplan there are normally thirteen teams in each game, each running two cars and competing for both constructors and drivers championships. Each season lasts for as many races as in the current real-life schedule, one at each Grand Prix circuit around the world. For each turn there is a deadline by which everyone sends instructions. Once the deadline arrives all the orders are run through the computer and the results are sent out.

Each turn begins on race day afternoon, running the next race in the schedule, qualifying and practice having been completed the previous turn. After the race has finished, development and testing between races is processed before qualifying and practice for the following turn's race meeting are run.

At the start of a new game you decide the strengths of your cars and drivers, and you determine how these will develop and improve throughout the following seasons. Each team may have up to six different cars built at any time, though only two (one per driver) are used as race cars, the remaining cars being spares used primarily as spare race chassis or for development and testing.

A car is rated according to nineteen mechanical specifications (or "specs"), such as Power, Torque and Handling. Drivers are rated according to a number of abilities, the most important being Race Speed, but others such as Car Control and Aggression are important.

For each race you decide how quickly your drivers will try to negotiate each corner on the circuit, as well as determining where they will attempt to drive "on the limit", based on feedback from your drivers during practice, run the previous turn. No driver/car combination is capable of driving right at the limit for a full race distance, and it is up to you to find the balance between speed and reliability. The famous old maxim of "to finish first, you've first to finish" is equally valid in Raceplan.

In addition to the specific decisions about driving performance you also decide on basic setups for the race, how much downforce to run, which tyres to use, how much fuel to carry and how many pit stops to make.

Between one race weekend and the next each team has the opportunity to develop their cars, test new developments and even change drivers (although this is relatively rare, there is a pool of unsigned drivers available at all times). The degree of development depends upon the quality of your designers, how many times the car has already been developed and whether you are able to "copy" other teams' superior developments. When a car is developed it usually has some minor problems which need to be "sorted" (ironed out) in testing.

After the Development and Testing programs have been processed, practice is run for the following race weekend. For the official (Saturday afternoon) qualifying session the recipe is simple, set as fast a time as possible to get a good grid position for the race, but for the unofficial practice sessions and the race day warmup you have to choose between running race setups (testing tyre compounds, fuel loads and downforce settings) or pursuing a better qualifying setup. Time spent on improving qualifying setups will improve your performance in qualifying, but time spent on race setups will give you more information upon which you can plan race strategy.

There are no finance rules in Raceplan. Instead the currency used for development, testing and signing drivers is "losing points" (so called because the better you do the less you receive, which although unrealistic, makes for a much more competitive and balanced game, helping strugglers to catch up and making it tougher for the good teams to stay at the top). During the season you decide what proportion to spend on development and testing, improving your drivers, designers and mechanics. You may also spend losing points on recruiting sponsors, who will increase your income.

At the end of the season each driver is assessed for gaining or losing abilities and possible retirement. Each owner has the option to attempt to re-sign his existing drivers, make offers for drivers signed elsewhere or to pursue unsigned up and coming drivers to complete their lineups for the following season.

Each turn you receive full printed reports on the various parts of the game, full team details, detailed race reports and technical reports from both race and practice as well as details of development and testing for all other teams in the game.

CONTENTS

This rulebook is divided into a number of sections, as listed below:

1 GENERAL RULES

1.1 THE GAME There are up to sixteen teams in each game, competing for both drivers and constructors championships. Usually there are thirteen teams, as experience has shown that lots of non-qualifiers are unpopular (particularly amongst those owners whose drivers don't qualify). Team names may be any (maximum length sixteen characters, including spaces) including the names of real teams, subject to the approval of the GM (who may object to names on the grounds of decency, taste or suitability). You may also give sponsor and engine names for your team (maximum 12 characters each), though they have no effect on the game and are purely included as "window dressing". When the full team name is written the sponsor name comes before the team name and the engine name after. In this rulebook the players of the game are generally referred to as "owners".

1.2 THE TEAM Each team has two race drivers, generally referred to as the number one and number two drivers. Each team also has up to six different chassis (cars) built at any one time, a minimum of two (the race cars for each of the drivers) and up to four spare chassis, used as spare race chassis and for development and testing.

1.3 THE CHAMPIONSHIPS At each championship race the top six drivers score points both for themselves in the drivers championship and for their teams in the constructors championship. Points scored by both drivers count towards the constructors championship. The winner of the race scores ten points, second scores six, third scores four, fourth scores three, fifth scores two and sixth place scores one point. Each championship is based on the most points scored. If two teams or drivers are equal on points then i.e. are broken by the most number of wins, followed by most seconds and so on down to sixth.

1.4 SCHEDULE Each season is normally nineteen turns long, with a pre-season non-championship race before the seventeen round championship schedule (if the real life schedule expands beyond seventeen races then the Raceplan season will extend accordingly) This is normally run on the same circuits currently in use in real-life, so there may be some variation in Raceplan circuits from year to year. New circuits may take a season to "appear" on Raceplan schedules as they cannot be added to the game until full details have been programmed.

With four races of the season remaining the "Silly Season" begins, when teams have the option to make offers for other teams' drivers. At the end of the Silly Season each team has the option to re-sign their own drivers, sign other drivers to whom they have made an offer or wait for the draft the following turn. During the draft turn teams complete their driver lineup and then practice is run for the new season's pre-season race. There is one setup turn before the start of the first season.

Normally one race is processed each turn, together with the practice and qualifying sessions for the following turn's race. This means that the turn actually begins on the Sunday afternoon of a race weekend, the practice sessions having already been run the previous turn, and ends after the Sunday morning warmup for the following race.

1.5 THE GM The "GM" (jargon for Games Master, by obscure tradition) is the person responsible for the operation of the league. The game is actually processed by computer, but is supervised by the GM.

1.6 TURN CREDITS One turn credit is deducted for each turn played. Current turnfees are indicated in startup information and game reports. When the prices of turn credits are changed any credits already bought are normally still worth a full turn.

1.7 DEADLINES The GM sets a deadline each turn and games are normally processed on the day of this deadline. Your orders should arrive on or before the deadline and we recommend you allow three days for first class post and don't risk using second class post at all. If your orders arrive too late then they are set aside: if no orders arrive from you for the next deadline then your late orders are used instead (special actions only, late race and practice orders which are particular to one circuit are ignored – for obvious reasons). If new orders do arrive then your late orders are discarded. Under no circumstances will two sets of orders be processed together. If you miss a turn there is no way to make it up.

1.8 MISSED TURN If you do not submit orders then the computer will write orders for your drivers. It won't do anything really dumb, and won't do anything clever either.

1.9 CORRECTIONS In any play-by-mail game, it is necessary to be precise with your instructions. It is ***not*** the job of the GM to interpret your orders, but only to enter whatever orders he's given (even though there are some "automatic" corrections that are made by the computer to prevent some of the most obvious foul-ups).

1.10 TURNSHEETS Your orders should always be submitted on the turnsheet provided. The turnsheet shows the base corner speeds for the next race as well as providing spaces for all of your instructions for the next turn.

Think ***before*** you fill in the turnsheet (the recommended method is to use scrap paper for planning changes, and then transfer your final decisions to the turnsheet after).

1.11 LOSING POINTS The "currency" for finances in Raceplan is losing points, usually abbreviated to LPs. Losing points are allocated after each championship race according to the results obtained by your drivers. You gain 1 LP if your driver won the race, 2 LPs for finishing second or third, 3 LPs for fourth, fifth or sixth, 4 LPs for a top ten finish and 5 LPs otherwise. Your income is derived from two drivers' results, so it will vary from 3 to 10 LPs. Income after non-championship races is 15 LPs, regardless of results and with no income from sponsorship. The minimum total team income per turn (including income from sponsors, see 1.12) is 10 LPs and the maximum is 16 LPs (if your base and sponsorship income would be above the maximum your sponsorship income is reduced accordingly). Income is received at the end of a race, before special actions are processed.

Note: Losing points are so called, because the more successful you are, the less you receive. This is generally the opposite of the way that finances work in real-life, where the tendency is that the good teams get richer, and therefore get better and so on. However, in real-life it takes about five years (or longer) for a team to reach the top – not a very sensible aspect in a PBM game. Instead the losing point system makes it tougher for the successful teams to stay at the top, and helps the strugglers to catch up (but as they catch up, they start to suffer the same penalties). It isn't fully realistic, but it does make for a much fairer, competitive and enjoyable game.

1.12 SPONSORSHIP Each team also receives extra LPs for each championship race according to the number of LPs previously spent on sponsorship (see 5.12). This number is recorded and listed in your team report. The number of extra LPs gained each turn is the square root of the combined total of your team sponsors total and your two drivers' personal sponsors (fractions rounded down). At the end of a season each team's sponsors total is divided by three, with a maximum of 25. Driver's personal sponsors are unchanged.

Your team sponsorship total increases by three each time one of your drivers wins a race, by two for a "podium finish" (second or third) and by one for a finish "in the points" (fourth, fifth or sixth). Your sponsorship total also increases by one each time one of your drivers starts a race from pole position (note: this is added after the race has been processed, not after practice). These additions to your sponsors are made before the income from that race is calculated.

Example: A team has 27 team sponsors, and their two drivers have 3 and 4 personal sponsors respectively, so the total is 34 sponsors. Each turn their "sponsorship income" will be 5 LPs. If the team could increase the total to 36 sponsors then the sponsorship income would increase to 6 LPs a turn.

1.13 NOTATION Drivers are always identified by their race number. Unsigned drivers are allocated race numbers above 100. A driver's ratings are referred to as "abilities". Teams are identified by their three letter team codes. Chassis (cars) are always identified by their chassis number (1-6) and the ratings of each chassis are referred to as "specifications" or "specs". Speeds in the game are always referred to in kilometres per hour (kph); to convert to miles per hour simply note that 8 kph = 5 mph.

1.14 HOME CIRCUITS Each team must nominate a Home Circuit at the start of the game. This circuit is the one at which they usually test, and a team's drivers are usually quicker at their home circuit (they know the "racing line" better because they are so familiar with the circuit). It is recommended that only "regular" circuits are chosen as home circuits. You may change your Home Circuit, but only at the beginning of a new season and this should be rare.

At the start of each new season the computer checks that each team's Home Circuit is on the schedule for the season. If it isn't (so you won't receive the advantage from driving at home that season) then the computer will automatically change your Home Circuit to a circuit which is on the schedule (usually Silverstone).

1.15 MECHANICS Each team has a rating for its mechanics (see 5.13). Good mechanics will make quicker pit stops and increase overall mechanical reliability for races. The maximum level of mechanics is 10. Your mechanics level drops by two at the start of each new season.

1.16 DESIGNERS Each team has a rating for its designers (see 5.14). Good designers increase the improvement made to a car during development, and decrease the number of "bugs" (problems) caused when developing a new chassis (see 5.4), which then need to be ironed out in testing. They also affect the efficiency of removing bugs during testing. The maximum level of designers is 10. Your designers level drops by two at the start of each new season.

1.17 TEST TEAM Each team has the option of hiring a Test Team for the current season (see 5.17). This represents a group of mechanics and a lesser driver devoted to a testing program throughout the season. A test team reduces the cost of testing (once the initial outlay on the test team has been paid for) as the test team and driver are not distracted by the normal race schedule and also increases the overall effectiveness of testing. At the start of each season you have to decide whether to re-hire your test team.

1.18 TEAM NUMBERS Each team has two consecutive race numbers, the lower number being held by the "number one driver" (though there is no actual distinction between the two drivers). By tradition the number 13 is never carried by a driver. At the start of a new season each team is allocated new race numbers:- the reigning champion driver by tradition always carries no.1 (and his teammate no.2), while the remaining numbers are allocated according to each teams' position in the previous Constructors Championship.

1.19 NUMBER ONE DRIVER You may specify which of your drivers is your "number one" driver. If you choose to take only one spare car to races and both of your drivers damage their race chassis (see 8.12) then your number one driver has first call on the spare car. You may change your number one driver at any time (see 5.21). Note that the SIGNONE special action (see 5.26) replaces the driver you have specified as your number one, SIGNTWO (see 5.26) replaces your other driver.

1.20 SPARE RACE CHASSIS Each team has the option of taking two spare chassis to races instead of the normal single spare chassis (see 5.22). If you only have one spare chassis then this is chassis 3. If you have two spare chassis then these are chassis 3 and 4, chassis 3 being the spare for the driver whose race chassis is 1. At the start of each season you are assumed to take only one spare chassis to races. All other chassis are referred to as test chassis (as they are only used for development).

2 STARTUP RULES

2.1 INITIAL BALANCE Each team starts the game with a balance of 100 LPs, 60 Chassis Points (CPs) and 54 Driver Points (DPs). There is a single setup turn in which you select the initial chassis specifications of your car, and the initial abilities of your two drivers. There is no LP cost for the initial selection of your chassis ratings and drivers, but you ***must*** spend all Chassis Points and Driver Points during the setup turn.

2.2 INITIAL CHASSIS RATINGS At the start of the game you have 60 CPs to allocate to the various chassis specifications. For all minor specifications each CP allocated equates to two points of development. For all major specifications (Power, Torque, Low Speed Downforce, High Speed Downforce, Gearbox Efficiency, Brake Efficiency and Race Tyres) each CP allocated equates to one point of development. The maximum initial level of development is 10, so that no more than 5 CPs can be allocated to a minor specification and no more than 10 CPs to a major specification.

At the start of the game each team has four chassis (one race chassis for each driver, plus a single spare and a test chassis) built to this initial specification.

2.3 INITIAL DRIVER SELECTION At the start of the game you have 54 DPs to allocate between your two drivers' abilities. You must allocate a minimum of 27 DPs to your first driver's abilities and a minimum of 20 DPs to your second driver's abilities (so you may allocate between 27 and 34 DPs to your first driver, and between 20 and 27 DPs to your second driver, allowing you to decide whether to have two drivers of equal ability or a better first driver and less effective second).

For all abilities ***except*** Race Speed each DP allocated equates to one point of ability. ***For Race Speed the number of DPs allocated is divided by three*** to determine the level, rounding down (so for an initial Race Speed of 5 you need to allocate 15 DPs). The maximum level any ability can be created at is 6, so that no more than 6 DPs may be spent on an ability, except that 18 DPs can be spent on Race Speed. Each driver begins with 5-9 points of potential, a temperament rating from 1-7 and experience between 1-6. On the setup turnsheet please give the number of DPs to be allocated, not the level required (e.g. for an initial Race Speed of 4 you would write 12 DPs).

2.4 DRIVER NAMES For each driver you should give a name (maximum 12 characters for the forename and 12 characters for the surname) and nationality (these have no effect on the game, and are purely window dressing), subject to the approval of the GM (who may object on the grounds of decency, taste or suitability). Duplicate names (not even two drivers with the same surname but different forenames) will not be allowed, so if you think someone else might use the same name and you don't want the GM to make up a name for you then give an alternative. Note that a driver retains his name throughout the game, even when he moves teams (allowing owners to change driver names would be extremely confusing, and would upset other owners).

2.5 GAME ROUNDUP After all teams have made their initial selections the schedule is produced for the first season, along with the league roundup which lists all of the teams and owners involved in the game with outline information about the levels of development of their chassis, driver abilities and details of all free agent drivers.

2.6 STANDBY PLACES New owners may be appointed to an existing team where the old owner has dropped out during the season. If a team has a losing point balance below 25 LPs then the balance is increased to 25 LPs. A new owner may also change the team name when he joins the game (tell the GM of the new name when you send in your first orders). This is the only time that you can normally change a team name. Allowing owners to change their team name during play is unnecessary and would simply confuse and annoy other managers.

2.7 FIRST PRE-SEASON RACE The first race in a new game setting up is a pre-season race. At the same time as the setup turns are processed practice and qualifying for this race will also be processed, using default orders written by the computer.

2.8 HOME CIRCUIT You should also specify your Home Circuit (see 1.14) when you set up a team. Your performances will generally be better at your Home Circuit. If you do not give a valid Home Circuit (one that isn't currently programmed for use in Raceplan) you will be given Silverstone as your Home Circuit.

2.9 SPONSOR AND ENGINE NAMES You have the option of giving sponsor and engine names for your team (maximum 12 characters each), subject to the approval of the GM. These have no effect on the game, and are included purely for window dressing.

3 CHASSIS SPECIFICATIONS

3.1 INTRODUCTION Each chassis (car) is rated according to various specifications, or "specs", whose values normally range from 0 (poorest rating) to 25 (highest rating), though the range 0-15 is most common (though values below zero may rarely occur). There are seven major specs and twelve minor specs, each of which has an associated three letter code. The major specs are generally more important than the minor specs, but are also more expensive to develop. You may find that it is more cost effective to develop two minor specs than one major spec. A car can be divided into six separate "areas of development", each of which contains a variety of major and/or minor specifications. The six areas of development are the Engine, Aerodynamics, Gearbox, Suspension, Brakes and Tyres.

Notes: In Raceplan each team has full control over the development of all of their specs, whereas in real life many teams share certain supplies, such as engines and tyres. Allowing teams in Raceplan to work together and share development would not be a good idea (opening lots of scope for fiddling the system, working in cartels, excluding other managers, etc) so these are all controlled individually.

3.2 VERSION AND VARIATION Each chassis has a version and variation number, such as JENKINS 2.4. The first number is the version number whilst the second number is the variation number. A new version of a car is normally built approximately once per season and effectively represents a complete redesign of the car. When a car is developed during the season then it is usually done by developing a new variation (modifying the original version), e.g. from JENKINS Version 1.2 to JENKINS Version 1.3. When a chassis is referred to as, for example, JENKINS 2.4, this actually means the version is 2, the variation 4.

3.3 MAJOR SPECS There are seven major specifications and these, along with their three letter codes and their basic effects on performance are as follows:

3.3.1 Power (POW) Power represents the basic "grunt" of an engine, its power output at the top of the range. It is the main aspect of a car in determining its top speed, and is also important in determining the car's acceleration at high revs.

3.3.2 Torque (TOR) Torque represents the power output of an engine at medium range, and is significantly different from Power. An engine may have excellent top-end Power without being very good at medium speeds (the early turbo-charged engines of the 1980's are a prime example). An engine's Torque is the main contributor to acceleration, particularly at medium speed (lower engine revs).

3.3.3 Low Speed Downforce (LDF) Low Speed Downforce represents the aerodynamic downforce and grip generated by the chassis around lower speed corners. Low speed downforce is the primary contributor to the speed around first and second gear corners, and also has some significance around medium speed corners (third and fourth gear).

3.3.4 High Speed Downforce (HDF) High Speed Downforce represents the aerodynamic downforce generated by the chassis around high speed corners (fifth and sixth gear). It also makes a contribution around medium speed corners.

3.3.5 Gear Efficiency (GEF) Gear Efficiency represents the performance of a car's gearbox. This is vital in determining the car's acceleration, particularly at lower speeds, and also contributes to the effectiveness of slowing down into a corner.

3.3.6 Brake Efficiency (BEF) Brake Efficiency represents the performance of a car's brakes. The quality of the brakes determines how late a driver can brake for a given corner, allowing a little extra time at full speed before having to brake.

3.3.7 Race Tyres (RTY) Race Tyres represents the performance of a team's tyres during the race (performance over a number of laps). Good race tyres will provide more grip and faster cornering speeds.

3.4 MINOR SPECS There are twelve minor specifications and these, along with their three letter codes and their basic effects on performance are as follows:

3.4.1 Qualifying Power (QPw) Qualifying Power represents the extra power generated when an engine is in "qualifying" mode. An engine can be set up to produce extra power for a short burst but will only last for a handful of laps and not a race distance. Qualifying power has no effect on race performance, but will improve performance during qualifying.

3.4.2 Engine Reliability (ERl) Engine Reliability determines how much punishment an engine can withstand before suffering a failure during the race. No engine is ever run flat out throughout a race, and as with many mechanical aspects a driver and team are always trying to optimise the balance between performance and reliability.

3.4.3 Fuel Efficiency (FEf) Fuel Efficiency represents the engine's fuel consumption. A car with good fuel efficiency will require less fuel to complete the race, allowing the lighter car to run more quickly than its less fuel efficient counterparts.

3.4.4 Handling (Han) Handling represents the "driveability" of a car through corners, and also determines how easily the driver can recover from a mistake (e.g. locking up the tyres). There is no point having a car which is technically super-fast through corners if it shakes about so much that the driver cannot drive it "on the limit".

3.4.5 Weight (Wei) The Weight of a chassis affects the straight-line speed and acceleration of a car. Formula One cars are usually built to a minimum weight limit, but it is unusual for cars to actually be close to this limit.

3.4.6 Drag (Drg) The Drag of a chassis determines how much the aerodynamic downforce slows the car down when accelerating and at top speed. The faster a car is travelling the greater the significance of drag will be. The aerodynamic downforce which "sucks" a car down onto the road, enabling it to take a corner more quickly, has the opposite effect on the straight, slowing the car down by reducing its acceleration and top speed.

3.4.7 Gearbox Reliability (GRl) Gearbox Reliability determines how much mechanical punishment a gearbox can sustain before suffering a major failure.

3.4.8 Suspension Efficiency (SEf) Suspension efficiency determines a car's effectiveness in dealing with bumps around a circuit. In comparison with a road car a Formula One car has very stiff suspension and its chassis is very close to the ground (the closer the car is to the ground the higher the downforce generated). Poor suspension may cause a car to "leap" over a bump, either whilst cornering or under braking, causing a loss of speed as the driver recovers.

3.4.9 Suspension Reliability (SRl) Suspension reliability determines how much punishment the suspension can sustain before suffering a major failure. Usually the suspension is expected to last a race distance without problems, but it can be severely affected by abnormal strain, such as contact with other cars, walls, etc.

3.4.10 Brake Reliability (BRl) Brake reliability determines how much mechanical punishment the brakes can sustain before overheating and failing. The brakes are normally expected to last the race distance but this is affected by how heavily they are used during the race.

3.4.11 Qualifying Tyres (QTy) Qualifying Tyres represents the performance of a team's tyres during qualifying, over short distances (one or two laps maximum). It is frequently possible for tyres to be very effective for a couple of laps, then even off and not be so effective for longer periods (i.e. during the race).

3.4.12 Tyre Durability (TyD) Tyre Durability represents how long a team's race tyres remain effective. The better the tyre durability is the longer the tyres will last, perhaps permitting a driver to use a softer compound of tyre rather than a harder compound of tyre, leading to a gain in grip and cornering speed.

Notes: The introduction of Race Tyres, Qualifying Tyres and Tyre Durability (which has replaced Tyre Usage) is new for version 2.0 (in 1997), and reflects the introduction of a second tyre manufacturer in real life Formula One. In Raceplan you are not restricted in the number of sets or range of tyre compound available over the race weekend.

3.5 RELATIVE LEVELS OF DEVELOPMENT The level of performance due to a particular spec rating will not necessarily be the same from one season to another. The important factor is the level of that spec relative to the other teams' levels at the start of that particular season (these values are not exactly known by any of the players).

This means that you cannot simply compare specs and performances from one season to another. Instead you should compare performances relative to the other cars in the game for the current season. The extra straight-line speed you have by having a Power Rating 4 points better than another car ***will*** always be the same. The important thing is to remember that performance during a given season will be consistent, and that it is your levels of development relative to everyone else in your game that determine your success.

Note: This may seem rather confusing but is in fact very simple. You cannot directly compare a car from one season with a car from another season, nor with a car from another game. You can only compare it with other teams within your game, and you cannot simply "reconstruct" last year's car and expect it to work exactly the same way as the previous season. You have to judge performance on the current season.

4 DRIVERS

4.1 INTRODUCTION Each driver is rated according to various abilities, ranging from 0 (poorest rating) to 10 (highest rating). There is one major ability, the driver's Race Speed, and five minor abilities, plus a driver's "form" (whether he is currently driving above or below his capabilities), experience (ability to avoid mistakes), "potential" (how much he may improve) and temperament (coolness under pressure). Each of these has an associated three letter code, and these abilities are described below:

4.2 RACE SPEED (RSP) A driver's race speed is his basic speed, and is the primary characteristic upon which his ability is judged. On some reports a driver's Race Speed is shown along with his best minor ability (so 6 CON means Race Speed 6, best minor ability Car Control).

4.3 MINOR ABILITI.E.S There are five minor abilities and these, along with their three letter codes are described as follows:

4.3.1 Qualifying Speed (QSp) A driver's qualifying speed determines how much more quickly he is able to drive on a single, "banzai" lap compared to his normal speed. There is a significant difference between a driver's ability to drive consistently and quickly for a whole race and a driver's ability to go all out on a single lap.

4.3.2 Car Control (Con) A driver's Car Control determines his ability to handle the car on the limit, either recovering from a mistake or when braking or cornering at the very limit of his car's performance.

4.3.3 Testing Ability (Tes) A driver's Testing Ability represents his ability to understand how his car is performing (particularly in Testing) and transmit this information to the designers, assisting them in development and testing.

4.3.4 Aggression (Agg) A driver's aggression simply determines his effectiveness when battling with other drivers. Generally the more aggressive a driver is the more effective he will be in overtaking moves.

4.3.5 Smoothness (Smo) A driver's smoothness determines how easy his driving technique is upon his car mechanically. Certain drivers are naturally hard on their equipment, whilst other drivers are naturally gentle on their equipment.

4.4 FORM Form represents a temporary modification to a driver's abilities during the season. When a driver wins a race his form increases by three, for a podium finish (second or third) his form increases by two and for a points finish (fourth to sixth) his form increases by one. If a driver finishes out of the top six but eight or more places above the position he started the race then his form increases by one. In addition if a driver starts a race from pole position or sets the fastest lap of the race then his form increases by one (note that these are both added after the race). Form cannot rise above 20 and cannot drop below -20.

If a driver fails to complete half the race distance then his form decreases by one and if he retires because of a spin or accident then his form decreases by two. If a driver fails to qualify for the race then his form decreases by three. Form is neither gained nor lost in non-championship races. If a driver has form below zero then any gains in form are added twice (poor form is quickly forgotten), subject to the restriction that the first addition cannot take his form above zero. At the end of the season each driver's form is halved (rounding down) if it is above zero, or reset to zero if it is negative.

4.5 POTENTIAL A driver's potential (Pot or Pt) represents his ability to improve during his career. At the end of each season a driver normally loses one point of potential. This may or may not be converted into an increase in one or more of his abilities, dependent upon his level of form at the end of that season and also the current level of that ability (lower levels are more likely to increase than higher levels). Once a driver has no more potential then he is likely to start losing abilities. Potential can also be used by a team manager to improve a driver's abilities by coaching (see 5.11), though abilities cannot be coached above level 8 (rarely they may rise to level 9 or 10 between seasons or when a driver initially appears in a game).

4.6 TEMPERAMENT A driver's temperament (Tmp) represents his ability to remain calm under pressure. The higher the value, the better the driver is at retaining his cool. Drivers with low temperament will take more risks, while drivers with high temperament will be more conservative. Low temperament is not necessarily a disadvantage, for example such a driver may take overtaking opportunities that a calmer driver would decline. Temperament cannot be coached and never changes.

4.7 EXPERIENCE A driver's experience (Exp or Ex) represents how long he has been active at the highest level of racing (F1, Indycar, etc) in years. The higher a driver's experience, the more likely he is to retire at the end of the season and lose abilities once he has no potential left to exploit. The chance of a driver retiring is mainly dependent upon his experience and whether he is a free agent (an unsigned driver is much more likely to retire) but it is also affected by his potential, season results (the better his results, the more likely he is to continue) and number of championships (the more titles a driver has won, the more likely he is to retire). A driver's experience also acts as a modifier to his temperament, calming down a driver with low temperament.

4.8 DRIVER VALUES Each driver has a value, which represents the cost of signing him for a season. When a driver first appears this value is based on his abilities (the square of his Race Speed plus his minor abilities) but it is then modified by his performances during subsequent seasons. For each win a driver's value increases by 3 LPs, for each podium finish his value increases by 2 LPs, for each points finish his value increases by 1 LP and for each pole position his value increases by 1 LP. These increases do not apply after non-championship races nor after the start of the "Silly Season" (see section 13).

Driver values may be increased during the Silly Season when other teams make offers for them (see 13.3). At the end of the Silly Season a driver's value decreases if he remains unsigned, when he goes onto the Driver List for the "draft" (see 13.8).

4.9 WAIVER VALUES When a team signs a free agent driver (necessarily during the season) the driver he replaces is automatically waived (released), becoming a free agent. Half of the waived driver's value (in LPs) is recovered, the exact amount being dependent upon the fraction of the season's races already run. The percentage recovered is 50% x RL/NR, where RL is the number of rounds left and NR is the number of rounds in the full season (e.g. with 12 rounds out of 17 left 35% is recovered, with 8 rounds out of 17 left 24% is recovered). If a driver is waived between the pre-season race and practice for the opening race of the season then his full value is recovered. ***Your drivers' current waiver values are always shown on your Team Report.*** A driver who is waived retains any championship points he has accrued that season. No LPs are recovered when drivers leave your team at the end of the season.

4.10 SIGNING VALUES When a team makes a bid for a free agent driver they must offer at least the minimum bid (MinBd) for him, ***which is always shown on the Free Agent List.*** This number is between 50% and 100% of the driver's value, and is dependent upon the number of races already run. The percentage is 50% + 50% x RR/NR, where RR is the number of rounds remaining and NR the number of rounds in the full season (e.g. with 12 rounds out of 17 left the cost is 85%, with 8 rounds out of 17 left the cost is 74%). When a driver is signed his basic value remains unchanged regardless of the actual amount offered.

4.11 PERSONAL SPONSORS Each driver has a number of personal sponsors, which are combined with his team's sponsorship total when calculating extra income (see 1.12). Normally drivers will only have a few personal sponsors, but occasionally drivers will be available with larger numbers of personal sponsors, usually fairly untalented drivers. Driver sponsors do not vary from season to season. Personal sponsors represent the contribution a driver's sponsors make to his salary, reducing the amount his team has to pay.

4.12 NAMING DRIVERS No two drivers in the game may have the same surname (including drivers still in the "History section" of the top twenty all-time race winners and points scorers, which is shown periodically on your reports). When you name a new driver you are strongly advised to give at least one alternative name in case the surname of the new driver is already in use (otherwise the computer will simply make up a new name for you).

4.13 UNSIGNED FREE AGENTS Each turn a free agent driver remains available during the season (not during the silly season) his value drops by 5%, rounding the reduction down (so it won't drop below 19 LPs).

5 SPECIAL ACTIONS AND DEVELOPMENT

5.1 INTRODUCTION The section on your turnsheet marked Special Actions covers the actions required for development of your cars and testing new modifications as well as other general actions used for the management of your team. You have a maximum of five special actions per turn. Each special action is identified by a one word code. You must use the correct codes. The actions available are explained in the sections that follow, and in each case an example of that action is given. Some actions require a number and/or a value and/or a name, which should be given in the appropriate boxes. If you put the wrong numbers in the wrong boxes then the wrong things are likely to happen.

5.2 DEVELOPMENT There are two special actions which enable you to develop a given chassis, VERSION and VARIATION. In each case you should put in the NUM box the number of the chassis to be developed (from 1 to 6) and in the NAME box put the three letter code which corresponds to the spec given.

The VARIATION action develops your car by simply modifying an existing chassis, with no major redesign or rebuild involved. The variation-number of the chassis increases by one. There is a limit as to how many variations can be effectively made to a basic design before a major redesign is needed. Generally the higher the variation-number of a development the less effective that development will be. As a general rule of thumb once a car has had 13-16 variations it will be more effective to update it to a new version. Developing a chassis by creating a new version is more expensive but increases the effectiveness of that and future developments (by resetting the variation to zero).

The normal gain in a given spec when developing a new version or variation is two to six points (though in rare cases it may be as low as one or as high as eight). The gain is dependent upon your level of designers and whether you are developing an area where you are below the average throughout the game (your designers copy the better teams in the game). However, development of higher variation numbers and high values for the spec concerned reduce the gain (it's less effective to develop level 14 than it is to develop level 2). Once the gain is as low as one or two points you should be considering creating a new version, or quite possibly, should have done so already. If a development leads to a gain of only one point and the current VARIATION number is 16 or above then the next development MUST be a VERSION action, the computer will prevent further VARIATION developments.

Note: You can only develop your "highest spec" chassis (e.g. if you have a chassis version 2.9 then you cannot develop a different chassis which is version 2.8). Your highest spec chassis is indicated on your team report with a " * ". Without this rule owners frequently ordered two separate developments on two identical chassis, and then realised that the two developments couldn't be bolted together later. You will always want to "build" one development upon previous developments, and a development always makes a chassis more effective.

5.3 DEVELOPMENT AREAS You can only develop each area on a given chassis once per turn. The areas (along with the three letter codes of the relevant specs) are Engine (POW, TOR, QPw, ERl and FEf), Aerodynamics (HDF, LDF, Han, Wei and Drg), Gearbox (GEF and GRl), Suspension (SEf and SRl), Brakes (BEF and BRl) and Tyres (RTY, QTy and TyD).

Example: you may develop POW and BEF in the same turn, but not POW and ERl.

5.4 SIDE EFFECTS OF DEVELOPMENT When any chassis is developed, in addition to the increase in the level of the spec developed the chassis also acquires a number of "bugs" which need to be ironed out in testing. These bugs represent minor defects that adversely affect general reliability, and a chassis with bugs inherent to it is referred to as being "unsorted". Good designers will generally reduce the number of bugs caused when developing a car, and the number of bugs is higher when creating a new version.

5.5 VERSION The special action VERSION develops a given chassis by creating a new version, essentially a major redesign and rebuild of a team's car. The cost is 30 LP, and the version-number of the car created is increased by one, whilst the variation number is reset to zero (e.g. a chassis version 2.15 would be developed to version 3.0). The chassis number (from 1-6) of the car should be given in the NUM box and the three letter code corresponding to the spec to be developed (see 3.3 and 3.4) should be given in the NAME box. A version action is not allowed for a chassis whose variation is less than 10, though variations in the range 13-16 are more sensible candidates for a version action.

ACTION [VERSION **]** **NUM [** 3 **]** **VALUE [** **]** **NAME [** TOR **]**

develops chassis number 3 into a new version at a cost of 30 LPs, improving Torque.

5.6 VARIATION The special action VARIATION develops a chassis by upgrading the existing version/variation, a minor adjustment to the basic design. The cost is 10 LP for developing a major spec and 5 LP for developing a minor spec. The variation-number of the chassis is increased by one (e.g. a chassis version 2.9 would be developed to version 2.10). The chassis number (from 1-6) of the car should be given in the NUM box and the three letter code corresponding to the spec to be developed (see 3.3 and 3.4) should be given in the NAME box. A variation action is not allowed for a chassis whose variation is above 19, nor if the previous development to the chassis only increased the spec concerned by one point and the current variation is 16 or more (at this stage you'll only be wasting LPs in trying to develop further variations, and the computer will prevent you from doing so).

ACTION [VARIATION **]** **NUM [** 4 **]** **VALUE [** **]** **NAME [** DRG **]**

develops chassis number 4 into a new variation developing Drg, cost 5 LP.

5.7 TEST & LONGTEST The special action TEST is used to test a given chassis, to remove the unwanted "bugs" which are side-effects of development. This chassis number to be tested should be given in the NUM box. A chassis can only be tested twice in a turn and the cost is 2 LPs for the first test and 4 LPs for the second, reflecting the strain upon your team's time between races. The cost of tests are halved if you have a Test Team (see 1.17). The effectiveness of testing is mostly dependent upon the Test Abilities of your race drivers, but is also affected by the level of your designers and is slightly increased if you have a Test Team. Your drivers will also estimate how many further tests are required to "sort" the chassis, though they may be inaccurate.

You cannot test a chassis which is already sorted. If you order a test on a sorted chassis (not uncommon, because sometimes you'll order two tests and the first test will sort the chassis) then the test is cancelled, but you still pay half costs for the test.

The special action LONGTEST may be used instead of two TEST orders and is otherwise identical to two individual TEST actions except that it saves a special action. The basic cost is 6 LPs (2 LPs + 4 LPs) and is halved (so 3 LPs) if you have a Test Team (see 1.17).

When a LONGTEST is performed the computer actually runs two separate TESTs. If the chassis concerned is sorted after the first half of the longtest then the second half of the longtest is cancelled, and you are only charged half cost for the cancelled half of the LONGTEST.

ACTION [LONGTEST **]** **NUM [** 4 **]** **VALUE [** **]** **NAME [** **]**

tests chassis number 4 (at a cost of 1, 2 or 4 LP – see above).

5.8 COPYING CHASSIS There are four special actions available to update chassis by copying an existing chassis (presumably because the existing chassis is a more advanced version/variation). All details of the existing chassis are copied, including the version, variation, the levels of all specs, the number of bugs and the number of times the chassis has been tested that turn. The cost of copying one chassis to another is 4 LP per chassis if the two chassis have different versions (this includes building a new chassis from scratch) and 1 LP if the two chassis are the same version (e.g. updating chassis version 2.14 to 2.15 costs 1 LP, but updating it to version 3.0 costs 4 LP).

The special action COPY simply copies the details of the existing chassis (whose number should be given in the NUM box) to a new chassis (whose number should be given in the VAL box). The special action COPYBOTH copies the details of an existing chassis (whose number should be given in the NUM box) to the two race chassis (1 and 2). The special action COPYRACE copies the details of an existing chassis (whose number should be given in the NUM box) to the two race chassis ***and*** any spare chassis you take to races (so chassis 3 if you take one spare to races, chassis 3 and 4 if you take two spares to races, see 1.20). The special action COPYALL copies the details of an existing chassis (whose number should be given in the NUM box) to all other existing chassis.

To build a new chassis from scratch simply COPY an existing chassis to a non-existent chassis number. COPYBOTH, COPYRACE and COPYALL cannot be used to build a new chassis. You cannot copy a chassis to another chassis with a higher version/variation nor to an otherwise identical chassis with fewer bugs.

ACTION [COPY **]** **NUM [** 3 **]** **VALUE [** 1 **]** **NAME [** **]**

copies all details of chassis number 3 to chassis number 1, at a cost of 1 or 4 LPs.

ACTION [COPYBOTH **]** **NUM [** 3 **]** **VALUE [** **]** **NAME [** **]**

copies all details of chassis number 3 to both race chassis (chassis numbers 1 and 2), at a cost of 1 or 4 LPs per chassis.

ACTION [COPYRACE **]** **NUM [** 3 **]** **VALUE [** **]** **NAME [** **]**

copies all details of chassis number 3 to both race chassis and all spare chassis (chassis numbers 1, 2, 3 and perhaps 4), at a cost of 1 or 4 LPs per chassis.

ACTION [COPYALL **]** **NUM [** 3 **]** **VALUE [** **]** **NAME [** **]**

copies all details of chassis number 3 to all other chassis currently built, at a cost of 1 or 4 LPs per chassis.

5.9 DISCARD The special action DISCARD is used to discard (delete) a chassis, when it is no longer of use to you. There is no cost in LPs. You cannot discard one of your drivers' race chassis nor a spare chassis you take to races (see 1.20). The chassis number to be discarded should be given in the NUM box. You will not normally need to use this special action but it is available if required.

ACTION [DISCARD **]** **NUM [** 5 **]** **VALUE [** **]** **NAME [** **]**

discards chassis number 5.

5.10 SWAP The special action SWAP is used to swap two chassis (usually swapping a driver's race chassis with a spare chassis, probably because it has been developed and fully tested). There is no cost in LPs. The numbers of the two chassis to be swapped should be given in the NUM and VALUE boxes.

ACTION [SWAP **]** **NUM [** 2 **]** **VALUE [** 5 **]** **NAME [** **]**

swaps chassis numbers 2 and 5.

5.11 COACH The special action COACH is used to improve one of your drivers' abilities. The race number of the driver to be coached should be given in the NUM box, while the three letter code corresponding to the ability to be coached (see 4.2 and 4.3) should be given in the NAME box. You cannot coach an ability above level 8 and cannot coach a driver if doing so would mean his potential dropping below 2. For all abilities except Race Speed the basic cost is one point of potential and a number of LPs equal to twice the new level (so from 5 to 6 would cost 12 LPs). The cost of coaching Race Speed is double these values (double potential and double LPs). You cannot coach a driver during the draft turn (see 13.12).

ACTION [COACH **]** **NUM [** 27 **]** **VALUE [** **]** **NAME [** RSP **]**

coaches driver race number 27 in Race Speed.

5.12 SPONSORS The special action SPONSORS is used to increase a team's sponsorship level (see 1.12). The cost is 1 LP per sponsor added. You cannot add more than 9 sponsors per turn. If you try to add more sponsors than you have LPs, then the computer will reduce the number of sponsors added to the number of LPs available (maximum 9). The number of sponsors to be added should be given in the NUM box.

ACTION [SPONSORS **]** **NUM [** 8 **]** **VALUE [** **]** **NAME [** **]**

increases the team's number of sponsors by 8.

5.13 MECHANICS The special action MECHANICS is used to increase the level of a team's mechanics (see 1.15). The new level of mechanics should be given in the NUM box. The maximum level of mechanics is 10. The cost in LPs is the square of the new level minus the square of the old level (so from 3 to 4 would cost 4x4 – 3x3 = 7 LPs).

ACTION [MECHANICS **]** **NUM [** 4 **]** **VALUE [** **]** **NAME [** **]**

improves a team's mechanics to level 4.

5.14 DESIGNER The special action DESIGNER is used to increase the level of a team's designers (see 1.16). The new level of the designers should be given in the NUM box. The maximum level of designers is 10. The

cost in LPs is the square of the new level minus the square of the old level (so from 4 to 6 would cost 6x6 – 4x4 = 20 LPs).

ACTION [DESIGNER **]** **NUM [** 6 **]** **VALUE [** **]** **NAME [** **]**

improves a team's designers to level 6.

5.15 SCOUT The special action SCOUT is used to scout a particular driver. The Race Number of the driver to be scouted should be given in the NUM box. You may also specify one of the driver's minor abilities in the name box (using its three letter code, see 4.3). There is no cost in LPs. Scouting a driver reveals his current value, potential, form, temperament, Race Speed and the level of one minor ability specified (if none is given then one is selected at random).

ACTION [SCOUT **]** **NUM [** 28 **]** **VALUE [** **]** **NAME [** CON **]**

scouts driver number 28, revealing his Car Control.

5.16 HIGHTECH The special action HIGHTECH is used to find out the highest level of development within the game of a given chassis spec. The three letter code corresponding to the spec to be scouted (see 3.3 and 3.4) should be given in the NAME box. There is no cost in LPs. The value and the team whose spec has the highest level are both reported.

ACTION [HIGHTECH **]** **NUM [** **]** **VALUE [** **]** **NAME [** POW **]**

scouts for the highest Power rating within the game.

5.17 TEST TEAM The special action TESTTEAM is used to hire a Test Team (see 1.17), reducing the cost of testing and improving testing performance (see 5.7). The cost is 20 LPs minus the current round number (so the cost is 20 LPs before the first race, and only 8 LPs after twelve races, though it is better to hire a team earlier in the season). Your test team automatically disappears at the end of the season and needs to be re-hired at the start of a new season.

ACTION [TESTTEAM **]** **NUM [** **]** **VALUE [** **]** **NAME [** **]**

5.18 NEWENG The special action NEWENG is used to change the name of your team's engine (see 2.9). The new name (maximum 2 characters, including spaces) should be given in the name box. There is no cost in LPs.

ACTION [NEWENG **]** **NUM [** **]** **VALUE [** **]** **NAME [** LAWNMOWER **]**

5.19 NEWSPONS The special action NEWSPONS is used to change the name of your sponsor (see 2.9). The new name (maximum 12 characters, including spaces) should be given in the name box. There is no cost in LPs.

ACTION [NEWSPONS **]** **NUM [** **]** **VALUE [** **]** **NAME [** RACEPLAN **]**

5.20 NEWTRACK The special action NEWTRACK is used to change your Home Circuit (see 1.14). The new circuit should be given in the name box. There is no cost in LPs. This special action can ***only*** be used during the Draft Turn or Pre-Season turn. It cannot be used during the season.

ACTION [NEWTRACK **]** **NUM [** **]** **VALUE [** **]** **NAME [** MONZA **]**

Changes the team's Home Circuit to Monza.

5.21 NUMBER1 The special action NUMBER1 is used to specify which of your drivers is your "number one", the driver with priority if your team runs a single spare car (see 1.19). The race number of the new number one driver should be given in the NUM box.

ACTION [NUMBER1 **]** **NUM [** 27 **]** **VALUE [** **]** **NAME [** **]**

changes the team's number one driver to 27.

5.22 TWOSPARE The special action TWOSPARE is used to specify that your team will run two spare chassis for the rest of the season (see 1.20). The cost is 12 LPs minus half the current round number, rounding up (so 12 LPs before the first race, and only 6 LPs after 12 or 13 races). You must have two spare chassis already built, otherwise this action will fail. At the end of a season you automatically revert to one spare chassis.

ACTION [TWOSPARE **]** **NUM [** **]** **VALUE [** **]** **NAME [** **]**

5.23 PRIORITY The special action PRIORITY is used to specify that one of your drivers (not necessarily your number one) should allow his team-mate past on the final lap of the race. This action may only be used for the final race of the season. This only happens if the team-mate is exactly behind him at the end of the race (i.e. a driver in third place will allow his fourth placed team-mate past but not if he is fifth) and if both drivers are on the same lap. The race number of the driver to be given priority should be given in the NUM box and the priority only applies for the current turn. The cost is 2 LPs (paid to the other driver, to pacify him), and the action is permitted even if the deduction of the LPs will take your balance below zero.

ACTION [PRIORITY **] NUM [** 23 **] VALUE [ ] NAME [ ]**

sets number 23 as the priority driver for the race concerned at a cost of 2 LPs.

Note: This action will be rarely used, and is intended for the end of the season when you may find that one of your drivers is still in contention for the championship while the other isn't, so you don't want one driver taking points away from the other.

5.24 DEFAULT PARAMETERS The special actions DEFSPEED, DEFWING and DEFSTOPS (see 9.8) are used to set the default values for your race strategies, used in the eventuality that your orders don't arrive by the deadline. DEFSPEED must be from 0 to 19, DEFWING from 1 to 5 and DEFSTOPS from 0 to 4.

ACTION [DEFSPEED **] NUM [** 3 **] VALUE [ ] NAME [ ]**

sets the default speed for your drivers to 3.

5.25 EXTRA LISTINGS There are two special actions (SCHEDULE and ROUNDUP) to produce up to date copies of the schedule and roundup respectively. The cost is one turn credit, but the extra report is sent to every owner in the game. If more than one owner asks for the same extra listing in the same turn then only one is charged (which one is random).

Note: you don't need extra listings very often, if at all, and we think it's important to send the same listings to everyone, rather than allowing some owners to gain an advantage (from having more up-to-date listings) through spending extra money. You probably won't need to use these actions but they are available if you do.

ACTION [ROUNDUP **] NUM [ ] VALUE [ ] NAME [ ]**

requests an up-to-date Roundup.

5.26 SIGNING FREE AGENTS You may sign a free agent driver to replace one of your existing drivers using the SIGNONE and SIGNTWO actions (these replace your number one and number two drivers respectively). The number of the free agent driver to be signed should be given in the NUM box and the amount bid should be given in the value box and must be equal to or above the minimum bid shown on the Free Agent List. If the driver has no name then you should give him a new name and nationality in the name box.

If more than one team bids for the same driver then the highest bid wins. Equal bids are determined randomly. If the free agent driver is successfully signed then the driver he replaces is automatically waived. A team must have enough LPs available to sign the driver. Losing points which may be gained by waiving the driver he replaces ***are*** available for the bid. You cannot sign free agent drivers during the "Silly Season" (see section 13) and you cannot order a SIGNONE and a SIGNTWO action in the same turn.

ACTION [SIGNONE **] NUM [** 107 **] VALUE [** 46 **] NAME [** GLEN PAUL GBR **]**

offers 46 LP for free agent driver number 107. If successful the driver is signed and the current number one driver is waived. The action SIGNTWO would replace the number two driver instead.

Note: Be careful about which action you use if you have used the NUMBER1 action (see 5.21) to change your Number One driver. SIGNONE replaces the driver ***you*** have chosen as your number one driver, and this may not necessarily be the first driver on your team listing.

5.27 ORDER OF SPECIAL ACTIONS Special actions are normally processed in the order in which you write them on your turnsheet. There are five exceptions:- PRIORITY actions are carried out at the start of the turn (before the race is run, for obvious reasons). SIGN actions (see 5.26), ORDER, POACH and RE-SIGN (see section 13) actions are always processed after all other special actions have already been processed (this ensures that you can afford to make these special actions).

5.28 FAILURE TO SUBMIT ORDERS If you fail to submit any orders then the computer will normally automatically order a single TEST on your highest developed chassis (i.e. the chassis with the highest version/variation), assuming that it still has "bugs" which need to be sorted. If a special action is not used then the computer will normally order a HIGHTECH action, with the spec concerned being selected at random.

6 CHASSIS SETUP AND PERFORMANCE

6.1 INTRODUCTION Whenever a car runs in either a race or practice (but not qualifying, which uses a standard setting) you have to decide which wing setting to use, how much fuel (in litres) the car should carry and which tyre type to run. These parameters are referred to as the setup for that car.

6.2 WING SETTING The wing setting is set in the range 1 (minimum wing) to 5 (maximum wing). The wing setting determines how much downforce will be generated by the chassis aerodynamics. A low setting creates very little downforce, so that cornering speeds will be lower. The higher the downforce, the better the car is held onto the track when cornering, but straight line speed and acceleration will be lower (the same downforce that holds a car to the track when cornering slows the car down when accelerating and moving at top speed). The ideal wing setting will vary from circuit to circuit, as it is always a compromise between cornering speed gained and straight-line speed and acceleration lost.

6.3 FUEL LOAD With mid-race refuelling being allowed, there is a similar compromise to be made with the amount of fuel to be carried during a race. Formula One cars normally require around 240 litres of fuel to complete a race distance, and this load can increase the weight of a car by as much as a third of its "dry weight". A car carrying 240 litres of fuel may be 3-4 seconds slower per lap than a car on empty tanks. With a mid-race pit-stop costing 20-40 seconds (remember time is lost both while the car is stationary and while it slows down and speeds up in the pit lane), there is a balance between time lost by making a pit-stop and time to be gained by running a lighter fuel load.

6.4 TYRE TYPES There are a variety of tyre types (or compounds) available, ranging from the hardest type (type A) through to the softest type (type E). The softer a tyre is the more grip it generates (increasing cornering speed) but the shorter its effective life. As a rule of thumb type A tyres should generally survive a full race distance, while type E tyres are unlikely to last more than a handful of laps (sometimes not even that far). The most common race compounds are B and C type tyres, while D and E compound tyres are generally restricted to use in qualifying.

In addition to the five basic tyre types (codes: A, B, C, D and E) there are four "mixed" compounds (codes: AB, BC, CD and DE), which are simply a mixture of two basic tyre types (there is usually more strain on the outside tyres going around a corner than the inside tyres, so AB means A's on the outside and B's on the inside). There are also "wets" (code: W), which are treaded tyres (like on a road car) only used when the circuit is wet.

6.5 TYRE WEAR Each tyre has a limited "life", ranging from 20 points (type E), 50 points (type D), 100 points (type C), 160 points (type B) through to 250 points (type A). Wet weather tyres (tyre W) have a life of 250 points but generally they do not suffer significant wear in wet conditions. The life of mixed compounds is roughly the average of the two types concerned (30 points for DE, 70 points for CD, 125 points for BC and 200 points for AB). On average 2-5 points of tyre wear will be lost every lap, the variation being dependent upon the circuit concerned (see 7.4), how hard the car is driven (see 9.3.3) and also the tyre durability (see 3.4.12). Occasionally a set of tyres may be produced which "go off" more quickly than normal, simply representing poor quality tyres "out of the box".

Once a tyre reaches 50% wear then its grip begins to decrease, and this rate increases as the wear approaches 100%. At this point a tyre has lost all of its grip and is likely to fail completely (i.e. puncture). It is inadvisable to run a tyre for so long that it approaches 100% wear and you should aim to run a tyre to about 50% wear; once a tyre starts to lose grip then not only does your driver start to lose time, but his chances of making a mistake increase and his chances of recovery decrease, so a spin is more likely. The extra speed to be gained by changing onto fresh tyres is another factor in deciding how many pit-stops to make during the race.

6.6 MAXIMUM SCHEDULED PIT STOPS The number of scheduled pit stops a driver may make during the race (for fuel and tyres) is limited to a maximum of four (though it's unlikely you'll ever want to plan this many). Additional, unscheduled, pit stops are also allowed (for punctures, damage to bodywork, etc).

7 CIRCUITS

7.1 INTRODUCTION Each circuit is made up of a number of corners connected by straights. Full details of a circuit's layout is given in the Qualifying Report (see 12.7) for that circuit, while outline details of the circuit for the following turn's race (the one you'll be writing practice orders for) is given in the Team Standings. For each corner the length of the preceding straight and the length of the corner is given (from the point of the turn-in to the point when the driver is able to get back on the power). In addition the width of each straight and corner is also shown. These widths represent how many cars can safely drive side by side through that section of the track. The widths of straights are generally irrelevant, except when the width is one (e.g. some straights at Monte Carlo), where passing is effectively impossible. At corners the width affects the ease of overtaking at the corner, generally the wider the turn-in the greater the opportunity to overtake. The base speed for each corner (in kph) and the runoff type (what the driver may "hit" if he spins at that corner) is also shown. Armco (barriers) and Sand runoffs are most likely to lead to retirement, Grass/Armco (a grass strip between the track and Armco barrier) and Tyre Walls allow better chances of returning while an Escape Road or Grass Runoff gives the highest chance of surviving a spin.

7.2 CORNERING SPEEDS Cornering speeds in Raceplan are expressed in kilometres per hour. Whenever a cornering speed is reported, the speed shown is the speed ***without*** including modifications due to tyre grip (which increase the speed) and fuel carried (which decrease the speed). Consequently as far as your orders and reports are concerned the ordered cornering speeds will be the same throughout the race, though your cars will lap quicker with more grip from tyres and slower with more fuel carried. Essentially the speeds are the base speeds for each corner and your driver will automatically go quicker/slower depending upon his current tyre type and fuel load.

Note: this method of determining speeds is essential. As a race progresses cornering speeds will vary, as fuel loads drop and tyre wear increases, even ignoring drivers possibly changing tyre types. Remember that varying tyres and fuel will change actual cornering speeds, but this change will not be visible (except in drivers' lap times).

7.3 PIT LANE When a car makes a pit stop, in addition to the time lost while the car is stationary, there are additional time losses inherent to slowing down to enter the pit lane, speeding up while exiting the pit lane and the speed restrictions in the pit lane. The additional time lost due to slowing down and speeding up when making a pit stop is shown when the circuit details are reported.

7.4 MECHANICAL STRAIN Each circuit will have a different effect on various mechanical aspects of the car. High speed circuits with lots of flat out sections (e.g. Hockenheim) tend to be hard on engines, slower circuits with lots of braking (e.g. Monte Carlo) will be hard on brakes, while circuits with lots of acceleration (e.g. Monte Carlo again) will be hard on the gearboxes. The degree of strain on these mechanical components and the natural strain on a car's tyres are indicated when circuit details are reported.

7.5 ADHESION The adhesion of each track represents how much grip there is inherent to the track surface. Certain tracks have a relatively low level of grip, so that the normal advantage to be gained by the use of softer tyres may be reduced (if all tyres struggle to grip the track, then the benefit of running softer tyres is lessened).

7.6 TRACK SURFACE The bumpiness of track surfaces may vary quite significantly. The more uneven a track surface is, the more dependence there is on the quality of the car's suspension. A bumpy surface may briefly launch a car into the air, either under braking or when cornering, consequently slowing the car as the driver has to make a correction.

7.7 WEATHER CONDITIONS The weather conditions may vary from session to session, though if a race will be wet then the whole weekend will be wet (see section 10). Usually a track is fastest when the weather is warm. If the track is too hot tyres tend to overheat, if the track is too cold tyres tend to struggle to reach operating temperature.

7.8 HOME CIRCUITS Your drivers will generally perform better at your Home Circuit. They are more familiar with the circuit, so they will generally achieve better "lines" through the corners, increasing the cornering speeds they achieve. Note that the ordered cornering speeds are not affected (see 9.2). Qualifying performances will also be better, as the drivers need less time to adjust their qualifying setups. This bonus is equivalent to spending an extra practice session developing qualifying setup.

7.9 CIRCUIT NAMES Occasionally you will see a circuit name with a number after it (e.g. Silverstone 96). This means that the circuit layout is that of the real life track in the year concerned, and that another layout for the circuit is currently in use (e.g. Silverstone 95). When a season schedule is set the most up-to-date layouts for each circuit are used, but these cannot be changed during the current Raceplan season (otherwise you might find yourself running practice on Silverstone 95, and then racing on Silverstone 96). Instead the new circuit layout is programmed, and replaces the old layout for future seasons. Once the old circuit layout is no longer in use (normally about a year after the introduction of the new one) then it is deleted and the new layout becomes the standard layout (so in the above example when Silverstone 95 is no longer in use in any game, it is deleted and Silverstone 96 simply becomes Silverstone).

7.10 LAP RECORDS The lap record for each circuit in each game is stored and shown on Race and Qualifying reports. If a circuit is updated (see 7.9) then a new lap record is required. The lap record for the old circuit layout does ***not*** carry over to the new layout.

8 PRACTICE AND QUALIFYING

8.1 INTRODUCTION The practice and qualifying sessions are processed after your special actions and represent the practice sessions for the following turn's race. These sessions are run on the Friday, Saturday and Sunday morning of the race weekend (at the Monaco GP the Friday sessions are actually held on Thursday, but this has no effect on the game). There are actually six separate practice/qualifying sessions. There is one "official" qualifying session held on the Saturday afternoon, whose times decide the grid order for the race (only the fastest 26 drivers qualify for the race). There are four "unofficial" practice sessions held on the Friday and Saturday mornings (two sessions on each day) and may be used for testing qualifying setups or testing race setups. The "unofficial" Sunday morning warmup is always used for testing race setups.

8.2 UNOFFICIAL PRACTICE SESSIONS The five unofficial practice sessions may be used either to test setups for qualifying or for the race. In each session your driver will be able to do around a dozen laps (or longer in the Sunday warmup, when the restriction is that the session is 30 minutes long) testing a given setup. Each setup is defined by three different parameters, the wing setting, the amount of fuel to be carried and the tyre type to be used. Alternatively you may choose to spend a session developing your qualifying setup.

8.3 WING SETTINGS To specify a change of wing setting use one of the following five "practice codes":- W1, W2, W3, W4 or W5. In each case the wing setting is changed to the appropriate value (see 6.2).

8.4 FUEL LOADS To specify a change of fuel load use one of the following "practice codes":- S0, S1, S2, S3 or S4. In each case you specify the number of pit-stops which would be planned during the race and the fuel to be carried in each "segment" is calculated accordingly, assuming a total fuel requirement of 240 litres (see 6.3). Specifying zero stops (S0) means running 240 litres of fuel, one stop (S1) 120 litres, two stops (S2) 80 litres, three stops (S3) 60 litres and four stops (S4) 48 litres. Note that these fuel loads take no account of your cars' fuel consumption, so if you have good fuel consumption you may need much less than 240 litres of fuel to complete the full race distance. However, for practice, 240 litres is assumed as the standard.

Note: This system is slightly complicated. In practice you should give a practice code (which corresponds to a standard fuel load). For the race you should give your fuel orders in litres (e.g. practice may lead you to decide that S2 is the fuel strategy you wish to pursue, but for your race orders you would put "80 litres" or so on for your fuel load).

8.5 TYRE TYPES To specify a change of tyre type use one of the following "practice codes":- A, AB, B, BC, C, CD, D, DE or E. In each case the tyre type is changed to the appropriate setting (see 6.4).

8.6 QUALIFYING SETUP You may decide to use a practice session to develop a qualifying setup rather than concentrating on a race setup. In this case you will get no feedback on a race setup (***qualifying setups are totally independent of race setups***, and the two setups have no relevance to each other) but your driver's performance in qualifying will be better. The code used to specify a qualifying setup is Q. You cannot use the Sunday warmup to test qualifying setups (obvious reasons – the Sunday warmup is run after qualifying has been completed).

8.7 PRACTICE REPORTS Your practice report is individual to your team, and gives details of the five unofficial practice sessions. For each session used to test race setups, the setup used is shown, along with the

number of laps run, total tyre wear, fuel used and top speed (which gives some indication of the effect on top speed of fuel load and wing setting). The fastest lap for the session is also shown for that driver.

Your practice report also gives details of the speed for each driver at each corner, and the total tyre wear sustained at that corner (the ordered speeds are chosen by the computer, and reflect to a greater or lesser degree your cars potential performance on that corner). If a driver spun during the session then the wear at the corner concerned is followed by an "S" to indicate the spin.

If a driver manages to use up his tyres (reaching 100% wear) then he will stop his run early. If a driver spends a practice session on developing a qualifying setup then you get no details of his performance. If a driver fails to qualify for the race then he does not participate in the Sunday warmup.

Note: It is possible in practice for a driver to use more fuel than his apparent "fuel load" (e.g. you use a setup with 60 litres of fuel, and your driver runs 17 laps using 76 litres). In this case the driver has simply pitted for more fuel during the practice run, just as he would during the race – but has not changed the tyres, so that you get useful feedback on both fuel consumption and tyre wear for a single set of tyres.

8.8 QUALIFYING SESSION The qualifying session is run using standard setups with the cars in qualifying specification (standard wing setting, engine tuned to include qualifying power, a minimum of fuel and soft tyres). No technical details of qualifying are reported. If a driver spends one or more unofficial practice sessions on developing a qualifying setup then his setup for qualifying will be that much more advanced, and this will usually be reflected in faster qualifying times.

8.9 QUALIFYING REPORT The qualifying report is sent to every owner in the game. It shows the fastest laps for each driver in the first forty minutes of the session, final twenty minutes of the session and fastest overall time plus their fastest time from the race day warmup (assuming the driver qualified for the race). Weather conditions for each session and the race are also shown, along with full circuit details for the race.

8.10 WRITING PRACTICE ORDERS For practice you should give your initial settings for each driver (wing setting, fuel setting and tyre type) using the practice codes (see sections 8.3 to 8.6). You may vary ***one*** setting for each of the five unofficial sessions or specify that the session will be used to run a qualifying setup.

When a variation to the race setup is ordered then this is made for that and all subsequent sessions (so if you select W4 in the first session you will use a wing setting of 4 for all subsequent sessions unless you change the wing setting again later). If you leave a session blank then the previous setup is simply run unchanged (note that you should always leave the first session blank unless you are testing qualifying setup, as presumably you will want to run your initial setup first). To specify a session dedicated to qualifying setup put Q. If you fail to submit any practice orders at all then the computer will make some up for you.

Example: A driver's practice orders are as follows:

	Initial Settings	Friday AM	Saturday AM	Sunday AM
No.9	[**W4 , S2 , D**]	[ ]	[**W3**] [**Q**]	[**S3**] [**C**]

so that for the five sessions his settings are as follows:

1. Wing Set **4**, Fuel Load 80 litres (**2** stops), **D** tyres – (as per initial settings)
2. Wing Set **3**, Fuel Load 80 litres (2 stops), D tyres – (as per 1, but wing setting 3)
3. **Q**ualifying setup – (all race settings ignored)
4. Wing Set 3, Fuel Load 60 litres (**3** stops), D tyres – (as per 2, but 3 stops)
5. Wing Set 3, Fuel Load 60 litres (3 stops), **C** tyres – (as per 4, but C tyres)

8.11 RESULTS OF PRACTICE REPORTS A great deal of information is contained within your practice reports. In addition to the "simple" results (such as which setup was fastest) a number of more subtle conclusions can usually be drawn.

The fuel usage allows you to estimate the total fuel needed for the race (in Raceplan fuel consumption is even throughout the race and doesn't vary with weight and/or driving style). The overall tyre wear for that session enables you to consider whether the compound selected will do the job required. There is no sense trying a fuel load/tyre combination you intend to run for 28 laps in the race if it reaches 100% tyre wear after 9 laps. However, if a large proportion of the wear sustained was due to a spin at a corner then the tyres might have been

OK if the driver hadn't spun!

Similarly the individual cornering speeds and tyre wears sustained give you useful feedback on which values to select during the race. High tyre wear may be a clear sign of a driver going too fast, whilst low tyre wear may mean more speed can be found, but how much? Clearly the more information you have available, through wisely chosen tactics, the greater the range and volume of information available on which to base your raceplan.

Example: a driver's practice report is as follows:

Circuit: Nurburgring. Race 67 laps of a 4.52 km circuit. Total distance 302.84 km.

9. Glen Paul Jenkins JEN2.4 Initial: W4, S2, D. Changes: blank, W3; Q ; S3; C

Ran 9 laps with Wing Set 4, 80 litres of fuel & D tyres. 28 litres used, 100% Wear.

Corner	1	2	3	4	5	6	7	8	9	10
Speed (kph)	124	189	109	102	255	160	158	280	100	123
Tyre Wear	4	9	3	5	0	3	14**S**	3	4	6

The driver spun at turn 7 (indicated by the "**S**"), which helped to contribute to the high tyre wear (the tyres reached 100% wear after just nine laps), but even so clearly the D compound tyres are too soft for this setup. A two stop strategy means that the driver intends to run three stints in total, so each set of tyres needs to last for 22-23 laps and probably C's or BC's will be more advisable.

28 litres of fuel were used over 9 laps, so for the full race distance of 67 laps between 208 and 212 litres will be required (remember that there may be some rounding down in the numbers reported, and carrying five litres more than required is much more sensible than carrying five litres less than required) so a total fuel load of 215 litres for the race is sensible (perhaps starting with 75 litres, and two stops for 70 litres each).

Finally the cornering speeds suggest that the ordered speeds around corner 2 (where the tyre wear was double most other corners) and corner 7 (where the driver spun) are too high, and the ordered speed around corner 5 (where no tyre wear was sustained at all in nine laps) is too low.

8.12 CHASSIS DAMAGE There is a chance that during practice, the warmup, the parade lap or even on an aborted start that a driver's race chassis will be damaged or suffer mechanical problems, forcing him to start in a spare chassis. If a driver's race chassis has such problems then this is shown on your individual practice report along with a cost (between 0 and 4 LPs) for repairing the chassis (so you know before the race if your drivers will have to start in spare or damaged cars, and what the repair cost will be).

All damaged chassis are automatically repaired after the race but before your special actions are processed, even if this means a team having a negative LP balance (though this is unlikely, as your race income should cover the costs). Chassis damage does not affect performance in practice and qualifying and is not suffered during races.

Note that chassis damage is determined independently of practice and qualifying runs, so that feedback on setups is always given for a drivers' race chassis, and a driver might damage his chassis without any spins being reported during practice.

8.13 SPARE CHASSIS If your team carries two spare chassis (see 1.20 and 5.22) then chassis 3 is the spare for chassis 1 and chassis 4 is the spare for chassis 2. If your team carries only one spare chassis then both drivers have chassis 3 as a spare, with your Number One driver (see 1.19 and 5.21) having priority if both drivers need it. If both drivers damage their race chassis and you only have one spare chassis then your Number Two driver is forced to race in his hastily-patched up race chassis (which will be much less reliable) from the pit lane (effectively a 25-30 second penalty).

If a driver has to start a race in a spare chassis then he may have to start from the pit lane (the team are unable to get the car prepared in time to make the grid) and the performance will be slightly lower than for his race car (the spare isn't as well set up, so he'll be less confident in the car's handling). If one of your drivers starts in a spare car you should bear this in mind when writing orders and be more conservative.

8.14 STARTLINE PILEUPS Occasionally there will be a pileup on the startline and the start of the race will be aborted. This is reported on your qualifying report , along with any details of drivers having to start in spare chassis etc. Effectively each turn begins at the start of the ***actual*** race, ***after*** any aborted starts.

9 RACE ORDERS

9.1 INTRODUCTION The race is the first part of a normal turn, with the qualifiers and grid positions having been determined in practice and qualifying the previous turn. Your orders for the race are given in the first three sections of your turnsheet.

9.2 ORDERED CORNERING SPEEDS For each corner you should give the addition to the base cornering speed for each driver (so if the base cornering speed is 200 kph and you want 206 kph, you write " +6 "). This is the maximum speed at which your drivers will attempt to take the corner. The cornering speeds reported in your practice report (see 8.7) will be the most reliable indicators of your drivers' potential performances.

9.3 CORNERING TACTICS For each corner you have the option (you don't have to give a tactic for each corner) of giving a cornering tactic for each of your drivers. Each tactic has a one letter code. The tactics available are Extra Acceleration (A), Late Braking (B) and Flatout (F). Each tactic is explained below and represents instructions to your drivers to drive at the limit at that corner. In each case performance is increased at the expense of mechanical reliability. Don't go overboard on using cornering tactics. Each tactic increases your wear in the relevant area (engine/gearbox, brakes and tyres) by 10-30%, depending upon the corner concerned (excess acceleration out of a slow corner is more stressful then excess acceleration out of a fast corner, but also more effective because the driver is accelerating for longer).

9.3.1 EXTRA ACCELERATION (A) Extra Acceleration increases speed out of a corner at the expense of Engine and Gearbox reliability. Time is gained because the driver reaches higher speeds more quickly. If your driver misses a gear (usually over-revving the engine) when using extra acceleration then an extra amount of engine wear is sustained.

9.3.2 LATE BRAKING (B) Late Braking means your drivers stay off their brakes a little longer before braking extra hard for the corner. Time is gained due to the extra time spent at higher speed, at the expense of brake wear. Your driver is also more likely to lock up his brakes if he is using Late Braking.

9.3.3 FLATOUT (F) Flatout means your drivers drive around the corner much closer to the speed limit, decreasing the margin for error. The speed gained is at the expense of tyre wear. If your driver gets into trouble around the corner then the likelihood of him recovering is decreased when driving Flatout.

9.4 RACE SETUP For each driver you should give his wing setting for the race (in the range 1-5), the amount of fuel he should start the race with (in litres) and the tyre type he will start the race with. You should also give the number of planned pit stops he will make during the race (for fuel and/or tyres).

9.5 START FACTOR For each driver you should specify the START FACTOR at the start of the race, a value from 1 (lowest rating) to 5 (highest rating). This represents how much risk your driver takes at the start. Higher values mean the driver will start quicker, but increase the chances of messing up the start (stalling, getting bogged down or even being penalised for making a false start).

9.6 KEYS For each driver you should specify three other "key" drivers. Whenever your driver is trying to overtake, or being overtaken by one of these drivers his effectiveness is increased, reflecting that the driver is more likely to be effective when battling other drivers with whom he is familiar. The first key is more significant than the second, which in turn is more significant than the third. You cannot key the same driver twice.

9.7 PIT STRATEGY The Pit Strategy section of the turnsheet gives the details for the planned pit stops specified in the previous section. For each stop you should give the lap number the driver is due to pit, the extra fuel and tyre type to be taken on board. If no tyre type is given then the same tyres as previously used are added – tyres are always changed at a pit stop. Note that the driver pits at the end of the lap concerned. An example is shown below:

No.14 Wing [4] Fuel [75] Tyres [C] St.Fac. [4] Stops [2] Keys [23, 6, 7]

Stop 1 [21, 70, C] Stop 2 [43, 70, C]

The driver is running a two stop strategy, running C tyres throughout the race, starting with 75 litres of fuel and stopping for 70 litres of fuel on laps 21 and 43. He is running a wing setting of 4, start factor 4 and keying on drivers 23, 6 and 7.

9.8 FAILURE TO SUBMIT ORDERS If you fail to send in your race orders on time then your drivers' Raceplans will be based upon your default parameters (see 5.24). Wing settings will be DEFWING, excess cornering speeds will be DEFSPEED and the computer will write a pit strategy based upon DEFSTOPS stops, using a total of 240 litres of fuel (probably too much) and an appropriate set of tyres for the number of stops (A's for no stops, B's for one, BC's for two, C's for three and CD's for four, unless the race is wet, in which case W's will be used).

10 WET RACING

10.1 INTRODUCTION In real life wet weather varies throughout the weekend, and may even vary during a practice session or race. In Raceplan if a race weekend is "wet" then it is considered as being wet throughout the whole weekend. If conditions were to be varied then wet races would be totally chaotic. The computer would have to vary ordered race speeds as well as track conditions, and determine pit strategies also. As a manager you'd have little control over the turn – hence the constant rain system for Raceplan.

10.2 WET WEEKENDS If a race weekend is "wet", then you are informed of this before practice begins, on the outline circuit details on the Team Standings report. If no weather conditions are shown on this report, then the weekend will remain dry.

10.3 WET CONDITIONS There are four basic "types" of wet weather conditions, "light", "moderate", "heavy" and "severe" rain. In each case drivers must use Wet Weather tyres (W). In wet conditions the track will be inherently slower, and car and driver performance will be different. In the wet a car's Handling and driver's Car Control are far more important than normally (in the wet Car Control is as important as Race Speed), and you will find that some drivers may be much more/less effective in the wet than they are normally. There will be much more variation in driver performances in the wet, and you will also find that there is much more variation in performance from one lap to another.

10.4 WET TYRES When the weather is wet all cars must use standard wet weather tyres, which have a lifetime similar to A compound tyres in normal conditions (so tyre wear is rarely relevant in the wet).

10.5 PERFORMANCE IN THE WET However good a driver may be in the wet he will make mistakes, and there is far more emphasis on being able to get out of trouble than normally, hence the premium on the car's Handling and driver's Car Control, but also in high wing settings to maximise downforce. In the wet you should consider giving more conservative cornering speeds for your drivers.

10.6 WET PRACTICE You are told in advance if practice will be wet (10.2). If this is so, then it is almost impossible to work on special qualifying settings, so all "Q" orders for practice will be ignored. Also you ***must*** use wet weather tyres (W). If your initial settings include any tyres other than W's the computer will rewrite your orders for you, and any subsequent "Q's" or orders to change to dry weather tyres will be ignored.

10.7 TWO HOUR RULE Usually an F1 race is run over about 200 miles, but there is a limitation that a race cannot last more than 2 hours. Normally this is irrelevant, but if a race is wet this ruling may well come into play. If the full race distance has not been completed when the leader completes a lap after the two hour limit has passed then the chequered flag is shown and the race halted at that time.

Notes: This means that before a wet race you don't know exactly how long the race will be, so you have to estimate how much fuel is required. You are advised to err on the side of caution. It is much better to overestimate by 20 litres than to underestimate by 2 litres.

10.8 WET SCHEDULE On average you will have about one wet race weekend per season, but this will vary. The chance of each race being wet is determined separately, so you may have seasons without any wet races, or may have a number of wet races in a season.

11 RACE PROCESSING

11.1 INTRODUCTION This section describes many of the aspects and events in the game that affect performance during the race. The major aspects (such as spins, locking up, overtaking) are clearly reported in the Race Report whilst the more mundane aspects (such as slipstreaming, cornering) are not specifically reported. You will recognise phrases in this section in the Race Report, and so you should be able to understand what happened.

11.2 CORNERING Whenever a driver negotiates a corner he attempts to take it at a speed as close to that ordered as possible, but he will not usually achieve this speed. The speed he does achieve will depend upon the nature of the corner (how difficult it is), how close to the limit he is driving (see 9.3.3) and how good a line into the corner he actually manages. If a driver goes "over the limit" then he is likely to overrun the corner, which results in increased tyre-wear and also a loss of speed as he corrects the error. He may even spin, particularly if the tyres have high wear (lower grip).

When one car closely follows another car around a corner then usually the car behind will lose some speed, as the "hole in the air" created by the car ahead disrupts the airflow around the following car, reducing its downforce. Generally the faster the corner concerned the greater the loss of downforce.

11.3 BRAKING Whenever a driver brakes for a corner there is a chance of locking up the brakes (one or more wheels "lock" and temporarily stop turning). This usually results in a loss of speed (as the driver corrects the lock) and an increase in brake and tyre wear (particularly severe if the driver flat-spots a tyre). This may even lead to a spin at the corner.

11.4 OVERTAKING If a driver is very close to (or alongside) another driver approaching a corner then he will try to outbrake him. The chance of successfully outbraking another car is dependent upon the two drivers' aggressions, their cars' performances, how close the cars are and whether either driver has keyed the other. There is also a slight chance of the two cars colliding, an accident. When a driver outbrakes another this is reported as such. Failed to outbrake indicates an overtaking attempt which narrowly failed, failed to pass indicates an attempt which failed miserably. Passed means either that a driver blasted by another on the straight, or that he simply drove round him at a corner, but the latter can only occur if the car ahead is "off-line", either because he locked up his tyres or overran. In the Race Report all overtaking manoeuvres are reported, unless the car being overtaken is off the circuit, because of a spin, pit stop, retirement, etc.

11.5 SLIPSTREAMING If one driver is close behind another on a straight then he may take advantage and slipstream the other (the car ahead creates a "hole in the air" which reduces draft for the car following). The "standard" overtaking manoeuvre is to slipstream closer to a car ahead, then jink out, sling-shot alongside and finish the manoeuvre under braking into the corner. If a car is powerful enough in a straight line it may even be able to simply blast by another before reaching the corner, avoiding the risks of outbraking.

11.6 ACCELERATING At low speeds acceleration is mostly dependent upon the gearbox, at medium speeds the torque is dominant and at high speeds power is the major factor Whenever a driver accelerates there is a chance he may miss a gear . This usually results in wear to the gearbox and engine, and a decrease in his rate of acceleration.

11.7 SPINNING OFF Spins usually occur because a driver has lost control under braking or when trying to corner too fast. A spin will usually cause wear to the car's tyres (the extent varies greatly). The chances of a driver returning to the race are dependent upon the corner (spinning at a corner with a grass runoff is better than spinning at one with an Armco barrier) and the speed at which he spun (a driver spins much further at 300 kph than at 30 kph). A car may suffer no damage, some damage (which requires a pit stop for repairs) or may force the driver to retire on the spot. Whenever a driver spins there is also a chance he will stall the engine and fail to restart it. If a driver spins when trying to outbrake another there is a high chance of an accident. Whenever a driver spins off at a corner his ordered speed for that corner is reduced by 2 kph for the remainder of the race.

11.8 PUNCTURES There is a chance that one of your driver's tyres may suffer a puncture. When this occurs he will complete the current lap as quickly as possible and make an unscheduled pit stop. Punctures usually occur when a tyre has reached maximum wear, but they may, occasionally, occur to an otherwise perfectly healthy tyre.

11.9 PIT STOPS Normally your driver will only make a pit stop when he has been ordered to do so. However, if he has to make an unscheduled pit stop (because of damaged bodywork, mechanical unreliability, a punctured tyre, etc) then he will do so as soon as possible. On unscheduled pit stops your driver will ***not*** normally take on fuel but will simply have any damage repaired and will have a set of new tyres fitted of the same type as he was running before. However, if a driver makes an unscheduled stop within six laps of a scheduled stop then the scheduled stop is simply brought forward, with the fuel and tyres for that stop added.

The time lost at pit stops is usually determined by the amount of fuel added (fitting new tyres is generally quicker than adding fuel, and new tyres are always added automatically) though repairs to bodywork tend to take much longer. Good mechanics will give you quicker pit stops, and reduce the chances of a mistake which delay the stop further.

Note that once one of your drivers has made a pit stop it takes about a minute for your pit crew to get ready for another stop (getting out fresh tyres, changing the fuel rig, etc), so make sure you don't order both your drivers into the pits too close to each other. If a driver is due to enter the pits when his crew aren't ready for him then he is instructed by radio to stay out for another lap (this is reported as the driver having passed the pits, mechanics busy), and entails a small loss of time (as the driver slows down expecting to enter the pit lane, then has to speed up again). You should make sure that he won't run out of fuel while running the extra lap (or even two).

You should also note that there is a chance that during a pit stop a driver will be caught speeding in the pit lane . If so he will be forced to make a ten second "stop and go" penalty (see 11.15) a few laps later.

11.10 RELIABILITY AND RETIREMENT There are a variety of ways a car may break down during a race. Areas such as the gearbox, engine, brakes and suspension are dependent upon various chassis specs (gearbox reliability, etc), overall mechanical preparation and the driver's smoothness (how kind he is to his equipment). They may also be affected by the driver's tactics during a race (see 9.3).

In addition to these specific areas of reliability, there is also the "general" reliability of a car. Retirement in this area is generally more random, although general reliability will be better if you have good mechanics and significantly poorer if you run an unsorted chassis (see 5.4). There are three mechanical failures which reflect this general reliability:- Electrics, Transmission and Hydraulics.

Mechanical failures are more likely to occur later in a race, but it is possible that a car may break down on the very first lap, usually because of poor preparation by your mechanics. Mechanical failures to the engine, gearbox or brakes will often be preceded by warnings of losing power (which will affect a car's straight-line speed), losing a gear (which will affect a car's acceleration) or fading brakes (which will affect braking). It is possible for a driver with these problems to reach the finish, but the likelihood is that the problem will be terminal.

11.11 BACKING OFF If after half-distance a driver feels that his gearbox, engine or brakes are starting to fade then he may decide to back off, concentrating on nursing his car to the chequered flag rather than continuing flat out.

11.12 RUNNING OUT OF FUEL Your driver will assume that you have put enough fuel into the car to finish the race or reach the next pit stop. If you haven't then he will simply run out of fuel and grind to a halt on the circuit. You are strongly advised that when in doubt, add a few litres just in case.

11.13 WORN TYRES If a driver's tyres reach 100% wear then he will normally make an unscheduled stop to replace the tyres with a set of the same type. The exception is that if he is within four laps of a scheduled stop or the end of the race then he will continue on the old tyres and hope they survive until the pit stop.

11.14 START OF THE RACE At the start of the race aggressive drivers, and drivers with high settings for their Start Factor (see 9.5) are more likely to start quickly, but are also more likely to make a mess of the start. Usually a driver who messes up the start will smoke his tyres (getting excessive wheelspin), losing time and a handful of places. Occasionally a driver will stall on the grid, his engine dying completely and almost certainly dropping to the back of the field. A driver may also be penalised for a jumped start (though he is informed of this a few laps later, not immediately) in which case he is forced to make a ten second "stop and go" penalty (see 11.15) a few laps later.

11.15 STOP AND GO PENALTIES If a driver is assessed for a stop and go penalty (for a false start, or speeding in the pit lane) then he is not normally informed straight away but is told a few laps later. In the next

few laps he will have to call in the pit lane for a penalty in which his car must be stationary for ten seconds. Note that the driver is not allowed to combine this with a stop in his pit (if he needs to make a pit stop he will do so, and fulfil the stop and go penalty the lap after) and that he will lose more time than just the ten seconds, as he loses time entering and leaving the pit lane.

11.16 OIL ON THE TRACK If a driver retires because of Engine or Gearbox failure then there is a chance that he will dump oil at a particular corner. If this happens then for the next few laps drivers will automatically take it easier at that corner (so lap times will increase slightly), but there is an increased chance of drivers overrunning at the corner and even spinning.

12 GAME REPORTS

12.1 INTRODUCTION The regular game reports in Raceplan are in seven parts, along with two other occasional reports. These are outlined in this section.

12.2 TEAM REPORT Your team report is individual to your team, and contains details of all your chassis specifications, driver abilities, season results and so on. For each chassis the actual rating of each spec is given and whether the chassis has been fully sorted (see 5.4). An indication of how well developed each spec is relative to the average of all teams in the game is also shown (in each case the highest spec over all of your chassis is rated). Five ratings are used:- Excellent, Good, Average, Poor and Obsolete.

12.3 RACE REPORT The race report contains a lap by lap report of all the major events during the race. Note that the "current lap" is the lap the leader is on, so that for example cars behind may have events reported as occurring during lap 5, when they are still actually on their fourth lap, because the leader has started his fifth lap.

At the end of each lap the race order is given and periodically time gaps are also reported. Note that the race order represents the positions at the instant the leader completes a lap whilst the time gaps represent the time gap from the leader at the completion of each car's previous lap, so there may be some discrepancy between the race order (an "instant photograph") and the time gaps (a lap "old").

12.4 RACE RESULT The Race Result shows the final positions in order. NC indicates that a driver was not classified (a driver must complete 90% of the race distance to be classified, though this has no actual effect on the game) while R indicates that a driver retired and was not running at the finish. The number of laps completed, total race time or reason for retirement, fastest lap (and the lap it was set) and average speed for the race are also shown for each driver. In addition the wing setting used and total number of pit stops made by each driver are shown.

In addition to the race result the drivers championship standings are also shown. An " = " sign indicates equal position with the driver listed before (see 1.3).

12.5 RACE SUMMARY After each race each team receives an individual race summary which gives specific details of each of their drivers' performances during the race (assuming the driver qualified). Times for each lap are given, with an "S" following indicating a spin during the lap, a "P" indicating a pit-stop during the lap and an "X" indicating the driver stopped for a stop-and-go penalty during the lap.

Details of all pit stops (up to a maximum of nine) are also given, showing the tyres and fuel taken on board, as well as the tyre wear and fuel left when the stop was made and the time taken for the stop. Engine, gear and brake wear at the end of the race are also shown in the form of a percentage (100% means it broke down, 0% means your mechanics cannot detect any wear at all). The ordered cornering speed and tactics are also reported, along with the final cornering speeds, average and highest cornering speeds for the whole field during the race (for the last two figures, speeds are not included for drivers who failed to complete a quarter of race distance) plus the total tyre wear sustained for each corner (these are the combined totals for all sets of tyres used by the driver).

12.6 TEAM STANDINGS The Team Standings cover two pages, and gives details of the teams' standings (including sponsor and engine names, space permitting), sponsorship income (which may be reduced, see 1.11), basic income (from driver results), overall costs and LP balances. The second page, Special Actions, gives details of chassis developments, driver coaching and movements and team testing for that turn plus the Free Agent or Draft List. In addition the Team Standings page may also show a number of historical records, such as

the all-time leaders in the game in wins, points scoring, and active leaders in wins, points scoring, pole positions and fastest laps.

12.7 QUALIFYING REPORT The qualifying report gives details of times from official practice and the race warmup (see 8.9) and also circuit details (see section 7).

12.8 PRACTICE REPORT Each team receives an individual practice report giving full details of their unofficial practice sessions (see 8.7).

12.9 ROUNDUP The roundup gives limited details of each team's car development and ratings for their drivers plus details of free agent drivers. The chassis specs are reported in terms of their general ratings using the same codes as on your Team Report (see 12.2). For each driver his Race Speed, highest minor ability, experience, potential, personal sponsors and value are shown along with brief details of his career record. The league roundup is normally only issued at the start of the season, along with the schedule. There is a special action (see 5.25) to order a new roundup.

12.10 SCHEDULE The schedule shows the series of races for the forthcoming season, along with the top six finishers for any races run so far. There is a special action (see 5.25) to order a new schedule. At the end of a season you are issued with an updated schedule which shows the top six finishers for each race run that season and the final drivers' championship standings.

13 THE "SILLY SEASON" AND DRAFT

13.1 INTRODUCTION The "Silly Season" begins with four races of the season still to go, when teams and drivers begin to haggle over contracts for the following year, providing a welcome diversion for struggling teams and an unwelcome distraction for championship contenders. It concludes after the final race when teams participate in the draft to finalise their driver lineups for the following season.

13.2 DRIVER LIST After the last but fourth race of the season (so the 13th in a 17 race season) each driver is assessed for possible retirement (at the end of the season) and the Silly Season begins. Drivers' values do not increase during the Silly Season due to results, nor are free agent drivers available. The free agent list is replaced by a list of all drivers in the game, showing current value (which represents the cost of signing that driver for the following season), race speed, highest minor ability, experience, potential, personal sponsors, current team and whether the driver is retiring.

13.3 POACHING The special action POACH is only available for the first three rounds of the silly season (so for a 17 week season, rounds 14, 15 and 16). An owner may poach ***any*** driver (except his own) increasing his value and making it more expensive for his existing team to re-sign him (see 13.5). Poaching actions are carried out ***after*** all other special actions have been processed.

The driver number to be poached should be given in the NUM box. You may spend extra LPs on a poach if you think other teams may also poach the same driver. In this case the ***extra*** LPs are put in the VAL box – these extra LPs do ***not*** affect the value of the driver. When a driver is poached the cost of signing him for the following season is immediately increased by 10% (rounding down, but a minimum increase of 1 LP). The team who poach the driver pay double this increase (so a driver poached from 50 LP to 55 LP costs 10 LP) plus any extra LPs specified. The poaching team is recorded for that driver (this is referred to as a "standing poach"). If you poach an un-named driver then you should give a name and nationality for him when you issue the poach.

A driver may be poached on all three turns (by the same or different teams) so that his value may be increased three times (the total increase will be 33%). You may only poach one driver per turn. If more than one team try to poach the same driver then the team who bid the highest number of extra LPs wins and the unsuccessful teams do not pay the cost of their (unsuccessful) poaches. I.e. poaches are determined randomly unless one team already has a standing poach for that driver (in which case their poach wins). If a team's "standing poach" for a driver is subsequently "over-poached" by another team, then all potential rights to that driver for the first team are lost.

A successful poach does not guarantee you rights to a particular driver, as any other team has the opportunity to poach the driver again on a following round (for poaches made in the first two rounds of the Silly Season) and the driver's existing team may elect to re-sign him (though the higher his value, the less attractive this prospect

will be). You may choose to "defend" your poach by poaching the same driver again (increasing his value again), but this does not guarantee that another team will not offer even more and it does increase further the final cost for you of signing that driver.

Remember that LPs spent on poaching do not contribute to the final cost of signing a driver. You pay once to get his value increased, and then you pay a second time when and if you sign him at the increased value. Drivers generally like being poached, as it increases their values and therefore what they get paid to sign for a team.

ACTION [POACH **]** **NUM [** 12 **]** **VALUE [** **]** **NAME [** **]**

poaches driver number 12 to a value 10% higher than his current value.

13.4 END OF SEASON After the final race of the season has been run, special actions are processed as usual (with the exception of RE-SIGN and ORDER actions) and each team is issued with a Team Report, which simply shows the state of affairs at the end of season. This means that you can develop and test cars after the final race of the season and before your LP balance is halved. After this your LP balance is halved, rounding down and 100 LPs added. Additionally your level of sponsors is divided by three (rounding down, maximum 25) and your mechanics and designers are each reduced by two levels.

Additionally each chassis spec may have its level reduced, so that the lowest spec throughout the game is reduced back towards zero. This represents the usual "formula adjustments" between seasons and are applied equally to all teams in the game (e.g. if the worst Power rating throughout the game is 4, then all power ratings are reduced by between 1 and 4 points). In rare circumstances a team may find they have a spec reduced below zero. This will only occur when their development has lagged far behind the rest of the field. For example if the average development of Power is 10, and one team still have it at zero (pretty dumb) then it may well be reduced and they will have a negative level. A negative rating will drastically decrease overall reliability and should be eliminated (by development) as quickly as possible.

13.5 RE-SIGN The special action RE-SIGN is only available for the final round of the season. RE-SIGN is used to re-sign one of your current drivers at his current value (which may have been inflated by other teams poaching during the previous three turns). The race number of the driver to be re-signed should be given in the NUM box. No value is needed. If you do not have sufficient losing points then you cannot re-sign a driver. Re-sign actions are processed ***after*** the end of the season (see 13.4), so that carried over losing points have already been halved but the extra allocation of 100 LPs are available. You may re-sign both of your current drivers if you can afford to and wish to do so.

ACTION [RE-SIGN **]** **NUM [** 10 **]** **VALUE [** **]** **NAME [** **]**

re-signs driver number 10 at his current value.

13.6 POACHED DRIVERS NOT RESIGNED After all teams' RE-SIGN actions have been processed then all remaining drivers who have been successfully poached automatically sign for the team who poached them as long as the signing team have sufficient LPs to sign the driver and have a vacant seat for him. If a team cannot sign a driver they have poached (because they have already signed two drivers, or have insufficient LPs) then the driver remains a free agent. If a team has successfully poached more than one driver then they attempt to sign the first driver poached, followed by the second, followed by the third, subject to the restrictions above.

13.7 ORDER The special action ORDER is only available for the final round of the season and is used to bid LPs to improve a team's position in the draft which is held the turn after drivers have been re-signed and poached drivers signed during the draft. Teams sign drivers in strict order of the LPs bid using ORDER actions. The number of LPs bid is given in the NUM box. The LPs bid are deducted immediately. If you don't make an ORDER action then you are effectively bidding zero LPs. If you have no need to sign a driver in the draft then any ORDER action is ignored (so you can give an ORDER action safe in the knowledge that if you need to sign a driver it will be used, and if you don't then it won't).

ACTION [ORDER **]** **NUM [** 4 **]** **VALUE [** **]** **NAME [** **]**

spends 4 LPs on getting as high a position as possible in the signing order for Free Agent drivers, assuming that the team needs to sign a driver in the draft.

13.8 DRAFT LIST AND DRAFT ORDER Once all RE-SIGN actions (see 13.5) and Poached signings (see 13.6) have been processed a list of all unsigned drivers is issued, along with the order in which teams will be able to sign remaining drivers as determined by their ORDER actions (see 13.7). If two teams make equal value ORDER actions (or no ORDER actions at all) then the team who finished better in the constructors championship gets priority.

All drivers who remain unsigned at this stage (not re-signed or poach-signed) are placed on the draft list and their values decrease by 25% (so a driver whose value is 40 LP prior to the draft drops to 30 LP), reflecting the fact that at this stage no-one has signed them for the following season, so they reduce their wage demands.

It is very important that if you want to RE-SIGN your drivers you do this in the turn of the final race of the season. You cannot RE-SIGN your drivers before the final race of season and cannot RE-SIGN your drivers once the draft list has been created.

13.9 ASSESSMENT OF ABILITIES After the draft list has been issued all drivers, signed and unsigned, are assessed for gaining and/or losing abilities. Each driver loses one point of potential if he has potential to lose and this may be converted into the improvement of one or more abilities. The chance is mainly dependent upon his form at the end of the season (good form usually converts into permanent increases in ability) but is also dependent upon his current ratings and experience. If a driver does not have any potential left, then he is likely to lose abilities, again with the chances being affected by current form (good form may offset the loss of abilities).

In addition each driver's experience increases by one year and positive form is halved (rounding down), while negative form is increased to zero.

Note: The assessment of driver abilities is actually processed after all re-signings and poach-signings are processed, but before the draft list is issued, so the draft list does actually include details of a driver's updated abilities, whereas decisions about RE-SIGNing drivers and POACHing drivers have to be made based upon their abilities at the end of the previous year. Most drivers are signed in the summer and autumn, usually six months before the start of the following season and drivers' abilities may well change in between.

Scout actions (see 5.15) for the final turn of the season are processed ***before*** the assessment is carried out, so the only updated information available to you is that shown on the driver list.

13.10 TEAM REPORTS During the Silly Season there is an extra section on your Team Report which gives all details relevant to the Silly Season. In addition to an estimate of your LP balance prior to the draft (half your current LP balance plus 100), the cost of re-signing your own drivers and also the cost of signing any other drivers you have successfully poached are also reported.

13.11 FINAL ROUND REPORTS Your turnsheet for the final round of the season has the usual sections for the race and special actions (likely to include RE-SIGN and ORDER actions) but no space for practice. There is ***no*** race for the turn following the end of the season, simply because the majority of teams will not have two drivers signed at this point. In addition to your Team Report (see 12.2) you also receive a Draft Report, which is similar to the Team Report but gives details of your position immediately prior to the draft, after all the financial adjustments, re-signings, etc (see 13.4) have been made.

The Special Actions section of the Team Standings shows the list of drivers already signed, the draft order (including a breakdown of how many drivers each team needs), and the driver list (at their reduced values). Details of chassis development and testing are not shown (secret off-season development and testing).

13.12 DRAFT TURN The turn after the final round of the season is the Draft Turn, and there is no race. Instead the first part of the turn is the draft, in which teams sign drivers from the Draft List (see 13.8) to complete their lineups for the new season.

Your turnsheet for the draft turn has the relevant spaces for the draft and has the usual sections for special actions and practice (these are the orders for the pre-season race) but does not have the sections for a race.

In the draft, each team takes it in turn to sign a driver until all teams have completed their lineups, the order having been determined the previous turn (see 13.7). This may mean that some teams are signing their second driver before other teams sign their first (all teams sign one driver, if required, before the second round of signings for any teams that require two drivers in the draft). To sign a driver a team ***must*** have sufficient LPs to cover the cost (exception, see 13.13). The number of drivers you should draft is shown on your draft report and

turnsheet. If you need to sign two drivers then ***two*** separate sets of boxes are given, as a driver you wish to sign as a number one may not be a driver you wish to sign as a number two and your first round preferences will not be used as for your second driver. If you think that you may sign an un-named driver in the draft then you should give a name and nationality for him along with your other draft orders.

Note: Your turnsheet will give a number of spaces for driver choices according to your position in the draft. The further down in the draft order you appear the more choices you need to give. You should give a different driver choice for ***every*** box on your turnsheet, otherwise your driver may end up being chosen by the computer.

Example: Your team is fifth in the draft order. This means that you should give five preferences for your driver selection, because four other teams will be selecting drivers before you. If the first driver on your list is available when your turn to pick comes then you will sign him. If he isn't then you will take the second driver, assuming his availability and so on. If your first four picks are not available then your fifth choice will be available (because the four teams picking ahead of you must have taken the four drivers higher up on your list).

13.13 FAILURE TO MAKE A LEGAL BID If a team fails to make a legal bid for either driver then the highest valued driver the team can afford is signed. If a team does not have enough LPs to make any legal bid then the lowest value driver available is signed, even if it means a team's LP balance dropping below zero.

13.14 EXCESS LOSING POINTS Excess LPs (those not spent during the draft) are carried over into the new season and are available for development, etc as per usual.

Note: This system allows teams to retain their existing drivers but at a cost. As long as a driver is "wanted" (either by his existing team or by a "poaching" team) his value will escalate, making him more expensive to retain. If a driver is considered as being worth floating on the "open market" (i.e. no-one thinks he is worth poaching or re-signing at the current price) then his value will drop, but no team can be confident in advance of being able to sign such a driver. Owners will have to make decisions about who to pursue during the final quarter of the season, and may have to decide whether to spend all of their LPs re-signing their existing drivers at the end of the season, or whether to save LPs for car development and sign cheaper drivers in the draft.

13.15 TEAM NUMBERS Once the draft is completed then driver numbers are swapped so that drivers acquire the race number that corresponds to their new team (see 1.18). This usually result in wholesale changes in driver numbers, hence the importance of drivers retaining their names from season to season to avoid confusion.

13.16 DRAFT SPECIAL ACTIONS The draft is followed by a round of special actions and then practice for the pre-season race. COACH (see 5.11) and SIGN (see 5.26) actions are not permitted during this turn to avoid mistakes (you can't be sure when you write the actions who your drivers will be, so trying to coach or replace them isn't a good idea).

13.17 PRE-SEASON TURN The pre-season turn follows the draft turn, with the pre-season race being run, a round of special actions and practice for the first championship race of the year. At this stage if you sign a Free Agent driver (using a SIGN action, see 5.26) then the driver he replaces is waived at ***full*** value (see 4.9) so you can effectively replace a driver drafted with no loss of LPs if you don't like a driver you've got.

14 HINTS AND TIPS

Invest in sponsors. Your first sponsor brings in an extra 1 LP per race, so the sooner you start the better. Invest in designers and mechanics. Your designers improve development and testing, your mechanics improve reliability. Don't carry over losing points to the end of the season unless you need them to grab a Superstar driver. Creating your new Version before your LPs are halved is much more cost-effective, even if you then need the off-season to finish testing it.

Be very wary of choosing a cornering speed above those reported in practice. The loss of time due to being 1 kph below the limit is relatively small, usually a few hundredths of a second (though over 70 laps this will add up to a few seconds), but being 1 kph over the limit may mean spinning off, losing a significant amount of time both spinning and due to wear on the tyres. There is also the more drastic danger of spinning into retirement.

Plan your practice tactics so that the setup you run in the Sunday warmup is the one you expect to use for the race, as in the Sunday warmup you generally run more laps than any other session, providing the most comprehensive feedback.

Plan your development carefully. Steady, consistent development will usually be more effective than sudden bursts which create lots of bugs, need lots of testing and therefore take some time to reach the stage of being ready to race. Make sure you develop your highest spec car and don't try to develop the same "area" more than once in a turn.

Use Hightech actions to stay aware of how your cars compare with the rest of the field. The further behind you are in a spec the higher your gain in development will be. Scout other drivers. Eventually your drivers' values will reach such high levels that you have to give them the boot, so have some alternatives in mind. Free agent drivers can appear in the game with better abilities than other drivers and may also be cheaper.

Don't go overboard on coaching drivers, which is fairly expensive. You don't keep drivers forever, but your improvements to your cars are never lost.

Be prepared to take risks. Unless you're lucky enough to be at the front of the grid you'll need to do something in the race to make up the difference. Don't go overboard, but don't be too conservative either.

Avoid your drivers racing with unsorted chassis. Sometimes it cannot be avoided, and sometimes you'll be unlucky (you order a test you expect to sort it, but it doesn't quite) and you've already ordered the upgrade (copy) of the chassis. Rushing through a development usually results in poor reliability, though sometimes the risk may be worth it. The "usual" development pattern is to develop a spare chassis, test it and once it is sorted upgrade it (copy it) to the race chassis.

Check your ordered fuel loads. Everyone assumes they'll never run out of fuel, and eventually everyone does. And when you do, you'll be really annoyed!

Remember that copying a chassis is usually cheaper than testing a chassis. If you have two chassis untested (which can occur, if you copy an unsorted chassis) it will usually be cheaper to test one and then copy it, rather than testing both chassis separately.

Be patient. If your cars aren't competitive then try to work out why and set yourself realistic targets. If you're two seconds off the pace you aren't very likely to win the race, but the top six or top ten may be possible, and if you're only one and a half seconds off the pace in two races time then you're making progress.

Use your keys and race tactics wisely. Overtaking is difficult, and without wisely chosen keys and race tactics can be almost impossible. There's nothing worse than watching your driver follow under the wing of the car ahead for the last dozen laps of the race.

Be philosophical. Raceplan is a simulation of real-life, and odd things do happen. Leaders do blow up on the last lap, team-mates do collide and there are no fiddles to avoid these. Sometimes you'll get lucky, sometimes you won't, but you've got to take the good with the bad, so don't pick up the phone and berate your GM when things go badly (please!).

QUICK REFERENCE TABLES

TABLE 1: TYRE LIFE TABLE

TYPE	LIFE	TYPE	LIFE	TYPE	LIFE	TYPE	LIFE
A	250	AB	200	B	160	BC	125
C	100	CD	70	D	50	DE	30
E	20	W	250				

TABLE 2: COST OF DESIGNERS AND MECHANICS

LEVEL	COST	LEVEL	COST	LEVEL	COST	LEVEL	COST
1	1	2	4	3	9	4	16
5	25	6	36	7	49	8	64
9	81	10	100				

Notes: Maximum level for Designers and Mechanics is 10. Table shows cost of hiring from level 0. If level is above 0 then subtract the cost of the original level (e.g. increasing from 6 to 9 costs 81–36 = 45 LP).

TABLE 3: INCOME FROM SPONSORS

RANGE	INCOME	RANGE	INCOME	RANGE	INCOME
1-3	1	25-35	5	64-80	8
4-8	2	36-48	6	81-99	9
9-15	3	49-63	7	100+	10
16-24	4				

Sponsorship income is based upon the total of team and drivers' sponsors, and may be reduced because of the maximum total income limit per turn.

TABLE 4: SPECIAL ACTIONS

Full details on the use of these actions are given in sections 5 and 12.

ACTION	RULE	NUMBER	VALUE	NAME
COACH	5.11	driver	–	ability to be coached
COPY	5.8	chassis	new chassis	–
COPYALL	5.8	chassis	–	–
COPYBOTH	5.8	chassis	–	–
COPYRACE	5.8	chassis	–	–
DEFSPEED	5.24	speed	–	–
DEFSTOPS	5.24	number	–	–
DEFWING	5.24	setting	–	–
DESIGNER	5.13	new level	–	–
DISCARD	5.9	chassis	–	–
HIGHTECH	5.16	–	–	spec to be scouted
LONGTEST	5.7	chassis	–	–
MECHANICS	5.14	new level	–	–
NEWENG	5.18	–	–	new name for engine
NEWSPONS	5.19	–	–	new name for sponsor
NEWTRACK	5.20	–	–	new home circuit
NUMBER1	5.21	driver	–	–
ORDER	12.7	amount bid	–	–
POACH	12.3	driver	–	new name if required
PRIORITY	5.23	driver	–	–
RESIGN	12.5	driver	–	–
ROUNDUP	5.21	–	–	–
SCHEDULE	5.21	–	–	–
SCOUT	5.15	driver	–	–
SIGNONE	5.22	driver	amount bid	new name if required
SIGNTWO	5.22	driver	amount bid	new name if required
SPONSORS	5.12	extra sponsors	–	–
SWAP	5.10	first chassis	second chassis	–
TEST	5.7	chassis	–	–
TESTTEAM	5.17	–	–	–
TWOSPARE	5.22	–	–	–
VARIATION	5.6	chassis	–	spec to be developed
VERSION	5.5	chassis	–	spec to be developed