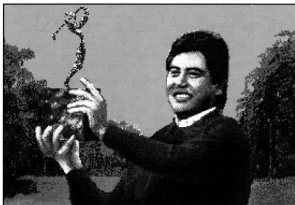


MICROPROSE GOLF

MICROPROSE™
SIMULATION • SOFTWARE

MICROPROSE GOLF



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CREDITS

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In medieval times, shepherds passed the time while watching their sheep by hitting pebbles around the hills and meadows with their crooks, so inventing Golf.

It is almost possible to picture a similar scene in the same fields today; the descendants of those shepherds sitting on a wall, lap-top computer at the ready, playing MicroProse Golf. One of the oldest sports seems to have become a natural companion for new technology.

There are several computer golf games available, some of which have filled a few lunch hours at MicroProse. But none of them have kept us playing them time and again. We've always found them to be missing two fundamental requirements.

Firstly, they are all two-dimensional. Secondly, and partly as a result of their being 2-d, the true effects on the ball of changing parameters such as club, swing, stance and ball-spin cannot be accurately seen. The means by which you measure your success are via shot distances calculated by the computer and then printed on screen, not by making the journey with the ball.

We wanted an accurate simulation which not only provided hours of entertainment, but actually improved our own golfing ability, both in terms of understanding ball dynamics at first hand and by teaching us about the tactics of golf. To master your environment you have to have free range of movement around it.

So the idea for MicroProse Golf was born. Its completion has been an immense challenge. Those who love and play golf know about the challenges faced in playing the most difficult shot on the most testing course. The thrill is greatest when it is achieved through skill, application, and as the result of many hours practice.

We hope that MicroProse Golf provides you with the challenges and thrills that it has given us.

MicroProse

July 1991

This Manual

provides a Quickstart for beginners, detailed operating instructions, and a wide variety of technical background. It is applicable to all computer systems.

The Technical Supplement

gives specific instructions for loading and/or installing the simulation for your computer. It also provides a complete reference of all the graphics and keys used in the game.

The Course Maps and Club Selection Cards

provide you with additional information about the courses included in the game and about each club's attributes.

The Quickstart Tutorial

is the best way to play the game for the first time. Once you have played a few holes of Master Golf you will quickly become familiar with the controls and how to use them.

Understanding the Options

You will probably want to play competitively so as to judge one round against another, or to judge your ability against a friend's or a computerised opponent's. There are many different types of competition to choose from, all clearly explained in "The Main Menu" (page 23) and "Handicaps and Competitions" (page 27).

Everything you need to know about setting up player profiles prior to a playing round can be found in the "Player Set-Up" section, starting on page 35.

Once you've chosen your options, it's off to the first tee!

Sorting the Materials

Learning the Game

Developing your Game

Once you have used the Quickstart to learn the basics of the game interface you will be ready to start giving more consideration to the effect that changing variables have on your game. The section "Developing your game" gives further explanation of the various elements which make up your game, and relates what you see on screen to what you might experience on an actual golf course. You'll be surprised at how close the two are!

Playing the Course

Each of the clubs is analysed in detail, giving you hints and tips about how to get the best out of them across a variety of situations, and explaining the mechanics and effects of changing foot, ball and tee positions.

Advanced Play

Understanding strategic play can be done right from the start. You'll save a lot of wasted time in the rough by learning how to read the course and, for the low handicap player who wants to win tournaments, there's top tips for tough situations.

Vital Statistics

A section to help you get the best from the range of statistical services offered by MicroProse Golf.

Install and/or load the game as explained in the Technical Supplement.

Loading

Once the game has loaded, the Main Options Menu will appear. Move the on-screen pointer over the "New Round" option and click the left mouse button once. This is the method you should use whenever selecting an option from a menu. The Competition Menu will then appear, from which you should select "Medal".

Then select the number of players who wish to learn the game. For example, if you are learning alone, select "One Player".

The Menus

You will then be invited to configure the players via the screen shown.

The Player Set-Up Screen

Each player may be given a name, be controlled by human or computer and be left or right handed. Each player starts at novice level. For the purposes of the Quickstart, simply click on the "Begin Round" icon which looks like this;

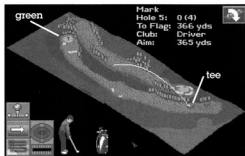
Each player will be given a default name of "Player 1, 2 etc.", and will be a right-handed human designated as a "Novice" player. A full explanation of how to change a player's configuration is given on page 35.



You will then be asked to "Insert a Course Disk". There are two course disks supplied with the simulation, Course Disks A & B. Course Disk A holds the "Buckland Heath", "Mountsummer Point" and "Fairdale Park" courses, and Disk B holds the "Fenham Valley", "Ballybrook" and "St. Augustine" courses.

Insert Course Disk A and select "Buckland Heath" from the Courses menu. A message will appear showing the first hole number, par, distance, stroke index and green speed. Click the left mouse button and the first hole will appear in isometric view.

The Isometric Map



The isometric map shows the hole which you are about to play and its nearest neighbouring hole. The green to which you are playing can be identified by the red flag, and the position of the tee by the white ball on it. You will see that there is a white line extending from the ball. At the top of the screen you

can see information relating to the player's name, the hole number followed by the figures 0(4), the club currently selected, the distance to the hole and the "Aim" distance. The club currently selected will be that recommended for your tee shot on this hole.

Locate the on-screen pointer, and note that you may move it by moving the mouse. Move the pointer over the "arrow" in the top right hand corner and click once. The isometric map will rotate through 90°. Further clicks on the "arrow" icon will rotate the map further. A total of four clicks will return the map to its original position.

Setting Direction

Now move the pointer onto the isometric map itself and click the mouse button whilst watching the white line which extends from the ball. You will see the line move. The "Aim" distance will also change. The white line represents the path which the ball will take if struck perfectly with the club currently selected, provided that no external factors such as wind direction influence it.

As you click the mouse on a different pointer location, the white line will attempt

to join the ball to the pointer. As the selected club has a maximum distance, the arc of the white line may rejoin the ground before reaching the pointer. By moving the white line you may select the direction of your next shot. You should be aware that shortening the arc below the maximum distance achievable will not result in the ball being hit only as far as the point selected. The power of the shot is set later, and you are only setting the direction of the shot at this stage.

The "Aim" distance shown corresponds to the distance between the ball and the location of the mouse pointer when clicked, to the nearest five yards. This allows you to see, at a glance, the distance between the ball and any course features such as trees, bunkers or the front of the green.

For the purposes of the Quickstart, you should finally click on the base of the flag itself. Alternatively, clicking the right mouse button when looking at the Isometric Map will always ensure that you are aiming directly at the hole.

The Isometric Map Icons

At the bottom of the screen are a number of selectable icons, the functions of which are described briefly below.



Allows you to alter both height and position of the tee. You should leave these variables set as they are for the time being.



Allows you to alter your stance and the position of your feet relative to the ball. You should also leave these variables set as they are for the time being.



Allows you to view information relating to the club currently selected or to change club selection. You may view this screen, but do not change your club at this stage.



Allows you to return to the main menu, after confirming that this is your true intention. Do not select this icon at this stage.



Indicates the direction and strength of the wind. The white line shows the direction and the red bar below indicates the approximate strength. Clicking on this icon will have no effect, as it is for information only. When playing at novice level, wind will not affect your shot.



Allows you to proceed with the shot by transferring you to the three-dimensional view.

Once you have set the direction of the shot accurately you should select the "Proceed" icon. You will then be looking down the fairway in the exact direction set on the isometric map.

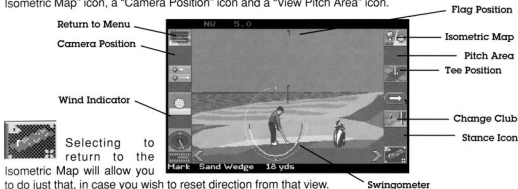
The Shot View

The main viewing window shows your view down the Fairway from the Tee. You will be able to see the dark green rough on either side of the fairway and some trees in the distance. At the top of the main window a flag indicator is positioned directly above the flag on the green. This flag indicator allows you to see the position of the flag on the green even if your view of the actual flag is obscured by distance or by obstacles.

Below the main window you can see the player's name, club selected, shots taken (currently zero) and, in brackets, the par for the hole (for this hole 4), and current distance to the hole.

The Shot View Icons

To the left and right of the main window you will see a variety of icons, some of which may be familiar from the Isometric Map (namely wind direction and strength, stance, tee position, and club selection). There is also a "Return to Isometric Map" icon, a "Camera Position" icon and a "View Pitch Area" icon.



Selecting to return to the Isometric Map will allow you to do just that, in case you wish to reset direction from that view.



Selecting the Camera Position icon will display a window allowing you to select one of five camera positions. The currently selected position is indicated by the word "On". You may wish to experiment with different camera positions as you take successive shots, but for the time being, leave the Camera Position as it is currently set.



The "See Pitch Area" icon, when selected, shows a quick time journey to the pitch area defined by the club and direction currently selected. It allows you to examine close-up any potential danger in the area. Once you can see the pitch area, reselecting the "pitch area" icon will take you to the green. Alternatively to return to the tee from the pitch area click the right mouse button.

Clicking the right mouse button whilst on the tee will show you the green in close-up.

Adjusting Direction

The lowermost icons on each side are arrows pointing to the left and right which allow you to make last-minute adjustments to the intended direction of your shot. By clicking on one of these icons you will see the view down the fairway adjust to the left or right. The intended direction of your shot remains towards the centre of the main window, but the window itself realigns, to actually give you a new overall intended direction. There is another way to adjust direction in the Shot View. By moving the on-screen pointer into the main window and clicking the left mouse button you may realign the view so that you are looking towards the point on which you clicked. Once you have made any final adjustments in direction which you feel are necessary, you are nearly ready to take your first shot.

Taking your shot

Around the golfer you will see two circular lines. These comprise the swingometer; the outer line governs the strength of the shot (or backswing) and the inner governs the timing of the contact with the ball (the downswing). The timing of contact governs the amount of hook or slice you impart on the ball. By hooking the ball you can make it deviate to the left from your intended direction, and by slicing it, to the right, assuming you are a right-handed golfer. (All descriptions in the manual refer to right-handed golfers).

Hook and slice can be used to great advantage once you learn to control them. Whilst learning, you should try to avoid hooking or slicing the ball. The best golfers first learn to remove hook or slice, and then learn how to re-impart them in a controlled fashion.

You should read through the next eight paragraphs before attempting your first shot, as things will happen very quickly once you initiate the stroke!

To start your backswing, move the on-screen pointer over the "Proceed" icon and click the left mouse button. A blue line will move along the outer arc of the swingometer as you "pick up" the club during your backswing. The higher the line rises, the higher you are "picking up" the club, and the more power you will impart to the ball.

A white check marker shows the limit of your "controlled" backswing. For a shot at optimum power, required to strike the ball the recommended distance for the

club you are using, you must stop your backswing at this check point. The effect of stopping the backswing after this point will be to impart "overswing". The ball may well go further than the recommended distance, but the shot will become harder to control.

A fractional delay will occur as you stop the club at the top of your backswing, but be warned that the delay is barely perceptible; it is as short as it is when actually swinging a club on a real course! The downswing will then start.

The key to a clean strike, avoiding hook or slice, is to stop the downswing, by clicking the mouse again (for a third time), at exactly the right moment. Look at the inner arc of the swingometer. You will see, before you take your shot, a solid white area of the arc, the "sweet-spot", immediately below the ball. When the downswing reaches this area it must be stopped.

At this point, before the shot is taken, the solid white area is quite large. When playing at novice level, the sweet-spot will remain at a constant size. However, when playing as a handicap or scratch player, the sweet-spot will decrease during the backswing. The higher the backswing, the more power you will put into the shot, but the smaller the white area becomes, and the harder it will be to execute a clean strike. If you stray into "overswing", the white area is likely to become very small.

As with 'real' golf, the longer the distance to be covered by the downswing, the less accurate you will be. When club meets ball, the club is travelling at very high speed. As with 'real' golf, don't expect your first shot to be your best.

MicroProse Golf is a near accurate simulation of what happens when golf club meets golf ball, and it also simulates accurately the effect of stance, foot position, ball position and tee position on the shot. Power of backswing is not the only factor in the equation, but you should concentrate on mastering its effect before considering the effects of the other parameters.

Now play your first shot by clicking on the "Proceed" icon. The backswing will start. Click on the mouse when power reaches a maximum, and then click once again when the downswing reaches the white area.

Fore!

The Ball's Flight

At this point it becomes difficult to explain precisely what happens, not because our flight model is anything less than entirely accurate, but because what happens depends entirely on your shot. If you strike the ball with near maximum power, and hit it clean, straight and true, it will fly off along the centre of the Fairway, with the camera tracking the ball while the ground skims along below you. However, if you mishit the ball it could go anywhere. Provided it moves a reasonable distance, the camera will move with it, but if you only strike the ball a few yards the camera will remain at its starting position. Once the ball comes to rest, a message will appear in the main window giving details of the distance the ball travelled and the ground on which the ball has come to rest. You have played your first shot.

Your second shot

At the completion of your first shot, you will notice the icons surrounding the main window change. Options to return to the Main Menu and change Camera Position remain, but new "Save Shot" and "Replay" icons will have appeared.



Replay



Save Shot

By selecting the Replay icon you can review your last shot. You will find the Replay facility particularly useful when learning to control your swing, as it will show exactly when you stopped your backswing and when you made contact with the ball. Try to get a feel for the timing of the shot.

You can replay the same shot as many times as you like before moving on to the next shot. The Save Shot icon, when selected, allows you to save the shot you have just played to the Data Disk. If you do not have a Data Disk already prepared, insert a blank disk at this stage and it will be formatted for you. This allows you to keep a permanent record of any shot for later viewing.

Once you feel you have seen enough of your brilliant, mediocre or simply awful first shot, select the "Proceed" icon. The Isometric map will return with your ball in its new position. The information at the top of the screen will have been updated to show that you have taken one shot; your new recommended club, the distance now remaining to the hole, and the ball's lie will be shown.

As you are no longer on the tee, the icon allowing you to adjust tee height and position will no longer be displayed. In its place you will see a Lie Information icon, which will be one of the following;



Fluffy



Good



Poor



Very Poor



Divot



Good (Sand)



Poor (Sand)



Plugged (Sand)



On Road

You may rotate the Isometric Map as explained earlier, if it helps you to get a better view of your route to the hole. If your first shot carried the ball far enough, the green may well be in reach with your second shot. The club which best suits the distance will automatically be selected for you. The white arc showing the ball's unaffected optimal flight may stop short of the green, but do not worry unduly, as the ball will roll a certain distance after landing to finish on the green, especially if you are using a wood or long iron.

If your first shot leaves you so far from the green that it cannot be reached with the longest club (a Driver) on your second shot, you should still use the club automatically selected. However, if you are forced to play through or over trees to reach safety, or have landed in heavy rough or a bunker, another club may be more suitable. To change from your given club, select the "Change Club" icon, and choose a more suitable club. The expected distances on the club selection screen indicate the average distance the ball will travel before landing (pitch), and before coming to a halt (finish), respectively.

By clicking on a club name you can display the distances for that club. Once you have made your choice of club, click on the "Proceed" icon to return to the Isometric Map.

The optimal flight arc expected with your new club will be shown extending from the ball. Adjust direction by clicking on the point of the isometric map at

which you wish to aim. Once again, clicking the right mouse button will ensure that you are aiming at the hole.

The distance the ball rolls after pitching depends partly on the amount of backspin which you impart to it which, in turn, is governed, to a certain degree, by the position of the ball in relation to your feet when you hit it, but more so by the club you choose. For the purposes of the Quickstart, it is unnecessary to give more than cursory consideration to the merits of imparting backspin, but you should be aware that when shots are played without adjustment to the default setting of ball position in relation to feet, with woods, long or medium irons, the ball will roll on a good way after pitching.

It is therefore important that the optimal flight arc of the ball allows it to land before reaching the flag. If it does not, the ball will come to a halt beyond the flag, and could possibly run off the back of the green.

Once you have selected your club and set your aim, select the "Proceed" icon to transfer to the Shot View.

Once again you can view the likely pitch area by selecting the relevant icon. Try selecting a different camera angle for your second shot; the 'track and pan' position, for instance.

Make any last-minute adjustments to direction, and then take your swing!

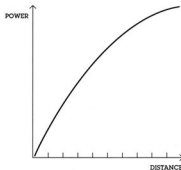
Take time to review your shots by using the replay facility, as it will help you to analyse any faults with your swing.

Eventually you will arrive on or near the green. When you are so close to the green that you need only hit the ball less than half the maximum distance with the shortest club (i.e 40 yards with the Pitching Wedge) that club will automatically be selected for you and you will go straight to the Shot View without reference to the Isometric Map. You may still go from the Shot View to the Isometric Map by selecting the "Go to Isometric" icon, but the value of the Isometric Map diminishes as you near the hole, and more detail can be seen by going directly to the Shot View.

When playing a shot which requires less than maximum power with your selected club (whether it is a Pitching Wedge or not), you must adjust your backswing accordingly.

The relationship between power (length of backswing) and distance (length of shot) is not linear. When you allow the blue line to travel half distance to the check marker, the ball will not travel half maximum distance for the selected club. The relationship is an exponential one, best illustrated by the following graph.

Many external factors such as wind, foot position, ball lie, and ground slope influence the relationship. You must develop a "feel" for the relationship between swing, power and distance, as you do on a real course. The Driving Range is the best place to practise!



Once you reach the green the icons and method of control change slightly, and you will automatically be given a putter. New icons will appear with the following functions:

Putting



View shot from 180° (directly behind hole)



Display 'Grid Lines'

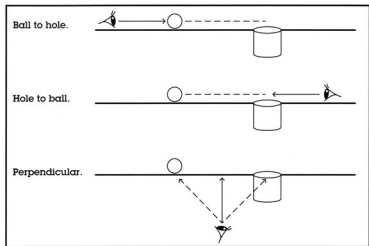


Check speed of green

The art of putting is one which has proved difficult for players of all standards to master. A certain par can suddenly turn into a double-bogey, and the long, straight drives of the fairway can be made to seem insignificant, as a short, sloping two-foot putt curls around the cup. Reading the green is the key to success.

The slower the ball moves, the more it is influenced by the terrain. The putting green is where the three-dimensional view of Master Golf is at its most useful. You can actually read the green for yourself; you can move around the green.

There are three points from which a putt must be viewed for you to judge slope correctly. The view along the line from ball to hole, seen from behind the ball; the same view seen in the opposite direction, from behind the hole; and a view at right-angles to the line between ball and hole, as shown below.



Each of these views can be seen. The view from behind the ball is seen as the 'default' view as soon as you arrive on the green. To see the opposite view from behind the hole, select the "180°" icon. To see the perpendicular view, click the right mouse button anywhere on the screen.

Judging a slope is made easiest when it can be referenced with a straight line. You are able to do this by viewing the putt from any of the three viewpoints with gridlines drawn over the green. These

lines, which are drawn when you select the "Gridlines" icon, show every contour of the green to full effect. It should be possible to tell immediately whether the green slopes up- or down- hill to the cup, and whether it slopes right or left between ball and cup. You must, of course, set your aim and judge the pace of your putt accordingly. For example, if the green slopes down from right to left, you must aim to the right of the hole. The pace of the putt is set via a power bar which will appear when you start your putt by selecting the "Proceed" icon.

The check mark which appears halfway across the bar indicates the optimum strength for the distance you must cover to the cup, if the putt you face were on a perfectly flat green. If the green is not flat, the amount of adjustment needed depends on the degree of slope and "speed" of the green.



The "speed" of the green is important, and is governed, amongst other things, by the type and length of grass used and the prevailing weather conditions. Each green is classified as one of five types; very slow, slow, medium, fast or very fast. The speed of the green on which you are currently playing can be reviewed by selecting the "Green Speed" icon.

When judging the power required you must take into account both slope and green speed.

The power bar fills from left to right when you click on the "Proceed" icon. To stop the power increasing when it reaches the point which represents the required speed, click the left mouse button again.

If you stop the power bar before it reaches the check marker you will strike the ball with less power than that required for the same putt on a perfectly flat green. You would do this for a downhill putt.

If you stop the power bar after it reaches the check marker you will strike the ball with more power than that required for the same putt on a perfectly flat green. You would do this for an uphill putt.

If you are making adjustments on a fast green, the adjustment must be greater than for the same slope on a slow green.

If you were putting downhill on a very fast green you would need less power than for the same distance putt down the same slope on a slow green. Both slope and speed of green must be taken into account.

If the ball passes within six feet of the hole during a putt, a window will appear in the top left of the screen showing a birds-eye view of the cup. You will see the ball travel across the window and, hopefully, come to rest very close to, or actually in the cup.

After each putt a message will appear telling you how far the ball travelled and where it came to rest. Below the main window you will see the distance remaining to the cup. Icons will appear which allow you to replay the shot or to save it to disk, as normal.

To play your next putt, click on the "Proceed" icon. The view will realign directly behind your ball. You may view the putt from any of the three angles once again, and check the Gridlines before clicking on the "Proceed" icon to take your shot.

Eventually the ball will go down the hole! Remember that, whatever distance putt you are faced with, the check marker represents the optimum power. Even when the ball is inches from the cup, strike with close to optimum power.

On completion of the hole, click on the "Proceed" icon. The scorecard will appear, detailing your score so far. Icons which allow you to return to the main menu or save the game to disk are selectable, along with an icon which will take you to the next hole.



Return to main menu



Save game to disk



Proceed to next hole

This Quickstart is now coming to an end. You can, of course, continue to finish your round, or just play a few holes. Either way, you now have enough information to do so. Hopefully you have been bitten already. Golf is like that. Real soon you'll be looking at your scores and wondering how to get them down. You'll find some help in, "Developing your Game", starting on page 39.

To quit your round at any time, select one of the "Return to main menu" icons. Alternatively, after completion of the round the final scorecard will be displayed. Once you click on the "Proceed" icon a message will appear informing you that the player has a new profile, and inviting you to save it.

You can save the new profile as explained in the section on "Vital Statistics", page 79. If you decline the offer, or once you have saved the new profile, you will be returned to the Main Menu.

MicroProse Golf Options

THE MAIN MENU

The main menu offers seven options;

New Round
Driving Range
Putting Practice
Load Round
Replay
View Stats
Demo

Select this option to begin a new game as you did for the Quickstart. There are eleven types of game available, each of which is clearly explained in the section "Handicaps and Competitions" on Page 27.

New Round

The Driving Range is the ideal place to practise. You are not restricted to practising shots with your Driver; you can use any of your woods or irons. When selecting this option you will be asked to insert a course disk, which you should do. The Isometric Map of the Driving Range will appear, with the icons which normally appear on the Isometric Map available for selection. If you have not worked through the Quickstart you will not have seen an Isometric Map before. By turning back to page 10 you can work through the section of the Quickstart which deals specifically with the Isometric Map.

Driving Range

At the top of the screen you will see the club currently selected and the aim distance; you will also notice that there is not a conventional hole shown on the Map. There are two putting greens, one out of range ahead of you and one behind you. You can also see ground markings along the avenues of trees which show distance from the tee. For conventional driving and long iron practice, during which you are more concerned with hitting the ball sweetly than landing the ball on the green, you should hit towards and along the

avenues of trees. For short iron or accuracy practice, you might like to aim towards the green behind you.

You may change your selected club, foot position, stance, tee position and height as normal via the Isometric Map icons. On going to the Shot View you will see an additional icon, allowing you to switch between tee/fairway practice and bunker practice.



If you select bunker practice you will automatically be taken to a bunker near a green.

When you have finished practising, select the "Return to Main Menu" icon.

Putting Practice

Putting is not Golf; it is a game within Golf. How well you can hit the ball through the air bears little relation to how well you can roll it along the ground. As nearly half your shots during a round are likely to be putts, you'd better practise them!

On selecting putting practice, insert the course disk if it is requested. You will be taken directly to the Shot View of the putting green. An introduction to putting can be found from page 19 of the Quickstart. There are some extra options associated with putting practice which are not available during an actual round, represented by the following icons:



Switches between a flat and sloping green, allowing you to practise a wider variety of putts.



Moves the putt to a new position on the green.



After each missed putt this icon will appear, allowing you to play the ball from the position in which it came to rest.

After each successful putt the ball will automatically be reset in a new position for your next putt. To leave the putting green, select the "Return to Main Menu" icon.

After the completion of each hole during a round, you may save the game. This option has not been designed to allow you to bend the rules by replaying a hole which you have double-bogeyed immediately with a view to keeping your scorecard 'clean'!

You will find the saving and loading options useful if you do not have time to complete a full eighteen holes in one playing session, or during Tournaments over more than one round.

By selecting to 'Load Round' you may continue a previously saved game. More information on loading and saving can be found in the section "Vital Statistics" on page 79.

Load Round

Tall tales of great shots are often the subject of conversation at the nineteenth hole. MicroProse Golf allows you to record for posterity those magic moments on the course by saving any individual shot to the Data Disk, for replay at a later date. On the completion of each shot an "Immediate Replay" and a "Save Shot to Disk" icon will appear. You should select the latter.

By selecting the 'Replay' option from the Main Menu you can impress your friends or boost your own confidence by reviewing your great shots before stepping onto the course.

You will be asked to insert the Data Disk holding the shot. More information on loading and saving can be found in the section "Vital Statistics" on page 79.

Replay

MicroProse Golf offers a full statistical analysis for each player for whom a profile exists. A player can create a profile after the completion of one round. Player profiles are stored on the Data Disk, which you must insert after selecting to view the stats. Each player profile shows stats for each course played, with a hole-by-hole analysis showing the average score for each hole and your performance against par. It also keeps track of your Handicap, best

View Stats

performances, average performances, and your last performance at each hole and for each round. An explanation of how to use and read the stats displays can be found in the section "Vital Statistics" on page 79.

Demo

MicroProse Golf incorporates a demonstration mode, during which you can watch a computer-driven golfer playing a round on the course of your choice. You can learn by watching the demo and noting the club and direction which the computer golfer selects.

On selecting this option you will be asked to insert a course disk and to select a course. The demo will continue automatically until you click either mouse button to return to the Main Menu.

Handicaps

MicroProse Golf has been designed to be as near accurate a simulation of golf as is possible. Like real golf, you should improve your play over time, but your initial standard might not be as high as you would like. It can be shattering to your confidence to play against golfers whose ability and technique are superior to yours, and consequently beat you easily.

You will improve at your own pace, but while you are learning you will want to experience the edge that playing competitive golf can give your game; the taste of competition is much sweeter when you win.

The handicap system was introduced to give players of unequal ability an equal chance in competitive golf, whilst ensuring that it is always in each golfer's interest to get his handicap as low as possible. The ultimate aim is to become a 'Scratch' golfer playing off par.

Before playing competitively, it is important to gain an understanding of the relevant terminology associated with handicap and par.

Each hole is designated as a par three, four or five. Par is the measure of how many shots a scratch golfer (one with with no handicap) should take for that hole. On a hole of up to 250 yards in length, it is assumed that the scratch player will reach the green with his first shot, and then take two putts, making it a par three. On a hole between 250 and 475 yards long, two shots should be needed to reach the green. Add two putts, and you have a par four. A hole over 475 yards long will require three shots in reaching the green, which, when added to the two putts required, gives a par five.

By adding the pars for each of the eighteen holes the total par for the course can be found. On most courses, the majority of holes will be par fours. If there are an equal number of par threes and par fives, the total par for the course will be 72. The total par is sometimes referred to as the standard scratch score (SSS), the score expected by a scratch player. It is this total from which handicaps are assessed.

If a player expects to go round in four shots more than the SSS, his handicap is 4 shots. If he expected to complete a par 72 course in 86 shots his handicap would be 14.

The maximum handicap for men is 28 and, in theory, anyone on that handicap should go round in 28 shots more than the course par. However, anyone taking more shots is still given a maximum handicap of 28 shots.

The point at which a handicap is taken into account varies, depending on the type of competition. When playing a round of strokeplay the strokes received are subtracted on completion of the round. Each player subtracts his handicap from his gross score, and the player with the lowest resulting nett score wins.

During matchplay they are assessed on a hole-by-hole basis; calculating the strokes received is not as simple as merely subtracting one player's handicap from his opponent's.

During singles matchplay, three-quarters of the difference between the two players is used in the calculation. For example, in a match between Player A with a nine handicap and Player B with a 21 handicap, there is a handicap difference of 12. For a singles match, three-quarters of the difference is taken to give a handicap allowance of nine. Player B therefore receives nine shots from his opponent player A.

Stroke Index

Matchplay golf uses the handicap system differently. Here the golfers are playing to win holes. As soon as one golfer has holed out, his opponent may only take as many shots as the first player took to hole out. For example, if the first player holed out in four shots and his opponent was about to take his fifth shot, the first player would have won the hole.

As a result, the total number of shots for the round cannot be calculated, as each hole is not necessarily played out to a finish. Therefore the handicap cannot be deducted at the end of the round; it must be deducted on a hole-by-hole basis.

The Course Card has a column marked "S.I.", with each hole being given a number from one to 18. The "Stroke Index" indicates the difficulty level of each hole, relative to the par for that hole. If player B is due to receive nine strokes

from player A in a singles matchplay competition, he would receive one shot at each hole with a Stroke Index of nine or less.

Handicap calculations become more complicated when more than two players are competing. For each description of a competition type (starting on page 31) an explanation of handicap calculation is given.

Lowering your Handicap

Your first round of handicap golf is played off a handicap of 28. In order to lower your handicap you must complete the round in less than 28 over par, giving you a nett score less than par.

Handicaps are not adjusted immediately to reflect your 'best' score. They are an indication of your average expected score. Playing your first round with a gross score under par (before deduction of your handicap allowance) will not automatically make you a scratch player.

Handicaps are divided into the following categories;

Category One	<i>Handicaps of 5 or less.</i>
Category Two	<i>Handicaps of 6 to 12 inclusive.</i>
Category Three	<i>Handicaps of 13 to 20 inclusive.</i>
Category Four	<i>Handicaps of 21 to 28 inclusive.</i>

Exact and Playing Handicaps

Exact Handicap states an exact number (e.g. 13.6).

Playing Handicap is the Exact Handicap rounded to the nearest whole number (0.5 is rounded upwards).

Alterations

If a player returns a score that is no more than two strokes above his Playing Handicap, his Exact Handicap is not altered.

If a player returns a score that is three or more strokes above his Playing Handicap, his Exact Handicap is increased by 0.1

If a player returns a score that is below his Playing Handicap, his Exact Handicap is reduced by an amount per stroke that he was below his Playing Handicap, the amount per stroke being determined by his Handicap category.

Category One = 0.1 per stroke

Category Two = 0.2 per stroke

Category Three = 0.3 per stroke

Category Four = 0.4 per stroke.

Strokeplay and Matchplay

Strokeplay

Strokeplay is usually thought to be the most demanding type of competition. The lowest total score for eighteen holes brings victory. In professional tournaments and championships the gross score (without any account to handicap) is used. During amateur competitions (other than certain specific championships), the nett score is calculated by deducting the player's handicap from his gross score. Strokeplay is the only format which can be used to assess handicap.

While playing a round of strokeplay there can be a temptation to think too far in advance. Think only of one hole at a time, and think firmly in the present. Do not assume that your final score will be a multiple of the number of holes you have already played; do not even think of front-nines and back-nines; certainly don't dwell on bad shots; think of the next shot, but don't take unnecessary risks or gambles, especially with recovery shots.

The time to add up your score is when you have left the eighteenth green. During tournaments, your partner is not the only golfer you are playing against. Even so, resist the temptation to look at the leaderboard. Everyone else has played a different number of holes to you until you leave the course, and the competition is not over until your last opponent has left the course too.

Matchplay

In Matchplay you compete hole-by-hole against one opponent or partnership. The player or partnership with the lowest score on each hole wins that hole. If both players take the same number of shots, the hole is said to be 'halved'. Handicaps are taken into account according to the Stroke Index of the hole. A player can never receive more than one stroke per hole.

If player A and player B are both scratch players, and, at the first hole A takes four shots and B five, A wins the hole and goes "1 up". B is said to be "1 down". If the second hole is halved, A stays "1 up" and B "1 down". If B wins the third hole, taking three shots to A's five, he wins the hole and the match becomes "All square". The fact that B has taken two shots less at the hole does not mean that he pulls back two 'points'.

Eventually, at the sixteenth tee, A is three up with three holes to play. If the sixteenth is halved, B can no longer win enough holes to square the match, and A is declared the winner by "3 and 2", indicating that he is three up with two to play. The remaining holes are not played.

In matchplay you do not hole out, and the hole-by-hole score is irrelevant. However, your mental approach to matchplay should be similar to that of strokeplay. Ignore your opponent's score until the hole is over. Try not to assume that he will automatically hole his three-foot putt and that, as a result, you must be bold with your twelve-footer. Play it as you would normally. If he hits a long drive and gets a lucky bounce over a bunker, don't try to do the same with your drive. Play your own game.

Medal (or Strokeplay)

Select this option to play a round of Medal golf with one to four players. Medal is a contest over eighteen holes decided by the lowest number of shots, with handicap allowances considered after completion of the round.

Skins

One round of Matchplay golf played for money. Each hole is worth a certain amount of money, the player taking the least number of shots at the hole being declared the hole winner, collecting the money for that hole. Handicaps are

Competition Types

taken into account at each hole, as with standard Matchplay. The first six holes are each worth the same amount, the next six twice as much each, and the final six three times as much. If a hole is 'squared' the money for that hole is carried forward to the next. You are invited to set the 'pot' for the first hole. The computer will then calculate how much each hole is worth, and display the total pot. As you play the round the computer will automatically keep a note of each player's winnings.

Head-to-Head

Once you have attained 'scratch' status you can challenge the first of eight computer-controlled ranked players in a head-to-head challenge over 18 holes. The round can be played as stroke or match-play.

Load in your scratch player as normal. Your next head-to-head opponent's name will be shown. Select the proceed icon to display a picture of your opponent and his style of play. His style cannot be altered! The round is then played as normal. If you beat him you will face another challenge from a new opponent. If you lose you'll have to play the winner again another day.

Tournament

There are three classes of tournament playable; an 18-hole all-comers tournament, open to every handicap player; a 36-hole tournament open to every player with a handicap of 14 or under; and a 72-hole tournament restricted to scratch players. All tournaments are played in strokeplay format. After each hole the scorecard displays an extra icon allowing you to view the leaderboard. The tournament is played in a minimum of pairs. If you are the only human controlled golfer, you will play with a computer controlled partner. If there are more than one human controlled golfers (up to the maximum of four) they will all play together.

Singles

One round of matchplay golf between two players, the winner being the one winning most holes, with handicap allowances allocated according to stroke index.

Threeball

One round of matchplay golf in which three players each play their own ball; there are actually three matches going on at once; Player A vs. Player B, B vs C, and A vs. C, with the scoring for each match calculated after each hole, handicaps being allowed according to stroke index.

Fourball

Four players each play a ball, but scoring is in partnerships, matching the lowest score of one partnership with the lowest of the other for matchplay, or by recording the lowest score of each side for strokeplay. In a match, handicapping is on three-quarter basis, the players taking handicap allowances from the lowest handicap player of the four.

Bestball Three

One player plays against a partnership, each playing his own ball, the score of the single player being compared against the best score of the partnership in matchplay format. The handicap allowance is calculated as three-quarters of the difference between the handicap of the single player and the average of the two partners' handicaps.

Bestball Four

Similar to bestball three, one player plays against a team of three, the score of the single player being compared against the best score of the team in matchplay format. The handicap allowance is calculated as three-quarters of the difference between the handicap of the single player and the average of the team members' handicaps.

Threesome

Played as strokeplay or matchplay, in which a single player plays against a partnership who use one ball and take alternate shots. Handicap calculations are as bestball three, with full handicap allowances being used for strokeplay calculations.

taken into account at each hole, as with standard Matchplay. The first six holes are each worth the same amount, the next six twice as much each, and the final six three times as much. If a hole is 'squared' the money for that hole is carried forward to the next. You are invited to set the 'pot' for the first hole. The computer will then calculate how much each hole is worth, and display the total pot. As you play the round the computer will automatically keep a note of each player's winnings.

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Played as strokeplay or matchplay, in which a single player plays against a partnership who use one ball and take alternate shots. Handicap calculations are as bestball three, with full handicap allowances being used for strokeplay calculations.

Foursomes

Strokeplay or matchplay, in which a partnership play alternate shots with one ball against another partnership doing similarly. Alternate shot partnerships always take turns to start a hole, without reference to which player putted out the previous hole. Handicap calculations take three-quarters of the difference between the average handicap for each side.

THE PLAYER SET UP SCREEN

Each time you select to play a "New Round" via the Main Menu you will be invited to select a competition type. Depending on the type of competition you select, you must then select the number of players and whether you wish to play the competition as a strokeplay or matchplay format.

The player set-up screen will then appear. This allows you to configure each of the players as you wish.

The icons at the bottom of the screen allow you to proceed to the first tee, return to the main menu, load an existing player profile, configure a computerised opponent or select different clubs.



Go to first tee



Return to main menu



The first player will be highlighted. By moving the pointer over another player and clicking the left mouse button you will highlight the new player.

When a player is highlighted you may give him a name, by simply typing one in via the keyboard. You may wish to replace him by loading in an existing player profile from your Data Disk. To do so, simply select the "Load existing player" icon when the player you wish to replace is highlighted.



Load existing player icon

You will be asked to insert the Data Disk holding the profile. This profile will replace that of the player currently highlighted.

On the right of the screen, next to each player's name, are options to set up the players as human or computer controlled, right or left handed, and as a novice or handicap player. These buttons, which act as toggles between either option in a pair, should be selected in the usual way if you wish to toggle them.

Whenever you set up a player as computer controlled, you can also set his 'style' of play, by selecting the 'computer style' icon.



A window will appear allowing you to set the levels of 'Power', 'Putting' ability, standard of his 'Long Game', 'Short Game', 'Strategy', and level of 'Aggression'.

Each quality can be below average, standard, or high, depending on which of the three boxes is highlighted next to that quality. You can change them by clicking on one of the boxes which is not highlighted. The box furthest to the right represents the highest level. When you have configured your opponent, select the arrow to return to the Set Up screen.

If you change any of the computer opponent's styles, his handicap will also change. Each computer player is initially set up with a style configuration which will give him a handicap of 10. If you improve more of his styles than you decrease, his handicap will tend to decrease. If you decrease his ability overall, his handicap will increase.

Each human player can be designated as "Novice" or "Handicap". Human handicap players start out with a handicap of 28. After each round, the handicap of a player is re-adjusted and his stats updated to take account of any improvement or deterioration.

Please note that some types of play (head-to-head, 36- and 72-hole tournaments) are only available to players of a certain standard. If one or more of the players you set-up or load does not reach that standard (his handicap is too high) a message will appear when you try to go to the first tee, and you must return to the Main Menu to select a different type of play.

If you designate a player as a Novice, he will play without the wind influencing his shots. Only human players can be designated as novices. Novices do not have a stated handicap, but will be given one of 28, just for this round. A Novice cannot improve his handicap.

Novice players will find it much easier to hit the ball straight as the "sweet-spot" of the swingometer (see Quickstart P. 14, or On the First Tee P. 40) remains at a constant size during backswing.

At the bottom of the screen you will see a "Select Clubs" icon. This allows you to change the clubs automatically given to you for a different combination. Each player can carry a maximum of 14 clubs. Full information on club selection can be found on page 43.

To begin the round select the "Go to first Tee" icon. If you leave without altering a player's set up he will automatically be given a default name of "Player 1, 2, 3 or 4".

Developing Your Game

Having worked through the QuickStart you will have learnt much about *MicroProse Golf*. You should be familiar with the workings of the basic controls, although you may not have mastered them yet. Perfecting a controlled swing is the key to success, and time spent practising on the Driving Range will always pay off. Learn to walk before you learn to run!

You can now develop your game in two ways; by trial and error or by studying the desired techniques before putting them into practice. Both are valid; if you lack confidence in your swing, the time you might spend studying could be better spent practising via the trial and error route. You will pick up information about the factors other than swing which influence a shot, but should concentrate on accuracy of swing.

If you feel that your swing will allow you to repeat shots consistently, and it is a lack of understanding about the other factors involved in club/ball dynamics that is holding your game back, you are ready to learn about the principles behind altering such things as stance, swing, ball position and foot position, and the way in which they can be used to drastically lower your scores.

Developing your golf strategy is important if you want to master the courses, and a special section is devoted to consideration of a few of the tricky decisions you'll have to make.

The following sections deal with every aspect of golf in increasing detail. From the basics of club selection and judging distance through to the reasons for sometimes using a five-iron for a short ten yard pitch-and-run shot. Understand the basic principles and you will become a good player; learn a few tricks as well and you'll be unbeatable!

MicroProse Golf has been developed to be both a computer game and a learning aid. To learn how to play the computer game you should concentrate on the sections of italicised text which appear. To master the computer game and actually improve your on-course golf you should read the explanations preceding the italicised text before putting principle into practice.

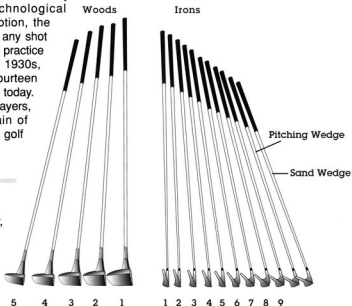
Any game with a history as long as Golf is bound to have seen changes. The tools of a golfer's trade have not been exempt. From early 'wooden' shafts to iron shafts and now laminates, graphite or titanium compounds, the materials used have developed enormously through the years.

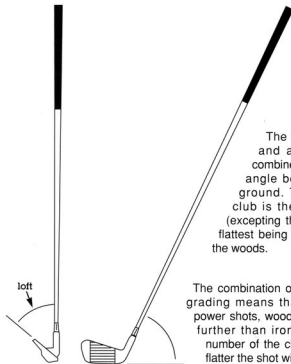
Media advertising now leads to the likes of Ping, Slazenger and Wilson all promoting their clubs by laying claim to the latest technological breakthrough. If money were no option, the fanatical golfer could carry a club for any shot imaginable. However, it was this very practice which led to the rule change in the 1930s, stipulating a maximum number of fourteen clubs - a rule which is still adhered to today. It was the caddies, rather than the players, who were suffering under the strain of carrying twenty-five clubs in a huge golf bag!

Club Selection

The limit of fourteen includes a putter, and for most players this leaves as an ideal full set a driver (1 wood) and 3 and 5 woods; 2, 3, 4, 5, 6, 7, 8 and 9 irons; and a pitching wedge and a sand wedge.

The angle of loft increases through the set of woods and irons enabling progressively higher shots. Adjacent clubs also differ in length by about 1/2 inch (narrowing to 1/4 inch for short irons).





The changes in length and angle in loft are combined with a change in angle between shaft and ground. The most upright club is the pitching wedge (excepting the putter), with the flattest being the long irons and the woods.

The combination of all factors in club grading means that, for equivalent power shots, woods will usually travel further than irons. The lower the number of the club, the further and flatter the shot will travel.

The clubs given to you automatically at the start of a round of MicroProse Golf are a driver (1 wood) and 3 and 5 woods; 2, 3, 4, 5, 6, 7, 8 and 9 irons; a pitching wedge and a sand wedge; and a putter. You may vary the combination of clubs before each round, via the 'Player Setup' screen, by clicking on the 'Select Club' icon.



The full list of seventeen clubs will appear, with the fourteen default clubs highlighted. To be able to select a club which is not highlighted, you must first deselect a highlighted one, by clicking on it, as you can never have more than fourteen clubs in your bag.

Then click on the clubs which you do wish to take with you. The putter cannot be de-selected. Click on the "Proceed" icon once you are happy with your selection of clubs. You need not take a full set of fourteen clubs; you can have some fun playing a "one club challenge", in which each player takes only one club (usually a five iron) and a putter.



The club selection chart is also used to set the units of measurement in the game, between yards and metres. To toggle between them click on the "Y/M" box in the lower right corner of the display.

Just above this icon is another showing a golfer's jersey. By clicking on this icon you can set the colour you wish to wear! Each click will step through the available colours.

Once you have selected your clubs and jersey and stated your preference for yards or metres, select the arrow to return to the 'Player Set Up' screen.

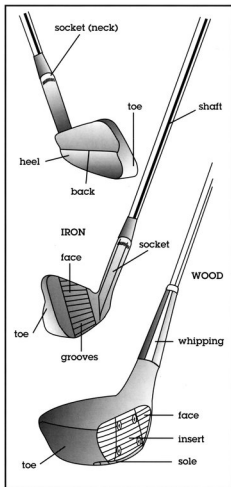
The Basic Parts of a Club

Learning the name for each of the basic club parts is important. It will aid in teaching as fault-finding often involves referring to these parts of a club and their movements during its swing.

The correct shaft is vital, especially with woods. A stiff shaft will tend to lead to poor height and shots finishing to the right. Weak and overly flexible shafts will lead to erratic direction.

Drivers have a loft angle of anything between 7° and 12°. The better the player, the less the angle of loft required for comfort.

The height obtainable from an iron is not only dictated by the angle of loft. The weight distribution up and down the clubhead is also influential, although to a lesser extent. With the weight at the base of the clubhead the ball will tend to fly higher, but length may be lost. With the weight nearer the centre, length is gained at a flatter trajectory. Tournament pros will often opt for the latter, but a good strike is essential!



Iron weighting across the clubhead can have an influence on the precision required for a clean shot. Some clubs, such as the Ping type, carry more weight at heel and toe than in the centre. The effect is to spread the 'sweet-spot', lowering the accuracy of strike required to produce a straight shot.

The club with the widest variety of designs is probably the putter. Varying in angles of loft from 3° (for smooth greens) to 7° (for bad ones), they must, by regulation, have an angle of at least 10° between putter and shaft (to prevent players adopting a croquet-type action). The four basic designs - mallet, blade, centre-shaft and Ping type - have varying sizes of 'sweet-spot' according to weight distribution across the face. A light putter can present problems for a smooth swing; the heavier it is the straighter the swing will tend to be.

One of the joys of golf is that every new hole brings a new challenge. Walking onto the first tee you'll be full of anticipation, a little nervous, wondering if this is going to be the round when you finally master the course or, if it's your first time at a new venue, eager to test your mettle against the unseen.

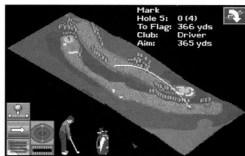
It becomes easy to rush things. A cursory glance at your course map, a look up at the fairway and you feel ready to tee-up and let fly. To fall victim to such a thought process is to become easy meat for the great unseen enemies, course architects. They are the guys who chuckle at the thought of you thinking such things as "Big fairway, big drive" or "I can see the flag, therefore I can carry the green".

Stop and think again. Before each hole you are told two things of vital importance; the par and the distance. Even more importantly, in *MicroProse Golf* you are given an Isometric Map of the hole which allows you to plan each hole meticulously. Although your best laid plans don't always come to fruition, those which are carefully thought out succeed more often than those which are not.

A number of holes are analysed in the "Advanced Play" sections later in the Handbook. You are advised to make time to read them sooner or later!

The Isometric Map

The isometric map shows the hole which you are about to play and its nearest neighboring hole. The green to which you are playing can be identified by the red flag, and the position of the tee by the white ball on it. You will see that there is a white line extending from the ball. At the top of the screen you can see information giving the player's name, the hole number followed by par for the hole in brackets, the club currently selected, the distance to the hole, and the "Aim" distance. The club currently selected will be that recommended for your tee shot on this hole.



Locate the on-screen pointer, and note that you may move it by moving the mouse. Move the pointer over the "arrow" in the top right hand corner and click once. The isometric map will rotate through 90°. Further clicks on the "arrow" icon will rotate the map further. A total of four clicks will return the map to its original position.

Setting Direction, Choosing Club and Measuring Distance

Now move the pointer onto the isometric map itself and click the mouse button whilst watching the white line which extends from the ball. You will see the line move. The "Aim" distance will also change. The white line represents the path which the ball will take if struck perfectly with the club currently selected, provided that no external factors such as wind direction influence it.

As you click the mouse on a different pointer location, the white line will attempt to join the ball to the pointer. As the selected club has a maximum distance, the arc of the white line may rejoin the ground before reaching the pointer. By moving the white line you may select the direction of your next shot. You should be aware that shortening the arc below the maximum distance achievable will not result in the ball being hit only as far as the point selected. The power of the shot is set later, and you are only setting the direction of the shot at this stage.



Selecting the 'Change Club' icon will display the club selection window.

The clubs you chose to bring with you are highlighted in yellow and the club currently selected in white. Below the clubs you will see the words "Expected", "Record" and "Holeout".

"Expected" will be followed by two numbers, the number on the left being smaller than the one on the right. The smaller number represents the expected pitch distance (the distance the ball will travel before bouncing for the first time), and the greater number the expected finish distance (the distance the ball will travel before coming to a halt), for the currently selected club. These numbers correspond to those you will find on your Club Selection Card, and are intended as a guide only.

There will not be any numbers next to "Record" or "Holeout" when you first start to play. As soon as you have used a club, the record pitch and finish distances for that club will be recorded. However, do not assume that these 'records' give an accurate indication of what to expect every shot. Your longest shot is likely to be one played with the wind's help!

The "Holeout" reading will take even longer to accumulate. It shows the longest shot played with that club which actually finished up in the hole! Naturally, you will soon have a reading for your putter. It is unlikely that you'll ever get one for your driver. If you do, save the shot to disk for posterity!

To change the selected club, simply move the pointer over your new choice and click the left mouse button. To return to the Isometric View select the "Proceed" arrow.

If you changed club, you will, on returning to the Isometric Map, notice that the length and curve of the white arc has changed. The arc not only shows expected distance, but also expected path of the shot. You can see that the short irons have a very high arc and the long ones a shallow arc. Use the arc to judge clearance over obstacles such as trees and water hazards.

The "Aim" distance shown corresponds to the distance between the ball and the location of the mouse pointer when clicked, to the nearest five yards. This allows you to see, at a glance, the distance between the ball and any course features such as trees, bunkers or the front of the green. This facility is especially useful when considering a change of club. It is not necessary to physically change clubs to see if the new choice will reach a certain landmark; you can use the "aim" distance to check, and refer to your Club Selection Card.

If you experiment with the Isometric Map, changing clubs and direction, and subsequently want to return your aim so that it is directly at the flag, just click the right mouse button. The arc will realign automatically.

The Isometric Map Icons

At the bottom of the screen are a number of selectable icons, the functions of which are described briefly below.



Allows you to alter both height and position of the tee. Please refer to page 61 for more information about the tee.



Allows you to alter your stance and the position of your feet relative to the ball. Please refer to page 63 for more information about stance on the tee.



Allows you to view information relating to the club currently selected or to change club selection, as explained above.



Allows you to return to the main menu, after confirming that this is your true intention.



Indicates the direction and strength of the wind. The upper circular section shows the wind's direction. It represents a top-down view with you standing in the centre of the circles looking straight ahead at the point marked X. The white line shows the direction of the wind (in this example blowing towards you and from left to right), and the red bar below the circles indicates the wind's approximate strength. Clicking on this icon will have no effect, as it is for information only. Hints on playing in windy conditions can be found on page 92.



Allows you to proceed with the shot by transferring you to the three-dimensional view.

Once you have set the direction of the shot accurately you should select the "Proceed" icon. You will then be looking down the fairway in the exact direction set on the isometric map.

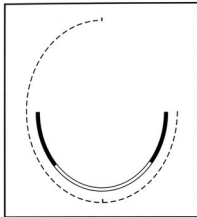
Programming an accurate simulation of what happens when fast moving club meets stationary ball is easier than you might think; many golf 'games' published in the past have used simple equations involving force, mass, acceleration and direction to produce semi-accurate results. MicroProse Golf uses many more variables than most; when you are able to see the ball throughout its flight we can't 'fudge' the results by simply telling you where the ball has landed and then 're-drawing' the landscape from that point. We have to be accurate.

However, you do not need the brain-power of a computer to predict the likely result of altering any of the factors involved in the calculation; you simply have to follow the basic rules of ball and club dynamics when planning a shot. It gives you a huge head start over anyone learning by trial and error, and will offer clues as to why your last shot flew off to the right or left.

Golf balls are designed to take up spin. The dimples on its surface encourage spin to get the ball airborne. In imparting this desired (back)spin you will also give the ball side-spin. In hitting a hard spherical object with as many planes of symmetry as a dimpled golf ball with something the shape of a golf club it is almost inevitable that side-spin will result unless care is taken to avoid it.

This is at odds with most other ball games. You learn that the ball flies straight unless you put side-spin on it to curve its flight. In golf you must first learn to remove the side-spin to make the ball fly straight. Then you must learn to put spin back on to the ball in a controlled fashion to exact the desired results (such as fading, drawing or 'holding' shots into a wind).

The Spin



If you have worked through the Quickstart you will be familiar with the "Swingometer", the means by which the power of your shots is controlled. Every MicroProse Golf shot also takes into account the amount of spin which you put onto the ball. By 'stopping' the downswing in the white area, or 'sweet-spot' of the swingometer, you impart little or no side-spin. Stopping the downswing before the sweet-spot will encourage draw or hook shots. Stopping it after the sweet-spot leads to fade or slice shots. The further from the centre of the 'sweet-spot' you stop your

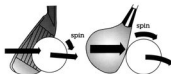
downswing, the greater the side-spin imparted. A full explanation of the workings of the swingometer follows in a couple of pages.

The more back-spin you impart, the less side-spin you are likely to give the ball. Therefore the more lofted the club used, the less likely it is to curve. Curving a shot with a pitching wedge is difficult; with a driver it is, as many

golfers know to their cost, easy to hit with side-spin, exaggerating hooks or slices.



The degree of loft of an iron naturally produces backspin as the club gets beneath the ball. The drive is struck on the upswing, ensuring correct trajectory and degree of backspin.



As an iron strikes the ball near the bottom, it is given a lot of backspin but little sidespin; however, when driving the ball is struck near the equator, creating less backspin but potentially much more sidespin.

The Direction of Swing

The effect of spin can only be analysed with reference to the initial direction of the shot. The golden rule which you must remember is simple. Provided the ball is struck by the middle of the clubface it will travel in the direction of the swing. If you swing aiming to the left, the ball will travel to the left. Swinging straight is not easy; MicroProse Golf does not analyse the effect of many of the factors leading to direction of back- and down-swing. To account for position of hands, arms, shoulders, torso, head, hips, legs, knees and the distribution of weight on ankles and feet as well as the grip during swing would require many more input devices than mouse and keyboard. We are guilty of the assumption that you have the ability to perform a near perfectly straight back- and down-swing. This means that only the direction of aim will affect the ball's initial direction before spin takes effect.

Having said that, it is possible, as you may know if you have worked through the Quickstart, to "fluff" the swing to such an extent that even with a high backswing, contact with the ball is so dreadful as to move the ball only a few feet. You have a large margin of error with regard to direction of swing; however, that still does not make it easy.



The direction Icons

Set the rough direction of each shot via the Isometric View. Use the direction icons on the Shot View for fine tuning. By combining direction and spin you can curve the ball around obstacles or change the relative direction of ball and wind, gaining length or sacrificing length for height as necessary.

What Went Wrong That Time?

.... Spin/Swing Analysis



The Draw

Actually played with a fractionally closed club-face, the ball is aimed very slightly right and struck just before the exact centre of the sweet-spot. The nearest thing to a perfect shot.



The Pull Hook

The ball starts left and curves further left. Actually caused by an out-to-in swing, closed clubface, poor grip and very right-handed action, and simulated by aiming left and striking too early. Beware of confusing this with a hook. Pull hooks finish further to the left than hooks, although the ball may be travelling 'straighter' before coming to rest.



The Hook

The shot starts right before curving back to the left. Actually caused by an in-to-out swing with a relatively closed clubface, simulated by aiming right and striking too early. Can be compounded by playing the shot with the ball too far back in the stance.

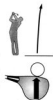


The Pull

Spin is not a major problem - direction is a problem, you are aiming left. The ball may also be too far forward in the stance.

The Fade

Initially a straight shot, curving gently to the right. Another near perfect shot much favoured by professionals on short par fours as it can be used to 'fade' the ball to a quick halt for a perfect approach shot to the green.



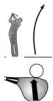
The Push Fade

The ball starts right because of poor aim and curves further right when the ball is sliced.



The Slice

The ball starts left before curving sharply to the right, simulated by aiming left and 'stopping' the backswing late. Actually caused by an out-to-in swing and open clubface imparting cutspin due to lack of turn and general stiffness in the swing.



The Push

The good player's bad shot, actually caused by an in-to-out swing, starting right and keeping straight. A good draw shot can easily become a bad push shot without perfect timing.

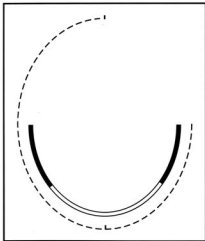


Controlling the Swing - The Swingometer

"Swinging is simple"; remember that if nothing else. Up, cock, down, strike, follow-through. One, two, three, four, five. It can be as easy as counting. If a child can count to five without faltering, an adult can swing a golf club just as smoothly.

You have enough to worry about with the effects of club selection, length and direction of shot, spin required (or not!) and the hazards of the course without the problems of an imperfect swing. That is why we've given you near perfect direction in your back- and down- swing. You just have to concern yourself with the power of the swing and hitting the ball sweetly.

When you actually swing the club your entire body moves from its starting position, one way during backswing, another during downswing and must then be controlled for the follow-through. This process is different for every club, the ball is tiny, the clubhead not much bigger and the ground has an awkward tendency to get in the way. In addition, the more you think about the potential hazards of each shot, the more tense you will become and the less likely you are to execute it perfectly. Learn to think only about the power of the swing and the sweetness of the shot once you've decided on club, stance and direction.



Power and sweetness are controlled in MicroProse Golf by the swingometer.

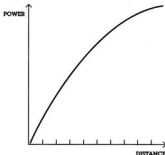
It comprises two arcs, the outer one controlling backswing (or power) and the inner controlling downswing (or sweetness).

The backswing arc curves from "3 o'clock" right around to "1 o'clock" with check markers at "6 o'clock" and "12 o'clock". When the backswing is initiated (by clicking the left mouse button) a white line will fill the dotted line from three to six o'clock, showing the lead-in time before the backswing starts. When the white lead-in line reaches six o'clock the backswing will start. The length, or power, of the backswing is shown by the blue line which will move from six o'clock, around the arc towards twelve o'clock. The backswing is stopped, and hence the power set, by a second click of the mouse.

The check-marker at twelve o'clock represents the power level at which the ball would travel the maximum distance expected for the chosen club, (ignoring the effect of external factors such as wind). This is the 'optimum power' level. The expected maximum distances at this power level can be seen on the "Club Selection" screen (page 43] for more information) or on the "Club Selection Card" enclosed in the box.

By stopping the backswing before the check-marker the power imparted to the ball will carry it less than the expected maximum distance.

The relationship between power (length of backswing) and distance (length of shot) is not linear. When you allow the blue line to travel half distance to the check marker, the ball will not travel half expected distance for the selected club. The relationship is an exponential one, best illustrated by the following graph.



Many external factors such as wind, foot position, ball lie, and ground slope also influence the relationship. You must develop a "feel" for the relationship between swing, power and distance, as you do on a real course.

The Driving Range facility offers you the chance to practise limitless shots with every club.

If the backswing continues after the check-marker, beyond 'optimum power', the effect will be to impart "overswing". The ball may well go further than the recommended distance, but perfect execution of the shot will become harder.

The measure of 'sweetness' of a shot is controlled by the point at which the downswing is stopped. The downswing commences a fraction of a second after the backswing is stopped. A white lead-in line will descend, giving way to the red downswing line.

There is a large solid white area of the downswing arc, below the ball. This represents the 'sweet-spot' for the shot, and shows the shot's difficulty. When the downswing reaches this area it must be stopped.

Before the shot is taken, the solid white area is quite large. During the backswing the solid white area decreases in size. The higher the backswing, the more power you will put into the shot, but the smaller the white area becomes, and the harder it will be to execute a clean strike. If you stray into "overswing", the white area is likely to become very small.

The area and position covered by the white 'sweet-spot' is also determined by the difficulty level of the shot, affected by club selection, lie, foot position, and ball position. If the sweet-spot is not directly below the ball it is showing that there is a danger of hooking or slicing the shot, depending on whether the sweet-spot is to the left (danger of slicing) or the right (danger of hooking).

The results of stopping the downswing outside the white area of the 'sweet-spot' are to put curve on your shot by imparting sidespin as described earlier in the chapter.

All that theory is fine; but practise makes perfect. Get hitting!

Each shot may be reviewed by using the "Replay" option. Use it to analyse any mistakes in your swing.

Driving: Tee Shots

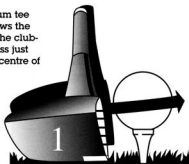
More tee shots are played with the driver than with any other club; it is the longest and lightest in your armoury, and mastering it can lead to a dramatic reduction in your scores.

Learning to use your driver to full effect takes practice. You must develop excellent timing as the increased speed of swing and length of club forces everything to happen at its quickest.

Because of its lack of loft, the driver easily imparts side-spin to the ball, and faults which are hardly perceptible with other clubs can become grossly magnified when using the driver.

You will be using your driver almost exclusively for tee shots; the ground is less likely to get in the way when the ball is sitting on the tee, but errors in direction can be magnified, especially in windy conditions. You must tee the ball to the correct height and in the correct position, relative to both tee area and foot position.

The optimum tee height allows the middle of the club-head to pass just above the centre of the ball.



The higher you position the tee in the ground, the higher you are likely to hit the ball. This does not automatically mean that you will hit it further, but if the prevailing wind is from behind you hitting it higher will probably mean hitting it further. A high tee position in a cross-wind can be fatal, especially if the tee area itself is sheltered or you are playing along an avenue of trees. The ball is likely to be exposed to the cross-wind much earlier when you tee it, and consequently hit it, higher.

When teeing into an oncoming wind you should minimise tee height. Give yourself enough height for a clean strike, but avoid hitting the ball up too high into the wind. The combination of height, side-spin and oncoming wind can almost curl a shot back on itself.

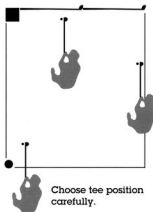
The height of the tee also affects direction slightly; to help fade the drive to the right, tee the ball slightly lower; conversely, tee it slightly higher to draw the ball towards the left.

The factors to be considered when setting tee height for a driver do not all hold true for shorter clubs. As a general rule, the shorter the club the lower the tee height should be. On short par threes, where you may be teeing off with a nine iron or wedge, the tee should be removed.

The drive is the one shot naturally struck on the upswing, and is therefore likely to roll further on pitching as backspin is reduced. Playing the ball further forward in the stance will encourage this slight upward attack, in addition to giving the club more time to accelerate into the ball.

The ball should be positioned opposite the front heel, maximising the time for club acceleration and encouraging you to stay behind the ball during the swing. Playing a drive off your back foot is nearly impossible. Distance will be drastically reduced and the shot is likely to fly to the right. Your stance when driving should always be square-on. Avoid closing or opening your stance.

Tee position is as important as tee height. Never simply tee up in the same spot as the player before you. Always look for a flat stance and flat lie, never a downward one. The teeing ground is the one area in which you can tread behind the ball and pick growing pieces of grass.



Think, too, about alignment and position on the tee. If faced with a tee that seems to aim in the wrong direction, select the spot that gives you the most comfortable view of the fairway. Use the whole width of the tee. The view from one side may be quite different from the other. If you stand to the right of a tee, you may feel it forces you to aim left. If you set up on the left, it may make you aim right.

Look at any main trouble area from the drive and position yourself on the correct side of the tee to alleviate this. If the trouble is on the right, tee up on the right to aim away from it. Conversely, with trouble on the left, stand to the left of the tee to aim away from it.

Tee height and position are set by selecting the "Tee Icon".

The display shown below will appear.



Tee height is set on the right of the display. There are four tee heights selectable, by clicking on the up or down arrows, from no tee to maximum tee height.

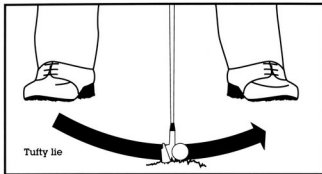
There are three tee positions available; centre, right or left. Tee position is altered by clicking on the arrows.

Once you have set tee position and height select the "Proceed" arrow to return to your previous view.

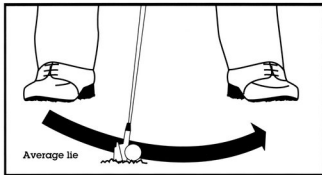
The basic swing is the same for every club. You must, however alter the contact achieved with each club. Drives are played on the upswing; short iron shots with a downward attack; the contact needed with the long and medium irons is varied, often depending on the lie you find the ball in.

The better the lie, the slightly farther forward toward the left foot the ball can be played, particularly with the 3 and 4 irons. The ball should be swept away without any real divot.

Long and Medium Irons



Play the ball further forward in the stance if the lie is fluffy and the iron is long.



For average lies play the ball slightly further back in the stance.

With these longer irons, a good player is more likely to play the ball forward with a slightly upward attack when the ball sits on a good fluffy tuft of grass. For an average or tight lie, the ball needs to be played farther back for a slightly downward attack.

Positioning the ball in the stance

The position of the ball in the stance can be altered by selecting the "Feet Icon".



The display shows a top down view of your feet and the ball. By clicking on the blue arrows you can alter your foot position relative to the ball. Click on the left arrow to move the ball backwards in the stance and the right one to move it forwards if you are right-handed. Once you have set ball position, click on the "Proceed" arrow to return to your previous view.

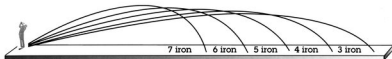


The further forward in the stance the ball is played, the less back-spin you will impart. However, the back-spin required to stop a racing 3 iron shot is too high to contemplate unless you are a top-rate golfer. Stopping long iron shots is best achieved by 'fading' the ball rather than by attempting to impart back-spin.

More back-spin can be imparted with a 6 or 7 iron. Shots with these clubs can be played more comfortably with the ball central in the stance, and the stance can be opened slightly to convert distance into height, bringing the ball back to earth almost vertically for the very good player.

The swing itself is the same from the 7 iron down to the 2 iron. You must keep the timing smooth and resist any tendency to hit too hard with the long irons. The harder you try to hit, the more difficult clean contact becomes, and the more likely you are to impart side-spin. Do not stray into overswing; take a longer club to make the distance.

Playing from the rough with the longest irons should be avoided wherever possible. They are light clubs with small heads and will not cut through the grass as well as the heavier short irons or the larger heads of the fairway woods. Better to hit a clean 90-yard nine iron than a 30-yard scuff with a two iron.



	28 HANDICAPPER	SCRATCH PLAYER
7 iron	141 yds to	157 yds
6 iron	155 yds to	172 yds
5 iron	164 yds to	182 yds
4 iron	175 yds to	194 yds
3 iron	186 yds to	206 yds
2 iron	195 yds to	216 yds

Approximate distances expected with the long and medium irons in terms of carry in still conditions from a good lie.

After the completion of a shot which leaves your ball short of the green, the ball's lie is indicated by a "Lie Icon" which can be seen on both Isometric and Shot Views. Any one of 9 lies can be identified:



Fluffy



Good



Poor



Very Poor



Divot



Good (Sand)



Poor(Sand)



Plugged (Sand)



On Road

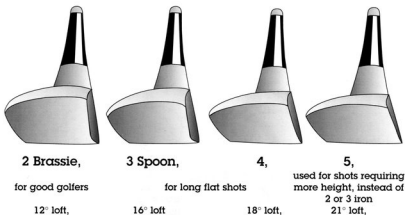
Take note of the lie carefully. Specific chapters of the Handbook deal with playing from bad lies or from the sand, and you should read these before attempting such shots.

When teeing-off with a long or medium irons, tee height should increase with increasing club length and should also increase as you move the ball further forward in the stance. For a three iron tee shot, set the tee at half height and

the ball well forward in the stance. For a seven iron set the tee at its lowest position and the ball slightly nearer the front foot than back foot.

With the fairway woods, the swing is much the same as with the irons from the fairway, although the contact from an average lie is slightly different. Here you need to sweep the ball off the grass from the bottom of the swing, rather than hitting down and through it with a divot.

Fairway Woods

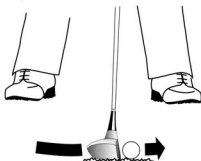


The ball is played farther forward in the stance than with the irons, and can almost be played off the left foot. The width of the stance, which must be square (parallel), remains the same as with irons.

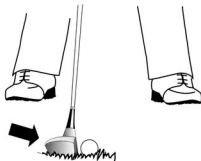
The shaft of the woods is longer than that of the irons - again with half an inch between each number of club. This means that your posture is naturally more erect and the swing plane slightly flatter. Trust the club and it will make this happen.

Swing the clubhead on a wide, shallow path, but still round in a curve and never straight back. Do not press for distance. Let the length of the shaft produce clubhead speed and distance.

Turn fully in the backswing, give yourself time to change directions then swing through to a full, balanced finish.



For a tight, bare lie clean contact is crucial for both accuracy and distance. Take no divot!



From a bad lie use a 4 or 5 wood and keep the ball slightly back in the stance. Don't force for distance!

From a good, grassy lie, simply sweep the ball, brushing away the grass on which the ball sits. Just collect the ball on the way to a full, free finish. The timing and depth of contact are crucial.

The Short Irons

The world's best golfer can only hit the ball so far and so straight with his driver, fairway woods and long irons. The all-time great golfers are the ones with both precise and varied short games. The age-old golf adage "Drive for show, putt for dough" may be true, but it ignores the crucial intermediate period during which a speculative forty-foot curling putt can be avoided and a two-foot tap-in to clinch big money created.

A strong short game turns a poor score into a reasonable one and a reasonable score into a great one. Each pitch or chip into the green places significant demands on your imagination as well as your technique, because the variety of shots within the pitching repertoire is virtually limitless.

The 8, 9, 10 (pitching wedge) and the sand wedge are known as the short irons - with short shafts for short shots. It is a description which can sometimes lead to a psychological picture which is damaging. Try not to remember them as short irons; remember them as the accuracy clubs.

8 iron		128 to 142 Yards
9 iron		113 to 127 Yards
10 iron/ pitching wedge		100 to 111 Yards
sand wedge		83 to 92 Yards

The lofts of the accuracy clubs range from 43° with the 8 iron to anything from 55° to 64° with the sand iron. Accuracy equals loft plus distance; initially you should gauge the distance and trust the loft. (Hit down and the ball will come up). But always think "accuracy".

The 8 iron hits the farthest distance and the pitching wedge the shortest, ideally with 10 yards between clubs. However, the sand wedge is rarely used for full shots, although good players will use it for high shots in the range of 40 to 70 yards and adapt it for shorter pitch shots.

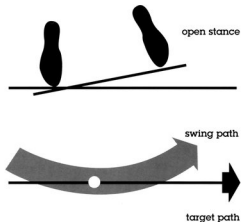
Ideally the ball should be positioned centrally in the stance. The short shaft should bring you in close, but still stand tall. Aim for a downward attack, shifting your weight to the left foot and taking the ball and then a divot.

Let the loft of the club get the ball up. Don't try to help it up or you will fall back on your right foot and scuff the top of the ball, sending it too far. You cannot get under the ball because the ground is in the way. Hit down to force it up with a short, firm swing.

When learning to master the accuracy clubs, the ball may be played farther back in the stance. This will impart more back-spin, stopping the ball quickly on

pitching, but there is a danger of hitting it before the swing comes round on target, and therefore pushing it right.

To counteract this possibility, you should consider aiming left and "opening" your stance. Move your left foot back slightly, but keep your left shoulder pointing as straight as possible while remaining comfortable.



Altering your Stance



Stance is altered by selecting the "Feet Icon" (as is ball position).

There are five stances selectable; open, semi-open, square, semi-closed or closed. Move the on-screen pointer over the up/down arrows on the right of the display and click the left mouse button to change stance. You will automatically take up a normal stance unless you select otherwise.



When teeing-off with a short iron always set tee height to its lowest position.

The short game is so varied that it demands several chapters to itself; Chipping & Running, Long Pitching, Short Pitching, Bunker Shots, Punch Shots, and Banks are all covered in great depth later in the manual.

Fringe Play

Whenever you get within 30 yards of the green, three extra icons will appear, allowing you to check the speed of the green, view the shot from directly behind the pin and turn on the green gridlines. Each of these facilities is covered fully in the next section on "Putting".



Check Green speed



View from 180°



Turn on gridlines

Putting

On average, two out of every five shots on a golf course are putts. Putting is important. If you are more used to taking three, it can feel like the most important thing in the world! Other golfers, who feel the anxiety of the long drives and the pressure of the short pitch can't understand why some find putting such a nightmare. The moment they step onto the green the weight lifts. They feel at home. There is no doubt - feel is the key to putting.

You must read the green and stroke the ball. Physically easy, mentally tough.

Once you reach the green the icons and method of control change slightly, and you will automatically be given a putter. New icons will appear with the following functions:



View shot from 180° (directly behind hole)



Display 'Grid Lines'



Check speed of green

The golfer does not appear during putting, and neither does the swingometer. The putting stroke is virtually flat when compared to the swing of a driver or iron, and the swingometer is replaced by a horizontal bar.



The bar will only appear when you initiate the putting stroke; before this point you'll want to see as much of the green as possible so that you can read it accurately.

Reading the Green

When approaching the green, look for the overall slope and remember that the back is usually higher than the front. If the green looks flat - BEWARE! It probably slopes down to the back.

Experience of a course will alert you to any oddities with certain greens. But how do good putters learn to read an unfamiliar green accurately first time? The following are examples of what you should look out for:

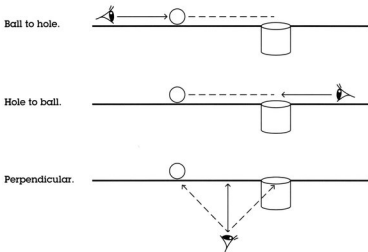
- Overhanging trees can leave a green in shade all day, making it slow. Conversely, roots can draw moisture and create a quick, bare green.
- Plateau greens often drain fast and play quick. Basin greens can hold moisture and play slow.
- Look for the grain - the general direction in which the grass grows. Early in the day, look at the mower lines. On the dark strips, the grass is lying toward you and is slow; on the pale ones, it lies away from you and is faster.

Three simple points to get your head buzzing. Don't worry, we've made the art of putting as friendly as we can, and reading slopes couldn't be simpler with a true three-dimensional view of the green.

The putting green is where the three-dimensional view of MicroProse Golf is at its most useful. You can actually read the green for yourself; you can move around the green.

There are three points from which a putt must be viewed for you to judge slope correctly. The view along the line from ball to hole, seen from behind the ball; the same view seen in the opposite direction, from behind the hole; and a view at right-angles to the line between ball and hole, as shown below.

Each of these views can be seen. The view from behind the ball is seen as the 'default' view as soon as you arrive on the green. To see the opposite view from behind the hole, select the "180°" icon. To see the perpendicular view, click the right mouse button anywhere on the screen.

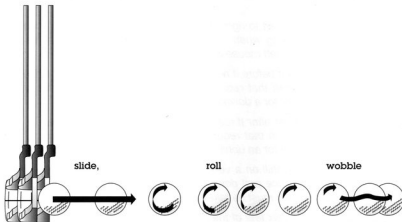


Judging a slope is made easiest when it can be referenced with a straight line. You are able to do this by viewing the putt from any of the three viewpoints with gridlines drawn over the green. These lines, which are drawn when you select the "Gridlines" icon, show every contour of the green to full effect. It should be possible to tell immediately whether the green slopes up- or down- hill to the cup, and whether it slopes right or left between ball and cup. You must, of course, set your aim and judge the pace of your putt accordingly. For example, if the green slopes down from right to left, you must aim to the right of the hole.

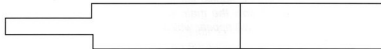
If you are putting downhill you must allow for the ball to reach optimum speed well after you have hit it.

Wind can affect putts too, particularly if you are putting downhill, fast and downwind.

Think distance all the time. You can go 6 feet past, but you are most unlikely to be 6 feet to the side. A ball slides, then rolls and finally wobbles in the last few inches. Hit it firmly enough to get it in before it wobbles!



The pace of the putt is set via a power bar which will appear when you start your putt by selecting the "Proceed" icon.



The check mark which appears halfway across the bar indicates the optimum strength for the distance you must cover to the cup, if the putt you face were on

a perfectly flat green. If the green is not flat, the amount of adjustment needed depends on the degree of slope and "speed" of the green.

The "speed" of the green is important, and is governed, amongst other things, by the type and length of grass used and the prevailing weather conditions. Each green is classified as one of five types; very slow, slow, medium, fast or very fast. The speed of the green on which you are currently playing can be reviewed by selecting the "Green Speed" icon.

When judging the power required you must take into account both slope and green speed.

The power bar fills from left to right when you click on the "Proceed" icon. To stop the power increasing when it reaches the point which represents the required speed, click the left mouse button again.

If you stop the power bar before it reaches the check marker you will strike the ball with less power than that required for the same putt on a perfectly flat green. You would do this for a downhill putt.

If you stop the power bar after it reaches the check marker you will strike the ball with more power than that required for the same putt on a perfectly flat green. You would do this for an uphill putt.

If you were putting downhill on a very fast green you would need less power than for the same distance putt down the same slope on a slow green. Both slope and speed of green must be taken into account.

If the ball passes within six feet of the hole during a putt, a window will appear in the top left of the screen showing a birds-eye view of the cup. You will see the ball travel across the window and, hopefully, come to rest very close to, or actually in the cup.

After each putt a message will appear telling you how far the ball travelled and where it came to rest. Below the main window you will see the distance remaining to the cup. Icons will appear which allow you to replay the shot or to save it to disk, as normal.

To play your next putt, click on the "Proceed" icon. The view will realign directly behind your ball. You may view the putt from any of the three angles once again, and check the Gridlines before clicking on the "Proceed" icon to take your shot.

Eventually the ball will go down the hole! Remember that, whatever distance putt you are faced with, the check marker represents the optimum power. Even when the ball is inches from the cup, strike with close to optimum power.

Improvements in your putting will come with practice. You might also find some help in the "Expert Putting" section on page 106.

The Data Disk

The Data Disk is used to store up to six player profiles, twelve replays and twelve saved game positions. Whenever you first choose to save a profile, shot or game you will be asked to insert a "Data Disk". You should insert any disk which you have spare. The computer will format the disk for you while you wait, if the disk has not been used before. The program will recognise a MicroProse Golf disk and will not format it: formatting a new "Data Disk" will erase all the information on it. You should ensure that the disk is write-enabled before insertion.

Once you have created a "Data Disk" you can use it until all the slots are full.

All existing profiles, shots or games will be shown, along with the spare slots. You should click on a spare slot if you are saving a new profile, shot or game. When saving a shot or game to a full slot, the new data will replace the old. When saving a profile to a used slot, the new data will be combined with the old. You should do this to keep a player's records up-to-date. Use one slot per player and constantly update it.

Replays

Replays are loaded via the main menu. Select the "Replay" option, insert the Data Disk when prompted, then select the shot you wish to replay from the new menu.

Player Profiles

Player Profiles are loaded at the Player Set-Up Screen. See page 35 for more information.

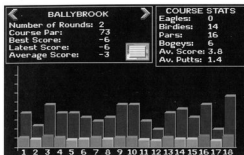
Saved Games

Games may be saved whenever the scorecard appears by selecting the appropriate icon, as explained on page 83. They are loaded via the main menu.

Statistics

By choosing the "Stats" option from the main menu you can view the statistics of any player for whom a player profile has been stored on the "Data Disk".

The stats are broken down course by course. Each course display looks like this:



In the top left corner you can see the course name and the record, last and average rounds for that course.

In the top right, you can see the total number of eagles, birdies, pars and bogeys for the rounds you have played on this course, as well as the average number of shots per hole and your putting average. A putting average of 1.5 or lower is very good; 2.0 or over needs work!

Across the bottom of the screen you can see information hole-by-hole. The blue bars show the number of shots taken on average at each hole. The

green bars rate your average performance against par for each hole.

A light green bar shows that your average score for that hole is below par, a dark green bar shows that your average score for that hole is above par, and a mid green bar shows that your average score is exactly par.

The readings for the green bars are calculated by dividing your average score for each hole by par for that hole; therefore the light green bars will always be the shortest, showing less than one; the mid green bars will always read exactly one; and the dark green bars more than one.

The longest darkest green bar shows your worst hole, and the shortest, lightest green bar your best.

By clicking on a bar you can see a breakdown of stats for that hole, showing the number of birdies, pars and bogies taken at the hole, and your average score and average number of putts there. This replaces the course stats. To see the course stats again, click on the course name.

The left and right arrows are used to move between courses. There will be stats for each course you have played.

Even though you carry a specialist club for playing from the sand, bunker play is not easy. A good sand wedge is one of the most important clubs in the set, but remember that it is quite different from a pitching wedge.

Not only does the sand wedge have more loft, but the leading edge is rounded as you look down at it and it is also blunt. A good sand wedge also has a slightly rounded flange, so that the lowest part of the clubhead is the back of the flange.

A pitching wedge is designed to cut through turf and has a sharp leading edge, which is the lowest part of the clubhead. This will often cut into sand in the bunker and get stuck.

Ideally a sand wedge should have plenty of loft and many professionals use one with at least 60 degrees. Club manufacturers often make sand wedges with insufficient loft. This means you have to open the clubface, which can complicate the shot.

The lie of the sand wedge is also important. If you work up through a set of clubs, the higher the numbers, the more upright they become. In other words, the 3 irons sits fairly low, while the pitching wedge will sit up. Most professionals use the sand wedge which has the lie of a pitching wedge or a 9 iron.

Play the bunker shot with your hands low, knees flexed and, if anything, sink a little into the sand. As well as insufficient loft, manufacturers often make the lie of the sand wedge too upright. With less loft, you have to open the clubface more; and this can be even more awkward for the golfer if the lie is too upright.

Bunker shots can be practised on the Driving Range, and although you might not need to play from a bunker at all during a round, one mistake can be costly; so practise!

Near the green you must get it up to get it out. It is crucial to play bunker shots with enough loft to clear the sand and land the ball on the green near the hole. Loft is increased by opening the clubface and opening the stance. If you do not

open your stance you will often find yourself firing to the right and leaving a difficult putt.

However, if the ball is semi-buried in the sand it will be difficult to play a 'touch' or 'splash' shot out of the bunker, those that concentrate on loft rather than power. Here the 'explosion' shot can pay dividends. Set the ball well back in the stance and hit harder than you would normally for the distance you have to cover.

If you get caught by a fairway sand-trap, don't try to hit for distance unless the lie is perfect. Play safe with a sand wedge to make sure that your next shot is not from the same bunker. If the ball is sitting right up in the sand you can risk a a long iron, playing as you would on a fairway. Take the ball and the ball only, sweeping it away. Be warned, it is a risky shot demanding pinpoint accuracy to hit the sweet-spot.

After each and every hole the computer will fill in your scorecard automatically for you.

The top section of the card shows each of the eighteen holes, their distances in yards, pars, and the shots taken by each player. The player columns are numbered 1 to 4, the lowest portion of the card showing the players' names and their current standings relative to par.

Hole	P	1	2	3	4	Hole	P	1	2	3	4
1	418	4	3	4		10					
2	137	3	2	2		11					
3	473	5	4	5		12					
4	406	4	4	5		13					
5						14					
6						15					
7						16					
8						17					
9						18					
1 4 3 5 16 13 16											

Advanced Play

Don't simply aim to hit the ball in the middle of every fairway. Assess each hole and think before you strike.

Driving Strategy

Look for any obvious danger area off the tee.

What have the course designer and greenkeeper set as obstacles? Perhaps it is a deep bunker, a water hazard or a tree to impede the second shot.

Aim well away from trouble wherever possible. Choose a target on the other side of the fairway, or even in the light rough, and hit positively toward it. Make sure of avoiding trouble and zig-zag up a hole for safety if necessary.

Do not be too ambitious in trying to avoid ponds or bunkers; do not aim too close to the edge of such obstacles.

Look for the best entrance on to the green.

The position of the bunkers or the flag may dictate that the second shot is easier from the right or the left, rather than the middle. Plan for this.

Consider the risks involved on certain tee shots and consider using an iron or fairway wood instead of the driver.

This is particularly the case with bunkers at driving distance. Consider playing short of the bunker rather than trying to skirt it, especially if the hole is short and you can still reach the green with the next shot.

You can also do this if the hole is very long, and even the risky drive well negotiated won't enable you to make the green in two. Look at the risks involved, the depth of the bunker, and correctly assess the pluses and minuses of success or failure with the drive.

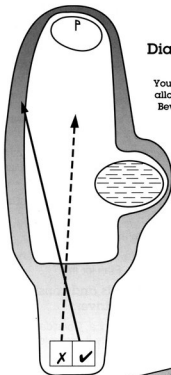


Diagram A

You should risk going into the light rough if it allows you to steer well clear of deep trouble. Beware the half-hearted drive down the middle of the fairway, which leaves little margin of error for the average player.

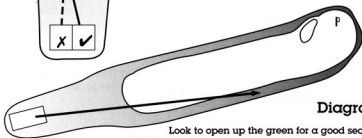
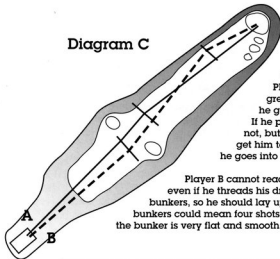


Diagram B

Look to open up the green for a good second shot; here the bunker guards the front left; eliminate the risks involved in playing over the bunker by going right, again into the light rough if necessary.

Diagram C



Consider the following hole from the view of Player A, a big hitter, and Player B, a shorter hitter.

Player A can reach the green in two, provided he goes over the bunkers. If he played short he could not, but his power should still get him to the green in three if he goes into the bunkers.

Player B cannot reach the green in two, even if he threads his drive through the bunkers, so he should lay up short. Going into the bunkers could mean four shots to the green, unless the bunker is very flat and smooth.

From the tee, plan the line and length of your target carefully.

Choose a target not only on the line you want but roughly the length you want. To judge the line, do not merely look at the obstacles to either side and try to go between them. On a tight drive, always choose a specific point. It focuses your mind on a positive approach.

Always aim well away from any major trouble area. If there is a bunker at driving distance, don't just aim 5 yards away from it. Be prepared to aim about 20 yards away and allow yourself a greater margin for error.

When playing a long hole, or when an opponent drives farther than you do, never try to hit the ball too hard. Concentrate on good timing and hit the ball your normal distance. If you press for length, your direction tends to go. If playing for safety, take a shorter club, such as a 3 iron or 4 wood, and hit firmly. Never take a driver and try to steer the ball with a half-hearted swing. Playing safe does not mean that you have to be negative.

As your standard improves, learn to play safe drives by bending the ball slightly, particularly from left to right.

Strategic Gambling

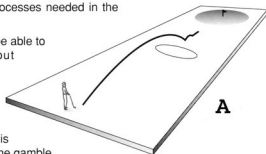
Strategic gambling involves weighing up what you stand to achieve by taking a risk. Don't go for a shot over trees, for example, just because they are a challenge and if you are unlikely to gain any advantage. Nor should you play a risky recovery shot if success only gains 10 or 20 years over the safe shot.

Cross bunkers

With bunkers across the fairway, know precisely where you need to be to carry them. If you are unsure, look at what you might gain with success or how you could suffer from failure.

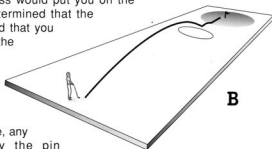
Consider the thought processes needed in the following situations:

In Situation A you may be able to carry the bunker, but cannot reach the green in one. Ask yourself whether you could get out of the bunker on to the green, if the bunker is too deep and far away, the gamble is not worth taking.



A

In Situation B success would put you on the green. You have determined that the bunker is shallow and that you could recover on to the green if you failed to make the carry.



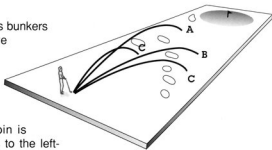
B

Choice of shot depends on precise knowledge of distance, any headwind, possibly the pin position and the state of the match.

Diagonal trouble

Diagonal hazards such as bunkers or streams may require diagonal solutions.

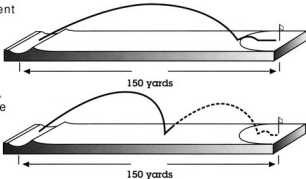
Player A can carry the bunkers and will look for position. This will depend on where the pin is sited and how close it is to the left-hand bunker. Player B can make the carry on the right-hand side, but not the left, so he must be prepared to zig-zag. Player C cannot carry the end bunkers and should look for position up the middle or out to the right, over what he can carry and where there is a good line to the flag.



Strategy From Fairway Bunkers

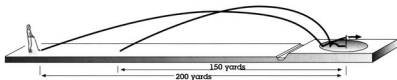
You need to think very carefully about the best way to play out of a fairway bunker. Look at the distance. If you are, say, 150 yards from the hole, you will probably need a 5 iron.

Are you confident you can get over the bank in front of you? If so, then have a go. If you are unsure, don't compromise with a 6 iron and still risk hitting the bank. Play a safe with a 7 or 8 iron, even if that means taking two shots to get up there.



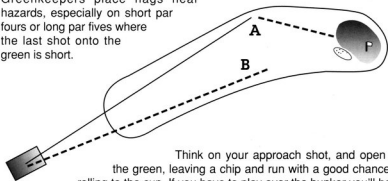
Greenside Hazards

You are 200 yards from a green fronted by a stream or narrow bunker. You may well be able to make the carry from 200 yards. But will the ball stop if you do get over the hazard safely ?



Are you simply going to run into trouble over the back of the green? Is the sloping green going to kick the ball sideways? If so, you may finish closer by playing short and pitching up with the next shot.

Always consider flag position and greenside hazards in the same thought. Greenkeepers place flags near hazards, especially on short par fours or long par fives where the last shot onto the green is short.



Think on your approach shot, and open up the green, leaving a chip and run with a good chance of rolling to the cup. If you have to play over the bunker you'll have to judge distance perfectly and stop the ball dead. Even if you go right with your approach, still consider playing to the heart of the green rather than straight for the pin and then over the back.

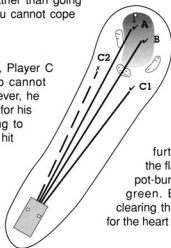
Earlier in the manual you will have read about the importance of selecting tee position carefully. It should be reasonably obvious that, the shorter the hole, the more going to the extreme left or right of the tee can have an effect. On par threes you must look from both sides of the tee.

When driving with an iron on a par three, push the tee well into the ground so that the ball is as it would be on a normal, fluffy or good lie. You certainly do not want a high tee as if you were using a driver.

Be realistic about distance, and remember that most trouble at these holes is at the front of the green. The distance shown on the tee marker should be to the centre of the green, so allow a little extra to the flag. And always take sufficient club to avoid those bunkers guarding the front of the green, and, if possible, leave yourself an uphill rather than downhill putt.

If you are not a long hitter, do not think you have to go for the green if you are not confident that you can reach it safely. Par threes are normally well bunkered and you are often better off playing slightly short or to the side to keep out of trouble, rather than going for a length of shot you cannot cope with.

In the Diagram above, Player C is the short hitter who cannot reach the green. However, he can open up the green for his second shot by playing to the right. Player A can hit



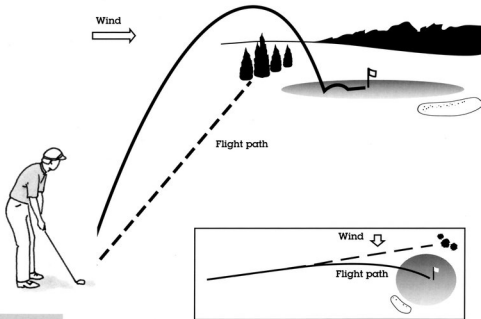
furthest and can aim at the flag as he can carry the pot-bunker on the left of the green. B cannot be sure of clearing the bunker, so he plays for the heart of the green.

Playing in the Wind

MicroProse Golfers have the benefit of a Wind Indicator which shows them both the direction and strength of the wind. It is put there for your benefit, so use it.

Side wind

With a side wind, aim for a spot to the side of the target from which the wind is blowing and hit for that. Aim your stance, clubface and swing to this spot and let the wind do the rest.

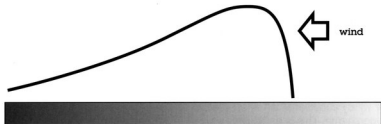


Aim for a target to the side from which the wind is blowing, and use the wind to bring the ball round onto line; in this case, it's a natural fade shot!

If you are a confident player, you can try to bend the ball into the wind to hold it straight, by imparting a small amount of sidespin. If the wind is blowing from the right, you want to be a little late in stopping your downswing, and if it is from the left, a little early.

Head wind

Think of a head wind adding up to four clubs to the shot and take plenty of club. Swing slowly and don't fight the wind. You are unlikely to hit through the back of the green, so go for the full distance.



When driving, offset the effect of the wind with a lower trajectory. Tee the ball a little lower and aim to leave the tee in the ground. Experienced players may aim for a slightly flatter swing plane and use a stiffer-wristed action to reduce the backswing. Good balance is vital. Remember, too, that an off-line shot tends to be exaggerated, with the ball rising and spinning more quickly.

Down wind

Here it is important to drive the ball high enough. Tee it up to get good height and, if necessary, use a 3 wood to achieve enough elevation. This may send the ball farther than a driver. A wind from behind tends to flatten the shot and keep the ball down; it also tends to straighten out bending shots.



When playing on to the green, take off up to four clubs and remember that the ball bounces on landing. So a softer ball may stop better.

If you do go through the green, remember your pitch shot back is into the wind. Over-club through the green and the chances are you will then under-hit when coming back.

Very windy conditions can affect the ball on the green just as much as they do the long game. This is particularly so on a fast green when playing downwind.

Finesse Shots

Good golf requires a repertoire of finesse shots. Some of these only come into use occasionally, but without them players can find themselves in situations with which they cannot cope.

Two of the most useful finesse shots are the controlled hook and slice, allowing you to play viciously bending shots around trouble.

To hook the ball, strengthen the grip - with your left hand more on top and the right under - aim your feet well right of the obstacle and produce a flat, round-the-body swing through, closing the clubface and tucking the left elbow in.

In MicroProse Golf this is simulated by stopping the down-swing well before the "sweet-spot". Remember to start the ball to the right of the obstacle, over-allowing if anything, rather than under-allowing.

The slice is played by aiming the stance, shoulders and swing well left of the

obstacle. Address the ball with the clubface open, your right hand a little more on the top of the grip and, if anything, tighter than normal.

Spin your hips sharply left through impact, holding the wrists stiff and the clubface open. The hip action starts the ball left, while the open clubface bends it away to the right. *Simulated by letting the back-swing continue well past the "sweet-spot".*

When you prepare for any golf shot, you must visualize the shot you want to play. The picture you have in your mind gives your brain and body a set of instructions to help you produce the correct technique. You have a built-in store of muscle memory on which to call.

When you visualise a putt of a certain length, with experience your brain and body automatically know what to do to achieve this. The same thing happens with pitching, bunker shots and right up through the long game.

What so easily happens, unfortunately, is that instead of thinking of the shot you want, you start thinking of the shot you are trying to avoid. Your thinking is along the lines of: "Please don't let me slice the ball away out of bounds."

Now you have a picture of the ball slicing away out of bounds and your brain does not know that this is what you are trying to avoid. Your brain and body receive a set of instructions to slice the ball away out of bounds and this is what happens.

If you think of the negative things you can give yourself a subconscious set of instructions to carry them out. Think of missing a crucial putt to the right and the chances are that you will miss the putt to the right.

So think positively. Have a positive picture of the correct shot and never a negative picture of the wrong one.

Playing chipping and running shots around the green can be difficult if you've lost your touch. You should always aim to get the ball down on the ground as early as possible.

Positive Thinking

Chipping and Running

When possible, use your putter around the green on bare or smooth ground. There is little that can go wrong with a putter. Remember you are only trying to hit the back of the ball. You do not brush the ground. This means that the putter is particularly useful from certain poor lies such as sandy soil, loose leaves or muddy ground. If you try to pitch from a poor lie, good contact can be difficult. With a putter, it is easier.

You can also use a putter to play from small depressions or holes around the green. The ball will not run smoothly, and may start with a hop, but the stroke can still be far easier than a chip.

The putter should also be used for playing up and down banks where the ground is bare, even if it is not absolutely smooth. If you cannot putt the ball, the next choice is to run it with a 6 or 7 iron. Ideally make this stroke as close as possible to a putt.

Judging distances

With chipping, your approach should be much the same as for putting. If the ground is bare, the ball need not necessarily be landed right on the green. You can judge the stroke by thinking of the overall length rather than where the ball lands.

If the grass is at all rough and you cannot run the ball through it, you need to be aware of where the ball is going to land. In this case, if the flag is close to the near edge of the green, the 6 or 7 iron may no longer be suitable.

You need to alter the ratio of carry to run and think of the landing spot. A more lofted club, such as the 9 iron or pitching wedge, will give you less run in relation to carry. Errors with these more lofted clubs can, however, be more disastrous, so stick to running shots where you can.

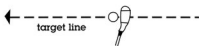
Long Pitching

Once you get within a full 9-iron distance of the green, you will need to play a pitch shot. The long pitch is used from about 45 to 100 yards. You can play longer pitch shots with a pitching wedge or 9 iron and the shorter ones with a pitching or sand wedge. The sand wedge can be useful from about 50 yards or closer.

Set up with the ball central in the stance, your hands ahead of the ball and your weight more on the left foot.

The ball must be far enough back to ensure a downward attack, but by having the ball nearer your right foot, there is a tendency to hit out to the right.

By trial and error, find out how much you need to turn your feet toward the target for the ball to fly straight. Turn the left foot round and the right foot in. This right foot position is important. Also, make the stance fairly wide to allow you to transfer your weight on to the left foot.



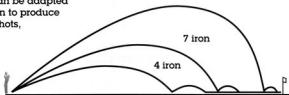
With shorter shots, reduce the backswing slightly and slow down the throughswing, but be sure to accelerate the club through impact.

Good players can hit long pitch shots with either a draw, that is slightly right to left, or a fade, slightly left to right. The draw pitch is good for keeping the ball moving forward, particularly on a long green or into the wind. You can play this by

holding the face of the club closed, attacking the ball from the inside, and stopping the down-swing before the "sweet-spot".

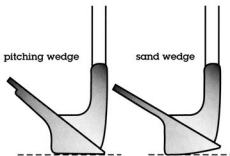
The faded pitch, with a little cut spin, is used for stopping the ball quickly on the green. You play it by opening the face slightly at address and holding it open through impact.

The long pitch can be adapted using a 4 or 7 iron to produce lower punched shots, using the same technique. A running shot is often necessary into a strong wind.



Short Pitching

The nightmare for many club golfers is the little shot over a bunker with the flag no more than 20 yards away. The best club to use is the sand wedge, since it allows you to carry the ball farther over the obstacle and make it pull up quickly. Although it is the heaviest in the bag, don't be afraid of it.



The sand and pitching wedges are constructed differently. The pitching wedge has a sharp leading edge and can easily dig into the ground. It is designed to take a divot. The sand wedge has a slightly raised leading edge and a rounded flange and is designed to bounce on the ground. Most players use it far more around the green than a pitching wedge.

To play the short pitch shot, set up with your normal grip, checking that your hands are to the side of the club. Do not let the left hand go too far over or the right hand too far under. Firm up the wrists and grip the club as tightly as possible with the left hand.

Imagine that your arms are tied to your body so that you have to make a firm-wristed swing with plenty of leg action. Cut out any wrist action

Set up to the ball, look once at your landing spot, then concentrate on the firm-wristed swing, back and through, brushing the ground, and listen for the ball to land on the green.

The short pitch is a shot in which you use your ears rather than your eyes. Listen for the ball to land at the other end. Resist the urge to follow the ball with your eyes. Look at the ball only after you have heard it land.

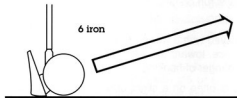
This shot is used for short distances around the green. The more grass the ball sits on, the easier the short pitch is to play. Practise first from grassy lies, then

adapt the method for more difficult shots from less grassy or bare lies. Never be tempted to use wrist action unless you want a shot of at least 25 yards or if the ball is sitting in a slight hole.

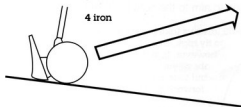
Playing this shot is all about keeping your head still and judging the depth properly. The loft of the club will get the ball up for you. If you deliberately try to lift the ball, the clubhead will rise and catch the top of it.

The difficulty of any downhill shot is that the ground gets in the way of the backswing and downswing and the effect of the club loft is reduced. With a long shot the ball flies lower than normal and will curve away to the right. So take a more lofted club than usual - a 6 iron instead of a 4 iron - and be prepared to allow for the danger of slicing.

Downhill Shots

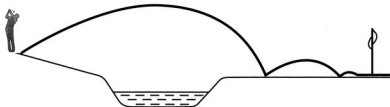


The effective loft of a club is reduced by downslope, turning a 6 iron into a 4 iron loft and making shots with Fairway Woods near impossible.



To play the shot, lean out at a right angle from the slope, so that your weight is more on the left foot, and play the ball well back in the stance. Make sure that you stay down and watch the ball through impact; it will fly

off low. Don't attempt a long iron from a downhill slope. A 5 wood may be possible, but unless you are a good player, 3 or 4 woods will be difficult.



With a short downhill pitch, take a club with plenty of loft - a sand wedge. Again, the ball will set off lower and run more than normal.

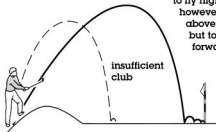
Swing up and down the slope, making sure the club travels downward beyond impact. You will need to set your feet wide apart and have the ball back in the stance so that you definitely catch the ball without the ground getting in the way. And remember - the ball will run on landing.

Uphill Shots

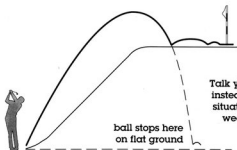
Long uphill shots should be played with a wood or very long iron. You can play the ball well forward in the stance, toward the left foot, but be prepared for the ball to travel high, and for the danger of hooking.

For beginners, the easiest lie is often on a slight uphill slope. This type of lie tends to stop any slice and encourage good height on the shot. The opposite can be true for better players since it aggravates any tendency to hook the ball. If this is the case, you may need to aim to the right to allow for the ball to travel slightly left.

When hitting uphill, always take plenty of club. The ball will tend to fly high and lose distance. Remember, however, that if you are hitting to a green above you, the ball does not land vertically but touches down while still travelling forward and is likely to run too much.



So beware the elevated green. The ball will either land short and roll back or land on the green and run through. Do not under-club. Be prepared to play to the back of the green.



When you are pitching from an uphill lie just around the green, the ball will pop up high and it is very easy to leave it short, not least because the slope exaggerates the loft of the club.

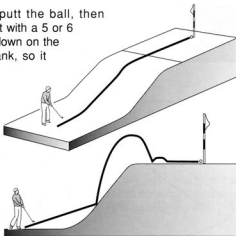
Talk yourself into passing the flag and, instead of taking a sand wedge in this situation, use a 9 iron or pitching wedge to achieve the same height.

ball stops here
on flat ground

When faced with a bank around the green, the simplest way of negotiating it is to use a putter, particularly where the ground around the ball is bare or even slightly rough, and if the flag is close to the edge of the green just over the bank.

If the grass is too fluffy to putt the ball, then consider playing a running shot with a 5 or 6 iron. You need to get the ball down on the ground quickly, before the bank, so it runs smoothly up or down it.

If the bank is steep but smooth, and the flag is just over the top of it, you can use a 4 iron, for example, to punch the ball at the bank. The ball should pop up and over the bank. This is a risky shot but can be very useful particularly if there are overhanging trees that would make a wedge shot impossible.



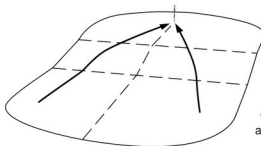
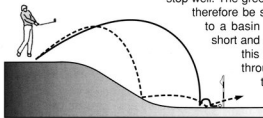
Banks and how to negotiate them

Try to avoid playing the wedge unless you have a good lie to pitch from. In this situation, always try to pitch the ball on the flat part of the green, to avoid catching any downslope.

If you are playing up or down a two-tier green, always try to run the ball to the second tier rather than pitching it. This is particularly useful when the flag is just on the top of the second tier. Pitching on the top would be decidedly difficult; running it can, by contrast, be fairly straightforward.

When you are hitting on to an elevated green, the ball will land fairly flat and tend to run through. Also remember that this type of green often drains well and will not hold. So be prepared to finish at the back of the green. When you finish there one day, the tendency next time is to under-club and fall short.

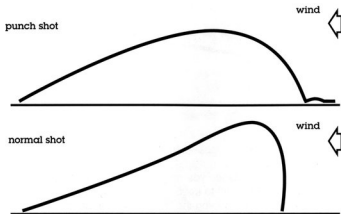
If you are playing on to a basin green, the ball will land vertically and should stop well. The green may also hold water and therefore be slow. One danger of hitting to a basin green is pitching the ball short and catching the downslope. In this case the ball tends to run through and the temptation is to under-club even more the next time. Be bold and try to hit to the flat part of the green.



When putting on a two-tier green, you may find it hard to judge the line across the slope. Mentally draw a line at right angles to the slope. This may help you read the slope and see which way you are travelling across it.

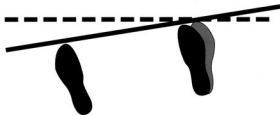
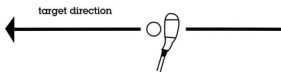
Top golfers do not always play full shots. Often they will use a shorter swing and punch the ball to keep it driving forward, for example when it is windy. To do this they use a shorter club. This means that instead of an 8 iron, they would punch with a 7 - or a 4 iron instead of a 5, and so on. You can use the punch shot with any club from a 3 iron to a pitching wedge.

The technique is similar to that for the long pitch, playing the ball back in the stance, hands forward and the clubface square. The backswing is solid with a short punchy finish and the wrists firm.



Use the punch shot to "drive" the ball forward into a headwind.

Particular uses for the punch shot include playing into the wind, hitting a ball that is positioned beneath tree branches or getting the ball running. It can also be a good shot for playing up a two-tier green or on to the back of a green.



With the ball back in the stance you may have to turn your feet to the left, as with long pitching, and aim left to keep the ball flying straight. As with pitching, it is not simply a question of aiming the line across the toes to the left, but often of turning both feet, paying particular attention to the right foot, to encourage the correct direction of swing. You can turn your feet to the left, but if you do this you must be sure to keep your shoulders square.

Punch shots are well worth practising, particularly for use in adverse weather conditions and for recovery shots. Very often you can gain the same sort of length with a punch shot as you would from a full swing with the same club.

Playing from the Rough

When playing from the rough the clubhead must cut through the grass before hitting the ball. If the club meets great resistance it will slow down and you will be in danger of fluffing the shot.

The wedges are the heaviest clubs in the set. With a bad lie in the rough, you can use a wedge to cut through the grass. From a very heavy rough, take the shortest route to the fairway and always with the wedge.

When playing this type of shot, have the ball back in the stance, with your hands forward and your weight more on to the left foot. Adopt a fairly wide stance so you can transfer your weight easily.

Think sensibly about position for your next shot and do not be over-ambitious. If you cannot get on the green with your recovery shot, make sure that you play into a safe position.

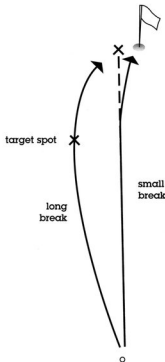
From medium rough, play with the ball back in the stance, hitting down and through it, once again with your weight more on to the left foot for a downward attack. Once again, think about where the ball is going to finish, looking for a flat area and one that is not going to be impeded by trees.

From the light rough, you can use a 4 or 5 wood to gain extra length. Keep a firm grip so that the club does not twist through impact. Do not be greedy. If you cannot reach the green with your best shot, do not attempt the wood shot if you have nothing else to gain.

You should be aware that the length of the backswing shown on the swingometer before playing a shot from the rough shows maximum power obtainable from the lie without overswing.

Expert Putting

The key to long putting is your ability to judge distance and speed. Missing the hole to the right or left by six feet is most unlikely. Leaving a long putt six feet short or going six feet past is much more common.



To judge the line, look for the overall slope of the green and assess whether you are going across it, and aim to the side accordingly.

If the break is small, choose a spot to the side of the hole and roll the ball to this. If the break is large and the green fast, choose a spot two-thirds of the way and off to the side and try to roll the ball over this. Always think of the putt as a straight putt to the spot you have chosen.

Remember to compensate more for sideslope on a faster green.

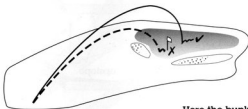
The wind also affects putts more on a fast green - may need to hit on a little harder into a headwind or aim slightly left or right for a crosswind.

Percentage Golf is not about always playing safe; it is about thinking positively but being realistic about your shots. If you can play more than four perfect, absolutely perfect shots in a round you are a very good golfer.

Playing percentage golf allows for a margin of error, a margin which allows you to play a less than perfect shot.

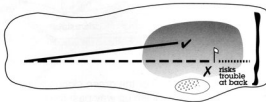


Why risk the shot over the bunker? Unless you hit the pin, the ball is very likely to run off the back of the green. By playing away from the bunker you'll actually end up much closer to the hole.

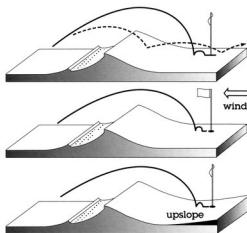


Here the bunker at the front of the green is deep, deep trouble. So don't play for the flag, as a gust of wind, less than perfect contact or a slight misjudgment of club will cost you two shots. Play to leave yourself a sink-able putt from the centre of the green.

The green slopes towards the ditch at the back of the green. Although your sight of the flag is unimpeded, it will not pay to be too bold. Straying to the right or running through would be fatal, so play for the heart of the green again.



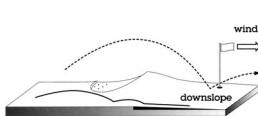
When playing short shots over bunkers near the green, care must be taken. Do not risk landing three feet over a bunker. You'll either play short and go in, or



catch the downslope resulting in the ball kicking past the flag. Look for a slightly safer route, play for flat surfaces, and be prepared to look at the shot from the side.

If the wind is blowing into your face, be bolder still with your shot. The ball can be pitched all the way up to the flag.

Similarly, if the green slopes up after the flag, be bold and let the contours of the green stop the ball.

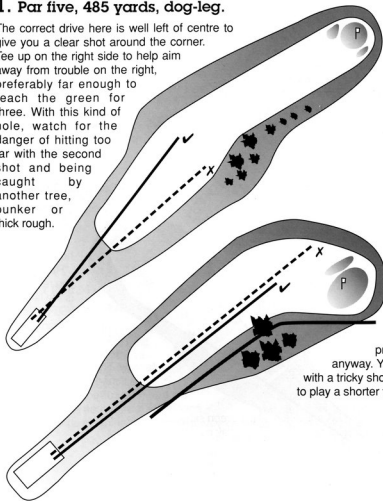


Finally, consider not attempting to carry the bunker at all. If you can roll the ball to the side of the hazard and can still leave a hole-able putt of, say, six feet, then go for it. The toughest decisions don't always result in you taking the hardest shot.

If the wind is behind you or the green slopes away, trying to carry the bunker is hopeless - the ball will finish up way past the flag.

1. Par five, 485 yards, dog-leg.

The correct drive here is well left of centre to give you a clear shot around the corner. Tee up on the right side to help aim away from trouble on the right, preferably far enough to reach the green for three. With this kind of hole, watch for the danger of hitting too far with the second shot and being caught by another tree, bunker or thick rough.



Reading the Courses

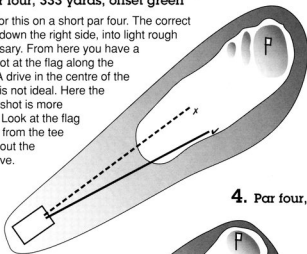
Here are nine holes, analysed to give you clues as to how to play them.

2. Par four, 285 yard, short dog-leg.

You are tempted to try to reach the green. The large tree and ditch to the right make the drive at the green risky. You do not manage a brave enough line - and probably could not carry the tree anyway. You therefore finish pin high left, with a tricky shot over the bunker. It is far safer to play a shorter tee shot into position, leaving a simple shot at the flag.

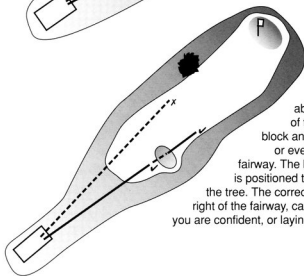
3. Par four, 333 yards, offset green

Watch for this on a short par four. The correct drive is down the right side, into light rough if necessary. From here you have a clear shot at the flag along the green. A drive in the centre of the fairway is not ideal. Here the second shot is more difficult. Look at the flag position from the tee to work out the ideal drive.



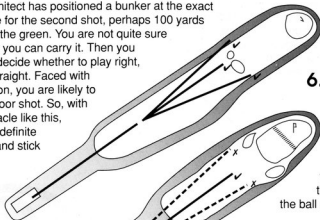
4. Par four, 375 yards, positioned drive.

This type of hole presents a "Red-Herring". The real danger is the large tree about 60 yards short of the green. This will block any shot from the left or even the centre of the fairway. The bunker on the right is positioned to steer you behind the tree. The correct drive is down the right of the fairway, carrying the bunker if you are confident, or laying up if you are not.



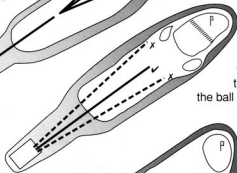
5. Par five, 520 yards, indecision

The architect has positioned a bunker at the exact distance for the second shot, perhaps 100 yards short of the green. You are not quite sure whether you can carry it. Then you cannot decide whether to play right, left or straight. Faced with indecision, you are likely to play a poor shot. So, with an obstacle like this, make a definite choice and stick to it.



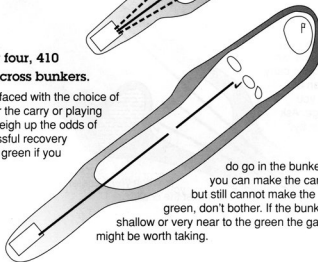
6. Par four, 295 yards, two tier green.

Watch for the short par 4 with a two-tier plateau green, especially if the green is small. A plateau green often drains well and the ball will not hold on pitching. If playing to the upper layer, aim to be able to run the ball up onto the top layer. The shortness of the hole can encourage a wild tee shot. Instead, make sure your drive is accurate, giving yourself a clear run at the green without having to pitch over bunkers.



7. Par four, 410 yards, cross bunkers.

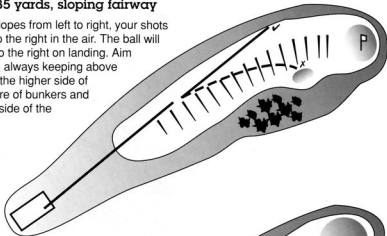
You are faced with the choice of going for the carry or playing short. Weigh up the odds of a successful recovery onto the green if you



do go in the bunkers. If you can make the carry but still cannot make the green, don't bother. If the bunker is shallow or very near to the green the gamble might be worth taking.

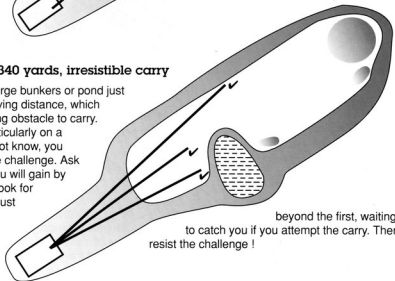
8. Par five, 485 yards, sloping fairway

With a hole that slopes from left to right, your shots will tend to slice to the right in the air. The ball will also tend to kick to the right on landing. Aim sufficiently far left, always keeping above the green and on the higher side of the fairway. Beware of bunkers and trees on the right side of the fairway.



9. Par four, 340 yards, irresistible carry

Beware of the large bunkers or pond just short of your driving distance, which seems a tempting obstacle to carry. Sometimes, particularly on a course you do not know, you cannot resist the challenge. Ask yourself what you will gain by carrying it, and look for another hazard just



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