

Zip's GBC Chronicles

Intro

GBC is a fun game. I started playing it in July 1999 and I'm still hooked. I don't feel the need anymore to spend time on the hundreds of other games I have on the shelves here, not even the two dozen or so new games still in the box. GBC suits me fine.

When I started I had great difficulties adapting to the swingmeter though. I had already been playing Links, LinksLS, Links386 and Links'99 for a couple of years, but the timing of that swingmeter differed quite a bit from GBC's, so I was barely able to hit a fairway or green. But after some weeks of practice I started finding a rhythm. Now it was only a matter of mastering the game itself....

Fun thing with this type of game is, there's no shortcuts or cheats. You have to get a feeling for the game by practicing and playing it over and over and over again. And that's just what I did. Played at least a few rounds each day for a few years. In the beginning I averaged about 4 rounds a day. When I seriously started competing for Greg Pomeroy's Global Golf Challenge (I was trailing 900+ points or so for 1st place, hehehe) I even had days where I played 10 rounds or more each day. Now I've slowed things down a bit and I average 2-3 rounds per week.

You may rest assured though. It's not necessary to play that much to become good at GBC. You have to play regularly though, if you seriously want to improve your game. My estimate - based on my own experience - is that a round each day wouldn't hurt.

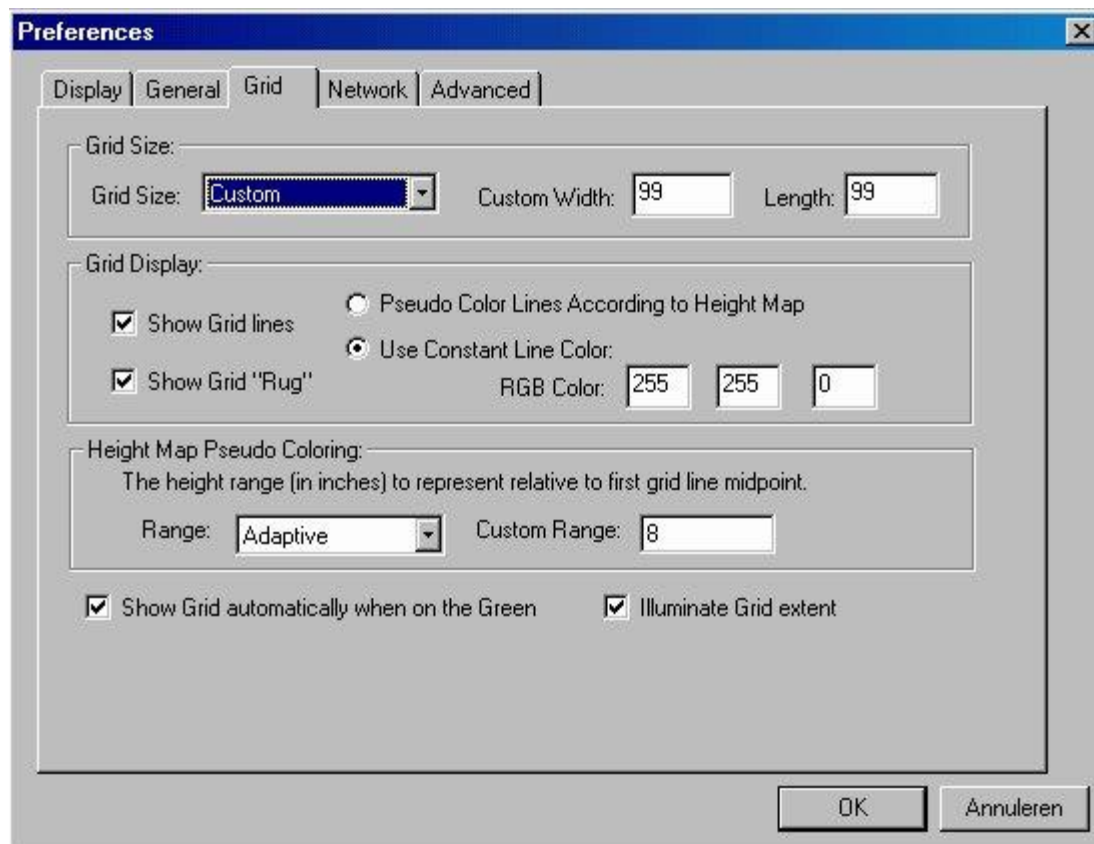
GBC has a lot of variables that you have to take into account when setting up a shot. But over time you'll start to discover that there's a regularity in these variables. And once you start discovering that, setting up shots and playing good shots becomes much easier. I'm gonna explain what these regularities are, so you can use 'em to your advantage. Then I also picked up some handy tips from, handed to me by this or that friend, and before I knew it I was able to produce scores I never thought were possible. In this manual I'll also share those handy tips with ya, which might help you save a few shots each round.

My personal settings ?

1. It may be helpful when reading this manual to know with which settings I play. Here you go:
 - I use the 3-click swing, have a righthanded golfer and normally play from the black tees;
 - What's in my bag: 8⁰ driver, 3W, 2I-9I, PW, SW, LW and the putter;
 - Natural Shot Type: neutral - everything on 0%
 - My skills: 20-20-2-18-20

Do we have the same grid ?

1. First we'll have to get a bit technical. You'll have to check if you have the same grid settings, or you won't be able to make much of the screenshots and the accompanying explanations. So start GBC, then select Preferences, and then select the Grid tab. You'll get to see something like this:



While in the game, you can toggle different grid sizes. You can modify the custom-size grid to your own liking. When you select the Custom Grid, you can put in the desired Width x Length (a value from 2-100). And here it gets dicey. Because different values give different grids!!! If you input **even numbers** you'll get a grid with a vertical line through the middle of the hole. If you input **odd numbers** you'll get vertical lines on both sides of the cup, each 10 clicks away from the center of the cup.

My playing routine is based on a grid setting with the odd numbers, so please input an odd number for the custom width and length, or understanding this manual might get a bit difficult.

Grid with odd numbers



Grid with even numbers



2. Also note, that you can change the grid color to your own liking (RGB Color value). I've changed it to yellow. If you want to experiment with other colors, do a search on the internet for a RGB chart, and you'll find websites with charts of all the RGB values and corresponding colors.

My playing routine (driving and fairway shots)

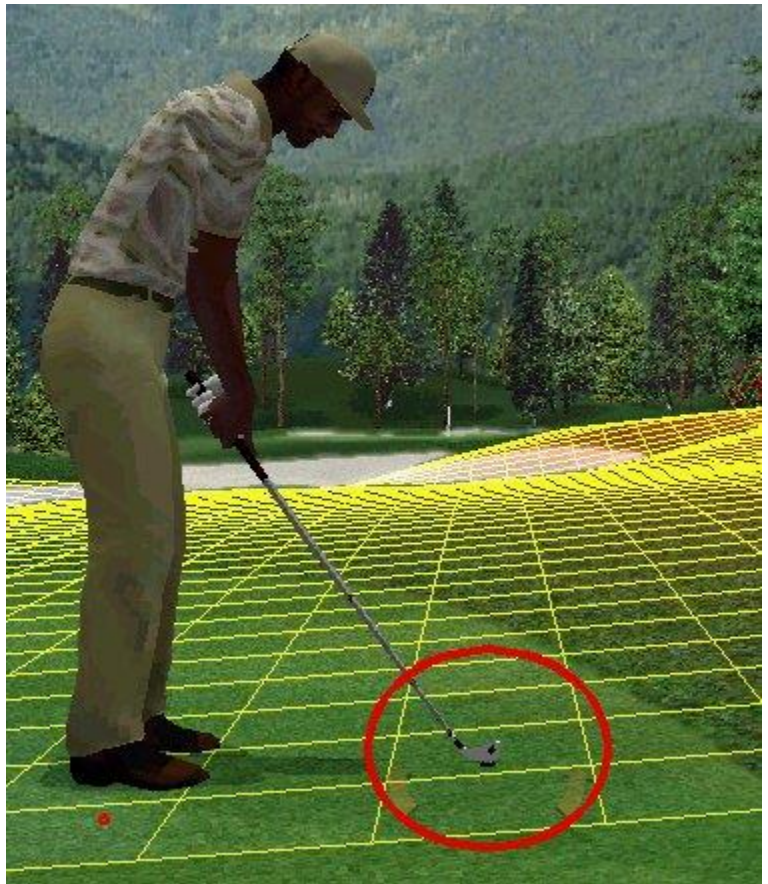
1. From the tee and the fairway I always play with **cam 1** (Normal Golfer).
2. I always **check the grid** (by tapping "G") to check my lie before hitting any shot, **even on the tees**, as there's more tees than you might think that are not entirely flat, so always check. You don't wanna hit a perfect drive and still end up in the trees. When a tee is not flat I move my ball to the flattest area on the tee, by leftclicking on the ball (hand-cursor) and dragging it to the desired place between the tee markers. I mostly look with cam 2 and Grid on, to check if indeed I've selected a flat spot. Better be safe than sorry.

I also move my ball on the tee when there's trees posing a threat to my shot. It's better to move the ball away from the tree and this often gives you a better line of sight as well.

3. Then I check the grid of the anticipated landingzone (cam 7) to see if there's any surprises there and to calculate how my ball is gonna react after the landing. You always have to anticipate how your ball will react after landing.
If the green is flattish, you want the ball to land on the direct line between the ball and the cup and roll out nicely to the flag. Not much difficulty in that.
But if the green slopes L-R or R-L you want the ball to land respectively to the left or right of the pin, and let the slope of the green feed it towards the pin.
If the green or fairway slopes away from you, you want to take a bit back in power, because you get extra roll through because of the slope. On the opposite, if the ball is landing on an upslope, you want to place the aiming arrow a bit further than you would normally do, because the ball will stop sooner.
4. After I have studied the lie of the ball, and the anticipated LZ, I check the wind and I'll make adjustments for the wind.
5. I'll then make adjustments by moving the aiming arrow, based upon the calculations I made for the (sidehill) lie of the ball, the way the ball will react at the anticipated LZ, and the windspeed.
6. Before I finally hit, I check the wind once more, because replacing the aiming arrow takes a few seconds, enough for the wind to have changed again. If necessary I make a final correction, and then I hit the ball.
7. Now let's go into further detail in these steps.

How to anticipate sidehill lies?

1. On the fairways you will often not have a flat lie, so when playing a ball that is below or above your feet, you will have to account for a fade resp. a draw because of this. The question of course is **how much** should you correct for sidehill lies?
2. You'll have to correct quite a bit more, than you're inclined to do. To give you an impression of how much you have to correct for sidehill lies, here's some figures Voyer Koreis came up with in some helpfiles a few years ago:
Slight slopes - woods 5-10 clicks, long irons 2-5 clicks, for other clubs you don't need any allowance;
Medium slopes - woods 10-20, long irons 5-10, medium irons 2-5, short irons and wedges very little;
Severe slopes - woods 20-40, long irons 10-20, medium irons 5-10, short iron 2-5, wedges 0-1.
Very severe slopes - woods 50-60, long irons 30-40. medium irons - aprox. 20 for 5 iron, short irons - 10-12 for 7 iron, 4-6 for 9 iron, 2-3 for wedge, 1 for lofted wedge.
Note: 1 click = 1 tap on the left or right arrow button.



Voyen's numbers helped me a lot to better anticipate sidehill lies. One problem I had with Voyen's numbers though is this: What exactly is a slight slope? And when does a medium slope become a severe slope? There's quite a difference between the correction for a medium and severe slope. Exactly when to apply what?

3. So over time I developed my own way of calculating how much I should correct for these sidehill lies. When I have a sidehill lie, I always switch to **cam 2** (Close Golfer). If you can't get a clear view with cam 2 because of a downhill lie, you can also switch to **cam 0** (Close Oncoming). Cam 9 shows the same as cam 2 only from the opposite direction. Then I switch on the grid. You can clearly see that the grid forms a stairway-pattern with steps going up/down the hill. I count the number of steps, or notches, on the horizontal line directly above or below my ball in the square that my ball is lying in.

On this example pic you will count 8 steps above and 9 steps below the ball, so let's settle for 9 here.

Would you be hitting with a LW or a SW, you would not have to correct anything or 1 at the very most (**10% of the number of steps or notches you counted**). About 2 for a **PW (20%)**, 3-4 for a **9I (30%)**, 4-5 for **8I (40%)**, 6 for **7I (60%)**, 9 for **6I and 5I (100%)**, 12-14 for **4I (140%)**, 15-16 for **3I (160%)**, **180-200% for 2I** and **200-240% for 3W**. On severe to very slopes you even should take up to 300% into account for the woods.

Also take into account, that when you play a powershot (strength of the shot past the 12 o'clock mark) the ball tends to drift sideways exaggeratedly, so you will have to correct a bit extra when powerhitting.

On the example pic I will have to hit a 4-iron, so I would move the aiming arrow 12-14 clicks to the right to correct for the draw because the ball is above my feet. Again, 1 click = 1 tap on the left or right arrow button. Also note that it also makes a difference when you apply these clicks when doing it with cam 1 on (normal golfer), or with cam 7 (landing cam). Just try it, and you'll see that in many cases the arrow ends up in different places.

So I've made it a habit to always apply the calculated correction with cam 1 or 2 on.

So, a little recap. Switch to cam 2. Count the # of notches on the horizontal line in the square directly under or above the ball. Calculate the number of clicks you'll have to correct by taking the appropriate percentage of that total, depending on what club you have to hit with. The longer the club, the higher the percentage.

It's a bit of arithmetic in the beginning, but soon you'll get used to it and do this without thinking. And it's very rewarding to see more and more shots ending up near the pin, pretty much as calculated.

How to calculate the strength of your shot ?

1. First a general remark about hitting. There's quite a few peeps who have problems hitting the 6 o'clock mark (the sweetspot) consistently. I had the same problems when I started playing GBC. Thing is, you have to acquire that rhythm of the swingmeter. And it doesn't matter if you use the slow, medium or fast swingmeter. Each has it's own rhythm and it takes a few weeks to get used to that rhythm. That's why I immediately started with the fast meter. Takes as much time as adapting to the medium meter, but you immediately have the advantage of extra skillpoints (i.e. extra distance and extra accuracy).
2. There is no shortcut to quickly improve your accuracy. You have to take some time to **practice**. And enough practice makes perfect. When I started with GBC I discovered a practice mode though that improved my accuracy rather quickly. Before I started playing a round I always took 5-10 minutes **making practice swings** only to adapt myself to that swingmeter rhythm. I started the game, clicked Practice Swing on the Game Task Bar and made a whole series of practiceswings: spacebar (to bring up the swingmeter), click-

click, spacebar (just ignore golfer animation and bring up swingmeter again), click-click, spacebar, click-click, spacebar, click-click. And I kept repeating practice swings, till I started hitting the sweetspot a couple of times in a row.

In my early GBC-days I always took a couple of minutes warming up like that. After a while I only needed to take practice swings before a game when I had not played for a week or so, and after that it didn't take too long till my accuracy had improved in such a way that I didn't need to take practice swings anymore.

2. When I'm playing my approach shot into the green, I next to always play a **high trajectory shot**, to put some extra stop on the ball and control the rollthrough. You especially want to do this when playing approaches to hard greens.
With medium or stronger winds though, I almost entirely refrain from playing high trajectory shots, as the wind has an exaggerated effect on them. Only from time to time I play high trajectory wedge shots and I wait till the windmeter says 9mph and then aim the ball approx. 5yd past the cup and in most cases it ends up flaghigh.
3. You always have to keep in mind how much the ball travels after touchdown. For normal greens and fairways, this is pretty much as follows:
3wood 25-30yd, 2iron 22-25yd, 3iron 18-22yd, 4iron 16-18yd, 5iron 15yd, 6iron 12yd, 7iron 10yd, 8iron 8yd, 9iron 6yd, PW 4yd, LW -2 - 2yd.
When landing on a downhill landingzone these numbers of course will increase, when landing uphill they decrease. Difficult to give estimates for that. That's mostly experience. And for hard and soft greens you have to add resp. subtract a few yards of these rollthroughs.
So set up your shot in such a fashion that you anticipate the above mentioned rollthroughs. You wanna end up near the pin, not 60feet away from it.
4. As I mostly play **powerdrive** shots (PD) (i.e. clicking way past the 12 o'clock mark), my ball passes the landingarea shown by cam7 by 20-35 yards. So I often don't get to see the area where my ball is gonna end up. Mostly the hole overhead provides enough info, but when in doubt because of nearby obstacles, sloping fairways, etc. I always take a closer look before I grip 'n' rip it. So I pull back the cam-icon on the hole overhead (white crosshair arrow) to get a better view of the area that's behind me when looking at cam 7. Better be safe than sorry, hehehe.
5. BTW, you don't want to fool around with playing PD's without enough practice, as the meter goes much faster on the backswing when clicking past the 12 o'clock mark. Plus the sideways deviation of the ball when missing the sweetspot (i.e. the 6 o'clock mark) when PD'ing is also much more severe. So I would recommend: **no PD'ing without enough experience and accuracy with normal 12-6 clicking.** The advantage of an extra 20-30 yards on your drive also comes with additional dangers. So don't start PD'ing until you're already very comfortable with normal play.

How to anticipate the wind in GBC ?

Head and tailwinds

1. The longer the club, the more the shot gets affected by the wind as the ball is in the air longer. A 5mph backwind easily generates an extra 10-15 yards playing the 3W with normal greens, but it only generates an extra yard for the LW, if at all. Same with headwind. The ball gets to travel much less for the longer clubs, but it affects the shorter clubs way less. When playing high trajectory shots though, these numbers increase quite a bit.
2. When driving from the tee I mostly play a shot with **normal trajectory** (Game Task Bar/Shot Options/High, Normal or Low Trajectory).
3. If the landingzone is below the tee, I normally play a **low trajectory** shot. This helps to generate extra yardage. Low shots get 10-30 yards further than normal shots when the fairway is below the tee area.

There's a little risk. If you miss the sweetspot low shots tend to curve and deviate sideways stronger than normal shots.

4. When driving into strong headwinds, I normally play a **low trajectory** shot to gain extra yardage. Keeping the ball low, prevents the wind from pushing it down and stopping it, plus the extra rollthrough gains you some extra yardage as well. The lower the ball (with stronger winds), the further it gets.
5. When playing an approach to the green I prefer to play a **high trajectory** shot, to help the ball slow down sooner when on the green. But only with mild winds. With medium or stronger winds the wind does the stopping of the ball, so then I tend to stick to normal trajectory approaches, as high shots are influenced exaggeratedly with stronger head and tailwinds.
7. When playing straight into the wind you'll have to anticipate the ball to travel less far. How much? Let's say you'll have to play a long par 3 of about 160 yards (5-iron). Normally you would have to anticipate the ball the roll for about 10-15 yards. But with a **9 mph** headwind, you can set the aiming arrow smack dead at the cup. If you hit the marks the ball will end up very close to the pin. That's why I often wait for a 9mph headwind, because I know that a straight medium length shot will end up pinhigh.
If you play longer clubs than a 4/5/6-iron you'll have to give it a bit more, cause the ball is longer in the air and gets slowed down more.
If you play a lay-up with wedges or the 9-iron you'll have to play about 5yd past the cup for the ball to end pinhigh.
All these numbers are based on a 9mph headwind and normal greens. So on soft or hard greens you have to play a tad bolder respectively more modest to achieve the same. And if the wind is less or more, you'll just subtract or add some yardage.
8. I am very reluctant playing high trajectory shots with medium or stronger winds. The wind has an exaggerated effect on them, headwinds as well as tailwinds. It's weird to see how even tailwinds push down a lobshot, so it reaches only about 60% of it's normal height, and because of this travels less far. This effect is even worsened by playing high trajectory shots.

Sideway winds

1. Let me give you some examples how I anticipate wind coming from the left or right. Let's say I've got a sidewind of **9 mph from the left**. When I have to play a long shot, like for instance a 3-iron, I adjust the aiming 13 clicks (pushing the cursorkeys 13 times, or clicking the little arrows under your golfer) to the left. Why 13? I always convert the mph's of the wind to clicks to correct in the opposite direction. When I have to play a 5-iron and I have a 11 mph sidewind from the right, I adjust the aiming arrow 15 clicks to the right.
2. You will notice that I always adjust a bit extra than the number of mph on the windmeter (4 clicks for the midrange clubs). So why do I do that? Easy. Because of the wind the ball doesn't travel in a straight line, but with a curve. You play to the left to anticipate the wind from the left. In the beginning the ball travels away from the direct line between you and the flag. At the end of the flight the ball approaches that straight line again. Problem is, when it touches down at the end of the ballflight, it does so with an angle, and thus the rollthrough isn't in a straight line towards the flag, bur in an angle feeding the ball a bit away from the flag. So that's why I always correct a bit more, as you not only have to take the ballflight into account, but also that the rollthrough will happen in a slight angle in accordance with the wind direction. Will have to anticipate that as well.
3. The stronger the wind, the more you'll get to see this effect, of the ball starting to drift in the direction of the curve that was caused by the wind, even though you applied correction to anticipate that wind. In quite a few cases you'll see the curve and the following rollthrough take the ball off the fairway or green into the rough. Not what you had intended. You want to find your ball on the fairway and not in the rough, as this assures a far easier approach.

I tackle this drifting of the ball by playing **a draw or fade into the wind** is coming from, and I adjust the aiming arrow as I would normally do. If the wind comes from the right, I play a fade into the wind. If the wind comes from the left, I play a draw into it.

Playing fades and draws into the wind cause the ball to travel with a **much straighter trajectory** and this prevents the ball from drifting further and further sideways on the wind, almost as if you were playing a shot with mild winds!!! Note: playing fades and draws into the sideways wind shortens the length of your shot a bit. Think 5-10 yards, depending on the length of the club. So keep that in mind when setting up the length of your shot.

4. When playing the longer clubs (2-iron and up), and especially if you're PD-ing, you wanna give it even a bit more than 4 clicks. Once you experiment a bit with this, you'll notice soon enough that on the longer shots the ball is curving back over the straight line between you and the hole a good portion before the ball touches the ground, so on these long shots you want to add a tad more correction.
5. When you're playing wedges and short irons, you don't have to correct the full number of mph the wind meter shows you. On short shots I adjust only about 60-75% of the number of mph. When for instance the windmeter shows **9 mph** from the left and I have to play a 40yd pitch to the green, I adjust the aiming arrow just 6 clicks to the left. If the wind is 7 mph from the left, I only adjust 4 clicks to the left.

Playing from the rough

1. When playing out of the light or heavy rough I practically always play a high trajectory shot (F4) to create some backspin to help the ball to stop sooner. Especially because you have to play 2 or 3 clubs more, because of the rough which also adds to a longer roll through. Only if the green slopes (heavy) from back to the front, I don't do this, especially when playing wedges, as the backspin can easily pull the ball off the green. In that case I'd rather play a normal trajectory shot, let the ball roll up to the cup and trust the slope of the green to stop the ball.
2. One advantage when playing from the rough. Missing the sweetspot is less punishing. The ball deviates less as it would do from the fairway or tee.

Sandplay

1. Playing from a bunker also decreases your yardage quite a bit. You will have to add 2-3 clubs to get your normal yardage. I mostly play high shots from the bunkers to compensate for the flatter ball trajectory and longer rollthrough.
2. Hitting the sweetspot when hitting from bunkers is crucial. Missing the sweetspot is punished much more severely in comparison to hitting from the fairway.
3. When playing out of a greenside bunker I practically always play a high trajectory shot and aim 2-4 feet from the cup, depending on the slope of the green. If the green doesn't slope, you can play your sandy very close to the pin.

Pitching & Chipping

1. The default chipping club - the lob wedge of lofted wedge, becomes the pitching club when you are within 70ft of the pin. Compared to real life, you'll get quite a lot of backspin when playing 25-40yd pitch shots.

2. But this exaggerated backspin has its advantages too. My philosophy is, if you have to play a pitch, why not give yourself a chance of sinking it? So instead of just dropping it in front of the cup for a tap in bird, preferably play a high shot 1 or 2 yd behind the flag and let the backspin pull the ball back to the cup with a chance of holing it.
I've succeeded quite a few times in playing a high shot with the LW just one or two yards behind the pin, and let the backspin pull the ball into the cup for a neat eagle. Who needs a putter, eh? It takes a bit of practice, but once you get the hang of it, it's a lot of fun setting up your pitches and try to backspin the ball into the cup.
3. My overall success rate for these high backspin lobshots isn't all that high though, because it's not so easy to calculate the wind, slope and distance it will backspin. Plus hitting a millimeter more or less on the swingmeter makes all the difference. I've had a lot of shots come to rest inches from the cup, or even lipp out. But if they do drop it's a nice bonus or what?
4. I've even succeeded in holing high trajectory backspin pitches out of the rough and out of the bunker, but chances of pulling this off are slimmer of course. To have any chance of pulling this off. To be able to generate backspin when playing out of the rough or sand you'll have to play a full shot. Can't do this when playing the partial swingmeter.
If you have to play the partial swingmeter, you have to aim 1-2 yd in front of the cup and play a high shot. The high trajectory immediately takes out the momentum and with a bit of luck the ball trickles into the cup.
5. I'm very reluctant playing a high trajectory shot with a wedge onto greens that seriously slope from back to front. The backspin in combination with the slope can easily cause the ball to accelerate and pull the ball off the green. Don't want that to happen. On sloping greens I prefer to play a bounce and roll shot to the cup.
6. Of course pitches from the rough don't stop as quick as pitches from the fairway. Calculate a few yards, but not more. Even when playing from the rough, the ball stops sooner than you might think. But be very careful pitching/chipping out of the rough onto a downslope. In those cases the ball often travels a lot farther than you might expect. Very tricky to get the hang of this. Even after 4,5 years of play, I play some horrible shots from time to time when faced with this dilemma.
7. Compared to real life the wind affects the ball in an exaggerated way when playing pitch shots, especially when playing with strong wind or gust. You'll be big time amazed to see how much strong and gusty winds affect little chips. Correct a bit more than you're inclined to do.

Chipping & Chipping

1. The game will automatically select the partial swingmeter where chipping is thought to be the best option. Sometimes you will not be able to reach the pin with this. In that case you'll have to switch back to the full swingmeter (Game Task Bar/Shot Options). But the ability to select another swingmeter while chipping also opens a few extra possibilities, you otherwise might not think of.
2. First I check the green with cam7 for an overall view and then cam 6, to be able to count the notches on the grid, to calculate how the ball will roll after the chip lands.
3. Most GBC'ers play a chip with the LW using the Partial Swingmeter. Nothing wrong with that. But you should be aware of another option.
I often opt to **select the Putting Swingmeter** when playing a short chip with the LW. This meter moves much slower than the Partial Swingmeter and thus it is way easier to hit the sweetspot and hole a chip. I call this way of chipping "chipping".
Chipping is ideal when you have to play a little chip (15 ft or less) on a fairly level green. If you practice this a bit you'll soon discover you're holing more little chips you would otherwise miss. My estimate is that it earns me 1-2 extra birds each round.

4. You play a chipputt like a normal putt, only the ball is in the air the first half of its journey (like with a chip), so you only have to take into account the break on the green for the 2nd half of the journey.

Playing a normal chip (LW + Partial Swingmeter)



Playing a chipputt (LW + Putting Swingmeter)



5. Be careful when you play a chipputt. A few things you have to consider when playing a chipputt.
 - a. The ball only gets up into the air a few feet. Quite a bit less than when playing a regular chip. So if you have to negotiate an uphill slope, better refrain from playing a chipputt, or you may discover to your dismay you've only progressed a few feet up the slope.
 - b. You can play a chipputt from the fairway and the fringe and also out of the light and heavy rough.
 - c. You can also play a chipputt out of the dirt and the sand, but then suddenly the characteristics of the shot totally change. Hitting from the sand the ball barely gets up in the air, and in comparison to hitting from the other surfaces you have to place the aiming arrow an extra 10-12 feet past the cup.
Chipputts out of the sand are very tricky. Playing a normal sandshot is preferable.
 - d. Tailwind tends to push down your shot a bit, and as a chipputt already barely gets into the air, you'll find that most shots with stronger tailwinds come up very short because of the wind effect. Wait till the wind dwindles down and then play your chipputt, or place the aiming arrow a bit further past the hole than you would normally do.

6. For chipputts under normal circumstances I place the aiming arrow 4 ft past the cup on hard greens and 5ft past of normal and soft greens. If the surface isn't flat, you'll have to account for

upslope and downslope of course. Hard to give estimates for that. Comes down to practice and getting some experience.

7. When playing a normal chip, I mostly play a high trajectory chip to kill the speed of the ball. If you play high trajectory, you can play the ball very close to the pin (5-10ft) and see it end pinhigh. If you play normal trajectory (so a normal bump and run chip), especially when playing out of the rough, you have to anticipate a rollthrough of 15ft or even more when landing it on a downslope.
8. Keep in mind that even the small chipputts are affected by the wind, especially Me, S and G winds. I mostly correct about 75% of the # of mph. So for instance if I have a 12ft chipputt and I have a wind of 9mph from the right, I place the aiming arrow 6 clicks to the right of the cup.
9. It's not so easy to anticipate the deviation from the sidewind. So if I have to play only a little chip, and the surface between the ball and the cup is very flat, then putting out of the rough is also a very interesting option to consider. Of course you have to place the aiming arrow past the cup extra, to account for the extra resistance of the rough terrain. **For each 8x8 square of rough terrain on the grid add the following:** heavy rough +10ft, light rough +7ft, fairway, +5ft, fringe +2ft.

Putting

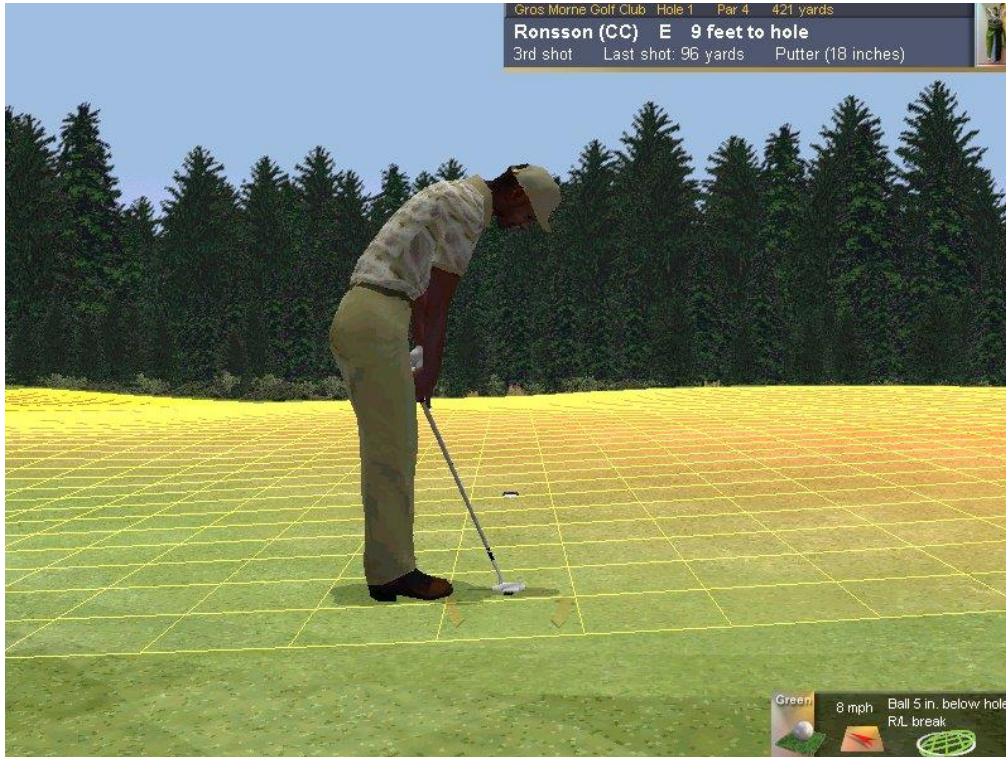
1. If there is one discipline with which you can improve your score, it's putting. Unfortunately putting is also the most difficult discipline to master. But although it takes quite a bit of practice, there's certain regularities that apply to putting as well. And you discover these regularities you can let them work to your advantage.
2. Putting is difficult. You have to anticipate the condition of the greens, because there's quite a difference in playing soft, normal and hard greens. You have to take into account how much uphill and downhill slopes affect your putt. You have to bear in mind that when playing a double breaking putt the break closest to the holes has a bigger influence, because there the ball travels slower. And last but not least you have to reckon with the fact that putting isn't just a linear thing. It's not a matter of the longer the putt, the more you have to place the aiming arrow past the cup, because once putts are above a certain length, you have to add less and less distance to get the ball to the cup.
3. But before we get to all of that, let me take you through my putting routine.

My Putting Routine

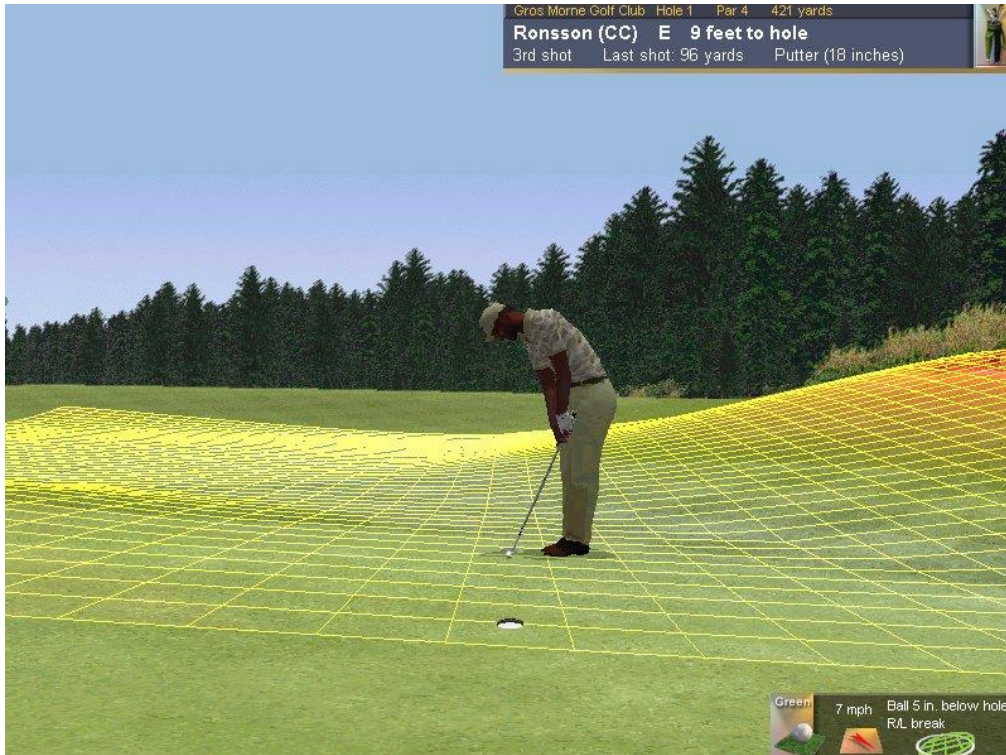
1. On the green I mainly use the close-up camera's (Preferences/General/Close Camera on Green), i.e. cam 2 (Close Golfer) and 6 (Close Landing). But I also use cam 5 and 7 to get an overview as well.
2. In general when I have to take on a putt, I turn on the grid and switch to cam 6. In my experience cam 6 shows the notches of the grid more accurately with cam 6, than with cam 2. So when I have to calculate the break, I almost always do this with cam 6 on, and not with cam 2. Although you are inclined to think that cam 2 and cam 6 will show the same break, but from a different perspective, that is not the case. Cam 2 is often shows a bit more break than cam 6, so when calculating the break I rely upon cam 6.
3. I count the notches on the grid in the vertical column of squares between my ball and the cup, as those will affect my putt.
4. I apply the correction by moving the aiming arrow.
5. I hit the shot. I always click a fraction past the 9 o'clock mark, In the beginning I had a lot of shots that were perfectly online, but were just inches short. Since then I hit the shot just a tiny fraction harder to make sure I've given the ball enough speed to go in and not to stay inches short.

6. And that's how I sink them birds and eagles. Now, let's do the same with pictures.
7. We're on the green and we are facing an uphill putt that breaks to the left. First I'm gonna show you the difference in perspective of cam 2 and cam 6, so you'll see with your own eyes that cam 6 is more accurate than cam 2.

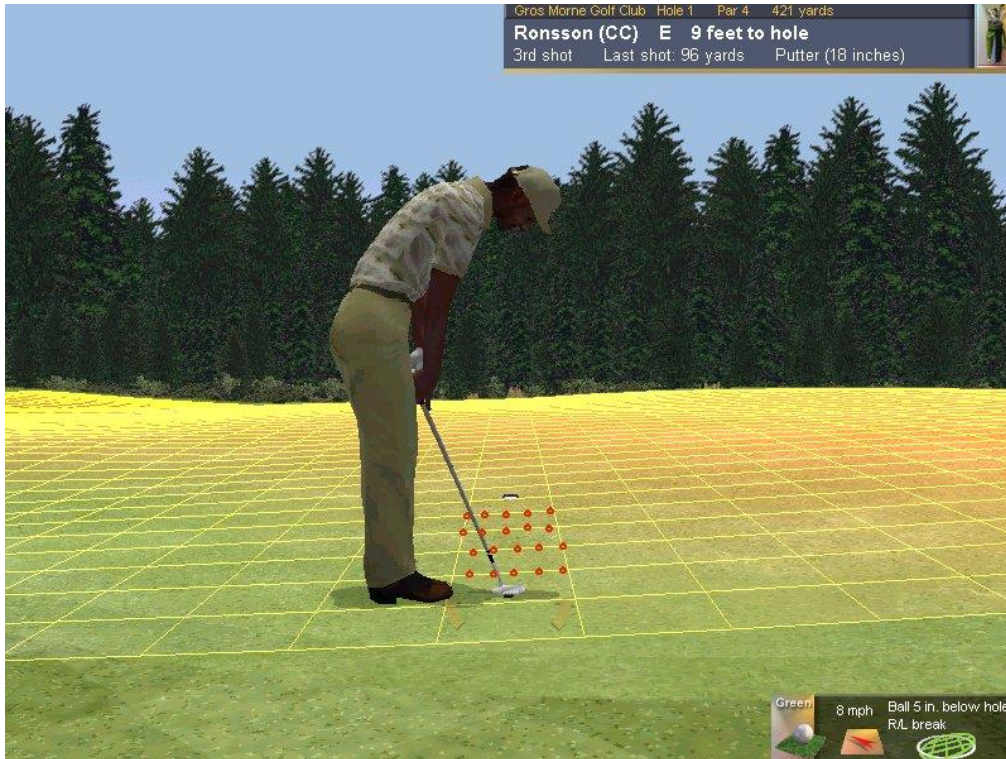
Cam 2



Cam 6



8. Looks pretty much the same doesn't it (except for the different perspective of course). But now we're gonna take a closer look, and we're gonna count the number of notches on the grid to be able to calculate the amount of correction we have to apply to account for the break. I count the notches on the grid in the vertical column of squares between my ball and the cup, as those are gonna affect my putt. On the following pics I've marked those notches.



With cam 2 you will count a total of 20 notches. But with cam 6 I only count 17 notches !!! In my experience cam 6 is more correct, but let's play out both shots, so you'll see that cam 6 is the cam to trust above 2.

9. Experience has taught me that to account for the break on uphill putts I should adjust the aiming arrow a bit less than the number of notches I've counted.
For the cam 2 situation this would be about 80-90% of the number of notches. In this case 17 or 18. Let's settle for 17 here.
For the cam 6 situation that would be 80% of 17, so that's about 15.
I'm not calculating this to the tenth. Trust me on that. My math by head isn't that good. So I just extract a few clicks from the total, hehehe.
10. I'm 5 inches below the hole, and I'm playing hard greens. I have to put the aiming arrow 1ft past the cup for every inch I'm below the hole, and I have to give it 2ft extra to compensate for the fact that I'm playing uphill on hard greens. Only 2ft or so, on a short putt like this. So I place the aiming arrow 7ft past the cup.
Based on the cam 2 calculation I have to place it 17 clicks to the right, and based on the cam 2 situation only 15 clicks. Now let's place the aiming arrow and play out these putts.
11. I always place the aiming arrow manually by dragging it with the mouse, NOT by tapping the arrows under the golfer, or by tapping the arrow keys on the keyboard. And I do the placement of the aiming arrow always with cam 6 active. With cam 6 you have the cup in clear view, and that gives you the most close up and most accurate view.
The **cup** itself is **4 clicks wide**. The **aiming arrow** itself is also **4 clicks wide**. The horizontal lines on both sides of the cup (grid with odd numbers!!!!) are 10 clicks away from the center of the cup. So to place the aiming arrow I switch to cam 6. Drag it to where the vertical line intersects the horizontal line that's going through the cup. Now the aiming arrow is set 10 clicks to the right.

Moved aiming arrow 10 clicks to the right.



12. The aiming arrow itself is 4 clicks wide, so I look where the outer side of the aiming arrow is now, and then move the inside of the aiming arrow to that spot. Now I've moved the arrow 14 clicks to the right.

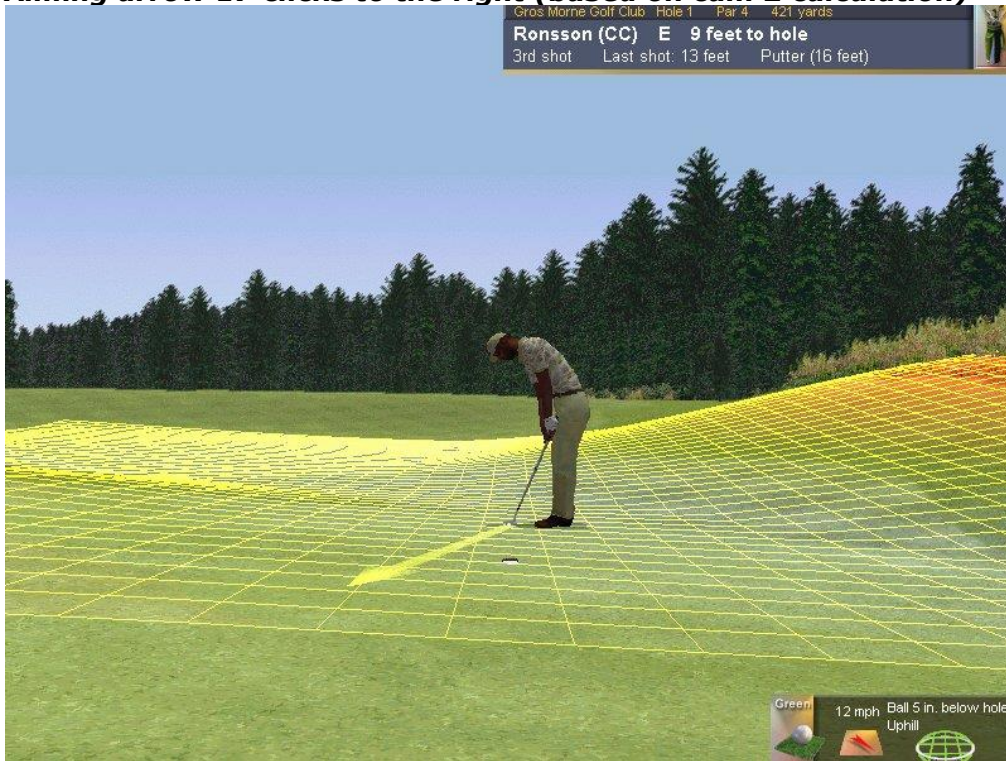
Moved aiming arrow 14 clicks to the right.



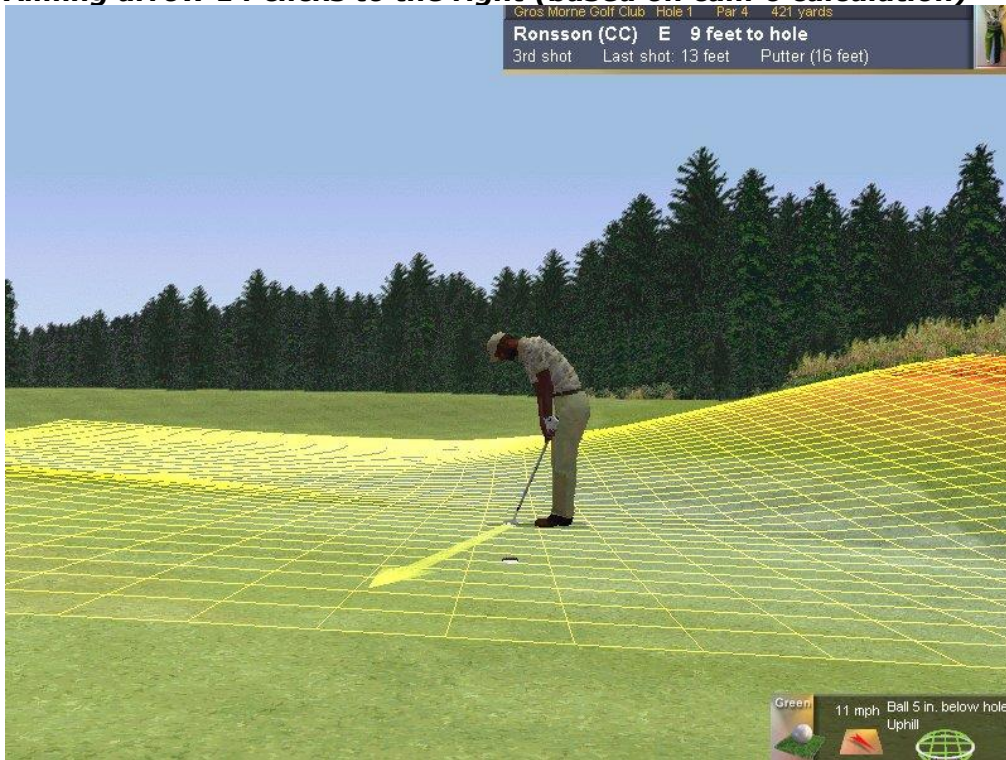
13. To make this outlining a bit easier I always concentrate FIRST on doing the sideways correction. For this I usually make the arrow a bit longer, so the top of the arrow is above the cup and isn't in the way, so I can easily move the aiming arrow with 4click increments to the side. For this I always concentrate on the horizontal line that passes through the cup. On that line I measure the correction clicks
After I have placed the arrow properly to account for the break, then I concentrate on the strength. As calculated under point 10 I have to place it 7 ft past the cup, so I lengthen the arrow till it says 16 feet. Now I'm ready to take on the putt.

14. Here I have placed the aiming arrow for both situations:

Aiming arrow 17 clicks to the right (based on cam 2 calculation)



Aiming arrow 14 clicks to the right (based on cam 6 calculation)



And here's the result.

Too wide.



Perfect!!!



15. So, now you've seen an example of how I calculate my putt, and how I adjust the aiming arrow. Below I will give you a summation of the regularities I've encountered when putting, and then it's up to you. Hehehe.

Flattish Putts

1. With short straight putts (< 15ft), I place the aiming arrow 2-3ft past the cup on hard greens, 4ft on normal greens, 5ft on soft greens) and I always click a bit past the 100%-marker on the Putting Meter Swing.
2. With medium and long putts on hard greens you'll encounter the phenomenon that there's a reversal in the distance you have to lengthen your aiming arrow in accordance with the length of the putt. With putts longer than 10 feet you suddenly notice that you need to shorten the aiming arrow to prevent the ball racing past the cup.
For instance when you have a 15ft putt, I place the aiming arrow at 12 ft, so 3 ft short. For a 20ft putt I place the aiming arrow at 15ft, 5ft short. For a 30ft putt I would place the arrow at 24ft, 6ft short. Etc.
3. You'll have a similar but opposite effect with soft greens. The longer the putt, the more extra you'll have to give it. I place the aiming arrow an extra 1-2 ft past the cup for every 10ft putting length.
4. Breaks to the left or right on flat putts I adjust as follows. I count the number of notches in the vertical column of 8x8 squares between the ball and the cup.
The total number of notches I've counted, is the total of clicks I'll move the aiming arrow sideways to account for the break. So on flat putts I adjust the aiming arrow 100% of the number of notches I've counted.
5. If the putt is medium length, I shorten the aiming arrow, so I get a closer view of the first part of the putt with cam 6, so I can see those grid squares and the notches better. Sometimes the number of notches change when you shorten/lengthen the aiming arrow. Then it gets a bit dicey. I fool around a bit with this and take a good guess. That's what putting is all about, hehehe.
6. If it's a long putt and I can't oversee everything clearly, I count the notches on the 1st half of the route with cam 2 and the other half with cam 6 and make a good guess of the total.
7. If the putt breaks L-R and R-L as well, you've got a problem, hehehe. Doublebreakers are not easy. First I count the notches going one way, and the number of notches that go the other way. Do a little subtraction and move the aiming arrow to the side that has the most break.
Bear in mind that the break closer to the cup always weighs a bit heavier, because at that point the ball travels slower, than when the ball has just left the blade of your putter. So if you keep missing those doublebreakers, give the break closest to the cup 1-2 clicks extra when doing the subtraction and calculating the overall break. You should be able to pop in some of them long doublebreakers then.

Uphill Putts

1. With uphill putts I'll normally place the aiming arrow a 3ft past the cup on hard greens, 4ft on normal greens and 5ft on soft greens, like I also do on a flat green. To this I'll add the number of feet that I'm removed from the cup. With longer uphill putts I'll subtract 20-25% though, because otherwise the ball will race past the hole.
2. I adjust the aiming arrow 80-90% of the number of notches I've counted. I've given an example of this under "My Putting Routine" above.

Downhill Putts

1. Here's where it gets really tricky. Everybody hates downhill putts, right? Not necessary. If you apply the following rules you'll skyrocket your success rate for downhillers. When I was still trying to figure this downhill putting thing, I only holed about 10% of my downhillers. Now I sink about 85% of my downhillers.
2. Like on flat and uphill putts, I place the aiming arrow past the cup a bit, 3ft on hard greens, 4 ft for normal greens and 5ft on soft greens. At least that's the way I start setting up my shot. Problem is you're above the hole and to compensate for the extra speed gained because the ball is traveling downhill, you have to take the aiming arrow a bit back again, or else the ball will gain too much speed and jump over the cup.
Let's say you're 4 feet away from the cup, and you're 4inch above the cup, on a normal green, no break in the putt. On a flat putt I would place the aiming arrow 4ft past the cup and then hit it. Same thing for a normal putt, only you also have to account for the extra speed the ball will get because you're above the hole. The rule for this is simple: take back the aiming 1feet for each inch the ball is above the hole. So in total you will have to take the aiming arrow 4ft back. Normally you would place it 4ft past the cup, now you place the aiming arrow exactly at the hole.
Another example: you're 15ft away from the cup, and the ball is 9 inches above the hole. 9 inch equals 9 feet for the aiming arrow. Normally you would place it 4feet past. So you'll have a surplus of 5. Subtract this 5ft from the total putting distance of 15. So you'll place the aiming arrow at a total of 10ft (5 before the cup) and it will drop in nicely without overshooting the cup with too much speed, or the chance of running out of fuel.
3. Problem with them downhillers is, they seldom come without a break. And when you add break to a downhiller, it gets really complicated. But not to worry, there's still logic in the whole thing, and once you get the hang of it downhill putting gets fun. To explain the whole thing in an understandable way, I'll give you some examples again.
4. Let's say we're playing normal greens again and the ball is 4" above the hole, the distance to the cup is 11ft and I count 13 notches indicating that the ball will go from left to right. The 4 inches that the ball is above the hole, corresponds exactly with the 4ft that I normally give extra to make sure it doesn't die on me before reaching the cup. So when I would only have to take the speed into consideration I would place the aiming arrow exactly at the cup.
5. But I also have to take a sideways break into consideration. When the putt would be on a flat surface all I had to do, was place the aiming arrow 13 clicks to the left, and the ball would curve nicely from left to right into the cup. But it is not on a flat surface. It's going downhill, and thus the ball gains more speed than on a flat surface. Hence, it won't be able to make the entire curve in time, because the ball will already be at cup height because of the downhill acceleration, before the ball has curved back to the direct line between you and the cup.
6. In other words, although you have counted a break of 13 notches on the grid, you don't want to adjust the aiming arrow 13 clicks, because then the ball will get past the cup. Instead you only place the aiming arrow approx. 75% of those 13 notches to the left, which is 9.
7. Switch to cam 6. Place the aiming arrow a bit past the cup, so that the triangle top of the arrow is past the cup. Now move the arrow 9 clicks to the right (the putt will break left to right, but you're in reverse view, so in fact you're moving the aiming arrow to the left). If the aiming arrow is at 9 clicks from the cup (the vertical line is at 10 clicks from the cup), then re-adjust the length of the arrow. Make sure the total length is 10ft. And that's all. Now all you have to do is hit the marks and sink the putt.
8. Another example. You're 18ft from the cup on a hard green, 7 inch above the cup, and you've counted 12 notches indicating a break from R-L.
The 7 inch equals 7feet and that's 4 too much for hard greens, so you have to place the aiming arrow at $18-4=14$ feet. The 12-notch R-L break tells you that you will have to adjust the aiming arrow 9 (75% of 12) clicks to the right. Right?
9. Note that that "adjusting 75% of the borrow for downhillers" is not a golden rule. In general this rule works, but unfortunately not all the time. On longer downhillers you'll have to adjust 80% and sometimes even 90-100% of the sideways break. There's always a bit of guessing involved. You can

calculate quite a bit and drastically increase your chances of holing the putts, but there's always a bit of guessing involved. Sometimes the ball breaks a bit more or less the number of notches are telling you.

Once you start holing more and more putts, you also start to develop a sense of how the aiming arrow should look (length and angle) on certain putts. Sometimes this feeling tells you that although you've placed the arrow in accordance with the calculations you've made, it just doesn't look right. It's fun to replace the aiming arrow ignoring the calculations and just trusting your gut feeling and see the putt drop in. But the reverse has also happened, hehehe.

But that's the fun of the game. It wouldn't be fun if it were any easier and if you could exactly calculate each and every shot.

10. If you have putts which have a break to the right as well as a break to the left, you just calculate the difference and adjust that difference. Say the putt breaks 14 notches to the right in the beginning, and when closing the hole it breaks 6 notches to the left. Overall that means you'll have to account for a break of $14-8=6$ notches to the right. But again there's a catch. Because you also have to take into consideration that the break close to the hole is bit more severe than the break close to the point where you are putting the ball, because when the ball is nearing the hole it has lost part of it's velocity.

Practice makes perfect

1. I can honestly say that it does. I started playing GBC in July 1999. In the beginning I could barely hit the fairway, because I was used to the Links99 swingmeter speed. I needed about 10 Mulligans to be able to make a round not worse than 10 over par or so.
2. In the beginning I played about a round each day and this regularity rapidly improved my game.
3. In the beginning I also took time for practice swings. Before I started a round I always took 5-10 minutes **making practice swings** only to adapt myself to that swingmeter rhythm. I started the game, clicked Practice Swing on the Game Task Bar and made a whole series of practiceswings: spacebar (to bring up the swingmeter), click-click, spacebar (just ignore golfer animation and bring up swingmeter again), click-click, spacebar, click-click, spacebar, click-click. And I kept repeating practice swings, till I started hitting the sweetspot a couple of times in a row, which told me I was starting to find the rhythm.
In my early GBC-days I always took a couple of minutes warming up like that. After a while I only needed to take practice swings before a game when I had not played for a week or so, and after that it didn't take too long till my accuracy had improved in such a way that I didn't need to take practice swings anymore.
4. Since that shaky start I've been able to score
 - 56 aces
 - 10 double-eagles
 - a dozen or so perfect rounds (with birdie or better on all of the 18 holes)
 - 70 rounds with scores of -20 or lower
 - I've had a hcp of -21 for quite some time.So the routines I mentioned in this document sure have worked for me.
5. And I know very well this game is not about making -20 scores. To tell you the truth, I haven't made a -20 score, or an ace for quite some time. The last 6 months I have been playing less and less because of other obligations. My handicap has dropped from -21 to -15. But that doesn't matter to me.
I still enjoy this silly game. I find pleasure in seeing, absorbing and playing the many lovely creations by so many talented and dedicated designers. I find pleasure in seeing end up a tricky shot, exactly as I had imagined and calculated it. I find pleasure in holing them birds and from time to time them juicy eagles.

6. Well, that's all folks. That's the best I could do describing my experience in playing GBC and trying to put it into formulas. Now it's up to you. Good luck improving your scores and hit 'm straight !!!

God bless ya!!!

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