## System Sid - Part 2

I want to finish discussing the system I described last time, System Sid, by going over some additional applications and extensions of the system. As a brief review, this system is a dead ball (no english) system that is easy to calculate and very useful for 1 rail, end rail first kicks. See the last article for a full description and example diagrams of the base system.


The first extension is exactly that - extended cue ball numbers. It may not be intuitive, but for this particular system you can use extended cue ball numbers to help calculate kicks as well.

In the diagram above, you need to get a good hit on the 3 ball. The 4 and 5 balls make a jump or masse difficult and the 5 and 7 balls block 1 or 2 rail options at the top end of the table. Since the cue ball numbers can be extended, we can try to find a cue ball number that would work, or at least be close enough. Our hit point is 4.5 on the top long rail, so what I do is visualize a path for the cue ball that roughly bisects the angle to estimate the starting cue ball number. In this case, it turns out to be almost exactly 5 . If the cue ball number was in between then you can just estimate or do the math using fractions or decimals depending on how good your math is - usually estimating works just fine.

Since we are starting from cue ball number 5 , and we want to hit $4.5,5 \times 4.5=22$. So we aim through 22 on the bottom end rail using a lag speed and a rolling ball ( $1 / 2$ to 1 tip of follow). Because the cue ball is not originating from the top rail, and enters the bottom rail at a greater angle and will pick up more cushion-induced english, you will actually need to adjust an inch or two closer to the cue ball ( $1-2$ tenths of a diamond, or aiming through 23 or 24 instead) and/or hit a bit firmer to account for this. If everything goes as planned you not only make the 3 ball but the cue ball leaks out past the 5 for a clear shot at the 4 . Even if you don't make the 3, there's a good chance of getting safe as long as you make the hit.


The second extension involves using the system in reverse. You are left with this shot on the 1 ball and the 7 ball limits your options. Since the cue ball is conveniently located near a long rail diamond, just use System Sid in reverse! Multiplying the cue ball origin on the long rail (4.0) by the intended hit point on the end rail ( 3 ) gives you $4 \times 3=12$, so 12 is your aim point. Hitting the 1 ball in this fashion will almost guarantee the hit and a lot of good things can happen to leave your opponent safe, especially since the 2 and 4 balls can come into play as blockers.

Certain angles near the edges or outside of the "normal" system numbers can require small adjustments, which can vary from system to system. In this case, when the cue ball originates somewhere on the long rail instead of the end rail, as above, a slight adjustment is needed to account for the shorter entry into the end rail and the more acute rebound angle produced. Typically adjusting an inch or two ( $1 / 10$ or $2 / 10$ of a diamond) will suffice. Another common adjustment is to shoot at the number on the rail instead of through the diamonds. Aiming at 12 on the rail would result in you actually shooting through diamond 13 or 14, and that would give the desired correction. Play around with this on your table and for your stroke and see what if any adjustment is required.

While we are on the subject of adjustments - for a lot of positions you will encounter, the cue ball and object balls will not usually come to rest in perfect positions as usually shown in diagrams. This is also where a little estimation and feel come into play. If I find my cue ball between the $2^{\text {nd }}$ and $3^{\text {rd }}$ diamonds, for example, I can just use 2, 2.5, or 3 for my calculations, depending on which is closer, and then use some very minor adjustments to account for the difference. When the cue ball or object ball is not near a rail, you will need to estimate the origin or target point on the rail based on a rough path that the cue ball will follow. It's usually easiest to do this by holding your cue over the estimated path and seeing where the cue crosses the rail, and if the path seems reasonable (i.e. roughly equal angles in and out for a system like this) then go with that. With just a little bit of practice you'll get very good at this estimation and your kicks will be deadly.


The last extension involves using the system in the short area of the table. The numbers remain the same, with the only difference being the end rail numbers are numbered in half diamonds instead of full diamonds. The other nice thing about this short table version is that the cue ball numbers can easily extend past 4 , all the way to 8 , without the need to estimate invisible lines extending off the table.

Above we came up short for position on the 8. I know this is a relatively easy shot to estimate simple bisecting of the angles, or angle in = angle out. However, I find it's easier to use a system to really pinpoint where I want to hit, or at least as a double check, especially if the cue ball and object ball are different distances from the rails. That can sometimes make the difference between kicking the ball in, getting shape on the 9 , and winning the game, or simply hitting the 8 and selling out.

We do the same calculation as with the normal full table version of the system. Cue ball origin of 3 and an end rail target point of $4,3 \times 4=12$, so our target aim point on the opposite long rail is 12 . Again a nice soft rolling ball should produce the result we are looking for.

