

## Juggler's World

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## TIPS Juggling on paper

by Charlie Simpson

Shortly after I started juggling I came across a problem. There seemed to be so many things that one could do with just three balls that it was going to be impossible to remember them all. I thought it would be good to develop some way of writing down juggling on paper with the idea of building up a library of tricks and patterns.

I came up with the idea of the notation system shown here in print for the first time. It is designed to show where all objects are in a juggling pattern at any moment in time and to show what the juggler's hands are doing at that moment.

The chart in figure 1 is a three object cascade. It is read from top to bottom and divided into intervals of time (beats) by horizontal lines. The left side of the chart is the left hand side of the pattern and vice versa. There are three lines running down through the chart crossing from left to right and back which represent the paths of the three balls as they move from left to right through the pattern.

There are two main events in the cycle of a prop - being thrown (which is shown by a white circle) and being caught (the black circle). It follows then that the portion of a line after a black circle (a catch) and before a white circle (a throw) is dwell time, time in the hand. Likewise the portion of a line after a throw and before a catch is airtime.

The three ball cascade chart starts at the top with three catch symbols. On the first beat the right hand makes a throw to the left. The ball arrives at beat 3, being in the air for the intermediate two beats. On the second beat the left hand makes a similar throw to the right. On the third beat the right hand is throwing again while the left hand is catching the first throw. The pattern is now under way.

The cascade is only an example. The notation is of real use when it applies to more complex patterns. Figure 2 shows a variation on the three ball cascade. At the point in time marked with an "x" the right

hand throws a 5 beat throw to itself while the other balls are juggled in the normal way. Effectively the ball that is thrown high arrives back in the right hand in normal time, but without ever having visited the left hand! A 5 beat throw is about six times higher than a 2 beat throw and difficult to master, but well worth trying.

I use this trick with bouncing balls. The 5 beat throw is made as a bounce as shown in figure 3. The advantage of this is that it removes the need for so much force in making the throw. In this notation there is no special way of distinguishing an air throw from a bounce. The chart is mostly concerned with the timing of a pattern. If you manage to do this trick on both the right and left hand sides, either in the air or bounced, then you could try this four ball pattern.

Figure 4 shows the 4 ball pattern sometimes called "quadruple singles." The name comes from a club juggling technique in which a five beat throw would normally be made with four spins and a two beat throw as a single. The easiest way to juggle a pattern with this timing, however, is with balls throwing the two beat throws as a normal cascade and the five beat throws as bounces.

You begin the pattern with two balls in each hand. The first throw is a five beat bounce to the right, followed by two cascade throws and a five beat bounce on the left. The pattern continues: right cross, left cross, right bounce; left cross, right bounce; left cross, left bounce; etc.

Notice that it is always the same two balls that bounce, one on the right side and one on the left. This means you can juggle the pattern with two eggs and two bouncing balls. I know it works because I've done it!

I'd be happy to receive comments and suggestions for this notation system. I am currently working on compiling a juggling book and welcome comments or suggestions about this notation system. Write: Charlie Simpson, Bristol England.

