

This language is modeled after the game of basketball. It should be noted that as basketball can be a complicated game with varying rules depending on individual situations and circumstances, this language attempts to imitate the game at its basics. The intent of this language is to translate the flow of a fast paced, back-and-forth basketball game into singular strings of commands, which in turn, will give you the desired outcome of each individual play depending on the contents of the string.

The structure of this language is based on the idea that each team's possession of the basketball can be broken down into individual strategic 'plays', in which each team tries to score points in various manners, by outsmarting the opposing team's defense. As stated previously, the structure of this language's accepted strings is based on the premise of a 'play'. To start out the string, every play requires a starting action of 'dribbling', this simulates the player's muscle memory to dribble the basketball. In basketball if a player doesn't dribble the ball every two steps, they will be called for a 'travel' foul, and the ball is turned over to the opposing team. Secondly in the structure, we have the actions taken by the ball handler during the possession. These actions include passing the ball to teammates (the perspective follows whoever has possession of the ball), attempting to shoot the ball for either two or three points, or rebounding a missed shot. Finally, the play can come to an end in a couple of different ways, the most obvious being successfully scoring points, but there are other ways for the play to be terminated. These other play ending actions include missing the shot and not rebounding, turning the ball over via various mistakes, having the ball stolen, your shot getting blocked, or being fouled. In the

last case, with the foul, the play is ended with the affected team being awarded free throws.

The purpose of this language is to simplify the game of basketball and provide a simple simulation of an otherwise complex sport. This language can be used as an educational tool to teach the fundamentals of basketball. This language can also be expanded upon to create a fun game that can be played between two players. All you would have to do is set up random chances within each action and maybe reward the player for passing the ball, similar to basketball in real life, to have a better chance of not getting blocked but at an increased risk of having the ball stolen. Overall, this language is not extremely practical for learning in depth strategies due to its linear and predetermined outcomes, but it allows for simple rules to be laid out regarding the popular sport.