

Balloon Monk

Final Project
Game Design

Cory McWilliams
mcwilc@rpi.edu

December 8, 2004

Balloon Monk is a competitive multiplayer game using a sidescroller engine which is an attempt to create a very unique style of gameplay from common game elements with which advanced strategies and entertaining interactions between players can emerge.

The world and the objects in it are very simple. The world is constructed entirely of triangles. Nothing can pass through a triangle, and on any particular map, the world is bound by triangles so that everything else is contained. The only objects in this world are players, a monk, balloons, flags, and volleyballs. Everything accelerates downward with gravity. Everything is effectively a circle, and when something collides with a triangle of the world, it bounces off at a slightly slower speed. Even these simple physics make important things such as sliding down a steep hill and hiding behind walls possible.

Each player controls one character with three direction keys for jumping and moving from side to side, the mouse for aiming, firing, and activating a jet pack, and two other keys for shooting and interacting with the other objects in the world. The jet pack has a fixed amount of fuel which is consumed at a constant rate when activated and recharges at a constant rate when not in use. It simply propels the player upward. Shooting causes the player to throw a volleyball in the direction of the mouse cursor from the player. Volleyballs bounce around for some time until they come to a rest and then disappear. Players can only have three volleyballs on the screen at a time. They must wait for others to disappear before shooting again. The jet pack allows players to make more use of space in the level by not restricting them to only the areas they can reach by jumping and it generally allows players more freedom in maneuvering.

Balloons are part of the primary objective. Certain ones must be fetched in order to score a point. They spawn at random positions on the map and sit around until they are picked up by a player. Balloons come in five colors - red, green, blue, white, and black which all exist with equal likelihood. A player picks up a balloon by standing next to it and pressing their action key, after which it appears floating from the player's hand along with any number of other balloons as long as it is being carried. However, if a player is struck by a volleyball or another player standing next to the player presses the action key, the player drops a random balloon if carrying any. When balloons are dropped, they float up and off the top of the screen and respawn at a different location on the map when the number of balloons

in the world drops too low. In general, there will always be about three times as many balloons as there are players out, but that may have to be tweaked. A player can not intentionally drop a balloon. Balloons are the main source of conflict between players, as players will frequently need balloons that only other players are carrying, and one way to sabotage other players is to take away balloons.

The monk sits around in the level and requires players to collect balloons for him to prove their worth. The monk does all of its work when a player approaches it and presses the action key. For each player, the monk always has in mind a set of three balloons that the player must produce. For instance, the first player might need to fetch a red, green, and white balloon. When a player approaches, the monk takes any balloons from the player that match the player's list, causes the player to drop any other balloons, and shows the player the rest of the balloons that he demands. When the player brings the monk all of the necessary balloons, the player gets a point and a new goal. The first player to reach a preset number of points wins. When the monk finishes talking with a player, he disappears and reappears at a new location on the map.

There is one final addition to the game which adds a significant amount of complexity. Spread around the map are a number of flags. Each flag starts on the bottom of a pole, and a player can raise or lower the flag with his or her action key. When raised, a flag slowly falls until after about fifteen seconds when it reaches the ground and its effect is negated. All of the flags have a global effect on the world that only exists when the flag is raised. The four possible flags affect projectile speed, player attraction, gravity, and goals, balloons, and flags. The projectile speed flag causes projectiles to move at a humorously slow speed, making them easy to dodge and mostly harmless. The attraction flag has an equal chance of causing players to gravitate toward each other or repel each other when it is raised. The gravity flag affects the way players maneuver by drastically reducing gravity. The other flag has an equal chance of randomizing player goals, flags, balloons on the map, and balloons that players are carrying between players. Flags are not uniquely marked. It is left to the players to discover and remember what they do, but when activated, all players are notified of the effect.

This is the complete rule set of the game. There are a number of places where things can be tweaked to achieve different results, but everything should be adequate as described.

A number of strategies can develop as a result of these rules. The way to proceed as given by the goal of the game is to do only and exactly what is necessary to score points. When the game begins, race to the monk to get a goal, then find the shortest path on the level which makes it possible to collect the necessary balloons, and then return to the monk to collect a point. Not only is this probably the most boring way to play, but it is complicated by other players stealing desired balloons, activating interfering flags, and generally causing a disturbance. In addition, taking on different strategic behaviors at different times is likely to result in more success in this dynamic environment. This strategy is still necessary to win, as points can be only collected by collecting balloons, but it alone is easily disruptable.

Considering that other players might be trying to steal balloons and especially abusing the fact that other players need to collect balloons, a second strategy is to hoard balloons, ignoring the monk for some time and racing around the level, avoiding other players in an attempt to get a monopoly on balloons and then cash them in by racing to the monk, hoping to accidentally complete a goal once most of the balloons are in the player's possession.

Additionally, there are defensive strategies that most certainly will be involved. A player can prevent another player from scoring by throwing volleyballs at the player until all balloons are lost. A player can prevent another player from scoring by chasing the monk away from the other player by visiting it whenever the other player is close to visiting it. If a player knows where the random flag is, activating it is likely to cause a potentially table-turning disturbance. The repulsion and attraction flag can be used to push other players around for some time, delaying their progress. Fear of other players is likely to be a significant factor in the game, and therefore defensive strategies such as these are likely to be an important part of play.

These strategies are bound be put together by players in a pseudo-game with the simplicity of rock, paper, scissors where each player choose a strategy for a short amount of time, and each player's success is determined by how his or her strategy interacts with those of the other players. Of course, the success of a player also depends on his or her skill at navigating, generally completing goals, as well as some luck, but the existence of higher-level game-like interactions is notable.

This system clearly allows for interaction at a much higher level than its rules are designed to

operate. Emergent properties are most clearly seen in the strategies that are likely to show up as people play. Far more obvious behavior common to first person shooters is also possible but less interesting, such as camping, and maneuvers such as lobbing a projectile all of the way across the world to hit a player as happens in games like Worms are bound to happen. I expect that the game, despite the potential for playing without any inter-player interaction, will create a significant amount of tension between players, such as by having two players contend the state of a flag by alternately raising and lowering it or players teaming up on each other if one player gets too much of a lead. The simple desire to have a higher score can drive much higher-level competition than simply racing to collect things.

This game is inspired by fun aspects of countless other games. The concept of a side-scrolling multiplayer shooter comes from the remarkable game Soldat, which itself is somewhat a tribute to Counter-Strike for the weapons and game play, Worms for the viewpoint and physics, and Tribes for the jet pack. Flags are inspired by Calvinball from the comic strip Calvin and Hobbes, the card game Fluxx, and the game bzFlag. They are as much an attempt to balance the game for players with skill in different areas as they are another layer intended to leave room for the development of more fun modifications to the game. The collecting of balloons to meet a goal is also inspired by Fluxx. The ability to knock balloons away from other players is motivated by Mario Kart's battle mode. Together, I think this combination of ideas is worth actually making and playing.

The actual properties that emerge from these rules will depend on people playing with them. There are bound to be countless other tricks not discussed here, and some of the strategies here may not be effective depending on how the rules are implemented. Regardless, I believe that the potential for clever strategies depending on advanced skills are the primary emergent property of this system and that this is the ideal for a fun competitive game.