

Initial game 'Zuma Deluxe'

Motivation

In this document, a motivation is given for the initial version of the game 'Zuma Deluxe' as is to be developed by project group 'Deluxe'. It is assumed that the reader is familiar with the game of 'Zuma', so no additional explanation will be given about the game itself.

Before the actual description of the game's state, it is worth noting that the 'Deluxe' group as it is now, has been together for only one week. The original team as formed at the beginning of week 1 fell apart, as soon as the notification about the fact that minor students were exempted from the lab work was posted on slack. The consequence of this was that most part of the first week was spent looking for additional team members.

Also it is worth noting that three out of five team members (the remaining members of the original group) are following a bridging / exchange program and have hardly any prior experience with the programming language Java. They simultaneously follow the first year course 'Object Oriented Programming', which is at entry level at the moment of writing this document.

Current State

The functions that have been developed for the game in the past week are listed below:

1. Track (graphical)
2. Track map (array of track positions)
3. Background (with game status information)
4. Scoring system (with combo scores functionality)
5. Random (color) marble chain generator
6. Various difficulty levels (three at this instance)
7. End of game conditions based on timer 'timeout'
8. Intersection function that makes it possible to add the 'shot' marble to the 'marble chain'
9. Shooter, capable of rotating 360 degrees, which can be operated by both keyboard and mouse, and which is capable of shooting marbles across the playing field at a certain predefined velocity.
10. A marble (chain) repositioning system that allows a marble to follow the track based on key points and rotation functions

The point at which we have arrived is the integration of all these functions into a fully functional game. Up till now, the initial version shows a graphical depiction of the first track that we will use. In the future we intend to build more tracks, so a level system can be implemented.

In order to integrate the various functions, we decided to start with a static chain of marbles, so we can implement and test the intersection function. The shooter is fully operational and capable of shooting a marble at the chain. At the moment of intersection, the game freezes, due to a (deliberate) stop of the game's timer, indicating the intersection function basically works.

Future state

From here on, the intersection function will be integrated further so the marble chain can be expanded by the addition of the 'shot marble'. Also the 'marble chain' repositioning system will be implemented as well as the 'scoring/level/end of game condition' system.

After these three steps, the game's core functions will be fully integrated and operational, resulting in a playable game. It is our expectation that we will get to this stage next week (week 3).

Reflection

Given the delay and relative inexperience of most of the team members, we believe that we are definitely 'on the right track' and are making good progression. Most of the functions were actually developed within the time span of one week and the learning curve has been quite steep for most of us. It is a pity that the game is not yet fully functional, but still we have little reason to believe that we are 'trailing'. We therefore hope that the circumstances will be taken into account when the first product is to be graded.