

## GUI Report

We needed to come up with a tiled map of the university [1] for the game. As a requirement was to subdivide the map [1], the team agreed upon a 30 tile board - giving each player the opportunity to acquire 15 plots each.

Instead of building artwork for the game the team went with an open source artwork solution for the terrain and use non-copyrighted images for the university landmarks. The GUI was then built using an application called Tiled. This allowed us to create a custom map with features such as lakes, roads and different grass areas. When adding the custom landmarks the map seems to come to life and although it is all 2D it is easy to identify certain areas of the campus.

Based on our operating environment requirements [2], we decided to have our game at a fixed resolution of 1280 x 869. This allows us to display on the screens in CSE 069/070 [2] as per the requirements.

The landmarks we chose included the following: Central Hall, Ron Cooke Hub, Heslington Hall and the Computer Science building. We also included an iconic pink 66 bus. These landmark features can be identified uniquely to York. The landmarks were taken from free images on google and then cropped and converted to a png (portable network graphics) format so they could be superimposed on the tiles.



Figure 1: a screenshot of the current gameplay

We decided to position the toolbar on the right hand side of the screen. We wanted to include each player's current stats, (which includes their money, ore and energy). When a player selects a tile we map the x and y coordinates of the mouse on the screen and map it to a tile. This allowed us to have 30 unique tiles plotted and we could then associate a tile to a player and display their coloured tile accordingly. The marketplace appears in the side toolbar when required in phase 3. This allows the player to buy or sell using implemented buttons. We also display all the relevant pricing for the market resources.

[1] W. Wood, et al. (2016, Nov. 9). "Requirement 3.1.0". Updated Requirements - Downloads – Gandhi Inc. – SEPR Project group [Online]. Available: <http://gandhi-inc.me/downloads/Gandhi-Inc1.zip>. [Accessed: Jan. 23, 2017].

[2] W. Wood, et al. (2016, Nov. 9). "Requirement 2.4". Updated Requirements - Downloads – Gandhi Inc. – SEPR Project group [Online]. Available: <http://gandhi-inc.me/downloads/Gandhi-Inc1.zip>. [Accessed: Jan. 23, 2017].