

# GUI Report

Green text represents a part of the original GUI report that has been heavily incorporated into our understanding of the features to be developed in Assessment 3.

Orange text represents a part of the original GUI report that has been changed to better represent our understanding of the GUI, the changes will be represented as blue text.

Red text in brackets is used to represent a part of the GUI report that has been removed as it has been made outdated by our adaptations to the GUI. The change will be represented in quoted blue text after its respective predecessor.

Our objective was to create a functional and simple GUI that would meet the project requirements[1] but that would also look professional. In order to design a functional and effective interface we conducted research on design principles [2] and Human Computer Interaction fundamentals[3, 4].

The main principles we followed are: “Do not be Innovative”, “Less is More” and “Think about the User”, which we believed would contribute to producing a game that will be easy to play even by new users, as required by NF1.

For the game menus we used simple click buttons that all users would be familiar with, each menu has also a header at the top to identify which sub menu is currently displayed.

The menus also used intuitive UI components such as: standard icons (e.g left and right arrows); sliders and On/Off switches. Any user is likely to be familiar with UIs that use these components and therefore they should be able to interact with the game intuitively. Additionally, all text labels use standard and clear terminology, to further improve usability.

We wanted to avoid displaying too much content on the screen at once, because that would be distracting for the user and could confuse them, so the menus are kept simple, without animations, displaying only functional elements and some graphics to embellish them. The application of this philosophy can be seen especially in the HUD, which has been kept to its minimum level of detail and presents only the necessary information to the player.

In order to improve the user experience, we considered interacting with the UI from the user's perspective and thought about what information and feedback was required to successfully use the UI. We have also introduced the game to friends and family who are unfamiliar with the code to get feedback about their interaction with the GUI and have incorporated this feedback into decisions regarding the features that we have implemented. To achieve this all buttons have a clear text label that describes the button's function and most clickable buttons change color after being clicked, therefore showing the user that the action is being performed.

To improve the playability we made sure that the inputs interactions are standard for the game genre. For example menu navigation uses a button based GUI that the user can manipulate with their mouse and (the escape key can be used to quickly return to the main menu) the escape key will bring up a pause menu, from which the user may resume the game, save, load, go to the options screen, or quit the game. Additionally, during gameplay the user can navigate the map using intuitive controls: the scroll wheel to zoom in and out and the arrow keys to move the map in the respective directions within the limits of the map. Dialog boxes are used to perform actions: getting inputs; confirming choices and conveying information to the user. They aim to be simple for the user to understand so they are easily guided through the game.

The GUI design had to meet several requirements elicited during Assessment 1. The game map was hand drawn from the actual university campus map, in order to achieve the realistic look required by F13. The style of the map is a hybrid between realistic and cartoonish as required by NF2. The aesthetic is achieved by using black lines contrasting the brightly coloured sectors, as inspired by Risk Factions[5].

As required by F15, players must enter a Game Setup Menu which allows them to: choose how many players are in the game (2 - 4); set the players' names; select the colleges they play with; toggle the Neutral Player and as required by F2 enable or disable the turn timer. (The Options Menu allows the user to enable colourblind mode as required by NF5).

For the graphic style of the game we analysed strategy games produced by reputable studios. In particular the artwork style was influenced by the latest editions of Risk developed by Ubisoft (Risk and Risk Urban Assault)[6, 7]. The elements from such games that were studied the most were the shapes of the labels and buttons, as well as the layout of the menus, which gave a military and tactical aesthetics to the game. A walk through of the design process and screen shots of the final GUI are available on the team website[8].

# References

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- [7] Ubisoft. Risk Urban Assault, 2016. [Online]. Available: <https://www.ubisoft.com/en-gb/game/risk-urban-assault/> [Accessed: Jan. 17 2017].
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