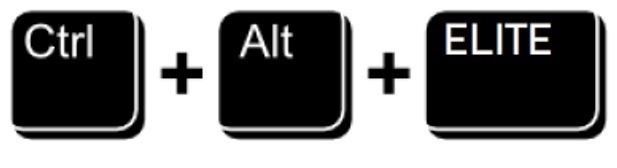
 **ITEC 370: Software Engineering One**

Artis College of Science and Technology

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**Software Engineering**

**Software Project Planning Document**

Benjamin Lichtman, Grace Conner, Connor Sullivan, Haley Donaldson, Julian Gomez  
Group 2  
9-18-18

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| **Review & Approval** |

Project Planning Document Review History

| Reviewer | Version Reviewed | Signature | Date |
| --- | --- | --- | --- |
| **Project Manager** | 1 | Julian Gomez | 9/30/18 |
| **Group Member** | 1 | Benjamin Lichtman | 9/30/18 |
| **Group Member** | 1 | Grace Conner | 9/30/2018 |
| **Group Member** |  |  |  |
| **Group Member** |  |  |  |

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| Team Information |

### *Team Information*

CTRL+ALT+ELITE

### *Project Title*

Target Acquisition Game

### *Customer Name/Contact Information*

Dr. Joseph Chase / 540-831-5997

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| Project Scope |

The target acquisition game is currently only a front-end system with minimal back-end components. We will work on the back-end and improve the experience for researchers. The target acquisition game will only users to play a game based on constraints set by the admin of the system. These constraints will be to give further control and use of the variables in the research conducted. The admin of the system can change the game in ostensibly every way, in that each variable will have a corresponding option in the administrator page that we expand on. The game has variables that can be modified to glean useful data, such as the distance that targets travel, their velocity, and size. When a player plays a game, they will generate usage data that can be compared to previous game data.

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| Project Functionality |

As a <USER>, I should be able to:

1. Access the game via webpage from any device
2. Click to input
3. Mute audio?
4. Select options as allowed by operator
5. Select input device if game can’t see it
6. Enter name at end of game to be registered in high scores
7. View high scores
8. Retrieve input device driver details from user and store them (If possible)

As an <OPERATOR>, I should be able to:

1. View operator menu as visual UI
2. View operator data as UI and/or export to file (csv, db, etc?)
3. Modify the speed of targets
4. Modify the distance targets travel
5. Modify the size of targets
6. Modify the amount of distance that targets should be from each other
7. Modify the options allowed to user
8. Decide which set of images to use
9. View past game data

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| Project Iterations |

|  |  |  |  |
| --- | --- | --- | --- |
| Iteration 0: | Iteration 1: | Iteration 2: | Iteration 3: |
| UI of back-end of game. | Back-end functionality of game. | Gamification. | Finalization. |
| Allow operator to login securely to server.  Allows for setting of target size, speed, number of targets and distance. | Back-end modifies game data. | Game is challenging for players, fun to play and dynamic. | Convert database to CSV.  Add possible game mode “attack”. |

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| Key Stakeholders |

The goals of our system effect more than just our team. Several project partners will be affected by the success or failure of our project.

Our team:

Benjamin, Grace, Haley, Julian, Conner

Client:

Joe Chase

Partners:

Andrew, Chandler

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| Risk Management Strategies |

### *Technology Risks*

1. Up-time: The system always needs to remain working. We will assume the server itself will stay up, thus we will achieve constant uptime by making sure our system has no clear vulnerabilities that some user could utilize to bring the system down.
2. Future-proofing: The system should utilize technology that is unlikely to cause a loss of data or break of system (i.e. Free database becomes paid). We will do research to make sure this is the case with any technology we utilize.
3. Data-loss: The system data must be backed up. We will fix this by backing up the data on our GitHub repository as well as saving a copy of the current code to a drive.

### *People Risks*

1. Researchers don’t like to use our system to get data and change game variables. We will solve this problem by consulting the client about ways we can improve the experience for researchers.
2. No users want to play the game. We will fix this by making the game more fun through changing the points system and adding a new mode where the targets shoot at your cursor. This will give users more positive feedback when they play the game and give them a more challenging mode, while also giving the researcher more data.
3. Our documentation is hard to read. If another group or a researcher tries to modify the code or use the system they will need good documentation otherwise they will have to figure out what our code does themselves, which could be time consuming and potentially difficult. To counteract this we will each verify that documentation is correct, concise and highly readable.

### *Requirements Risks*

1. Every team member must fully understand the modifications we will make on the administrator program and game code, otherwise someone might be writing code that doesn’t work. At meetings we will each explain all changes we have made since the last meeting while being as specific as possible to avoid confusion. The GitHub commit log will also be helpful so long as each of us expresses code changes in a clear way when committing our code.
2. There is not a concise and clear tutorial for some technology. This will be solved by talking to Andrew about which tutorials his group used, as well as doing preliminary research to determine which tutorials are the easiest to understand.
3. Our client is not satisfied by our progress or wants a change in the project. This risk will be mitigated by meeting with Dr. Chase each week to continue getting feedback and adjusting based on that feedback.

### *Estimation Risks*

1. A deliverable is not finished on time. We will set the date a deliverable should be finished several days earlier than the date the deliverable is due. If a deliverable is not finished by that time we will work as a group to get each member back up to the current schedule. This will put additional strain on all group members, so it is still an important responsibility that we all maintain the set deadlines.
2. The time needed to finish a task is too long and will impact the time it takes to finish the deliverable. If a group member has this problem they will tell the manager of the deliverable and they will delegate sections of that task to others that have less to do.

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| Project Responsibility and Accountability Chart |

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| ***Milestone/Deliverable*** | ***Project Manager***  ***Asst. Project Manager***  ***(Select a PM and Asst. PM for each phase)*** | ***Scheduled Start*** | ***Scheduled Finish*** |
| *Project Planning*  *(Including 6-week Presentation)* | Julian Gomez, Grace Conner | September 18th | October 4th |
| *Requirements*  *(Including tutorials coordination)* | Grace Conner, Benjamin Lichtman | October 4th | November 1st |
| *Design* | Haley Donaldson, Conner Sullivan | November 1st | November 8th |
| *Development:*  *Iteration 1* | Benjamin Lichtman, Julian Gomez | October 9th | October 30th |
| *Development:*  *Iteration 2* | Conner Sullivan, Grace Conner | October 30th | November 12th |
| *Development:*  *Iteration 3* | Julian Gomez, Haley Donaldson | November 13th | December 4th |
| *User Manual and Final Presentation* | Benjamin Lichtman, Haley Donaldson | November 15th | December 6th |

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| Management Objectives and Priorities |

* Missing a meeting will require the party that misses the meeting to collect any information they may be missing pertaining to the project. Missing team members are members, not present in person, or online during meeting times. 3 missed meetings will warrant an email to Dr. Lewis-Williams pertaining to the absence.
* Assignments are to be uploaded as a work in progress, 2 days prior to the due date. This will allow our team to collaborate and give feedback on the assignment. If the assignment is not progressing to the satisfaction of all team members, the assignment may be completed by another team member with the expectation that the original assignee complete additional work.
* Grace Conner will serve as our lead customer contact.
* We will meet with Dr. Chase once a week, minimum. An average of 2 meetings per week is expected.

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| Definitions, Acronyms, and Abbreviations |

## Preliminary Schedule

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| References |

*List references (including websites and documentation from an existing team).*