**CMPUT 401 – Winter 2013**

# Project Plan

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## Table of Contents



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## Introduction

This section provides a quick overview of the different areas regarding the project plan for the project.

### Preliminary Requirements

- The preliminary requirements were obtained from the design documents produced by the HuCo students in Fall 2012. The design documents contain detailed plans for both the TimeMap and the associated game - including screen functionality, mockups and user stories.

### Technical Issues

- We're planning to use a linux server running python2.7 with Django, a web development framework.
- We'll also need a backing SQL server of some type and apache to serve static resources.
- Currently, the lack of access to the EPL codebase presents challenges for game development.

### Personnel Issues

- The Humanities Computing Students who produced most of the design documents are now volunteering their time only. Support from them might be sporadic.

- Several design aspects, like color schemes will be fine tuned by a design group from the EPL team, this still hast to be set.
- The main EPL contact for the project is Peter Schoenburg (pschoenburg@epl.ca).
- Our secondary contact (for more technical issues) is Andrew Nisbet (anisbet@epl.ca)

## Resources Required

- The following design documents were provided by the HuCo students, and will serve as a basis for the design of the project. These files are located on eClass:
    1. CompSci_Documentation.pdf ( *comments for the development team* )
    2. Game.annotated.pdf ( *detailed design of the game component* )
    3. GamePresentation.pdf ( *slides for a presentation of the game component* )
    4. TimeMap.annotated.pdf ( *detailed design for the TimeMap component* )
    5. RoughDraft-617WebsiteProjectPlan.pdf ( *an earlier version of the TimeMap design* )
- In addition, we also received visual assets for the mockups provided in the design documents. See Resources section in the Project Requirements Document. Historical maps have also been provided, however copyright for deployment still needs to be acquired.

## Dependency Issues

- Our framework will have a strong division between the back-end and the front-end. The back-end will expose an API (JSON data) that the front-end will utilize when needed. Therefore, there our goal is to deliver a highly decoupled server and client infrastructure. There will be some dependencies between the different views on the front-end, as it is a very interactive website.

## Breakdown of development tasks

So far, the planned breakdown of tasks will be as follows:

- **Back-end Tasks**
    - Oscar will develop the backend and data management assisted by Noorez and Ben.
    - Taylor will investigate the Symphony API and integration with the EPL's data for the game component.
- **Front-End Tasks**
    - Braeden will be in charge of the front-end UI framework.
    - Tim will work on UI components, views, and interaction with the backend.
    - Isaac will integrate the Simile timeline viewer into the website.

- **General Tasks**
    - Ben and Taylor will also assist with general tasks where needed.
- **Testing**
    - Noorez will integrate Crawl Scripter into the project to strengthen the testing.

### Risks

The next section goes into a detailed risk assessment. Risks regarding personnel, client and scope assessments are some of the risk that have been explored.

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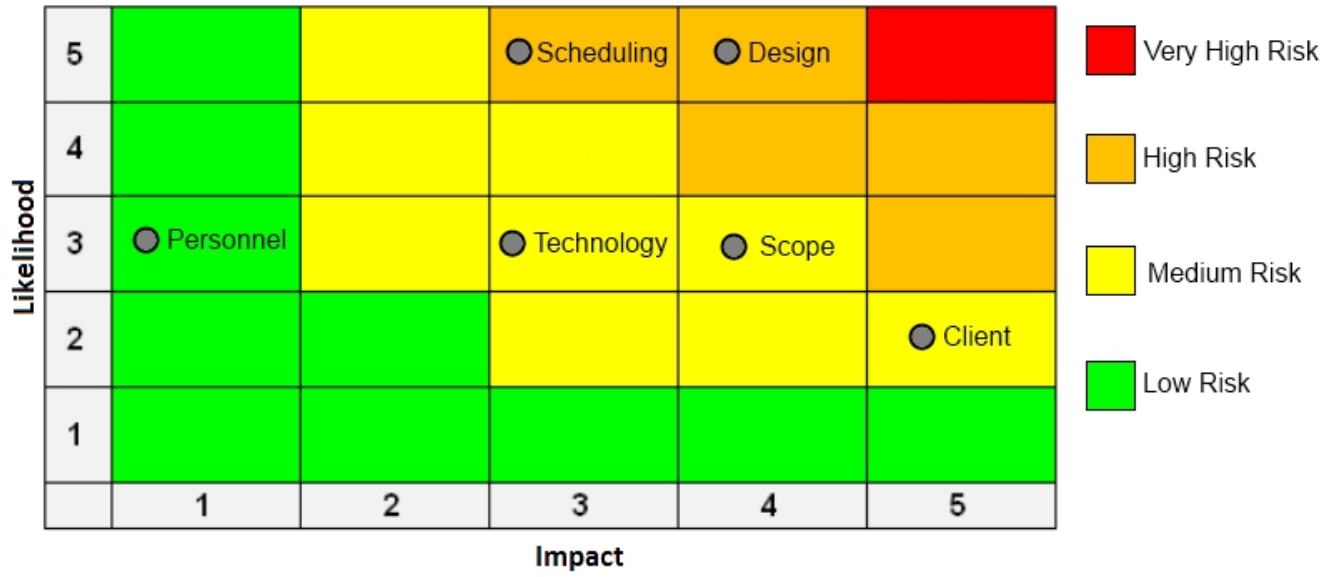
# Risk Assessments




### Scope

| **Description** | **The scope of this project is very large with both the TimeMap and Game. As the scope within both these projects does not seem to have strict bounds, it is possible that the number of requirements will become to large to satisfy by the deadline.** |
|---|---|
| Potential impact | High |
| Likelihood | Medium |
| Mitigation Plan | Proper project plan and requirements document algon with frequent meetings with client to discuss which parts of the project are not essential and terminate work on them. |

## Client

| | |
|---|---|
| **Description** | **A constant stream of connection is required with the client in order to ensure that requirements are being met. This is also essential in order to ensure that any issues or concerns that arise during development can be resolved in a timely mannner. Any break in communication will affect development.** |
| Potential impact | High |
| Likelihood | Low |
| Mitigation Plan | Multiple personnel contacts with the EPL team have been set to mitigate this issue. |

## Personnel

| | |
|---|---|
| **Description** | **Working with a large 7-person group may cause communication difficulties and challenges.** |
| Potential impact | Low |
| Likelihood | Medium |
| Mitigation plan | We have regular meetings every Friday where we will update each other on the status of the project. We will endeavour to record notes at each meeting, which we will put on the wiki. We will set up an IRC channel so that it is easy to communicate between group members. One feature that we would like to set up is a chat history so everyone can read what was discussed. |
| Has it occurred? | No |

## Technology

| | |
|---|---|
| **Description** | **Lack of web-development experience in the group. A few members of our group haven't done a lot of web development before, so there will be some learning involved.** |
| Potential impact | Medium |
| Likelihood | Medium |
| Mitigation plan | While a few members haven't done a lot of web development, there are also members who have a lot more web development. These members will be able to mentor and help some of the members who have less experience in web development, so that everyone will be able to work on the coding. Also, some of the more challenging aspects of setting up the framework for the web app will be handled by the experienced web-developers. |
| Has it | No |

| | |
|---|---|
| occurred? | |

### Scheduling

| **Description** | **Conflicts with other school courses. As students, we have many courses with other midterms and projects.** |
|---|---|
| Potential impact | Medium |
| Likelihood | High |
| Mitigation plan | It will be important to balance our work between our courses. We will try to plan our sprints/milestones around big midterms or other projects. Also setting realistic goals will be important. We'll try to set goals that are manageable when combined with our other schoolwork. |
| Has it occurred? | No |

### Design

| **Description** | **The design provided by the HuCo students is very ambitious - it may be difficult to complete everything that they designed during this semester-long project.** |
|---|---|
| Potential impact | High |
| Likelihood | High |
| Mitigation plan | We may have to scale back the design to something that is feasible for a semester-long project. |
| Has it occurred? | No |

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# Project Macro-Structure

**Process Model:**

- We will complete the project with a spiral model approach with incremental releases. We will begin by implementing the "core" functionality, while subsequent iterations will add the supporting functionality and the "nice-to-have" features. We will order the tasks based on their priority, and complete the tasks with the highest priority first. This will ensure that the essential functionality is solidified before we tackle non-critical areas of the website. We are also using an evolutionary prototyping process. We will start by creating a basic framework, which we will improve over time. For

example, we might start with creating a basic version of a screen without applying any styling or graphics. Once the functionality of this draft is working, we can refine the page with CSS styling and additional user-experience features. In this sense, the website will "evolve" as we progress through the project.

**Team Organization Model:**

- We will not have one central "chief" on our team. Rather, we will all work together on an equal level. We feel it would be difficult to elect a single lead for this project because we are all students with relatively equal planning experience. However, different members of the group do have different technical experience in specific areas. Therefore, we will likely divide the work according to everyone's specific experience. For example, Oscar is more familiar with the python backend, Braeden is more familiar with the front-end UI, and Isaac is more familiar with the Simile technology.
- So far, we have found that it has been easy to communicate between team members because we have regular meetings throughout the week. Our team meets every Friday and Tuesday, where we discuss the status of the projects and any issues that have come up. By meeting so regularly, everyone is kept in the loop about the status of the project. We will all take turns taking the Meeting Minutes and updating the wiki.
- Similarly we have setup an IRC server to facilitate communication and the logs are automatically published to our project page.
- Noorez will be the "tester", as he is the student from CMPUT 402.

**Project Monitoring:**

- Our project will be monitored using the planning tools on GitHub. We will create tasks and milestones for all of the required functionality of the system, and add due dates to each milestone. We will be able to monitor our progress by looking at the tasks and seeing how much has been completed, versus how much is left to do. We can also keep track of our progress by seeing if we are hitting our due dates or not. If we find that we are consistently behind our due dates, then that will be a warning that we may need to reevaluate our goals.

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# Major Phases and Milestones

| Milestone# | Due Date | Description |
|---|---|---|
| 1 | Feb 11 | • Documentation<br>• Mockups (interface prototypes) |

| | | |
|---|---|---|
| 2 | Feb 18 | • Front-end functional prototype<br>• SIMILE integration with maps<br>• Basic TimeMap integration |
| 3 | Feb 25 | • User interactions connected to back-end<br>• Account registration<br>• TimeMap content search<br>• Back-end search capabilities<br>• Account creation/sign-in UI<br>• Complete TimeMap navigation<br>• Write and execute front-end integration tests |
| 4 | March 11 | • Game mockup<br>• Draft game API<br>• Quest templates<br>• Administrator view game mockup<br>• View media content<br>• Administrator controls of TimeMap<br>• Integrations tests for TimeMap |
| 5 | March 18 | • User interactions with game<br>• User game profiles<br>• Quest creation capabilities |
| 6 | March 25 | • Integration tests for H.Y.G<br>• Documentation review/catchup |