

# Southampton Navigator Individual Reflection and Evaluation

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## Abstract

*This report details the making and design of “The Southampton Navigator” from my own individual perspective. The system implemented was a derivative of PacMan where the user controls PacMan using their physical position on the surface of the Earth. The user is expected to use the game as a fitness test, as the length of time taken is recorded, so that the user can see as they improve.*

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# 1 Group Formation and Operation

The group first met on Monday the 30th of April. This first meeting was after a series of emails over the Easter break discussing some initial ideas for the project and our individual skill sets. It was unfortunately much later than we would have liked, this was for a number of reasons; While the project was technically assigned before Easter this was a time when myself and some of the others were involved with D4. D4 is a project which requires a massive and intensive time commitment over the three weeks it takes complete. Also since the project is staggered for different groups it resulted in some or more of us being involved in D4 all the way up to our first meeting. It could be argued that the Easter break provided the perfect opportunity to meet however this would have been very difficult with many of us away from Southampton or even the country on holiday, or with other commitments.

In our initial meeting it was our aim to establish which project idea we were going to push forward with, what skills we each had, and how tasks would be divided.

While we were able to quite quickly decide which project idea to push forward with it was much more difficult to establish the skillset of the team. It did however become clear very quickly that there was only myself and another who felt confident programming. As a result it was us that lead the rest of that meeting and development from that point on. The main problem with finding everyones programming skill level was in that we all found it difficult to gauge and describe just how skilled we each were. To overcome this we decided to leave and all have an initial attempt at a prototype, experimenting with the GPS and some of the ideas we had discussed and upload this onto the SVN server.

**Group grade**  $\frac{5}{10}$

## 2 Work division

I think our group's main weakness was the lack of programming skill for the majority of the team and perhaps a little over optimism in myself and the other strong programmer (Alex).

After our initial meeting only myself and Alex made any submission to SVN or attempt to do any work (as far as I know) until May 17th. Alex and myself continued to communicate frequently via email regarding further development of the project. Most of these emails we're kept open (by means of forwarding to all members) and some direct attempts to encourage the others to work. While obviously frustrated by this I am inclined to think that the lack of participation on behalf of the other members was not down to laziness on there part (although perhaps their lack of communication, and lack of attempt to seek help with any problems may have been). I personally feel that the electronics course had simple not equipped them with the skills required to help with a project of any reasonable size. Alex's skill with programming was mostly from experience he had gained in his own time and not from his course. While it can be argued that non-coding tasks could have been allocated to the other members it was just not possible for them to plan or write aspects of the report effectively with their programming experience level.

It may be said that myself and Alex pushed the others too hard and were over optimistic when we defined the project. However the written specification certainly did not suggest this, and the others on the team did not mention any concerns in the initial meet-

ing. Also for the project to be useful and interesting for those of us who are experienced a decent level of complexity is necessary.

The result of all this is that Alex and myself did most of the work in programming, planning and report writing. This put a large amount of pressure on Alex and myself, and resulted in code that had less functionality that I would have liked. However it should be noted that all the other teammates did participate much more in the last week of the project and produced some content for the final report. In particular Tom Cowley produced a good level of work, was the most communicative (of the others) and even attempted some code, also Chin Jankowski did some good work for the presentation.

Overall its fair to say I was a little unhappy about the division of work among the group;

**Work division**  $\frac{4}{10}$

### 3 Planning and Progress

I think that given the problems with man power the planning went reasonable well. Its obviously quite difficult to plan for such a small time frame and such a small team. For the reason we made the decision to use an agile-like software development framework as it is well suited to development over a small time frame, with small teams and a flexible specification [2]. I also agreed very strongly with the emphasis of working software as the primary measure of progress [1], as opposed to some other development frameworks which can result in vaporware.

While there was only two of us working for the majority of the project I feel that we communicated well and progressed well. We developed an initial class diagram after the first week and this was the basis for a lot of the design and development. This was used to divide classes up between myself and Alex. As the project continued we communicated constantly exchange ideas and adapted the design as necessary. We achieved a working program early, and evolved this. However it is a shame we did not produce more formal planning documents. Also formal testing was more or less absent which was undesirable. This was mostly down to the lack of time, and resources.

**Planning and Progress**  $\frac{7}{10}$

### 4 My contribution

I feel that I contributed 50% of the code written, including all the code relating to the database and web-interface as well as 70% of the code for all the classes except PacGui. I also contributed 45% of the group report. I also designed the initial class layout. As part of my contribution I was also responsible for all of the code relating to the GPS and converting between coordinate standards (some code of which is not actually used in the final application, but would of been needed for more feature implementation). I would have liked to contribute more to enable more of the features we laid down in the design but this was just not possible with commitments both inside and outside of University. Also I would have liked to had more time to concentrate on all of the code and perhaps perform unit tests to ensure greater quality.

While it may be immodest of me I would rate my contribution quite highly.

**My contribution**  $\frac{9}{10}$

## 5 Reflective Evaluation

Overall I'm happy with my contribution to this task. I feel that I performed well under difficult circumstances and feel that it would have been a enjoyable project if it had not been for the pressure from other commitments and the problems mentioned above.

In hindsight I think I would of pushed for a less challenging project given the rest of the groups abilities, however it would have been easy to make a project that was too unchallenging and hence would have been less enjoyable, or perhaps not achieved the same marks. I would have also like to perform unit tests from the beginning which I feel would have resulted in a higher quality of code.

I also feel that some of the decision made by those who set the project were perhaps unwise (although given unforeseeable so); for example mixing groups with different D4 schedules caused a great deal of difficulty, also I feel that a much more specific written project specification would have been useful. While I see the reasoning for the mixing of abilities in the groups it may have been more appropriate to ensure that the difference between the most and least skilled members of the groups were not so vast.

## References

- [1] Agile software development  
[http://en.wikipedia.org/wiki/Agile\\_software\\_development](http://en.wikipedia.org/wiki/Agile_software_development)
- [2] Boehm, B. & R. Turner (2004). *Balancing Agility and Discipline: A Guide for the Perplexed*. Boston, MA: Addison-Wesley