Conclusion Chapter - Fruit Smashers

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June 3, 2016

1 Introduction

It has been a hectic last few weeks, but we have reached the end of the course. We made several changes in the week immediately following the playtesting session, in order to polish the final product for the Gobo release. We also spent quite a bit of time honing our cinematographer skills; for one afternoon, we recorded game footage, which we then refined over several days into our final trailer. We have provided more detailed feedback below, but overall we enjoyed the course very much.

2 Changes since the Alpha Release

Most major changes we did after the alpha release are already documented in the playtesting report. However additional bug fixes and tweaks were added to the final version of the game after playtesting and they are listed in the following subsections.

2.1 Graphical User Interface

The most important changes introduced in the GUI system were redesign of the main menu screen, as well as addition of the key bindings screen to showcase controls for the car during the game. Both screens are presented below.

Figure 1: The final design for the main menu of the game. It symbolically represents the game more accurately than previous iterations and has overall better aesthetic appeal.

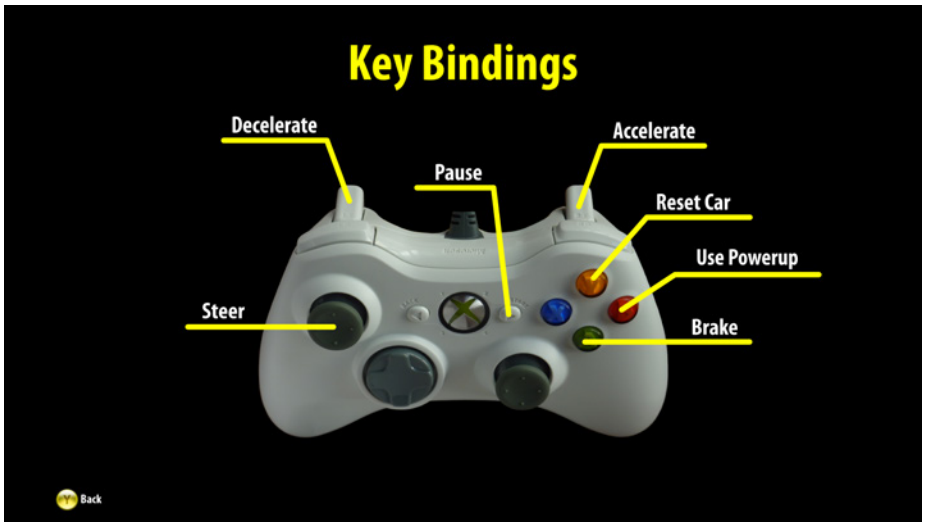

Figure 2: Key bindings screen accessed through the main menu. A similar picture is also visible in the settings.

Additional tweaks were done on several interface elements in game as well. The minimap was changed to always show the locations of all the cars in the game. Toast messages were organized in a better way with the goal to show the most important in-game events and information for every player, depending on the game state and situation.

Besides these, 3D health bars were also added for all other cars relative to the player. This allows him to see hit points of the other cars more clearly in his viewport, which improves the gameplay.

Figure 3: 3D health bars in game

2.2 Gameplay Mechanics

Besides user interface changes, car physics were also tweaked to match the desired behavior. We believe that the latest iteration of tweaks and changes to the driving mechanics and car physics system in general greatly improves gameplay by allowing the players to perform drifting and handbrake turns.

3 Screenshots from the Final Game

Figure 4: A screenshot featuring physically based fruit stand destruction.

Figure 5: A screenshot featuring defensive flower pots.

Figure 6: A screenshot featuring the church placed as a distinctive landmark.

Figure 7: A screenshot featuring carefully placed banana spill.

Figure 8: A screenshot featuring car approaching the fruit stand.

Figure 9: A screenshot featuring physically based fruit stand destruction.

Figure 10: A screenshot featuring different power ups.

Figure 11: A screenshot featuring 1 on 1 gameplay.

Figure 12: A screenshot featuring 2 on 2 gameplay.

4 Development Experience

In general we believe that the initial ideas for our project materialized very well in the final game. We were able to successfully follow the development schedule. The schedule was quite tough in general, but not too unrealistic. In the end many things probably took longer than the initial hour estimates, but oftentimes that was also due to our dedication to make things as good as possible. The only thing we did really underestimate was the amount of work required to give the player enough feedback about the game. Also the whole user interface turned out to be more complex than we expected, since there are a lot of edge cases to deal with.

The different elements of the project structure mostly helped to keep us on track. Only the physical prototype felt unnecessary, since it was only a very rough approximation of the actual gameplay. Sometimes it also felt a bit redundant to both write a report and give a presentation in class about the exact same thing. It would be nice if it was specified even a bit more clearly how long and detailed the different reports should be.

5 Personal Impression of the Course

5.1 What was the biggest technical difficulty during the project?

We spent a lot of time on the development of the AI, as this was our technical achievement. Also getting real-time performance was a bit tricky, since we aimed for very good graphics.

5.2 What was your impression of working with the theme?

We did not particularly like the theme, even though it really helps to enhance creativity. We obviously would never have created a game centered around destroying fruit stands if it wasn't for the theme.

5.3 Do you think the theme enhanced your game, or would you have been happier with total freedom?

That seems to depend a lot on the theme itself. Again, we did not like this year's theme that much.

5.4 What would you do differently in your next game project?

For the next game project in the same time frame we would try even harder to simplify things. Having less technical complexity in the game would allow to have more time to tweak and improve game mechanics.

5.5 What was your greatest success during the project?

There were many small successes throughout development. In the end, the greatest success was to have a working product. It was very nice to see people play after the final presentation. They were able to play the game without any input from our side. This was the greatest success during this project.

Figure 13: Players enjoying the game during the apero. Success!

5.6 Are you happy with the final result of your project?

Yes.

5.7 Do you consider the project a success?

Yes.

5.8 To what extend did you meet your project plan and milestones (not at all, partly, mostly, always)?

We almost always were in time. This was very important, since our game is quite complex and we all had a very busy semester of around 30 ECTS each.

5.9 What improvements would you suggest for the course organization? (perhaps in D1 evaluation)?

The organization seems quite good. We like that there are a few milestones which force you to have some presentable version of your game. We think however that the development should start slightly earlier in the semester. At the point where Monogame was explained in the lecture we already started working with it on our own, since otherwise it would probably not have been possible to meet the deadlines.

Also just as a general feedback on the course: we feel a lot of the lectures in the course were quite game design heavy. It would have been very cool to learn more about current game technology and how things are done in AAA games (e.g. by highlighting some recent research works in the area or discussing common strategies for typical engineering problems in game programming).

5.10 Did you like the Monogame framework?

We have mixed feelings about it, since not everything in the framework is perfectly polished just yet. On the other hand, there don't seem to be many good alternatives which fill this niche. It certainly makes sense to not use a complete engine such as Unity, since there the learning effect would be much smaller we think. On the other hand it also was very pleasant that we did not have to start from scratch completely and things such as content management and simple wrappers around GPU functionality are already provided.