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Lappeenranta University of Technology

**LUT School of Business and Management CT10A7041, Code Camp Finnish Game Jam**

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**BEFORE AND AFTER REPORT FOR  
POST-FGJ-WEEKEND GAME DEVELOPMENT**

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## **1 Introduction**

The game we set out to create during the FGJ weekend was a puzzle game in space inside an asteroid. In the game the player flies around a cave inside the asteroid holding link devices, their task being to place those devices well enough so that the energy laser coming from the mothership at the entrance of the cave can easily reach the laser-powered drill at the end of the tunnel, so the mining operation may continue.

## **2 Results of the weekend**

After the weekend we had a completed level, controllable player/spacecraft, laser-sending mothership, drill working as a goal, background music and sound effects for all game objects and functionality. We also managed to build a working main menu with a picture of game assets as a background. However, we also developed a series of "obstacles" in a form of loose rock/small asteroids that would have been placed inside the caves of the bigger one, where the player moves. These free-moving objects would have taken the difficulty up a notch, forcing player to focus more on avoiding these objects to prevent his ship from getting destroyed. Mechanics to shake the screen caused by the "level asteroid" being smashed against other asteroids were also planned, but not made. Time trial -mode was another planned addition, that didn't get added. This would have forced the player to act quickly.

You could play the game until only a certain point, and some key functionality was still completely missing. For example, you couldn't officially win or lose the game. The limited functionality in this version of the game included damage to player from smashing their ship to walls and from energy beam. You could also place the first relay link to the end of the beam coming from mothership, but there were problems in the development when working with the relay links and redirecting the beam. Because this functionality left unfinished because of the lack of time, we couldn't implement win mechanic into the game. And also, even when the player takes too much damage, we didn't have time to implement the game over

mechanic, either. Nonetheless, we were able to finish the game from graphical and audio/SFX aspect, even though we were yet to implement all of the graphics into the game.

### **3 Plan beyond the Game Jam**

We continued to work on the game after the Game Jam by the two of us since the third member of our group didn't participate in the FGJ Code Camp. The minimum plan for the project was that we get it to the point where links can actually transfer and redirect the laser and the player is able to win or lose the game. To add to this, all fixed and updated graphics and sounds were to be added to the game to their right places. A minimum plan like this was necessary because the member not to participate in the Code Camp was our team's programmer and without him the rest of the team had to take charge of the programming work necessary for the game. We however weren't sure how hard it would be to overcome the problem that prevented our programmer from finalizing his work.

In case the basic functionality of the game was achieved in time, the next step in development would be small space rocks flying around the cave which would hurt the player, were they to crash into them. After this would be the creation of a procedural map generation tool, which would let us automate the creation of new maps for the game. Then to add, an occasional shaking effect to the asteroid the player is located on. This simulates the crashing of other asteroids into the game level and brings difficulty to the game. Another difficulty element would also be a slow spin to the level from the asteroids natural movement in space, so the map would basically move around the player making it more difficult for the player to stay in control of their ship and not crash into everything in this vacuum without gravity.

When playing the game, all the aforementioned features wouldn't of course jump on the player's face in the first level, so to speak, but rather the difficulty would gradually increase the further the player gets in the game. The level would first start slowly spinning, then introducing the shaking effects caused by other asteroids, also spawning flying space rocks into the cave as a result of the asteroid crash.

## **4 Final product and conclusion**

In the development after the Game Jam we finally got the game to a point where the player can actually win or lose, and where you can actually redirect energy beams towards the goal with the relay links. Additionally, game elements that already had fixed versions of them but not implemented yet, were now successfully added into the game. Even though the game got left unfinished after the weekend, it looks way more completed now. This is thanks to the basic core functionality that we were able to implement now, which was left out during the Game Jam weekend.

Adding these missing functionalities was harder than thought, so we couldn't create or implement any extra features into the game. For example, time trials, floating obstacles and shaking screen. All in all, we are very pleased to the end result and to the point that we were able to reach in the development of this game of ours.

### **LIST OF REFERENCES**

None