

## PART 5 – PLAYTESTING

This chapter summarizes the results of the testing sessions that have been organized to test Project Magma.

### PARTICIPANTS

To test the game, fourteen test persons had been invited, including one female tester. They all have different knowledge and experience with games. Four of them play frequently, one never and the others rarely. The platform on which they play games on the other hand seems to be quite unimportant. Most of them have experience on a wide range of platforms including the PC, the Wii, the Playstation, the Xbox and handheld consoles.

### TEST SESSIONS

Because of the large number of participants and since not all of them have been able to meet at the same date, the testing session had to be divided into two separate sessions. They took place at:

- Thursday, 5/7/2009, 17:30-19:30 at IFW C31
- Friday, 6/7/2009, 13:00-15:00 at IFW D33 (CGL Lab)

### QUESTIONS ASKED

The questions asked are divided into four different categories. Some of the questions have been taken from the lecture notes. Other, more specific questions have been added by the team members. For each question, a short summary of all the answers is included in the document. Exact numbers are listed when appropriate.

### PLAY MATRIX

The Play Matrix contains one orange dot for each person that participated in the tests. The blue dot represents the mean value of all opinions.



## OVERALL CONCEPT COMPREHENSION

### DESCRIBE THE OBJECTIVE OF THE GAME.

When asked for the main goal of the game, six people called for survival. Three stated that the player should either survive or destroy a lot. Three others stated "kill 'em all".

### WAS THE OBJECTIVE CLEAR AT ALL TIMES?

Most people (10) understood the goal right away, 2 more understood it after a few minutes. One person identified the pure selection of an island as a challenging game objective.

### WHAT TYPES OF CHOICES DID YOU MAKE DURING THE GAME?

Five people had to choose which weapon they are going for. Five others identified the choice between retreating and attacking. One person named the choice of items to collect and of when to jump.

### WHAT WAS THE MOST IMPORTANT DECISION YOU MADE?

No clear answer was given, many people left blank.

### WHAT WAS YOUR STRATEGY FOR WINNING?

Six people found using ice spikes to be the most important strategy. Four of found it most important to move fast. This matches the observation we made that people jump over the board and almost shoot exclusively. Three people identified waiting as crucial, two tried to collect as much power-ups as possible. One person has not found any strategy at all, another one just wanted to survive the program crashes. ;-)

### DID YOU FIND ANY LOOPHOLES IN THE SYSTEM?

Most people did not find any. Four people found melee attacks too weak and rockets too strong.

### HOW WOULD YOU DESCRIBE THE GAME?

Received keywords were "confusing", "good idea", "fun", "good effects", "flying marshmallows", "lots of shooting", "multiplayer jump & run", "jump & smash", "jump & kill" and "having addiction potential".

### WHAT ELEMENTS COULD BE IMPROVED?

Many answers were given. As for player movement, some people found jumping too hard (3), and one person each wanted shorter jetpack duration, found the trees on the islands to

be hindering, and found island attraction useless. Two persons demanded a more intuitive selection of islands, whereas someone did not like islands leaving the visibility area, another person wanted less islands in general.

Regarding weapons, three people asked for weaker ice spikes, one of them specifically wanted it to be easier to dodge them. Two persons asked for a stronger ice spike but only by power up (1) or only aiming at the selected island (1). Also, somebody claimed that both people fall down when using melee attacks. One person wanted the flame thrower height be controllable using the thrust button.

Demands in the graphics category included more detailed player models (2), better visibility of the repulsion function (1), better visual indication if a player takes damage (1) and better visual clarity in general (1).

Generally, people also wanted us to fix the occasional crashes (2), a tutorial (1), some improvements in the menu (2), and some camera motion (1).

## OVERALL IMPLEMENTATION QUESTIONS

### HOW DID THE CONTROLS FEEL? DID THEY MAKE SENSE?

Four people found the flamethrower on the right stick confusing and had it rather be controller similarly to other functions (using selection arrow, buttons). Five people found the current assignment ok. One person suggested a tutorial to quickly introduce the various functions available - which some people thought are too many of, especially on the overloaded button A.

### IS THERE ANY ELEMENT WHICH WAS IMPLEMENTED BADLY?

There were various ideas mentioned here. Those that are already mentioned elsewhere in the document omitted here. The new ones are: Explosions should be more transparent, so players are visible behind them. Obstacles on islands are annoying. Hitting should be implemented so you don't fall down yourselves.

### WHAT WAS YOUR FIRST IMPRESSION?

Six people found the game confusing at first sight - a situation which we definitely want to avoid. Five people were generally impressed by the graphics (looks cool / professional, nice effects). One person found the current combination (islands, lava, vikings) weird, another one mentioned the absence of sounds.

### DID THAT IMPRESSION CHANGE AS YOU PLAYED?

Five people left the question blank or found that the impression did not change. Most other persons thought that with time you get used to the controls and a better overview. There were some mentions of the increasing jerkiness and error 4.

---

### WAS THERE ANYTHING YOU FOUND FRUSTRATING?

Two people didn't answer to these questions. Another two found the island selection frustrating. Three people thought that you should always be able to jump. Yet another two found the controls to be annoying. Finally, people mentioned the ice spike being too strong, creating a big chaos and not being able to dodge frustrating. One didn't like being stuck in obstacles on the island.

---

### DID THE GAME DRAG AT ANY POINT?

8 people didn't find the game to get boring. Three people thought it gets repetitive with time, especially with only one level. Two people found that only using ice spike and camping as the best strategy is a bit boring.

---

### WHAT WAS MISSING FROM THE GAME?

Three people couldn't think of anything to add to the game. One found we should add more specialized player characters with specific abilities. Two thought that there should be some sound. Other players thought that adding new weapons (mine-like) and more levels would be cool. Two people thought there should be a way (i.e. shield) to defend against ice spikes. One person especially mentioned it - but many said it while playing - there need to be stronger indications of what is going on, what your possibilities are, and how the destination island is linked to the player.

---

### IF YOU COULD CHANGE JUST ONE THING, WHAT WOULD IT BE?

Four people couldn't think of anything to change. Two thought the island selection should be better. Another two wished simpler controls. One person thought that islands should stand still, but you should be able to jump on any island. Other persons mentioned less ice spikes, more space for movement and changing ice spike from a default action to something which has to be gained by power ups.

---

### IF YOU WERE TO GIVE THIS GAME AS A GIFT, WHO WOULD YOU GIVE IT TO?

Four people didn't want to give the game to anyone (left this blank). Two people wanted it to give to any Xbox owner, one person to some Xbox owner. Most people would give it to friends and family. Two people thought that the game would be great for a children's party.

---

## SPECIFIC IMPLEMENTATION QUESTIONS

---

### WAS IT EASY TO SELECTED ISLANDS?

Seven people found it difficult to select the desired island. Three people found it nearly impossible. The remaining people thought it needs time to get used to.

---

HOW WOULD YOU HAVE EXPECTED THE ISLAND SELECTION TO WORK? WHAT WAS YOUR FAVORITE WAY OF MOVING BETWEEN ISLANDS: JETPACK, JUMPING, ISLAND ATTRACTION, OR ISLAND REPULSION?

Six people clearly preferred jumps over other forms of inter-island movement. Two people thought that jumps should be the only way. The jetpack was rarely used - most people never used it at all. Two people sometimes used attraction, one thought it was fun while another one thought it should be removed. Two people never used repulsion, one thought it sucks being an additional control element and two people really liked it.

---

WOULD YOU LIKE TO BE ABLE TO USE THE JETPACK AT ANY TIME?

Six people didn't want to be able to use the jetpack all the time. Five thought that we should keep the jetpack, three of them however wanted it only for a limited amount of time. The rest didn't know of or never used the jetpack.

---

WHAT WAS YOUR FAVOURITE WEAPON? ICE-SPIKE, FLAMETHROWER, FEASTS/AXE? COULD YOU USE ALL OF THEM? OR WAS ONE OF THEM UNUSABLE? WHY?

Five people had no comment on this question. Four people preferred the ice spike because it was the most effective weapon but also stated that it's actually way too strong and always hits its target.

Two people preferred melee attacks, while five did not like it. Their main reason for that was that sometimes both players die when hitting their opponent. This is a bug. One person preferred the melee but only because he considers the other weapons to be unfair. Another person stated that aiming is too hard with melee.

The flame thrower was considered to be the least efficient weapon by six people. One of them highlighted that it would generally be a good idea for midrange attacks, though. One criticized the graphical implementation (which was unfinished at that point), two criticized that having to use an additional stick is bad. Two people did not know how to operate the flame thrower at all.

---

WAS THE HUD COMPREHENSIBLE? HAVE YOU BEEN ABLE TO READ OUT THE DESIRED INFORMATION? WAS SOMETHING MISSING?

Three people left this blank. Four thought it to be comprehensible. Two rarely watched it or didn't have time to (to hectic). One person thought it should be moved further out of the action (corners), another suggested it to be larger.

---

WAS THE GAME JERKY?

Only five people answered no to this question. All other said yes. Most of them added that this happened only after 5-10 minutes of playing, though.

## SAMPLE QUESTION SHEET

This is what an average filled out sheet looked like:

The questionnaire is filled out with handwritten German text. Key answers include: 'Ja, ich würde es gerne spielen' (Yes, I would like to play it) for the first question, 'Ich würde es gerne spielen' (I would like to play it) for the second, 'Ja, ich würde es gerne spielen' (Yes, I would like to play it) for the third, and 'Ja, ich würde es gerne spielen' (Yes, I would like to play it) for the fourth. The 'Play Matrix' table shows a 'Skill' vs 'Luck' matrix with 'Skill' on the y-axis and 'Luck' on the x-axis. The 'Generelles Spielverständnis' section contains questions about the game's purpose and player experience. The 'Spezifische Fragen zum Spiel' section contains questions about specific game mechanics like respawning and movement. The 'Allgemeine Fragen zur Umsetzung' section contains questions about the game's design and implementation.

## OUR OWN OBSERVATIONS DURING THE TESTING SESSIONS

During the sessions, we sat beside the players, observed them and made our own notes. These are:

- We will probably need more maps, most of them should have less and bigger islands.
- The controls are generally too complex. The A button has too many functions.
- Player often do not understand where they are, especially after respawning.
- Sometimes, the player seems just to explore randomly? Maybe related to the right front pillar?
- HUD should be moved more towards the corners
- In the beginning, we will need some orientation time before the action starts.
- Menu selection is hardly visible on the CGL lab screen
- The colors should remain when you start another game. Also, multiple players can choose the same color, which is bad. Maybe we should just leave them fixed.
- People thought there might be teams (analogously to Worms Armageddon, e.g.) because players could choose colors.
- Perspective distortion might be too strong
- Multiple players shouted that islands should not leave the screen
- Somebody suggested double-jumps and multiple persons agreed.
- When using the axe, both players fall down.
- Sometimes it seems to be hard to recognize in which direction the player is looking
- Nobody cares about the help screen.
- Orange and pink are hard to distinguish, especially if they stand in the background.
- The game has addiction potential, multiple persons said.
- The game is clearer with 2 players than with 4. The fewer players we have, the more the game ranks on the "skill" rather than the "luck" side in the play matrix.
- Cinematics in the beginning (intro sequence) and the end (winning sequence) are missing.

## CONCLUSIONS

The testing session confirmed that our game generally is on the right track: Many of the testers stated that the game play is promising and the graphics look professional. However, there were many problems mentioned due to the alpha nature of the game. Some of them were very specific, but most of them on similar trends. In the following, we will list those problem trends and some possible solutions which we are going to evaluate within the next days:

- The game crashed from time to time in an error 4 and gradually got slower.

*We already started addressing the performance issues by tracking memory allocation and will address the error 4 by logging errors on the X-Box.*

- The ice spike seems to be way too strong. Because of this (and maybe also because it has the nicest visual effect up to now), it was the weapon favored by most.

*This can be addressed in various ways: some testers suggested to only allow the ice spike by a power-up or to let him aim towards the island instead of towards the player. The obvious approach is just to make it much weaker; but this would still allow the popular strategy of just shooting ice spikes from time to time to weaken the enemy. Another idea is to penalize the use of ice spike, e.g. by making it weaker with increasing distance or by making direct hit stronger the less energy you wasted on ice spikes. However, this might be too complex.*

- The game is still too confusing – especially in the beginning. The players are hard to spot and it takes some time to notice on which island a dwarf has been respawned after a death.

*To decrease the initial confusion we will likely implement a camera path before the game starts, so players have time to orientate themselves. During that time, a few big overlaid words might explain the main idea of the game. For respawning, a slow appearance (like when beamed in star trek) using screen-space particles going from the HUD to the player could be implemented. This would make sense since the HUD position is the only invariant per player throughout the game.*

- The controls seem to be too difficult. The overloaded A button confused many testers. Also, island selection appeared to be random to most players.

*We have many functions right now and may have to eliminate some of them to reduce control complexity. The functionality on A could be split onto multiple buttons – but this would again increase complexity. The island selection definitely has to be re-evaluated and maybe constrained onto islands in a certain radius around the player. Some people suggested putting some attack functions on the shoulder buttons which we will also have to evaluate.*

- Players did not like the fact that you cannot jump all the time. Island attraction was rarely used (most players didn't at all realize it existed). Even fewer used island repulsion or the jetpack.

*We evaluated jumping being the only movement some weeks ago and found it to quirky; but after this feedback, we will have to evaluate jumping as main means of switching islands. But maybe we can also inspire players to use attraction by making it more obvious when an island is being attracted. In general, we will have to find ways to indicate to the player what actions can be performed right now. Also, we will have to make it clear that the jetpack can be used at the time when the player is falling down. A clearer marking on the XZ plane of the current player position while using the jetpack has to be considered.*

- The flame thrower is considered too weak and the stick control is considered unnecessary.

Thus, for the last part of the project, we will be busy implementing missing visualizations and fixing the problems detected during testing.

## IMPRESSIONS

These two pictures give an overall impression of situations during the testing sessions.





