

Sprint Retrospective, Iteration # 6

User Story	Task	Member responsible for the task	Task Assigned To	Estimated Effort per Task <i>(in hours)</i>	Actual Effort per Task <i>(in hours)</i>	Done <i>(yes / no)</i>	Priority (A—E) <i>(A is highest)</i>	Note	Link to commit / pull request	Reviewer(s)
As the Oculus Rift player, I want to be placed in a <i>lobby world</i> , where I can wait until all Android users have joined.	Create an Environment that serves as the lobby	Luka	Luka + Remi	3.0 pp	Remi: 2.0	yes	A	Though there aren't any 3d objects, there is a new environment with HUD.	(branch): https://github.com/MrCrime/ContextMigi-1/tree/feature_LobbyGUI	-
	Add a GUI button to the <i>lobby world</i> , that the Oculus Rift user can select to start the actual game.	Luka	Luka + Remi	2.0 pp	Remi: 3.0 Luka: 3.0	no	A	Apparently, due to being misinformed, JMonkeyVR doesn't have any support for buttons. An alternative for next sprint is having to press the spacebar on another key to start.	-	-
	Add a GUI button to the <i>lobby world</i> , that the Rift user can select to exit the game.	Luka	Luka + Remi	0.5 pp	Remi: 1.0 Luka: 0.0	no	A	See the note above.	-	-
	Don't allow the selection of the start button if not all players have connected.	Luka	Luka + Remi	2.0 pp	Luka: 0.5	no	A	Implementing this requires some major refactoring of the code (mainly the CarrierAssigner class), so this task will be moved to next sprint, where the refactoring will take place.	-	-
As a <i>carrier</i> , I want to automatically join a server on the LAN.	Fix bug where the Android App sometimes crashes upon connection.	Luka	Luka	2.0	Luka: 3.0	yes	A	This was a serious bug, how connections worked sometimes in the first place, is a mystery.	https://github.com/MrCrime/ContextMigi-1/pull/75	Nils, Remi
As a user, I want to be able to see what is the app is doing while I'm waiting for the game to start.	Create a "Looking for servers..." state	Remi	Remi	2.0	Remi: 6.0	yes (sort of)	A	Because adding screens caused us problems, we went for a different approach, namely a popup that appears when the app doesn't connect in time and kicks you out of the app	https://github.com/MrCrime/ContextMigi-1/pull/83	Damian, Luka
	Create a "Waiting for players..." state	Remi	Remi	3.0			A			
	Create a "Waiting for game to start..." state	Remi	Remi	3.0			A			

As a gamer, I want to have random events when I play the game with my android device, so that my gameplay is more surprising.	Make a random event for the app.	Nils	Nils	15.0	Nils: 15.0	Yes (reviewing still required)	A		https://github.com/MrCrime/ContextMigi-1/pull/87	-
As a gamer, I want a dynamic obstacle spawning routine, so that I have a more diverse challenge	Make obstacles spawn on different sides of the road.	Marcel	Marcel	2.0	Marcel: 1.5	Yes	B		https://github.com/MrCrime/ContextMigi-1/pull/86	Nils, Luka
	Create moving obstacles	Marcel	Marcel	2.0	-	Yes (reviewing still required)	B		https://github.com/MrCrime/ContextMigi-1/pull/89	Nils
	Make obstacle spawn depend on the location of the player	Marcel	Marcel	6.0	-	No	C	This functionality is not very clearly designed and will likely not end up in the final game.		
As a gamer, I want a highscore system, so that I can have a goal to improve.	The game remembers score of previous runs	Marcel	Marcel	3.0	Marcel: 3.0	Partially	A	The functionality is there, but at the moment I implemented this, there was not yet a way to end the game.	https://github.com/MrCrime/ContextMigi-1/pull/77	Remi, Damian

	Score of previous runs are viewable in the lobby	Marcel	Marcel	3.0	-	No	B	The lobby was not done yet.		
	Scores are written to/read from file	Marcel	Marcel	4.0	Marcel: 5.0	Yes	C	I figured it was easiest to combine this functionality with “The game remembers score of previous runs”	https://github.com/MrCrime/ContextMigi-1/pull/77	Remi, Damian
As the <i>commander</i> , I want the platform to tilt when the <i>carrier</i> are being synchronous.	Get the platform to tilt if the four accelerometers aren’t very well synchronized.	Luka	Luka	7.0	Luka: 12.5	yes	A	Biggest problem was having the platform’s rotation loop properly (floating point errors didn’t help). If it doesn’t loop properly, the platform can have a very strange rotation (such as upside down) after a long while. This feature can and should be more improved.	https://github.com/MrCrime/ContextMigi-1/pull/81 + https://github.com/MrCrime/ContextMigi-1/pull/85	Marcel, Damian, Remi
	Tilt the camera of the Oculus user synchronously with the platform.	Luka	Luka	3.5	Luka: 5.0	yes	A	Includes testing nausea effect this feature has on people wearing the Oculus Rift.	https://github.com/MrCrime/ContextMigi-1/pull/85	Marcel, Damian
	Make the commander trip and fall of the platform if the slope of the platform gets too high	Luka	Luka	10.0	-	no	A	Won’t be implemented.	-	-
	Make the platform more unstable (having it tilt more) if one carrier is immobilized	Luka	Luka	2.0	Luka: 3.0	no	A	The code is there locally, but the because the CarrierMoveBehaviour caused some problems this sprint, it has been temporarily removed. That class handled the immobilization.	-	-
As a player I want to hear music and sound effects while playing.	Make sfx play when pressing start in the lobby	Remi	Remi	2.0	Remi: 2.0	yes	B		https://github.com/MrCrime/ContextMigi-1/pull/80	Remi, Damian
	Make music play and loop during gameplay	Remi	Remi + Marcel	2.0 pp	Marcel: 5.0	Yes	A	We would maybe like to pick a different song.	https://github.com/MrCrime/ContextMigi-1/pull/80	Remi, Damian
	Make sfx play when getting hit and when attacking in the android app	Remi	Remi + Marcel	3.0 pp	Remi: 3.0	Partially	A	SoundPool makes the app not function correctly, but we’re very close to having these sfx		

As a carrier I want to be able to duck under and jump over obstacles to make the game more challenging and interactive for me	Make messages which register fast upwards movements of the phone	Damian	Damian	3.0	Damian: 6.0	partially	A	I first made use of a linear accelerometer but then went with the features of the accelerometer because things didn't work well with multiple sources sending messages, still contains some bugs		
	Make said messages affect the correct carrier	Damian	Damian	3.0	Damian 3.0	partially	A	Not in master yet because of jumping bugs		
	Make said messages affect not only the carrier but the whole "structure" in a basic way	Damian	Damian	3.0	Damian: 5.0	partially	A	The implementation of the actual jumping turned brought some complications with it which will be fixed next week		
	Make messages from all 4 players work together to apply tilting of the platform in a natural way	Damian	Damian	10.0	-	no	B	Since a lot of time was spent fixing other things, I had no time left implementing this feature		
	Implement everything stated above but then for ducking	Damian	Damian	5.0	-	no	A	We decided not to implement ducking after all		
As a user I want to be able to collide with walls so the game becomes more challenging and fun	Make collision able with the path boundaries	Damian	Damian	4.0	Damian: 8.0	yes	A	This took MUCH longer than needed. Everything had to be rewritten because of the changed multiMoveBehaviour, in the end we went with a basic solution anyway which made it even more wasteful timewise	https://github.com/MrCrime/ContextMigi-1/pull/82	Nils Luka
As a gamer, I want to be able to lose the game, so that I can be challenged.	Design a game over screen	Marcel	Marcel	3.0	Marcel: 3.0	Partially	A	The game over screen could be made more visually interesting, but we don't know yet how it will render on the Oculus.		
	Create a game over routine	Marcel	Marcel	3.0	Marcel: 5.0	Mostly	A	Functionality is there, but the commander still can't die.	https://github.com/MrCrime/ContextMigi-1/pull/72	Nils, Damian
As a carrier I want to be able to hit the enemies next to me by using my smartphone	Connecting the features of the enemies with the features of the carrier app to make sure damage actually gets transferred	Remi	Remi	3.0	Remi: 6.0	yes	A	Though still rough around the edges, players can attack enemies and enemies get damaged.	https://github.com/MrCrime/ContextMigi-1/commit/76823cd76eb984c08e3da504d78ccbe46672fbed	
As a developer, I want attacking and taking hits to be refined and added to master.	Refine the attacking and taking damage branch by taking code review into account.	Remi	Remi	4.0	Remi: 9.0	yes	A	Due to merge conflicts and code review it took a bit longer than I had anticipated.	https://github.com/MrCrime/ContextMigi-1/pull/66	Nils, Luka, Marcel

As a developer, I want to make sure my code works under all conditions.	Increase test coverage up to at least the required 80%.	Nils	Nils + Damian + Remi	8.0 + 6.0 + 4.0	Nils: 10 Remi: 0.0	Partially	B	We improved test coverage, but we didn't reach the 80% that we wanted to reach, due to later merges.		
As a player, I want to play games that looks good.	Add better models for the carriers	Nils	Nils	3.0	-	No	C	Due to low priority and Nils being sick, he didn't complete this task.		
	Add better models for the enemies	Nils	Nils	3.0	-	No	C	Due to low priority and Nils being sick, he didn't complete this task.		
	Add animations for the enemies	Nils	Nils	5.0	-	No	C	Due to low priority and Nils being sick, he didn't complete this task.		
As a newcoming developer, I want the big changes in the last sprint being documented in the EAD	Create class diagrams (UML) for several class structures of the project in the EAD. (Task from previous sprint)	Luka	Luka	4.0	Luka: 4.0	Partially	B	Some of the diagrams have been left out of the EAD because they contain changes that should be made next sprint (so aren't up to date with the current code, but will hopefully implemented like that next week). Also, the UML drawing tool Astah broke down completely (it is as vague as it sounds), which required many parts of the class diagram to be re written in Draw.io. And Draw.io isn't the best at exporing diagrams as PNG.	https://github.com/MrCrime/ContextMigi-1/pull/88	Nils
	Create state chart diagrams (UML) of the project in the EAD	Luka	Luka	3.0	-	no	B	-	-	-
	Create several sequence diagrams (UML) of the project in the EAD	Luka	Luka	3.0	-	no	B	-	-	-
The following tasks weren't tasks specified in the backlog, but were required.	Fix PositionMessages not being sent properly.	Luka	Luka	-	Luka: 1.5	Yes	A	-	https://github.com/MrCrime/ContextMigi-1/pull/81	Remi, Marcel
	Setup the laptop borrowed from the TU for the Oculus Rift	Luka	Luka	-	Luka: 4.0	Yes	-	-	-	-
	Fixed an obstacle deletion bug	Marcel	Marcel	-	Marcel: 1.0	Yes	-		https://github.com/MrCrime/ContextMigi-1/pull/78	Luka, Remi
	Make checkstyle exclude some files on Android	Marcel	Marcel, Remi	-	Marcel:0.5 Remi: 0.5	Yes	-			

	Fixed a bug causing the android app to only be able to show one screen, after being initiated	Remi	Remi	-	Remi: 0.5	yes		-	-	-
	Fix android not properly building and mysteriously not working on Damians and Marcells IDE	Damian	Damian	-	Damian: 4.0	yes				
	Fix Connectify mysteriously not working on everybody's pc except for luka's	Damian	Damian	-	Damian: 4.0	yes				
	Fix enemies not walking properly on the z axis	Damian	Damian	-	Damian: 2.0	yes				

Note: we apologize for this absolutely terribly colored and outlined table.

Total hours:
Nils: 25
Luka: 36.5 (+ 3 hours code review)
Marcel: 24 (+ 2 hours code review) Due to a bad personal decision, I missed out on some hours on Friday. I will make up for this in the following week.
Damian: 32 (+ 2 hours code review)
Remi: 31 (+ 2 hours code review)

Main problems encountered:

Problem 1:

Nils was sick during the last few days of the sprint, which is why he didn't spend as much time on the project as the others did.
Reaction: The number of hours spent will be higher in the next week, so he catches up the lost hours.

Problem 2:

While trying to implement app states it quickly became apparent that it couldn't be done within the given time limit.
Reaction: We went for a different approach. If the player can't connect to the server, it will close the app and show a popup telling the player that the game on the pc should be on before starting the app.

Problem 3:

As expected from the retrospective of previous sprint, the design this week was below average, due to the upcoming feature freeze.
Reaction: Improve next week!

Adjustments for next sprint:

- Nils and Marcel get a bit extra work.
- Increase effort put into the software design, as no features have to be implemented next week, this includes code review.
- Eat more fruits and vegetables so nobody gets sick (four out of the five people have gotten sick at least once this project, that says something).

