

# Sprint Reflection on Iteration 4

Bachelor Graduation Project: Model-based Optimization and Visualization of Aircraft Noise

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User Story	Task	Task Assigned To	Estimated Effort per Task	Actual Effort per Task	Done (yes / no)	Notes
The user wants to visualize the input flight trajectory and the produced noise contours in a real-time 3D animation mapped on Google Earth	- Generate KML file within program and GUI	Hans	4 Hours	3 Hours	Yes	Animation works smoothly and is approved by the client.
	- Extended visualization of noise contours in Google Earth with coloured polygons in KML	Hans & Elvan	8 Hours	8 Hours	Yes	
	- Extended animation of flight trajectory in Google Earth (+ smoothening data) in KML	Hans & Elvan	5 Hours	5 Hours	Yes	Further improvements: potential speed-up by loading the GE plugin in the background of the GUI while starting the application
	- Compose all animation components in one KML file (airplane, trajectory, contours)	Elvan	4 Hours	4 Hours	Yes	
	- Real-time updates of the animated trajectory and noise contours (+ tweaking the refresh rate)	Hans	5 Hours	5 Hours	Yes	
	- Calculation and tweaking of camera offset (front, behind and fly-by)	Elvan	4 Hours	4 Hours	Yes	

	<ul style="list-style-type: none"> <li>- Implementation of an algorithm for the heading, tilt and roll of the airplane</li> </ul>	Elvan	2 Hours	2 Hours	Yes	
The user wants to visualize different noise levels	<ul style="list-style-type: none"> <li>- Implement LA (default)</li> <li>- Implement LAMax</li> <li>- Implement SEL</li> </ul>	Hans Hans Elvan	1 Hour 2 Hours 3 Hours	1 Hour 2 Hours 3 Hours	Yes Yes Yes	Noise values are verified with noise model
The user wants to calculate the optimal flight trajectory for minimum noise	<ul style="list-style-type: none"> <li>- Basic implementation of the trajectory optimization model</li> <li>- Implementation of point-mass calculation</li> <li>- Implementation of enforcement points</li> </ul>	Hans & Elvan Elvan  Hans	6 Hours  5 Hours  5 Hours	-	No  No  No	Because of the delay caused by the GE API last week, we worked full time on the visualization this sprint