

Final Presentation Speech

1. Product Evolution

- a. I will be describing the evolution of our product and how it grew throughout the project.
- b. The way the spiral model works, is you start in the middle, and work your way out. Every time you complete a circle, you deliver something and we call that an iteration.
- c. There were four major iterations that show growth in our product.

2. 1st iteration:

- a. Our first major iteration was to port the python scripts that Neill gave us to the GO language.
- b. Neill gave us two scripts, one was called TS.py, which we converted to TS.go. This class basically parsed and output all the information in a MPEG2TS file.
- c. We also converted the second python script, Moof.py, to Moof.go. This class is responsible for parsing a Moof box. A moof box is basically an object in a MP4 file that holds video and audio meta-data. And this was our first deliverable, we tested it by making sure the output was the same as the python scripts.
- d. One thing to note in this iteration was that we were deciding whether to design our own ts parser or just use the design that was present in the python scripts. We decided to use the design from the python scripts because it would save a lot of time and we needed to mitigate a risk that arose in this iteration that addressed our credibility.

3. 2nd Iteration:

- a. For our second iteration, we were tasked with two things:
 - i. Figuring out how to map the data in the ts file to its proper place in the mp4 file and documenting those findings. This is strictly research and documentation and no coding. This is because this was a very crucial part of the program, and we wanted to make sure that we understood everything and the mappings were correct before we started coding.
 - ii. Creating the mp4 data structures. We also removed moof.go and mainly used it as a validation tool.

4. 3rd Iteration:

- a. This iteration is where we implemented the data mappings and created the design that would transfer the TS data to the MP4 boxes. This was done by the Driver.go class. This class was the main component that interacted with all the other components to transfer the data. Driver.go would pass the mapped information to the second class called giftCollection.go. Giftcollection.go builds the mp4 file for Driver.go. and then Driver.go writes it to disk.
- b. Another note for this iteration was that we refactored a lot of code at this stage. For example, we modified ts.go to only give us the information that we needed.

5. 4th major Iteration and Current State:

- a. For our last major product iteration, we added a full testing suite and documentation and minor tweaks.
- b. This is the current state of the project. It will convert the ts file to MP4 file, but there are some errors. The error that shows up is that when it is creating the mp4 file, it correctly creates the video data, but chokes on the audio data. This error is documented and we

also documented what we think is the solution to that error. So any teams working on that in the future will have the documentation to refer to.

6. So that was how our product grew throughout the project, now we will talk about how we did this by using the win win spiral model.
 - a. The key elements to the win win spiral model are the win conditions. Unlike different models that start out by declaring objectives through requirements, the win win model starts with identifying the stakeholders of the project and their respective win conditions. This is important because these win conditions then give birth to the objectives of the iteration. Thus, answering the question of where did these objectives come from, and are they correct.