
EE/CprE/SE 492 BIWEEKLY REPORT 3

February 8th – February 21st

Group number: sdmay18-07

Project title: InfraDrone Android VR Application

Client &/Advisor: InfraDrone, Mitra

Team Members/Role:

Evan Snitkey — Team Project Manager

Blake Agey — Team Scrum Master

David Schmadeke — Team Quality Assurance

Yangxiao Wang — Team Webmaster

<u>NAME</u>	<u>Contributions</u>	<u>Hours this period</u>	<u>HOURS cumulative</u>
Evan Snitkey	Merged VR code with original app, fixed bugs with dependency issues	8	19
Blake Agey	Fixed text file scrolling, started development on fixing the mlt parsing bug	14	24
David Schmadeke	Implemented horizontal scrolling on PDF files to change pages	5	14
Yangxiao Wang	Helped fix dependency issues with the code merge, updated to new bucket and fixed issues regarding new bucket	12	22

- **Period Summary (Short summary about what you did this week)**
 - We were able to cross off three of the tasks on our checklist this sprint; merging the VR code with the current state of the app, finger swiping to change pages on PDF files, and vertical text file scrolling. We also were able to upgrade the application to the newest bucket given to us by the client; however, there are issues involving file structure and visibility in this bucket.

- **Past period accomplishments (please describe as what was done, by whom, when or collectively as a group)**
 - Evan and Yangxiao were able to merge the VR code with the current state of the application. Blake added vertical scrolling functionality to the text file viewers. David added finger swiping functionality to the PDF viewer to change pages more naturally on mobile.

- **Pending issues (if applicable)**
 - Our pending issues consist of the mlt bug which we have been stuck on for quite some time. Evan is planning on trying to knock this out next sprint. Another issue was merging the VR code with the current app. The only part of this that exists going into next sprint is a bug with it crashing when the view is closed.

- **Plan for upcoming period (please describe as what, who, when)**
 - We have split the next tasks as follows; Evan will be working on trying to fix the mlt parsing bug. Blake will be working on the touch movement functionality on the 3D object viewer. Yangxiao will be finalizing the navigation side bar, the file type filter, and hiding unnecessary files. David will be creating the UI survey, working on displaying an image preview on the file list, and making sure that we can display all of the proper files as needed.

- **Summary of biweekly advisor meeting**
 - As stated before, our advisor had us create a page-long checklist which we are going to talk about tomorrow so that we can assign tasks. Here is the current state of the checklist:

○ Checklist	Task Description	Weight (1-lowest, 5-highest)	Hours Estimated (initial / new)
Merge VR code with current app	Merge Evan's VR code into master, this involves copying over some methods and refactoring them, so they align with the current app structure.	3	2 / 9
Finalize file structure (NEED TO HIDE CERTAIN FOLDERS)	We must restructure the way that the directories work in our app to match the new bucket that we were given to from the client.	5	8 / 6

PDF swipe to change page	This will be used for the PDF viewer but could also be used for the image viewer. This will include tracking a person's finger location from when it touches the screen to when it lifts off of the screen. A decision will then be made whether there was a left or right swipe or neither. With this information the page of the PDF that the user is viewing will increment or decrement.	2	3 / 5
Text file scrolling	Allow vertical scrolling within text files.	1	2 / 2
Client & Advisor Demo 1 = 2/21 Sam, 2/15 Mitra	Preparing for demo - involves merging everyone's code to master, preparing a PowerPoint presentation, and practicing going over live demo (this task involves everyone).	3	20 (5 per member)
Fix mtl file parsing	This bug we have been stuck on for many weeks in the past semester, hopefully after merging the VR code with master, it will be easier to debug with actual client data instead of test data. We must be able to use the jpeg files that go with 3D obj files to color the 3D object with textures.	5	12/ 25
Connect 3D model view to VR view with button	This consists of a VR button at the bottom corner of the 3D obj viewer screen, when pressed, it will transition into a VR view of the current 3D object.	4	3 / 3
Make sure that we can view any type of file (text, other images, etc)	The app should provide viewer for any types of file from our client's AWS storage.	3	5 / 9 (tif?)
Make UI testing survey	Creating basic survey through Microsoft Office (5-10 questions with 1-5 type answers), printing 10 copies.	1	2 / 5
3D viewer touch movement	Allowing a 3D object to be moved with either the tilt of a phone or the swipe of a finger. We must translate and render the object file based on the new positions in the rotation matrix for the object.	3	3 / 5
Finalize navigation side bar	The Navigation side bar will be used to navigate through the application, this will involve designing a user-friendly GUI with all of the essential pages of the application linked on the side bar.	2	4 / 4
Extraneous testing (phone load)	We will be setting aside four hours of time to research and implement ways to test how our app can handle extraneous use and average time to complete certain functions.	4	4 / 6
File type filter - filter within current directory	The file type filter will be used to filter the file types within the user's current directory, so that only the information that the user wants to see will be shown. This will involve scanning all the file names to find the file type and then showing the wanted files while hiding the unwanted files.	4	7 / 10
Image preview on file structure list	Instead of just displaying the file name as the icon 'button' in the directory structure listing, we will need to also need to display a small preview icon above the file name to make the UI easier to use. If we cannot get the 3D object previews to work in the allotted	4	7 / 7

	hours, we will just default to generic 3D object file symbols instead of the previews.		
File downloading animation	This is a progress bar that will be shown when files are downloading. This will let the user know the progress of the download. To complete this we will need to find and extract the download status of each download through the download manager and use that information to create a progress bar animation.	2	4 / 4
Client & Advisor Demo 2 = 3/28 Sam, 3/22 Mitra	Preparing for demo - involves merging everyone's code to master, preparing a PowerPoint presentation, and practicing going over live demo (this task involves everyone).	3	20 (5 per member)
Security testing (Fully use authorized role)	Security testing, make sure user's information and AWS's information cannot be easily read by any unauthorized access.	3	5 / 5
User experience testing (focus group - 10 users)	Contact 10 different people and have them test our application (after code freeze) and fill out the printed surveys. We will be using this information in our final presentation.	3	4 / 4
Create code coverage tests (eliminate all bugs)	We will break up the 20 hours of allotted time for this task into 5 hours per member. Each member will be creating code coverage tests on the lines of code that he wrote. This will eliminate the chance for bugs to occur.	4	20 (5 per member)
Client & Advisor Demo 3 = 4/25 Sam, 4/19 Mitra	Preparing for FINAL demo - involves merging everyone's code to master, preparing a PowerPoint presentation, practicing going over live demo, and preparing project for handover to client (this task involves everyone).	4	40 (10 per member)
NOTE: ONLY ACCOUNTS FOR CODING AND PREPARING FOR DEMOS, DOES NOT INCLUDE ANY TIME SPENT ON DOCUMENTATION, BIWEEKLY REPORTS, OR THE FINAL POSTER			TOTAL HOURS: ~178 - 210