Engineering Notes No. 1.2

## INFORMATION

**NAME:** Hannah Ramsden

**DATE:** 09/21/24 - 09/26/24

**Sprint:** 1

## JIRA BACKLOG

**Responsible for:**

* Meet with Dr. Akbas to Determine Project Scope
* Establish GitHub Page

**Contributed to:**

* Begin Project Proposal
* Read Polyverif Papers
* Decide which Intersection to Use
* Create Tutorial for Rendering in Blender

## RESOURCES & DOCUMENTS CONTRIBUTED TO

***Table 1 - Contributions***

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Resource/Document** | **Location** | **Contribution Description** |
| 9/21/24 | Landscape Modeling Tutorial Document Uplaod | Discord, [YouTube](https://www.youtube.com/watch?v=z5UC9gxLsIs) | Worked with William to upload a tutorial of creating a landscape from Google Maps in Blender using RenderDoc |
| 9/21/24 | Update ReadMe | [GitHub](https://github.com/HKRamsden/ERAUPolyVerif/commits/main/README.md) | Updated ReadMe in our GitHub page to include the video for easy access. |
| 9/21/24 | Project Proposal | [Word Online](https://myerauedu-my.sharepoint.com/:w:/r/personal/acostai1_my_erau_edu/_layouts/15/Doc.aspx?sourcedoc=%7B0B728F15-3609-445F-B1B4-15ED4091CAF7%7D&file=Project%20Proposal%20CS%20490.docx&action=default&mobileredirect=true&DefaultItemOpen=1&ct=1729737795572&wdOrigin=OFFICECOM-WEB.START.EDGEWORTH&cid=a5dc10e0-be06-4c43-9b31-d735d08b8796&wdPreviousSessionSrc=HarmonyWeb&wdPreviousSession=deb5ab17-1a88-4c9e-a192-c551ec204796) | Further refinement of problem statment |
| 9/24/24 | Daily Scrum Notes | [One Note](https://myerauedu-my.sharepoint.com/:o:/r/personal/ramsdenh_my_erau_edu/_layouts/15/Doc.aspx?sourcedoc=%7BF8085ECA-A67D-4D61-B616-7A03739D849B%7D&file=Senior%20Design%20-%20Autonomous%20Vehicle%20Design&action=edit&mobileredirect=true&wdorigin=701&RootFolder=%2Fpersonal%2Framsdenh_my_erau_edu%2FDocuments%2FNotebooks%2FSenior%20Design%20-%20Autonomous%20Vehicle%20Design&wdo=6) | Introduction planning for which scenario to use, reminders for people to be connec |
| 9/24/24 | Evening Meeting Notes | [One Note](https://myerauedu-my.sharepoint.com/:o:/r/personal/ramsdenh_my_erau_edu/_layouts/15/Doc.aspx?sourcedoc=%7BF8085ECA-A67D-4D61-B616-7A03739D849B%7D&file=Senior%20Design%20-%20Autonomous%20Vehicle%20Design&action=edit&mobileredirect=true&wdorigin=701&RootFolder=%2Fpersonal%2Framsdenh_my_erau_edu%2FDocuments%2FNotebooks%2FSenior%20Design%20-%20Autonomous%20Vehicle%20Design&wdo=6) | Gathered more research papers on Polyverif, further refinement of goals and work on Project Proposal |
| 9/26/24 | Daily Scrum Notes | [One Note](https://myerauedu-my.sharepoint.com/:o:/r/personal/ramsdenh_my_erau_edu/_layouts/15/Doc.aspx?sourcedoc=%7BF8085ECA-A67D-4D61-B616-7A03739D849B%7D&file=Senior%20Design%20-%20Autonomous%20Vehicle%20Design&action=edit&mobileredirect=true&wdorigin=701&RootFolder=%2Fpersonal%2Framsdenh_my_erau_edu%2FDocuments%2FNotebooks%2FSenior%20Design%20-%20Autonomous%20Vehicle%20Design&wdo=6) | Documenting Further |
| 9/26/24 | PolyVerif Validation Report Upload | Discord,  [Google Drive](https://drive.google.com/file/d/1vX68Kx4N8oJJodt5KfSYOHsDzV--3T9r/view) | Uploaded document containing the initial design plans for implementing examples within Polyverif. Includes multiple ways of implementation, including Lidar, areal mapping, and digital mapping. |
| 9/26/24 | LGSVL Simulator GitHub Link Upload | Discord,  [GitHub](https://github.com/lgsvl/simulator) | Found example of a robot simulator used within Polyverif. Has been sunsetted though, so may become obsolete. |
| 9/26/24 | Project Proposal | [Word Online](https://myerauedu-my.sharepoint.com/:w:/r/personal/acostai1_my_erau_edu/_layouts/15/Doc.aspx?sourcedoc=%7B0B728F15-3609-445F-B1B4-15ED4091CAF7%7D&file=Project%20Proposal%20CS%20490.docx&action=default&mobileredirect=true&DefaultItemOpen=1&ct=1729737795572&wdOrigin=OFFICECOM-WEB.START.EDGEWORTH&cid=a5dc10e0-be06-4c43-9b31-d735d08b8796&wdPreviousSessionSrc=HarmonyWeb&wdPreviousSession=deb5ab17-1a88-4c9e-a192-c551ec204796) | Refined Main goals, Fixed main structure, included, languages to be utilized, software to be utilized, OS, and hardware to be utilized as well. Solidified Roles and further outlined/described each semester’s goals. Added sources as well. |

## COMPONENTS TESTED

***Table 2 - Testing***

|  |  |  |  |
| --- | --- | --- | --- |
| **Date Tested** | **Component** | **Result** | **Comments** |
| N/A | N/A | N/A | N/A |

## PROBLEMS SOLVED

***Table 3 - Solutions***

|  |  |  |
| --- | --- | --- |
| **Date** | **Problem** | **Solution & Notes** |
| 09/24/24 | Computer Access | Was able to get access into Micaplex computer, but still need access to the lab itself. |
| 09/26/24 | Project Proposal Completed | Document completed and submitted. |
| 09/26/24 | Sprint 1 Completed | All documents submitted, GitHub Readme Updated to include all progress. |

## PROBLEMS TO ADDRESS NEXT

***Table 4 – Future Problems***

|  |  |
| --- | --- |
| **Problem** | **Description** |
| PolyVerif Download | Need to set up testing environment to view and edit simulations |
| Refine 3D Scan | Need to ensure that GPS imagery is accurate and structured. |
| Sprint 2 Backlog | Determine goals for the upcoming sprint period and assign roles for each member. Determine what group will do. |
| PolyVerif Update | Possible Update to software that could change the process of VV software. |

## MEETING NARRATIVE NOTES:

***Table 5 – Meeting 1***

|  |  |  |
| --- | --- | --- |
| **09/24/24** | **Meeting Type:** Class | |
| Met with Product Owner(s): Y | | |
| **Problems Brought Up:** | | |
| **Problem** | | **Proposed Solution** |
| Determine Main Scenario | | Need to determine which intersection to use for scenario planning and present it to Dr. Akbas. This will provide a structure for planning in the future. |
| Get in Contact with Quentin | | Need to get access into Micaplex lab computers and lab access itself. |
| Other Items Updated on: | | |
| * User created for Polyverif in Micaplex | | |
| **Additional Notes:** | | |
| * Scenarios need to be atomic and simple. | | |

***Table 6 – Meeting 2***

|  |  |  |
| --- | --- | --- |
| **09/24/24** | **Meeting Type:** Standup | |
| Met with Product Owner(s): N | | |
| **Problems Brought Up:** | | |
| **Problem** | | **Proposed Solution** |
| Project Proposal | | Continued work for project proposal |
| Determine Communication and Meeting Time | | Set up input form for meeting times. External meetings will be normally online if not in Micaplex |
| Contact Polyverif teams | | Understand requirements, and learn about usage and examples. |
| Other Items Updated on: | | |
| 3D render is planned to be created shortly by William. This will give us a headstart for what we are planning on modeling with campus. | | |
| **Additional Notes:** | | |
| * N/A | | |

***Table 7 – Meeting 3***

|  |  |  |
| --- | --- | --- |
| **09/26/24** | **Meeting Type:** Class | |
| Met with Product Owner(s): Y | | |
| **Problems Brought Up:** | | |
| **Problem** | | **Proposed Solution** |
| Project Proposal | | Final Meeting for last touches on project proposal. Going through and fixing all vague sections. |
| Updating Github | | Updated GitHub to include all sprint 1 information, including tasks and the completed render |
| Other Items Updated on: | | |
| * N/A | | |
| **Additional Notes:** | | |
| * N/A | | |

## NOTES:

N/A