

Engineering Notes No. 10.1

INFORMATION

NAME: William Reimer

DATE: 02/19/25 - 02/25/25

Sprint: 10

JIRA BACKLOG

Responsible for:

Looking into the possibility of repurposing the current simulated environment created for PolyVerif into the new model that Quentin made

Contributed to:

- Debugging PolyVerif
- AI/NeuroEvolution research

RESOURCES & DOCUMENTS CONTRIBUTED TO

Table 1 - Contributions

Date	Resource/Document	Location	Contribution Description
02/20/25	Engineering Notes GitHub	GitHub	Organized GitHub for engineering notes
02/25/25	SDD v.1 Annotated Version	OneDrive/GitHub	Reviewed annotated SDD and noted changes for AI-focused updates
02/25/25	Simulation Environment/Map	Micaplex	Investigated reuse of PolyVerif's map/simulation environment for new model

COMPONENTS TESTED

Table 2 - Testing

Date Tested	Component	Result	Comments
02/25/25	Quentin's model (non-LGSVL)	Not yet functional	Unsure how long until it's fully operational. Will ask Quentin for further assistance

PROBLEMS SOLVED

Table 3 - Solutions

Date	Problem	Solution & Notes
mm/dd/yy	Problem description	Solution and notes if applicable
02/20/25	PolyVerif debugging	Did not yield meaningful results; de-prioritized per Dr. Akbas

PROBLEMS TO ADDRESS NEXT

Table 4 - Future Problems

Problem	Description
Identify how to implement map changes	Determine feasibility of reusing simulation environment and map from PolyVerif
Finalize alternate AI direction	Finalize and edit SDD to reflect the revised AI-focused direction

MEETING NARRATIVE NOTES:

Table 5 - Meeting 1

MM/DD/YY	Meeting Type: StandUp/Class/ETC	
Met with Product Owner(s): Y/N		
Problems Brought Up:		
Problem	Proposed Solution	
Serena was debugging PolyVerif with no helpful error messages	Deprioritize PolyVerif and focus on getting something working instead	
Other Items Updated on:		
Additional Notes:		
Serena noted the error message was generic and unhelpful		
Serena noted the error message was generic and unhelpful		

Table 6 - Meeting 2

MM/DD/YY	Meeting Type: StandUp/Class/ETC	
Met with Product Owner(s): Y/N		
Problems Brought Up:		
Problem	Proposed Solution	
Unsure how to progress with the project	Develop a clear plan during the meeting and show it to Dr. Akbas.	
Uncertainty around Quentin's model	Focus on AI side (NeuroEvolution) until we have further progress to try and utilize time to the best of our abilities.	

Other Items Updated on:
Additional Notes:

NOTES:

Unedited log of Notes:

02/20

Met in MP 224

Serena on the computer, trying to debug PolyVerif

Organized the GitHub for the engineering notes

02/25

Met in LB 374, unsure of how to progress further with the project. We (Hannah) have Quentin's model that does not use LGSVL. Unsure of how long it will take to get it up and running.

Hannah not present, Serena running late.

"Error message was generic, did not reveal anything" - Serena

Work on the AI portion of the project, i.e. the NeuroEvolution side of work.

Get a plan fleshed out today so that why we can get straight to work on Thursday

"Don't worry about PolyVerif anymore, focusing on getting something working" - Dr. Akbas

Final SDS is due on Thursday, March 6th (03/06/2025). We don't have much to add to it.

Got to ask Clay if it is supposed to be the final SDD, as there is no SDS prior.

Go through the annotated version of SDD v.1 and make necessary edits.

Modify the design document to reflect the AI part of the project.

Read "The Nature of Code" chapter about NeuroEvolution.