CS491 – Autonomous Vehicle Design

Engineering Notes No. 12.1

INFORMATION

NAME: William Reimer

DATE: 03/19/25 - 03/25/25

Sprint: 12

JIRA BACKLOG

Responsible for:

Investigating OpenStreetMap export to for SUMO once operational

Learning the Scenic programming language

Contributed to:

Installation and troubleshooting of Scenic and SUMO

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RESOURCES & DOCUMENTS CONTRIBUTED TO

Table 1 - Contributions

Date	Resource/Document	Location	Contribution Description
03/27/25	Scenic+SUMO Notes	Github	Research and implementation notes

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COMPONENTS TESTED

Table 2 - Testing

Date Tested	Component	Result	Comments
03/27/	Scenic	Success	Scenic running successfully
03/27	SUMO	Failure	SUMO did not successfully launch

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PROBLEMS SOLVED

Table 3 - Solutions

Date	Problem	Solution & Notes
03/27	Need to be able to successfully launch SUMO	Need to contact Quentin, as he was able to successfully run this program

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PROBLEMS TO ADDRESS NEXT

Table 4 – Future Problems

Problem	Description
SUMO Scenario Creation	Learn how to use SUMO's built-in map generator
Scenic Programming	Learn syntax and structure of the Scenic language
VerifAI Automation	Implement VerifAI with Scenic+SUMO for automated test cases

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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**	
Unsure if Python and dependencies installed properly	Test VerifAI with existing QSS test cases	
Other Items Updated on:		
N/A		
Additional Notes:		
N/A		

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**	
Getting SUMO to run after Scenic success	Quentin assisted with full installation of Scenic and SUMO	
Other Items Updated on:		
VerifAI integration planning Reviewed Scenic+SUMO examples		

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Additional Notes:
N/A

NOTES:

Unedited Notes:

03/25

Trying to figure out if Python is installed on there, and how to get Scenic installed.

Scenic and SUMO do not seem to work on Mac

Serena emailed Quentin to determine a meeting with him.

Using VerifAI to see how it works with QSS, get it automated based on the Test Cases, running out of time, but too many issues and not enough time.

VerifAI is supposed to work with Scenic and SUMO.

03/27

Met in MicaPlex 224

Scenic is working!!!

Need to get SUMO up and running

Ensure that all proper compatible versions are installed, possible different way to run it or possibly missing something

Quentin is helping us out.

He got Scenic and SUMO installed!!! Yay!

SUMO files are dependent on specific maps. SUMO comes with a built in map generator, need to design and create the scenario cases.

Can import files from .OSM

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Read up on Quentin's publications about ScenicSumo

Plan to implement VerifAI with ScenicSumo to automate the test cases

Review the examples folder for ideas.

Final Test plan due on April 15th

FURC discovery day Wednesday April 16th