Project Requirements: CAN Data Generation

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March 5, 2021

Class: ECE 473

Class B: The program will be coded in python as to utilize the CANtool python library. We will be taking data from sensors and converting it into raw CAN data in the form of the CAN bus. The raw CAN data can be converted into readable data by utilizing a DBC file. DBC files are used to translate raw CAN data. We will be utilizing the "acura ilx 2016 can generated.dbc" to encode our sensor data. We will develop a command line tool that takes a rosbag file, which would be read using bagpy, and outputs a text file filled with CAN data organized by time the message was sent. The sensor data that will be converted to CAN, will be the ones that are useful to autonomous navigation.

Class A: We will make a linux application that allows the user to input the rosbag file, and specify a filename as the output. Class A will include all the requirements from Class B, however it will provide the user with a UI. There will be no memory leaks.