MICHIGAN STATE UNIVERSITY

# Beta Presentation

## Hardware in the Loop (HIL) Vehicle Simulator

## The Capstone Experience


Team Bosch

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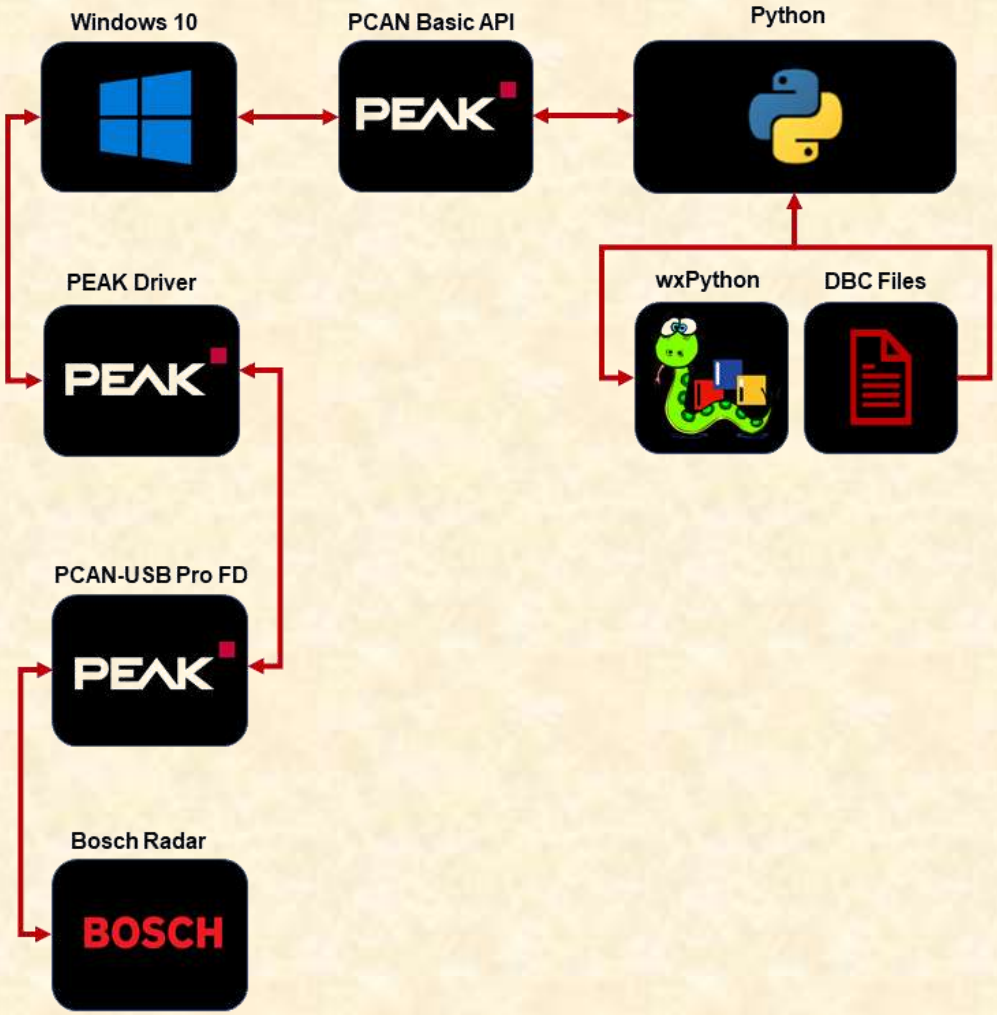
Fall 2021

*From Students…*
*…to Professionals*

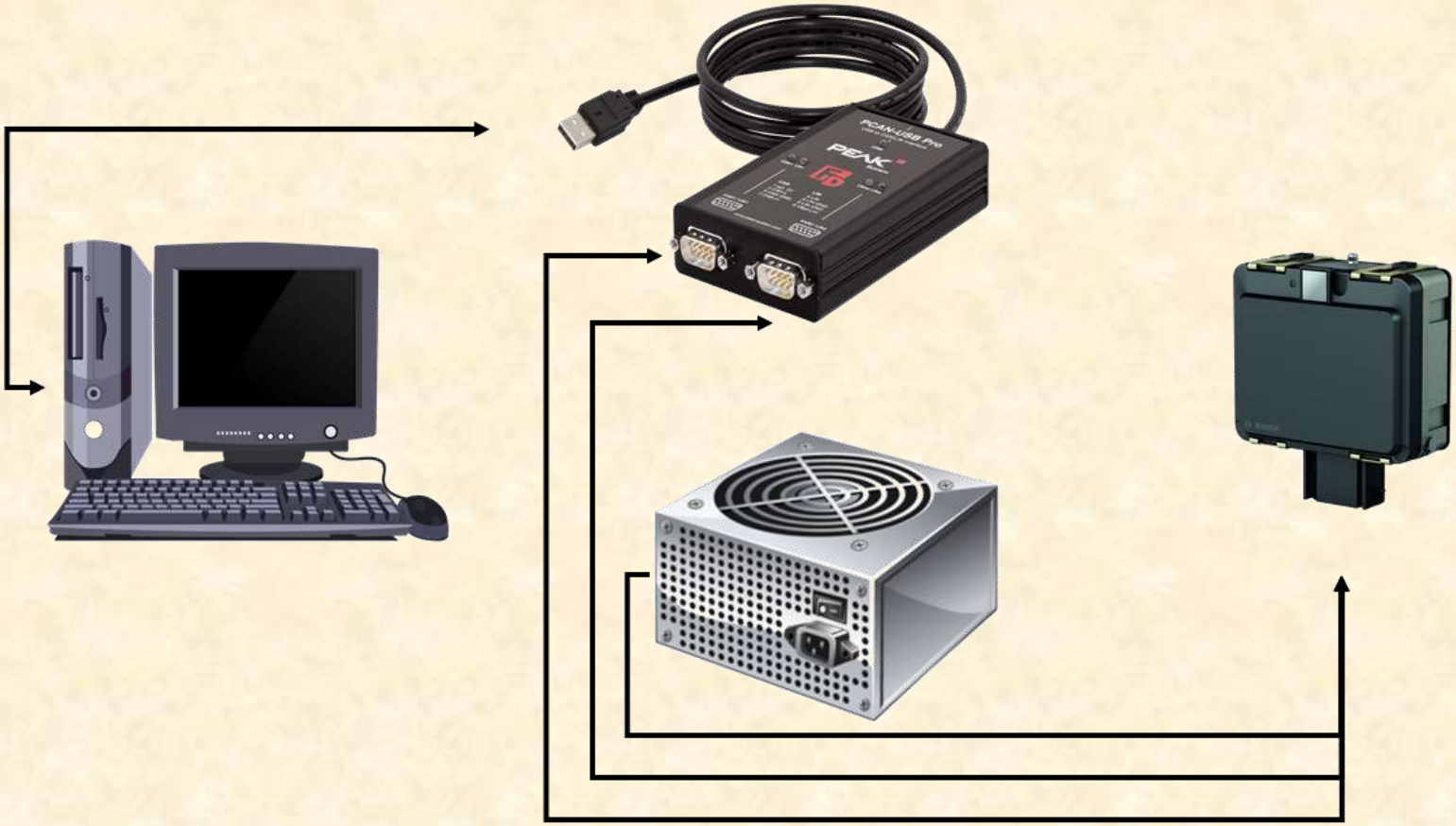
# Project Overview

- Windows 10 application that will simulate a vehicle's CAN Bus by using a HIL system.
- Current hardware is too expensive and not available to all of Bosch's engineers at once.
- Simulates vehicle functions such as acceleration, steering, braking, gear changing, cruise control, and more.
- Ability to simulate different variations of vehicles that is configurable by the user.

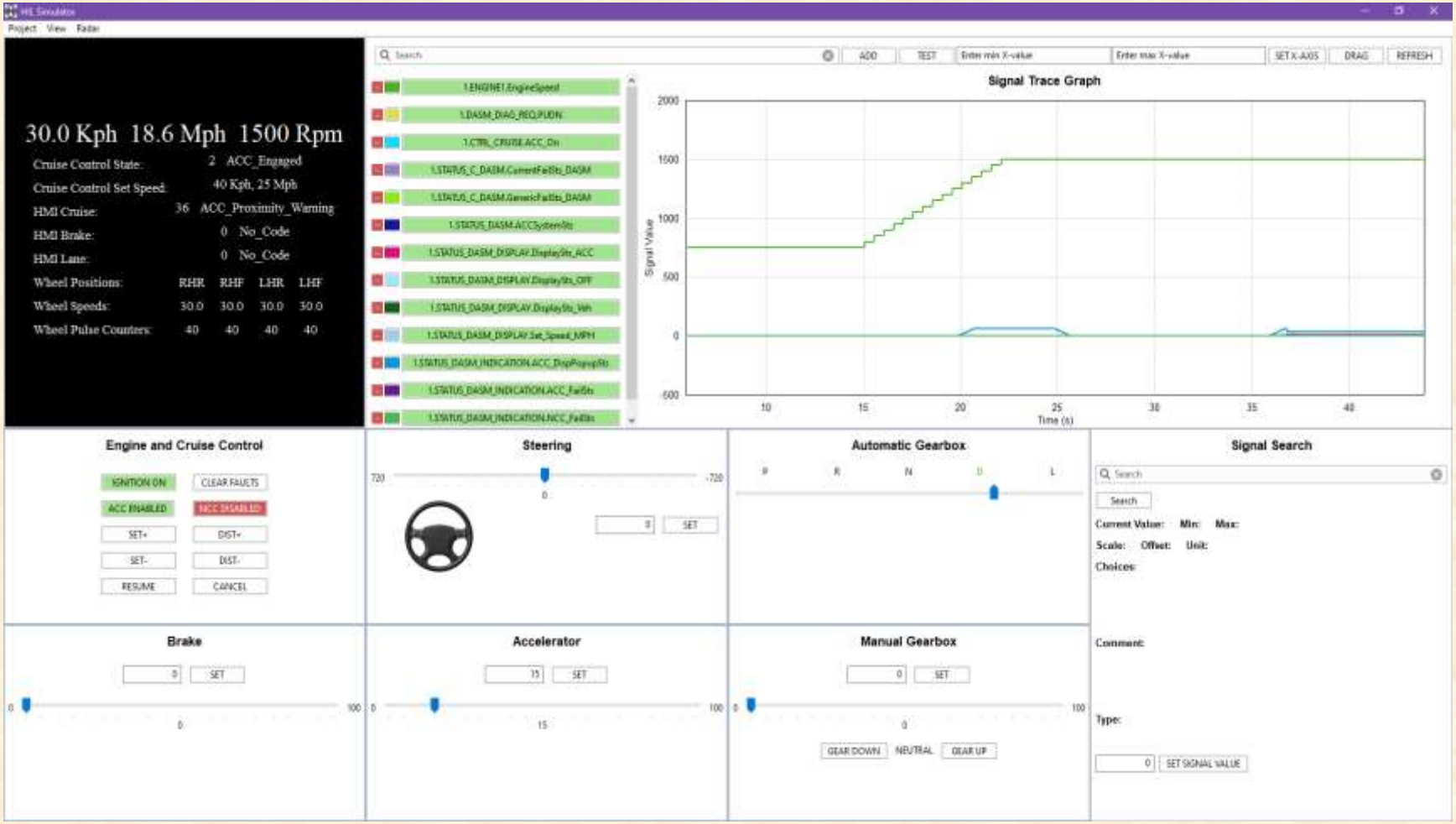
# System Architecture



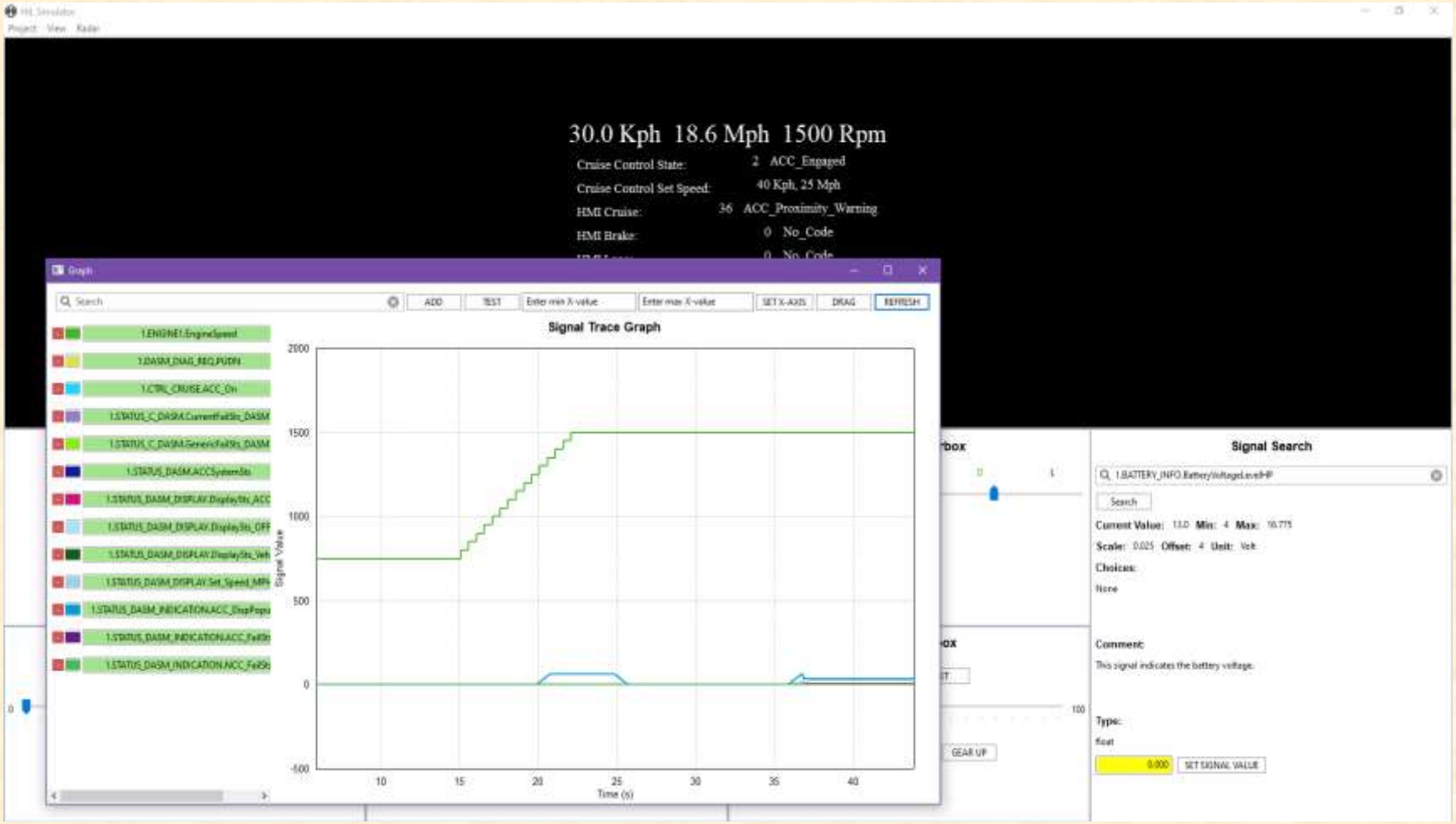
# Hardware in the Loop Diagram



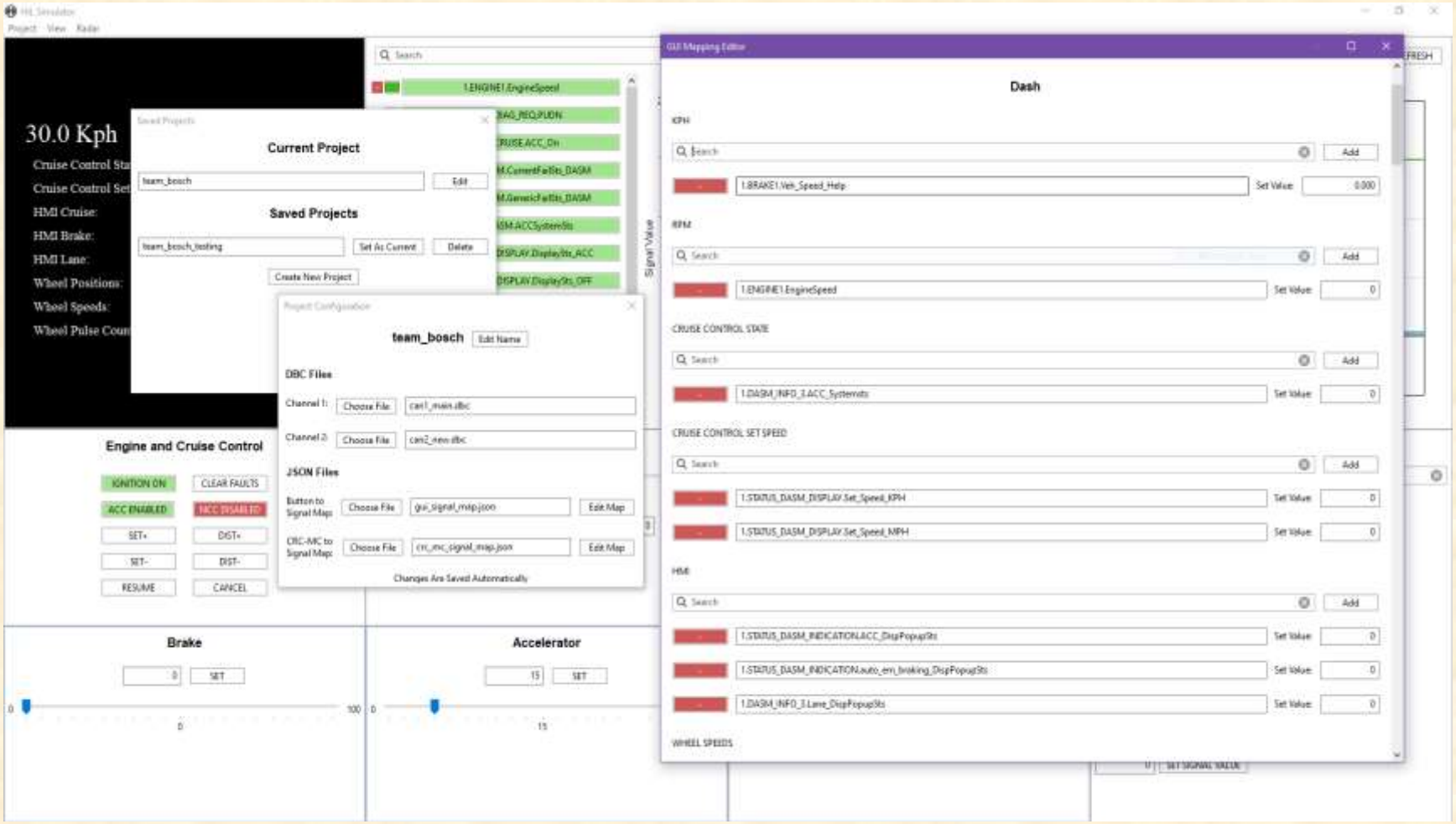
# The Main Frame



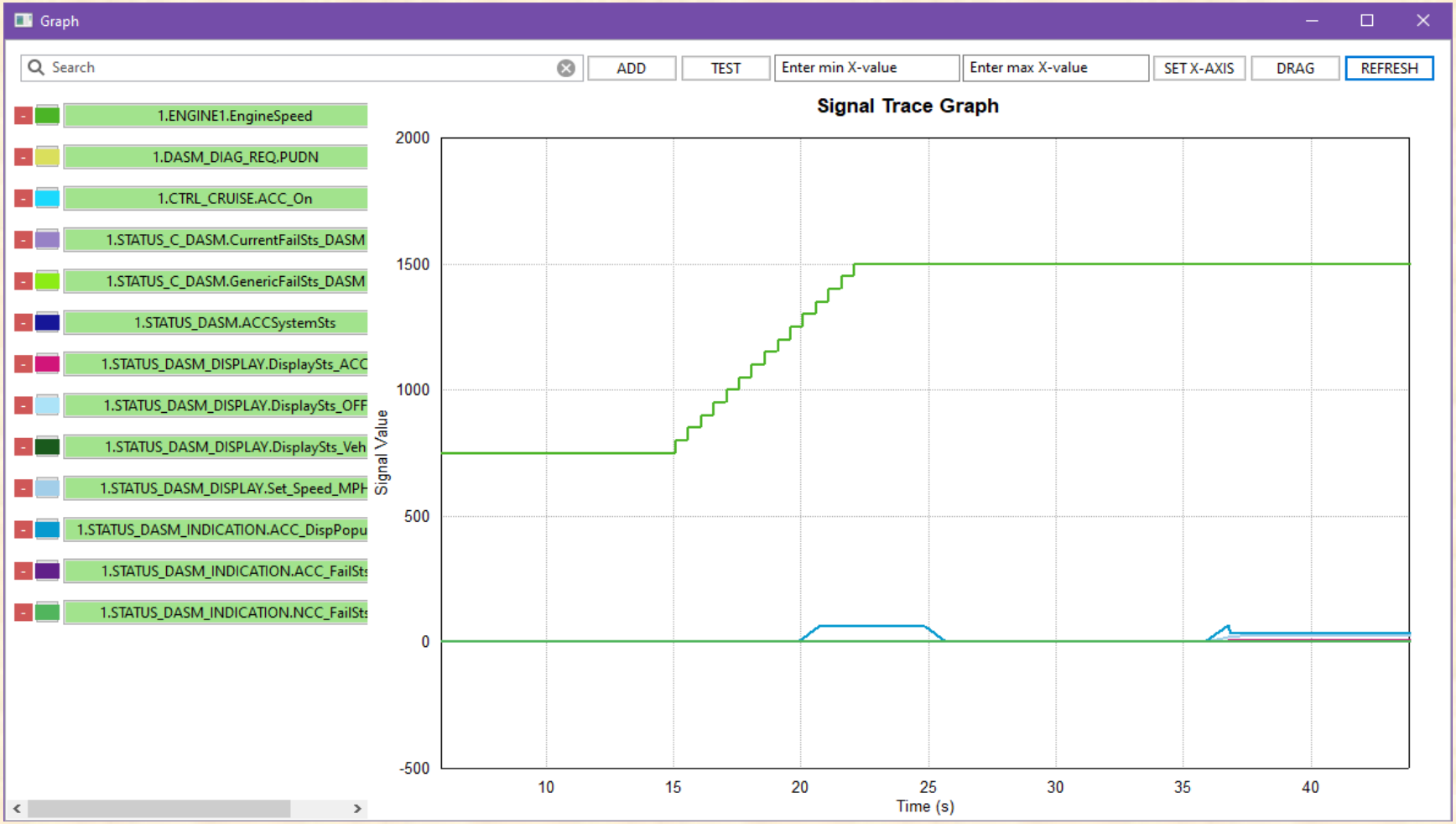
# The Main Frame/Search Frame



# The Project Configuration Frame



# The Graph Frame



# What's left to do?

- Stretch Goals
  - The ability to log tests and load logs.
  - Add tips and pop-ups to the GUI for helpful hints.
- Other Tasks
  - Create a way to turn our project into an executable.
  - Review our code in accordance with PEP8.
  - Continue optimizing and refactoring our code.
  - Continue testing our application.

# Questions?