Solar Car Performance Modeling Application

Install Guide

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[**Introduction**](#_hl1xtlxslr29) **1**

[**System Overview**](#_nxtp99qv2muc) **1**

[**Points of Contact**](#_a3h1ronopo3b) **1**

[Programmers](#_c9rcixwqub5j) 1

[**Software Install**](#_kd52127oe4qf) **2**

[Requirements](#_ytym59wjjy82) 2

[Java](#_9v4sq4vqbd8j) 2

[Folder Structure](#_qbjqjp6q5xrf) 2

[**Development Source Install**](#_62bs2az3uao8) **3**

[Requirements](#_35psboxv1k5m) 3

[Java](#_zht3lcv85tvv) 3

[Git](#_x39bw3qf5d8w) 3

[IDE](#_a72omqb1u2t2) 3

[Install Steps](#_2am7a57pv2gn) 3

# Introduction

This document aims to describe the Solar Car Modeling Application in sufficient detail so that a non-technical user can install the necessary requirements in order to run the software.

# System Overview

The Solar Car Modeling Application is designed to assist with energy management during the American Solar Challenge. The application takes the Google Maps route file provided by the ASC and simulates solar car performance over legs of the race, incorporating location data along with weather and elevation along the route to estimate energy usage. The application runs in the lead car during the race and assists with race strategy that can be communicated to the solar car driver.

# Points of Contact

## Programmers

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# Software Install

## Requirements

### Java

Oracle java is necessary. It can be found at the following url:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

### Folder Structure

Format: -NAME is a folder

+NAME is a file

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-root

-carconfig

+config.properties

-kml

+RACENAME.kml

+SolarCarModeling.jar

+SpeedLimitTool.jar

# 

# Development Source Install

## Requirements

### Java

Oracle java is necessary. It can be found at the following url:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

### Git

Git is necessary to install. It’s standard on many Linux builds, but Windows users will need to install it. Git can be found at <https://git-scm.com/download/win>.

### IDE

Intellij IDEA, Jetbrains Java IDE can be found at <https://www.jetbrains.com/idea/download/>.

Also, scenebuilder is required for editing the .fxml files, as this was our process throughout development. It can be obtained from: <http://www.oracle.com/technetwork/java/javase/downloads/javafxscenebuilder-1x-archive-2199384.html>

## Install Steps

1. Install the above defined requirements
2. Clone the repository to your machine
3. Open the project file in Intellij IDEA
4. Edit away!