Table of contents

Installation

Minimum Install Requirements

- Windows 7
- Chrome browser
- 2GB RAM
- 500MB of free storage
- 256kb/s internet
- A monitor with at least a resolution of 1240 x 700
- A recent, decent graphics card
- Internet that doesn't prevent select connections

Chrome

Chrome is a web browser you will need to best run this program. If you do not currently have it installed, navigate to https://www.google.com/chrome/browser/desktop/index.html and follow the guided instructions.

Python

Next you'll need to install Python to update the information necessary for the application. To download and install Python navigate to https://www.python.org/downloads/, download Python 3.x.x and follow the instructions in the installation executable. If and when you are prompted to install PIP (package installer), opt to do so. If and when you are prompted to install the standard modules, opt to do so.

Python Modules

Open command prompt on your computer by pressing Windows + r, then type "cmd" and press enter. Then type in "pip install pandas". This package helps Python read and write to CSV files. Keep command prompt open.

Node

You'll need node to run the application. It's necessary to communicate with the transport APIs. You can install node from https://nodejs.org/en/. Select the recommended package then download and run through the installation process. When prompted if you want NPM (node package manager) installed, select yes.

Node Modules

Back in command prompt, you want to type the following commands: “npm install gtfs-realtime-bindings”, “npm install request”, “npm install http”, “npm install fs”, “npm install readline” and “npm install cheerio”. If there are install issues, enter “node init” then try again.

Unpacking the ZIP

With the included ZIP, right click on it and select extract all. In the newly unzipped folder, open the subfolder “Sydney at a Glance”.

Updating Vehicle Information

Within there will be a folder called “generateData”. You will need to shift-right click the folder and select “open command window here”. In the newly opened command prompt, type “python downloadUnpackTrim.py” and press enter. This process will need to be done once daily on each day you wish to use the application.

Running the Program

Once the vehicle information tool has completed error free, shift-right click on the assets folder, and select open command window here. Type “cd ..” then “node assets/scripts/server.js”. Await for the console to read “server started”, once this has been printed, keep the window open, navigate to the unzipped folder and right click on index.html finally clicking on “open with > Google Chrome”.

User Guide

Navigating the Map

Using your mouse, you can click and drag on the map to pan around and you can use your scroll wheel to zoom in or out of the map. Using these methods together will allow you full control over where and what the map displays.

Selecting what to Display

Clicking on the “to display” button will show a panel from which you can select which vehicles you want to display and whether or not you want traffic cameras shown or not. Clicking on the “back” button will return you to the main menu.

Customizing the Display

From the “customize” button on the main menu, you can select a map style to display. Clicking on one will change the map to the new, selected style. There is also the option of importing your own JSON Google Map styling. Styles can be made and found at https://snazzymaps.com/. Scrolling further down the menu will reveal options where you can adjust the size, color and opacity of each vehicle/camera marker. There are also buttons to randomize the three and revert them to normal. Clicking “back” will return you to the main menu.

Checking API Statuses

The “API status” button allows you to check that each of the used APIs in the application are online and operational. Coming to this screen can be useful for debugging purposes.

Seeing a Vehicle's Information

Clicking on any vehicle will change the information panel to a table of values from that specific vehicle. This table loads alongside the route being drawn on the map as well as placing pins at each stop that vehicle makes. Clicking on any of these pins will open a streetview view of that location in a new tab. Panning away from your vehicle will result in a button in the bottom right appearing that, when clicked, will pan you back to the vehicle you selected. Clicking another vehicle will pan you and show you it’s information, otherwise, clicking on the “back” button on the bottom left will return you to the main menu and remove any information that was drawn on the map.

Viewing from a Traffic Camera

Clicking on a traffic camera will result in a window popping up showing you an image of what it sees. This image updates once a minute. Depending on the specifics of your computer and browser version, this image may update live or might not. If not, just click on the camera again after closing its window.

Turning off the Server

This can be done by navigating back to the server console and pressing Ctrl-C or by simply clicking the X.