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Creating an Online Reference Page for Iowa DOT’s Automatic Traffic Recorder Network

**Elevator Speech**

This project will create a reference page for Iowa DOT staff that offers the ability to filter out automatic traffic recorders by their unit type, classification level, and responsive speed capabilities. This project also provides users a continually updated reference for units under repair.

**Abstract**

The Modeling, Forecasting, and Telemetrics Team at the Iowa Department of Transportation rely on automatic traffic recorder location data for a multitude of tasks. Since there is no single platform to reference this data from, many planners within the team resort to obtaining their own single-use geographic files of this information. However, the volatility of these recorders renders these single use geographic files to be quickly outdated, leading to everyone using their own version of incorrect data.

This project looks to resolve this issue by creating an online reference page that will be both easily accessible by staff and easily updated to account for changes in data. Each ATR will be represented by their own unique color or icon combination offered through Awesome Markers and Font Awesome, and users will be able to filter through recorders based on multiple criteria, including unit type, classification type, ability to collect speed data, and which recorders are currently under repair (will not be retrieving data). An updated account of this information will be stored in a local CSV file, and transformed to a JSON. This will allow small changes to be made directly at the JSON file, while having the ability to re-transform the CSV for large changes.

**Technology**

1. Leaflet
2. MapBox
3. Awesome Markers
4. Font-Awesome
5. JQuery
6. JSON
7. CSV to JSON Conversion Tools

**Data Sources**

Geographic and Attribute Data: Iowa DOT Traffic Data System (TRADAS)

Monthly Unit Repairs: [Automatic Traffic Recorder Reports](http://www.iowadot.gov/maps/atr.htm)

**Challenges**

I would like to add some additional features via my basemap, such as updated traffic congestion (offered through mapbox), and possibly updated road construction location data. When the telemetrics team notices anomalies in recorder data, they often check to see what is happening in the area. Adding these two features would also help them reference what is going on in the area.