

Go Code Colorado 2020 Idea Submission

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Idea Title: Colorado Information Marketplace Socrata Integration with InfoMapper

Issue Identification

The Colorado Information Marketplace provides useful datasets and the Socrata platform provides client API libraries to access datasets. However, not everyone is a programmer and other tools are needed to streamline data access. The Open Water Foundation has developed open source software called “InfoMapper” that provides cross-jurisdictional information products focusing on maps with time series and other visualizations. This product is being used to implement river basin websites such as the Poudre Basin Information website (see <http://poudre.openwaterfoundation.org/latest/>). The InfoMapper uses TypeScript language within the Angular framework. While Socrata does provide JavaScript and CoffeeScript APIs, there is no TypeScript API. Developing open source TypeScript API library would help with InfoMapper/CIM integration and also help the broader Socrata community, resulting in higher quality applications with more functionality.

Data

Development will focus on water datasets in order to fill out functionality of the Poudre Basin Information website. Many features scale to statewide implementation.

Potential Impact

Public river basin information websites are place-based and benefit many sector users that need water information in the river basin, including land developers and businesses, government, agriculture, environmental organizations, educators, and the public. Improving access to data in Socrata would also streamline effective use of CIM and provide government agencies with an example of a useful website.

Innovation

Developing one-off apps is often not sustainable. The InfoMapper is a flexible tool that can be applied to many subject matter areas that involve map data and other visualizations. The Poudre Basin Information website and similar river basin websites are also innovative as cross-jurisdictional information sources that are a community resource. Most tools are much more narrowly focused.

Presentation

See the video of a recorded PowerPoint presentation: <https://youtu.be/HXUj4i9ZJJY>

Summary

The idea is to enhance the integration of Open Water Foundation’s InfoMapper software and Socrata by developing a TypeScript API library within InfoMapper to integrate with the Socrata web service API. General functionality would be implemented that would allow integration with the InfoMapper’s data visualization features. The Poudre Basin Information website would use the enhanced features to implement improved access to CIM data in water-related maps and visualizations. This is particularly useful for datasets that are regularly updated and would minimize the need for offline processing that is currently implemented.