Leaflet at USGS/NGTOC

GOTUG Webinar
# Introduction

**USGS**

- **NGTOC - National Geospatial Technical Operations Center**
  - [https://www.usgs.gov/core-science-systems/ngp/ngtoc](https://www.usgs.gov/core-science-systems/ngp/ngtoc)

**Innovation Teams**

- **Denver, CO - SSDS (Science Systems Development Section)**
  - **Delivery**
  - Staged Product Generation
  - Vector Web Edit
  - Data Management

- **Rolla, MO - ISS (Information Systems Section)**
  - Business Systems
  - Elevation Systems
  - Vector Tools
Delivery

- **Team**
  - 2 GIS Developers
  - 3 Web Developers
- Maintaining The National Map (TNM) services and applications
  - [TNM Viewer](#) and [TNM Downloader](#)
  - **TNM Services**
    - basemap
    - hydro
    - carto
    - carto-wfs
    - index
    - partnerships
    - smallscale
- Currently focusing on infrastructure in AWS Cloud
Why Leaflet?

- Open source
  - Ease of extending the functionality as needed
- Lightweight (compared to Dojo & ESRI JSAPI)
- Easy to pick up
- Healthy plugin ecosystem
  - i.e. ESRI Leaflet plugin
TNM Downloader

- Created in 2014
- BackboneJS application
- Tight integration with Leaflet
- Uses few custom Leaflet plugins
- Java backend
- Ready for revamp (hopefully FY20)
TNM Downloader (con’t)
TNM Corps

- Crowd-sourced mapping project that relies on volunteers to assist the U.S. Geological Survey's (USGS) National Geospatial Program by collecting and editing features from structures.
  - [https://edits.nationalmap.gov/tnmcorps/](https://edits.nationalmap.gov/tnmcorps/)
- Created in 2014
  - Leaflet
  - .NET backend
  - Vanilla javascript - no frameworks
  - Data Tables library
TNM Corps (con’t)
Markup App

- Application allowing users to send in markups or editing recommendations over NHD, NHD HR and WBD features.
  - https://edits.nationalmap.gov/markup-app
- NHD team and Hydro folks pull down said markups into various apps to include / reject edits.
- Created in 2015
  - Leaflet
  - .NET backend with custom ESRI-powered feature capturing workflow (a.k.a. “Circle of Life”)
  - Vanilla javascript - no frameworks
  - Data Tables library
Markup App (con’t)
ESRI Leaflet plugin

- A lightweight set of tools for working with ArcGIS services in Leaflet.
- [https://esri.github.io/esri-leaflet/](https://esri.github.io/esri-leaflet/)
Contact

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