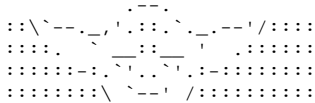


# Open Source Web Development Work Group



*"Difficult to see. Always in motion is the future.."*

*"You will find only what you bring in."*

*"Size matters not. Look at me. Judge me by my size, do you? Hmm? Hmm. And well you should not. For my ally is Open Source, and a powerful ally it is."*

*Yoda*

**NOT ACTIVE - 02/05/18**

## Who:

Web development and communications specialists interested in building community and learning how industry leading open source packages can benefit the USGS in providing scientific information on the web.

## Current Activity:

This group is currently being run in a casual "coffee talk" format to facilitate knowledge and culture building among participants. Our goal is to pose new questions, try new technologies, and create an interactive and fun learning experience. A topic is proposed by a different member each month and the group investigates and discusses in the 1hr duration of the meeting.

- Visit the [Monthly Idea Farm](#) to suggest topics
- Explore previous challenges and discussions in the [Community Knowledge Archive](#).

## Meetings:

The last Wednesday of every Month at 5pm ET

JOIN BY PHONE 703-648-4848 conf code: 47919#

JOIN Google Hangouts:

[https://hangouts.google.com/hangouts/\\_/doi.gov/ccladino](https://hangouts.google.com/hangouts/_/doi.gov/ccladino)

## Submit Discussion Ideas:

Got something you want to discuss, explore, or get feedback on from the group? Use our crowd sourcing app to submit discussion topics to our [monthly idea farm](#)! Membership not required, anyone can participate any time.

## Links to Group Resource:

- [GitLab](#)
- [Trello](#)
- Group Lead - Cassandra Ladino ([ccladino@usgs.gov](mailto:ccladino@usgs.gov))
- Email List: [ccladino@usgs.gov](mailto:ccladino@usgs.gov), [lprivette@usgs.gov](mailto:lprivette@usgs.gov), [gpetrochenkov@usgs.gov](mailto:gpetrochenkov@usgs.gov), [hvraga@usgs.gov](mailto:hvraga@usgs.gov), [ssoileau@usgs.gov](mailto:ssoileau@usgs.gov), [dpizzarelli@usgs.gov](mailto:dpizzarelli@usgs.gov), [joshua\\_bradley@fws.gov](mailto:joshua_bradley@fws.gov), [lhsu@usgs.gov](mailto:lhsu@usgs.gov), [rfmiller@usgs.gov](mailto:rfmiller@usgs.gov), [gcocks@usgs.gov](mailto:gcocks@usgs.gov), [llastowka@usgs.gov](mailto:llastowka@usgs.gov), [emartinez@usgs.gov](mailto:emartinez@usgs.gov), [jmfee@usgs.gov](mailto:jmfee@usgs.gov), [mcannister@usgs.gov](mailto:mcannister@usgs.gov), [bdraper@usgs.gov](mailto:bdraper@usgs.gov)

## Related Activities:

[USGS DevOps Technical Syncs](#)

[Software Dev Cluster](#)

[Open Source GIS](#)

## Future ideas for a formal work group...

Since I (Cassandra Ladino - your volunteered organizer) can't do it all, I want to appoint a code cha potentially a CHS cloud champion to help participants with technical details.

### **Phase 1 - Creating a Common Philosophy (bi weekly - kick off)**

- UX Design
  - leading experts in UX philosophies
  - philosophies for different environments
  - What works best for communicating science

- User requirements
  - why this is important
  - how to keep an open mind during this phase
  - how can we bridge communication gaps with scientists
- Open Source Code/ Software Release Policies
  - Important Resources ([code.gov](http://code.gov), IM, Fed Source Code)
  - Fed Source Code 3 steps
  - Code Strategies - Function vs Object Oriented
  - Unit Testing
  - Bitbucket/ Github
- Development styles - agile, scrum
  - Leading experts, good discussions blogs
  - What are the challenges to implementing these models in USGS? funding model, etc.
- Social media
  - The social world, communicating science on social media
  - How can this influence what and how we design apps
- Deployment strategies and app life spans
  - Not every app needs to live in perpetuity, how can we make USGS app development more responsive to events and contemporary social topics?
- USGS IT Policies
  - Provide information resources
- Costs strategies in the cloud
  - Point to some industry studies and examples

## **Phase 2 - "Hands On" Core Learning (switch to monthly)**

- **Set Up**
  - Cloud environment (maybe work with CHS to set up sandbox for the group?)
  - Cool dev tools. What are some of your most handy code writing, deploying, and debugging tools
  - Version Control
- **Visualizations**
  - HTML5 Images as data
  - SVG - USGS VIZLAB examples
- **Databases**
  - Postgresql with spatial extension, MongoDB
  - Hadoop? - not sure how deep to dive on distributed environments
- **JavaScript Frameworks**
  - Modern Model View Control paradigms
  - Angular, ReactJS
- **Others Frameworks**
  - Ruby on Rails
- **JS Map libraries**
  - leaflet, opengeo suite, geoserver on natweb
- **Non or not truly open source - compare/ contrast**
  - ArcGIS server and js api, oracle, SQLserver, ArcGIS online
- **Unit Testing**
  - Examples per Function vs Object style programming and per library
- **Ontologies? XML, JSON**

-----*The follow*  
*toward building an open source knowledge base to create something similar to the concept of an*  
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## **Phase 3 - Use Cases (Deep Dive)**

- Apply core learning technologies to selected use cases to demonstrate data driven applications and s

## **Phase 4 - Develop Enterprise Suite**

- Use lessons learned to create recommendations and support groups for selected open source techn

### **Phase 5 - Continued Community Fostering**

- Continue collaboration and leading technology discussions. Revise enterprise suite as needed.