

# Esri Open Source Projects from “outer space”

#devsummit

Esri Devsummit UK





# Esri Open Source Projects on GitHub

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**Esri Developer  
Summit Europe**

11–13 November 2013  
Park Plaza Riverbank London



# GitHub

Little Background



# What is GitHub?

- Cloud-based platform for building, collaborating and managing open source projects
- Built on Git
- 4+ million projects
- 1+ million developers

# Why Git/GitHub?

- DVCS (Distributed Version Control System)
- Full copy distribution
- Branching, merging, issues, wiki
- Strong community



**“pull request”**

# GitHub and Open Source

- Freely
  - Access
  - Use
  - Contribute
  - Distribute

GitHub is a vehicle; a very popular one.

# GitHub Components

- GitHub.com (in the cloud)
  - Search, watch, star, notifications, issues, wiki, gist
  - Dashboards - activity, repos, contributions...
  - User accounts
  - Organization
- GitHub Clients
  - GitHub for Mac or Windows
  - Git – command-line

# What can you publish?

- Typical
  - Code
  - Documents
  - Slide presentations
  - Website content
  - GeoJSON
- Other
  - City data
  - Travel logs
  - Music
  - Recipes
  - Blogs/Campaigns
  - Legal docs
  - Government...

[github.com](https://github.com)

# Esri on GitHub

Open Source Projects



# Esri Organization

[github.com/esri](https://github.com/esri)

GitHub Search or type a command

Explore Features Enterprise Blog Sign up Sign in

Repositories Members

Find a repository... Search All Sources Forks Mirrors

 **arcgis-samples-flex** ActionScript ★ 20 ⚡ 50  
Basic API samples for the ArcGIS API for Flex  
Last updated an hour ago

 **quickstart-map-phonegap** CSS ★ 0 ⚡ 0  
ArcGIS JavaScript samples for use with PhoneGap/Cordova  
Last updated an hour ago

 **twitter-for-geoevent** Java ★ 4 ⚡ 1  
ArcGIS GeoEvent Processor Sample Twitter connectors for sending and receiving tweets  
Last updated 2 hours ago

 **pushlet** JavaScript ★ 12 ⚡ 5  
A simple HTTP wrapper around the Apple Push Notification Service and Google Cloud Messaging Service  
Last updated 3 hours ago

Esri  
Esri

Redlands, California, USA  
<http://www.esri.com>  
Joined on Feb 20, 2011

138 public repos 139 members

# Esri Organization

[esri.github.com](https://esri.github.com)

**Esri is on GitHub!**

We're excited about helping developers build and share software. Browse our open source code and get started with our powerful ArcGIS platform.

[BROWSE ON GITHUB](#)

Need an ArcGIS subscription? Start developing today for free.



Filter by language or keyword:

<input type="text" value="Search>Select

**arcgis-viewer-flex**  
ActionScript

Source code for ArcGIS Viewer for Flex – a great application framework for web applications.

488 ★ 108

**terraformer**  
JavaScript

A geometric toolkit for dealing with geometry, geography, formats, and building geo databases

423 ★ 78

**esri-leaflet**  
JavaScript

A lightweight set of tools for working with ArcGIS services with Leaflet.

435 ★ 74

**geometry-api-java**  
Java

The Esri Geometry API for Java enables developers to write custom applications for analysis of spatial data. This API is used in the Esri GIS Tools for Hadoop and other 3rd-party data processing solutions.

420 ★ 44

**quickstart-map-library-flex**  
ActionScript

Easy mapping for Flex developers – Open Source project demonstrating the powers of the ArcGIS API for Flex

49 ★ 34

**gis-tools-for-hadoop**  
Python

The GIS Tools for Hadoop are a collection of GIS tools for spatial analysis of big data.

416 ★ 40

**geojson-utils**  
JavaScript

# **Esri Projects**

# Project Types

1. Products
2. Apps and Samples
3. Templates and Frameworks
4. Geo Tools
5. Industry and Government

# ArcGIS Products

arcgis-flex-viewer

arcgis-flex-viewer-builder

arcgis-osm-editor

arcgis-dijit-geocoder-js

# Apps and Samples

quickstart-map-js

maps-app-android

sencha-touch-map-checkin-js

driving-directions-ios

arcgis-samples-winstore

# **Templates and Frameworks**

bootstrap-map-js

basic-storytelling-template-js

social-media-map-template-js

3d-cities-template

spatial-framework-for-hadoop

# **Geo Tools**

esri-leaflet

Terraformer

geoportal-server

gis-tools-for-hadoop

geometry-api-java

node-geoservices-adaptor/koop

geoservices-js

# **Industry and Government**

my-government-services

executive-dashboard

park-and-recreation-finder

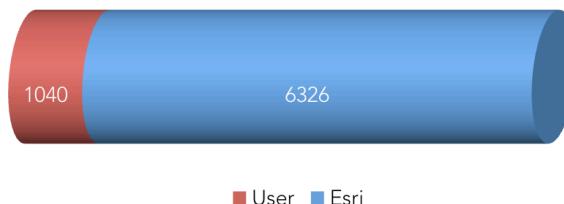
citizen-service-request

water-utility-network-editing

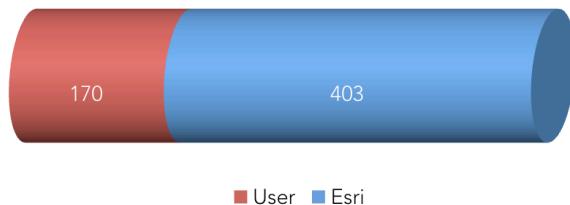
# Project Activity

- **450+ developers**
- **140+ projects**

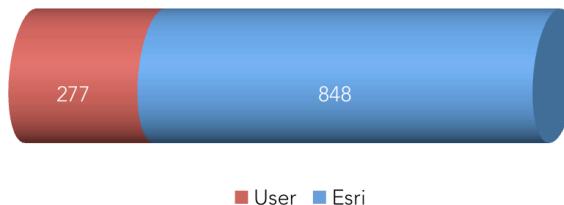
Commits



Pull Requests



Issues

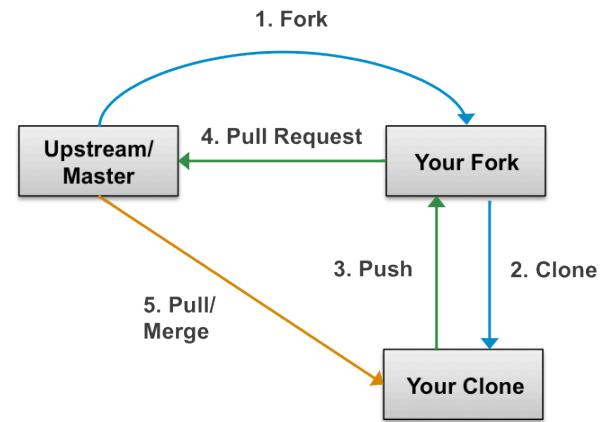


[github.com/esri](https://github.com/esri)

[esri.github.com](https://esri.github.com)

# GitHub Workflow

## Getting Started



# Getting Started – Homework Assignment!

- 1. Create** a GitHub.com account
- 2. Install** a GitHub client (and Git)
  - [windows.github.com](http://windows.github.com)
  - [mac.github.com](http://mac.github.com)

## Resources

- Doc, videos, ref - [git-scm.com](http://git-scm.com)
- Top Git Commands - [gitref.org](http://gitref.org)
- Markdown - [daringfireball.net/projects/markdown/syntax](http://daringfireball.net/projects/markdown/syntax)
- Tutorial - <http://try.github.com>

# help.github.com

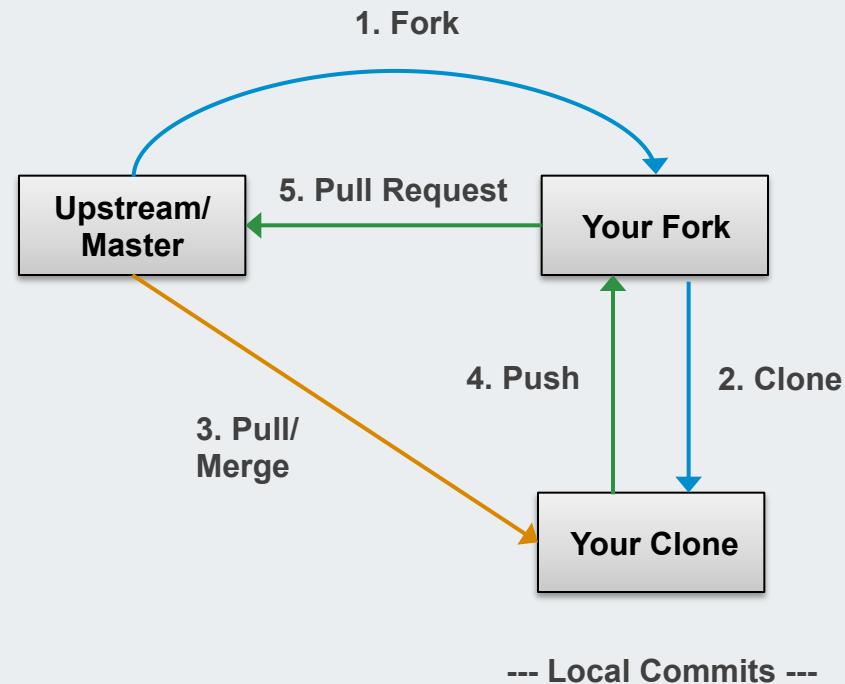


# You will do one of the following:

- 1) Get (steal) Code
- 2) Contribute Code
- 3) Create a New Project

# GitHub Work-flow

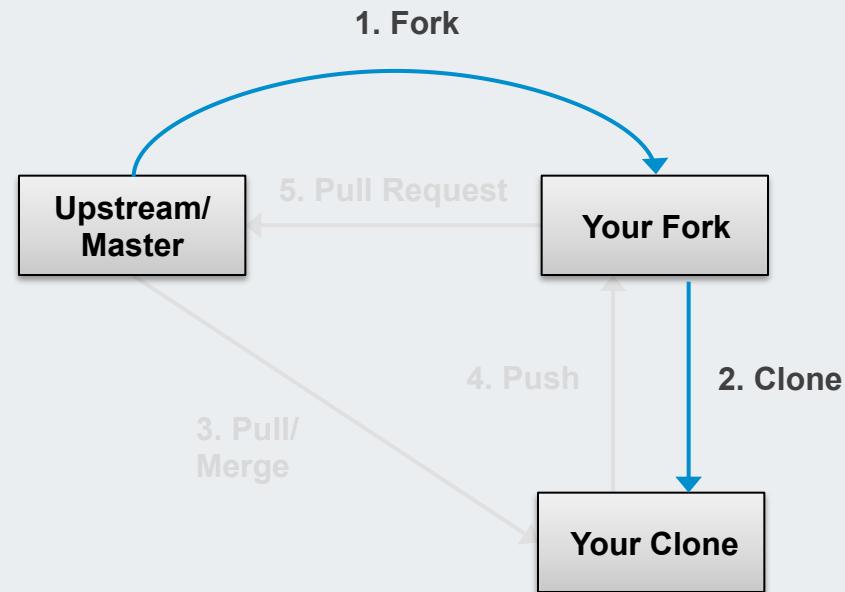
1. Fork
2. Clone
- Local commits ---
3. Pull/Merge
4. Push
5. Pull Request



The first thing  
you'll do...

# Get Code

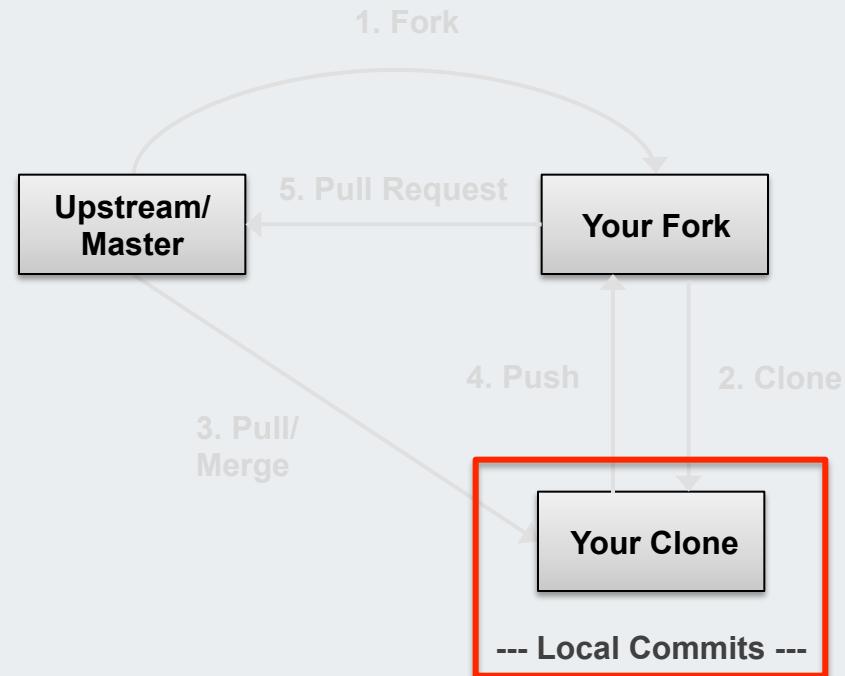
- Fork: Cloud copy
- Clone: Local copy



```
$ git clone https://github.com/alaframboise/quickstart-mapjs.git
```

# Make Local Commits

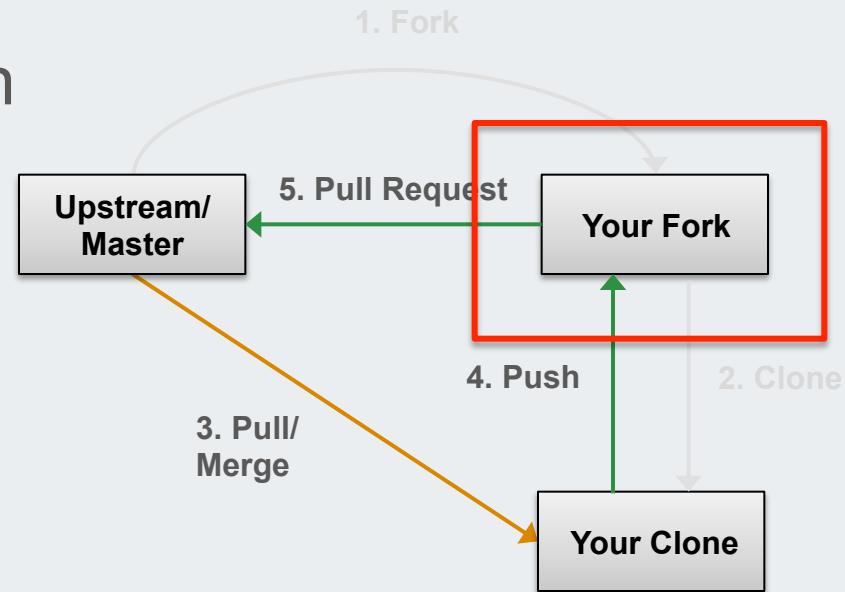
- Add changes to the index
- Store local edits



```
$ git add *
$ git commit -m "These are my cool edits to code"
```

# Merge and Push Code

- Create remote connection
- Pull and merge edits
- Push to your cloud



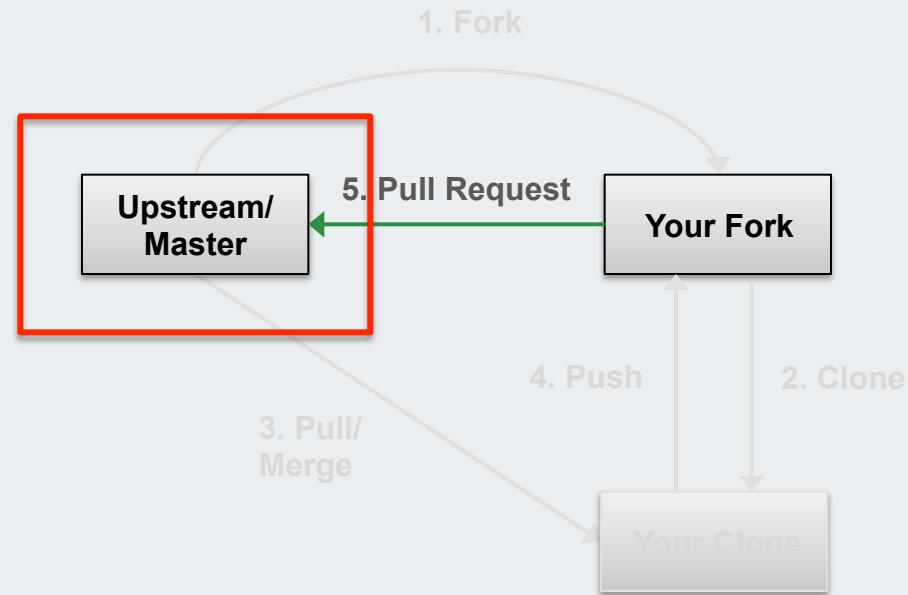
Tip: Always merge before pushing

```
$ git add remote upstream https://github.com/Esri/  
quickstart-map-js.git  
$ git pull upstream master  
$ git push origin master
```

The second thing  
you'll do...

# Pull Request

- Request to accept
- Specify branch
- Ensure can merge

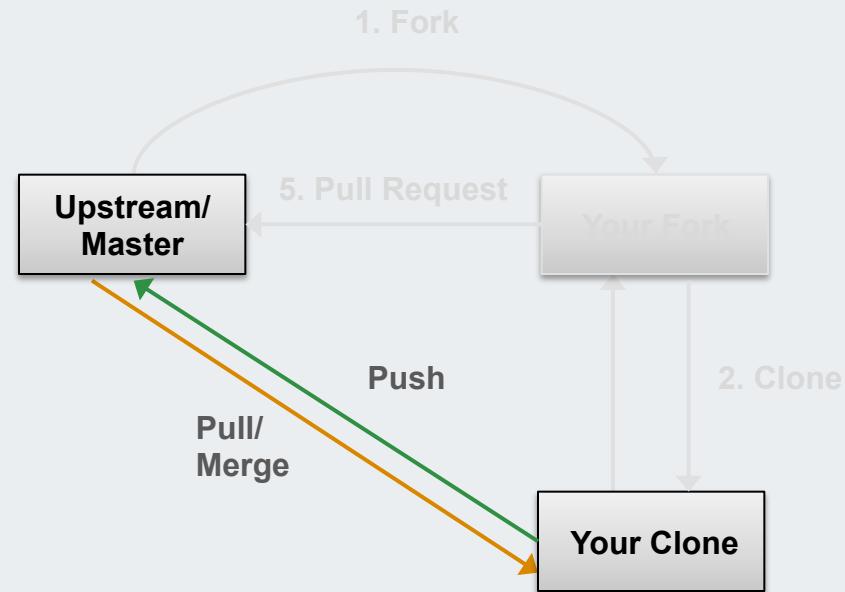


Tip: Use web client!

The third thing  
you'll do...

# New Project

- Create
- Publish
- Push
- Pull/Merge

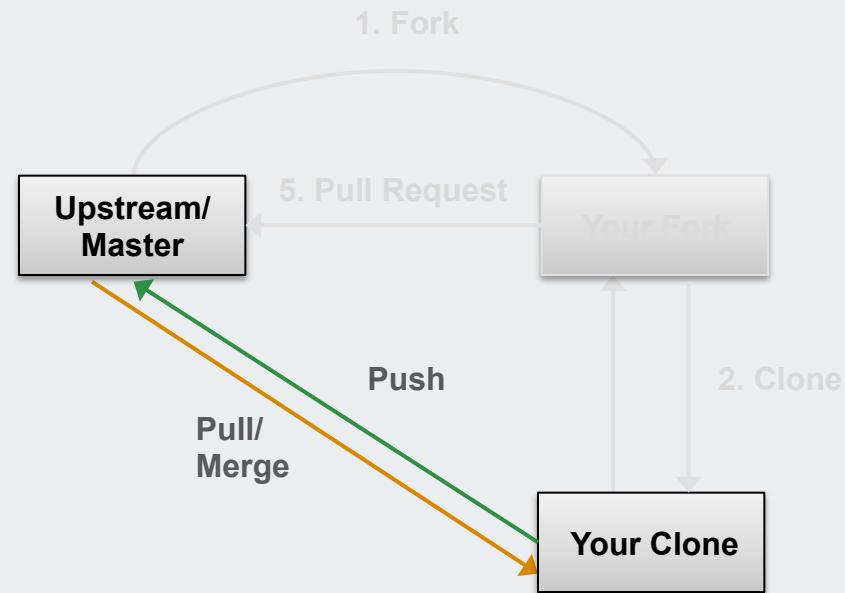


```
$ git init (or create on GitHub and $git clone ...)  
$ git add *  
$ git commit "My awesome project"  
$ git push master
```

If you're cool,  
you'll also...

# Publish Documentation

- README.md
- Use gh-pages
- Use wiki



```
$ git checkout -b "gh-pages"  
$ git push origin gh-pages
```

# README.md

- Description
- Features
- Instructions
- Requirements
- Resources
- Issues
- Contributing
- Licensing

## quickstart-map-js

A set of simple samples that show you how to accomplish different mapping and GIS tasks with the ArcGIS API for JavaScript. The samples use ArcGIS Online basemaps and services. Learn more [here](#).

[View the samples live here](#)



### Features

- Basemaps - Set different basemaps interactively
- Geolocation - Find and display your geolocation
- Place Finding - Find places or geocode an address
- Geocode - Forward and reverse geocoding
- Directions - Get directions
- Graphics - Draw points, lines and polygons
- Maps - Load and resize/recenter maps
- Cloud - Draw and query features stored in the ArcGIS Online cloud

### Instructions

1. Fork and then clone the repo or download the .zip file.
2. Run and try the examples.

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## Requirements

- Notepad or your favorite HTML editor
- Development web server (like IIS or Apache)
- Web browser with access to the Internet

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## Resources

- [ArcGIS for JavaScript API Resource Center](#)
- [ArcGIS Blog](#)
- [twitter@esri](mailto:twitter@esri)

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## Issues

Find a bug or want to request a new feature? Please let us know by submitting an issue.

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## Contributing

Anyone and everyone is welcome to contribute.

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## Licensing

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A copy of the license is available in the repository's [license.txt](#) file.

[alaframboise.github.com](https://alaframboise.github.com)

# Final Notes

- Get on GitHub!
- Check out the esri.github.com
- Find a project
- Follow a project
- Create a project
- Make a pull request
- Join the community

**esri.github.com**



**esri**

Understanding our world.