

# **GitHub**

## **Government Proficiency without the computer science degree**

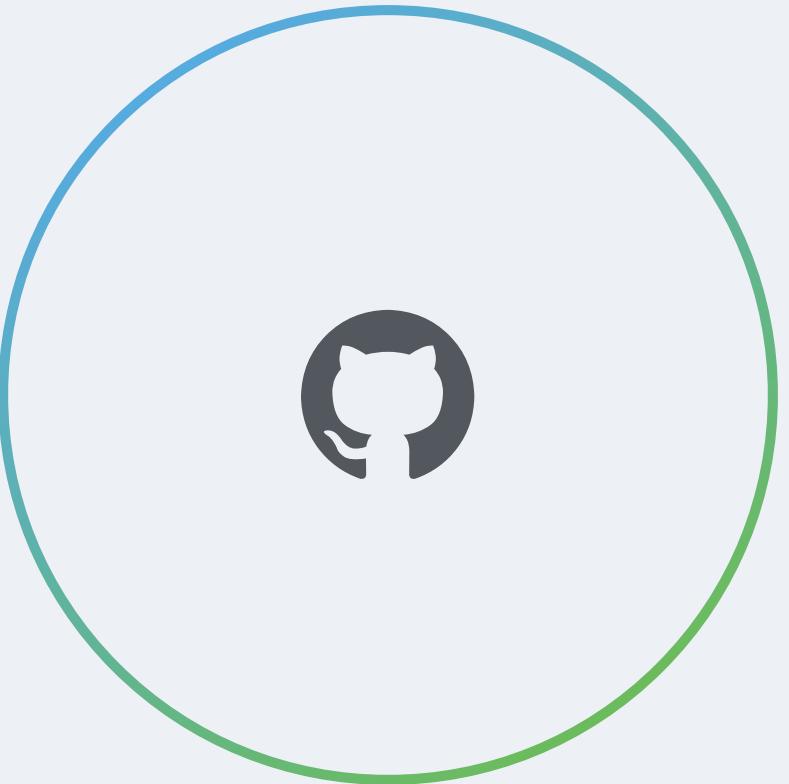


# Jamie Jones

- Federal Solutions & Implementation Specialist
- Version Control Enthusiast
- Recovering Government meeting attendee

 [jbjonesjr](#)

 [jbjonesjr](#)



# Agenda

- What is it
- Government GitHub
- GitHub 101
- Best Practices
- How to manage a community

# GitHub: What is it

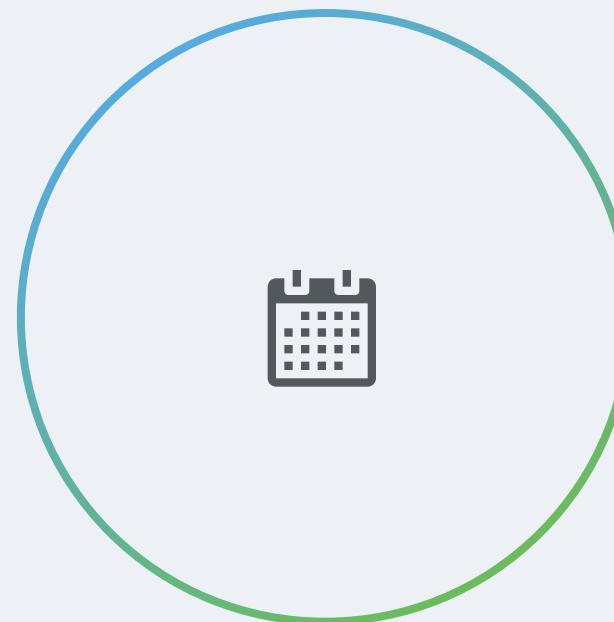


## GitHub

- Version Control, Web based file/document editing and rendering
- Project, Issue & Feature Tracking with milestone and tagging
- Wikis and project documentation
- Rich Text formatting throughout
- Code Review & Collaboration between users and teams
- Static website hosting and publishing via GitHub Pages
- Discovery and exposure via social conventions

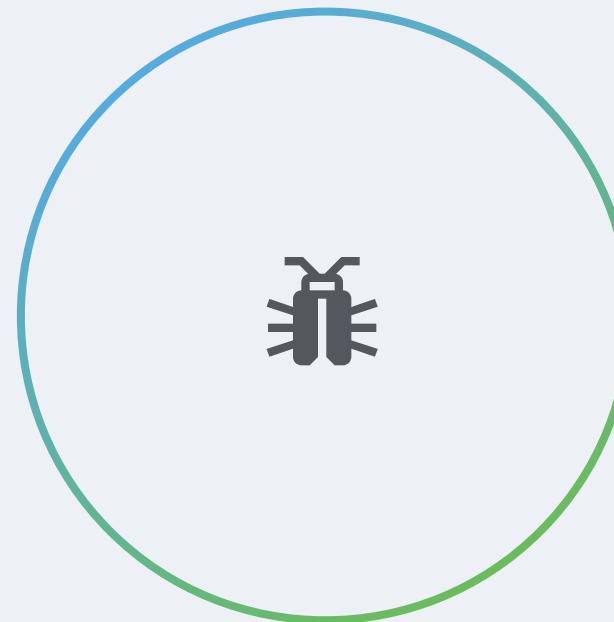
The screenshot shows a GitHub repository page. At the top left, the repository name 'bjjonesjr / github-in-government' is displayed. To the right are buttons for 'Unwatch' (1), 'Star' (0), and 'Fork' (0). Below the repository name is a navigation bar with tabs: 'Code' (selected), 'Issues 0', 'Pull requests 0', 'Projects 0', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. A message at the bottom of the page reads: 'Interested in using GitHub within the Government? Here's a starting point — Edit'.

# Delivery that works for you



## GITHUB.COM

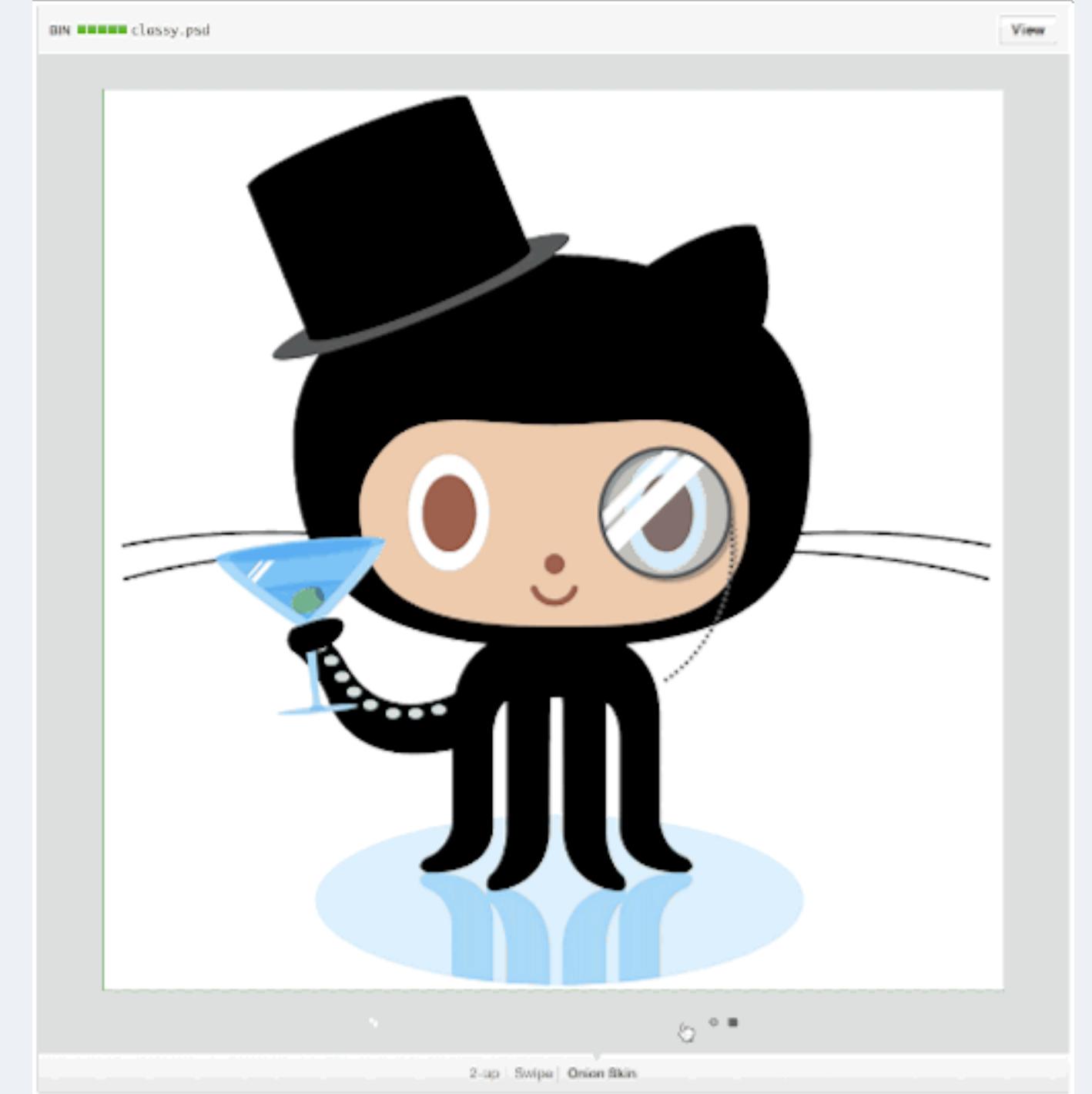
- **Online version control and collaboration platform. Like Microsoft Word track changes, but for everything.**
  - 16 million users, ~50th most trafficked website in the world
  - 38 million projects hosted, the home of Open Source software
  - Public Repositories are free, private repositories cost \$9/user/month



## GITHUB ENTERPRISE

- **Like [GitHub.com](#), but running on your network (or cloud), using your Enterprise tools**
  - On-premises Virtualization (VMWare, Hyper-V, etc) or AWS/Azure
  - Over 100 Federal instances today
  - Supports Single-Sign on, Auditing, Other Security Requirements
  - Checks all those Government checkboxes

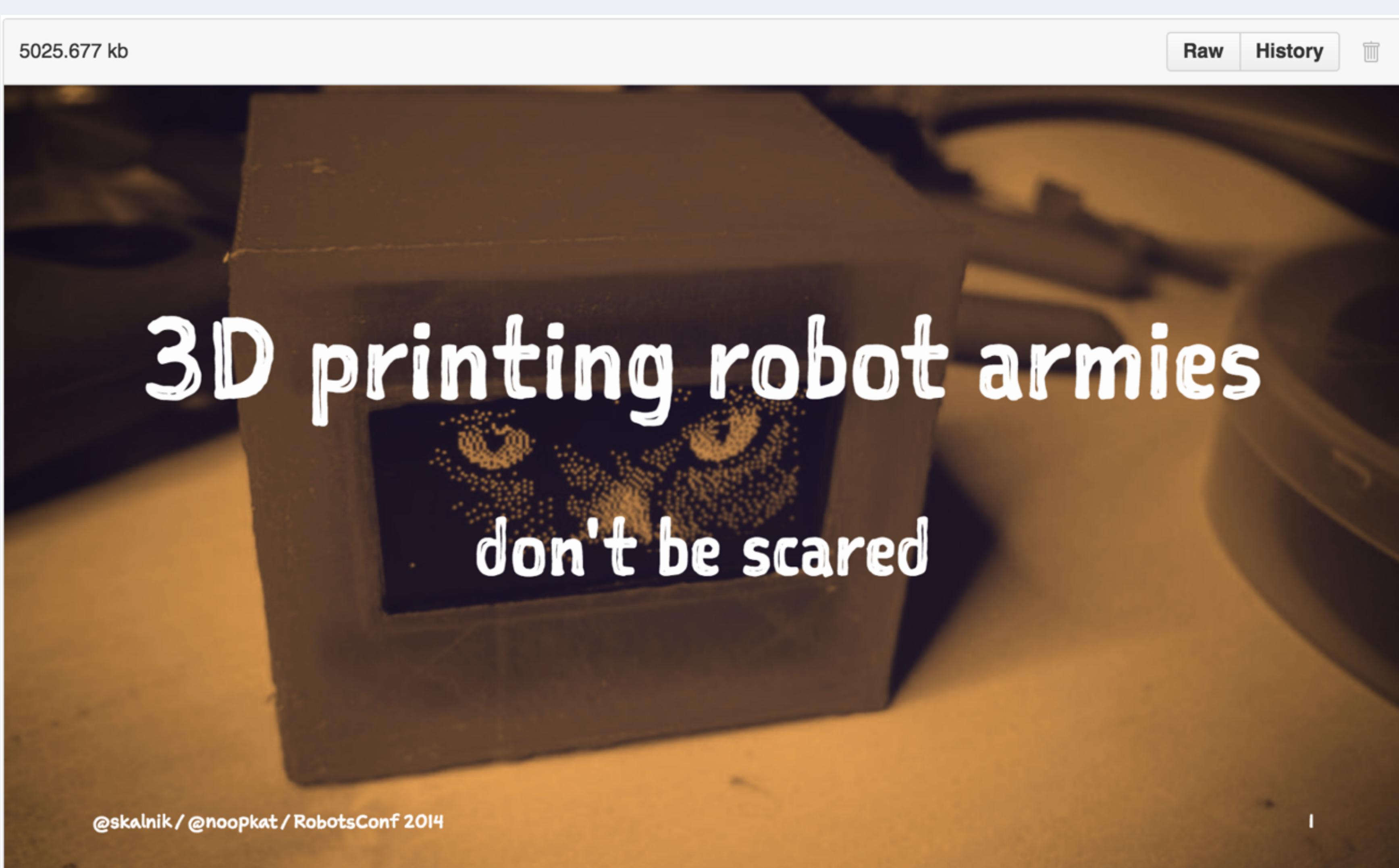
# Image Rendering



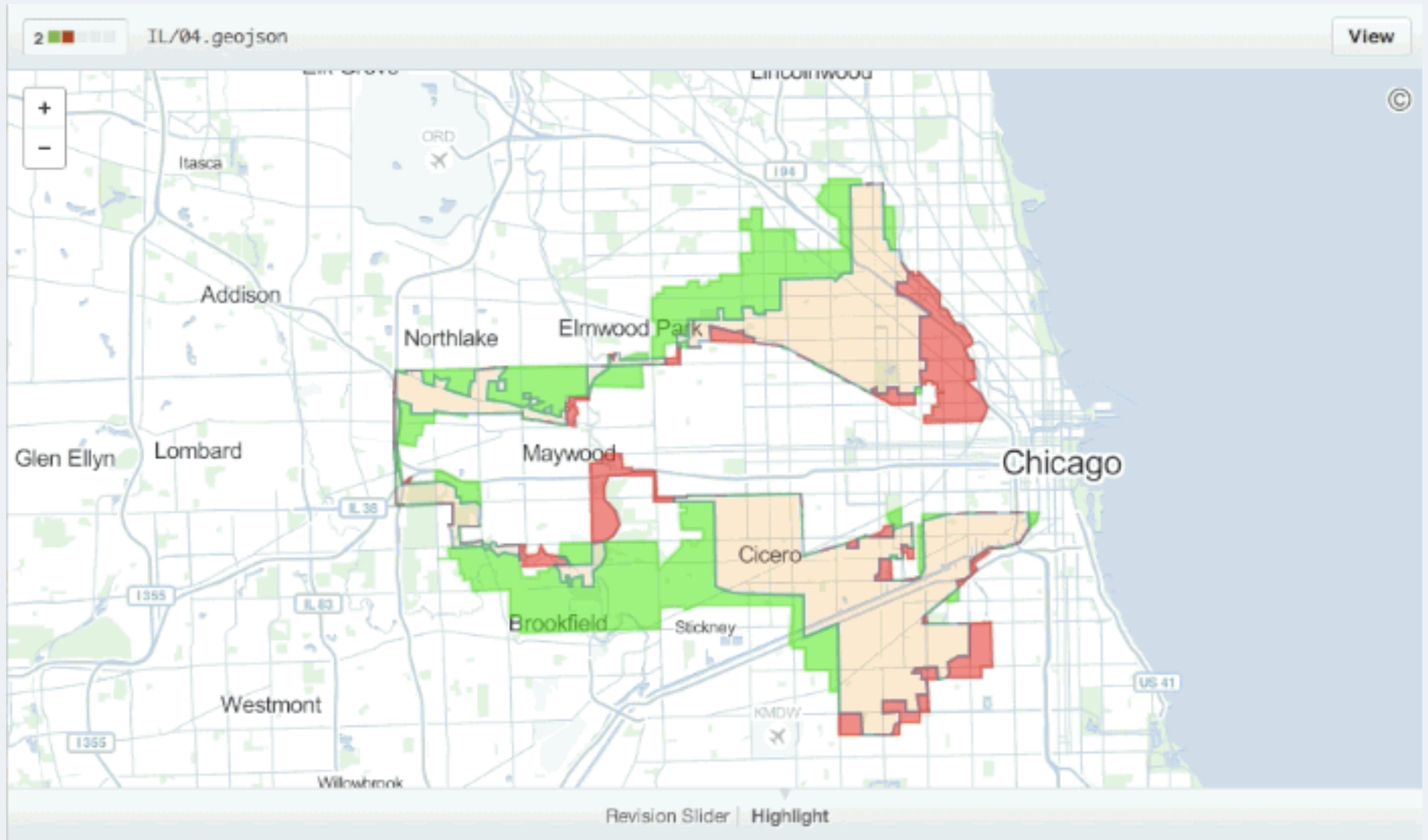
**PNG, JPEG, SVG, Photoshop supported**

**examples**

# PDF Rendering



# Map Rendering & Differences



# GitHub Pages



CFPB Open Tech

We'd like to share our work on the US Government APIs.

The Consumer Financial Protection Bureau believes that markets for consumer financial products should be competitive. To support this mission, we're making our work available for the public and internal tools.

[Learn more](#) [View our Source](#)

eller machine  
Required by law  
screen of this  
with or by pr

# US Government APIs

## Introduction

This project attempts to provide quick access to all US Federal APIs. There are a few lists that approach this goal but none are perfect. The goals for this project is to promote a catalog that is:

- Comprehensive and Up-To-Date
- Automatically Maintained
- Supportive of Publication Elsewhere

This project does not desire to create a new catalog, but rather to find and bring together API catalogs that already exist.

## The Plan

- Home
- 18F List
- API Listing on Data.gov
- 3rd-Party Catalogs
- Short Term Fixes
- A Sustainable Model
- How You Can Help

# Pull Requests



Add more commits by pushing to the `copy-src` branch on [Ingramz/atom](#).

**Changes requested** 1 review requesting changes. [Learn more.](#)

**maxbrunsfeld** requested changes [See review](#)

**Some checks were not successful** 1 failing and 2 successful checks [Hide all checks](#)

**ci/circleci** — Your tests failed on CircleCI [Details](#)

**continuous-integration/appveyor/pr** — AppVeyor build succeeded [Details](#)

**Labels** None yet

**Milestone** No milestone

**Assignees** No one—assign yourself

**6 participants**

**TODO:**

- Write specs
- Cleanup, including old commented code and extra space around new code
- Decide if the `home` and `end` keys should act on the screen or buffer line. Currently it's the screen line
- Modify new screen line functions in `menus/linux.cson` and `menus/win32.cson` to have shortcuts (at least I think that's what the ampersand is for on the menu labels. I'm on a Mac 🍎)
- Edit 2.2 and 2.3 in `atom/flight-manual.atom.io` to reflect new functions

**kylesimmonds** added some commits on Jul 17

- Change function inside `selectToEndOfLine` ...
- Add and change select line functions ...
- Update function of `editor:select-to-first-character-of-screen-line`
- Rename `moveToFirstCharacterOfLine` ...
- Make new select line functions usable ...
- Rename `move-to-first-character-of-line` ...
- Add new select line functions to `text-editor.coffee` ...
- Revert `shift+home` and `shift+end` behavior
- Add `moveToFirstCharacterOfLine` ...
- Add cleanup TODOs ...
- Add editor:move-to-first-character-of-line

**kylesimmonds** referenced this pull request on Jul 17

**Change select-to-end-of-line to work like move-to-end-of-line #12117** [Closed](#)

**Projects** None yet

**Labels** [work-in-progress](#)

**Milestone** No milestone

**Assignees** No one—assign yourself

**3 participants**

**Notifications** [Subscribe](#)  
You're not receiving notifications from this thread.

**Lock conversation**

**XVincentX** approved these changes 11 days ago [View changes](#)

I approve those changes

**damieng** reviewed 9 days ago [View changes](#)

src/compile-cache.js

```
... -99,7 +99,7 @@ function writeCachedJavascript (relativeCachePath, code) {  
 99 99  
 100 100  function addSourceURL (jsCode, filePath) {  
  
damieng 9 days ago  
Every one of our compilers already adds the source map and does the file:// work on Windows. I suspect this entire function can be removed.  
  
Ingramz 9 days ago  
Verified, yep, it can be removed.  
  
Ingramz commented 9 days ago  
Contributor +  
There is still trouble with getting devtools to load .coffee files from asar. It will pretty much break as soon as the person building deletes their build directory.
```

**Ingramz** forced pushed the `ingramz:copy-src` branch from `branch:master` to `branch:copy-src` 9 days ago

# GitHub: How do you use it



- **Contributing to Open Source software projects (not just via code, but whatever your expertise is)**
- **Working on internal projects**
- **Policy development**
- **Open Commenting periods**
- **Documentation, StyleGuides**
- **Citizen Services**



## How the Government GitHubs...

# General development



USStateDept / **america-ajax-search-filter**

Watch 4 Star 0 Fork 1

Code Issues 0 Pull requests 1 Projects 0 Wiki Pulse Graphs

Client side search and filter <http://usstatedept.github.io/america-ajax-search-filter/>

14 commits 2 branches 6 releases 1 contributor

Branch: master New pull request Create new file Upload files Find file Clone or download

terriregan	Removed link from pub type	Latest commit 1702f3c on Jun 9
assets	Added js source maps, updated documentation	4 months ago
includes	Removed link from pub type	4 months ago
templates	Removed link from pub type	4 months ago
.gitignore	Ignore sass cache	4 months ago
Gruntfile.js	Added js source maps, updated documentation	4 months ago

# Policy Documentation



usnistgov / 800-63-3

Watch 99 Star 298 Fork 36

Code Issues 28 Pull requests 3 Projects 1 Pulse Graphs

Home to public development of draft Special Publication 800-63-3: Digital Authentication Guidelines

438 commits 3 branches 0 releases 13 contributors

Branch: nist-pages New pull request Create new file Upload files Find file Clone or download

jmfenton committed on GitHub Merge pull request #402 from pgrassi-nist/ial2-biometrics ... Latest commit 16efa37 2 hours ago

File	Description	Time Ago
.github	Update ISSUE_TEMPLATE.md	9 days ago
_includes	Adding graphics in -B Sec 5	2 months ago
_layouts	First Publishing	5 months ago
assets	Better graphics	2 months ago
sp800-63-3	Risk based language for agencies	8 hours ago
sp800-63a	Fixed formatting of privacy section.	7 hours ago
sp800-63b	Update definitions for asymmetric keys and digital signature. Resolves ...	13 hours ago

# Public Commenting



WhiteHouse / source-code-policy

Watch 80 Star 203 Fork 66

Code Issues 9 Pull requests 0 Projects 0 Pulse Graphs

Filters is:issue is:closed Labels Milestones New issue

Clear current search query, filters, and sorts

Author	Labels	Milestones	Assignee	Sort
① 9 Open ✓ 207 Closed				
<b>Comments from the Open Source Initiative (OSI)</b> #227 by massonpj was closed on Apr 19				
<b>Email Comment: Support for Open Source Licensing / Open by Default</b> #226 by OMBPublicComments was closed on Apr 19				
<b>Email Comment: Support for 100% Free Software</b> <span style="float: right;">4</span> #225 by OMBPublicComments was closed on Apr 19				
<b>Email Comment: Defending the public interest in this regulation</b> #224 by OMBPublicComments was closed on Apr 19				
<b>Support for FSF comments</b> #223 by willghatch was closed on Apr 19				

# StyleGuides



[CMSgov / HealthCare.gov-Styleguide](#)

Code Issues 2

CMS Developer Site

73 commits

Branch: master New pull request

rmungara Updating assets

css fonts images js

CONTRIBUTING.md LICENSE.md README.md

Styleguide.HealthCare.gov

Design Assets Governance

# HealthCare.gov Styleguide

Design and development guidelines, version 1.0

Creating a unified user experience – in

One of our most important challenges at HealthCare.gov is to make it easy for American citizens to enroll in health coverage. This requires us to create a seamless experience for consumers using a wide variety of devices across a number of different platforms.

# Citizen Services



An official website of the United States Government

Federalist

[Help](#)   [Contact us](#)   [Log in](#)

## Federalist is a unified interface for publishing static government websites.

*Have an account?*

[Log in now](#)

### Secure and scalable

# Modern Procurement...



**18F** Micro-purchase  
*A marketplace for open source work*

[Sign in or Sign up](#)

## Welcome!

The Micro-purchase Marketplace is the place to bid on open-source issues from the 18F team. [Learn more about this experiment »](#)

Be sure to [register your company](#) before placing a bid. If you have any questions, please email us at [micropurchase@gsa.gov](mailto:micropurchase@gsa.gov).

## Auctions

**Update button label and behavior for applying to an open opportunity**

**Closed** *Ended on: 09/22/2016*      *Winning bid: \$249.00*

Right now the language and behavior of the "I'm in" button

**Confirmation message for full time details, and general confirmation message**

**Closed** *Ended on: 09/16/2016*      *Winning bid: \$525.00*

We are introducing the concept of full-time detail

# ... and even more Procurement



Agile Delivery Services Blanket Purchase Agreement

## Posted for Bid

TITLE	ID
e-QIP Refresh Prototyping	#1138886
AGENCY	OFFICE
Office of Personnel Management	Federal Investigative Services (FIS)
SOLICITATION DATE:	PERIOD OF PERFORMANCE
September 06, 2016	Base period of 3 months, with 5 addit...
DESCRIPTION	
A prototype design and development project to refresh the Electronic Questionnaires for Investigations Processing (e-QIP) system.	
SOLICITATION REPOSITORY	
<a href="#">GitHub</a>	

## About

In keeping with its mission to transform the way the federal government builds and buys digital services, 18F set out to find a new way of procuring digital services: at the speed of agile development cycles. That means ideally less than four weeks from solicitation to contract kickoff, and from there no more than three months to deliver a minimum viable product.

18F partnered with the General Service Administration (GSA) Office of Integrated Technology Services to establish a blanket purchase agreement (BPA) featuring vendors specializing in agile delivery services (e.g., user-centered design, agile software development, DevOps). The **Agile Delivery Services BPA (Agile BPA)** represents an effort to align acquisition practices with agile delivery practices.

The Agile BPA is different from most other

# Collaborating Together



**GitHub and Government**

Who's using GitHub Peer Group Contact

## Government like you've never imagined.

Collaborate on code, data, or policy, within your organization and with the public.

Upgrade your IT workflow

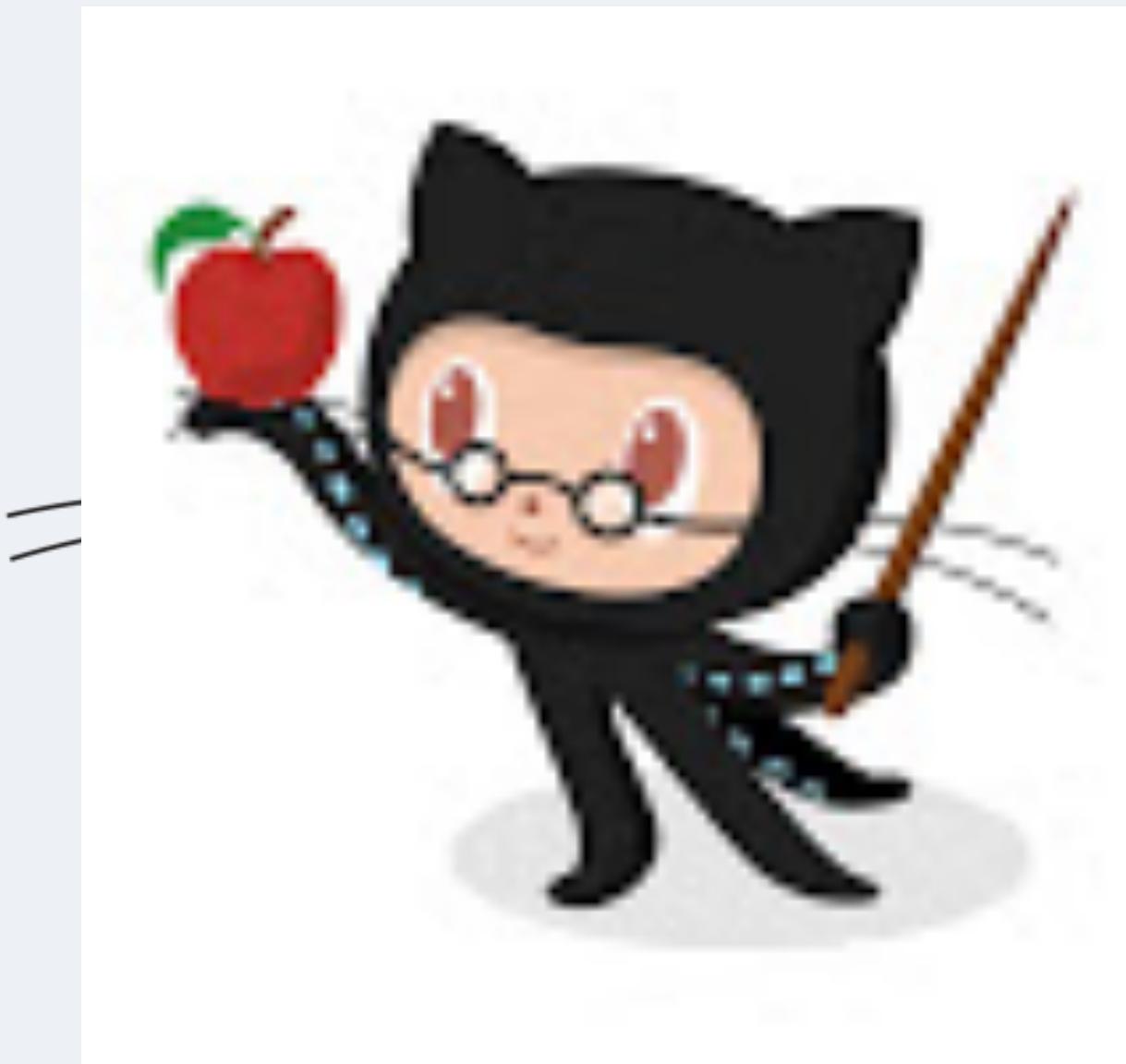
 Public engagement

government / best-practices Private

Code Issues 53 Pull requests 1 Projects 0 Pulse Graphs Settings

Filters is:issue is:open Labels Milestones New issue

Author	Labels	Milestones	Assignee	Sort
edent				
mikecharles				
lomky				
mikecharles				
afeld				
feomike				
jbjonesjr				
jbjonesjr				
amagari				
fabdelgado				



# GitHub 101

# Creating new organizations



The screenshot shows the GitHub interface for creating a new organization. At the top, the navigation bar includes the GitHub logo, a search bar labeled "Search GitHub", and links for "Pull requests", "Issues", and "Gist". On the right side of the header, there are icons for notifications, a plus sign, and a user profile. A dropdown menu is open from the user profile icon, showing options for "New repository", "Repositories", "New organization", and a link to "govt-lab/lab-identity-springse... 0 ⭐".

The main content area is titled "Create an organization". It displays a progress bar with three steps: "Completed Set up a personal account" (indicated by a green checkmark), "Step 2: Set up the organization" (indicated by a blue user icon), and "Step 3: Add members" (indicated by a blue folder icon). To the left of the progress bar, there is a sidebar showing a list of repositories. The central part of the screen contains fields for "Organization name" and "Contact email", both of which are currently empty. Below these fields, a note states: "The organization will live at <https://octodemo.com/>". At the bottom left is a green "Create organization" button. To the right of the input fields is a box titled "Organizations" listing benefits: "Repository management", "Fine-grained permissions", and "Focused dashboard". A "Learn more" link is also present in this box.

# Add members...



## Add organization members

Completed Set up a personal account Step 2: Set up the organization Step 3: Add members

Search by username, full name or email address

part

particle-researcher Dr John J Reisenhower +  
Hard Headed Coder

ICode4Rocks X

rockStar Tommy Coder

Finish

**Organization members**

- ✓ See all repositories ⓘ
- ✓ Create repositories
- ✓ Organize into teams
- ✓ Review code
- ✓ Communicate via @mentions

As an organization owner, you'll have complete access to all of the organization's repositories and have control of what members have access using fine-grained permissions.

# ... and manage teams



Atom

Repositories People 147 Teams 7

Find a team...

New team

7 teams in the Atom organization

Visibility ▾ Members ▾

Team Name	Description	Members	Action
design	design team	13 members	Request to join
electron-maintainers	Electron!	9 members	Request to join
highlights	Highlights	4 members	Request to join
Hubbers	Secret	82 members	Leave
languages	Improving language support within Atom	8 members	Request to join
microsoft	Microsoft Folks	7 members	Request to join
windows	Notification-only team for Windows-specific issues.	4 members	Request to join

# Creating new repositories



The screenshot shows the GitHub interface for the organization 'in-telemundo'. The top navigation bar includes links for 'This organization', 'Search', 'Pull requests', 'Issues', 'Gist', and user profile icons. A dropdown menu is open from the top right, with an orange arrow pointing to the 'New repository' option. On the left, there's a repository card for 'tele-yearbook' with a description: 'tv personalities throughout the years', updated '5 minutes ago', and 0 stars and 0 forks. Below it, a search bar has an orange arrow pointing to the 'New repository' button. To the right, a modal window titled 'Create a new repository' is displayed, asking 'A repository contains all the files for your project, including the revision history.' It shows the 'Owner' set to 'rockStar' and the 'Repository name' field empty. A dropdown menu lists other owners: 'rockStar' (selected), 'govt-lab', 'Integration-Station', and 'in-telemundo'. At the bottom, a 'Private' option is shown with the note 'You choose who can see and commit to this repository'.

New repository

New organization

This organization

Add someone

New team

New repository

New repository

Find a repository...

New repository

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

rockStar /

Choose another owner

rockStar

govt-lab

Integration-Station

in-telemundo

Private

You choose who can see and commit to this repository

# Creating a Pull Request



Update readme with years #2

[Open](#) rockStar wants to merge 1 commit into `master` from `readme-timeline-years`

Conversation 4 Commits 1 Files changed 1 +7 -0

rockStar commented 18 minutes ago in-telemundo member

- Make changes to the readme
- get code review from teammates
- include photos

update readme with years 98fa5f8

rockStar commented 18 minutes ago in-telemundo member

cc/ @ICode4Rocks might want to take a look

ICode4Rocks suggested changes 8 minutes ago

I think we're missing something here

README.md

3	+
4	+from years 1990 - 2016
5	+### 1990's
6	+

ICode4Rocks 8 minutes ago

This is going to have pictures, right?

Reply...

README.md

5	+### 1990's
6	+
7	+### 2000's
8	+

ICode4Rocks 8 minutes ago

Am I supposed to see anything? ☺

Reply...

Projects None yet

Labels None yet

Milestone No milestone

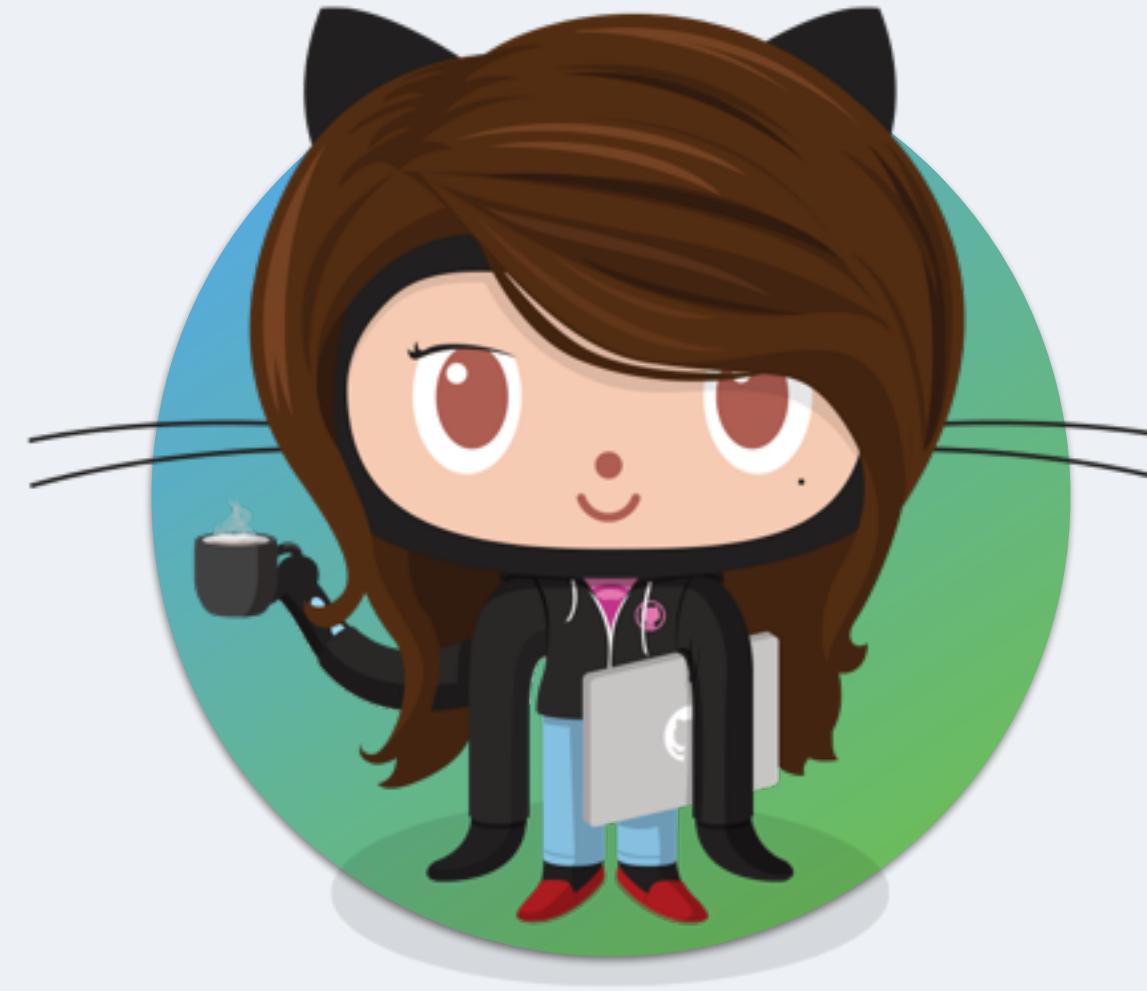
Assignees No one— assign yourself

2 participants

Notifications

Unsubscribe You're receiving notifications because you authored the thread.

Lock conversation



## Best Practices:

- Naming
- Description
- Consistent Naming Scheme
- Using Teams. Using homepages for teams

# Naming & Descriptions matters



## federalregister-web

Federal Register 2.0 Web Display

Updated on Jul 26

## federalregister-api-core

Federal Register 2.0 API and Data Importer

Updated on Jul 26

## Catalog-API

National Archives Catalog API

Updated on Apr 25



## U.S. National Archives

United States

<http://www.archives.gov...>

developer@n...

[Repositories](#)

[People 7](#)

Ruby ★ 5 ⚡ 1



## U.S. Environmental Protection Agency

<http://www.epa.gov>

[Repositories](#)

[People 10](#)

### CMAQ

★ 0 ⚡ 0

Updated 23 days ago

### lakemorpho

R ★ 6 ⚡ 1

ORD lakemorpho

Updated 24 days ago

### aed\_r

R ★ 0 ⚡ 0

Updated 27 days ago

### StreamCat

Python ★ 7 ⚡ 1

Updated on Aug 17

# ... and manage teams



Atom

Repositories People 147 Teams 7

Find a team...

New team

7 teams in the Atom organization

Visibility ▾ Members ▾

Team Name	Description	Members	Action
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Hubbers	Secret	82 members	Leave
languages	Improving language support within Atom	8 members	Request to join
microsoft	Microsoft Folks	7 members	Request to join
windows	Notification-only team for Windows-specific issues.	4 members	Request to join

# Teams can have homes too



README.md

## Platform

This is a project coordination repo for the Platform high-level engineering team.

Contact us through [@github/platform-support](#).

### What we do

We provide a platform for application developers to build workflows for GitHub end users and integrators.

### Who we are

[Data](#)



Architecting how we persist data.

[Design](#)



Arranging our pixels for human consumption.

[Developer Experience](#)

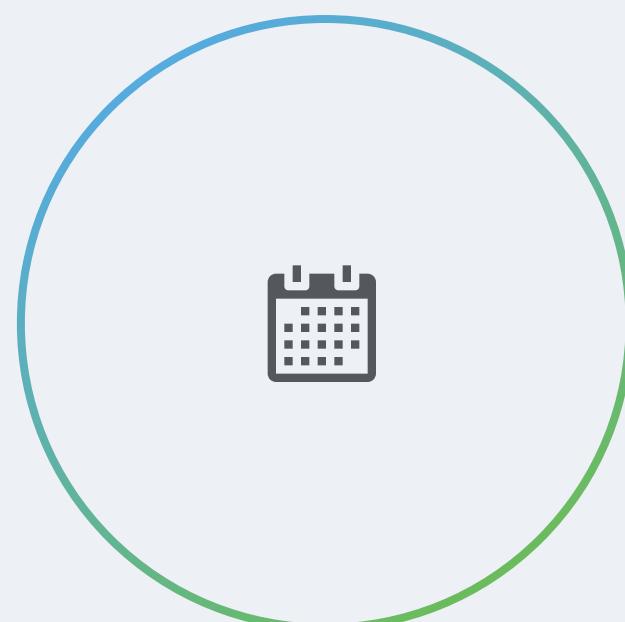


# Managing a community



- **Document your process, transparency**
  - README.md, CONTRIBUTING.md, LICENSE, etc
- **Make barrier to entry minimal**
  - Issue & Pull Request Templates
- **Be Involved**
  - Commenting in Issues, Providing Code Reviews, Setting direction
- **Governance**
  - Who can commit/merge
- **Integrations can help maintain the project for you**
  - CLA-BOT
  - Test Runners
  - Static Code Analysis

# What next?



JBJONESJR@GITHUB.COM

- <https://www.github.com/jbjonesjr/github-in-government>
- Slides are posted already, feel free to use issues for questions
- Will update this repository with links and new information



HTTPS://GOVERNMENT.GITHUB.COM

- Government peer group shares best practices around (any) technology
- Great place to ask questions and source information