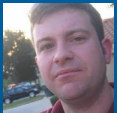


Military Solutions on Github

Chris Moore (“C-Moore”)

MI

Ben Conklin - <https://github.com/conklinbd>



Patrick Hill - <https://github.com/pHill5136>



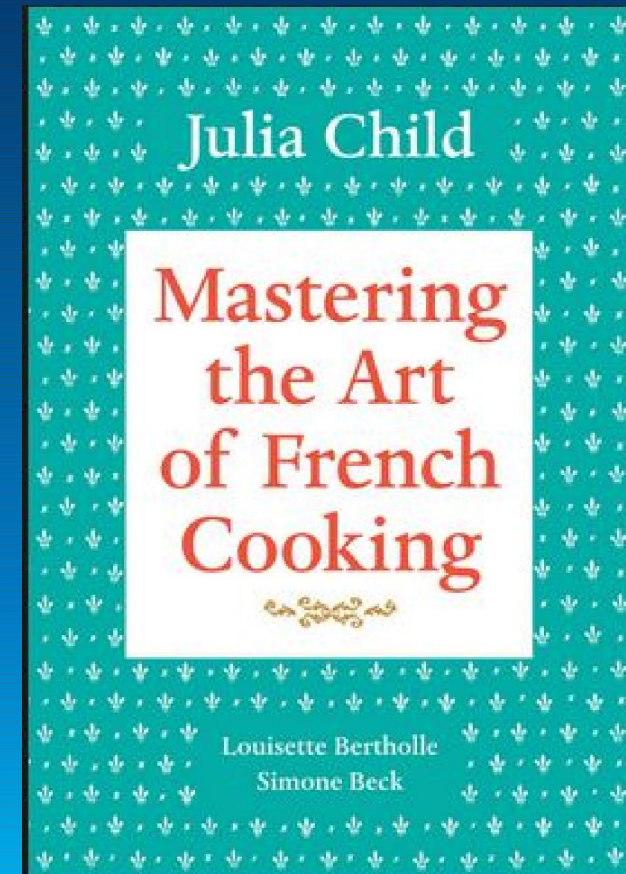
Chris Moore - <https://github.com/csmoore>



<http://octodex.github.com/>

Seeking Inspiration from Great Chefs

- Great chefs give away their recipes
 - So they can make other people great chefs too
- In Solutions, we ask ourselves
 - What have we learned?
 - What can we share & help others?
 - What are our recipes? Our cookbook?
- Github is where we store and share our recipes / cookbooks
 - This is where we want to be able to
 - Share everything we know
 - Seek input + collaborate with the community
 - Make our solutions better
 - ... and become better chefs/developers



Lessons from Open Source

- **Intrinsic motivation**
 - People work on projects they like (“love vs. money”)
- **Transparency / Repeatability / Accountability**
 - Its all out in the open for all to see
 - Others must be able to reproduce your build
 - Easier to see who is contributing
- **Communication & collaboration**
 - Anyone interested in helping can (because repeatable & all in the open)
 - Asynchronous / a-spatial - don't have to be working at the same time / place
 - Ideas are exchanged in writing / recorded
- **Github adds a few additional benefits:**
 - Activity Feeds- see what's happening (or not) with the people / projects you follow
 - Simple Code Review mechanism – comment on any line of code
 - Many others...

Yeah, But Are You *Really* Open Source?

- Most Templates, Addins, etc. do have dependencies on the ArcGIS Platform
- Most software in general has dependencies on *something*
 - Build/runtime requirements: libraries, web connectivity, web APIs, etc.
 - Our dependencies listed in Readme “Requirements”
- We believe the use of Apache V2 License offers the most flexibility
 - Apache V2 License = “gimme credit” & “no guarantees + don’t sue me”
 - But you can pretty much do anything else with the software without restriction
 - Meets US DOD guidelines of approved license

Defense Solutions on Github - esri.github.io/#Military

vehicle-commander

Java

The Vehicle Commander template demonstrates best practices for building in-vehicle military applications with ArcGIS Runtime. The Vehicle Commander template contains source code for an in-vehicle application.

🔗 6 ★ 7

position-analysis-js

JavaScript

Position Analysis Web template

🔗 0 ★ 2

patrol-data-capture-toolbox

Python

The Patrol Data Capture template demonstrates best practices for importing GPS eXchange Format (.gpx) files into ArcGIS Desktop. The template also contains specialized tools for analyzing and processing this data.

🔗 3 ★ 2

defense-and-intel-analysis-toolbox

Python

scripts, and tools that provide specialized workflows in ArcGIS Desktop.

🔗 8 ★ 7

defense-and-intel-basemaps-misc-toolbox

Python

A set of tools and models for use in ArcGIS Desktop. These tools provide specialized processing and workflows for defense and intelligence mapping and other miscellaneous tasks.

🔗 0 ★ 2

military-features-data

Java

Source data for Esri defense and intelligence feature templates. This data is used to create features and derived data products using military symbology.

🔗 5 ★ 1

vehicle-commander-qt

C++

The Vehicle Commander Qt template demonstrates best practices for building in-vehicle military applications with the ArcGIS Runtime SDK for Qt.

🔗 5 ★ 5

military-apps-library-java

Java

A common, SDK-agnostic Java library for building military-oriented apps, especially for ArcGIS for the Military.

🔗 0 ★ 2

image-discovery-app-js

JavaScript

JavaScript Image Discovery Web Application. Use to search, discover, filter, and manipulate imagery.

🔗 3 ★ 2

solutions-geoprocessing-toolbox

Python

Models, scripts, and tools for use in ArcGIS Desktop and Server to support defense and intelligence workflows.

🔗 8 ★ 1

solutions-widgets-wpf

C#

Solutions Widgets for use in the ArcGIS WPF Operations Dashboard.

🔗 2 ★ 0

military-feature-toolbox

Python

The Military Feature Toolbox is a set of tools, scripts, and applications that provide specialized processing for ArcGIS Military Features and Military Symbology

🔗 5 ★ 0

squad-leader-android

Java

The Squad Leader template demonstrates best practices for building handheld military applications with ArcGIS.

🔗 2 ★ 1

defense-image-observables-viewer

JavaScript

Image Observable application. Supports measurement, mensuration and digitization of features from image services. Image services can also be adjusted (brightness, contrast, channels).

🔗 0 ★ 0

solutions-geoevent-java

Java

Custom processors, adapters and transports for geoevent server.

🔗 8 ★ 1

Defense Solutions on Github

- [Esri.github.io/#Military](https://github.com/Esri/Military)
- Several flavors of Solutions Repos available:
- **ArcGIS Runtime**
 - [squad-leader-android](#)), [vehicle-commander-java](#), [vehicle-commander-qt](#)
- **Geoprocessing Tools/Models**
 - [solutions-geoprocessing-toolbox](#), [patrol-data-capture-toolbox](#), etc.
- **Web Apps**
 - [position-analysis-js](#), [image-discovery-app-js](#), [defense-image-observables-viewer](#)
- **GeoEvent / Dashboard**
 - [solutions-geoevent-java](#), [solutions-widgets-wpf](#)
- **Data (Military Symbolology)**
 - [military-feature-data](#), [joint-military-symbolology](#), [military-feature-toolbox](#)

Defense Solutions Github Goals

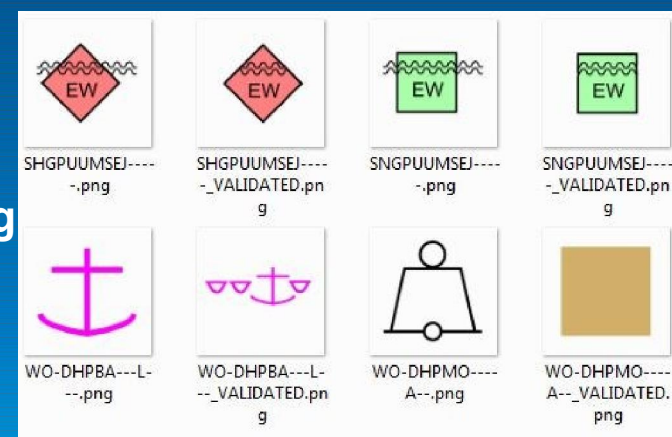
- ✓ Move all of our solutions templates, tools, and source, etc. to GitHub
- ✓ Develop repeatable/continuous build, integration, and test process
 - ✓ Include unit/auto test drivers
 - ✓ Automate builds, config, and running of tests
 - ✓ Daily builds/test/check with Jenkins build server
- ✓ Better Issue Tracking and Change Management
 - ✓ Require submitted issue/stories prior to making changes
 - ✓ Tie changes to issues
 - ✓ Ensure quality through code review, test
- ✓ Other
 - ✓ Standardize Readmes, file organization, builds, dev tools, etc.
 - ✓ Separation of data and application code

Getting Started Using Defense Solutions on Github

- **Using**
 - esri.github.io/#Military
 - Simply go to Esri Github and download a repo that interests you
- **Contributing / Collaborating**
 - Get a Github account (can be done in 30 seconds)
 - Follow repo + users that interest you = your community
 - Add issues you find (& good reproduction cases)
 - Suggest new features
 - Contribute to the code
- **Even better**
 - Fork a repo, fix an issue, and make a pull request
 - If an issue is a high priority to you, this is the best way to get it fixed quickly

Tour of Sample Military Repos (Military Symbolology)

- Our Military Symbolology Solutions/Data are all open source
- The data created, the test drivers used to validate, etc. are all publically available
- (Except for bug fixes), the work on previous symbology standards is complete
 - github.com/Esri/military-feature-data
- However, the development for the next standards is happening now
 - github.com/Esri/joint-military-symbology-xml
- Now is your chance to influence how this data and associated tools get built
- Get involved!



military-feature-data validation app

Questions?

