ArcGIS for Developers

an introduction

Jim Barry, Hossam Sayed

Goals

- Cover all of ArcGIS, high pass, developer's angle

- *What is there?*
- *What can I do with it?*
- *What resources are available to get the most from it all?*
- *Where is the community?*

- How do I get started?

Who are you?

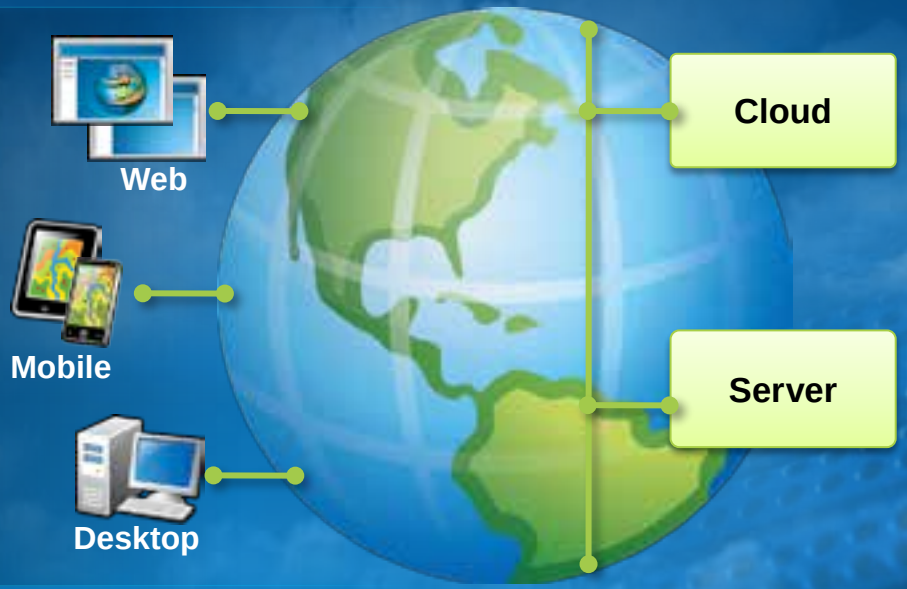
- GIS Pro
- Experienced developer, new to GIS
- Student
- Project Lead

Agenda

- ArcGIS for Developers program - *free*
- Overview of the ArcGIS Platform
  - …thru a developer's lens
  - Desktop, Server, Web, Mobile, Online
- Developer Community

10.2.1

- Online
- Desktop
- Server
- Mobile



Web Developers

- JavaScript
- Flex
- Silverlight

Which is better?

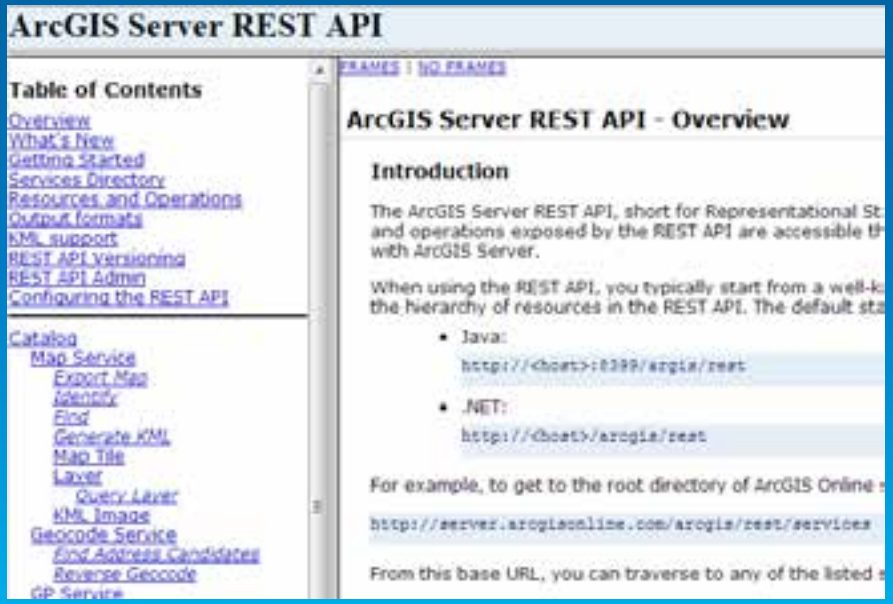
- REST APIs
  - ArcGIS Server
  - Portal for ArcGIS *(ArcGIS Online)*

Runtime SDKs

- Create native apps for desktop and mobile devices
  - WPF, Windows Phone, Windows
  - Java, Android
  - iOS, Mac OS
  - Qt

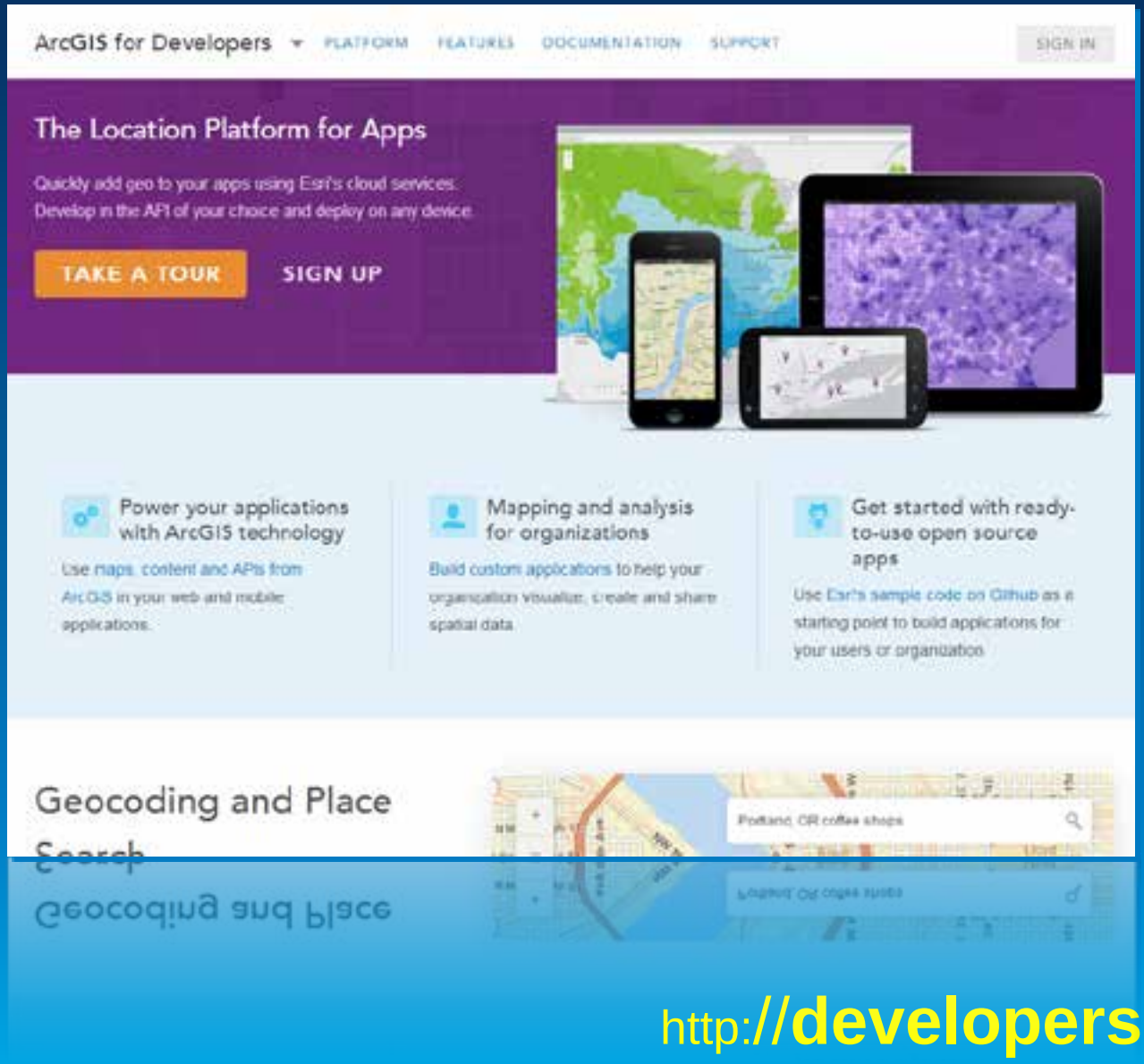
REST APIs

- ArcGIS Server
- Portal
  - Portal for ArcGIS and ArcGIS Online



Geoservices

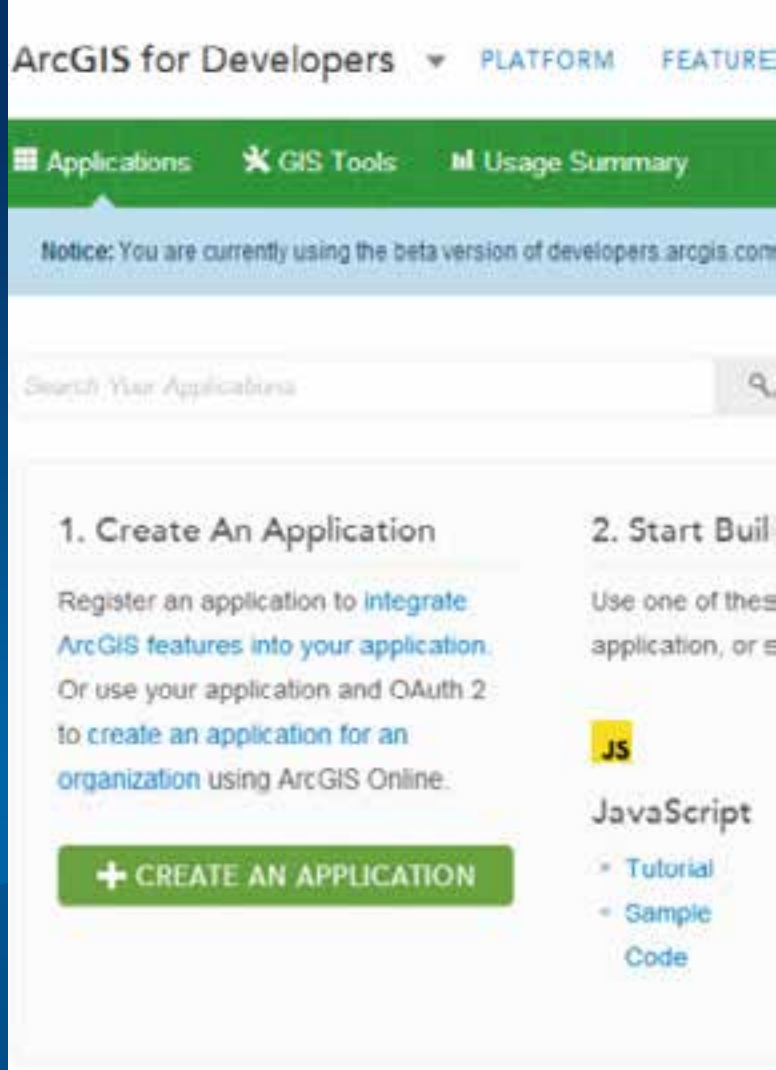
- Geocoding
  - Address finding, reverse geocoding
- Geometry service
  - Geometric operations, map projections
- Network services
  - Routing, directions, service areas
- *Geotrigger service – soon*
  - *Geofences, geoevents: enter, stay, leave*



http://**developers**.arcgis.com

DEMO

ArcGIS for Developers



Social Coding and Esri

Not just sharing code and tools

Visibility and transparency

Collaboration, lessons learned, advice, insight

Esri shares/ Community shares

Esri is on github!

A premier Social Coding platform

Open code version & release management

Built on git

3.5 million developers*

5+ million repositories*

Esri is on github!

github.com/esri

150+ public repos

500+ contributors

Individual forums

Hundreds of source forks

What can you find on github.com/esri?

- Apps
- Templates
- Samples
- Quickstarts

Many different types of repos!

Objective-C

Microsoft .net

Windows Presentation Foundation

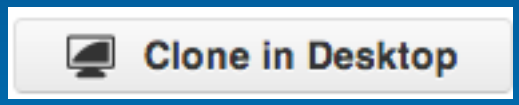
Ruby

C#

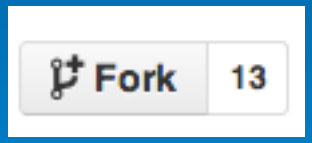
Participate on github.com/Esri – Download!

Zip – easiest (no tracking changes)

Clone – local, trackable copy



Fork – trackable copy on github



Participate on github.com/Esri – **Collaborate!**

Push

Issues

Pull

Merge

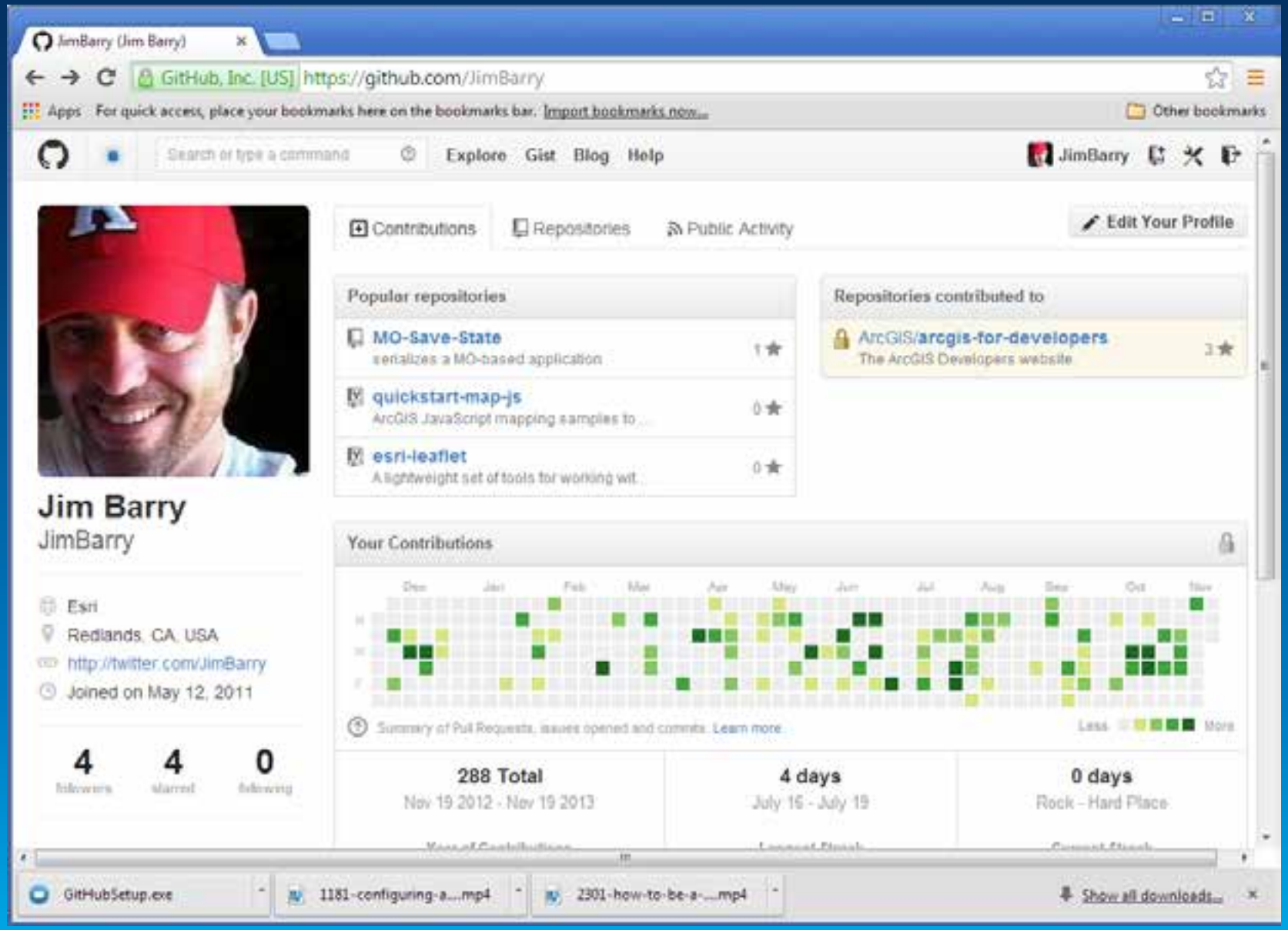
Wiki

Participate on github.com/Esri – Collaborate!

Issues – your comments/feedback

Pull – accept changes from your Forked github repo

Push – copy local changes to github


JimBarry (Jim Barry)
GitHub, Inc. [US] https://github.com/JimBarry
Apps For quick access, place your bookmarks here on the bookmarks bar. Import bookmarks now...
Other bookmarks
Search or type a command
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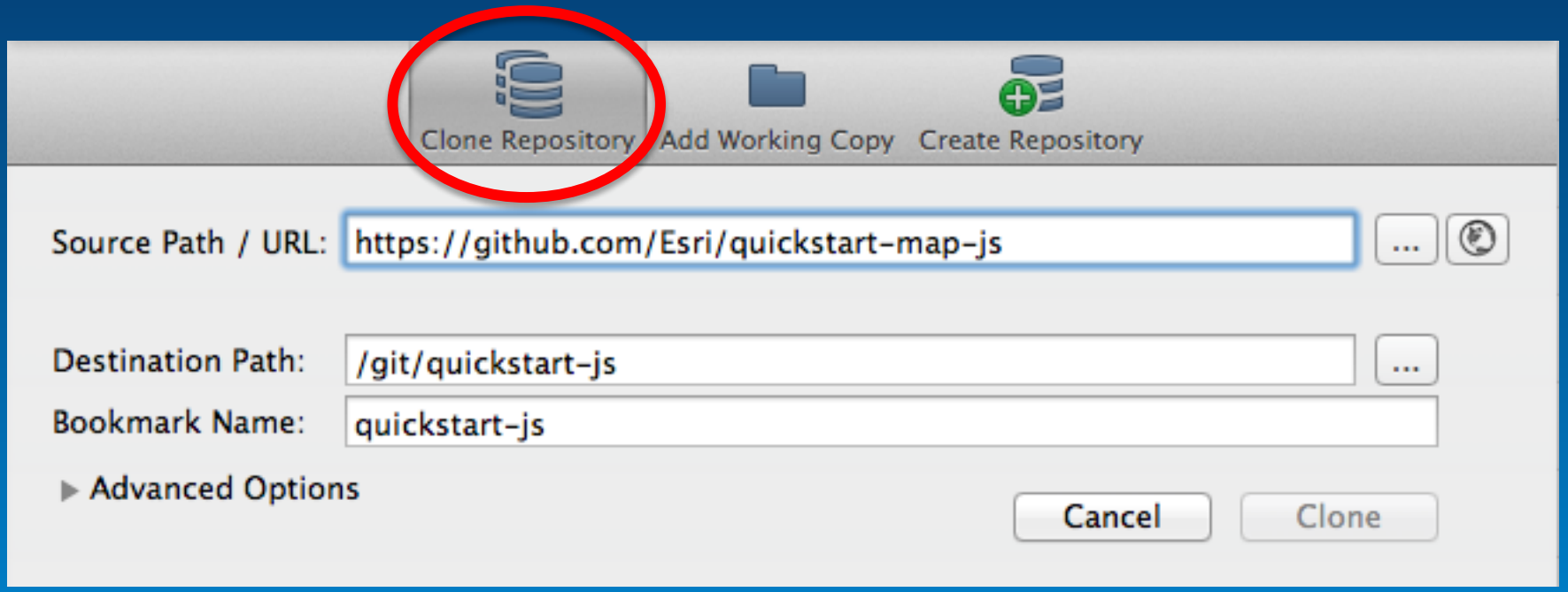
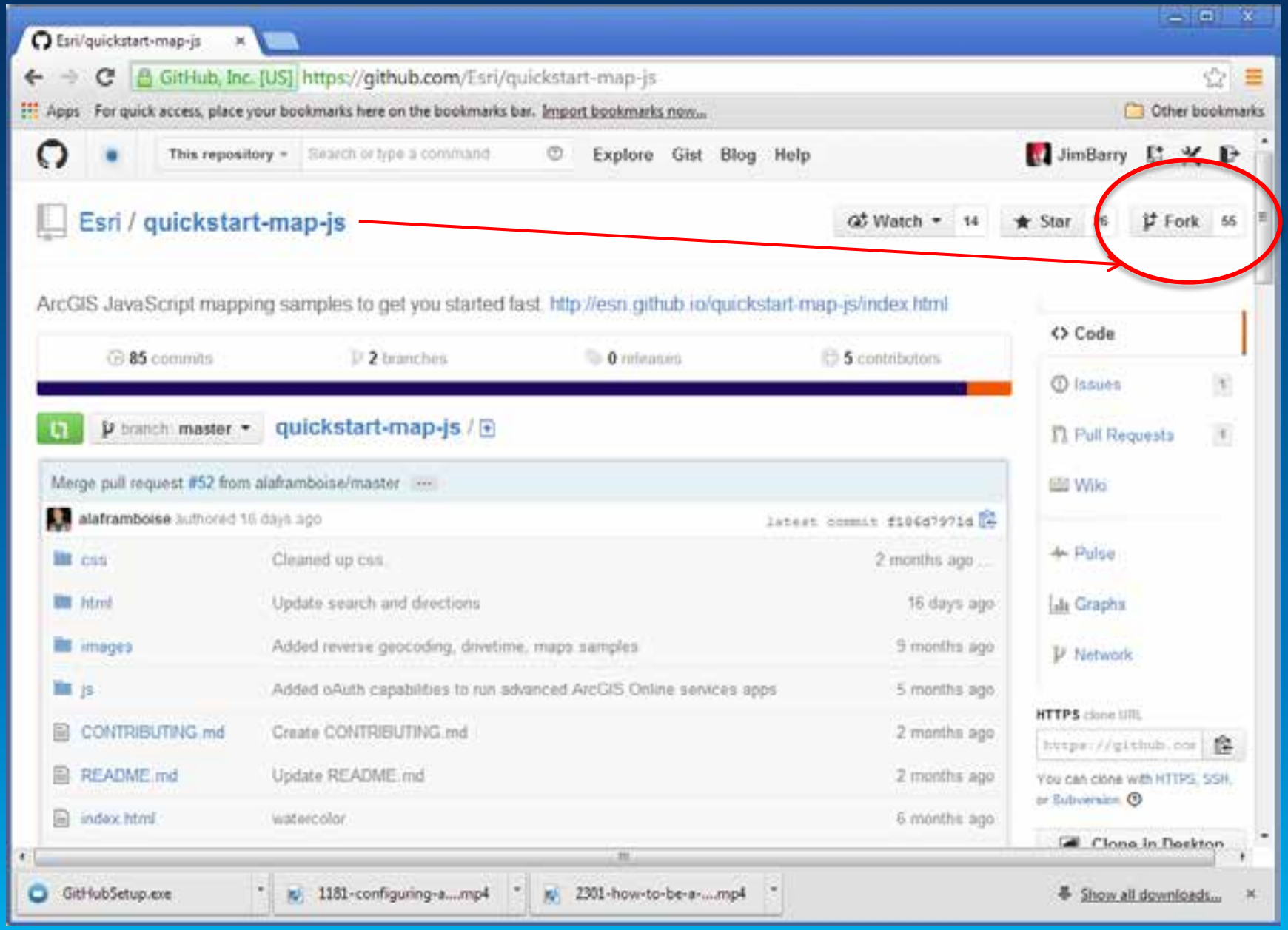
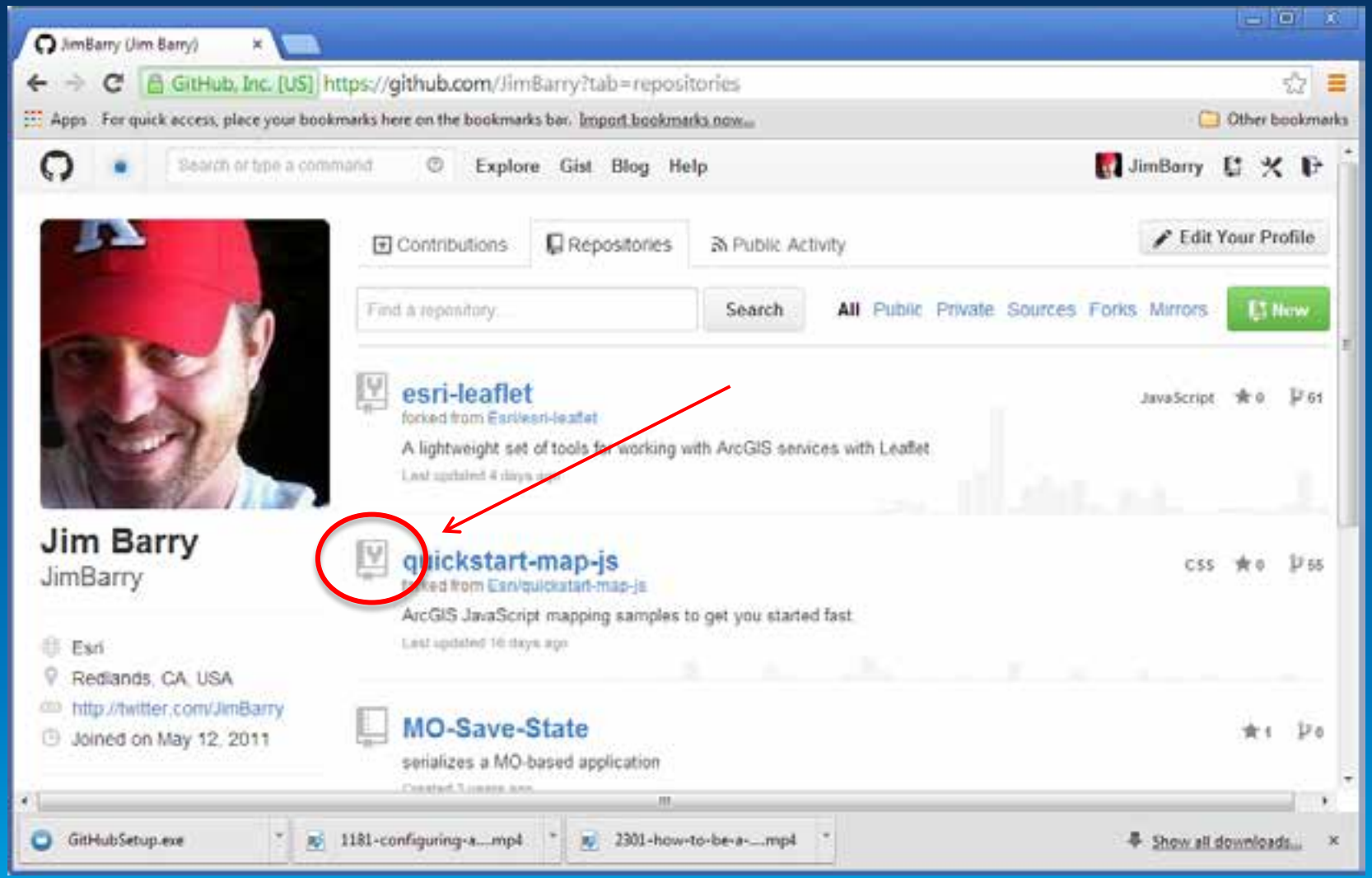
JimBarry
Contributions
Repositories
Public Activity
Edit Your Profile
Popular repositories
MO-Save-State
serializes a MO-based application
1
quickstart-map-js
ArcGIS JavaScript mapping samples to
0
esri-leaflet
A lightweight set of tools for working wit
0
Repositories contributed to
ArcGIS/arcgis-for-developers
The ArcGIS Developers website
3
Jim Barry
JimBarry
Esri
Redlands, CA, USA
http://twitter.com/JimBarry
Joined on May 12, 2011
4
followers
4
starred
0
following
Your Contributions
Summary of Pull Requests, issues opened and commits. Learn more
Less
More
288 Total
Nov 19 2012 - Nov 19 2013
4 days
July 16 - July 19
0 days
Rock - Hard Place
GitHubSetup.exe
1181-configuring-a....mp4
2301-how-to-be-a-....mp4
Show all downloads...

Local use: application or command-line




```
$ git clone https://github.com/username/Spoon-Knife.git
# Clones your fork of the repository into the current directory in terminal
```


Esri/quickstart-map-js
GitHub, Inc. [US] https://github.com/Esri/quickstart-map-js
Apps For quick access, place your bookmarks here on the bookmarks bar. Import bookmarks now...
Other bookmarks
This repository
Search or type a command
Explore Gist Blog Help
JimBarry
Esri / quickstart-map-js
Watch 14
Star 16
Fork 55
ArcGIS JavaScript mapping samples to get you started fast. http://esri.github.io/quickstart-map-js/index.html
85 commits
2 branches
0 releases
5 contributors
branch: master
quickstart-map-js /
Merge pull request #52 from alaframboise/master
alaframboise authored 16 days ago
latest commit f106d7971a
css Cleaned up css 2 months ago
html Update search and directions 16 days ago
images Added reverse geocoding, drivetime, maps samples 9 months ago
js Added oAuth capabilities to run advanced ArcGIS Online services apps 5 months ago
CONTRIBUTING.md Create CONTRIBUTING.md 2 months ago
README.md Update README.md 2 months ago
index.html watercolor 6 months ago
Code
Issues 1
Pull Requests 1
Wiki
Pulse
Graphs
Network
HTTPS clone URL
https://github.com
You can clone with HTTPS, SSH, or Subversion.
Clone in Desktop
GitHubSetup.exe
1181-configuring-a....mp4
2301-how-to-be-a-....mp4
Show all downloads...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Apps For quick access, place your bookmarks here on the bookmarks bar. Import bookmarks now...
Other bookmarks
Search or type a command
Explore Gist Blog Help
JimBarry
Contributions
Repositories
Public Activity
Edit Your Profile
Find a repository...
Search
All Public Private Sources Forks Mirrors
New
esri-leaflet
forked from Esri/esri-leaflet
A lightweight set of tools for working with ArcGIS services with Leaflet
JavaScript
quickstart-map-js
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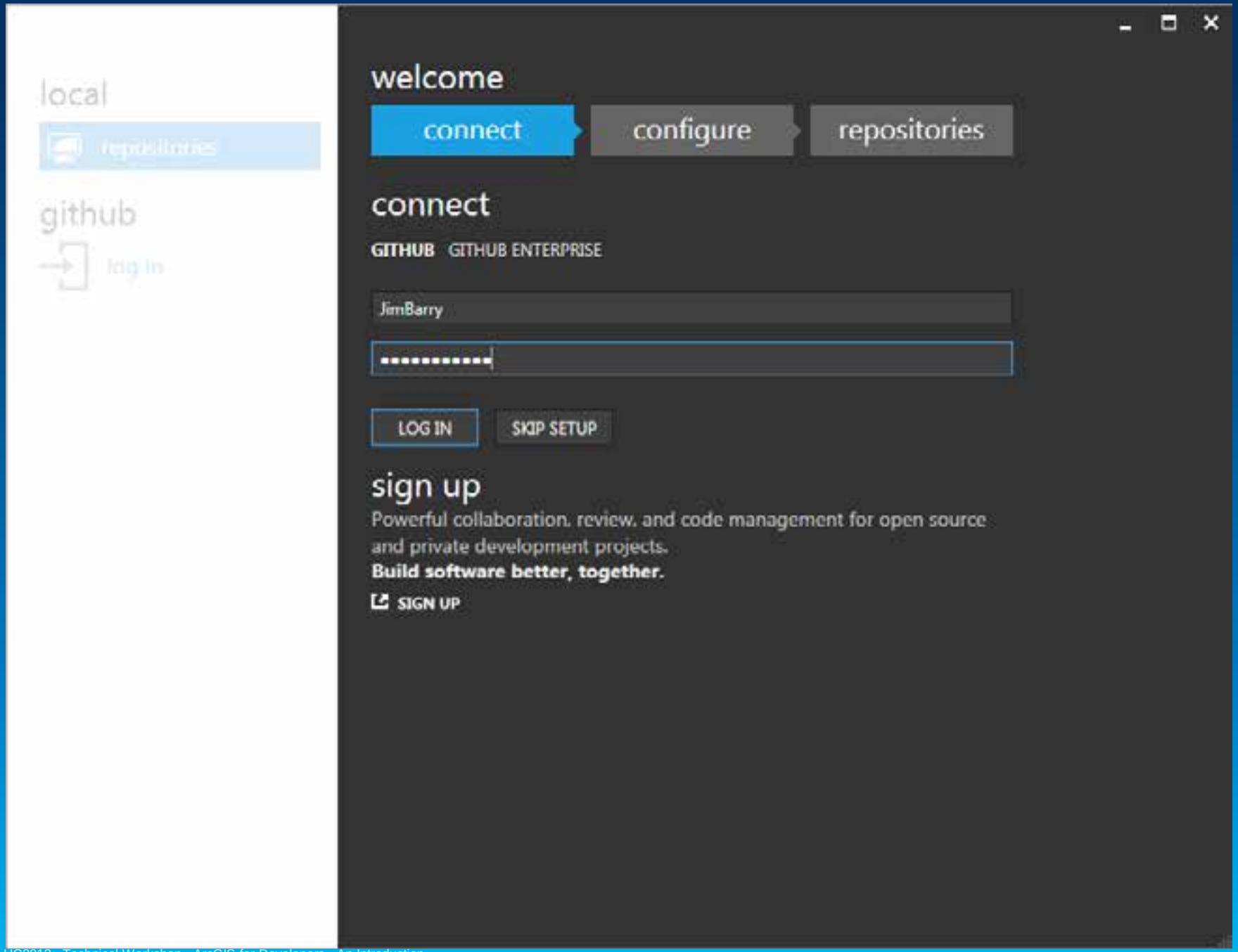
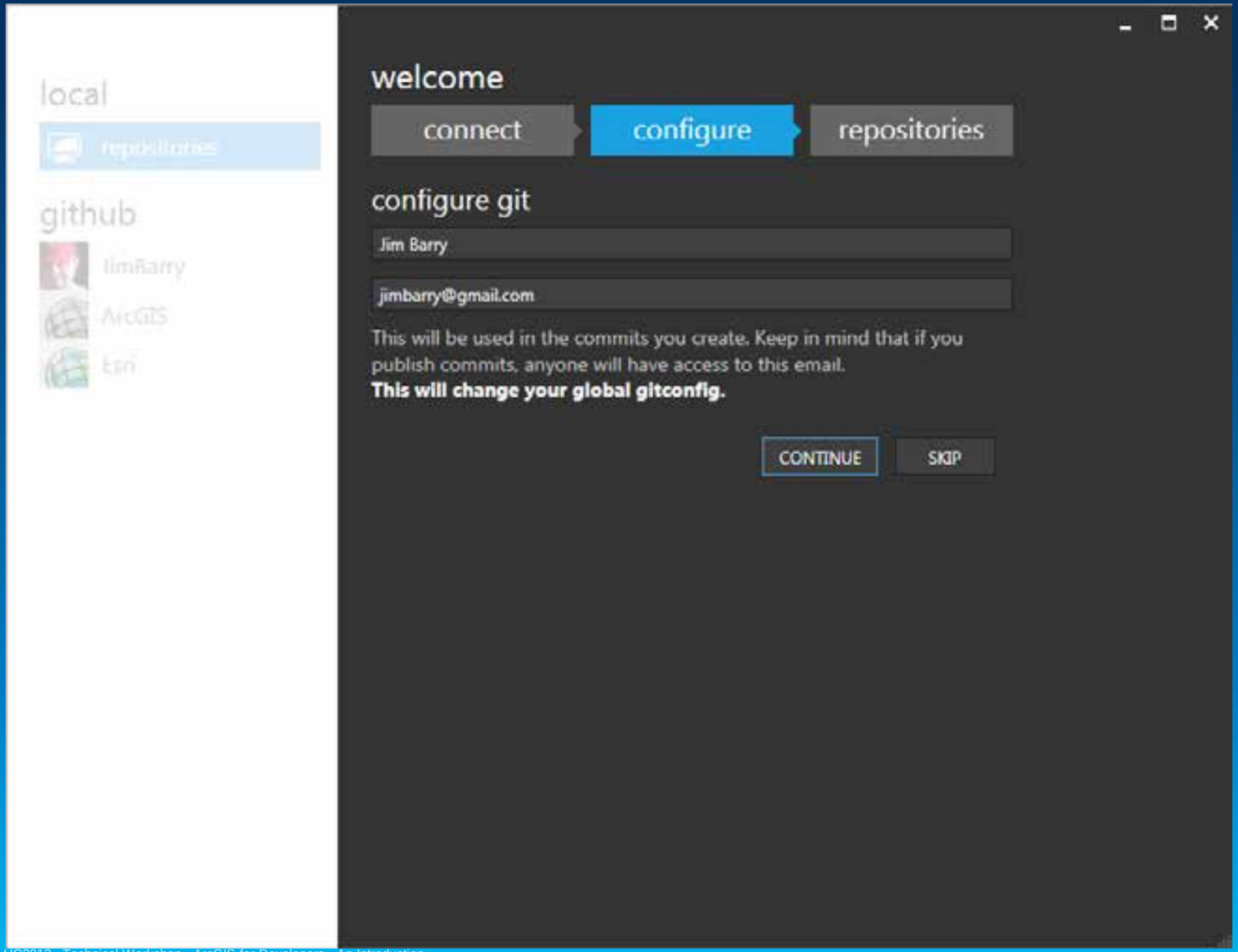
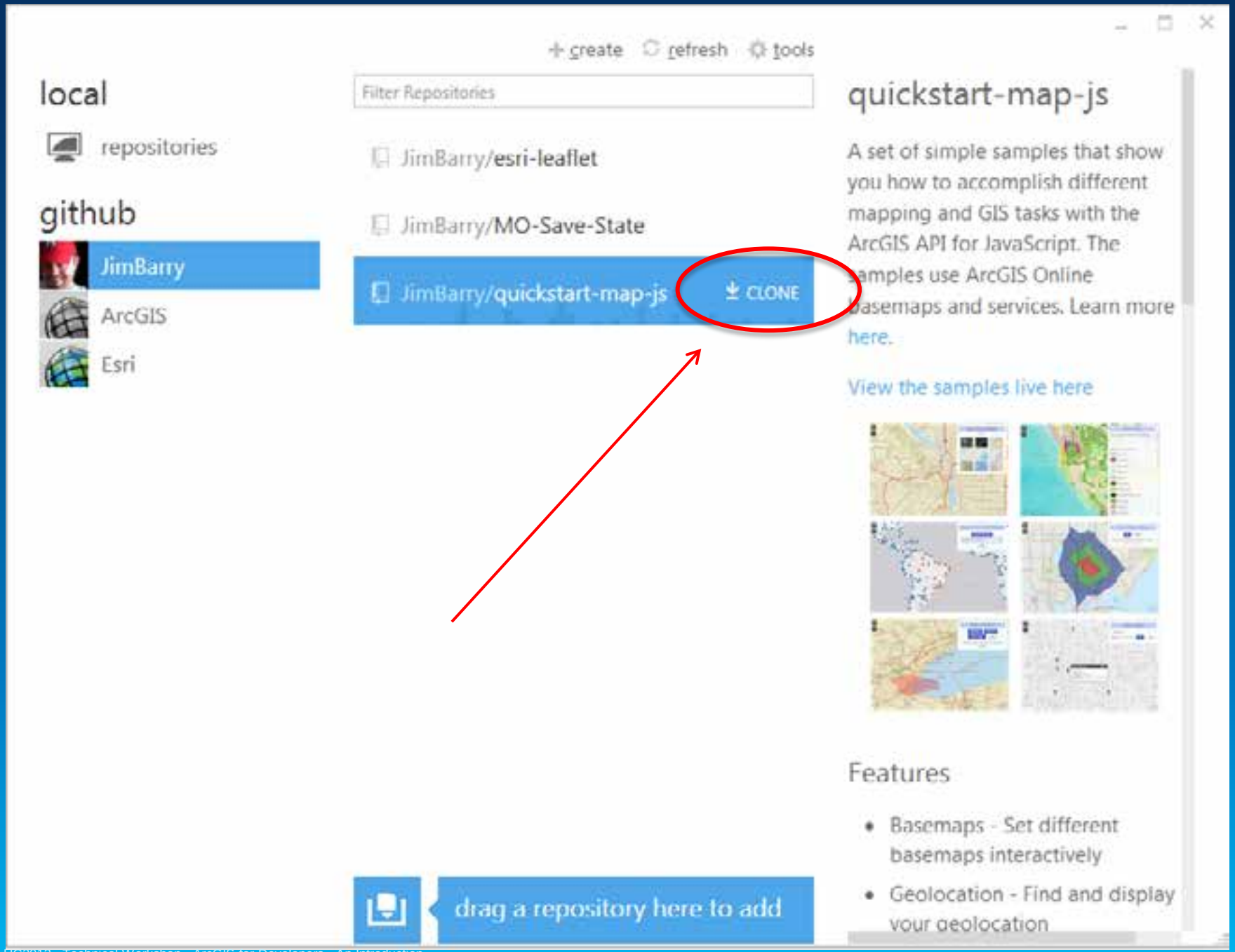
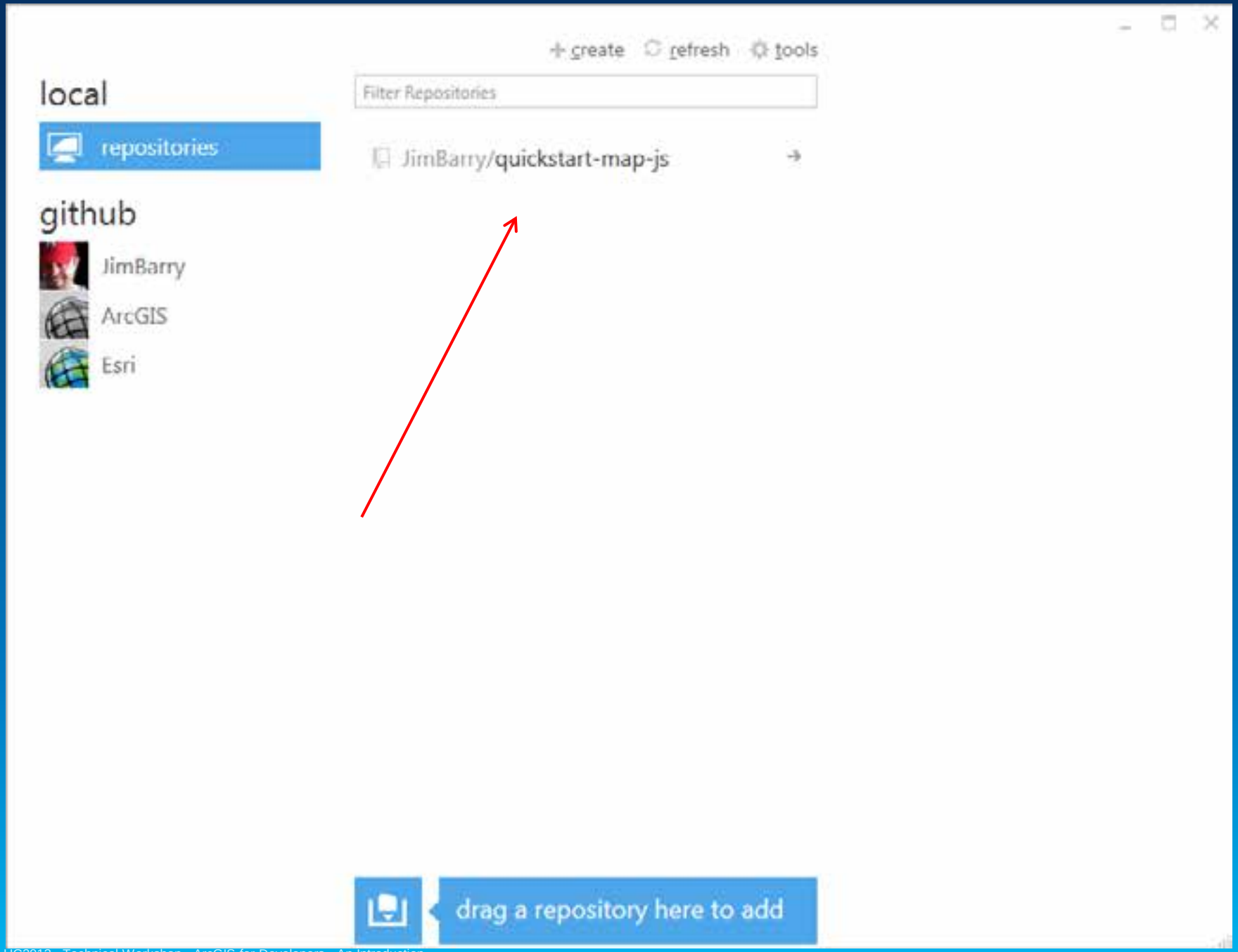
Windows.github.com


local
repositories
github
log in
welcome
connect
configure
repositories
connect
GITHUB
GITHUB ENTERPRISE
JimBarry
LOG IN
SKIP SETUP
sign up
Powerful collaboration, review, and code management for open source and private development projects.
Build software better, together.
SIGN UP


local
repositories
github
jimbarry
ArcGIS
Esri
welcome
connect
configure
repositories
configure git
Jim Barry
jimbarry@gmail.com
This will be used in the commits you create. Keep in mind that if you publish commits, anyone will have access to this email.
This will change your global gitconfig.
CONTINUE
SKIP


+ create
refresh
tools
local
repositories
github
JimBarry
ArcGIS
Esri
Filter Repositories
JimBarry/esri-leaflet
JimBarry/MO-Save-State
JimBarry/quickstart-map-js
CLONE
drag a repository here to add
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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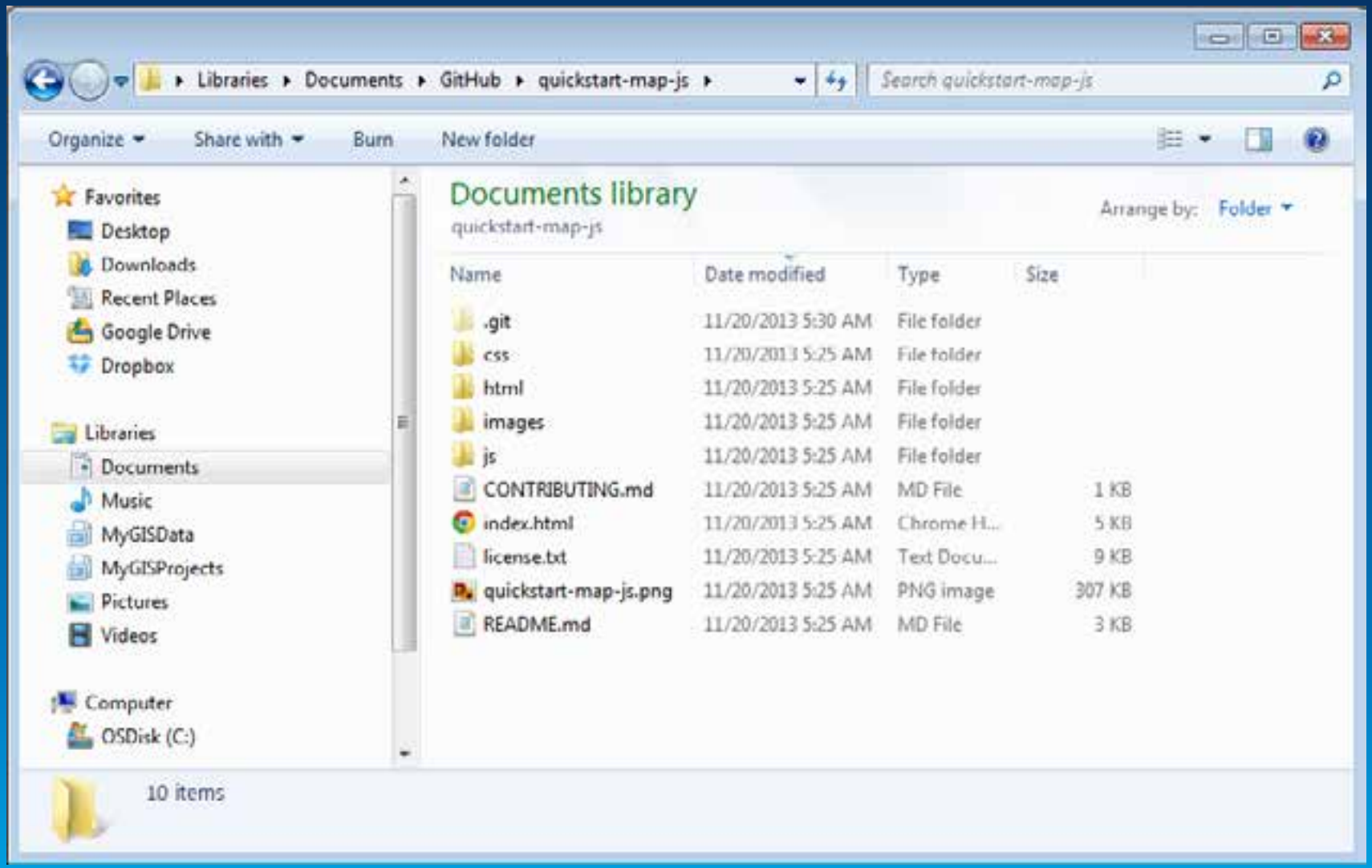
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Search quickstart-map-js
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Burn
New folder
Favorites
Desktop
Downloads
Recent Places
Google Drive
Dropbox
Libraries
Documents
Music
MyGISData
MyGISProjects
Pictures
Videos
Computer
OSDisk (C:)
Documents library
quickstart-map-js
Arrange by: Folder
Name
Date modified
Type
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css 11/20/2013 5:25 AM File folder
html 11/20/2013 5:25 AM File folder
images 11/20/2013 5:25 AM File folder
js 11/20/2013 5:25 AM File folder
CONTRIBUTING.md 11/20/2013 5:25 AM MD File 1 KB
index.html 11/20/2013 5:25 AM Chrome H... 5 KB
license.txt 11/20/2013 5:25 AM Text Docu... 9 KB
quickstart-map-js.png 11/20/2013 5:25 AM PNG image 307 KB
README.md 11/20/2013 5:25 AM MD File 3 KB
10 items

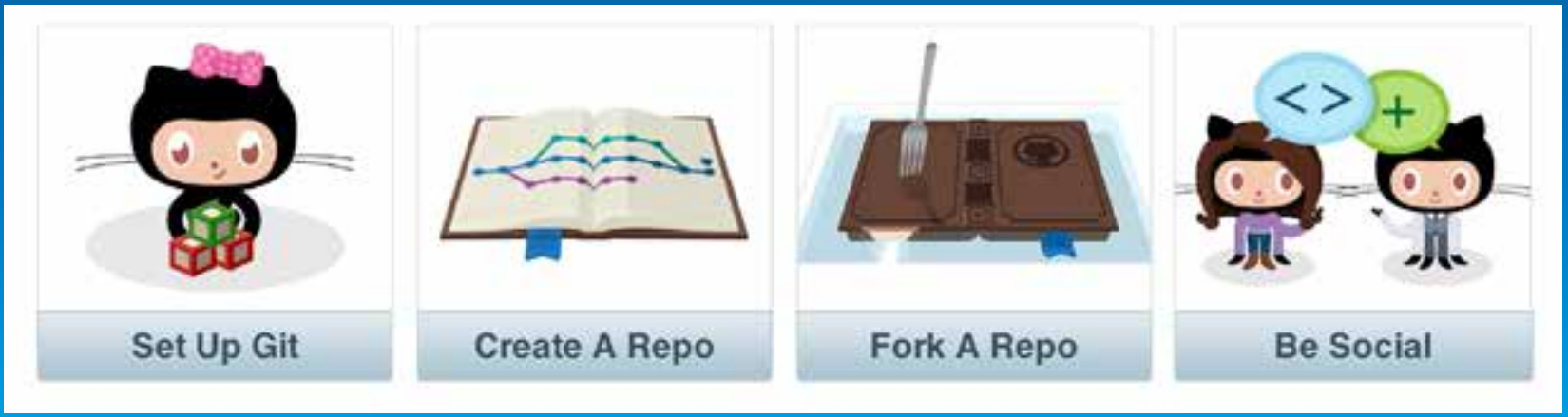
Flexviewer on github/esri

How to get started on github?

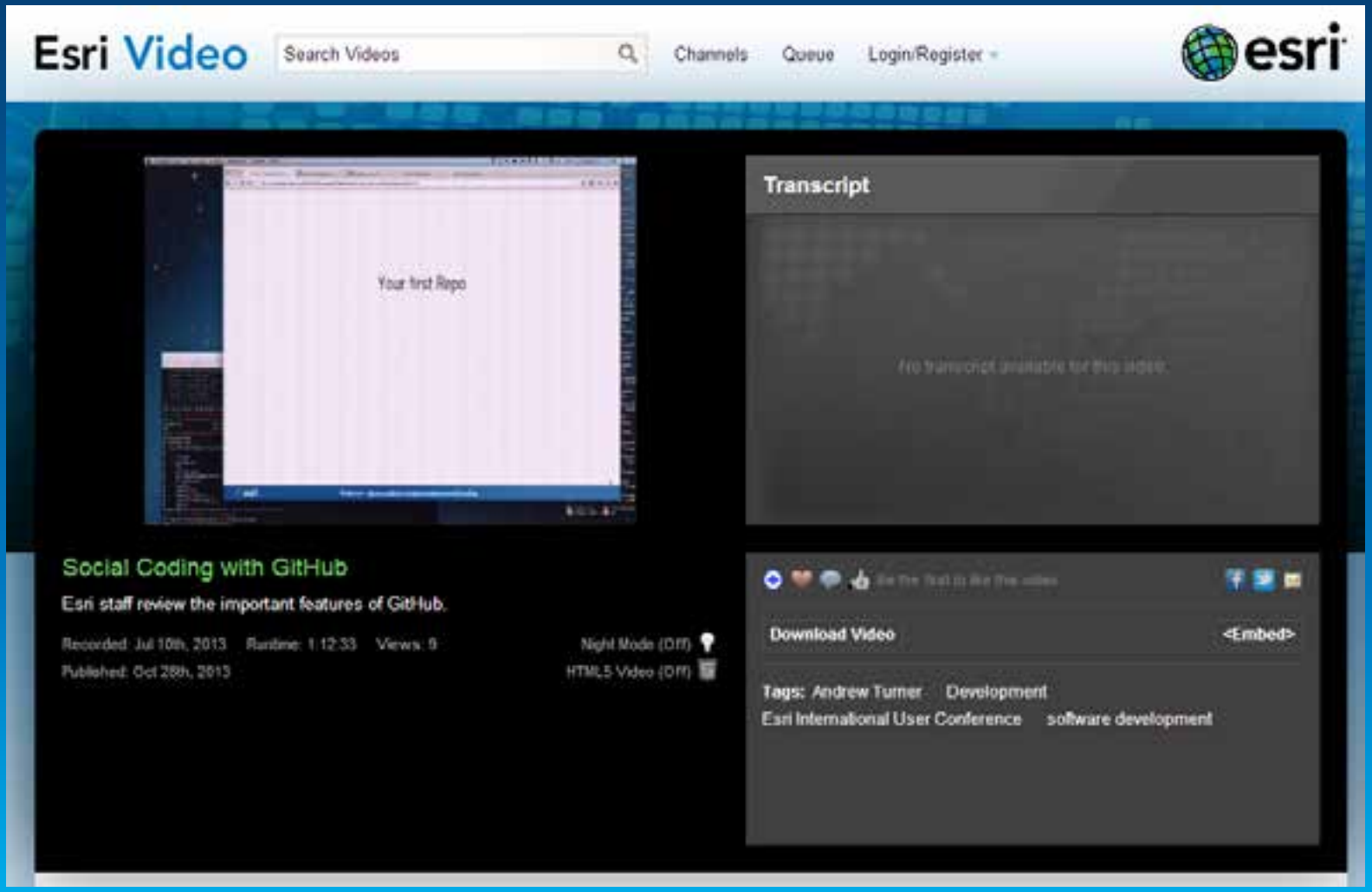
http://help.github.com

http://try.github.io

http://video.esri.com/ > “github rockstar”



video.esri.com/watch/2955/social-coding-with-github



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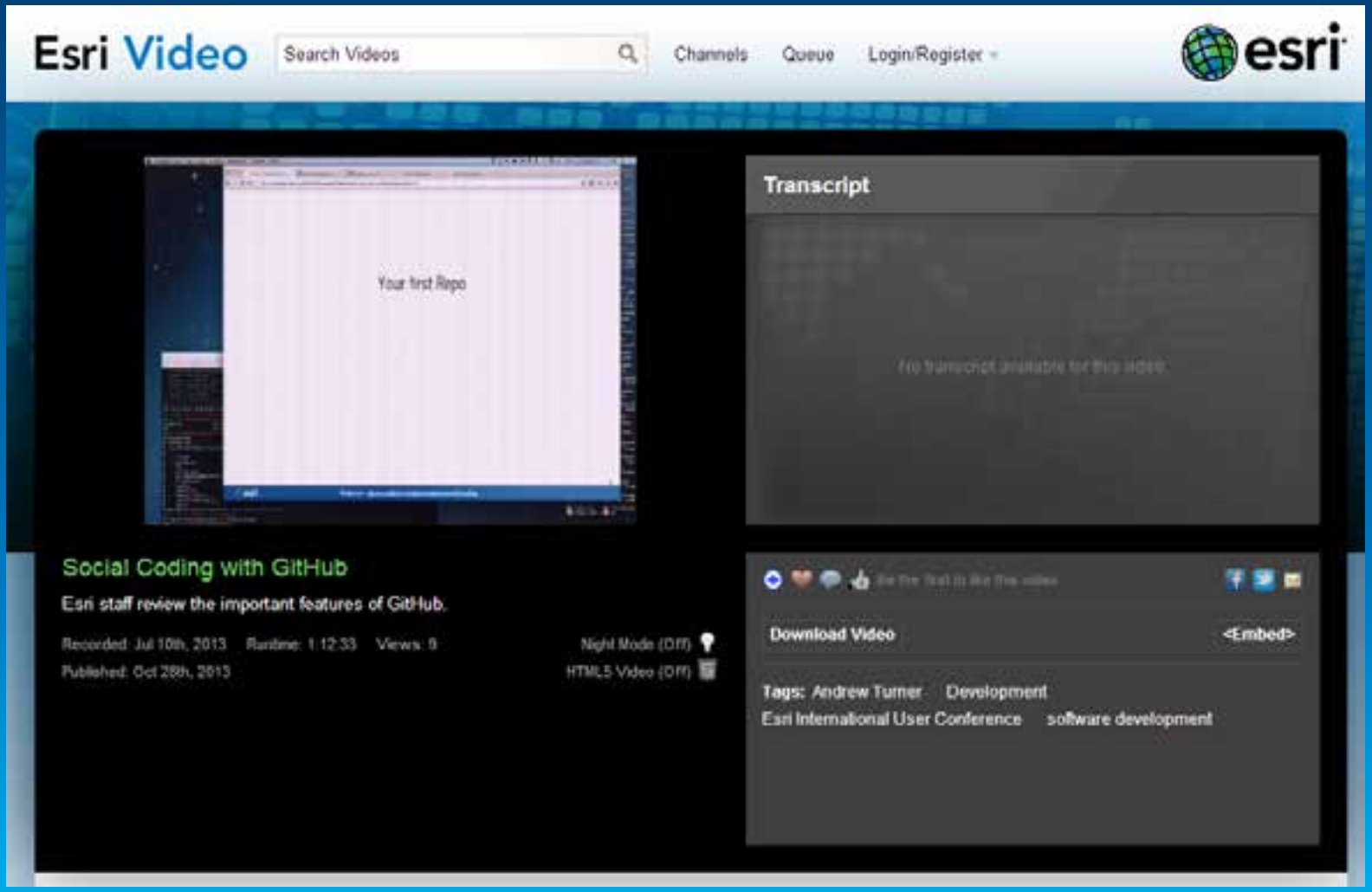
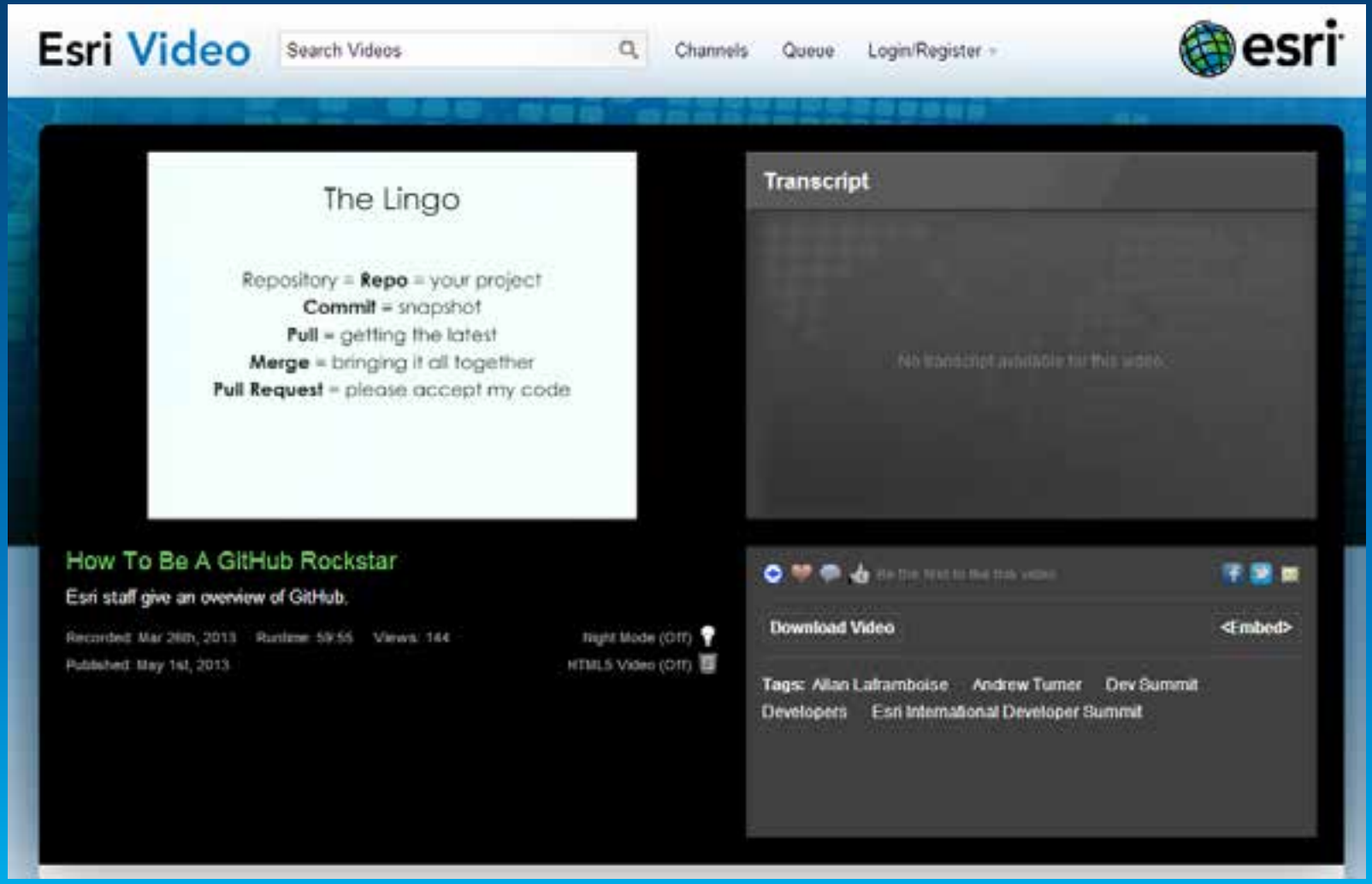


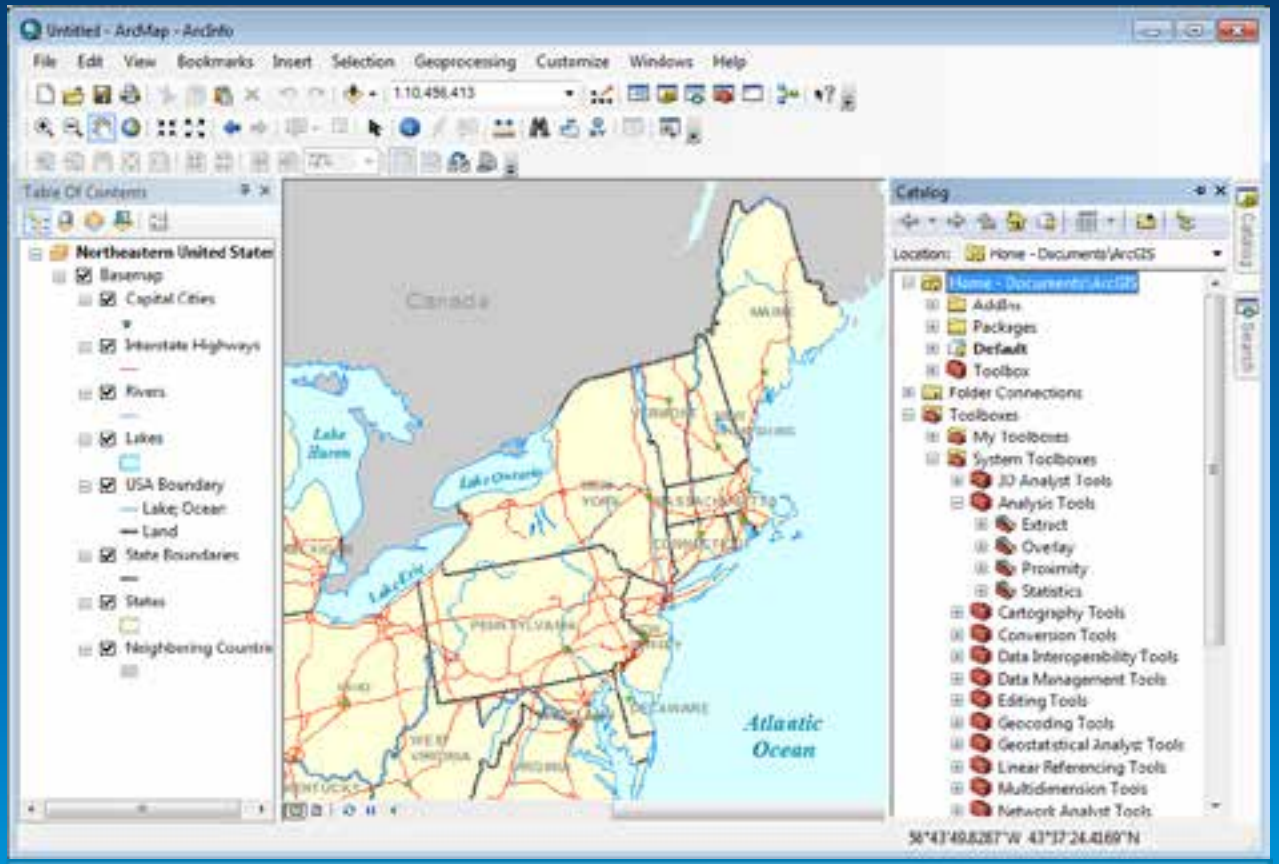
video.esri.com/watch/2301/how-to-be-a-github-rockstar



Why Get Involved?

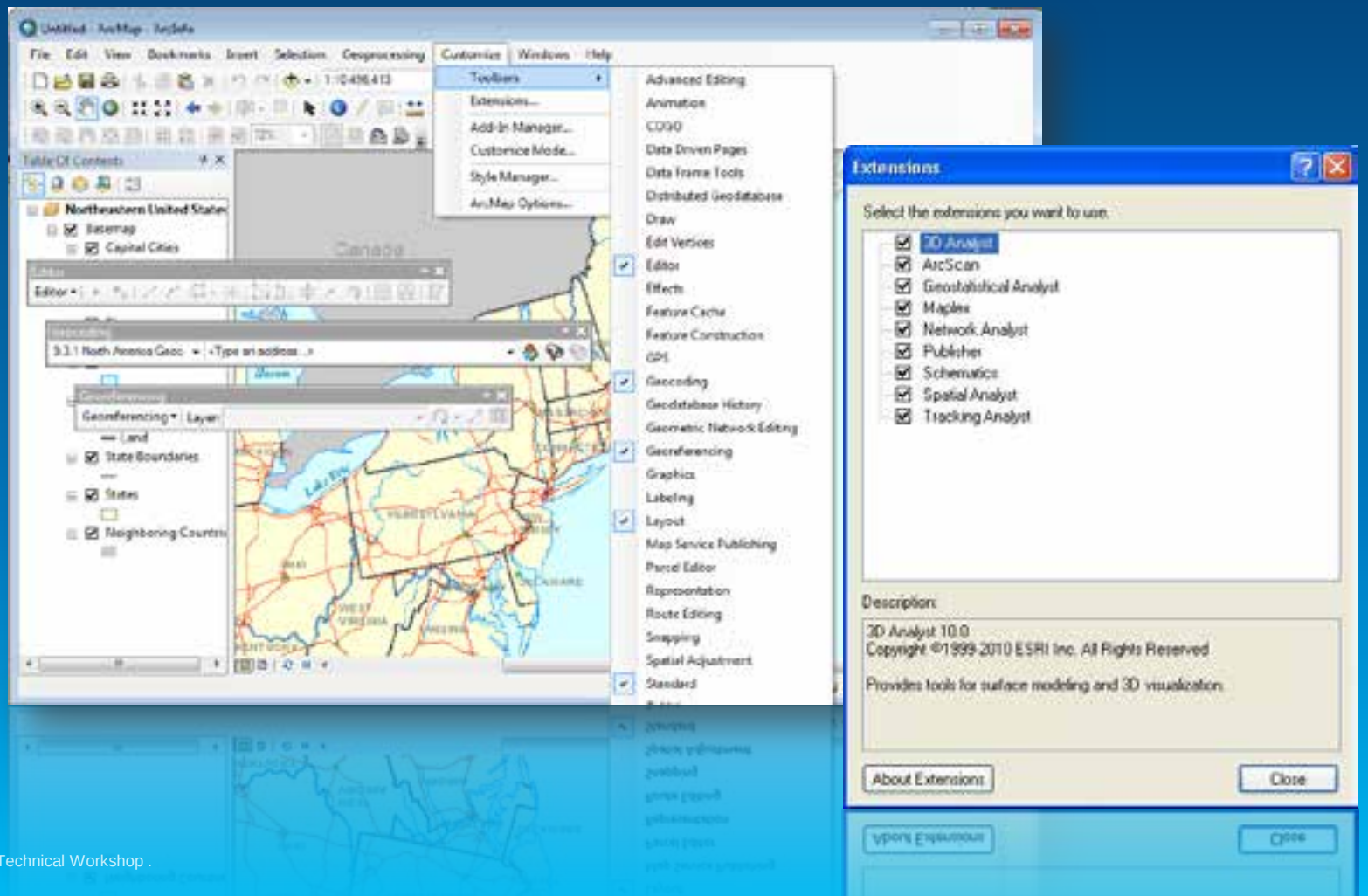
- Get answers and insight
- Make new friends
- Accelerate your learning curve
- Accelerate others learning curve
- Share knowledge/experience
- Improve ArcGIS!

ArcGIS for Desktop



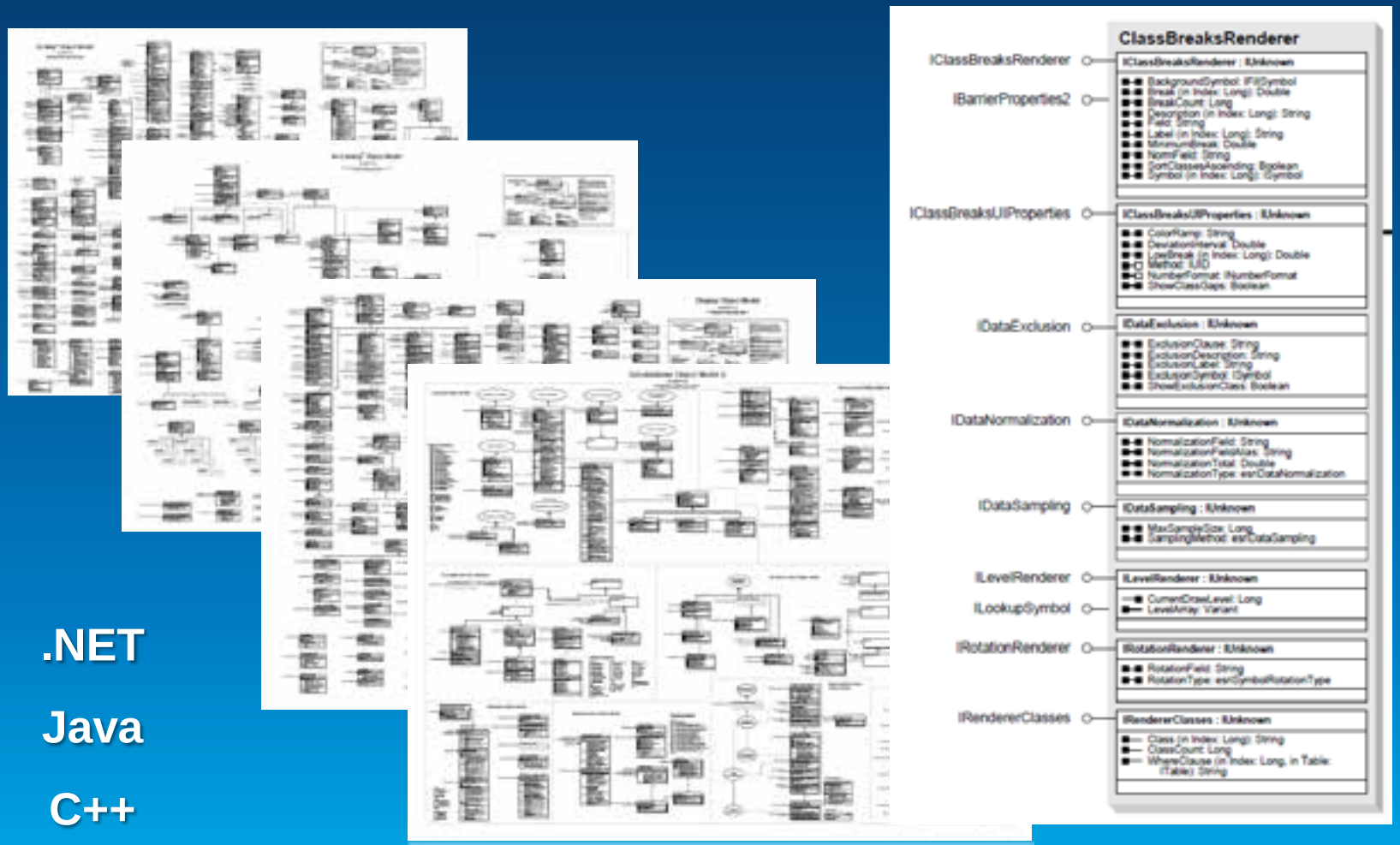
ArcGIS for Desktop

Customizing



ArcGIS for Desktop

ArcObjects



.NET

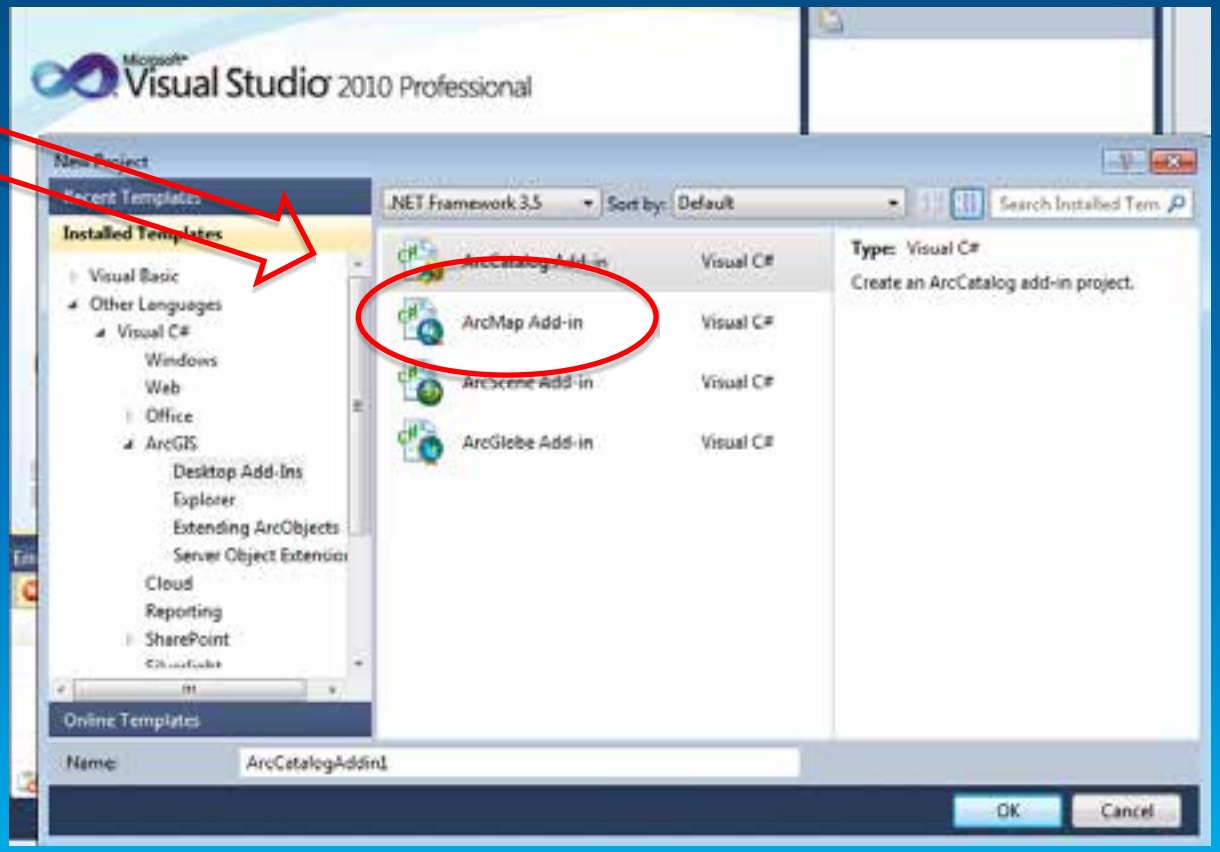
Java

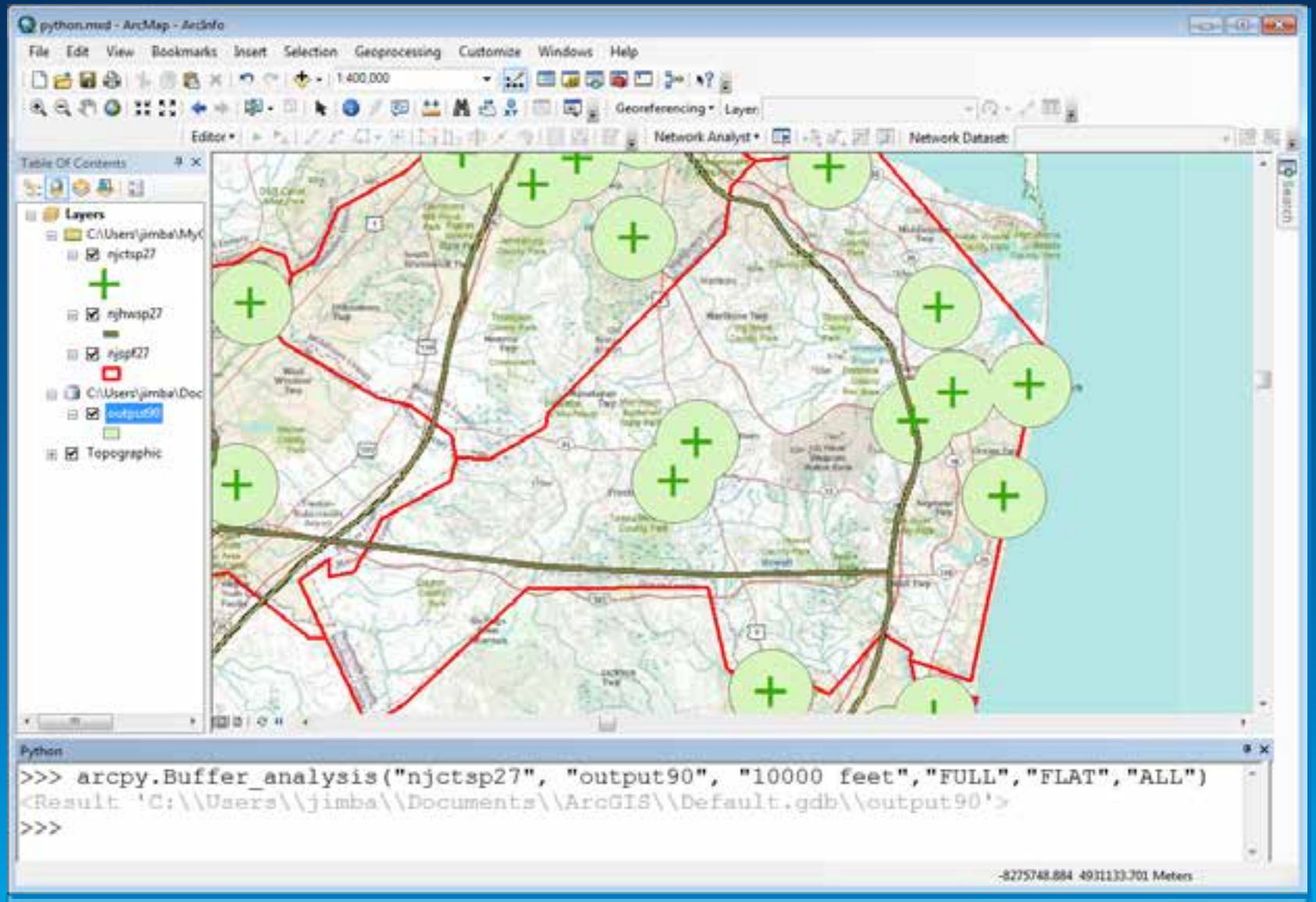
C++

ArcGIS for Desktop

Creating add-ins

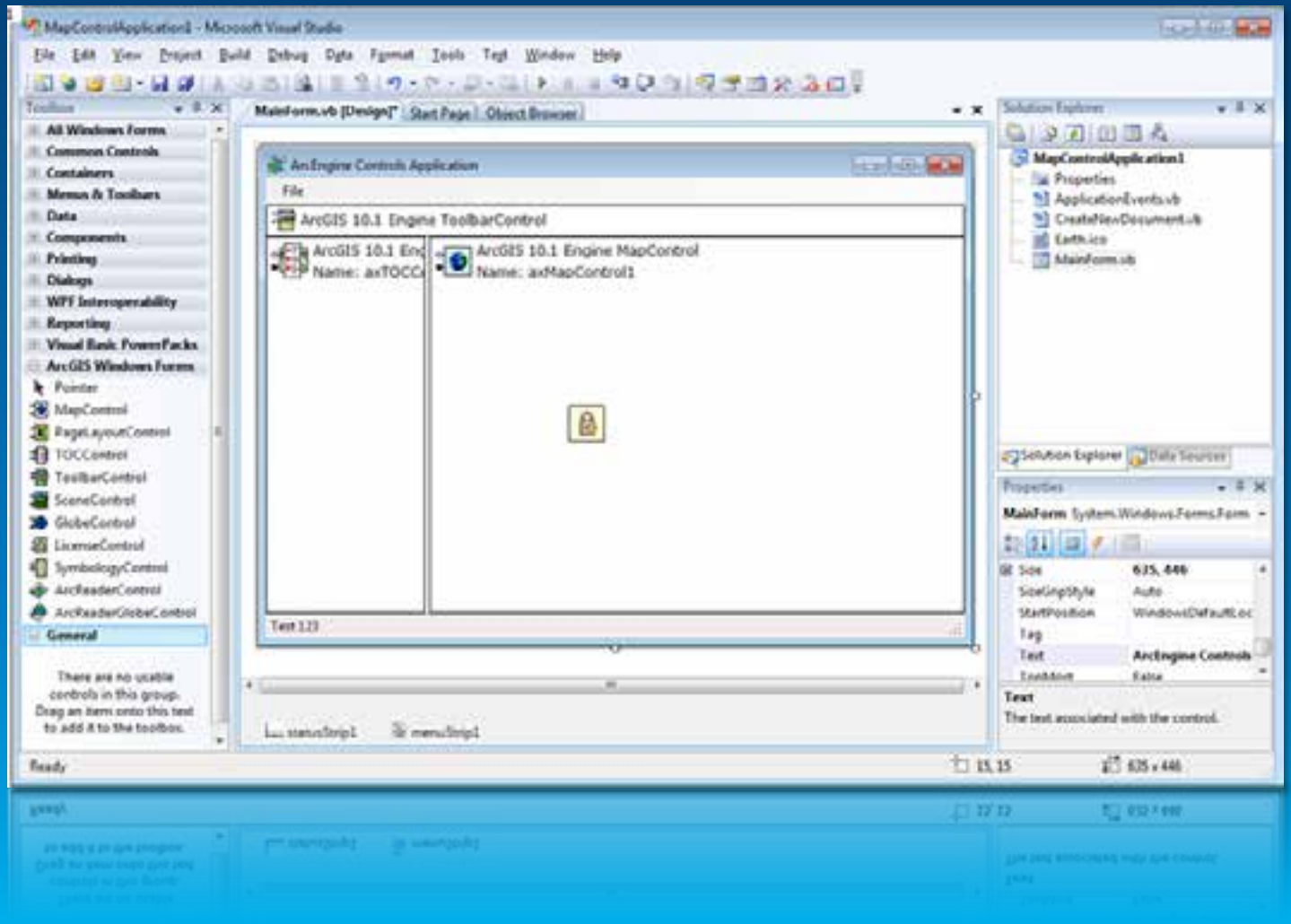
Visual Studio Templates

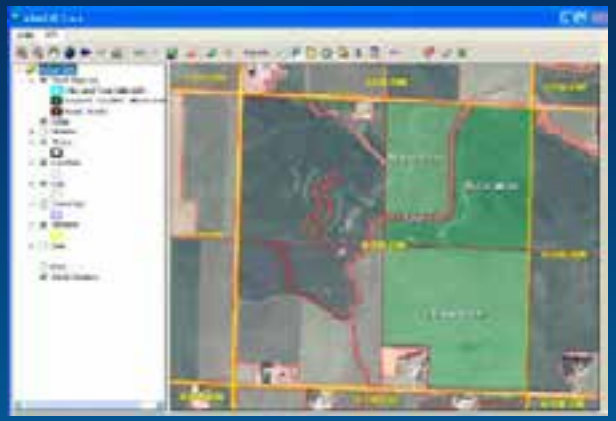


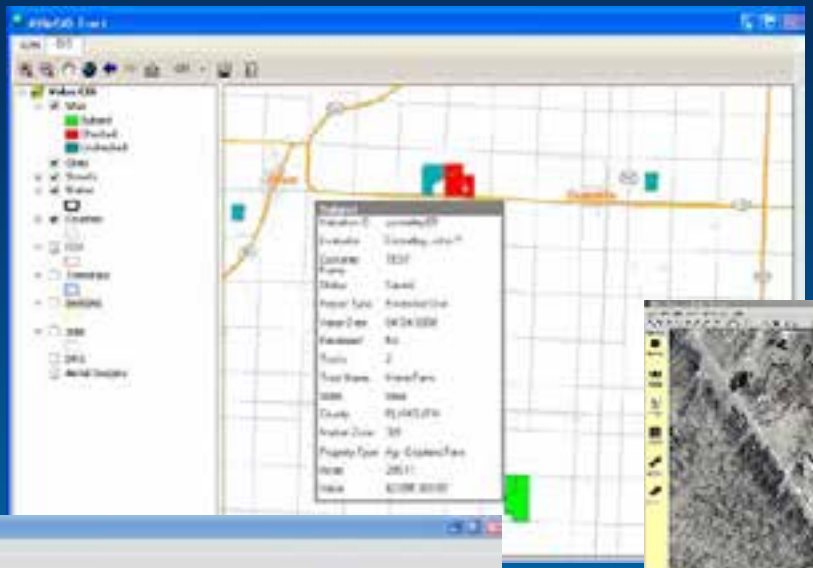

python.mxd - ArcMap - ArcInfo
File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help
Georeferencing
Layer:
Editor
Network Analyst
Network Dataset:
Table Of Contents
Layers
njctsp27
njhwsp27
njspf27
Topographic
Python
>>> arcpy.Buffer_analysis("njctsp27", "output90", "10000 feet","FULL","FLAT","ALL")
<Result 'C:\\Users\\jimba\\Documents\\ArcGIS\\Default.gdb\\output90'>
>>>
-8275748.884 4931133.701 Meters

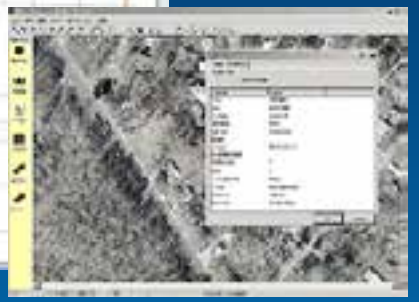
ArcGIS Resources
ArcGIS Online
Sign In
English
esri
Home
Communities
Help
Blog
Forums
Videos
Python for ArcGIS
Communities
Spatial Analyst - Supplemental tools
A collection of script tools to supplement Spatial Analyst Tools.
Quick Links
ArcGIS Python Code Recipes
ArcGIS Python Recipes
Learning Python
Python tutorial
Python.org beginners guide
Dive into Python
Popular Python recipes
Python Module of the Week
Python for ArcGIS
New at 10.1 for Python and ArcPy
A quick tour of ArcPy
Extending ArcGIS with Python Tutorials
Python Scripting for ArcGIS
More Gallery posts
Benthic Terrain Modeler
Automate publishing a geoprocessing service with ArcPy (UC 2013)
USA Soils
3D Cities: Portland CityEngine Project

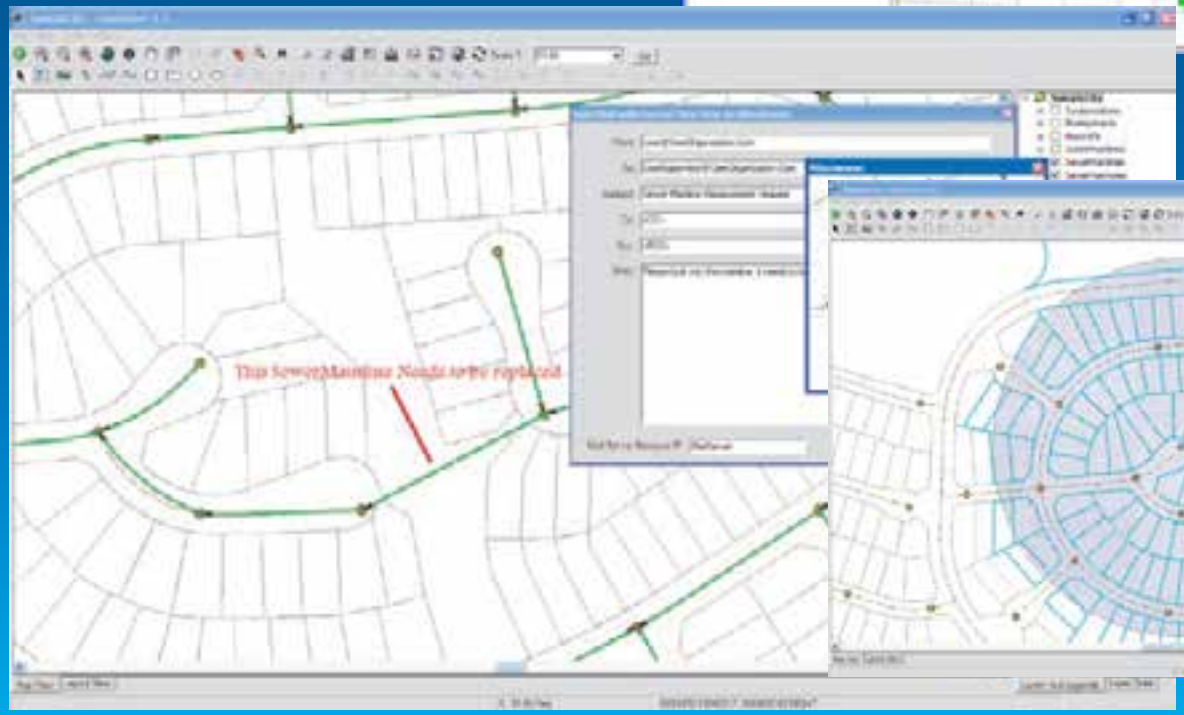
ArcGIS Engine



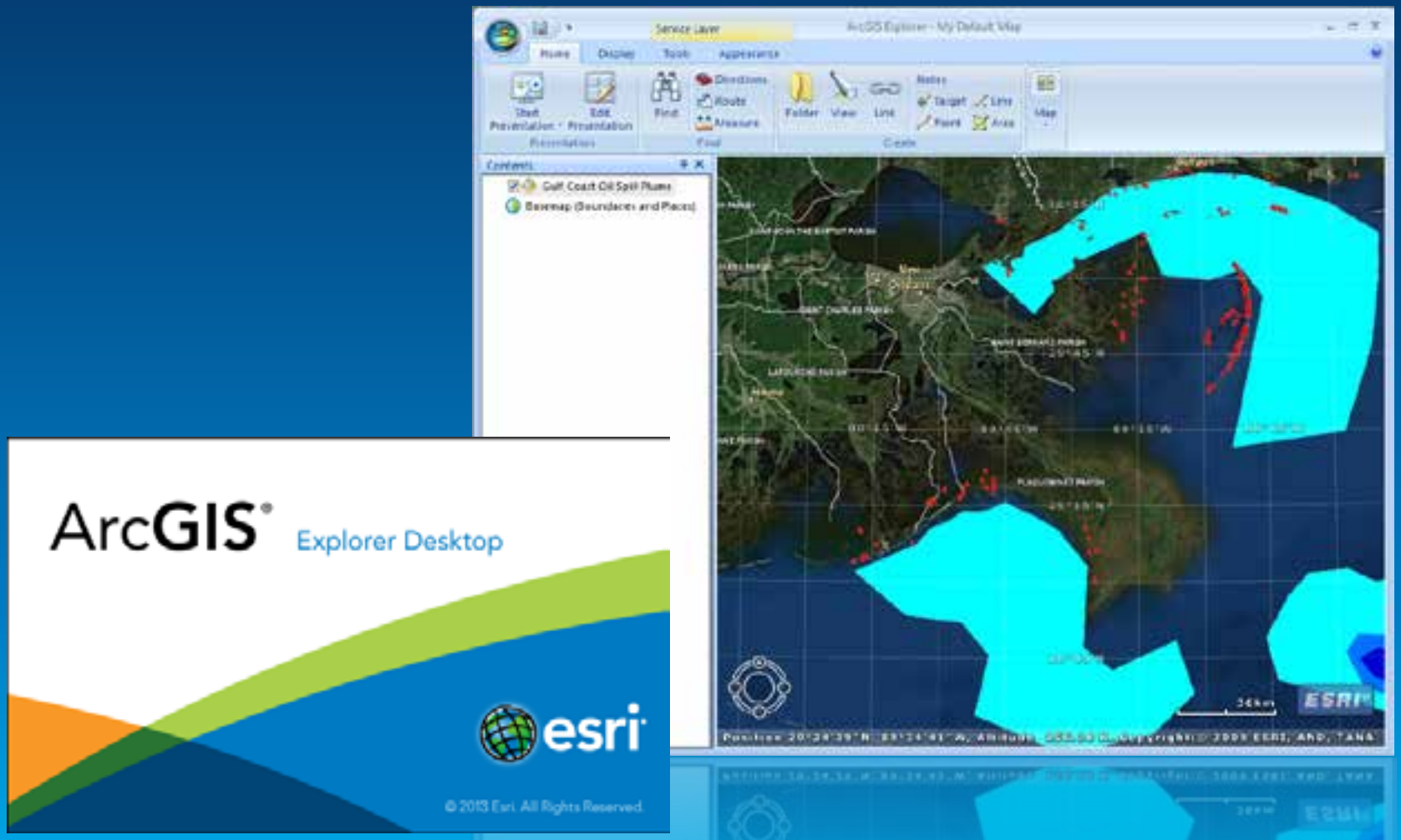






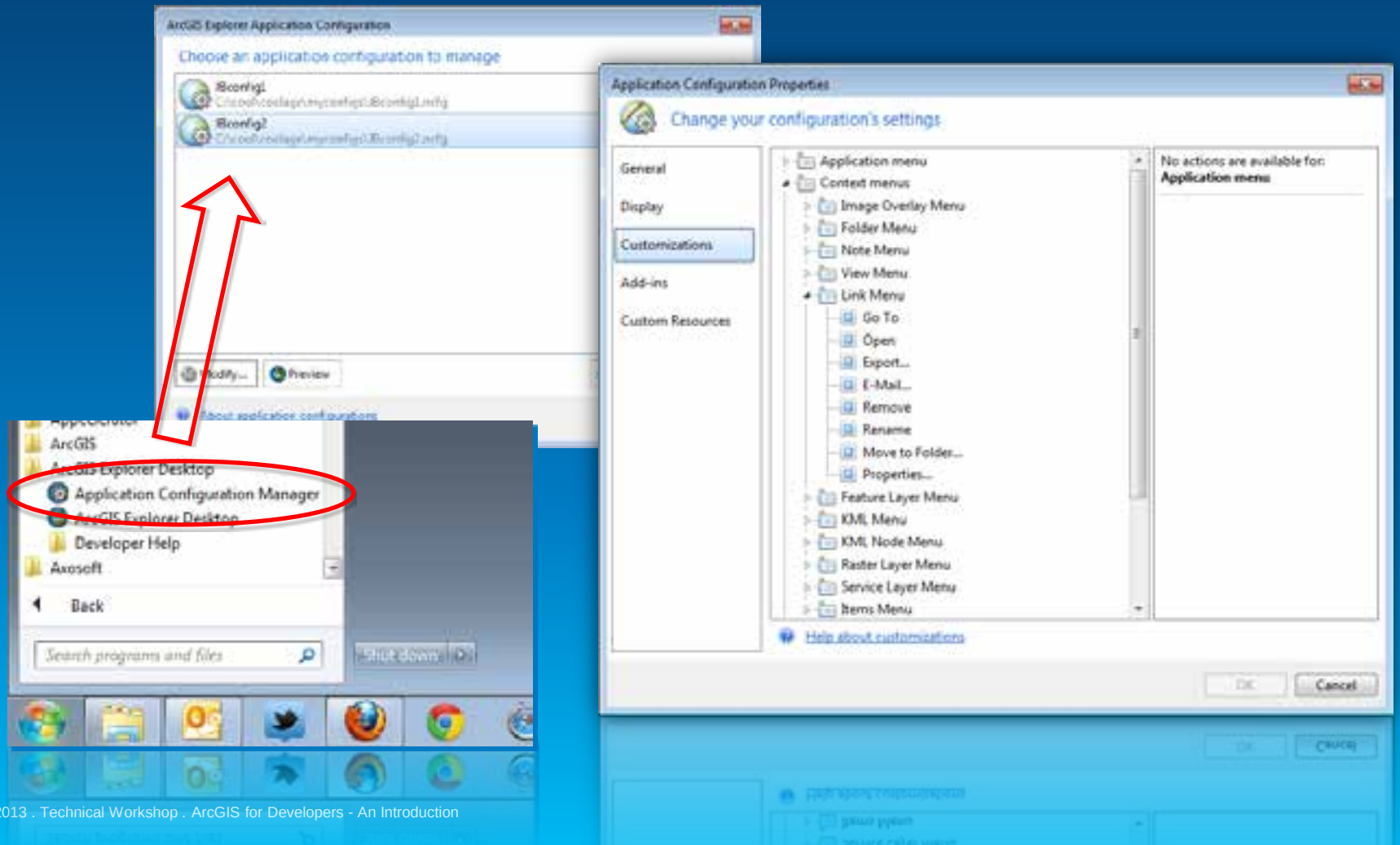


ArcGIS Explorer Desktop



ArcGIS Explorer Desktop

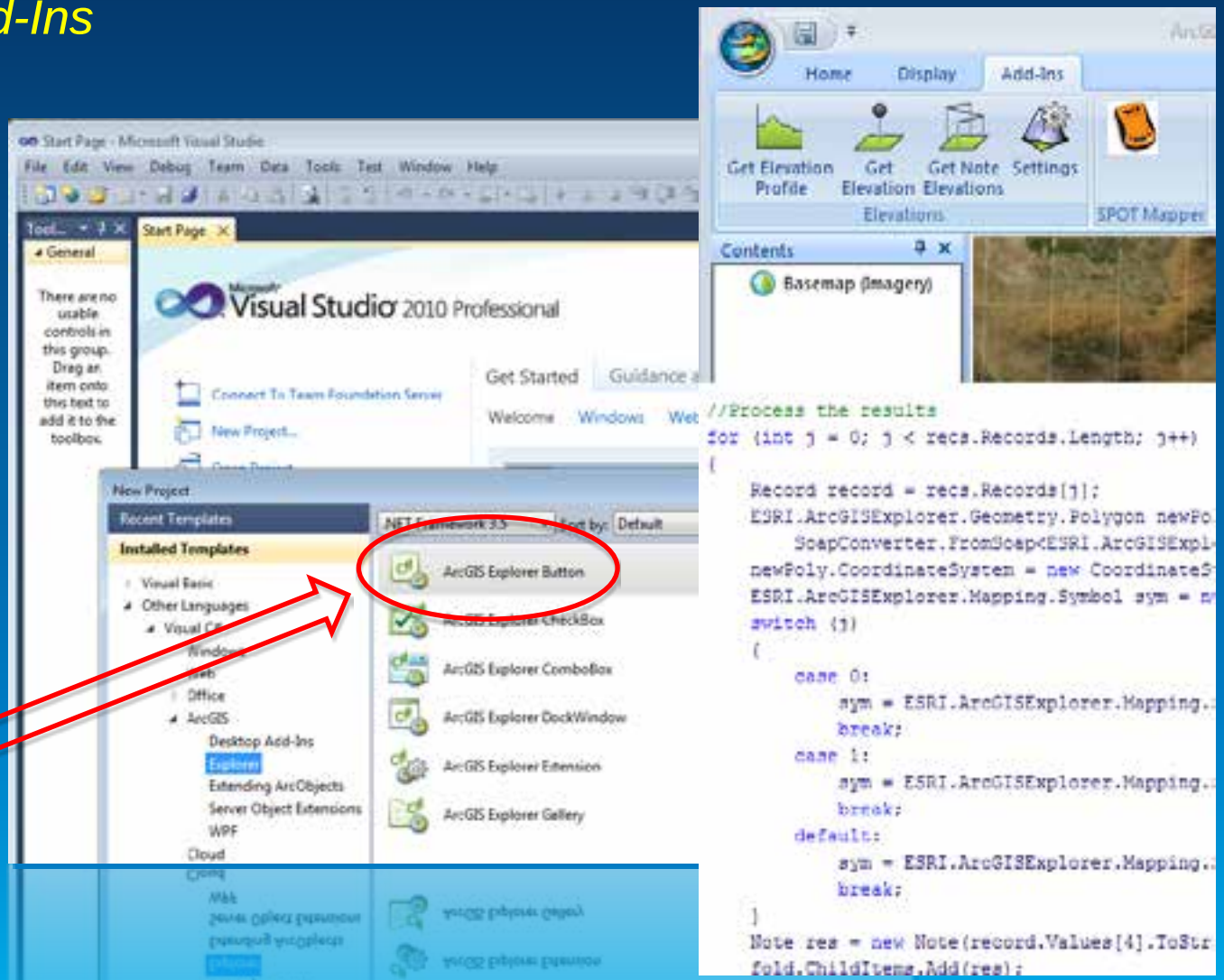
Application Configuration



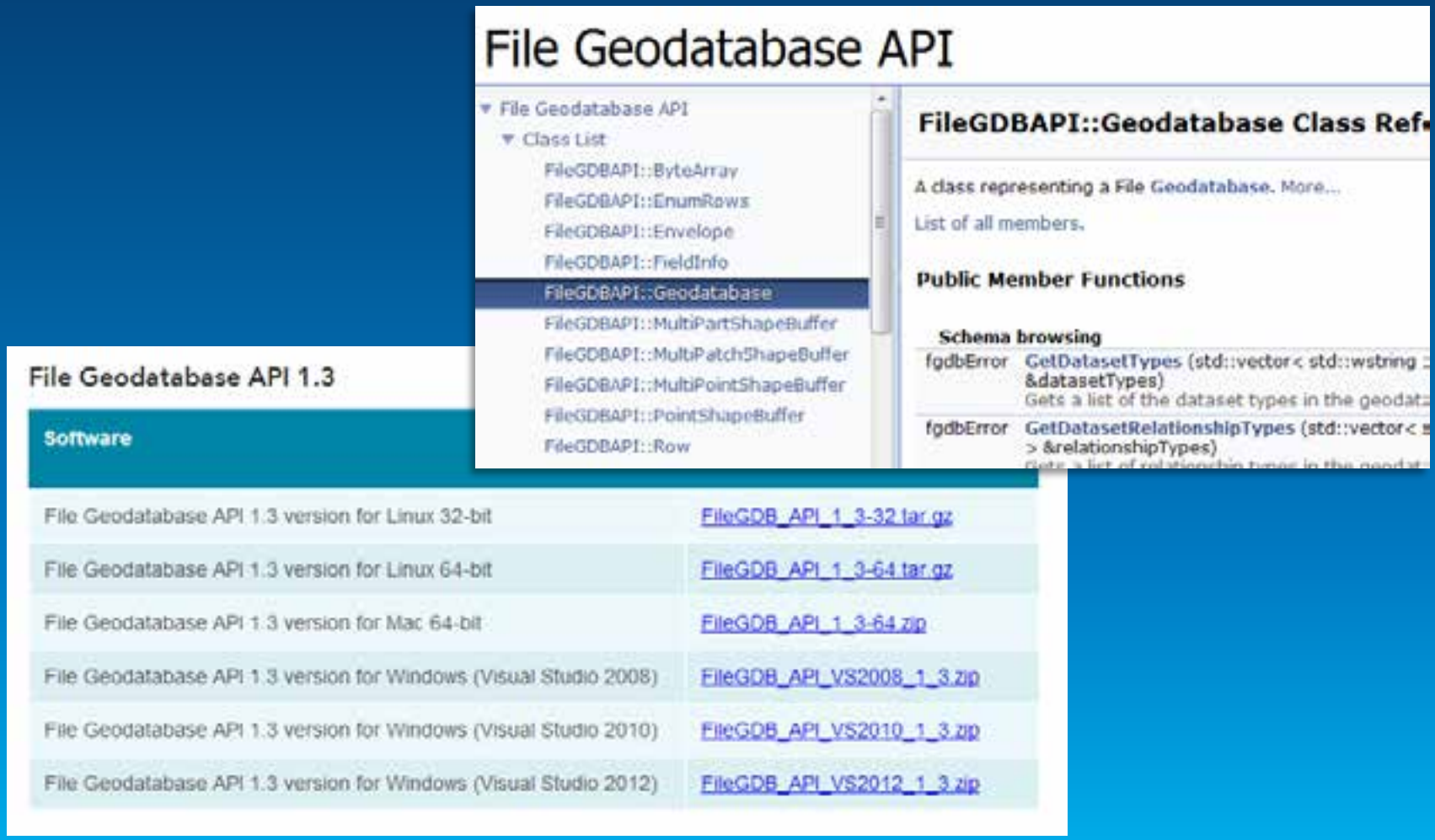
ArcGIS Explorer Desktop

Creating Add-Ins

Visual Studio Templates

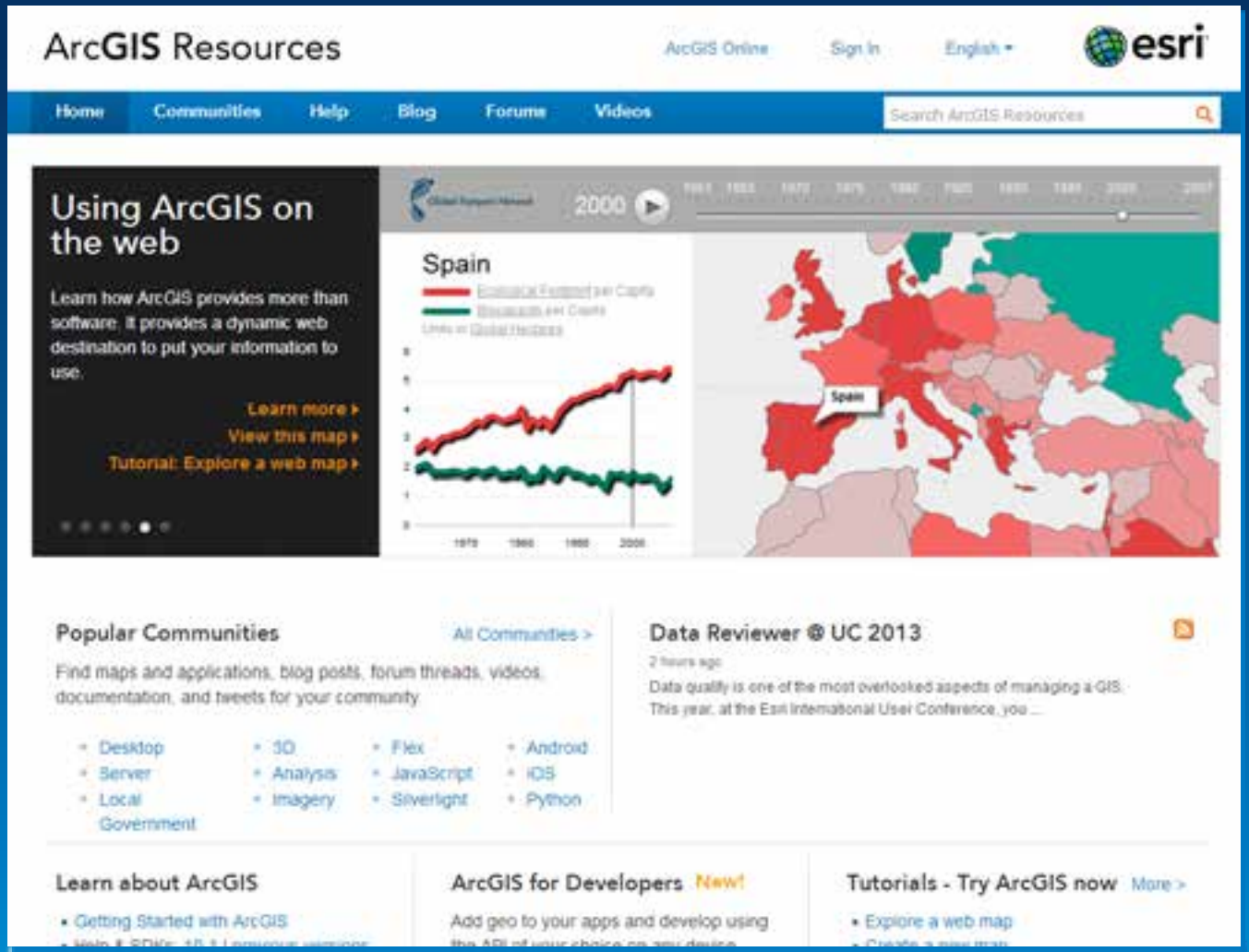


Geodatabase



Runtime SDKs

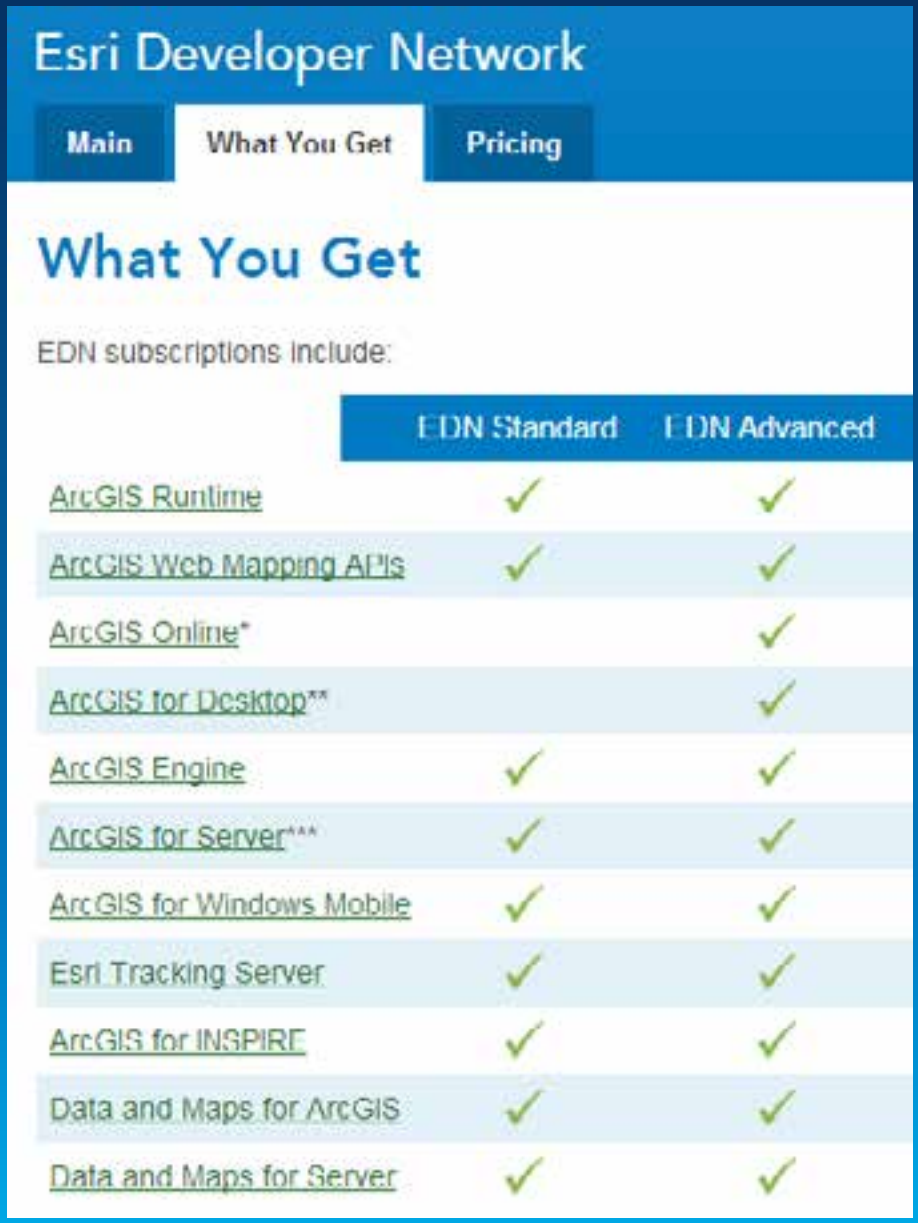
- Customize and extend Esri Apps
  - Operations Dashboard
  - Explorer for ArcGIS

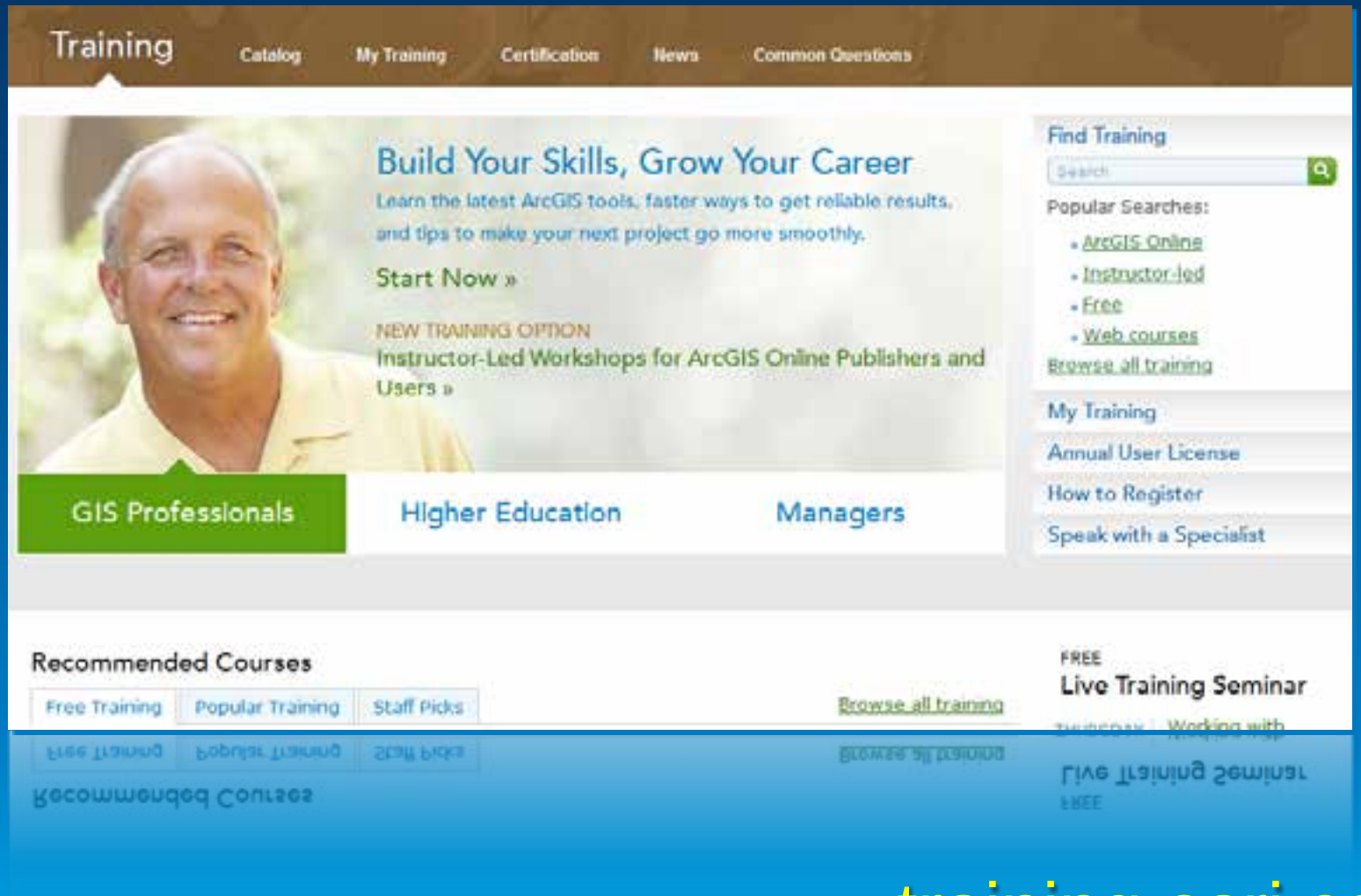


http://**resources**.arcgis.com

EDN

- Developer Licenses
- Annual Subscription





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Other Developer Training

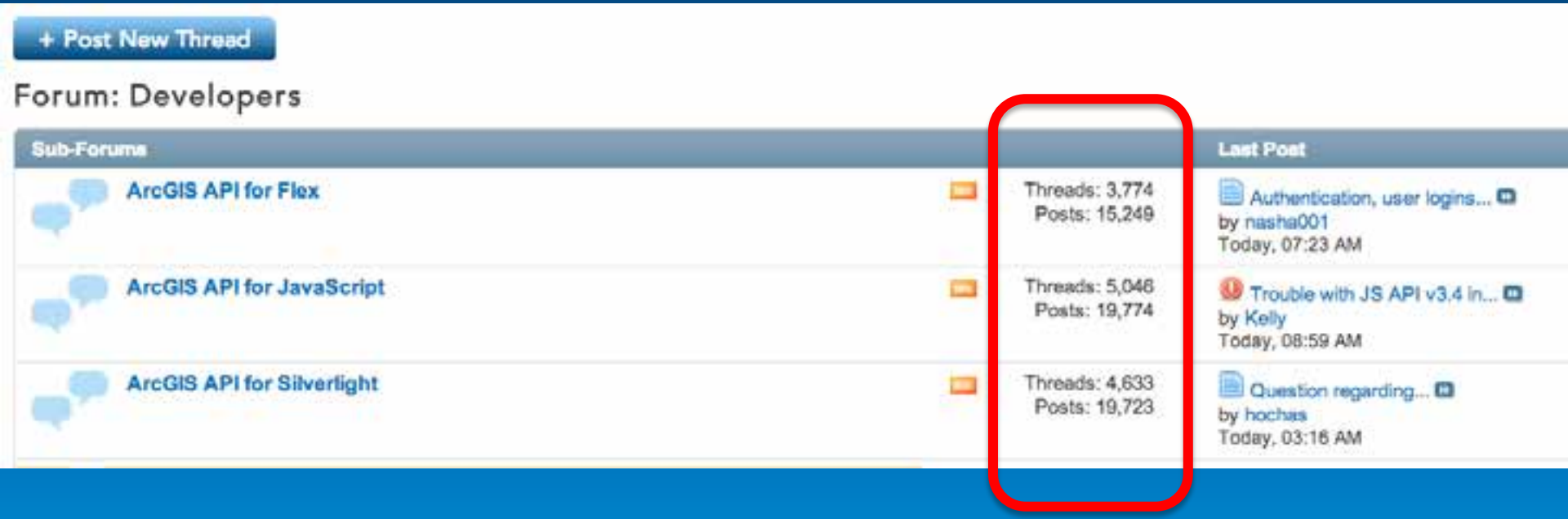
- w3schools.org
- Lynda.com
- CodeAcademy.com

We are an online community

100+ Forums

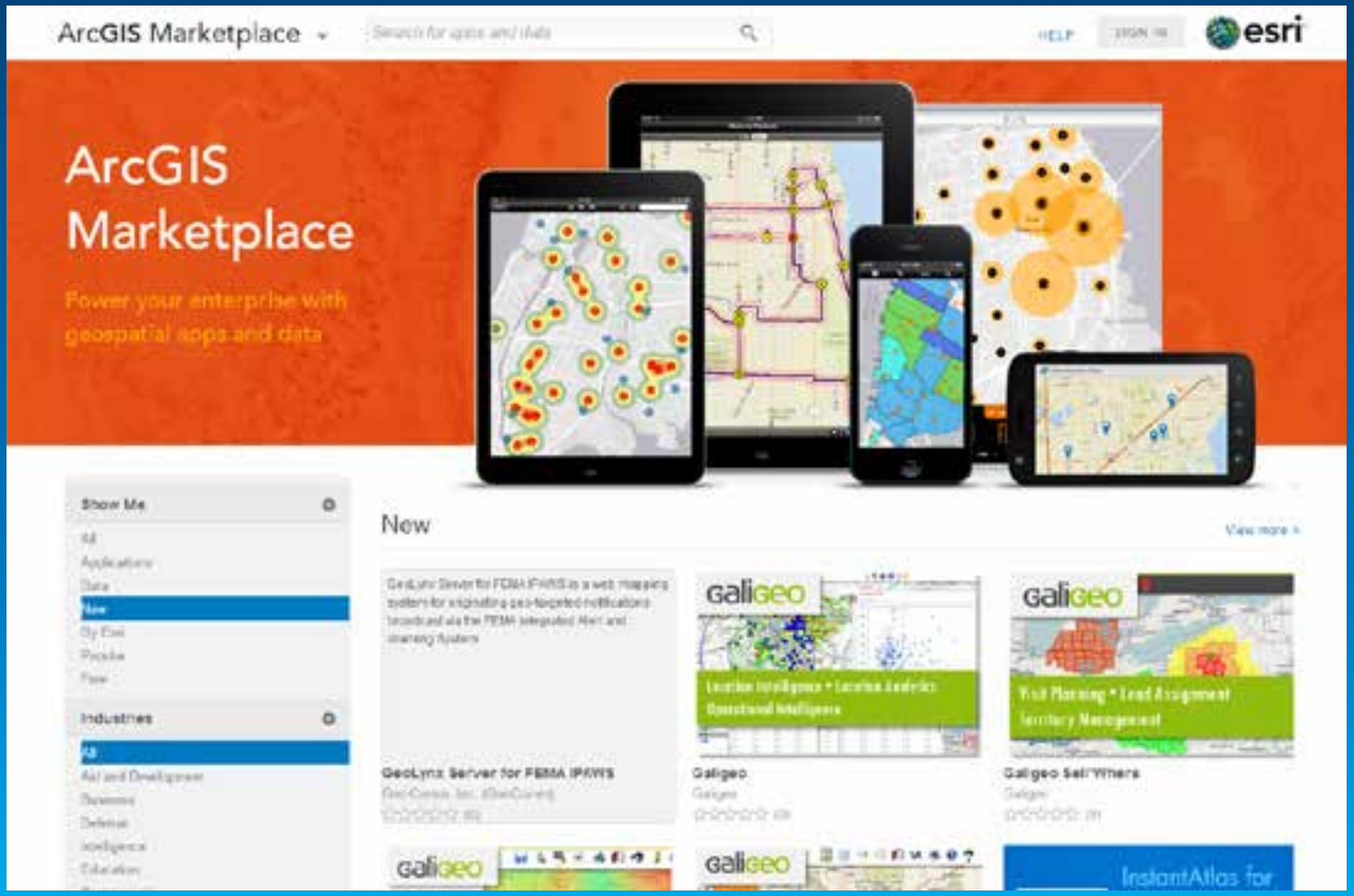
- 250 new posts a day
- 20,000 registered users
- MVP program

forums.arcgis.com



~13,500 threads
~55,000 posts!

ArcGIS Marketplace



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ArcGIS Marketplace Provider

Interested in publishing your Apps on the ArcGIS Marketplace? Here's what it takes to qualify to apply:

- Be a partner in the Esri Partner Network
- Actively participate in the ArcGIS Online Campaign for Partners
- Develop Apps that require an ArcGIS Online subscription

Join the Esri Partner Network and become part of a worldwide community of partners that develop cutting-edge solutions and services for the ArcGIS Platform.

Find out if the Esri Partner Network is right for your organization.

Learn more

Already in the Esri Partner Network and meet the criteria above?

Tell us a about your App, which industries it's for, what makes it unique, and why you would like it to be published on the ArcGIS Marketplace.

esri Partner Network

I'm Interested

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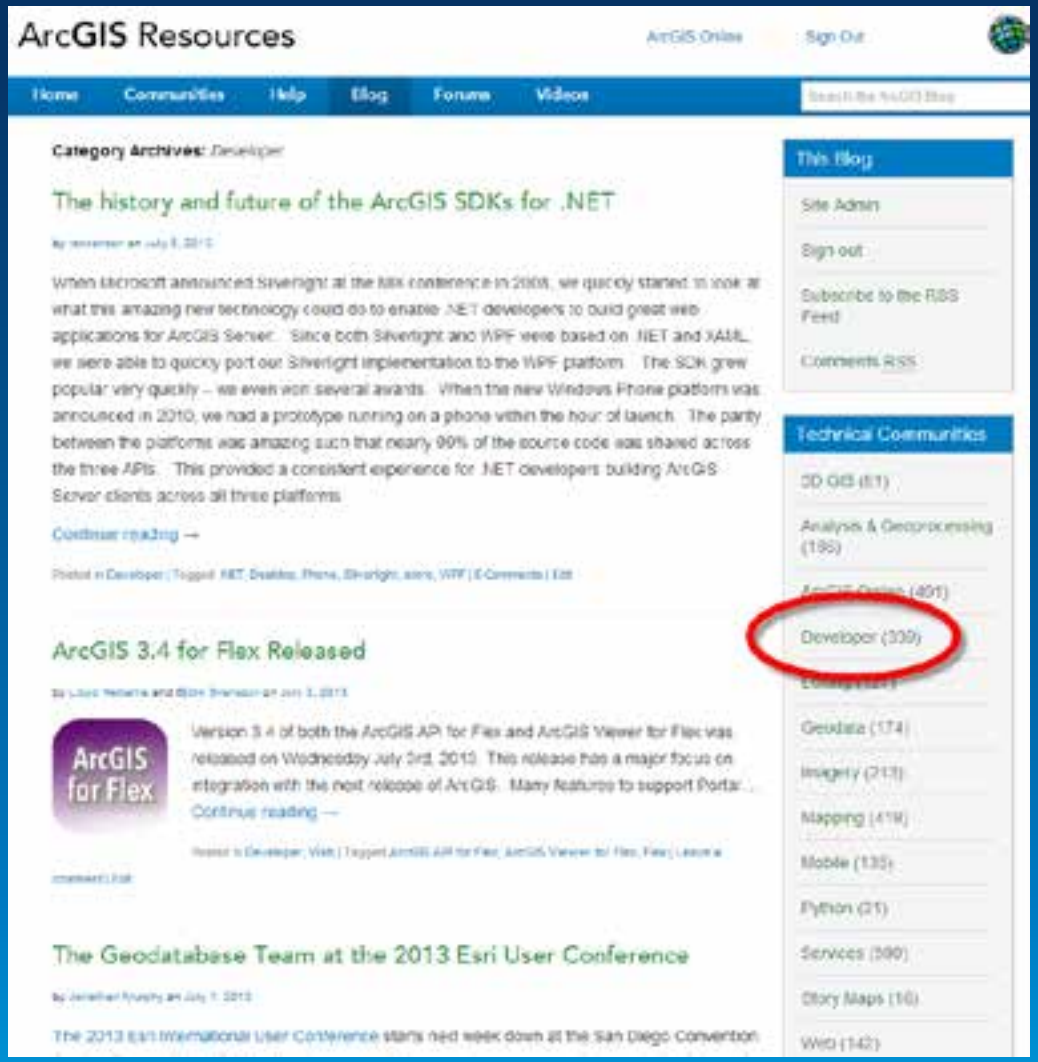
- Europe – Berlin, November 2014
- MEA – ?, November 2014

- *video.arcgis.com*

Developer Blog



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Understanding our world.