

## Guide to GIS for Honolulu Hackers (part 4)

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In “Guide to GIS for Honolulu Hackers (part 1)” you learned about the basics of GIS and map services of City and County of Honolulu (CCH) data that are publically available through REST map services published by HOLIS (Honolulu Land Information System), the Department of Planning and Permitting (DPP) GIS group. If you haven’t gone through Part 1 yet, here is the link:

<http://gdsihawaii.com/GIS4hackers/GIS4hackersPart1.pdf>.

In “Guide to GIS for Honolulu Hackers (part 2)” you learned how you can use ArcGIS Online resources to easily build your own intelligent web maps for Honolulu using the REST map services you learned about in Part 1 and also add your own small data files. If you haven’t gone through Part 2 yet, here is the link:

<http://gdsihawaii.com/GIS4hackers/GIS4hackersPart2.pdf>.

In “Guide to GIS for Honolulu Hackers (part 3)” you learned how you can embed your intelligent web maps in blogs and web pages and share them with virtually any device. You also learned how to create a map gallery for an ArcGIS Online group. If you haven’t gone through Part 3 yet, here is the link:

<http://gdsihawaii.com/GIS4hackers/GIS4hackersPart3.pdf>.

Here in Part 4, I’m going to point you to some resources that will allow you to create your own focused map applications. The focused map applications shown in GG4HH Part 1 that can be used to find information on parcels, parks, refuse collection or public safety are an example of what a programmer can do using these resources:

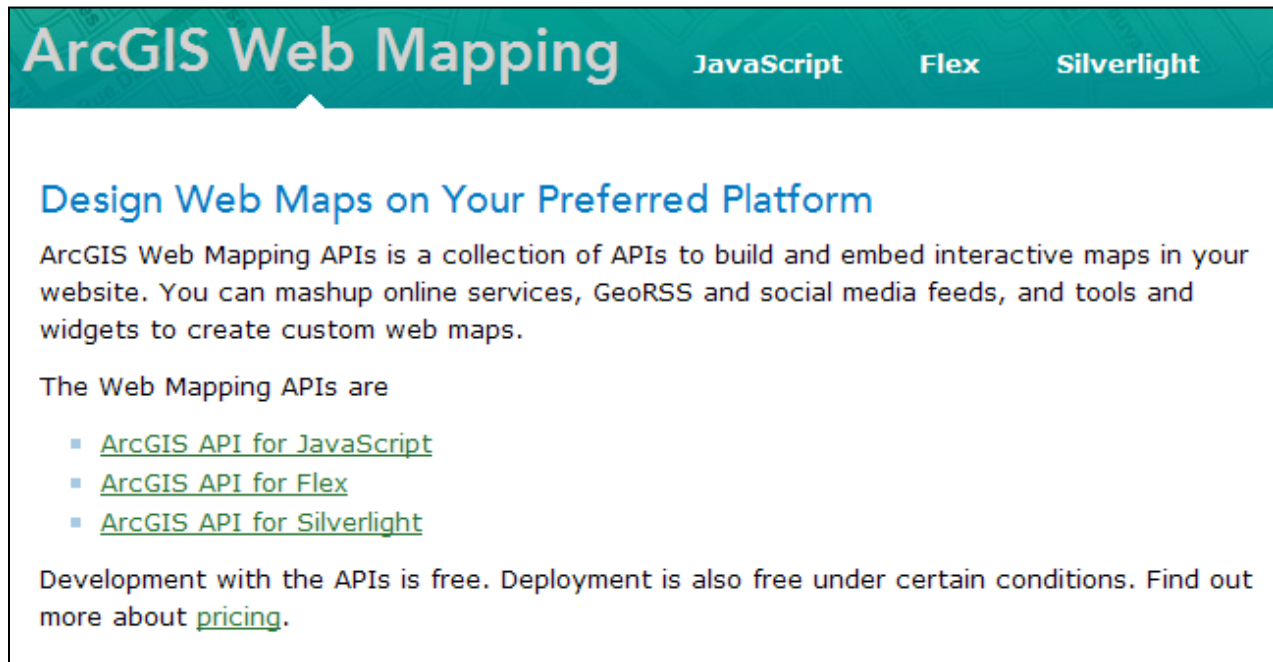
<http://gis.hicentral.com/>



If you haven’t tried any of the above, try them now.

## ArcGIS Web Mapping APIs

<http://www.esri.com/software/arcgis/web-mapping/index.html>



**ArcGIS Web Mapping**    JavaScript    Flex    Silverlight

### Design Web Maps on Your Preferred Platform

ArcGIS Web Mapping APIs is a collection of APIs to build and embed interactive maps in your website. You can mashup online services, GeorSS and social media feeds, and tools and widgets to create custom web maps.

The Web Mapping APIs are

- [ArcGIS API for JavaScript](#)
- [ArcGIS API for Flex](#)
- [ArcGIS API for Silverlight](#)

Development with the APIs is free. Deployment is also free under certain conditions. Find out more about [pricing](#).

Everything you've learned in GG4HH Parts 1-3 can be done by anyone with little or no programming experience. The ability to create, share, embed and deploy intelligent web maps allows a large number of citizens relatively easy access to large amounts of government and other data.

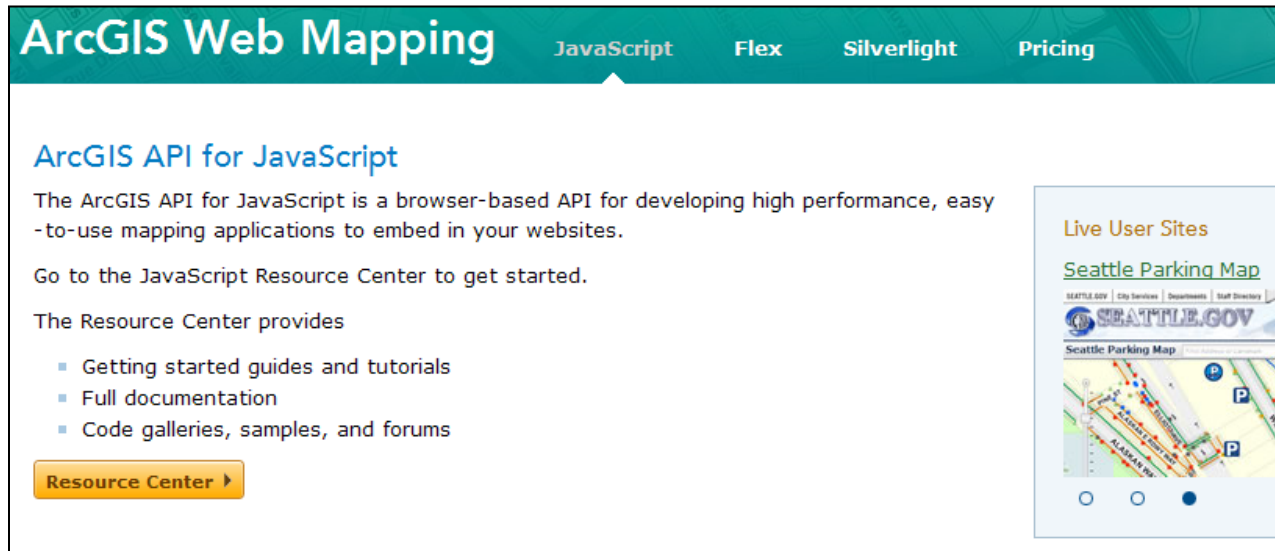
But there times when more powerful, focused web applications are required. These applications make the GIS completely transparent to the end user and can, if needed, provide two-way communication whereby citizens can provide information back to their government.

As you can see above, there are three ArcGIS Web Mapping APIs that Esri makes available – one for JavaScript, one for Flex and one for Silverlight. The Honolulu focused map applications on page 1 were developed using the ArcGIS API for Silverlight. The Hawaii Redistricting Online application used by the Hawaii Reapportionment Commission and many members of the public was developed using the ArcGIS API for Flex. There are also many examples of applications using ArcGIS API for JavaScript.

Esri provides lots of sample code and quick-start templates for all three APIs – so which should you choose? Stick with the development environment you're most comfortable with, all three have similar capabilities.

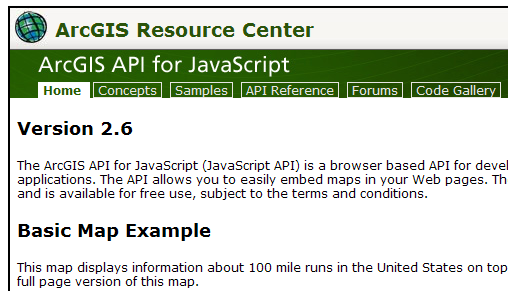
## ArcGIS API for JavaScript

<http://www.esri.com/software/arcgis/web-mapping/javascript.html>



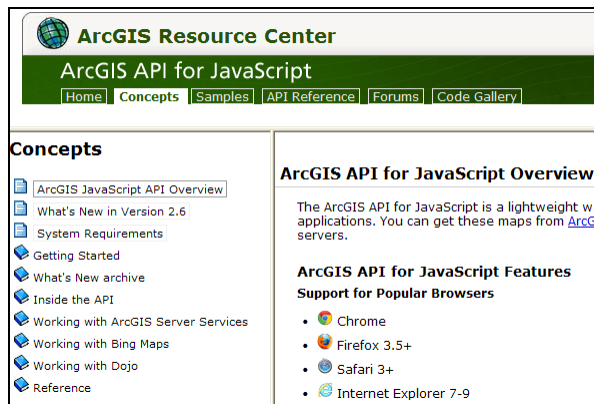
If you want to see some examples of focused web applications using ArcGIS API for JavaScript, go to the link above and click any of the “Live User Sites” examples. These were all developed using JavaScript.

Click the “Resource Center” button for everything you need to know to create a JavaScript application.



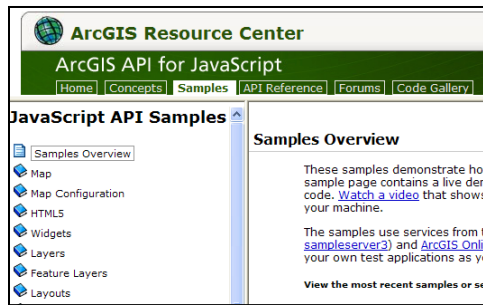
On the “Home” tab you’ll find information on the current version of the API, a basic map example, as well as a link to blog posts.

If you want to check out the block posts, here’s the link:  
<http://blogs.esri.com/Dev/blogs/arcgisserver/archive/tags/JavaScript/default.aspx>



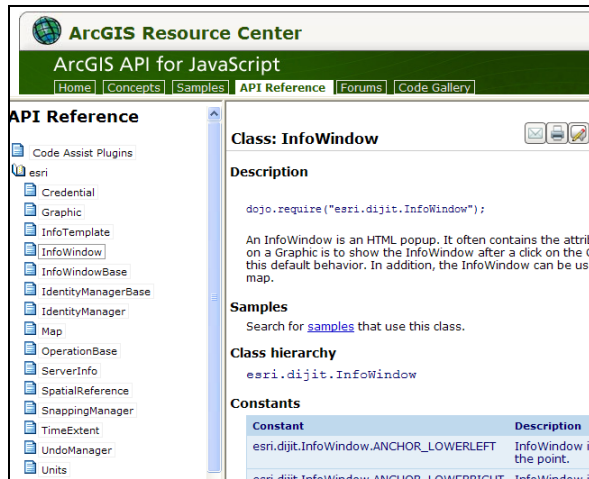
On the “Concepts” tab you’ll find all the resources that describe how to work with ArcGIS API for JavaScript.

Everything from “Getting Started” to specific information about the PI can be found here.

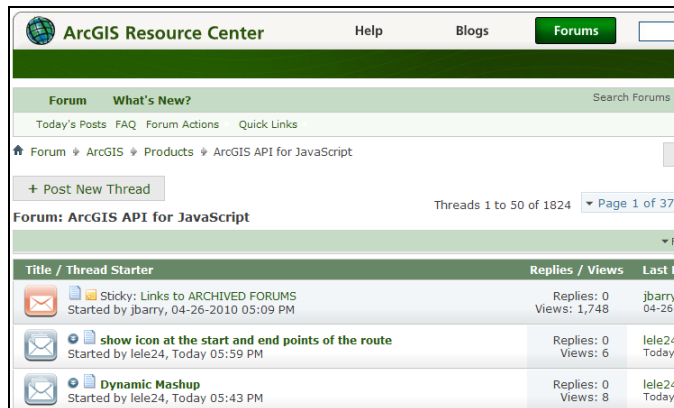


On the “Samples” tab you’ll find tons of sample code for different aspects of the API.

Each sample comes with complete code, code descriptions and most have a live sample of the code working.



On the “API Reference” tab you’ll find detailed descriptions and usage examples for the different API classes with their properties, methods and events all explained in detail.



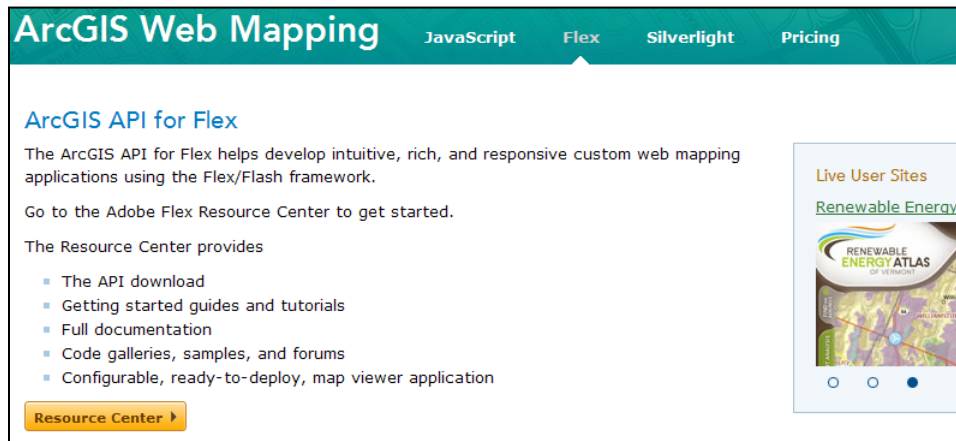
When you click the “Forums” tab you’ll actually be redirected to a new window where users can discuss various issues related to the ArcGIS API for JavaScript.



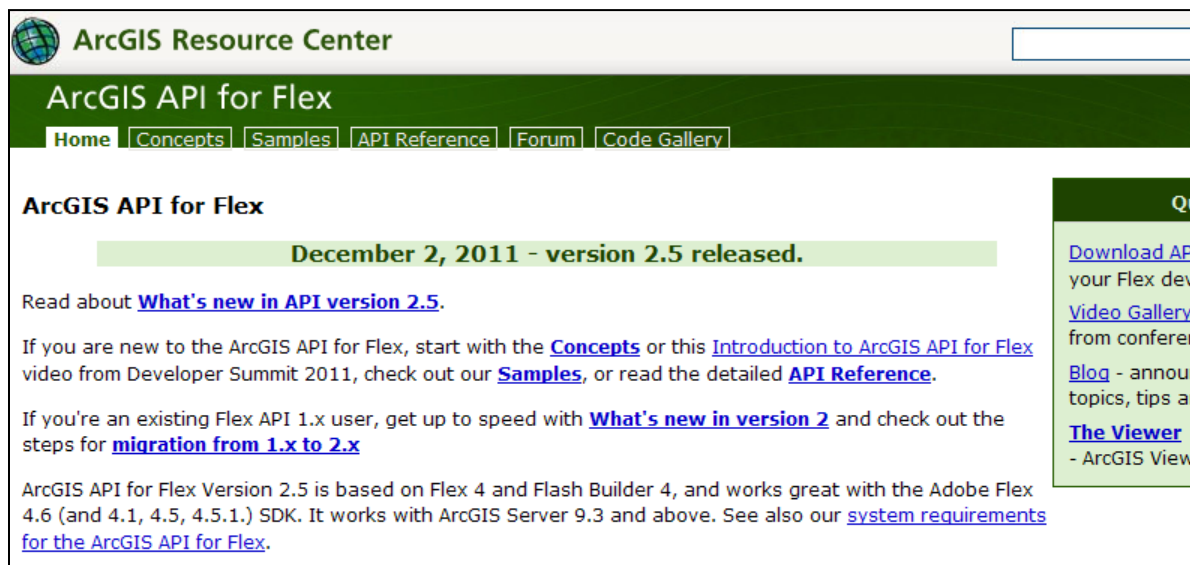
On the “Code Gallery” tab you’ll see many user-submitted focused web map applications developed using the ArcGIS API for JavaScript.

## ArcGIS API for Flex

<http://www.esri.com/software/arcgis/web-mapping/flex.html>



If you go to the Resource Center you'll see a similar set of resources for the ArcGIS API for Flex – Home, Concepts, Samples, API Reference, Forum, Code Gallery. An important addition is the link on the right side of the page to “The Viewer”.



“The Viewer” is a complete quick-start viewer written using the ArcGIS API for Flex. It provides a great place to get a quick application running and learn more about how the code works.

## ArcGIS API for Silverlight

<http://www.esri.com/software/arcgis/web-mapping/silverlight.html>

Similarly to JavaScript and Flex, if you go to the Silverlight Resource Center you'll see a similar set of resources for the ArcGIS API for Silverlight – Home, Concepts, Samples, API Reference, Forum, Code Gallery.

## ArcGIS Runtime SDKs for Mobile

<http://www.esri.com/software/arcgis/smartphones/develop.html>

There are also SDKs for iOS, Windows Phone and Android.

### ArcGIS Runtime SDK for iOS

**Update 2.1 Final (Released October 28th, 2011)**

The ArcGIS Runtime SDK for iOS enables you to build applications that utilize the powerful mapping, geocoding, geoprocessing, and custom capabilities provided by ArcGIS Server using Objective C and deploy them to Apple iPhone, iPod touch, and iPad devices. The API includes native Objective C libraries, templates, and samples that can be used within the **Xcode** Integrated Development Environment (IDE).

Before downloading please read the [System Requirements](#) and [Getting Started](#) documents. When you are ready to deploy your iOS application, please read the [Developer Deployment](#) section.

Sign in and then click the Download button to install the Runtime SDK package.

If you have inquires regarding the application, please email [arcgis4iphone@esri.com](mailto:arcgis4iphone@esri.com).

### ArcGIS for Windows Phone

**ArcGIS API for Windows Phone version 2.3 now available!**

**ArcGIS for Windows Phone application version 2.2 now available!**

ArcGIS for Windows Phone extends the reach of your GIS from the office to the field. It includes an application for Windows Phone devices that you can download for free from the [Marketplace](#) and explore maps hosted on [ArcGIS Online](#) and ArcGIS Server.

Using the ArcGIS API for Windows Phone, you can develop focused applications for Windows Phone devices that can be deployed within your enterprise or to the public via the [Marketplace](#).

### ArcGIS Runtime SDK for Android

**SDK v1.0.1 has been released!!!!**

The ArcGIS Runtime SDK for Android enables you to build applications that utilize the powerful mapping, geocoding, geoprocessing, and custom capabilities provided by ArcGIS Server using Java and deploy them to Android devices.

The SDK includes a plug-in to the Eclipse Integrated Development Environment (IDE) that provides a set of tools, documentation, samples and a rich ArcGIS Android specific API to help developers create great applications.

To help you get started, there is an [online help system](#), please read the [System Requirements](#), [Hello World Map](#) and [How to Work With Samples](#) articles.

To download you will need to sign in, the download is [here](#).

If you have inquires regarding the SDK, please email [arcgis4android@esri.com](mailto:arcgis4android@esri.com).

Now that you've got the lay of the land, turn on those creative juices and get coding!