

ESRI ArcGIS Service Integration with Phone Gap Application

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Abstract

Implementation of native application using ESRI ArcGIS Services and Phone Gap Framework.

ESRI is providing a large variety of GIS (geographic information systems) services with the help of those services we can develop a native (compatible for all the devices) application.

For developing this native application, Phone Gap framework and ESRI ArcGIS JavaScript API services was used.

This application we can use in any of the devices like Windows, Android, iPhone and more.

About the Author



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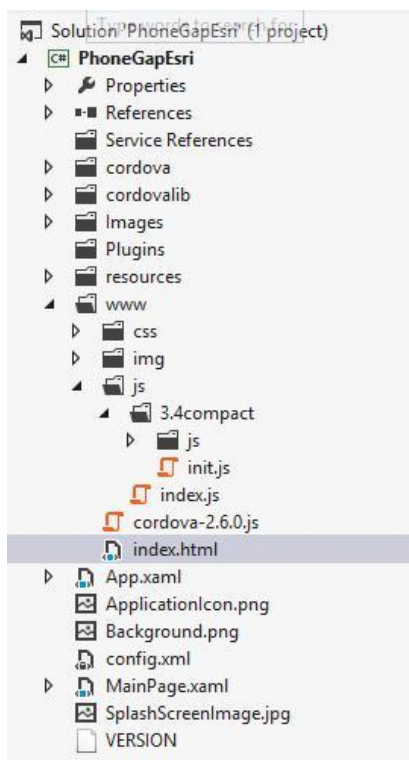
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Introduction

The objective of this paper is to implement a native application using ESRI ArcGIS Services and Phone Gap Framework. ESRI provides a large variety of GIS (geographic information systems) services. With the help these services we can develop a native (compatible for all the devices) application.

Steps for implementing this application

- (i) Download JavaScript SDK for ESRI on their download page. Make sure to pick ArcGIS API for JavaScript API link, not SDK link, as you need the actual API, not samples. After you download, you can unzip the content of the folder.
- (ii) Create new Phone Gap project. For this, Windows Phone SDK was used, but other Android or iPhone SDK can also be used. Add the content of ArcGIS API to js folder under www folder in your project.



Name of the original folder was kept same, so that 3.4compact folder can be seen under js. You can just copy the same folder in Windows Explorer, right click on js folder in Visual Studio and click paste.

- (iii) Fix base root URL folder for dojo that ESRI JavaScript API is using. To do that open init.js file under 3.4compact folder. Look for HOSTNAME_AND_PATH_TO_JSAPI words. Replace the area around that word to look like the following – `{async:0,baseUrl:"./js/3.4compact/js/dojo/dojo",`
- (iv) Update index.html to include css file and js files from www folder

- (v) Verify that everything works by running the app. You can use Ripple or Phone Emulator to test.

```

<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
  <meta name="format-detection" content="telephone=no" />
  <meta name="viewport" content="user-scalable=no, initial-scale=1, maximum-scal
  <link rel="stylesheet" type="text/css" href="css/index.css" />
  <link rel="stylesheet" href="js/3.4compact/js/esri/css/esri.css">
  <link rel="stylesheet" href="js/3.4compact/js/dojo/dijit/themes/claro/claro.cs
  <title>Hello esri</title>
</head>
<body class="claro">
  <div id="mapDiv"></div>
  <script src="js/3.4compact/init.js"></script>
  <script>
    dojo.require("esri.map");

    function init() {
      var map = new esri.Map("mapDiv", {
        center: [-83.5, 34.0],
        zoom: 12,
        basemap: "streets"
      });
    }
    dojo.ready(init);
  </script>
</body>
</html>

```

Deployment process of this application

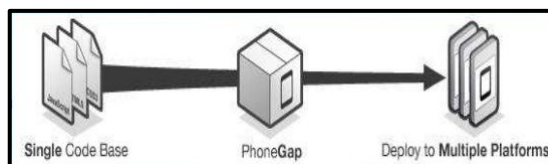


Fig: 1 – ArcGIS Server Native Application Process.

Advantages of this application

- (i) Improved development time
- (ii) Single Codebase
- (iii) Small learning curve for web developers improving rapid deployment of apps
- (iv) Access to most native device capabilities
- (v) Large community base and growing

Conclusion

This kind of process will reduce the time and access to most native device capabilities.

References

1. <http://www.phonegap.com>
2. <http://developers.arcgis.com/en/javascript/>