ArcGIS JavaScript API application made easy for non-programmers
The goal is to provide users with an easy web based interface through which they can enter the basic information needed to get their web mapping application running.

This software package has been developed using the following programming languages.
  a) PHP (It should be pre-installed on the server)
  b) ArcGIS API for JavaScript
  c) HTML
  d) CSS

Pre-installation Requirements

1. PHP (It should be pre-installed on the server)
2. The complete package needs to be uploaded to the web server
3. The server should have php installed
4. Certain folders need to have write permissions that will store the generated configuration files.
This application has been developed using ArcGIS API for JavaScript
- We started with version 2.4 and now recently updated to version 3.9
- The original template was downloaded from ESRI website
  http://developers.arcgis.com/javascript/samples/ags_mapcontainersplitinthree/

The template contains
- Header
- LeftPanel
- Right Panel
- Central Map Panel
- Footer
Map

Left Panel
Tools-
zoomin, zoomout, pan etc

Right Panel (includes 5 content pans)
• Content Pan for TOC – (Layers)
• Content Pan for Identify – (Drop down list for feature identification)
• Content Pan for Search Features (Drop down list for feature layers)
• Content Pan for Search Results – Pan to hold the returned search results
• Content Pan for Legend – Layers – Pan to show the legend of displayed features.

Header
Logo, Graphic Tool icon, Base Maps, Global Search, Print, Links, help, Contact

Bottom Panel
Bottom area to show the coordinates on mouse hover.
Application Architecture

Index.php

- Index.php is the default page
- Checks if config.js in the config folder exists
  - If Yes: it reads the index.php to open the application
  - If No: It exits from index.php and navigates to set_configuration.php
- When the application starts at first, no configuration file (config.js) exists

```php
<?php
    $filename = 'config/config.js';
    if (!file_exists($filename)) {
        header("Location: set_configuration.php");
        exit;
    }
?>
```
Information required

Basemap - ESRI Street Map
http://server.arcgisonline.com/ArcGIS/rest/services/World_Street_Map/MapServer

Aerial service- World Imagery
http://server.arcgisonline.com/ArcGIS/rest/services/World_Imagery/MapServer

Dynamic Layer Service
http://tmservices1.esri.com/arcgis/rest/services/LiveFeeds/Wildfire_Activity/MapServer

Map Title:    Demo Application
Map SubTitle:    Demo
X-coordinate:    -84.5642  y-coordinate:    34.0942
Zoom Level:    4         (1 is zoom out and 13 is zoomin)
Enter the layer number to Query:    10
Enter Unique ID Field Name:    OBJECTID
Enter Search ID Field Name:    FacilityID
Enter Default Value:    SMBC0654
Enter Example Value:    SMBC065410

SUBMIT INFORMATION
set_configuration.php opens the configuration input form on config_form.php

### Section 1:

<table>
<thead>
<tr>
<th>Enter ArcGIS Service information below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter ArcGIS Service for Base Layer</td>
</tr>
<tr>
<td>Example: <a href="http://gisapp/aarcgis/rest/services/MapServices/FultonStreetBaseMap/MapServer">http://gisapp/aarcgis/rest/services/MapServices/FultonStreetBaseMap/MapServer</a></td>
</tr>
<tr>
<td>Enter Image Raster layer ArcGIS Service</td>
</tr>
<tr>
<td>Example: <a href="http://vmsv-gisserv02.6080/aarcgis/rest/services/MapServices/Pictometry2015NAIP2010/MapServer">http://vmsv-gisserv02.6080/aarcgis/rest/services/MapServices/Pictometry2015NAIP2010/MapServer</a></td>
</tr>
<tr>
<td>Enter Dynamic layer ArcGIS Service</td>
</tr>
<tr>
<td>Example: <a href="http://vmsv-gisserv02.6080/aarcgis/rest/services/MapServices/CodeViolations/MapServer">http://vmsv-gisserv02.6080/aarcgis/rest/services/MapServices/CodeViolations/MapServer</a></td>
</tr>
</tbody>
</table>

### Section 2:

<table>
<thead>
<tr>
<th>Enter the Map Title Configuration Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Map Title (Appears on top of Browser)</td>
</tr>
<tr>
<td>Example: Water Resources Spill map</td>
</tr>
<tr>
<td>Enter Map Sub Title (Appears under the logo)</td>
</tr>
<tr>
<td>Example: Spill Application</td>
</tr>
</tbody>
</table>

### Section 3:

<table>
<thead>
<tr>
<th>Please enter map center coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-coordinate:</td>
</tr>
<tr>
<td>These coordinate are based on basemap layer projection</td>
</tr>
</tbody>
</table>

### Section 4:

<table>
<thead>
<tr>
<th>Please enter the Zoom extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom Level: 8</td>
</tr>
<tr>
<td>1 is full zoomout and 13 full zoomin</td>
</tr>
</tbody>
</table>
### Section 5:

**Application Architecture**

**Configuration Setup**

<table>
<thead>
<tr>
<th>Enter Query information below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Layer number to Query</td>
</tr>
<tr>
<td>Enter Unique ID field Name</td>
</tr>
<tr>
<td>Enter Search ID field Name</td>
</tr>
</tbody>
</table>

**Enter Default value**

Enter Manhole Facility ID

Example: SMBC534460

**Enter Example Value**

Enter Manhole Facility ID

Example: SMBC534460

**Submit**
Generation of Configuration file

// MapTitle Generation

getmapTitle = \$mapTitle;

getmapSubTitle = \$mapSubTitle;

// MapTitle Generation

getmapTitle = getmapTitle;

getmapSubTitle = getmapSubTitle;

// Dynamic layer Generation

$dynamiclayer = dynamiclayer;

// Coordinates Generation

$coordinates = coordinates;

// Query Parameter Generation

$query = QueryParameter;
Writing of config/config.js configuration file

```php
<?php

if ($_POST)
{

    $mystring = "";
    foreach ($_POST as $param_name => $param_val)
    {
        $mystring .= "variable: $param_name = $param_val<br />
";
    }
    echo $mystring;
    //exit;
}

if(isset($_POST['Action']))
{
    $my_file = 'config/config.js';
    $handle = fopen($my_file, 'w') or die('Cannot open file: ' . $my_file);
    $header = "define("" . "\n"
    $header .= " \"map\""," . "\n"
    $header .= " \"base/declare\""," . "\n"
    $header .= " \"base/finish\""," . "\n"
    $header .= ", function(map, declare, map, esriRequest) {" . "\n"
    $header .= " return declare();{" . "\n"

    fwrite($handle, $header);
}

if(file_exists($filename))
{
    if(isset($_POST['Action']))
    {
        $mapTitle = $_POST['mapTitle'];
        $mapSubTitle = $_POST['mapSubTitle'];

        $baseLayer = $_POST['baseLayer'];
        $imageLayer = $_POST['imageLayer'];
        $dynamicLayer = $_POST['dynamicLayer'];

        $xCoord = $_POST['xCoord'];
        $yCoord = $_POST['yCoord'];
        $zoomLevel = $_POST['zoomLevel'];
        $lyrNo = $_POST['lyrNo'];
        $uniqueID = $_POST['uniqueID'];
        $srcFieldID = $_POST['srcFieldID'];
        $srcDefaultValue = $_POST['srcDefaultValue'];
        $srcExampleValue = $_POST['srcExampleValue'];
    }
```

```
Navigational Tools
- Zoomin
- Zoomout
- Pan
- PreviousExtent
- NextExtent
- Clear graphic tool

Base Map Views
- Street View
- Aerial View
Application Architecture (Table of Content Configuration)

```javascript
var map;
require(['
    "msri/map",
    "msri/layers/ArcGISDynamicMapServiceLayer",
    "doj/parser",
    "msri/geometry/webMercatorUtil",
    "msri/toolbars/navigation",
    "doj/dom",
    "dijit/registry",
    "modules/zoom",
    "modules/graphic",
    "modules/toc",
    "modules/find",
    "config/config",
'],

var toc = new toc();
toc.addToTOC(Basemap, false);
toc.addToTOC(layer, true);

var mylyrlist = [];
var tocCollapse = false;

return declare(null, {
    showTOC: function(map) {
        dom.byId("TOC").innerHTML = "HELLO";
    },
    addLayerTOC: function(layer, sublayers)
    {
        //alert(sublayers);
        //alert(layer.id)
        if (sublayers,)
        layer.on("load", buildLayerList);
        else
        layer.on("load", buildLayerListRoot(layer));

});

```
Application Architecture *(Query)*

Search by Entering ID

- **Search**
  - Enter ID
  - Example: PX

- **Search Results**
  - Click on record below to view more info
  - P124
  - P125
  - P247
  - P124

- **Field**
  - Value
  - objectid: 95423
  - shape: undefined
  - unitname: P124
  - status: 0
  - type: 0
  - callnumber: A431234B54432
  - speed: 0
  - lastreport: 1357772058000

- **Map**
  - Water Resources
  - Redland Emergency Service
  - Table of Contents
  - Search
  - Search Results
  - Click on record below to view more info
  - Field
  - Value
  - objectid: 95423
  - shape: undefined
  - unitname: P124
  - status: 0
  - type: 0
  - callnumber: A431234B54432
  - speed: 0
  - lastreport: 1357772058000
Demo
QUESTIONS ?