

Maryland Department of Information Technology

Exploring the MD iMAP Web App Template

Geographic Information Office

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8/3/2016

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Introduction

About this Document

This document is for all users that are interested in using the MD iMAP Web App Template. It provides you basic information about the MD iMAP Web App Template, including the layout and tools available in the template. This document is not a guide to configuring the template.

What is the MD iMAP Web App Template?

The MD iMAP Web App Template is a Javascript application that is built using ESRI's Web AppBuilder. The template is a prebuilt version of the Web AppBuilder application that additionally contains a Maryland loading page, the Add Data tool and links in the layer list to the MD iMap Data Catalog (where applicable).

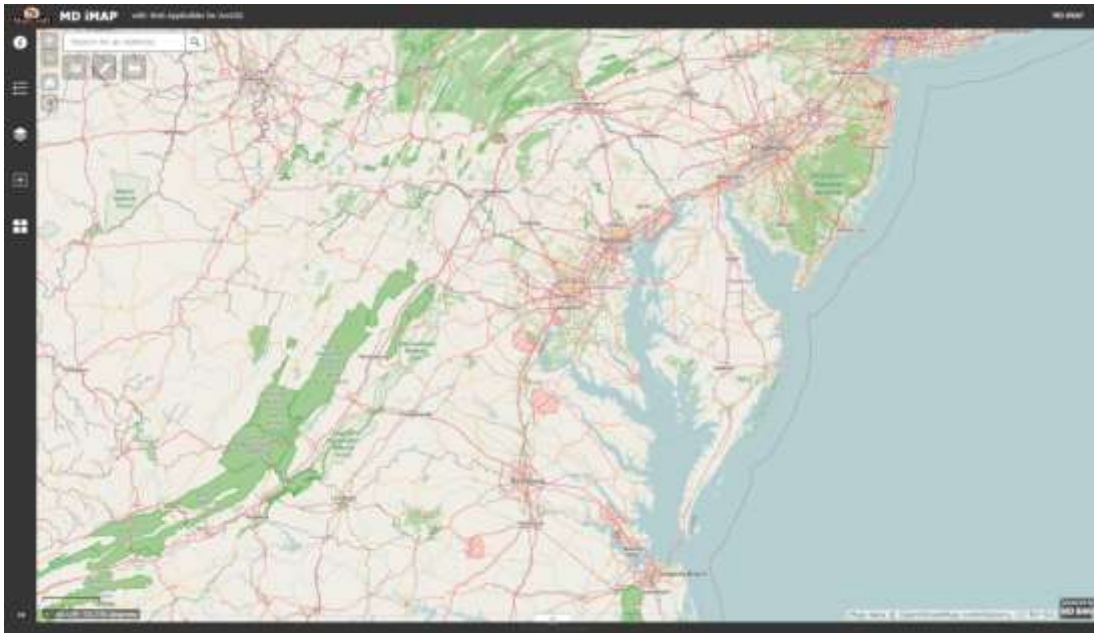


Figure 1: MD iMAP Web App Template

How do I use the MD iMAP Web App Template?

The MD iMAP Web App Template can be deployed two ways:

1. As a hosted application in Maryland's ArcGIS Online Organization
2. As a standalone application on your own web server

This document covers the available tools and option available in the MD iMAP Web App Template.

Layout

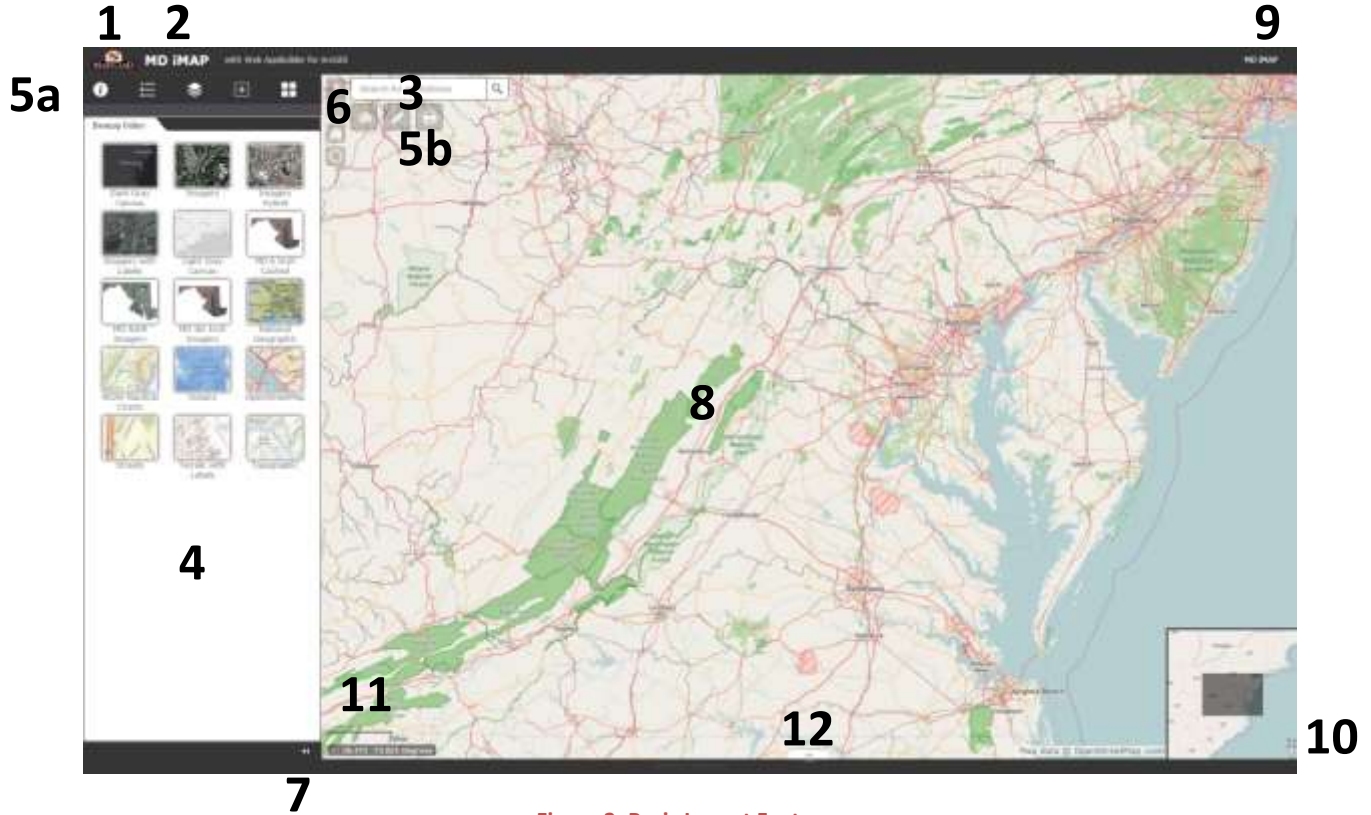


Figure 2: Basic Layout Features






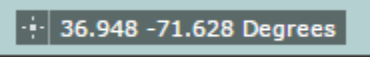
1. Logo
2. Title
3. Search Widget
4. Left Pane
5. Tools
 - a. In Pane Tools
 - b. Out of Pane Tools
6. Navigation Buttons
7. Collapse Left Pane Button
8. Map Area
9. Help
10. Overview Map
11. Scale Bar / Coordinates
12. Attribute Table Tab

Map Components

Overview

The Map Components are the standard elements of a web map that allow for basic navigation and location information.

Navigation Buttons & Map Tools

Tool	Description
	The + Zoom Button zooms you in one scale level of the map, the – Zoom Button zooms the map out one scale
	The Home Button takes you to the initial extent of the map
	The Location Tool will turn on location tracking and zoom to current location *Note that some firewalls and/or browser settings may prevent this tool from interacting. You may see a system or browser generated pop-up asking for permission to continue or “Share Location” before the tool is able to process the request. Occasionally, the tool is left in the “on” mode, you may get a periodic “location attempt timeout” notice. If this occurs, click the button again to turn off the location.
	The Overview Window , located in the bottom right of the map, opens a smaller window that gives you a broader picture of where the main map is viewing.
	The Scale Bar shows the map scale based on the spatial reference of the Web Map
	The Coordinates box shows the latitude/longitude of the mouse hover on the map

Left Pane

Overview

The Left Pane of the MD iMAP Web App Template provides a tab based layout for map details, map contents and tools. The Left Pane has the option to be collapsed or expanded.

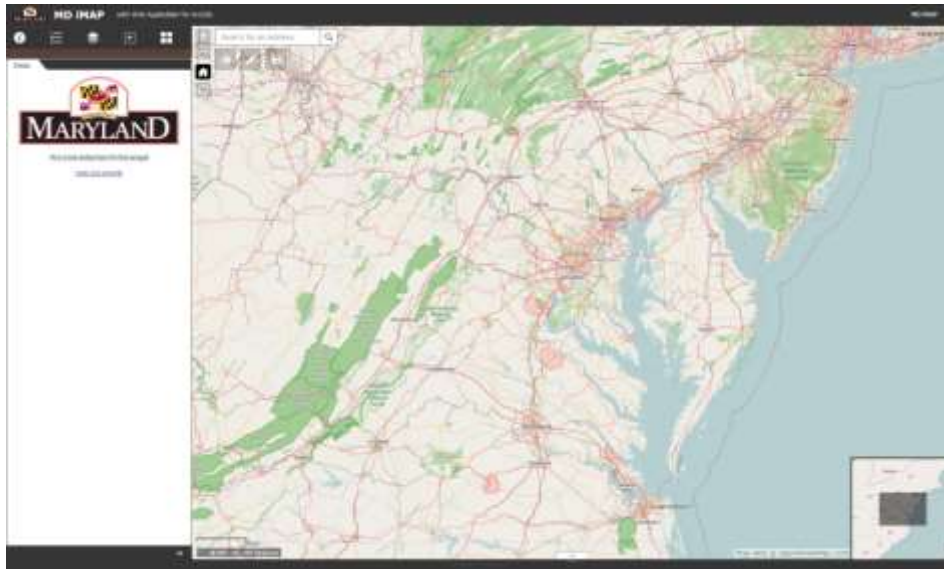


Figure 3: MD iMAP Template with Expanded Left Pane



Figure 4: MD iMAP Template with Collapsed Left Pane

In Pane Tools

There are up to 5 in pane tools available in the MD iMAP Web App template.



Figure 5: In Pane Tools

Details Tab

The Details Tab presents information from the description of the Web Map. This can include HTML formatted content.



Figure 6: Details Tab

Legend Tab

The legend tab includes the symbology for layers contained in the map.

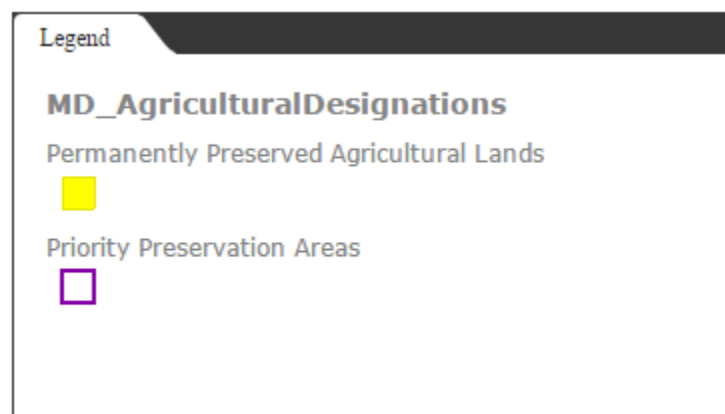


Figure 7: Legend Tab

Layer List Tab

The Layer List tab allows for moving layers up and down in the map, changing transparency, zooming to layer, and viewing the description (REST Endpoint).

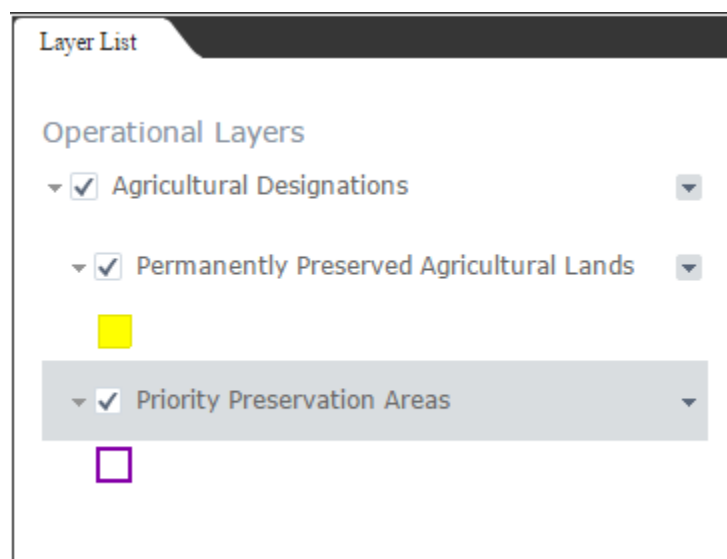


Figure 8: Layer List

If the layer is registered with the MD iMAP data catalog, a link will appear in the dropdown for that layer.

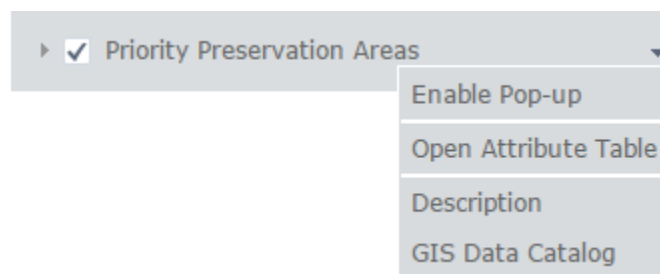


Figure 9: Layer List dropdown with GIS Data Catalog Link

Add Data Tab

The Add Data tab allows users to add layers from the available MD iMAP map and image services. Each of the MD iMAP data categories can be expanded to show the available services. Clicking on a service will show the service description (if available) and will allow you to add the service into the Template.

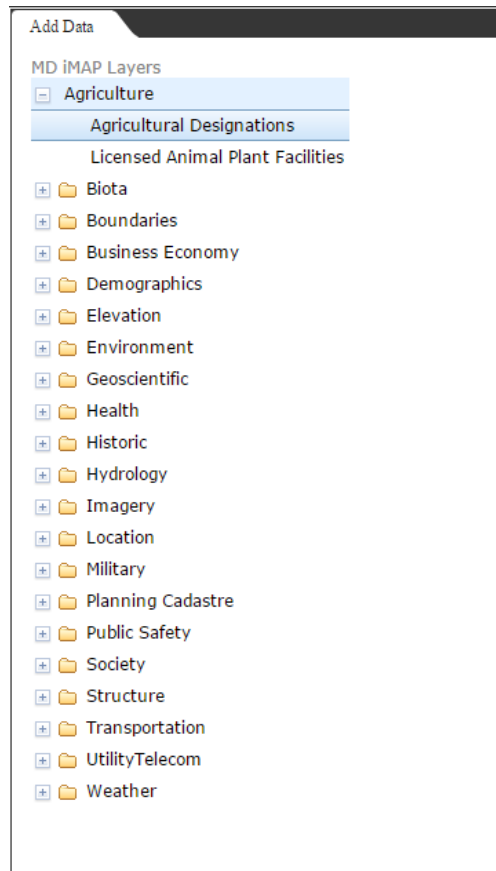


Figure 10: Add Data Tab

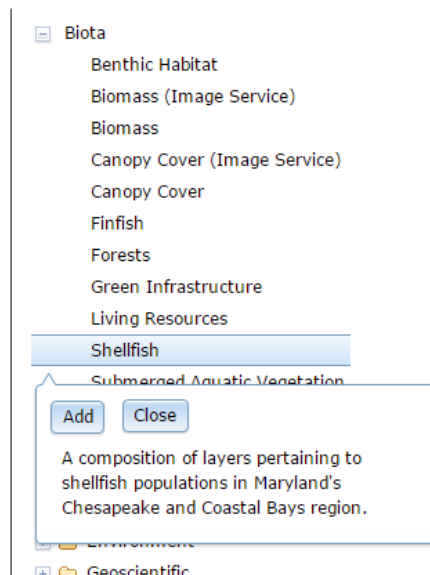
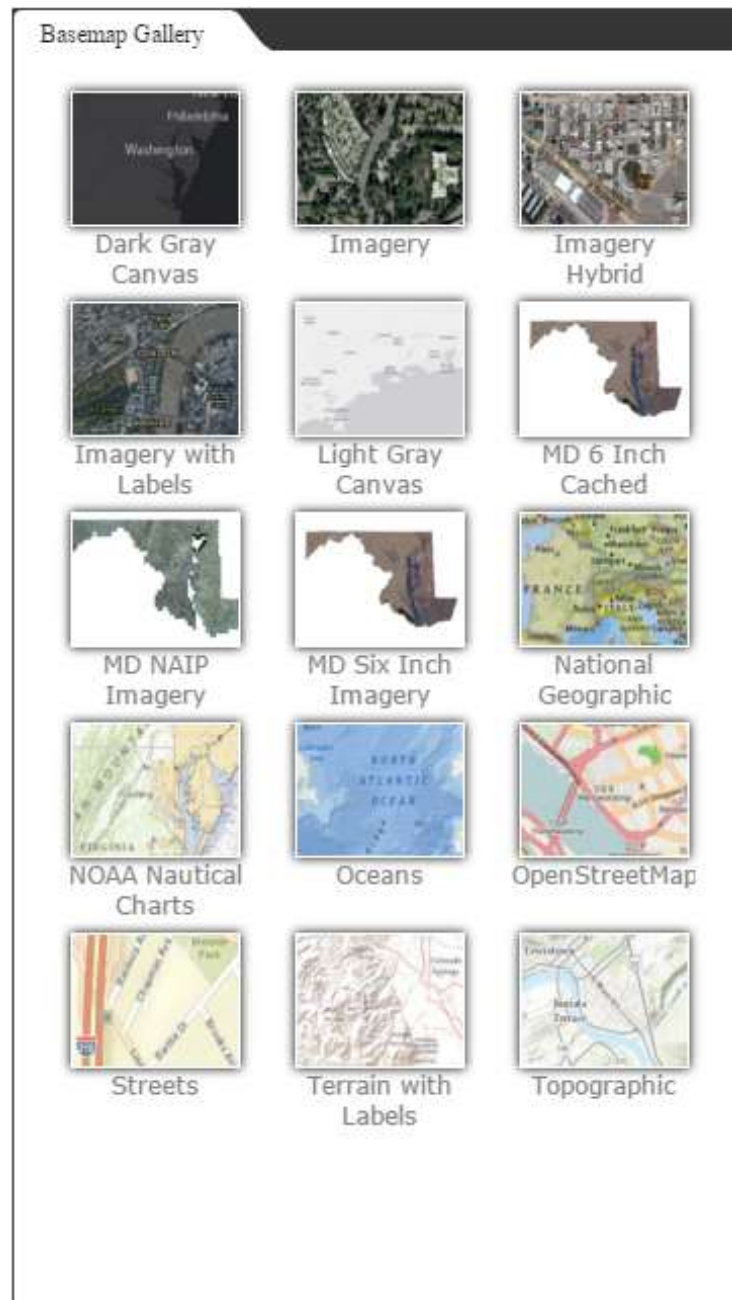


Figure 11: Add Data Tab - Service Description

Basemap Gallery Tab

The Basemap Gallery tab allows users to change the basemap for the webmap. Choices available are based on the MD iMAP basemap group. It includes some basic ESRI provided basemaps as well as some Maryland specific imagery maps.



Attribute Table

Overview

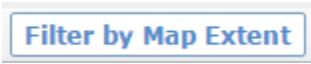
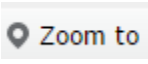
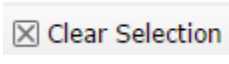
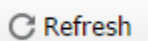
Attribute table provides a table of the features and fields for the layers in the map. Different layers will be placed on separate tabs. The toggle tab at the bottom of the map opens and closes the attribute table.


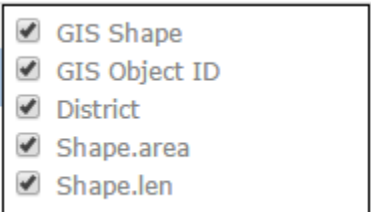
** Please note: At this time, this only contains the layers that are present in the map before the attribute table is opened for the first time in the session. Layers added through the Add Data tool after the initial load of the attribute table will not appear, the site has to be refreshed and layers added before opening the attribute table for the first time

GCS Group	GCS District ID	District	Shape Area	Shape Len
	68	1A	3,176,191,901.81	337,006.30
	69	1B	861,161,894.82	172,778.12
	70	1C	1,720,134,600.23	433,777.80
	71	2A	5,225,745,411.47	957,699.79
	72	2B	56,843,284.74	110,425.93
	73	3A	173,874,221.87	81,377.66
	74	3B	458,776,761.14	158,389.84
	75	4	2,381,312,734.04	401,183.23

Figure 12: Attribute Table

Options

Tool	Description
	Filter by extent (when selected) will only show the features present in the map view in the table below
	Zoom to will set the extent to that of the features selected in the table
	Clear Selection clear the features selected in the table. To select a record—Clicking a record in the table selects it and highlights the corresponding feature in the map with the color specified in the Attribute Table widget configuration window. Double clicking any fields in the selected record will zoom to the feature on the map. Press the Shift or Ctrl key to select multiple records.
	Refresh refreshes the tables.

	<p>The Options dropdown presents several choices:</p> <ul style="list-style-type: none"> • Show Selected Records will only display the selected records. • Show Related Records will display related records if a selected record has related table. • Filter allows users to create a query expression to filter records in the table. • Show or Hide Columns, can also be accessed by clicking the + icon on the right side of the table, will turn the visibility of fields on/off. • Export to CSV allows users to export the attributes to a CSV file. If records are selected, only the selected records are exported where as if none are selected, all will be exported. <p><i>Note:</i> Maximum exported features will be the same as allowed on the service; this could be a maximum of 1,000 features by default. Also the export data property must be enabled on the service to work.</p>
	<p>Show or hide columns—Clicking the + icon on the right side of the Attribute Table panel opens the field visibility window. Check or uncheck the fields to set them to visible or invisible in the table.</p>

Other options available in the table include:

- The ability to sort the records by clicking on the header in the table
- Number selected and total feature count in the table's bottom left corner

Tools and Widgets

Overview

The tools and widgets are found in two places, in the button bar between the map and left pane and at the top right corner of the map. All of the tools and widgets can be turned on or off in any combination or completely through the hosted ArcGIS Online configuration or by adjusting the parameters in the app.js file for the standalone hosted version.

In-Map Tools

There are three out of pane tools:

- Draw
- Measurement
- Print



Draw Tool

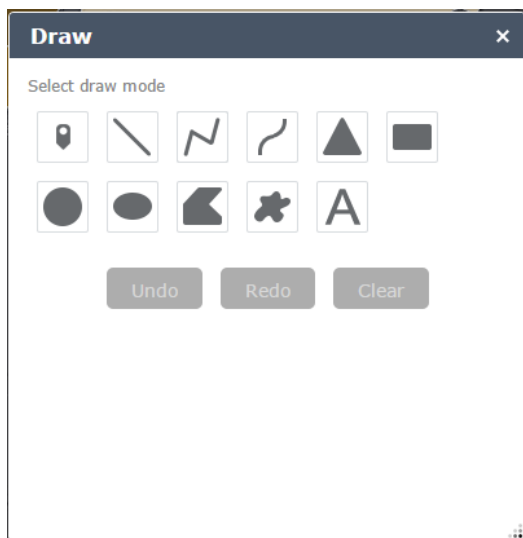


Figure 13: Draw Tool

The Draw Tool allows users to add points, lines and polygons to the map. The types of shapes that can be added are:

- Point
- Line
- Freehand Line
- Triangle
- Rectangle
- Circle
- Ellipse
- Polygon
- Freehand Polygon
- Annotation

Once one of these has been selected, more choices will be available such as fill color, style of marker, size, etc. Click on the map to begin drawing.

***Note: The graphics created from this tool do not persist once the map is refreshed from the browser**

Measure Tool

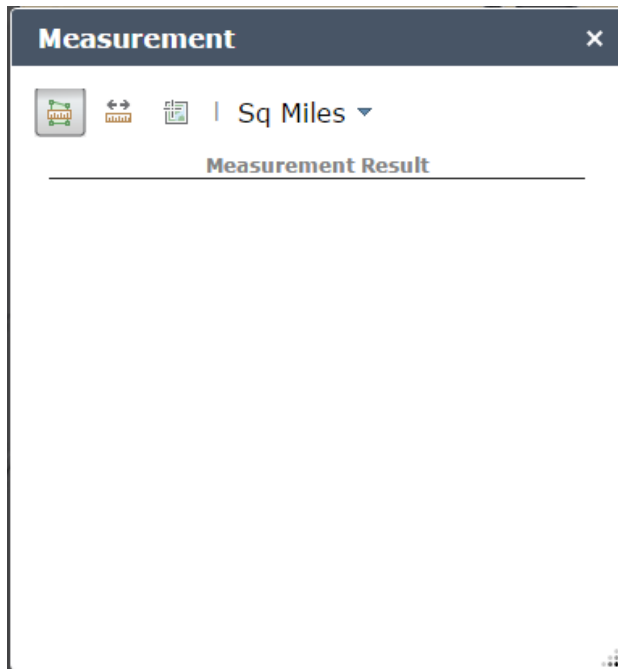
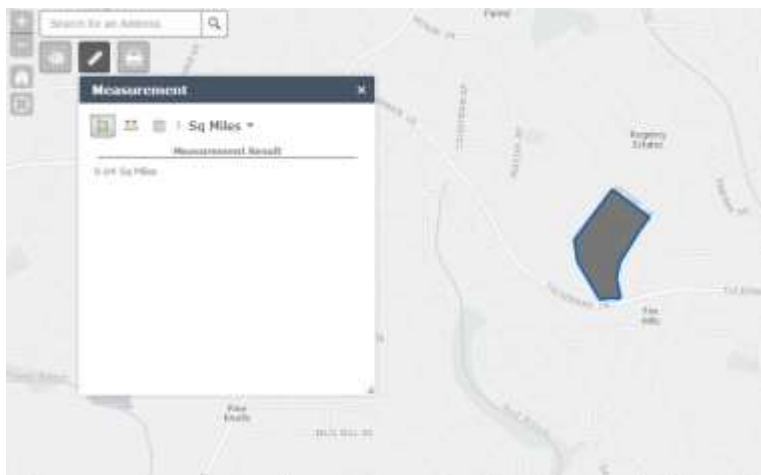


Figure 14: Measurement Tool

The Measurement Tool offers the ability to acquire location, distance and area measurements in several different units. The units of measure available are:

- Location
 - Decimal Degrees
 - Degrees Minutes Seconds
- Distance
 - Miles
 - Kilometers
 - Feet
 - Meters
 - Yards
 - Nautical Miles
- Area
 - Acres
 - Square Miles
 - Square Kilometers
 - Hectares
 - Square Feet
 - Square Yards
 - Square Meters



Print Tool

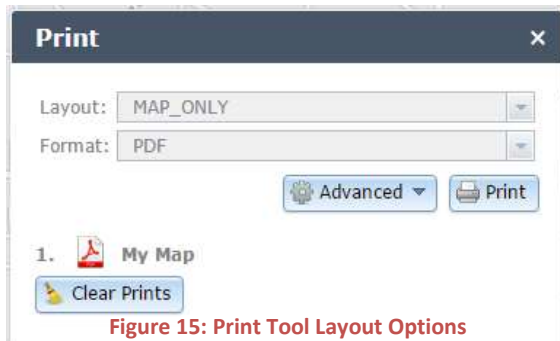


Figure 15: Print Tool Layout Options

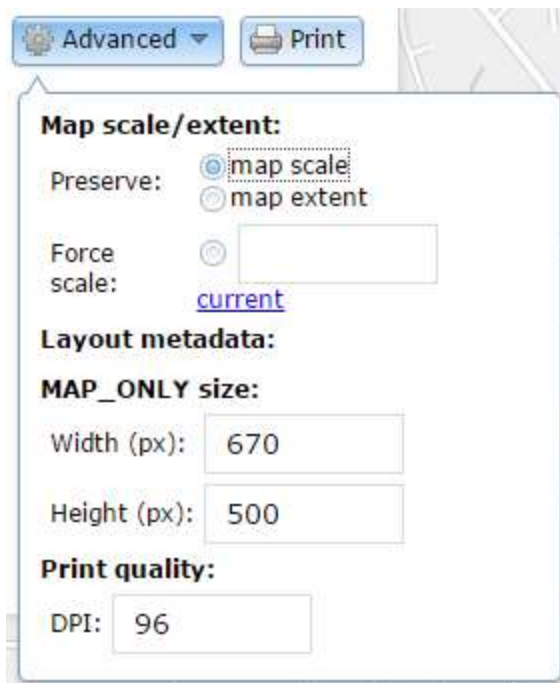


Figure 16: Print Tool Layout Options

The Print Tool provides a user with the ability to export the map to several different file formats and print layouts. The file formats and layout options include:

- Format
 - EPS
 - GIF
 - JPG
 - PDF
 - PNG32
 - PNG8
 - SVG
 - SVGZ
- Layout
 - Map Only
 - A3 Landscape
 - A3 Portrait
 - A4 Landscape
 - A4 Portrait
 - Letter ANSI A Portrait
 - Letter ANSI A Landscape
 - Tabloid ANSI B Portrait
 - Tabloid ANSI B Landscape

Additional layout and map element customization options are available that include Map Extent, Scale Bar Units, Legend and Print Quality.

Additional Resources

General Information

Find more information and documentation about the MD iMAP Web App Template at:

<http://imap.maryland.gov/Pages/template-wab.aspx>

Or:

Contact the Maryland Geographic Information Office at: gio.doit@maryland.gov

Development Resources

You can find the source code for all versions of the MD iMAP Template at:

<http://www.github.com/mdgio>

More information about Esri's JavaScript API is available from: <http://js.arcgis.com>

More information about the Dojo Framework is available from: <http://www.dojotoolkit.org>