



GMaps Plugin Trial v1.1
User Guide



GMaps Plugin Introduction

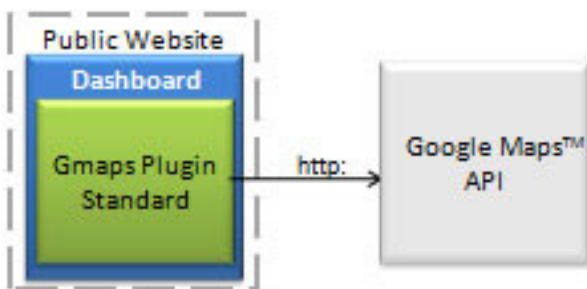
Centigon Solutions GMaps Plugin component for Xcelsius® 2008 couples robust mapping with interactive data visualization. Drag and drop Google Maps™ into your dashboard and then configure rich analytic and alerting capabilities with point and click ease. Surpassing traditional mapping solutions, GMaps Plugin transforms a Google Map control into interactive geo-analysis visualization for business intelligence dashboards.

GMaps Plugin Enterprise for Xcelsius® 2008 is a highly configurable add-on for visualizing and navigating geographic data within a Google Maps™ interface. Using a familiar “series” paradigm GMaps Plugin allows multiple icon series to simultaneously appear within a Google Map, while retaining unique locations, labels, values, colors, and marker icon styles. GMaps plugin is integrated with Xcelsius APIs, enabling dashboard developers to build robust regional analysis using a point and click properties sheet shown below. Connecting directly to the Google Maps Premier API, GMaps Plugin will scale within your enterprise environment with ease.

GMaps Plugin Trial

Maps Plugin Trial provides connectivity to the free Google Maps API, allowing Xcelsius developers to test dashboards with GMaps Plugin. To use GMaps Trial, you are required to acquire a Google Maps API key. This key is then entered into the GMaps Plugin properties sheet.

The trial usage is unlimited inside of Xcelsius, but once you publish a SWF, the map functionality expires 7 days after the published date.



Install Requirements

Client Requirements

Xcelsius 2008 Service Pack 1 or greater
Flash Player 9
Google Maps API Key

Install Disk Space

2 MB

More Information

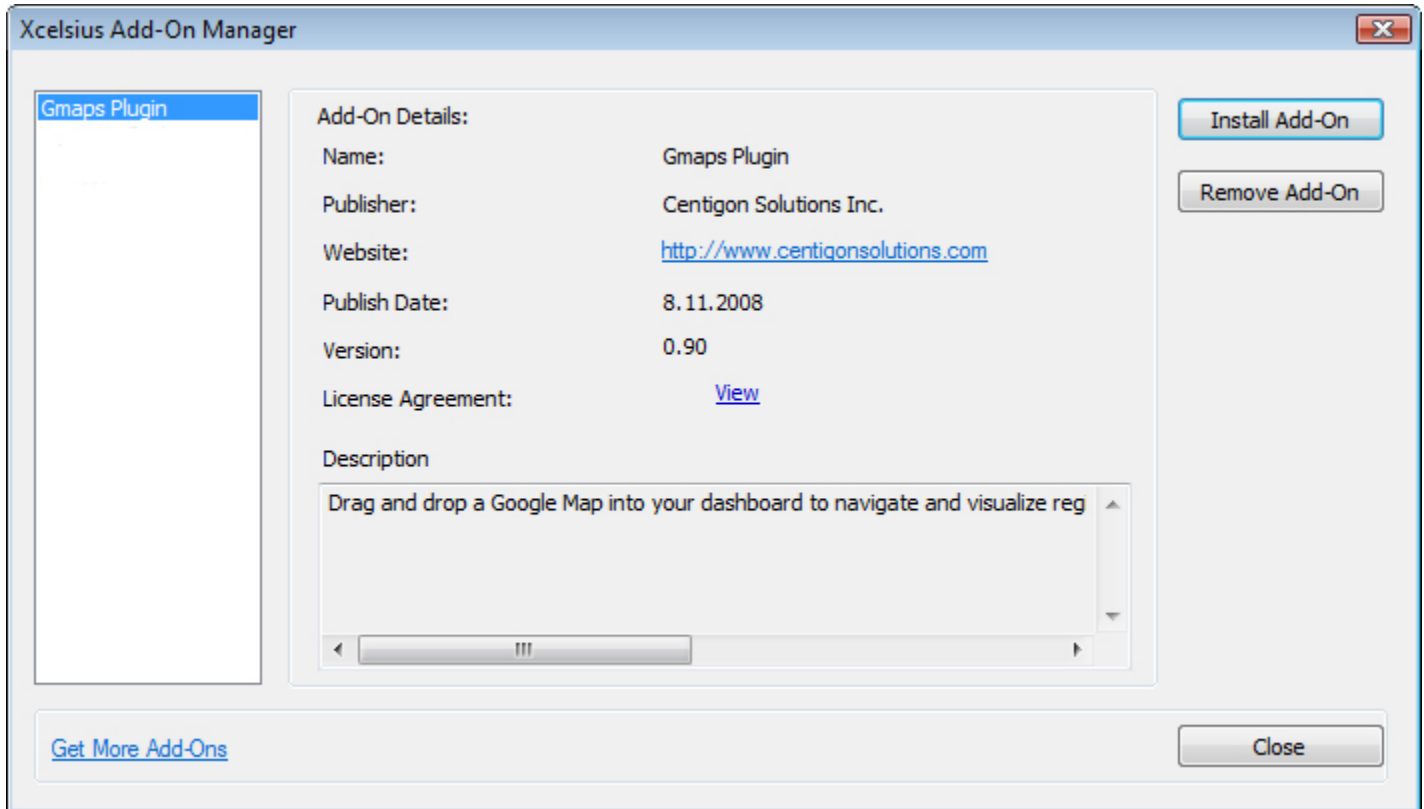
If you have any questions about this document please contact Centigon Solutions support at:
support@centigonsolutions.com

For more information on Google Maps Premier API go to:
http://centigonsolutions.com/components/gmaps_howitworks.html

Xcelsius® is a registered trademark of Business Objects, an SAP Company.

Google Maps™ is a trademark of Google Inc.

Installation



1. Open Xcelsius 2008
*Make sure you have the latest service pack and hotfix installed.
2. Click File>Manage Add-Ons
3. Click on Install Add-On.
4. Navigate and to the downloaded Gmaps Plugin Trial.xlsx file.
5. Close the Add-On Manager
6. Re-open Xcelsius 2008 to access Gmaps Plugin, located at the bottom of the Maps folder.

Properties Sheet Overview

General Tab

Google Maps API Key- Enter a Google API key to display the Google Map. The API key designates the domain where the SWF will ultimately reside. Once you bind an API key, it can not be dynamically changed in the spreadsheet.

Google Maps Premier ID- When you decide to move from a trial to Enterprise version of GMaps Plugin, you will need to acquire a Google Maps Premier ID.

Each series has independent properties that allow fine control over how your geographical data is displayed:

Series Visibility – Establish and bind to dynamic key/status value pairs that independently control each series’ visibility on the map.

Icon Colors – Assign a color value in Excel for each icon to be displayed, or alternatively define an independent color value for each individual series through the Appearance tab. By enabling the use of dynamic user-defined colors, users can quickly turn the map into a custom KPI analytic that reacts in real time to data value changes.

Icon Shapes – Choose from a variety of popular, familiar mapping icons. Each series is capable of having a unique icon associated with it to quickly and easily differentiate location types or meanings with the use of shapes. On a single map, you may combine pins, stars, tees, diamonds, squares, triangles and several other marker types at once to create unique series and suit your needs.

Icon Sizes – Control each individual series’ icon size in the Appearance tab. The icon size that is defined for each series can be used explicitly by the map series or the Values (see Values below) property on the General tab can dictate the relative scale for each series if Dynamic Sizing (see Dynamic Icon Sizing below) is enabled.

(property descriptions continued on page 5)

The screenshot displays the 'General' tab of the GMaps Plugin Properties Sheet. It features a 'Series' list on the left with 'Series 1' highlighted. To the right, there are several configuration fields: 'Series Name' (text input), 'Region/Address' (text input), 'Labels' (text input), 'Values' (text input), and 'Icon Colors (Option)' (text input). Each of these fields has a small map icon button to its right. Below these fields are 'Data Insertion:' and 'Insertion Type' (a dropdown menu currently set to 'Position'). Further down are 'Destination' and 'Series Name Destination' text input fields, each with a map icon button. At the bottom, the 'API Key' field contains the formula '<code>'Sheet1'!\$A\$1</code>' and also has a map icon button.

Properties Sheet Overview

General Tab (continued)

Series Name- Distinguish a unique series on the map using the Series Name. This property can be manually entered or bound to a single cell per series. The series name is utilized as a key for the Series Name Destination.

Region/Address- Associate multiple geographical points for a single series within the Google Map interface. The information can be entered as a [Latitude, Longitude] value or as a standard city, state address value. While both options use the Google Geocode, Latitude and Longitude usually generate faster response times.

“Address, city, state” or “Address, city, ZIP”

Labels- Define textual label values with each marker in a particular series. Label information is displayed in a pop-up window whenever an end user clicks on a marker in the map.

Values- Identify a numerical value with each marker in a particular series. Value information dictates relative marker icon sizing (if Dynamic Icon Sizing is enabled) and is displayed below the label whenever an end user clicks on or mouses over a marker in the map.

Icon Colors (optional)- As an alternative to a standard color code property per series, assign a hexadecimal color value with each marker in a particular series to create alert indicators. As an alternative to a standard color per series, icon colors dictate icon coloring only when the Dynamic Icon Color property is enabled on the behavior tab.

0xFFFFFFFF = White

0xff0000 = Red

0xffff00= Yellow

0x00ff00F = Green

Data Insertion- Bind the Position insertion type, commonly found in Xcelsius selector components, to a single cell . As a data point is selected on a map by an end user, its position is inserted into a single cell.

Series Name Destination- Bind the series name to a single cell. As a data point is selected on a map, the Series Name Destination Property inserts the selected Series Name value into a single cell.

The screenshot shows the 'General' tab of the GMaps Plugin Properties Sheet. The 'Series' list on the left contains 'Series 1'. The right side of the tab has several input fields, each with a map icon button: 'Series Name' (containing 'Series 1'), 'Region/Address', 'Labels', 'Values', and 'Icon Colors (Option)'. Below these are 'Data Insertion' and 'Insertion Type' (set to 'Position'). Further down are 'Destination', 'Series Name Destination', and 'API Key' fields, each with a map icon button. The 'API Key' field contains the text '<code>'Sheet1'!\$A\$1</code>'.

Properties Sheet Overview

Behavior Tab

Use Geocodes- Toggles on and off the Google Geocode service, capable of converting addresses to coordinates for GMaps Plugin to plut. When using only Longitude, Latitude regions only, disable this property for 10-20X performance gains. The increased performance is a reduced dependence on the geocode service

Dynamic Zoom- Automatically pan and zoom as to fit all series markers into the map viewing space. If this option is set, the Pan to Location and Zoom properties are ignored.

Dynamic Icon Sizing- Control the icon sizing relative to the associated value (see Value above). The resulting analytical capabilities can be scaled using the series size in the appearance (see Series Size below) Appearance tab. Each icon's size is calculated based on all Values for all series.

Dynamic Icon Colors- Toggle dynamic icon color capabilities using the Icon Colors (see icon colors above) property on the General tab. When the Dynamic Icon Colors property is toggled off (default), each series uses the series color property on the Appearance tab (see Series Color below).

Zoom (1-15)- Bind a single cell or manually enter a numerical value from 1-15 to dynamically control the map's zoom level. If the Dynamic Zoom property (see Dynamic Zoom above) is selected, this property will be ignored.

Pan to Location- Bind a single cell that contains an address or [Latitude, Longitude] value to control the map's default pan location. As the Pan to Location value changes, the map will automatically center itself. If the Dynamic Zoom (see Dynamic Zoom above) option is selected, this property will be ignored.

Series Visibility- Establish dynamic key/status value pairs to independently control each series' visibility on the map. If the key and status match each other, the series is visible, and if they do not match, the series is hidden.

Status- Bind the status to a single cell that serves as a listener for a Key (see Key below) value.

Key- Bind the key value that the Status cell listens for. The Status cell must match the Key cell if the series is to be visible.

Dynamic Visibility- Dynamic Visibility will enable Background Builder to show or hide with the dashboard.

Status- Status lets you select a cell in the embedded spreadsheet to control the visibility of the component. If

The screenshot shows the Behavior tab of the GMaps Plugin Properties Sheet. The tabs are General, Behavior (selected), Appearance, and Information. The Behavior tab contains the following controls:

- Use Geocoder
- Dynamic Zoom
- Dynamic Icon Sizing
- Dynamic Icon Colors
- Zoom (1-15): Input field with value 3 and a map icon.
- Pan to Location: Input field with value 27.43744,14.161377 and a map icon.
- Series Visibility: Input field.
- Series: Dropdown menu with "Series 1" selected.
- Status: Input field and a map icon.
- Key: Input field and a map icon.
- Dynamic Visibility: Input field.
- Status: Input field and a map icon.
- Key: Input field and a map icon.
- Geocoding Interval (milliseconds): Spin button with value 1000.

Properties Sheet Overview







Behavior Tab (continued)

Dynamic Visibility- Dynamic Visibility will enable Background Builder to show or hide with the dashboard.

Status- Status lets you select a cell in the embedded spreadsheet to control the visibility of the component. If the value in the Status cell equals the value of the Key, the component will be displayed.

Key- Key lets you specify the value that the Status must match for the component to become visible. Enter the value in the box or use the cell selector to bind the value to a cell in the embedded spreadsheet.

Geocoding Interval- Set the refresh rate for GMaps Plugin when the Geocoder property is enabled. This property provides maximum performance tuning capabilities. The interval is measured in milliseconds. The smaller the value in milliseconds, the faster refresh rate for geocode conversions. An appropriate speed for the interval is 200-300ms.

General	Behavior	Appearance	Information
<input type="checkbox"/> Use Geocoder			
<input checked="" type="checkbox"/> Dynamic Zoom			
<input type="checkbox"/> Dynamic Icon Sizing			
<input type="checkbox"/> Dynamic Icon Colors			
Zoom (1-15)			
<input type="text" value="3"/>			
Pan to Location			
<input type="text" value="27.43744,14.161377"/>			
Series Visibility: _____			
Series			
<input type="text" value="Series 1"/>			
Status			
<input type="text"/>			
Key			
<input type="text"/>			
Dynamic Visibility: _____			
Status			
<input type="text"/>			
Key			
<input type="text"/>			
Geocoding Interval (milliseconds)			
<input type="text" value="1000"/>			

Properties Sheet Overview

Appearance Tab

Labels- Control the appearance of the label values, as they are displayed in a popup window, when each series marker is selected. Labels can be formatted using a comprehensive list of system fonts, standard colors, alignment options and bold, italic and underline font decorations.

Show Values- Toggle the display of values within the map popup window.

Show Series Names- Toggle the display of series within the map popup window.

Show Tooltips- Toggle the display of tooltips while rolling over data points within the map.

Series Selector- Select any series that has been generated on the General tab, using a drop down. Once a particular series has been selected, icon type, color and size can be associated with the series.

Series Style- Choose between several popular marker icon styles for each individual series.

Series Size- Set the icon size for each individual series. If Dynamic Icon Sizing is selected, Series Size will dictate the relative marker scale that all associated marker values are calculated against for a particular series. If Dynamic Icon Sizing is not selected, the Series Size property will dictate the exact size of each marker icon in a particular series.

Series Color- Define a color for an entire series using a standard color chooser. If Dynamic Icon Colors is not selected, the Series Color property will dictate the marker color for all markers in a particular series. If Dynamic Icon Colors is selected, the Series Color property will be ignored and the markers will be colored based on the Icon Colors property values specified in the General tab.

Default Map Style- Select the default map style that end users will see when the map is initialized.

(property descriptions continued on page 8)

The screenshot shows the 'Appearance' tab of a GMaps plugin configuration window. The window has four tabs: 'General', 'Behavior', 'Appearance' (selected), and 'Information'. The 'Appearance' tab is divided into three sections: 'Labels', 'Icon', and 'Map Options'.
- **Labels:** A font dropdown set to 'Verdana', a size dropdown set to '12', and three icons for bold, italic, and underline. Below these are three checkboxes: 'Show Values' (checked), 'Show Series Names' (checked), and 'Show Tooltips' (unchecked).
- **Icon:** A 'Series' dropdown set to 'Series 1', a 'Style' dropdown set to 'Pin', and a 'Size' input field set to '20' with a small icon preview.
- **Map Options:** A 'Map' dropdown and six checkboxes: 'Show Legend' (checked), 'Show Map Zoom Control' (checked), 'Show Position Control' (checked), 'Show Small Map' (checked), 'Show Map Style Selector' (checked), and 'Show Debug Icon' (unchecked).

Properties Sheet Overview

Appearance Tab (Continued)

Map Options- Show or hide various map controls within the GMaps Plugin user interface.

Show Legend- The legend will display all series created within the map along with the icon type and color. If dynamic icon colors are enabled, the legend icon color will reflect the first marker's color within the range.

Show Map Zoom Control- Toggle the standard Google Map Zoom Control, allowing users to zoom in and out on a given location.

Show Position Control- Toggle the Google Map Pan/ Position Control, allowing end users to pan left, right, up or down and alternatively re-center the map during runtime.

Show Small Map- Toggle the Small Google Map Control, allowing end users to pan across large geographical areas at runtime. The series icons are not visible in the small map.

Show Map Style Selector- Toggle the Google Map Style Control, allowing users to toggle between map styles (satellite, hybrid, terrain and regular) at runtime.

Show Help Icon- The help icon is intended for debugging purposes only. If one of your data points does not show up during SWF runtime, you can enable help to trace if the geocode service is failing to recognize your address. By default, this property should remain off.

The screenshot shows the 'Appearance' tab of a properties sheet. It is divided into four sections: 'Labels', 'Icon', 'Map Options', and 'Map'. The 'Labels' section includes a font dropdown set to 'Verdana', a size dropdown set to '12', and icons for bold, italic, underline, and list. There are three checkboxes: 'Show Values' (checked), 'Show Series Names' (checked), and 'Show Tooltips' (unchecked). The 'Icon' section has a 'Series' dropdown set to 'Series 1', a 'Style' dropdown set to 'Pin', and a 'Size' dropdown set to '20' with a small icon next to it. The 'Map Options' section has a 'Map' dropdown set to 'Map' and seven checkboxes, all of which are checked: 'Show Legend', 'Show Map Zoom Control', 'Show Position Control', 'Show Small Map', 'Show Map Style Selector', and 'Show Help Icon'.

Properties Sheet Overview

Information Tab

*All elements on the Information tab require an internet connection.


Help- Online documentation and support contact information.

Tutorials- Online tutorials, articles, and white papers for all available components,.

Available Components- A real time list of all available components from Centigon Solutions. Selecting any component from the list box will launch a browser that navigates to component specific information.

Send this Component to a Friend- Share information about this component with other colleagues who use Xcelsius. Enter you friend's e-mail address, and Centigon Solutions will send collateral information and trial download instructions to the recipient.

Information



Links

Help

Tutorials

Templates

Available Components

Background Builder

Dynamic Sort

Send this component to a friend

Email

Using the Gmaps Plugin

CONFIGURING MAP DATA POINTS

01. Obtain your Google Maps API Key

Your IT administrator should provide you with this information so you can configure GMaps Plugin to communicate with Google APIs using your enterprise account.

● GMaps Plugin Trial

As you evaluate the GMaps Plugin trial version, you can utilize a Google Maps API key from:

<http://code.google.com/apis/maps/signup.html>

This key will grant you with access to the free Google Maps API for testing purposes or for dashboards that are intended for internet usage. For more information of the differentiation, contact sales@centigonsolutions.com

02. Drag and drop GMaps Plugin onto the canvas.

By default, GMaps Plugin will not display the Google Maps user interface until you enter a valid Premier ID.

03. Bind a Google Maps Premier ID.

Bind the Google Maps Premier API ID to display the Google Map interface within GMaps Plugin.

04. Define the Series Name

Similar to a chart within Xcelsius, you can control multiple series within the map interface and control the icon series size, color, style, and visibility.

● Example Region/Address Values

Longitude, Latitude: 38.479395,-
89.472656

City, State: Los Angeles, CA

Zip code: 92101

05. Bind the Region/Addresses Data

Bind geographic data to a single column. Geographic data can be formatted as the following

● Country: United States

06. Bind Labels data to text values or formatted HTML.

To introduce HTML text into a cell, concatenate `<html>` `</html>` tags in between the labels.

● Example HTML:

```
<html>
<font size='11' face='Verdana'>
<b>Title</b> <br>Value 1<br>Value 2
</font>
</html>
```


07. Bind Values

Values should be numeric, specifically if Dynamic Icon Sizing behavior is enabled.

08. Bind the optional icon colors.

Using Hexadecimal code, bind colors for each value plotted within the map. The Icons Color definition requires a specific format: "0X"+hexadecimal color code.

● Example color codes

 Red= 0XDD0000

 Yellow 0XE44444

 Green 0X00BB55

09. Bind the Position Destination

Bind the Position destination cell. As a user clicks on a data point, the position within the series range is inserted into the destination. The position values are relative to the Series selected and start with the value 1.

Sample alert logic if A1 is the value.

```
=IF ( A1>20 . 01 , " 0X00BB55" , IF ( AND (
A1<20 , A1>15 ) , " 0XE44444" , " 0X00BB55" ) )
```

10 Bind the Series Destination

Maps with multiple series will can leverage the series destination. As a user selects a data point, the appropriate series name is inserted into the destination.

(instructions continued on page 11)

Using the GMaps Plugin (Continued)

CONFIGURE MAP BEHAVIOR

01. Check Use Geocoder

The “Use Geocoder” property should be enabled, whenever you use addresses, city, state, etc to define regions. If you use Long,Lat data points to define regions, turning the Geocoder off will provide significant performance enhancements.

02. Un-Check Dynamic Zoom

The GMaps Plugin will now rely on the Zoom and Pan to Location properties to focus on the correct region.

03. Enable Dynamic Icon Size

The GMaps Plugin will now utilize the Values identified on the General tab to control the icon size, relative all values for all series.

● **Note:** If Dynamic Icon sizing behavior is enabled, the icon size will serve as a multiplier to increase the size for all icons. If the Dynamic Icon Color behavior is enabled, the color selector will be overwritten by the bound colors on the General Tab.

04. Set the Zoom Level

The zoom level should range from 1-15. As the zoom level increases past 12, there is the possibility that based on a map style that the imagery is not currently available.

05. Set the Pan to Location

A map to location will also use the Geocode service to convert any regional information and then center the map to that location.

● *Example Pan to Location Values*
Longitude, Latitude: 38.479395,-
89.472656
City, State: Los Angeles, CA
Zip code: 92101
Country: United States

05. Set Series Visibility

Set the Series status and Key values to dynamically show and hide independent series.

06. Set Dynamic Visibility

Set the Series Status and Key values to dynamically show and hide the GMaps Plugin map.

● **Note:** Do not group Gmaps Plugin with other components and then set Dynamic Visibility. The GMaps Plugin does not utilize standard Dynamically Visibility elements provided with standard Xcelsius components

07. Set Geocode Interval to 200

The Geocode Interval property is measured in milliseconds, granting extra control for how fast GMaps Plugin sends requests to the Google Maps geo-code service.

Using the Gmaps Plugin (Continued)

CONFIGURE MAP APPEARANCE

01. Control the Label Formatting

Changing the font face, size, color, and alignment will affect all labels for all series that you define. If you use <HTML> tags within the labels, the values and series names will still utilize the label formatting.

03. Control Icon Appearance

Set the icon appearance for each individual series defined within the map.

● **Note:** If the Dynamic Icon color behavior is enabled. Selecting icon colors manually will not work.

04. Set Map Options

Check the map options to show or hide elements within the Gmaps Interface.