Lightweight Map Integration in WebFOCUS

Basic Geographic Information System (GIS) capabilities are now built into WebFOCUS 8. Data that is bound to a geo-location, such as State, Country, and ZIP Code, can now be viewed as symbol layers integrated into a powerful map viewer. A variety of popular formats, such as bubble markers and heat-filled polygons (also known as Choropleths), are supported. This capability allows business users to make informed decisions. They can also visualize patterns, trends, and relationships related to the location information in their data. The following image illustrates one of the types of maps that can be generated.

![Map Image](image_url)

The WebFOCUS mapping architecture features an HTML5 map viewer with zoom, pan, and scale controls. It also includes a mapping server with nine levels of zoom.

Like all HTML5 visualizations, the highlighted markers and regions on the maps support drill, multi-drill, and informational tooltips. Advanced users can configure the map server to add their own locations and map definitions using Geo-JS and JavaScript.
Integration in InfoAssist

This section reviews the integration of lightweight maps in InfoAssist.

**Note:** This functionality is also available in the Chart tool in Developer Studio.

Lightweight maps are fully integrated in InfoAssist. You can review the following topics for more information:

- **Map Selection** on page 2.
- **Data Buckets** on page 5.
- **Geocoding** on page 5.

**Map Selection**

Map selection occurs when you click the *Map* button from the Chart Types group on the Format tab.

**Note:** In order to access Map functionality, HTML5 format must be selected in the Output Types group.

The Map button is only enabled in Chart mode, as shown in the following image.
When you click the Map button, the Select a map dialog box displays, as shown in the following image.

There are three sections in this dialog box: Type, Location, and Color.

- **Type.** Allows you to select between two types of maps, Choropleth and Proportional Symbol (Bubble).
  
  **Note:** The default map type is Choropleth.

- **Choropleth.** A geographically-based heatmap. It is useful for visualizing location-based data, trends, and distributions across a geographic area.

- **Proportional Symbol (Bubble).** A technique that uses symbols of different sizes to represent data associated with different areas or locations within the map.
Integration in InfoAssist

- **Location.** This section allows you to pick geographic locations for which maps are available. You can select one of the following options from the drop-down menu: World, Europe, and United States of America.

- **Color.** This section allows you to pick a color scale for a Choropleth chart. There are seven color scale options, as shown in the following image.

![Select a map](image-url)
Data Buckets

The Choropleth and Bubble Map data buckets are required for the Map functionality. The following list provides the parameters for each bucket.

- **Choropleth**
  - Measure. This value is required and one measure is allowed.
  - Location. This value is required and one geo-dimensional is allowed.
  - Multi-Graph. This value is optional and one dimension is allowed.

- **Bubble Map**
  - Size. This value is required and one measure is allowed.
  - Location. This value is required and one geo-dimensional is allowed.
  - Multi-Graph. This value is optional and one dimension is allowed.

Geocoding

Geocoding is a process through which fields are assigned to a specific geographic dimension (for example, ZIP Code, State, or Country) so that it can be matched correctly to the geographic coordinates. The geocoding process will occur once you add a geographic field to the Location data bucket.

Known Issues

This section summarizes the known issues related to this functionality. These include:

- The values that display in the Geographic Role drop-down list are technical names. These values will be modified in a subsequent release.

- The Maps feature is not available in Internet Explorer® 8.

- The color scale option is only available for Choropleth maps. For Proportional Symbol maps, the color scale option is disabled.

- In Release 8.0 Version 05, maps are supported in stand-alone Chart mode only. When promoting a map from Chart mode to Document or Dashboard mode, InfoAssist will change the chart type to a vertical bar chart. The same process will occur when you insert an existing map procedure into a document.
Integration in InfoAssist