

# WebFOCUS

WebFOCUS New Features  
Release 8.2 Version 04

June 10, 2020

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# What's New In WebFOCUS Release 8.2 Version 04

WebFOCUS includes key features and enhancements across the product line.

Through continued innovation and the expansion of our unyielding commitments to support our customers, Information Builders will work in partnership to help ensure your success with WebFOCUS and beyond.

**In this chapter:**

- ❑ [WebFOCUS 8.2.04 Key Features Summary](#)

## WebFOCUS 8.2.04 Key Features Summary

Use the table below for descriptions of the key features for WebFOCUS Release 8.2 Version 04.

Feature	Topic
WebFOCUS Infographics	<a href="#">Creating WebFOCUS Infographics</a> on page 90.
Vector Basemaps In App Studio	<a href="#">Using an Esri Vector Basemap as a Base Layer</a> on page 31.
	<a href="#">Configuring a Custom Vector Basemap</a> on page 38.
Second-Level Mapping in App Studio	<a href="#">Using Second-Level Licensed Geographies for Esri Maps</a> on page 7.
WebFOCUS Designer Enhancements	<a href="#">Repository Widgets</a> on page 96.
	<a href="#">Hiding Content From Devices</a> on page 97.
	<a href="#">Using Info Mode</a> on page 97.
	<a href="#">ID and Classes Properties</a> on page 98.
	<a href="#">Configuring Section Row Height</a> on page 98.





# Chapter 2

## Desktop Development Enhancements

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App Studio is a Windows-based GUI development environment for creating WebFOCUS applications. App Studio provides innovative features and functions that simplify development, thereby allowing you to concentrate on interface design, business logic, and data manipulation. Features include data visualization, color exception reporting, intelligent drilldowns, and the ability to generate HTML pages without writing code.

Learn about the new capabilities and enhancements available for App Studio and desktop development in this release of WebFOCUS.

### **In this chapter:**

- [Using Second-Level Licensed Geographies for Esri Maps](#)
  - [Using an Esri Vector Basemap as a Base Layer](#)
  - [Configuring a Custom Vector Basemap](#)
  - [Accessing Aggregation Functions From the Report Canvas](#)
  - [Adding a Title to Pop-Up Controls](#)
  - [Using the Text Editor Status Bar to View Contextual Information](#)
  - [Using Browser-based Single Sign-on Authentication Protocols](#)
  - [Styling Point Clusters on Esri Maps](#)
- 

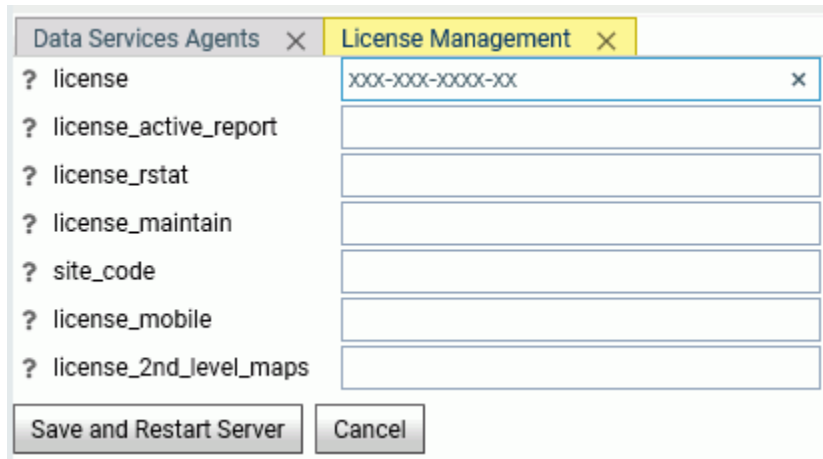
### **Using Second-Level Licensed Geographies for Esri Maps**

When you install App Studio, you have access to geographic boundaries for 58 World Administrative regions out of the box. With a second-level map license, you have access to additional detailed postal codes.

#### ***Procedure:* How to Access Second-Level Licensed Geographies for Esri Maps**

1. Click *Workspace* on the Reporting Server Web Console sidebar.
2. Click *License* on the ribbon.

The License Management pane opens, as shown in the following image.



3. Enter your Esri second-level license code in the *license\_2nd\_level\_maps* field.
4. Click *Save and Restart Server*.

Once the second-level license is enabled, you can use the standard administrative and postal geographic roles to access these additional geographic boundaries.

**Note:** The server must be configured for Unicode if Unicode characters exist in the data.



**Reference: Second-Level Licensed Geographies**

The Reporting Server Web Console provides a list of first and second-level map administrative regions. You can open the list by clicking *Geo Services* on the Workspace page ribbon and selecting *General maps info*. This opens the list of administrative regions and postal levels, as shown in the following image.

Country name	Maps license	Georeole COUNTRY source	Georeole STATE source	Georeole COUNTY source	Georeole CITY source	Georeole POSTAL-CODE source	Country ISO CC2
Afghanistan	Free	ESRI world map	ESRI world map	None	ESRI world map	None	AF
Albania	Free	ESRI world map	MB admin layer 1	MB admin layer 3	MB admin layer 5	MB postal layer 3	AL
Algeria	Free	ESRI world map	ESRI world map	None	ESRI world map	None	DZ
American Samoa	Free	ESRI world map	ESRI world map	None	ESRI world map	None	AS
Andorra	Free	ESRI world map	MB admin layer 1	MB admin layer 3	MB admin layer 5	MB postal layer 3	AD
Angola	Free	ESRI world map	ESRI world map	None	ESRI world map	None	AO
Antigua and Barbuda	Free	ESRI world map	ESRI world map	None	ESRI world map	None	AG
Argentina	Free	ESRI world map	MB admin layer 1	MB admin layer 3	MB admin layer 5	MB postal layer 3	AR
Armenia	Free	ESRI world map	ESRI world map	None	ESRI world map	None	AM
Australia	Free	ESRI world map	MB admin layer 1	MB admin layer 3	MB admin layer 5	MB postal layer 3	AU
Austria	Free	ESRI world map	MB admin layer 1	MB admin layer 3	MB admin layer 5	MB postal layer 3	AT
Azerbaijan	Free	ESRI world map	ESRI world map	None	ESRI world map	None	AZ
Bahamas	Free	ESRI world map	ESRI world map	None	ESRI world map	None	BS
Bahrain	Free	ESRI world map	ESRI world map	None	ESRI world map	None	BH
Bangladesh	Free	ESRI world map	MB admin layer 1	MB admin layer 3	MB admin layer 5	MB postal layer 3	BD

The regions that say *Paid* in the Maps license column are the additional regions you can access with a second-level license.

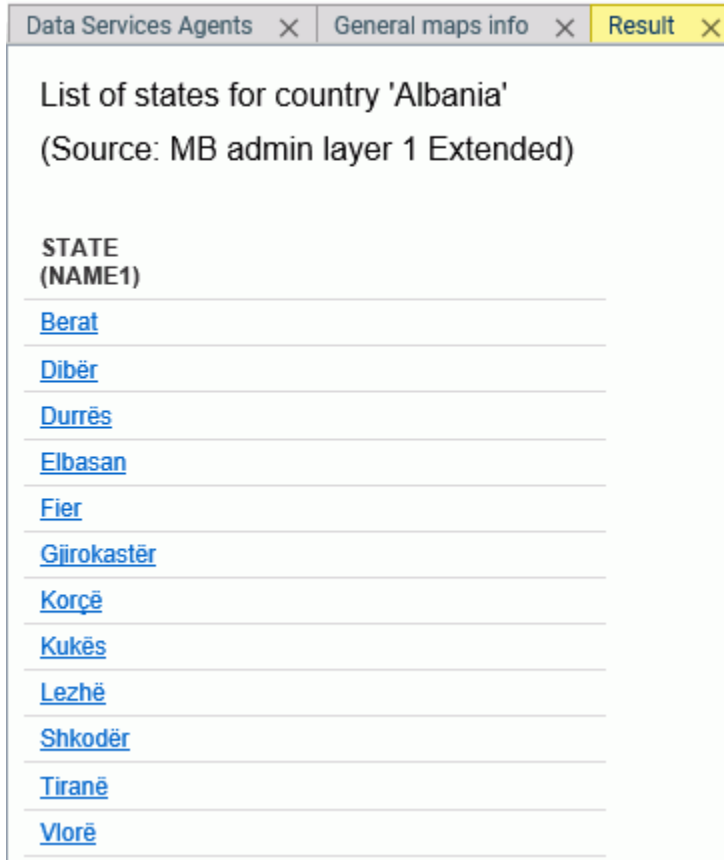
- The source for the country administrative level is provided by the Esri World map. Country is administrative level 0.
- The source for the State georeole can be provided by the Esri World map or by shape files. When there is a second-level license, the state administrative level can be level 1 or level 2.
- The source for the County georeole can be provided by the Esri World map or by shape files. When there is a second-level license, the county administrative level can be level 3 or level 4.
- The source for the City georeole can be provided by the Esri World map or by shape files. When there is a second-level license, the city administrative level is level 5.

- ❑ The source for the Postal Code georole can be provided by the Esri World map or by shape files. When there is a second-level license, the postal code administrative level can be 3, 4, or 5.

Some georoles may not be applicable to specific countries. You can see the details of each country and its administrative levels by right-clicking the country name and clicking *Drill to administrative levels* or *Drill to postal levels*, as shown in the following image.

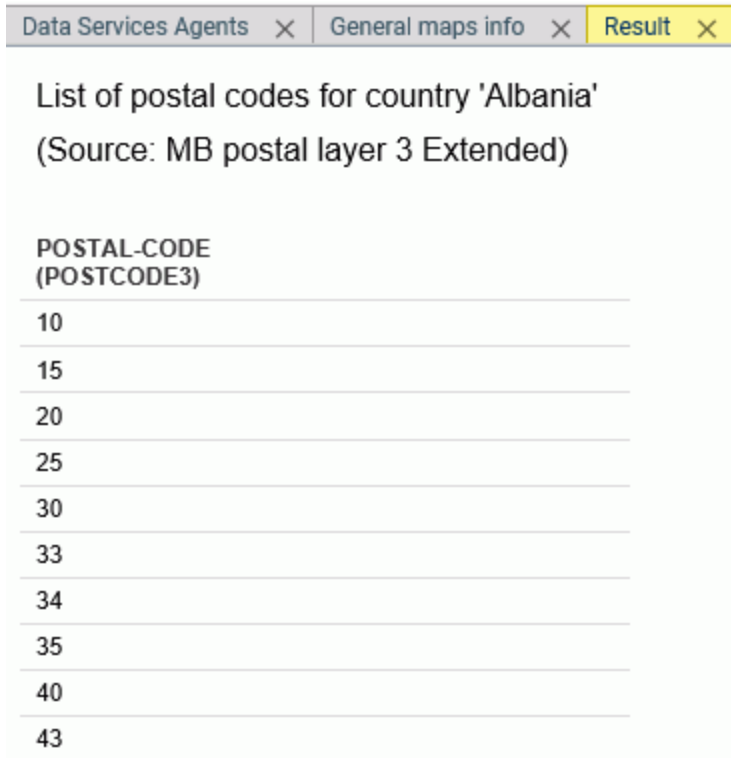
Country name	Maps license
<u>Afghanistan</u>	Free
<u>Afghanistan</u>	Paid
<u>Albania</u>	Free
<u>Alba</u>	Paid
<u>Alge</u>	Drill to administrative levels
<u>Alge</u>	Drill to postal levels

Clicking *Drill to administrative levels* opens the list of States for the country, as shown in the following image.



Clicking any link opens information about the next level georole.

Clicking Drill to postal levels opens the list of postal levels for the country, as shown in the following image.



The screenshot shows a browser window with three tabs: "Data Services Agents", "General maps info", and "Result". The "Result" tab is active and displays the following content:

List of postal codes for country 'Albania'  
(Source: MB postal layer 3 Extended)

POSTAL-CODE (POSTCODE3)
10
15
20
25
30
33
34
35
40
43

Right-clicking a link in any georole column other than the Country column opens a summary of the values for that georole, as shown in the following image.



The screenshot shows a summary table titled "Statistics of states for country 'Albania'" with the source "MB admin layer 1 Extended". The table has three columns: "Number of names", "First name", and "Last name".

Number of names	First name	Last name
12	Berat	Vlorë

## Additional Administrative Boundaries

Administrative boundaries for the United States are automatically included by Esri.

The following table lists the Level 1 countries and their Level 1 and Level 2 administrative levels. For some countries, no additional administrative levels are added with a second-level license.

<b>Country</b>	<b>Postal Code</b>	<b>Level 1 Administrative Level (Number of Values)</b>	<b>Level 2 Administrative Level (Number of Values)</b>
Albania	2 - digit	Qarke (12)	Bashkia (61)
Andorra	5 - digit	Parroquies (7)	
Argentina	5 - digit	Departamentos (525)	
Australia	4 - digit	Local Government Areas (569)	
Austria	4 - digit	Politische Bezirke (117)	Gemeinden (2124)
Belarus	6 - digit	Woblaszi (7)	Raioni (129)
Belgium	4 - digit	Arrondissements (43)	Communes (589)
Bosnia and Herzegovina	5 - digit	Kantone (18)	Opstine (142)
Brazil	5 - digit	Municipios (5565)	
Canada	3 - digit	Census Divisions (293)	Census Subdivisions (5243)
Chile	2 - digit	Provincias (54)	
China	2 - digit	Counties City Districts (2855)	

<b>Country</b>	<b>Postal Code</b>	<b>Level 1 Administrative Level (Number of Values)</b>	<b>Level 2 Administrative Level (Number of Values)</b>
Costa Rica	2 - digit	Cantones (81)	Distritos (473)
Croatia	2 - digit 5-digit for 2nd level license	Zupanije (21)	Opcine (556)
Cyprus	2 - digit 4-digit for 2nd level license	Eparchia (6)	Dimoi (615)
Czech Republic	2 - digit 6-digit for 2nd level license	Orp (206)	Obce (6253)
Denmark	4 - digit	Kommuner (99)	
Estonia	5 - digit	Maakonnad (15)	Vallad (213)
Finland	5 - digit	Seutukunnat (70)	Kunnat (317)
France	5 - digit	Cantons (1972)	Communes (36571)
Germany	5 - digit	Municipalities	
Gibraltar	3/4/5 - digit		
Greece	5 - digit	Nomoi (75)	Dimoi (326)
Holy See (Vatican City State)	5 - digit		
Hong Kong	6 - digit	Shih Zizhiqu (18)	
Hungary	2 - digit 4-digit for 2nd level license	Kistersegek (175)	Telepulesek (3177)

<b>Country</b>	<b>Postal Code</b>	<b>Level 1 Administrative Level (Number of Values)</b>	<b>Level 2 Administrative Level (Number of Values)</b>
Iceland	2 - digit 3-digit for 2nd level license	Landsvaedi (8)	Sveitarfelog (74)
India	6 - digit	Districts (640)	Subdistricts (5783)
Italy	5 - digit	Provincias (110)	Comuni (8047)
Japan	3 - digit	Prefectures (47)	Municipalities (1901)
Kenya	1 - digit	Wilaya (47)	Districts (158)
Korea, Republic of	3 - digit	Si Gun (230)	
Latvia	2 - digit 4-digit for 2nd level license	Rajons (33)	Novadi (119)
Liechtenstein	4 - digit	Landschaften (2)	Gemeinden (11)
Lithuania	2 - digit 5-digit for 2nd level license	Apskritis (10)	Savivaldybes (60)
Luxembourg	4 - digit	Cantons (12)	Communes (105)
Macedonia, the former Yugoslav Republic of	2 - digit 4-digit for 2nd level license	Statisticki Regioni (8)	Opstini (80)
Malta	3 - digit	Districts (6)	Local Councils (68)
Mexico	3 - digit	Estados (32)	
Monaco	5 - digit	Quartiers (9)	

<b>Country</b>	<b>Postal Code</b>	<b>Level 1 Administrative Level (Number of Values)</b>	<b>Level 2 Administrative Level (Number of Values)</b>
Montenegro	2 - digit 5-digit for 2nd level license	Opstina (21)	
Netherlands	4 - digit	COROP Regions (40)	Gemeenten (393)
New Zealand	4 - digit	Territorial Authorities (68)	Area Units (1911)
Norway	4 - digit	Okonomisk regioner (89)	Kommuner (428)
Poland	5 - digit	Gminy (2479)	Gminy Miasta (3119)
Portugal	4 - digit	Concelhos (308)	Freguesias (3092)
San Marino	5 - digit	Castelli (9)	
Serbia	5 - digit 5-digit (1156) for 2nd level license	National (1)	
Singapore	2 - digit	Regions (5)	Planning Areas (55)
Slovakia	2 - digit 6-digit for 2nds level license	Okresy (79)	Obce (2927)
Slovenia	2 - digit 4-digit for 2nd level license	Statisticne Regije (12)	Obcina (212)
South Africa	2-digit 4-digit for 2nd level license	Municipalities (234)	



<b>Country</b>	<b>Postal Code</b>	<b>Level 1 Administrative Level (Number of Values)</b>	<b>Level 2 Administrative Level (Number of Values)</b>
Spain	5 - digit	Provincias (52)	Municipios (8122)
Sweden	5 - digit	Kommuner (290)	
Switzerland	4 - digit	Bezirke (148)	Gemeinden (2328)
Taiwan	3 - digit	Township Districts (368)	
Turkey	5 - digit	Iller (81)	Ilceler (970)
United Kingdom	4 - digit	Districts (391)	

The following table lists countries that are accessible only with a second-level license.

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Afghanistan	4-digit	Velayat (34)	Woluswali (398)
Algeria	2-digit	Wilayat (48)	
American Samoa	5-digit	Counties (77)	
Angola		Provincias (18)	Municipios (161)
Anguilla	7-digit	Districts (14)	
Antigua and Barbuda		Parishes (8)	
Armenia	2-digit	Marzer (11)	
Aruba		Districts (8)	
Azerbaijan	2-digit	Regions (10)	Rayonlar (74)
Bahamas		Islands (19)	Districts (32)

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Bahrain	2-digit	Muhafazat (5)	
Bangladesh	2-digit	Zila (64)	Upazila (553)
Barbados		Parishes (11)	
Belize		Districts (6)	Constituencies (31)
Benin		Departements (12)	Communes (77)
Bermuda	4-digit	Parishes (11)	
Bhutan	2-digit	Dzongkhags (20)	
Bolivia, Plurinational State of		Departamentos (9)	Provincias (112)
Botswana		Districts (9)	Sub-Districts (28)
British Virgin Islands		National (1)	Electoral Districts (9)
Brunei Darussalam	2-digit	Daerah (4)	Mukim (38)
Burkina Faso		Regions (13)	Provinces (45)
Burundi		Provinces (17)	Communes (129)
Cambodia		Khaet (25)	
Cameroon		Regions (10)	Departements (58)
Cape Verde	2-digit	Concelhos (22)	Freguesias (32)
Cayman Islands	8-digit	Districts (6)	
Central African Republic		Prefectures (17)	Sous-Prefectures (51)
Chad		National (1)	

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Colombia	2-digit	Departamentos (33)	Municipios (1122)
Comoros		Islands (3)	
Congo		Departements (12)	
Congo, the Democratic Republic of the		Districts (48)	Territoires (188)
Côte d'Ivoire		Regions (32)	Departements (95)
Cuba		Provincias (16)	Municipios (168)
Djibouti		Regions (6)	
Dominica		Parishes (10)	
Dominican Republic	5-digit	Provincias (32)	Municipios (155)
Ecuador	6 - digit	Cantones (224)	Parroquias (1040)
Egypt	2-digit	States (27)	
El Salvador	7-digit	Departamentos (14)	Municipios (262)
Equatorial Guinea		Regions (2)	Provinces (7)
Eritrea		Zobas (6)	Subzobas (52)
Ethiopia		Kililoch (11)	Awrajja (85)
Faroe Islands	3 - digit	Syslur (6)	Kommunur (30)
Fiji		Provinces (15)	
French Guiana	5-digit	Cantons (14)	Communes (22)
French Polynesia	5-digit	Iles (5)	Communes (48)

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
French Southern Territories		Districts (4)	
Gabon		Provinces (9)	
Gambia		Local Government Areas (8)	
Georgia		Regions (12)	Rajone (77)
Ghana		Regions (10)	Districts (216)
Greenland	4-digit	Kommuner (6)	
Grenada		Parishes (7)	
Guadeloupe	5-digit	Cantons (28)	Communes (32)
Guam	5-digit	County Subdivisions (19)	
Guatemala	5-digit	Departamentos (22)	Municipios (334)
Guernsey	5-digit	Parishes (15)	
Guinea		Regions (8)	Prefectures (34)
Guinea-Bissau	4-digit	Regioes (9)	Sectores (38)
Guyana		Regions (10)	
Haiti		Arrondissements (42)	Communes (140)
Honduras	2-digit	Departamentos (18)	Municipios (298)
Indonesia	3-digit	States (34)	
Iran, Islamic Republic of	1-digit	Provinces (31)	Subprovinces (397)

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Iraq		Muhafazat (18)	Kaza (109)
Ireland		Counties (34)	Electoral Divisions (3441)
Isle of Man	5-digit	Sheadings (6)	Districts (24)
Israel	2-digit	States (6)	
Jamaica		Parishes (14)	Constituencies (62)
Jersey	5-digit	Parishes (12)	
Jordan	5-digit	Muhafazat (12)	Nahia (51)
Kazakhstan	4-digit	Oblystar (16)	Audandar (209)
Korea, Democratic People's Republic of		Do (14)	
Kosovo	2-digit	Obstina (38)	
Kuwait	2-digit	Muhafazat (6)	Localities (137)
Kyrgyzstan	4-digit	Oblasttar (9)	Rajondor (46)
Lao People's Democratic Republic		Khoueng (17)	Muang (142)
Lebanon		Muhafazat (6)	Caza (26)
Lesotho		Districts (10)	
Liberia		Counties (15)	
Libyan Arab Jamahiriya		Schabiyat (22)	
Macao	6-digit	Parishes (8)	

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Madagascar	3-digit	Regions (22)	Districts (114)
Malawi		Regions (3)	Districts (30)
Malaysia	2-digit	Negeri (16)	Daerah (144)
Maldives	2-digit	Atolls (20)	
Mali		Regions (9)	Cercles (50)
Marshall Islands	3-digit	Municipalities (34)	
Martinique	5-digit	Arrondissements (4)	Communes (34)
Mauritania		Wilayas (13)	Moughataas (53)
Mauritius		Districts (10)	
Mayotte		Communes (17)	
Micronesia, Federated States of	5-digit	States (4)	
Moldova, Republic of	4-digit	Raioane (37)	
Mongolia	4-digit	Aimags (22)	Sums (338)
Montserrat		Parishes (3)	
Morocco	2-digit	Regions (16)	Provinces (75)
Mozambique	2-digit	Provincias (11)	Distritos (142)
Myanmar		States and Divisions (15)	
Namibia		Regions (13)	Constituencies (119)

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Nauru		Districts (14)	
Nepal		Zones (14)	Districts (75)
New Caledonia	5-digit	Provinces (3)	Communes (34)
Nicaragua		Departamentos (17)	Municipios (153)
Niger		Regions (8)	
Nigeria		States (37)	Local Government Areas (774)
Northern Mariana Islands	5-digit	Municipalities (4)	
Oman	1-digit	Muhafazat (11)	Wilayat (61)
Pakistan	2-digit	Provinces (8)	Districts (146)
Palau	5-digit	States (16)	
Palestinian Territory, Occupied		Territories (2)	Muhafazat (16)
Panama		Provincias (12)	Distritos (76)
Papua New Guinea		Provinces (22)	Districts (87)
Paraguay		Departamentos (18)	Distritos (251)
Peru	2 - digit	Provincias (195)	Distritos (1834)
Philippines	4-digit	Provinces (87)	Municipalities and Cities (1634)
Pitcairn	8-digit	Islands (4)	
Puerto Rico	5-digit	Municipios (78)	County Subdivisions (902)

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Qatar		Municipalities (7)	Zones (90)
Republic of South Sudan		States (10)	
Réunion	5-digit	Arrondissements (4)	Communes (24)
Romania	6 - digit	Judete (42)	Comune (3181)
Russian Federation	4-digit	Federal Subjects (80)	Raioni (2345)
Rwanda		Provinces (5)	Districts (30)
Saint Kitts and Nevis		States (2)	Parishes (14)
Saint Lucia		Quarters (10)	
Saint Vincent and the Grenadines	4-digit	Parishes (6)	
Samoa	3-digit	Regions (4)	Districts (43)
Sao Tome and Principe		Province (2)	Distritos (7)
Saudi Arabia	2-digit	States (13)	
Senegal		Regions (14)	
Seychelles		Districts (25)	
Sierra Leone		Provinces (4)	Districts (14)
Solomon Islands		Provinces (10)	
South Sudan	2-digit	States (10)	
Sri Lanka	2-digit	Districts (25)	DS-Divisions (331)



<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Sudan	2-digit	States (15)	
Suriname		Districten (10)	Ressorten (62)
Svalbard and Jan Mayen (IE)		Counties (34)	Electoral Divisions (3441)
Svalbard and Jan Mayen (SJ)	4-digit	National (1)	Kommuner (4)
Swaziland	1-digit	Districts (4)	
Syrian Arab Republic		Muhafazat (14)	Manatiq (61)
Tajikistan		Regions (5)	Raioni (64)
Tanzania, United Republic of		Mkoa (30)	Wilayah (169)
Thailand	2-digit	Changwate (77)	Amphoe (928)
Timor-Leste		Districts (13)	Subdistricts (65)
Togo		Regions (5)	
Tokelau		Atolls (3)	
Tonga		Island Divisions (5)	
Trinidad and Tobago		Municipalities (15)	
Tunisia	4-digit	Wilayat (24)	
Turkmenistan	3-digit	Welayaty (6)	Etraplar (65)
Turks and Caicos Islands	8-digit	Districts (6)	Localities (38)
Tuvalu		Islands (9)	

<b>Country</b>	<b>Postal Code (Number of Values)</b>	<b>Highest Administrative Level (Number of Values)</b>	<b>Lowest Administrative Level (Number of Values)</b>
Uganda		Consolidated Districts (75)	Counties (110)
Ukraine	3-digit	Obstina (38)	
United Arab Emirates		States (7)	
United States Minor Outlying Islands		Islands (5)	
United States Virgin Islands	5-digit	National (1)	Islands (3)
Uruguay	5 - digit	Secciones (232)	Segmentos (4301)
Uzbekistan	4-digit	Viloyati (14)	Tuman (171)
Vanuatu		Provinces (6)	
Venezuela, Bolivarian Republic of	2 - digit	Estados (25)	Municipios (367)
Viet Nam	2 - digit	Provinces (63)	Districts (698)
Wallis and Futuna	5 - digit	Kingdoms (3)	
Yemen		Muhafazat (21)	Muderiah (333)
Zambia	5 - digit	Provinces (10)	Districts (103)
Zimbabwe		Provinces (10)	Districts (91)

**Example:** Using a Second-Level License to Map French Postal Codes

The request used in this example references data about French state names, city names, and postal codes. This data is readily available online. The data in this example was downloaded from <https://www.aggdata.com/free/france-postal-codes> which is available for free using a Creative Commons Attribution 4.0 license detailed at <https://creativecommons.org/licenses/by/4.0/>. Once you download the data, you can upload it to the server to create the data file and synonym for use in requests. This example assumes that the data and synonym are in the ibisamp application on the server.

**Note:** Information Builders takes no responsibility for the accuracy or continued existence of this data on this site. It is being used only as an example of the detailed administrative boundaries available with a second-level license.

The Master File for the uploaded data follows. The Master File generated by the upload procedure was edited to change the first field name to COUNTRY and to remove the folder declarations.

```
FILENAME=FR_POSTAL_CODES, SUFFIX=DFIX
DATASET=ibisamp/fr_postal_codes.ftm (LRECL 1140 RECFM V, BV_NAMESPACE=OFF,
$
SEGMENT=FR_POSTAL_CODES, SEGTYPE=S0, $
FIELDNAME=COUNTRY, ALIAS=E01, USAGE=A50V, ACTUAL=A50V,
TITLE='Country for State',
GEOGRAPHIC_ROLE=COUNTRY, $
FIELDNAME=STATE, ALIAS=E02, USAGE=A21V, ACTUAL=A21V,
MISSING=ON,
TITLE='State',
GEOGRAPHIC_ROLE=STATE, $
FIELDNAME=COUNTY, ALIAS=E03, USAGE=A25V, ACTUAL=A25V,
MISSING=ON,
TITLE='County',
GEOGRAPHIC_ROLE=COUNTY, $
FIELDNAME=CITY, ALIAS=E04, USAGE=A48V, ACTUAL=A48V,
MISSING=ON,
TITLE='City',
GEOGRAPHIC_ROLE=CITY, $
FIELDNAME=POSTAL_CODE, ALIAS=E05, USAGE=A16V, ACTUAL=A16V,
MISSING=ON,
TITLE='Postal Code',
GEOGRAPHIC_ROLE=POSTAL-CODE, $
FIELDNAME=PLACE_NAME, ALIAS=E06, USAGE=A56V, ACTUAL=A56V,
MISSING=ON,
TITLE='Place Name', $
FIELDNAME=GEO_POINT, ALIAS=E07, USAGE=A150, ACTUAL=A150,
TITLE='GIS Point',
GEOGRAPHIC_ROLE=GEOMETRY_POINT, $
```

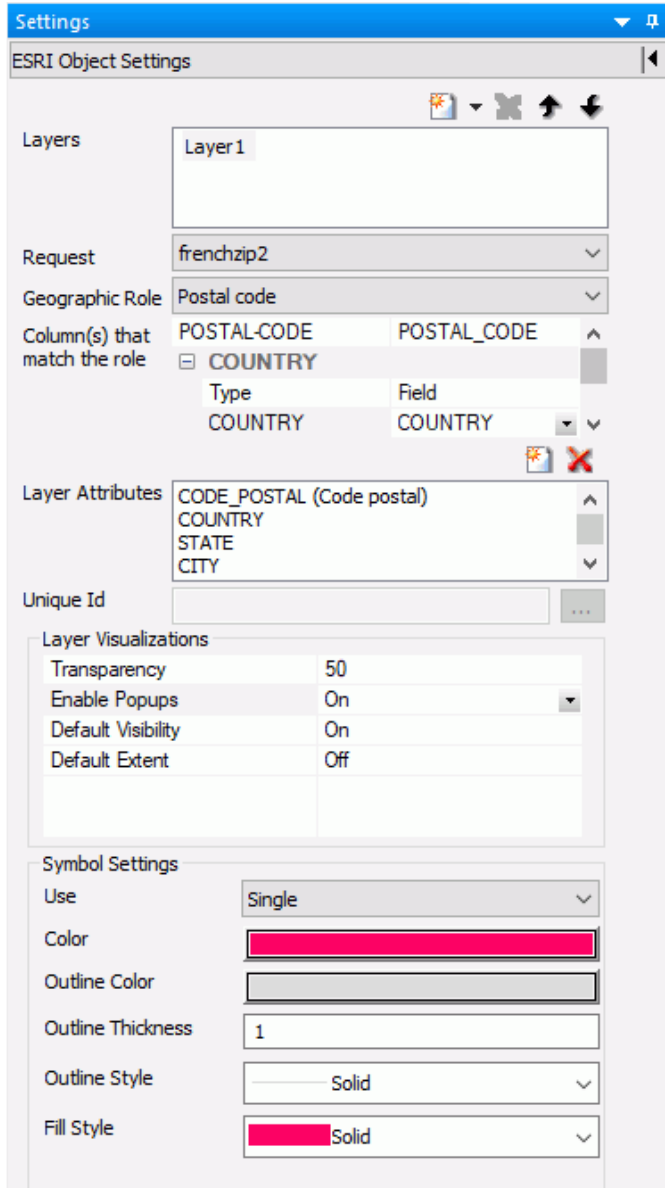
The Access File for the uploaded data follows.

```
SEGNAME=FR_POSTAL_CODES,  
  DELIMITER=',',  
  CDN=COMMAS_DOT,  
  CONNECTION=<local>, $
```

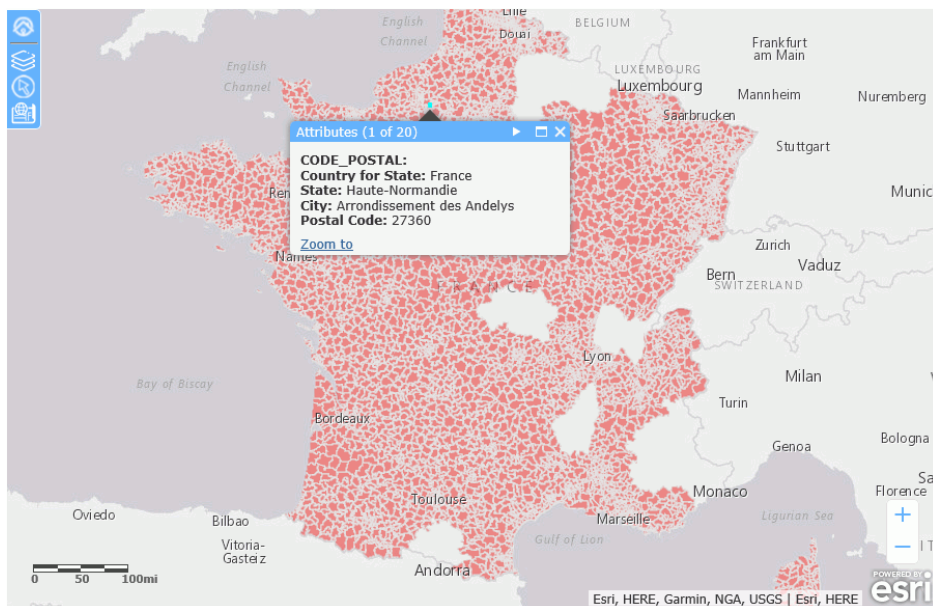
The following request named frenchzip2.fex creates the xml file with the postal code data that is passed to the HTML page with the Esri component.

```
TABLE FILE ibisamp/fr_postal_codes  
PRINT COUNTRY STATE CITY POSTAL_CODE  
ON TABLE PCHOLD FORMAT XML  
END
```

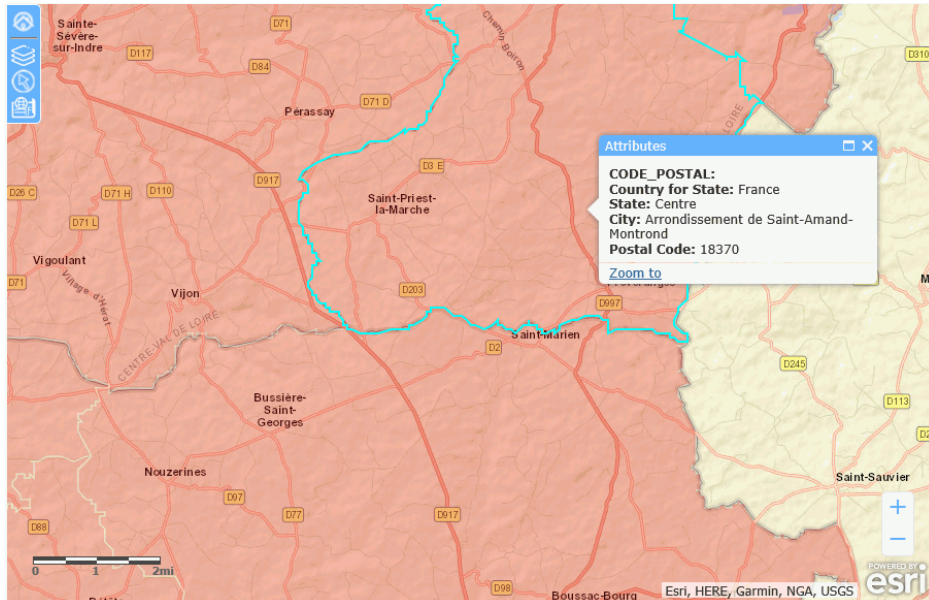
Configure the Server with a second-level license. Create an HTML page, add an Esri component, and select the frenchzip2 request in the Requests & Data Sources panel. Then configure the Settings panel as shown in the following image.



Run the HTML page. The output is shown in the following image, with the popup for one of the postal codes clicked.



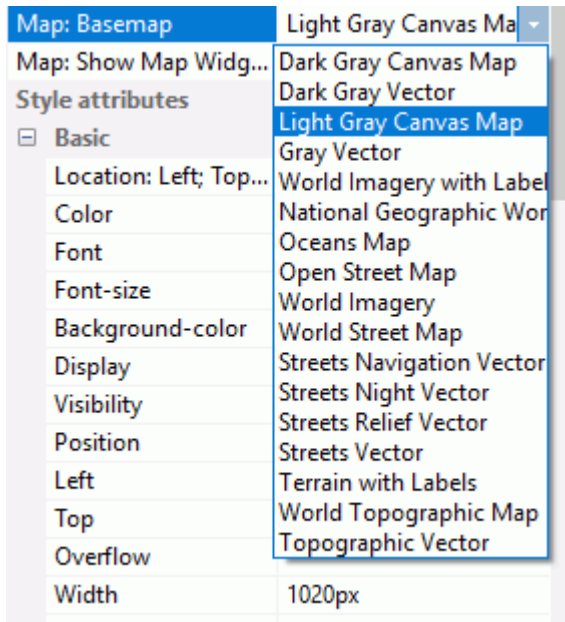
You can zoom in to see the boundaries of individual postal codes and change to a basemap that shows more detail, such as World Street Map, as shown in the following image (the layer transparency has also been changed to 30% using the Table of Contents widget in order to see the background detail more clearly).



## Using an Esri Vector Basemap as a Base Layer

Basemaps that are not vector maps are pre-rendered image tiles. Vector basemaps are delivered from ArcGIS Online as vector tiles that are rendered on the client based on a style file that is delivered with the vector tiles. This provides customization options not available with pre-rendered image tiles.

A default set of vector basemaps is available for selection in the Properties panel for an Esri map, as shown in the following image.



You can add additional vector basemaps using the Reporting Server GEO configuration editor.

The default vector basemaps are:

- Dark Gray Vector.** Provides a detailed basemap for the world, with a dark neutral background using minimal colors, labels, and features.
- Gray Vector.** Provides a detailed basemap for the world, with a light neutral background using minimal colors, labels, and features.
- Streets Navigation Vector.** Provides a detailed basemap for the world, with a custom navigation map style.
- Streets Night Vector.** Provides a detailed vector basemap for the world, using a custom night time street map style that is designed for use at night or in other low-light environments.
- Streets Relief Vector.** Provides a detailed vector basemap for the world, using a classic Esri street map style including a relief map.
- Streets Vector.** Provides a detailed vector basemap for the world with a classic Esri street map style.



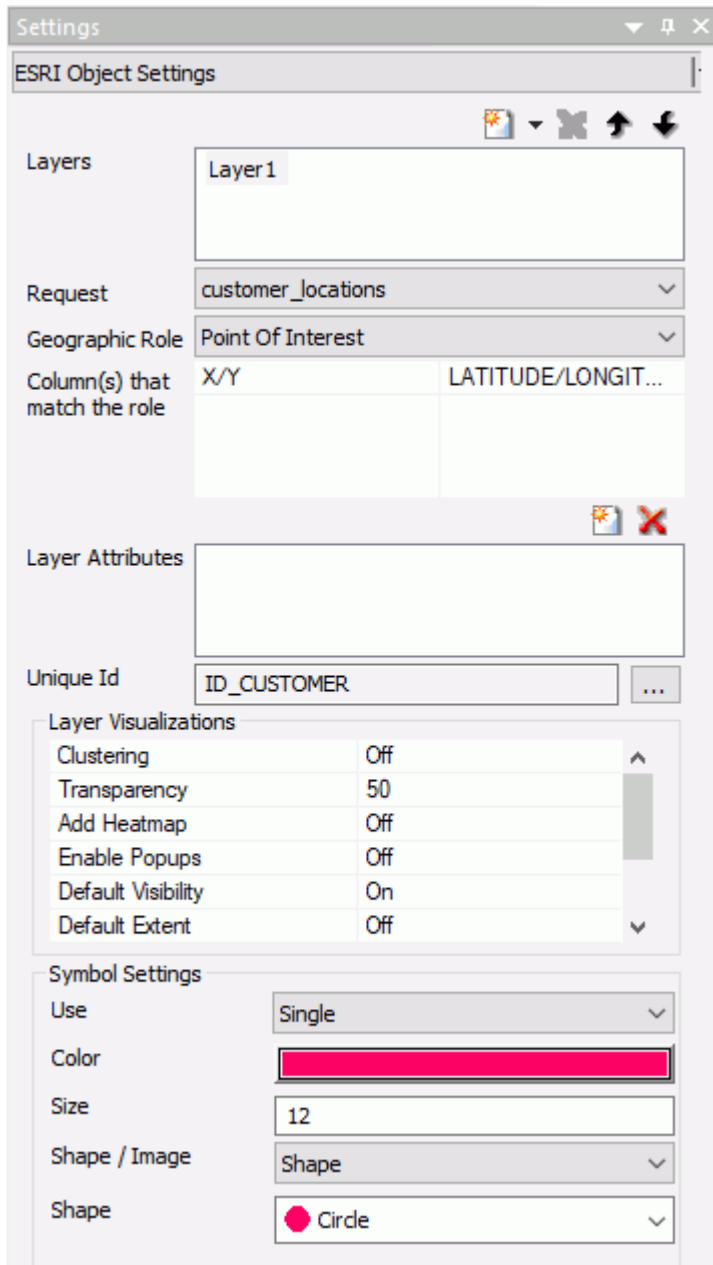
- ❑ **Topographic Vector.** Provides a detailed basemap for the world, symbolized with a classic Esri topographic map style.

**Example:** Using a Vector Basemap as a Base Layer

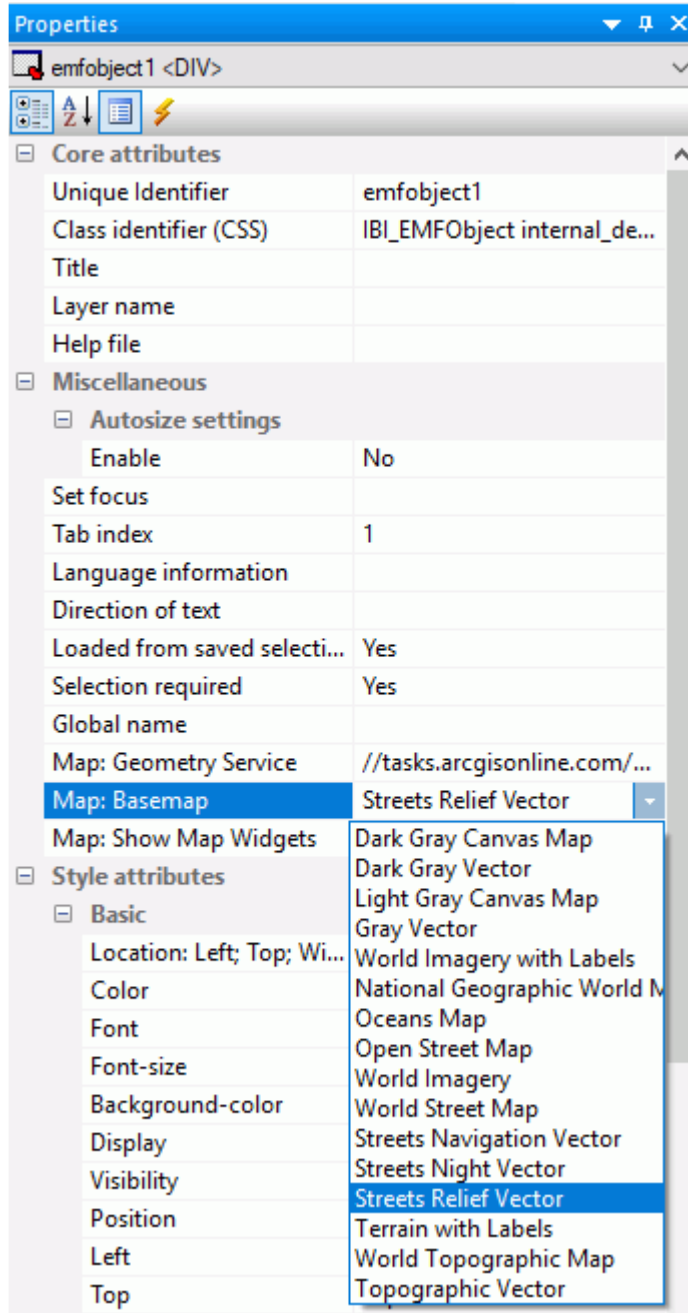
The following request is named customer\_locations.fex.

```
TABLE FILE WF_RETAIL_LITE
PRINT
    ID_CUSTOMER
    COGS_US
    QUANTITY_SOLD
    COMPUTE LONGITUDE/D12.2 =CUSTOMER_LONGITUDE;
    COMPUTE LATITUDE/D12.2 = CUSTOMER_LATITUDE;
BY STATE_PROV_NAME
BY ID_CUSTOMER NOPRINT
WHERE COUNTRY_NAME EQ 'United States';
ON TABLE NOTOTAL
ON TABLE PCHOLD FORMAT XML
END
```

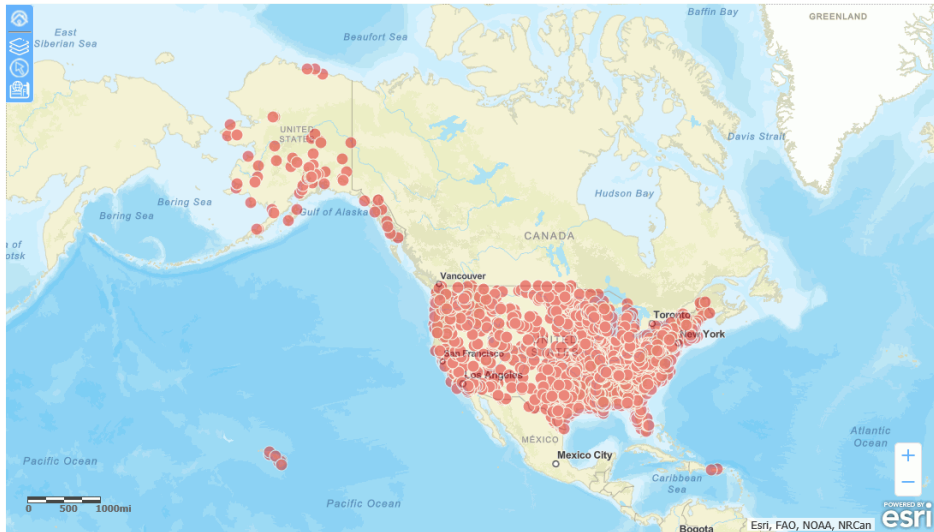
The Settings panel for an HTML page with an Esri component that uses this request is shown in the following image.



In the *Map: Basemap* property of the Properties panel, *Streets Relief Vector* is selected, as shown in the following image.



Running the HTML page generates the output shown in the following image.



The vector basemaps are also available in the Change Basemap widget, as shown in the following image.



For information on custom vector basemaps, see [Configuring a Custom Vector Basemap](#) on page 38.

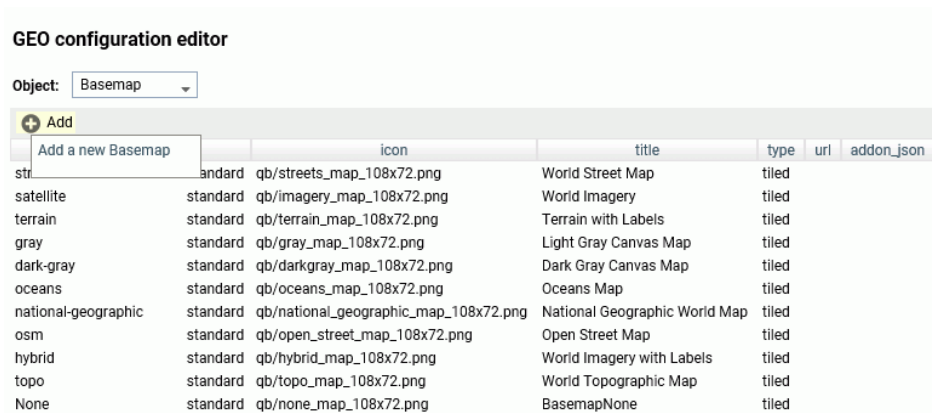
## Configuring a Custom Vector Basemap

Basemaps that are not vector maps are pre-rendered image tiles. Vector basemaps are delivered from ArcGIS Online as vector tiles that are rendered on the client based on a style file that is delivered with the vector tiles. This provides customization options not available with pre-rendered image tiles.

A default set of vector basemaps is configured in the GEO configuration editor in the Server. However, you can configure additional vector basemaps as needed. You can find the basemap URLs and Style URLs at <http://www.arcgis.com>.

### **Procedure:** How to Add a Custom Vector Basemap

1. Click *Workspace* on the Reporting Server Web Console sidebar.
2. Click *Geo Services* on the ribbon and select *Edit Configuration*. The GEO configuration editor opens.
3. Select *Basemap* from the *Object* drop-down list.
4. Click *Add* on the toolbar, as shown in the following image.



The Create a BASEMAP page opens, as shown in the following image.

5. Enter or select values for the following properties.

**name**

Is the name of the basemap.

**icon**

Is the URL to the thumbnail for the customized basemap that will appear on the Background drop-down list in the WebFOCUS tools or the Change Basemap map widget.

**title**

Is a title to display on the Basemap drop-down list in the WebFOCUS tools or the Change Basemap map widget.

**type**

Select *vector* for a vector basemap.

**url**

Is the URL to the map service that provides the basemap. The map service URL can be copied from the URL field on the page showing the map.

Once you enter the URL, you can click *Verify* to verify that the URL points to the correct map service.

### addon\_json

Enter the basemap map service URLs and Style URLs needed for rendering the map. The map can consist of an array of layers, each with a URL and its style URL. The style URL for each layer can be found by clicking View Style on the page showing the map layer. The map service URL for each layer can be copied from the URL field on the page showing the map layer. Enter the information in the following format.

```
{ "baseMapLayers":  
  [  
    { "url": "url_to_map_service", "styleUrl": "url_to_style" },  
    { "url": "url_to_map_service", "styleUrl": "url_to_style" },  
    ...  
  ]  
}
```

Enter the baseMapLayers object in the text box.

**Note:** If the vector basemap has multiple layers, its page on ArcGIS online will have links to each layer.

6. Click *OK* to close the Create a BASEMAP page.

You return to the GEO configuration editor.

7. Click *Save* to save the customized basemap.

The customized basemap is added to the list of basemaps in the GEO configuration editor.

### **Example:** Configuring the Nova Vector Basemap

The Esri component in this example uses the following request, named customer\_locations.fex.

```
TABLE FILE WF_RETAIL_LITE  
PRINT  
  ID_CUSTOMER  
  COGS_US  
  QUANTITY_SOLD  
  COMPUTE LONGITUDE/D12.2 =CUSTOMER_LONGITUDE;  
  COMPUTE LATITUDE/D12.2 = CUSTOMER_LATITUDE;  
BY STATE_PROV_NAME  
BY ID_CUSTOMER NOPRINT  
WHERE COUNTRY_NAME EQ 'United States';  
ON TABLE NOTOTAL  
ON TABLE PCHOLD FORMAT XML  
END
```



The Settings panel for the Esri map uses this request for a Point of Interest layer, as shown in the following image.

The screenshot shows a 'Settings' window with a tab titled 'ESRI Object Settings'. The interface is organized into several sections:

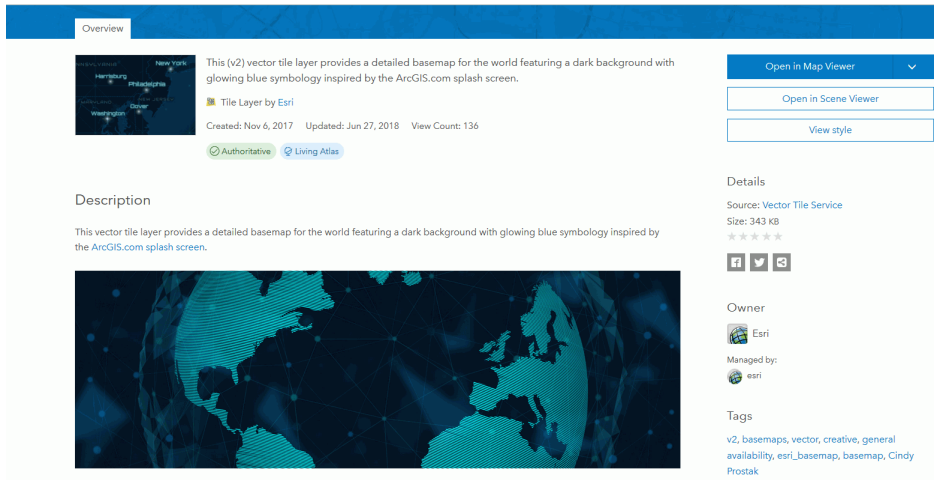
- Layers:** A text box containing 'Layer1'.
- Request:** A dropdown menu set to 'customer\_locations'.
- Geographic Role:** A dropdown menu set to 'Point Of Interest'.
- Column(s) that match the role:** A table with two columns: 'X/Y' and 'LATITUDE/LONGIT...'. Below the table are two empty input fields.
- Layer Attributes:** An empty text box.
- Unique Id:** A text box containing 'ID\_CUSTOMER' and a three-dot menu icon.
- Layer Visualizations:** A list of settings:
 

Clustering	Off
Transparency	50
Add Heatmap	Off
Enable Popups	Off
Default Visibility	On
Default Extent	Off
- Symbol Settings:**
  - Use:** A dropdown menu set to 'Single'.
  - Color:** A color picker showing a red color.
  - Size:** A text box containing '12'.
  - Shape / Image:** A dropdown menu set to 'Shape'.
  - Shape:** A dropdown menu set to 'Circle' with a red circle icon.

The following steps are needed to determine the properties associated with the Nova vector basemap.

1. Go to the following URL for the Nova basemap.

<https://www.arcgis.com/home/item.html?id=75f4dfdff19e445395653121a95a85db>. The Nova basemap page is shown in the following image.



In the `addon_json` syntax, you need the `styleUrl` for each basemap URL defined in the vector basemap.

2. Click the *View Style* button to retrieve the `styleUrl`. In this case, it is the following URL.

<https://www.arcgis.com/sharing/rest/content/items/75f4dfdff19e445395653121a95a85db/resources/styles/root.json?f=pjson>

3. Add the following URL for the Esri vector map service in both the `url` field in the GEO configuration editor and in the `addon_json` syntax for this basemap. You can copy this location from the `url` field on the lower right of the Nova basemap page.

[https://basemaps.arcgis.com/arcgis/rest/services/World\\_Basemap\\_v2/VectorTileServer](https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer)

4. The icon needs to be a URL. This example uses the one referenced in the thumbnail of the webmap, which is the following URL (retrieved by right-clicking the thumbnail image at the top of the page and copying the image location).

<http://www.arcgis.com/sharing/rest/content/items/75f4dfdff19e445395653121a95a85db/info/thumbnail/Nova.png>

Add these properties in the GEO configuration editor to define the Nova vector basemap, which consists of a single layer. Add the name, type, and a title, as follows.

**name:** Nova

**icon:** <http://www.arcgis.com/sharing/rest/content/items/75f4dfdf19e445395653121a95a85db/info/thumbnail/Nova.png>

**title:** Nova

**url:** [https://basemaps.arcgis.com/arcgis/rest/services/World\\_Basemap\\_v2/VectorTileServer](https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer)

**addon\_json:**

```
{ "baseMapLayers" :
  [
    { "url": "https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer",
      "styleUrl": "http://www.arcgis.com/sharing/rest/content/items/75f4dfdf19e445395653121a95a85db/resources/styles/root.json"
    }
  ]
}
```

The following image shows the Create a BASEMAP page for configuring the Nova vector basemap in the Reporting Server GEO configuration editor.

The screenshot shows a dialog box titled "Create a BASEMAP" with the following fields and values:

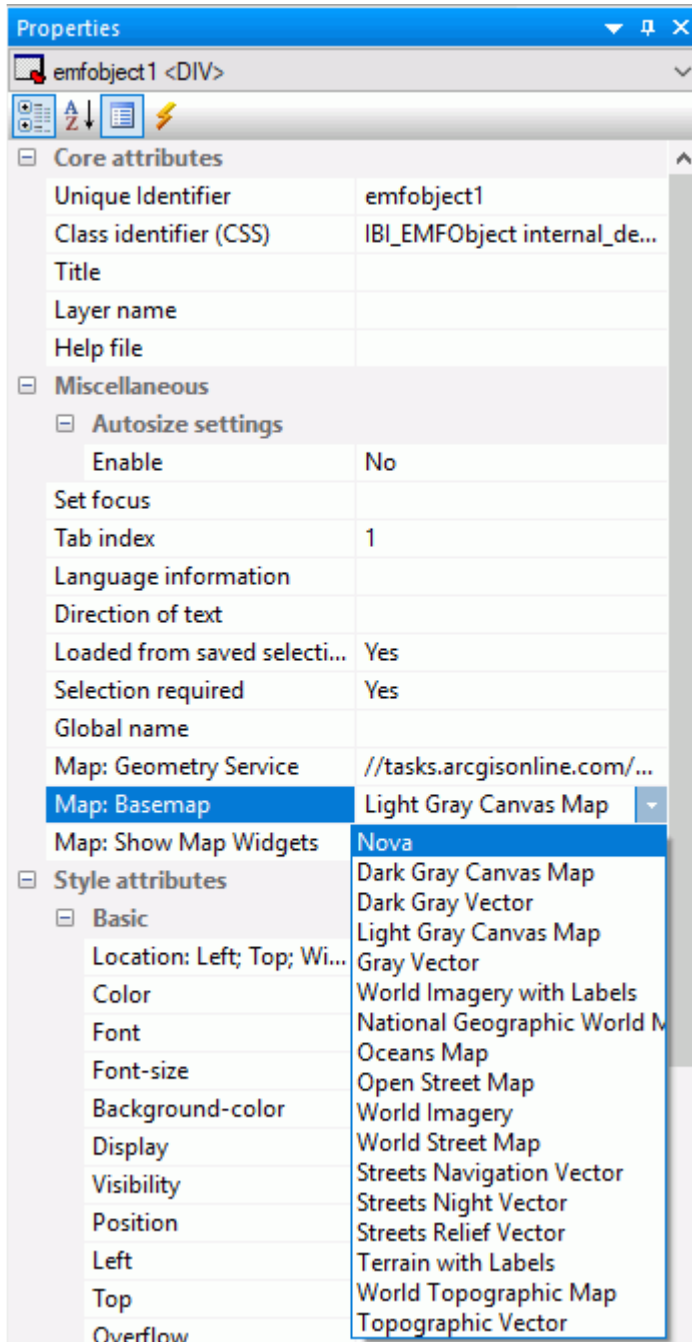
- name:** Nova
- icon:** <http://www.arcgis.com/sharing/rest/content/items/75f4dfdf19e445395653121a95a85db/info/thumbnail/Nova.png>
- title:** Nova
- type:** vector (dropdown menu)
- url:** [https://basemaps.arcgis.com/arcgis/rest/services/World\\_Basemap\\_v2/VectorTileServer](https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer)
- addon\_json:**

```
{ "baseMapLayers":
  [
    { "url": "https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer",
      "styleUrl": "http://www.arcgis.com/sharing/rest/content/items/75f4dfdf19e445395653121a95a85db/reso
```

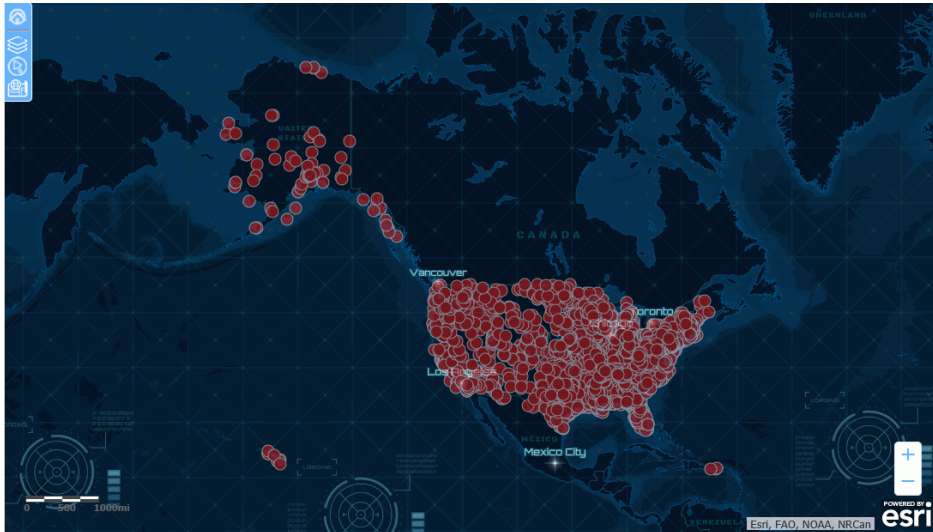
Buttons for "Verify", "OK", and "Cancel" are also visible.

## Configuring a Custom Vector Basemap

After clicking OK, then Save, the custom vector basemap becomes available for selection in the Properties panel for the Esri map component, as shown in the following image.



Running the HTML page generates the following map, with the Nova vector basemap as the base layer.



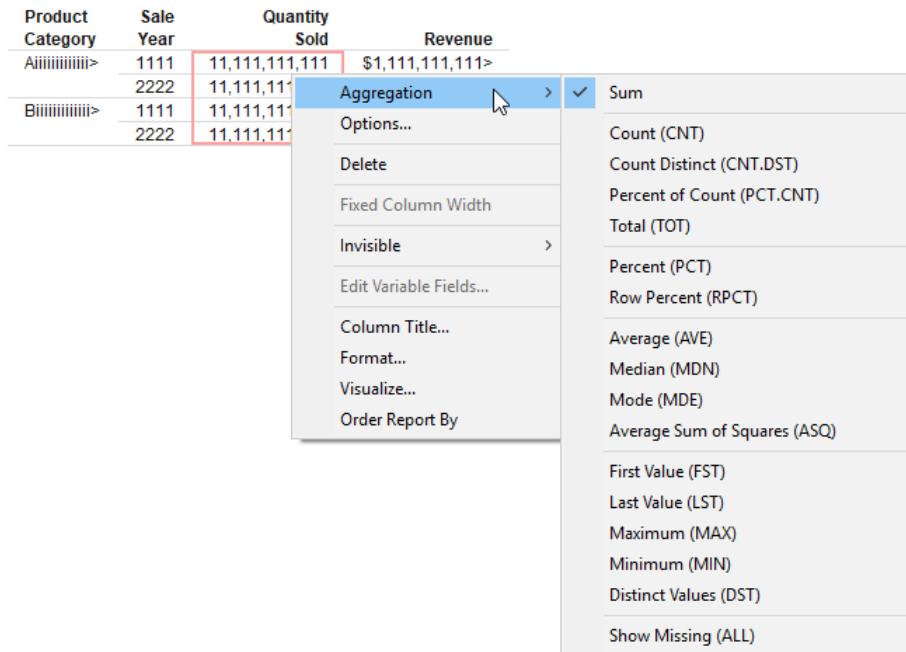
The Nova vector basemap is also available in the Change Basemap widget, as shown in the following image.



## Accessing Aggregation Functions From the Report Canvas

You can use aggregation functions to quickly perform certain data aggregations and calculations on fields. When you select a field in the Report canvas, these options appear on the *Appearance* tab, in the *Display* group, in the Aggregation menu.

You can now access prefix operators from the Report canvas shortcut menu by right-clicking a field in your report and pointing to *Aggregation*, as shown in the following image.



The available options depend on the type of field (for example, BY, PRINT, or SUM) and whether the field is alphanumeric or numeric.

For more information, including a complete list of available aggregation options, see the *App Studio User's Manual*.

## Adding a Title to Pop-Up Controls

You can add a title bar and specify a customized title for pop-up controls in an HTML page.

To add a title bar, in the Properties panel, set Display Title Bar to Yes. When Display Title Bar is set to Yes, the Title Text property becomes available. Type a value in this field to display in the pop-up control title bar at run time.

### **Procedure:** How to Add a Title to Pop-Up Controls

1. Create an HTML page that includes a control object.

For more information about adding controls, see the *App Studio User's Manual*.

2. Change the control to a pop-up control.

You can do this in one of the following ways:

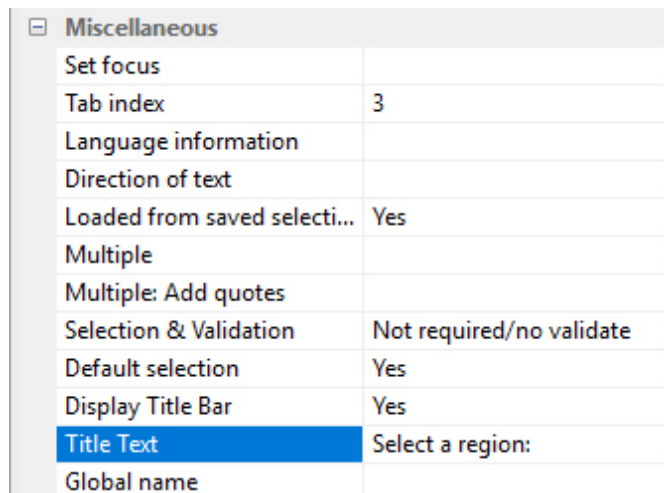
- ❑ Before adding controls to the page, open the Properties panel. For the DOCUMENT object, set the Create popup controls property to Yes.

Any controls added to the page are created as pop-up controls.

- ❑ In the New Parameters dialog box, when creating the control, select *Popup* from the Create control column.
- ❑ Right-click the control and click *Popup style*.

**Note:**

- ❑ Edit boxes, text areas, calendars, and sliders cannot use pop-up styling.
  - ❑ Multiselect drop-down controls use pop-up styling, by default.
3. Select the control, and open the Properties panel. When the control is set to use pop-up styling, the Display Title Bar property becomes available.
  4. Set the Display Title Bar property to Yes.
  5. When the Display Title Bar property is set to Yes, the Title Text property appears. Type the text for the control title into this field, as shown in the following image.



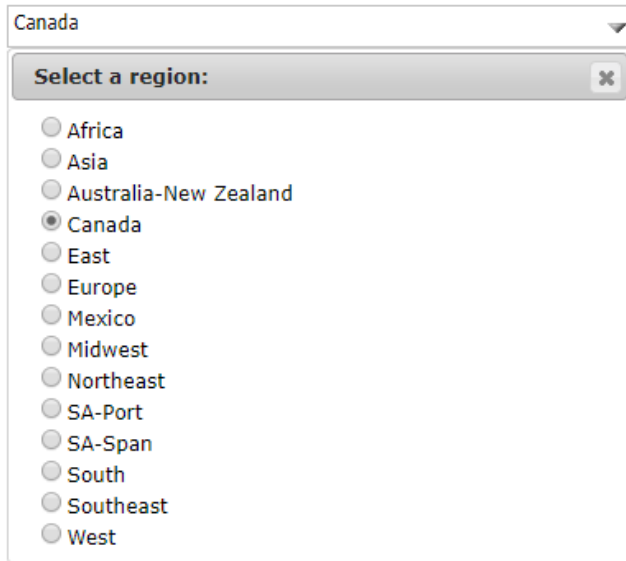
Miscellaneous	
Set focus	
Tab index	3
Language information	
Direction of text	
Loaded from saved selecti...	Yes
Multiple	
Multiple: Add quotes	
Selection & Validation	Not required/no validate
Default selection	Yes
Display Title Bar	Yes
Title Text	Select a region:
Global name	

If you leave the Title Text field blank, the unique identifier of the control or the label assigned to the control, if there is one, is used as the title text.

6. Run the HTML page and click the control.



The text specified by the Title Text property appears on the control title bar, as shown in the following image.



## Using the Text Editor Status Bar to View Contextual Information

The Status bar in the Text Editor now displays contextual information, such as cursor location, the number of lines in the file, and keyboard input modes.

To show the Status bar, on the *Home* tab, in the *View* group, select *Status Bar*. Clicking *Status Bar* when it is already selected hides the Status bar.

You can access the Text Editor in one of the following ways:

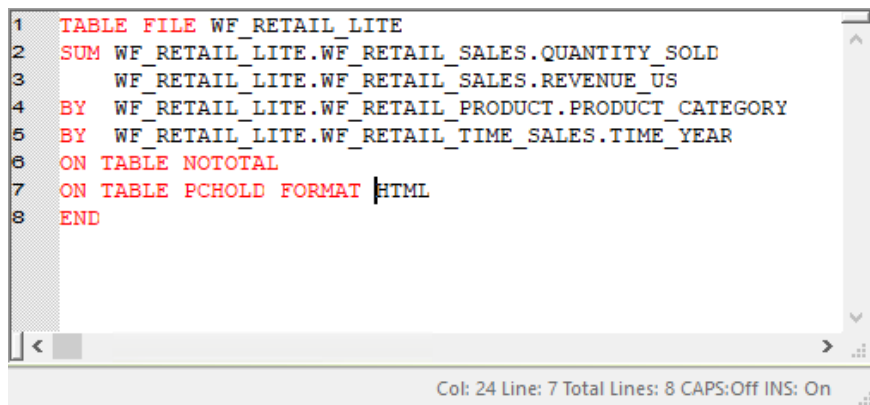
- Right-click a folder, point to *New*, and click *Procedure via Text Editor*.
- Right-click a file and click *Open in Text Editor*.
- In the Report canvas, click the *Source* view tab.
- From the Procedure View panel, create a new Include, Dialogue Manager, or Other component.

The following values display in the Status bar:

- Col.** Provides the cursor position on the current line, from left to right.
- Line.** Provides the line that the cursor is on. Each line is labeled with a number to its left.

- ❑ **Total Lines.** Shows the total number of lines in the current file.
- ❑ **CAPS.** Indicates whether Caps Lock is set on or off. This setting is controlled by the Caps Lock key on your keyboard.
- ❑ **INS.** Indicates whether insert or overtype mode is active. When the value for INS is On, your keyboard is in insert mode. Typing when your cursor is placed before existing text shifts subsequent text forward. When the value for INS is Off, your keyboard is in overtype mode. Typing when your cursor is placed before existing text overwrites that text, instead of pushing it forward. This setting is controlled by the Insert key on your keyboard.

The following image shows an example of the values displayed in the Status bar.



The image shows a screenshot of a code editor window. The editor contains a SQL query with line numbers 1 through 8 on the left margin. The query text is as follows:

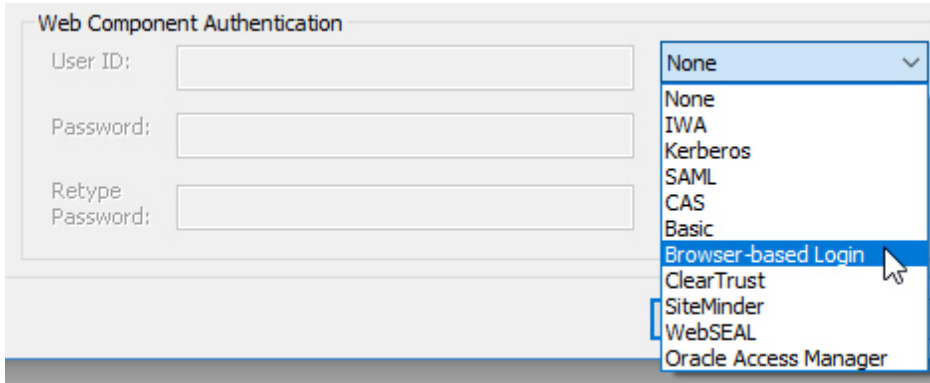
```
1  TABLE FILE WF_RETAIL_LITE
2  SUM WF_RETAIL_LITE.WF_RETAIL_SALES.QUANTITY_SOLD
3     WF_RETAIL_LITE.WF_RETAIL_SALES.REVENUE_US
4  BY  WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY
5  BY  WF_RETAIL_LITE.WF_RETAIL_TIME_SALES.TIME_YEAR
6  ON TABLE NOTOTAL
7  ON TABLE PCHOLD FORMAT HTML
8  END
```

At the bottom of the editor window, a status bar displays the following information: "Col: 24 Line: 7 Total Lines: 8 CAPS:Off INS: On".

## Using Browser-based Single Sign-on Authentication Protocols

When configuring the web server for an environment using the WebFOCUS Environment Properties dialog box, you can now select the *Browser-based Login* option from the Web Component Authentication drop-down list. This setting can be used for browser-based authentication protocols such as Oracle Access Manager and OpenID.

The Web Component Authentication drop-down list is shown in the following image.



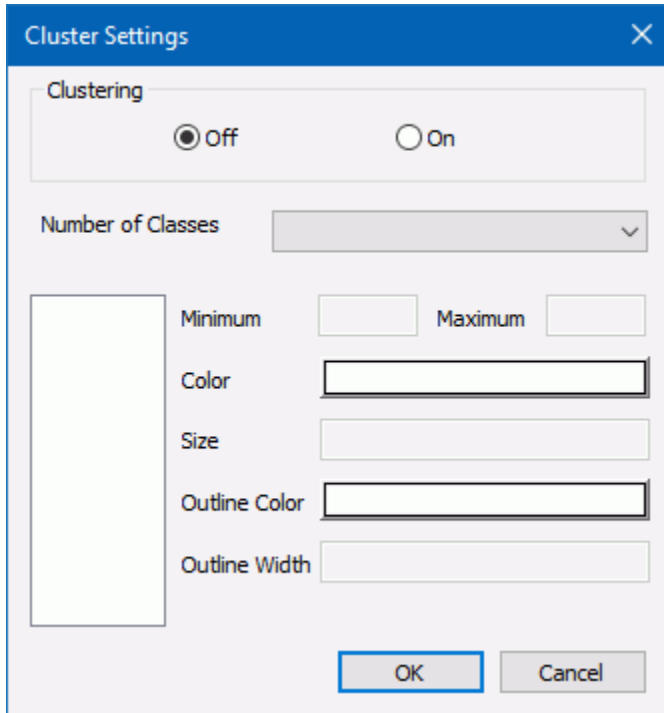
## Styling Point Clusters on Esri Maps

Turning the Clustering layer visualization on for a point map combines multiple points into one symbol, with default class breaks, colors, and sizes. You can style the clusters by changing the default colors, sizes, and class breaks. The only symbol shape supported for clustering is a circle.

The default clusters are broken into three classes.

1. Class 1 clusters 0 to 10 points using a 20px diameter symbol with blue fill.
2. Class 2 clusters 11 to 200 points using a 35px diameter symbol with green fill.
3. Class 3 clusters more than 200 points using a 60px diameter symbol with red fill.

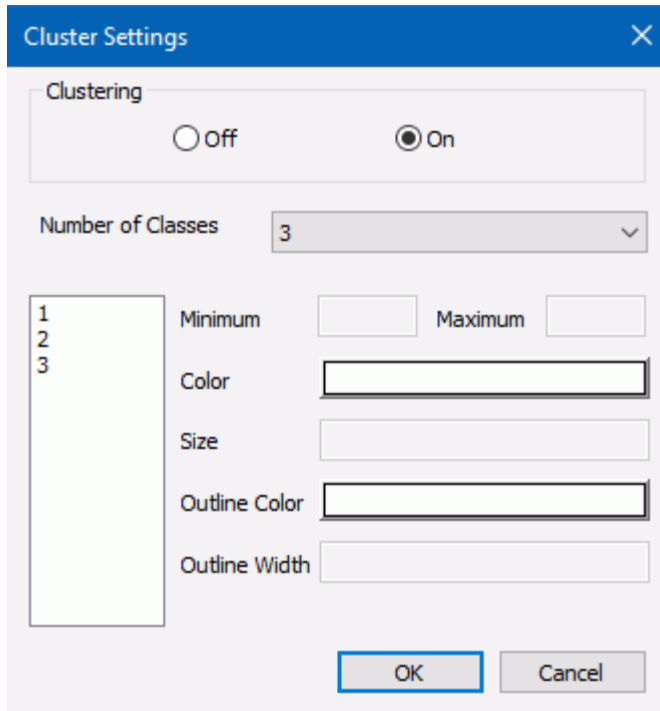
When you turn the Clustering layer visualization on in the Settings panel for a map, a dialog box opens that enables you to customize the number of classes and the colors and sizes for each class, as shown in the following image.



To customize the symbols, enter the following information in the Cluster Settings dialog box.

1. Click *On* in the Clustering section.
2. Select a number of classes, between 2 and 5, from the Number of Classes drop-down list.

The class numbers are added to the list box on the left of the dialog box, as shown in the following image, where the number 3 was selected.



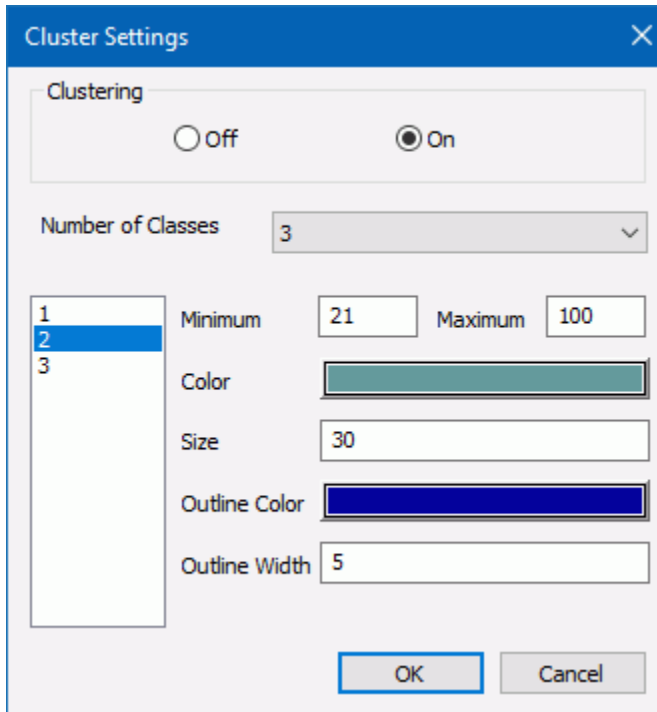
3. Click each class number. The following properties become active for each class.
  - Minimum.** Specifies the smallest number of features (records) at any given map scale. Enter the smallest number of points you want to include in this class.
  - Maximum.** Specifies the largest number of features (records) at any given map scale. Enter the largest number of points you want to include in this class.
 

**Note:** The minimum value for each class must be less than its maximum value.
  - Size.** Represents the maximum symbol size (in pixels) that corresponds to this scale. Enter the maximum symbol size you want to use for this class.
  - Color.** Represents the color that will be used for coloring the inner circle. Click this box to open the color picker dialog box and select a color.
  - Outline Color.** Represents the color that will be used for coloring the outer circle. Click this box to open the color picker dialog box and select a color.

- Outline Width.** Represents the width of the outer circle in pixels. Enter a number of pixels in this text box.

4. Click *OK*.

The following image shows sample customized properties for Class 2.



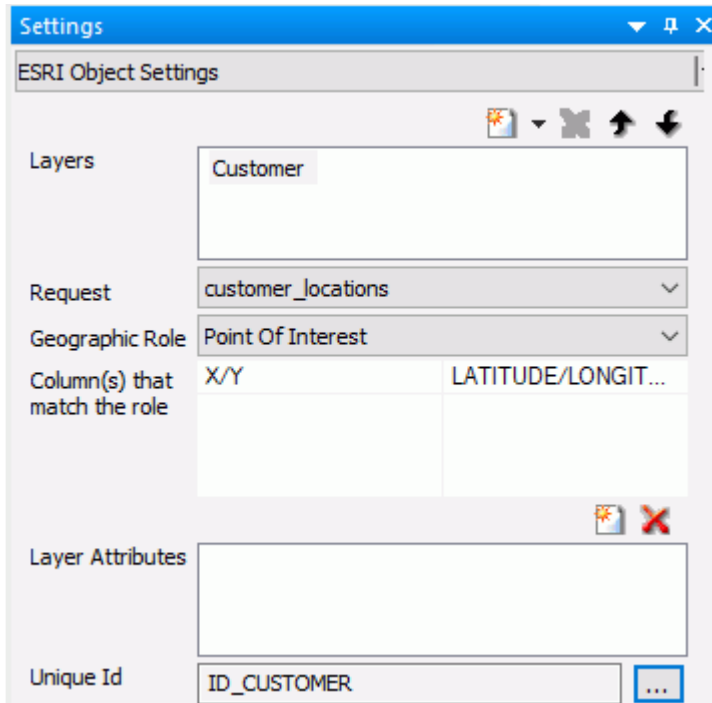
When you run the HTML page, you will see the customized clusters.

**Example: Customizing Point Clusters on an Esri Map**

Create an HTML page with an Esri component. Add the following request, named `customer_locations.fex`, in the folder with the HTML page, then add it to the HTML page using the Requests & Data Sources panel.

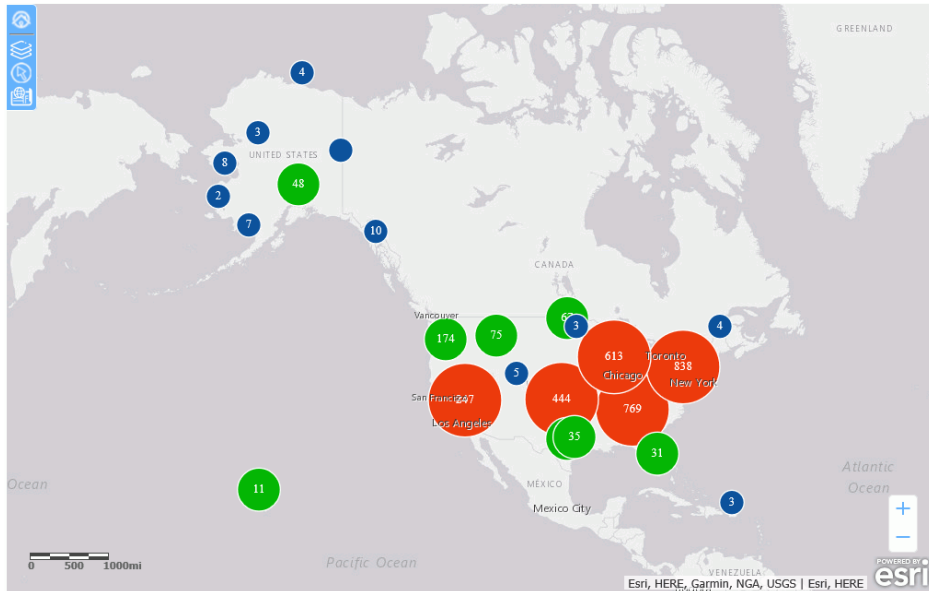
```
TABLE FILE WF_RETAIL_LITE
PRINT
    ID_CUSTOMER
    COGS_US
    QUANTITY_SOLD
    COMPUTE LONGITUDE/D12.2 =CUSTOMER_LONGITUDE;
    COMPUTE LATITUDE/D12.2 = CUSTOMER_LATITUDE;
BY STATE_PROV_NAME
BY ID_CUSTOMER NOPRINT
WHERE COUNTRY_NAME EQ 'United States';
ON TABLE NOTOTAL
ON TABLE PCHOLD FORMAT XML
END
```

In the Settings panel, select this request, select the Point of Interest Geographic Role, and select `ID_CUSTOMER` as the Unique Id field, as shown in the following image.



In the Layer Visualizations section of the Settings panel, click *Clustering*. Click the *On* radio button.

Click *OK* and run the HTML page. The clusters appear with the default properties, as shown in the following image.

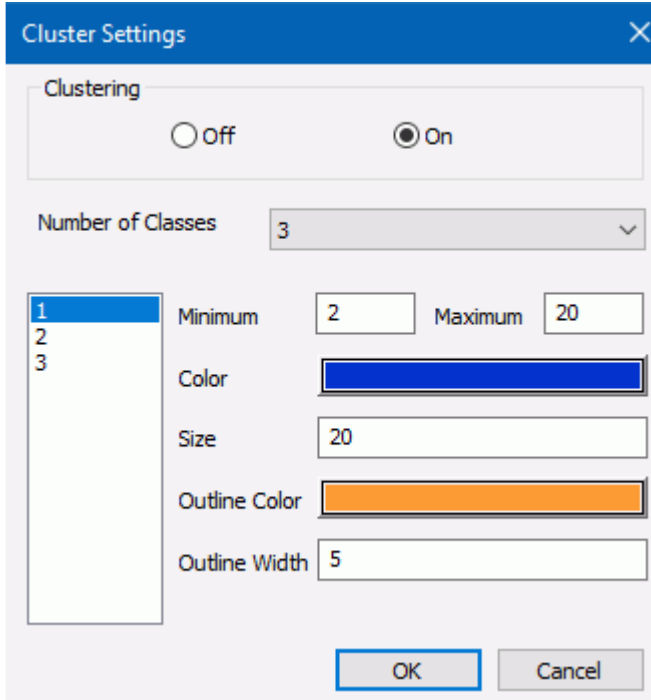


In the Layer Visualizations section of the Settings panel, click *Clustering*.

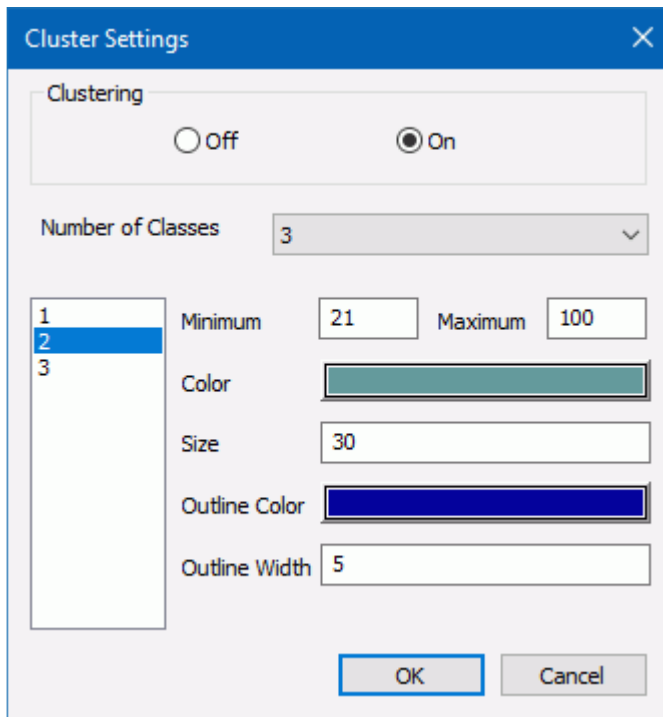


In the Cluster Settings dialog box, turn clustering on and select three classes. Select the options shown in the following images for each class.

**Class 1**

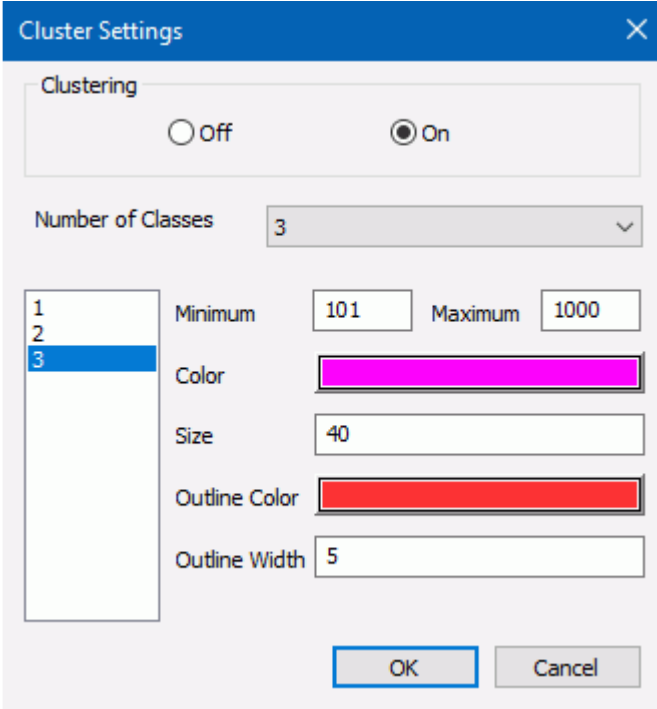


**Class 2**



The image shows a 'Cluster Settings' dialog box with a blue header and a close button. The 'Clustering' section has radio buttons for 'Off' and 'On', with 'On' selected. Below this is a 'Number of Classes' dropdown menu set to '3'. A list on the left contains items '1', '2', and '3', with '2' selected. To the right of the list are input fields for 'Minimum' (21) and 'Maximum' (100). Below these are color pickers for 'Color' (teal), 'Outline Color' (dark blue), and a text input for 'Outline Width' (5). At the bottom are 'OK' and 'Cancel' buttons.

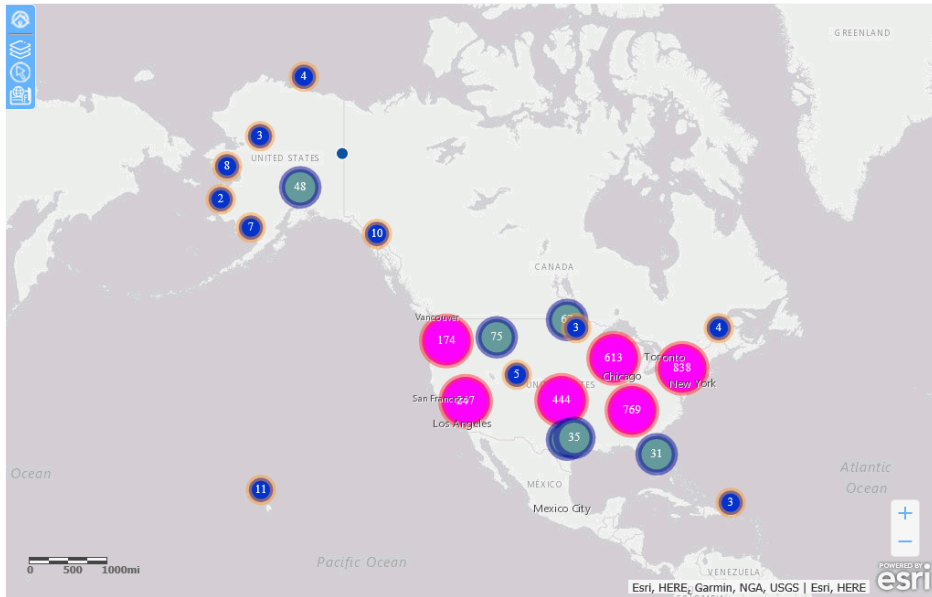
Property	Value
Clustering	On
Number of Classes	3
Class 1 Minimum	21
Class 1 Maximum	100
Class 2 Color	Teal
Class 2 Size	30
Class 2 Outline Color	Dark Blue
Class 2 Outline Width	5

**Class 3**

The image shows a 'Cluster Settings' dialog box with a blue title bar and a close button. It contains the following elements:

- Clustering:** A section with two radio buttons: 'Off' (unselected) and 'On' (selected).
- Number of Classes:** A dropdown menu currently set to '3'.
- Class List:** A vertical list box containing the numbers 1, 2, and 3. The number 3 is highlighted with a blue background.
- Minimum:** A text input field containing the value '101'.
- Maximum:** A text input field containing the value '1000'.
- Color:** A color selection field showing a magenta color.
- Size:** A text input field containing the value '40'.
- Outline Color:** A color selection field showing a red color.
- Outline Width:** A text input field containing the value '5'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

Click OK and run the HTML page. The customized clusters are shown in the following image.





# Chapter 3

## Scheduling and Distribution Enhancements

---

ReportCaster is a scheduling and distribution application that centralizes the execution and distribution of WebFOCUS reports, the contents of URLs, and files. ReportCaster supports multiple administrators and provides a single point of control for managing information distribution within an organization.

Learn about the new capabilities and enhancements available for scheduling and distribution in this release of WebFOCUS.

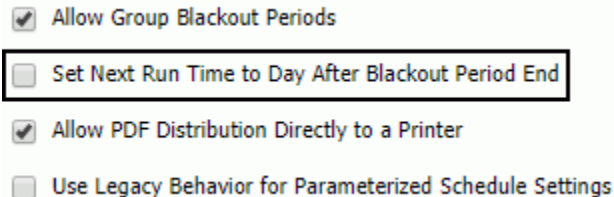
### In this chapter:

- [Controlling When Schedules Run After Blackout Periods](#)
  - [Recording Global Updates](#)
  - [Additional Options for WebFOCUS Schedule Tasks](#)
  - [Viewing Parameter Values for Library Reports](#)
  - [Generating a Dynamic Distribution List from WebFOCUS Repository Procedures](#)
  - [Setting the Expiration Time for Traces and System Logs](#)
  - [Setting the Default Schedule Task for the Advanced Scheduling Tool](#)
- 

### Controlling When Schedules Run After Blackout Periods

If you have a recurring schedule that is not allowed to run during a designated Blackout Period, you can ensure that the schedule runs at the same time the following day. To activate this feature, select the *Set Next Run Time to Day After Blackout Period End* check box in the ReportCaster Console. Using this feature removes the need to manually adjust the recurrence of a schedule or create a separate schedule.

To access the Set Next Run Time to Day After Blackout Period End check box, navigate to the ReportCaster Console. On the ribbon, in the Show group, click the Configuration button to display the Configuration options for the Console. In the side panel, click the General Preferences folder to display the check box, as shown in the following image.



To enable this option, select the check box and then save and restart ReportCaster from the ReportCaster Console.

The next time a schedule is unable to run due to a blackout date, this setting reschedules the distribution to occur the next day, at the same time, even if the schedule is not set to run that day.

For more information, see the *ReportCaster Guide* technical content.

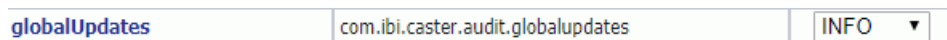
### Learn More

For more information, see the *Controlling When Schedules Run After Blackout Periods* topic in the *ReportCaster Guide* technical content.

## Recording Global Updates

The ReportCaster Console Global Updates tool helps you quickly update values stored in multiple schedules and scheduling tools. As of WebFOCUS 8.2 Version 04, you can use the globalUpdates log file to keep a detailed record of any global updates you initiate. This feature enables you to keep track of all past updates, and enables you to comply with the regulatory auditing requirements of your organization.

To access the globalUpdates log file, launch the Administration Console, click the Diagnostics tab, and then click Log Files. The following image shows the link to click to view the globalUpdates, log and the Log Level options menu for the globalUpdates log. This log is set to INFO, by default.



The globalUpdates log file records changes to the following values:

- Mail Server

- FTP Server
- Printer
- Email Address
- Email From
- Library URL
- Data Server
- Notification Type
- Notification Reply Address
- Notification Subject
- Notification Brief Message To
- Notification Full Message To
- First Pre-processing Procedure
- Second Pre-processing Procedure
- First Post-processing Procedure
- Second Post-processing Procedure

Each log entry displays information in the following format.

```
[YYYY-MM-DD hh:mm:ss,sss] INFO [Thread Identifier]User_ID - Database Table DATABASE TABLE
NAME - Global Update VALUETYPE of Old Value: old value to New Value: new value
```

The following example shows a global update log entry.

```
[2018-06-14 15:38:04,697] INFO [http-nio-25060-exec-8:globalupdates] admin
- Database Table BOTDIST - Global Update EMAILADDRESS of Old Value:
EmailA@ibi.com to New Value: EmailB@ibi.com
```

**Note:** Depending on your chosen browser, you may need to scroll your browser window to the right in order to view the full log information.

## Learn More

For more information, see the *Understanding Global Update Events* topic in the *WebFOCUS Security and Administration* technical content.

## Additional Options for WebFOCUS Schedule Tasks

You can now use three additional options when you create a WebFOCUS Schedule task:

1. The **If this task fails repeat every** check box.
2. The **Do not continue with the schedule if this task is unsuccessful** check box.
3. The option to override the parameter values used in called schedules.

These options provide more ways to edit and control the distribution of called schedules from within the calling schedule. You can also view the tasks saved in the called schedule from within the calling schedule.



## General Tab

The General tab and its new features are shown in the following image.

Task

Task Name: Task 1

Task Type: WebFOCUS Schedule

General Parameters

Scheduling Object: WebFOCUS Schedule

Schedule Pathname: IBFS:/WFC/Repository/Schedule/~admin/Report1.sch Browse...

Priority: Normal - 3

Running Mode:  Run immediately and wait for this job to finish

If this task fails repeat every 1 minutes up to 1 time(s)

Do not continue with the schedule if this task is unsuccessful

Add this job to the queue

Name	Type	Scheduling Object	Status	Alert	Burst
Task 1	WebFOCUS Report	IBFS:/WFC/Repository/Sche	Enabled	No	No

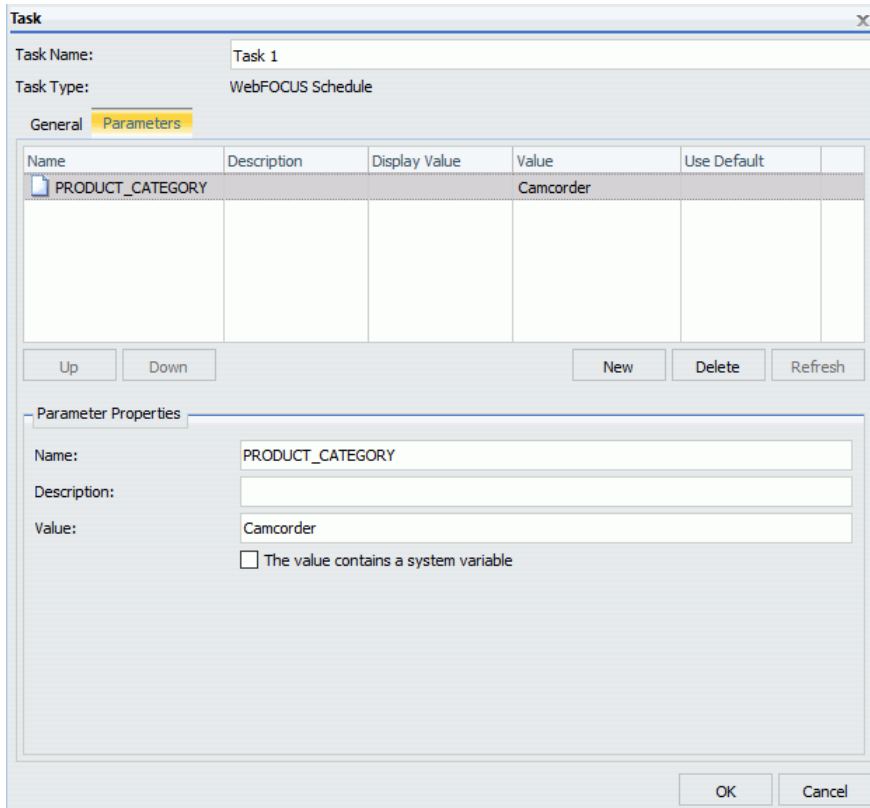
Enabled

OK Cancel

- If this task fails repeat every.** If this check box is selected, if the called schedule encounters an error, the calling schedule attempts to rerun the called schedule every specified number of seconds, minutes, or hours for the specific number of times that you define. The highest integer you can use for both numerical options is 999. This option is cleared, by default.
- Do not continue with the schedule if this task is unsuccessful.** Select this check box to make the calling schedule stop running if the called schedule encounters an error. This option is selected, by default.
- Tasks list.** This table displays the tasks saved within the called schedule, including the name, type, scheduling object, status, alert, and burst parameters for each task.

## Parameters Tab

Click the *Parameters* tab to display the Parameters user interface, as shown in the following image.



On this tab, you have the option to override the parameters used by the called schedule. To override an existing parameter, click the *New* button to open the Task Parameter dialog box. In the *Name* field, type the name of a parameter that exists in the called schedule. In the *Value* field, type the new parameter value that you want the called schedule to use. Click *OK* to add the updated parameter to the WebFOCUS Schedule task.

## Learn More

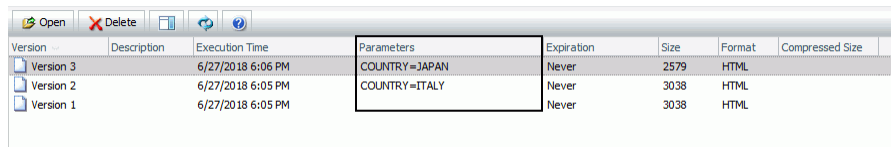
For more information, see the *Using the WebFOCUS Schedule Task Type to Schedule Other Schedules* topic in the *ReportCaster Guide* technical content.

## Viewing Parameter Values for Library Reports

When you create a report in InfoAssist you have the option of adding parameters. Before a schedule distributes a report, you can select parameter values in the schedule to make the report display only specific information.

Viewing a Library Report through the Report Library user interface or the ReportCaster Explorer details display about each Library Report. As of WebFOCUS 8.2 Version 04, you can now view parameter values for each version of a Library Report. This feature allows you to see a convenient list of parameter values used for all Library versions, without having to open each version.

The following image shows three Library Report versions in the Report Library user interface. Two versions use different parameter values for the same parameter.



Version	Description	Execution Time	Parameters	Expiration	Size	Format	Compressed Size
Version 3		6/27/2018 6:06 PM	COUNTRY=JAPAN	Never	2579	HTML	
Version 2		6/27/2018 6:05 PM	COUNTRY=ITALY	Never	3038	HTML	
Version 1		6/27/2018 6:05 PM		Never	3038	HTML	

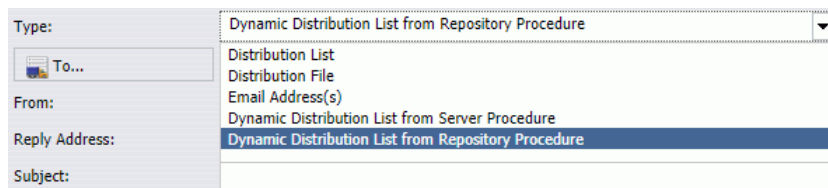
### Learn More

For more information, see the *Viewing Parameter Values for Library Reports* topic in the *ReportCaster Guide* technical content.

## Generating a Dynamic Distribution List from WebFOCUS Repository Procedures

In previous releases, Dynamic Distribution Lists could be generated only from procedures stored on the Reporting Server. As of WebFOCUS Release 8.2 Version 04, you can generate Dynamic Distribution Lists from procedures stored in the WebFOCUS Repository, which provides a second location for storing procedures. While most users in your organization may not have access to the Reporting Server, most users can access the Repository.

The Dynamic Distribution List from Repository Procedure option is shown in the following image.



Type: Dynamic Distribution List from Repository Procedure

To...

From:

Reply Address:

Subject:

- Distribution List
- Distribution File
- Email Address(s)
- Dynamic Distribution List from Server Procedure
- Dynamic Distribution List from Repository Procedure

You can create Dynamic Distribution List procedures using your personal text editor, or using the text editor available in the WebFOCUS user interface. When assigning the Email Distribution option to a schedule, select the *Dynamic Distribution List from Repository Procedure* option to choose a Dynamic Distribution List procedure stored in the Repository.

### Learn More

For more information, see the *Generating a Dynamic Distribution List from WebFOCUS Repository Procedures* topic in the *ReportCaster Guide* technical content.

## Setting the Expiration Time for Traces and System Logs

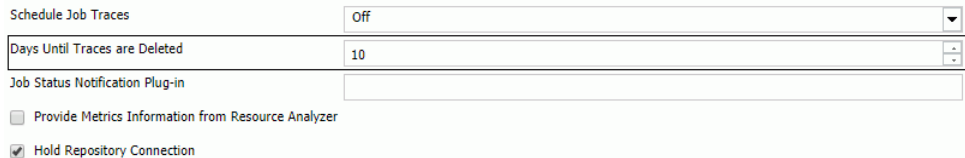
The *Days Until Traces are Deleted* setting is now available in the ReportCaster Console. This setting removes the need to manually delete files and folders in your trc, log, and temp directories. The Distribution Server automatically deletes content older than your specified number of days. The default number of days is 10.

### **Procedure:** How to Access and Use the Days Until Traces Are Deleted Option

1. From the Home Page, click the Banner to open the User menu, point to *Administration*, and then click *Administration Console*.

The Administration Console Displays.

2. Click the *ReportCaster* tab to display the ReportCaster Console.
3. On the ribbon, in the Show group, click the *Configuration* button to display the configuration options for the console.
4. In the side pane, navigate to the Distribution Servers folder and click the accordion button to display the Additional Settings folder.
5. Click the *Additional Settings* folder to display the Additional Settings page.
6. Navigate to the *Days Until Traces are Deleted* setting, shown in the following image.



The screenshot shows a configuration page with the following elements:

- A dropdown menu for "Schedule Job Traces" set to "Off".
- A numeric input field for "Days Until Traces are Deleted" set to "10".
- A text input field for "Job Status Notification Plug-in".
- Two checkboxes: "Provide Metrics Information from Resource Analyzer" (unchecked) and "Hold Repository Connection" (checked).

7. Use the arrows to increase or decrease the number of days.
8. After updating the setting, navigate back to the ribbon. In the Manage Configuration group, click *Save* to save your new settings, and *Restart* to restart ReportCaster from the ReportCaster Console.

## Learn More

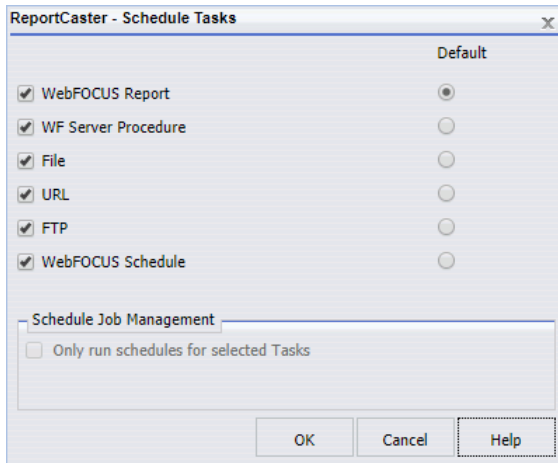
For more information, see the *ReportCaster Configuration* topic in the *ReportCaster Guide* technical content.

## Setting the Default Schedule Task for the Advanced Scheduling Tool

You can now set the default Schedule Task for the Advanced Scheduling tool. This feature allows you to set a global standard for all users of the Advanced Scheduling tool in your organization. For example, if your organization primarily creates schedules for running other schedules, you can set the default Schedule task as WebFOCUS Schedule.

When creating a Schedule Task for an Advanced Schedule, clicking the *New* button displays the dialog box of the selected default task.

The Schedule Tasks dialog box is shown in the following image.



## Learn More

For more information, see the *ReportCaster Configuration* topic in the *ReportCaster Guide* technical content.



# Chapter 4

## Security and Administration Enhancements

The WebFOCUS Client repository and authorization security model uses an implementation of Role-Based Access Control (RBAC) to enforce security across all resources in the repository. The flexibility of this model enables an administrator to implement security at a granular level for every resource in the WebFOCUS repository, if needed. User actions can be permitted for individual combinations of users and resources. Access can be granted or specifically denied on a group or individual level, and it can be inherited from higher folders.

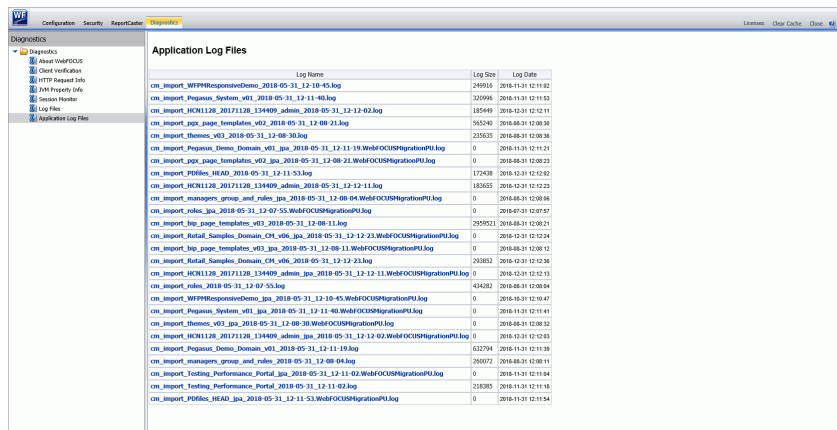
Learn about the new capabilities and enhancements available for security and administration in this release of WebFOCUS.

### In this chapter:

- [Application Log Files Page](#)
- [Automatic Sign-out Feature](#)
- [Enable Infographics \(IBI\\_ENABLE\\_INFOGRAPHICS\) Setting](#)

## Application Log Files Page

In WebFOCUS Release 8.2 Version 04, the new Application Log Files page has been added to the Administration Console Diagnostics tab, as shown in the following image.



Log Name	Log Size	Log Date
cm_import_WFFPResponseDemo_2018-05-31_12-18-45.log	20955	2018-05-31 12:18:45
cm_import_Popass_System_v01_2018-05-31_12-11-40.log	32096	2018-05-31 12:11:40
cm_import_HCN1128_20171128_134409_admin_2018-05-31_12-12-02.log	18549	2018-05-31 12:12:11
cm_import_page_templates_v02_2018-05-31_12-08-21.log	36520	2018-05-31 12:08:20
cm_import_Theme_v01_2018-05-31_12-08-20.log	22802	2018-05-31 12:08:20
cm_import_Popass_Demo_Domain_v01_2018-05-31_12-11-15.WebFOCUSMigrationPU.log	0	2018-05-31 12:11:21
cm_import_page_templates_v02_2018-05-31_12-08-21.WebFOCUSMigrationPU.log	0	2018-05-31 12:08:21
cm_import_PDFiles_HEAD_2018-05-31_12-11-53.log	17248	2018-05-31 12:12:02
cm_import_HCN1128_20171128_134409_admin_2018-05-31_12-12-11.log	18303	2018-05-31 12:12:23
cm_import_managers_group_and_rules_2018-05-31_12-08-04.WebFOCUSMigrationPU.log	0	2018-05-31 12:08:06
cm_import_rules_2018-05-31_12-07-55.WebFOCUSMigrationPU.log	0	2018-05-31 12:07:57
cm_import_page_templates_v03_2018-05-31_12-08-11.log	295921	2018-05-31 12:08:21
cm_import_Retail_Samples_Domain_CM_v06_2018-05-31_12-12-23.WebFOCUSMigrationPU.log	0	2018-05-31 12:12:24
cm_import_page_templates_v03_2018-05-31_12-08-11.WebFOCUSMigrationPU.log	0	2018-05-31 12:08:12
cm_import_Retail_Samples_Domain_CM_06_2018-05-31_12-12-23.log	30380	2018-05-31 12:12:26
cm_import_HCN1128_20171128_134409_admin_2018-05-31_12-12-11.WebFOCUSMigrationPU.log	0	2018-05-31 12:12:13
cm_import_rules_2018-05-31_12-07-55.log	43402	2018-05-31 12:08:04
cm_import_WFFPResponseDemo_2018-05-31_12-18-45.WebFOCUSMigrationPU.log	0	2018-05-31 12:18:47
cm_import_Popass_System_v01_2018-05-31_12-11-40.WebFOCUSMigrationPU.log	0	2018-05-31 12:11:41
cm_import_Theme_v01_2018-05-31_12-08-20.WebFOCUSMigrationPU.log	0	2018-05-31 12:08:22
cm_import_HCN1128_20171128_134409_admin_2018-05-31_12-12-02.WebFOCUSMigrationPU.log	0	2018-05-31 12:12:03
cm_import_Popass_Demo_Domain_v01_2018-05-31_12-11-15.log	63274	2018-05-31 12:11:39
cm_import_managers_group_and_rules_2018-05-31_12-08-04.log	26072	2018-05-31 12:08:11
cm_import_Testing_Performance_Partial_2018-05-31_12-11-03.WebFOCUSMigrationPU.log	0	2018-05-31 12:11:04
cm_import_Testing_Performance_Partial_2018-05-31_12-11-02.log	21695	2018-05-31 12:11:03
cm_import_PDFiles_HEAD_2018-05-31_12-11-53.WebFOCUSMigrationPU.log	0	2018-05-31 12:11:54

The Application Log Files page displays links to all log files generated from application utilities. Using this page, you can review application log files, and the records they contain, when you need to analyze errors or production issues that occurred when running an application utility. By making it easy to find and review application log information, the Application Log Files page saves you time when troubleshooting the operation of a standalone utility, such as a change management import or export. This page supports your efforts to quickly resolve any issues you may encounter, and provides you with a way to share records of utility operations with the Customer Service team.

### Learn More

For more information, see the *Working With Application Log Files* topic in the *Security and Administration* technical content.

## Automatic Sign-out Feature

In WebFOCUS Release 8.2 Version 04, the Enable Auto Sign-out setting and the Idle Timeout message duration (minutes) setting were added to the BI Portals page of the Administration Console Configuration tab. These settings enable administrators to add the display of a warning message to the session timeout user experience. When the Enable Auto Sign-out check box is selected, a message stating that the current session will expire due to inactivity opens after a session has been idle for the number of minutes specified by the Session Timeout setting. The message remains open and visible for the number of minutes specified in the Idle Timeout message duration (minutes) setting, which is two minutes, by default.

### Learn More

For more information, see the *Managing Automatic Sign Outs* topic and the definitions for Enable Auto Sign-out setting and the Idle Timeout message duration (minutes) setting in the *WebFOCUS Security and Administration* technical content.

## Enable Infographics (IBI\_ENABLE\_INFOGRAPHICS) Setting

The new Enable Infographics (IBI\_ENABLE\_INFOGRAPHICS) setting is located on the Other Settings page of the Administration Console Configuration tab. The check box in this setting is cleared, by default, disabling the use of infographics for all individuals throughout the organization. When the check box in this setting is selected, the Display Link to Easel.ly (opEaselly) privilege becomes available in the Advanced Reporting privilege category in the Security Center Role dialog box, and administrators and users working with a role that includes this privilege can create and use infographics.



## Learn More

For more information about this setting, see the definition for Enable Infographics in the *WebFOCUS Security and Administration* technical content.





# Chapter 5

## Visualization and Analytics Enhancements

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WebFOCUS allows all users to easily conduct data preparation, visually analyze complex data sets, and quickly generate compelling data visualizations, dashboards, and reports that can be shared with other users. This gives you an edge in using content and developing real-world scenarios derived from your source data.

Learn about the new capabilities and enhancements available for visualization and analytics in this release of WebFOCUS.

### **In this chapter:**

- [Freezing Column Headings in Active Reports](#)
  - [Enforcing Paths to Disable Unavailable Fields](#)
  - [Formatting Background Fill and Border Properties of Chart Title Objects](#)
  - [Support for Pictograms](#)
- 

### **Freezing Column Headings in Active Reports**

You can now freeze column headings in your In-Document Analytics (Active Technologies) reports. The Freeze option in the GUI tools allows you to define a scroll area within the data of your report and lock the column heading titles in place, enabling you to scroll through the data within the container. Report headings, footings, and grand totals are also locked, so that these also stay in view while you scroll the data in your report. This is very useful when working with large reports.

## Freezing Column Headings in Active Reports

When you enable the column title freeze feature and run your report, a thin scroll bar displays to the right side of the report, as shown in the following image.

Customer State Province	Cost of Goods	Discount	Gross Profit	Revenue	MSRP	TOTAL
Aargau	\$6,507,745.00	\$420,459.73	\$2,565,432.24	\$9,073,177.24	9,493,635.93	28,060,450.14
Abruzzo	\$3,154.00	\$200.20	\$1,140.23	\$4,294.23	4,494.43	13,283.09
Abruzzo	\$46,907.00	\$2,746.64	\$18,210.28	\$65,117.28	67,863.91	200,845.11
Acores	\$59,687.00	\$3,228.30	\$23,475.81	\$83,162.81	86,391.08	255,945.00
Acre	\$102,228.00	\$6,814.96	\$37,565.50	\$139,793.50	146,608.45	433,010.41
Adana	\$2,324.00	\$289.58	\$714.79	\$3,038.79	3,328.37	9,695.53
Adiyaman	\$15,413.00	\$1,189.96	\$6,606.42	\$22,019.42	23,209.38	68,438.18
Afyonkarahisar	\$9,506.00	\$444.19	\$3,746.34	\$13,252.34	13,696.53	40,645.40
Aguaascalientes	\$88,921.00	\$5,091.37	\$34,255.99	\$123,176.99	128,268.35	379,713.70
Aichi	\$6,583.00	\$422.59	\$2,775.95	\$9,358.95	9,781.54	28,922.03
Aisen del General Carlos Ibane	\$162,647.00	\$13,202.73	\$59,823.51	\$222,470.51	235,673.20	693,816.95
Aisen del Gral. c. Ibanez del Campo	\$14,033.00	\$867.59	\$6,164.03	\$20,197.03	21,064.62	62,326.27
Akershus	\$32,904.00	\$2,508.07	\$11,605.78	\$44,509.78	47,017.84	138,545.47
Akershus county	\$10,501.00	\$391.49	\$4,054.95	\$14,555.95	14,947.44	44,450.83
Akita	\$14,461.00	\$265.99	\$4,981.55	\$19,442.55	19,708.54	58,859.63
Al Bahr al Ahmar	\$14,254.00	\$1,021.62	\$3,785.31	\$18,039.31	19,060.93	56,161.17
Al Buhayrah	\$3,900.00	\$165.00	\$1,598.30	\$5,498.30	5,663.30	16,824.90
Al Iskandariyah	\$8,371.00	\$433.40	\$2,973.58	\$11,344.58	11,777.98	34,900.54
Al Ismailiyah	\$4,026.00	\$230.85	\$1,806.95	\$5,832.95	6,063.80	17,960.55
Al Jizah	\$7,461.00	\$347.00	\$2,766.75	\$10,227.75	10,574.75	31,377.25
Al Wadi al Jadid	\$4,058.00	\$164.90	\$1,676.84	\$5,734.84	5,899.74	17,534.32
Alabama	\$1,586,341.00	\$103,408.19	\$620,799.77	\$2,207,140.77	2,310,548.78	6,828,238.51
Alagoas	\$259,258.00	\$16,364.64	\$100,781.01	\$360,039.01	376,403.61	1,112,846.27
Alaska	\$5,087,967.00	\$337,102.82	\$2,011,411.46	\$7,099,378.46	7,436,480.40	21,972,340.14
Alberta	\$5,980,749.00	\$405,231.37	\$2,361,176.68	\$8,341,925.68	8,747,156.11	25,836,238.84
Alsace	\$42,593.00	\$2,271.65	\$18,212.01	\$60,805.01	63,076.67	186,958.34
Amana	\$50,453.00	\$4,455.62	\$37,177.50	\$127,630.50	132,086.22	304,803.02

830 of 830 records, Page 1 of 15 ▶▶▶

When you mouse over the thin scroll bar, it turns into a full scroll bar, making it easier to scroll through your report data. This scroll bar is shown in the following image.

Customer	Cost of Goods	Discount	Gross Profit	Revenue	MSRP	TOTAL
Aargau	\$6,507,745.00	\$420,459.73	\$2,565,432.24	\$9,073,177.24	9,493,635.93	28,060,450.
Abruzzi	\$3,154.00	\$200.20	\$1,140.23	\$4,294.23	4,494.43	13,283.
Abruzzo	\$46,907.00	\$2,746.64	\$18,210.28	\$65,117.28	67,863.91	200,845.
Acores	\$59,687.00	\$3,228.30	\$23,475.81	\$83,162.81	86,391.08	255,945.
Acre	\$102,228.00	\$6,814.96	\$37,565.50	\$139,793.50	146,608.45	433,010.
Adana	\$2,324.00	\$289.58	\$714.79	\$3,038.79	3,328.37	9,695.
Adiyaman	\$15,413.00	\$1,189.96	\$6,606.42	\$22,019.42	23,209.38	68,438.
Afyonkarahisar	\$9,506.00	\$444.19	\$3,746.34	\$13,252.34	13,696.53	40,645.
Aguaascalientes	\$88,921.00	\$5,091.37	\$34,255.99	\$123,176.99	128,268.35	379,713.
Aichi	\$6,583.00	\$422.59	\$2,775.95	\$9,358.95	9,781.54	28,922.
Aisen del General Carlos Ibane	\$162,647.00	\$13,202.73	\$59,823.51	\$222,470.51	235,673.20	693,816.
Aisen del Gral. c. Ibanez del Campo	\$14,033.00	\$867.59	\$6,164.03	\$20,197.03	21,064.62	62,326.
Akershus	\$32,904.00	\$2,508.07	\$11,605.78	\$44,509.78	47,017.84	138,545.
Akershus county	\$10,501.00	\$391.49	\$4,054.95	\$14,555.95	14,947.44	44,450.
Akita	\$14,461.00	\$265.99	\$4,981.55	\$19,442.55	19,708.54	58,859.
Al Bahr al Ahmar	\$14,254.00	\$1,021.62	\$3,785.31	\$18,039.31	19,060.93	56,161.
Al Buhayrah	\$3,900.00	\$165.00	\$1,598.30	\$5,498.30	5,663.30	16,824.
Al Iskandariyah	\$8,371.00	\$433.40	\$2,973.58	\$11,344.58	11,777.98	34,900.
Al Ismailiyah	\$4,026.00	\$230.85	\$1,806.95	\$5,832.95	6,063.80	17,960.
Al Jizah	\$7,461.00	\$347.00	\$2,766.75	\$10,227.75	10,574.75	31,377.
Al Wadi al Jadid	\$4,058.00	\$164.90	\$1,676.84	\$5,734.84	5,899.74	17,534.
Alabama	\$1,586,341.00	\$103,408.19	\$620,799.77	\$2,207,140.77	2,310,548.78	6,828,238.
Alagoas	\$259,258.00	\$16,364.64	\$100,781.01	\$360,039.01	376,403.61	1,112,846.
Alaska	\$5,087,967.00	\$337,102.82	\$2,011,411.46	\$7,099,378.46	7,436,480.40	21,972,340.
Alberta	\$5,980,749.00	\$405,231.37	\$2,361,176.68	\$8,341,925.68	8,747,156.11	25,836,238.
Alsace	\$42,593.00	\$2,271.65	\$18,212.01	\$60,805.01	63,076.67	186,958.
Amapa	\$90,453.00	\$4,455.62	\$37,177.59	\$127,630.59	132,086.22	391,803.
Amasya	\$29,669.00	\$1,330.14	\$12,531.30	\$42,200.30	43,530.43	129,261.
Amazonas	\$453,360.00	\$29,405.36	\$179,389.61	\$632,749.61	662,154.91	1,957,059.
Anatoliki Makedonia kai Thraki	\$19,253.00	\$1,375.72	\$7,585.96	\$26,838.96	28,214.68	83,268.
Andalucia	\$541,730.00	\$33,120.96	\$215,641.59	\$757,371.59	790,492.46	2,338,356.
Andaman & Nicobar Islands	\$5,455.00	\$393.38	\$2,349.37	\$7,804.37	8,197.75	24,199.
Andaman And Nicobar	\$5,496.00	\$372.89	\$2,083.82	\$7,579.82	7,952.71	23,485.
Andhra Pradesh	\$88,870.00	\$6,201.67	\$33,341.06	\$122,211.06	128,412.73	379,036.

If your report has more columns than can fit in the output container, you can employ the horizontal scroll bar at the bottom of the report.

**Note:** Scroll bars do not display if there is no scrollable data. Thus, if the data displayed fits the size of the container, scroll bars do not display.

You can enable the column heading freeze feature for In-Document Analytics reports in the GUI tools using the Freeze button on the Format tab of the ribbon, in the Navigation group. Enabling the Freeze option will add HFREEZE=ON in the stylesheet section of the report procedure.

Once you have enabled the column heading freeze feature, you must run your report to view the report with scroll bars.

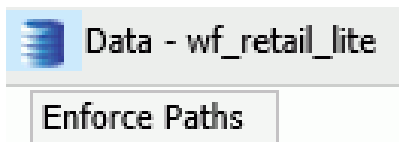
For more information, see the *Active Technologies User's Guide*.

## Enforcing Paths to Disable Unavailable Fields

Enforce Paths is a new feature that controls access to fields in the metadata tree based on their relationship to other fields within your data source. With each field you add to the field containers in the Query pane, Enforce Paths will update the available fields and only allow for the selection of fields in related fact tables. Fields in unrelated fact tables will become inaccessible.

In Release 8.2 Version 04, Enforcing Paths is available to all InfoAssist users. It is disabled by default. This default can be changed for your site in the InfoAssist Properties section of the Administration Console.

Enforcing Paths can be enabled for any individual procedure by clicking the *Enforce Paths* button (the silo container) to the left of the Data title in the Resources panel. This container is shown in the following image.

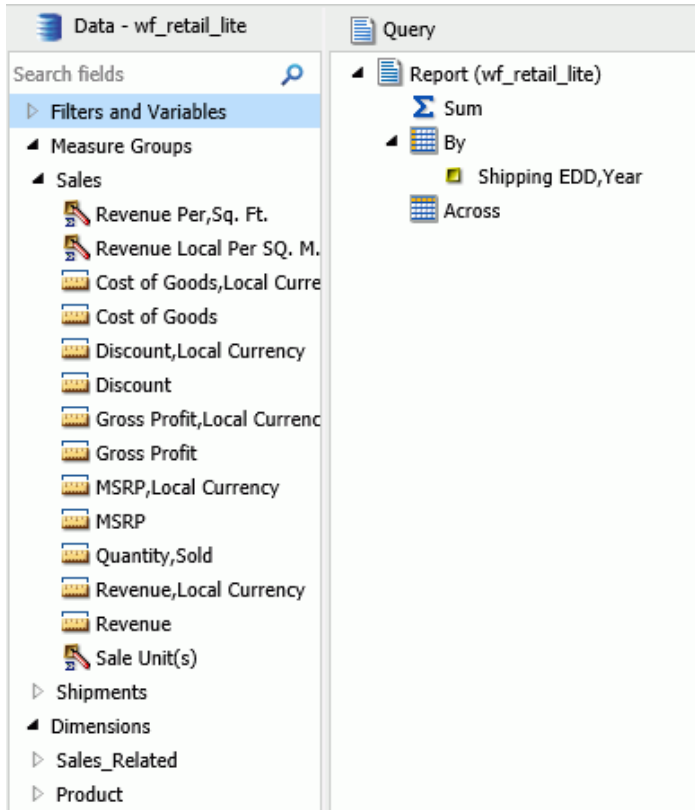


You can disable this feature for any procedure by toggling this Enforce Paths button.

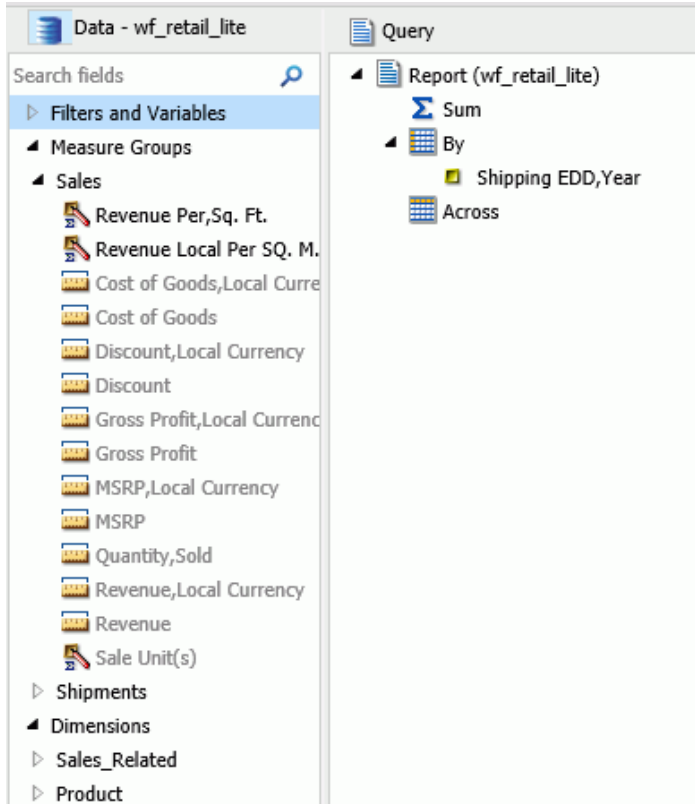
A synonym can describe a single path or multiple paths. When Enforce Paths is enabled, if a field cannot be accessed as part of the retrieval path of fields that have already been selected, it will be greyed out and unavailable for selection. The following example shows a data source without and with Enforce Paths enabled, respectively.

In WFRetail, the shipping information is not directly related to the sales information so they cannot be used together in a single request.

With Enforce Paths disabled, as shown in the following image, InfoAssist will allow you to add a Shipping Date field and the Sales Revenue field to the field containers but the request will not produce valid results because the fact tables have no direct link.



With Enforce Paths enabled, as shown in the following image, once the Shipping Date field is added to the field container, the sales related measures become unavailable so that the invalid request cannot be built.



For more information, see the *WebFOCUS InfoAssist User's Manual*.

## Formatting Background Fill and Border Properties of Chart Title Objects

You can format the background fill and border properties for the chart title, subtitle, and footnote.



**Syntax:**      **How to Format Background Color and Border Properties of Chart Title Objects**

```

"titleobject": {
  "backgroundColor": "string",
  "border": {
    "width": number,
    "color": "string",
    "dash": "string",
    "cornerRadius": {"x": value, "y": value}
  }
}

```

where:

`"titleobject"`

Can be one of the following:

- "title", which formats the chart title.
- "subtitle", which formats the chart subtitle.
- "footnote", which formats the chart footnote.

`"backgroundColor": "string"`

Is a color specification string or gradient definition that defines the background fill color of the chart title object. The default value is *undefined*.

`"border"`

Defines the properties of the border around the chart title object.

`"width": number`

Defines the width of the border in pixels. The default value is 0 (zero).

`"color": "string"`

Is a color specification string that defines the color of the border around the chart title object. The default value is *undefined*.

`"dash": "string"`

Is a string that defines the dash style of the border around the chart title object. Enter the length of the dash in pixels followed by the length of the space between dashes in pixels. The default value is no dash (" ").

`"cornerRadius": {"x": value, "y": value}`

Defines the properties of the corners of the box around the title object.

The `cornerRadius` property can consist of one value or two values. When there is one value that is zero (0), the corners are square. This is the default corner shape.

Rounded corners can be circular or elliptical. The x and y values denote the size of the circle radius or the semi-major and semi-minor axes of the ellipse.

Valid values for x and y are:

- ❑ A number that specifies the radius of the corner in pixels.
- ❑ A percent string such as "20%", that represents a percentage of the height (y) or width (x) of the box around the title object.
- ❑ A CSS length string such as "5em" or "10px" that specifies the radius of the corner in pixels. For information about CSS length strings, see <https://developer.mozilla.org/en-US/docs/Web/CSS/length>.
- ❑ An object with "x" and "y" properties (where "x" and "y" can be any of the above) to specify the corner radius along the width (x) and height (y) of the title object box.

### **Example:** Formatting the Background Fill and Border Properties of the Chart Title

The following request generates a title box with red background fill, a blue dashed border, and rounded corners.

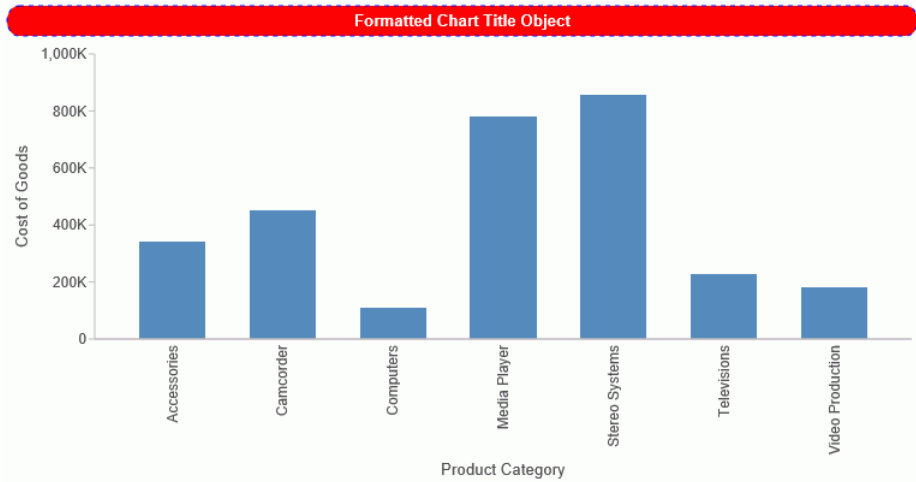
```
GRAPH FILE WF_RETAIL_LITE
SUM COGS_US
BY PRODUCT_CATEGORY
ON GRAPH PCHOLD FORMAT JSCHART
ON GRAPH SET LOOKGRAPH BAR
ON GRAPH SET EMBEDHEADING ON
ON GRAPH SET STYLE *

INCLUDE=IBFS:/FILE/IBI_HTML_DIR/ibi_themes/Warm.sty,$

TYPE=DATA, COLUMN=PRODUCT_CATEGORY, BUCKET=x-axis, $
TYPE=DATA, COLUMN=COGS_US, BUCKET=y-axis, $

*GRAPH_JS
"title": {
  "visible": true,
  "text": "Formatted Chart Title Object",
  "color": "white",
  "backgroundColor": "red",
  "border":
    {
      "width": 1,
      "color": "blue",
      "dash": "4 4",
      "cornerRadius": {"x": 10, "y": "25%"}
    }
}
*END
ENDSTYLE
END
```

The output is shown in the following image.



## Support for Pictograms

Using the chart type "pictogram", you can use images as markers on the chart. The chart consists of bars, for each series, that are comprised of either repeated images that are stacked to the height of the bar or a single image that is stretched or shrunk to represent the height of the bar. The image for each series is specified in the marker:shape property as either a URL reference or a standard marker shape.

**Syntax:** How to Use Pictograms as Chart Markers

```

*GRAPH_JS
"chartType": "pictogram",
"pictogramProperties": {
  "fillMode": "string",
  "backFill": "string",
  "lockToGrid": boolean
},
"series":
[
  {
    "series": number,
    "color": "string",
    "marker":
    {
      "shape": "string",
      "color": "string",
      "border": {"width": number, "color": "string"}
    }
  }
]

```

where:

"pictogramProperties"

Defines the properties of the pictogram images.

"fillMode": *string*

Controls how each bar is filled. Valid values are:

- "repeatClip", which repeatedly stacks the image to the height of the bar. This is the default value.
- "stretch", which stretches or shrinks the image to the height of the bar.

"backFill": *string*

Defines a color specification string to use with a standard marker shape and the property "fillMode": "repeatClip". It repeats the marker shape all the way to the top of the axis space instead of to the height of the bar, but fills the markers above the height of the bar with this color. The default value is "undefined".

"lockToGrid": *boolean*

If true, shrinks the chart so that exactly one pictogram glyph fits between each y-axis gridline. The default value is false.

"series"

Defines the properties of the series that will be represented by the images.

"series": *number*

Is the number of the series to be represented by the pictogram.

`"color": "string"`

Is a color specification string for the series. To see the pictograms without the series bars, use the property `"color": "transparent"`.

`"marker"`

Defines the properties of the marker for the series.

`"shape": "string"`

Can be either a URL reference to an image file, or a standard marker shape. A URL reference must be in the following format.

`"url(url_to_image_file)"`

Image types supported include .gif, .jpg, .png, and .svg.

`"color": "string"`

Defines the color for the marker when it is a standard marker shape. This property is ignored for an image file.

`"border"`

Defines the width in pixels and a color specification string for the marker border.

Border properties are ignored when the marker shape is an image file.

**Example: Using a Repeated Image File as a Pictogram**

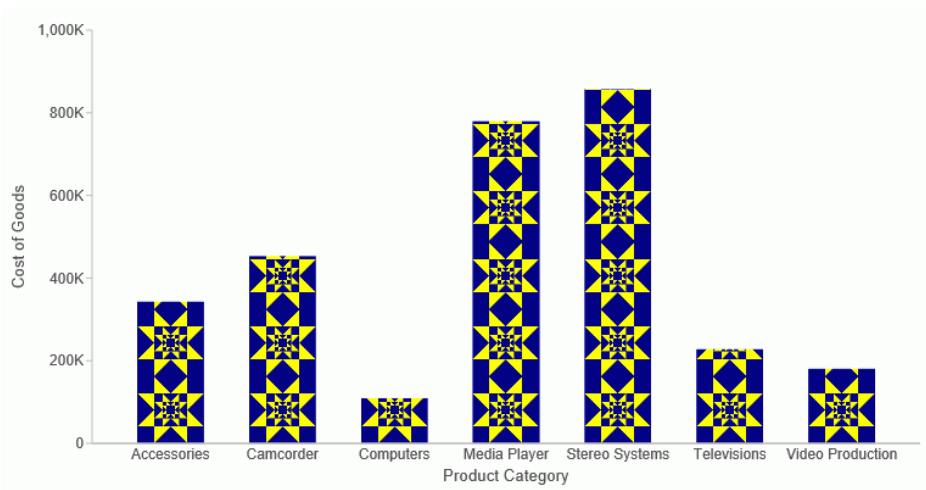
The following request uses a repeated quilt block image to generate the bars on the chart.

```

GRAPH FILE WF_RETAIL_LITE
SUM COGS_US
BY PRODUCT_CATEGORY
ON GRAPH PCHOLD FORMAT JSCHART
ON GRAPH SET LOOKGRAPH BAR
ON GRAPH SET STYLE *
type=data, column=N1, bucket=x-axis, $
type=data, column=N2, bucket=y-axis, $
INCLUDE=IBFS:/FILE/IBI_HTML_DIR/ibi_themes/Warm.sty,$
*GRAPH_JS
"chartType": "pictogram",
"pictogramProperties": {
  "fillMode": "repeatClip",
  "backFill": "undefined",
},
"series": [{
  "series": 0,
  "color": "transparent",
  "marker": {
    "shape": "url(http://ecl.informationbuilders.com/jschart/quilt.gif)",
    "color": "undefined",
    "border": {"width": 1, "color": "#DDDDDD"}
  }
}]
*END
ENDSTYLE
END

```

The output is shown in the following image.



**Example:** Using a Stretched Image File as a Pictogram

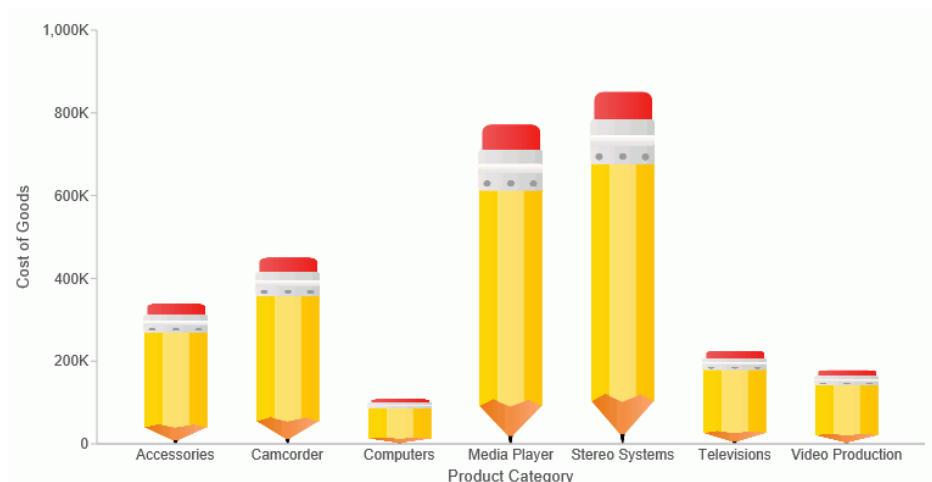
The following request uses a stretched image file to generate the bars on the chart.

```

GRAPH FILE WF_RETAIL_LITE
SUM COGS_US
BY PRODUCT_CATEGORY
ON GRAPH PCHOLD FORMAT JSCHART
ON GRAPH SET LOOKGRAPH BAR
ON GRAPH SET STYLE *
type=data, column=N1, bucket=x-axis, $
type=data, column=N2, bucket=y-axis, $
INCLUDE=IBFS:/FILE/IBI_HTML_DIR/ibi_themes/Warm.sty,$
*GRAPH_JS_FINAL
"chartType": "pictogram",
"pictogramProperties": {
  "fillMode": "stretch",
  "backFill": "undefined",
},
"series": [{
  "series": 0,
  "color": "transparent",
  "marker": {
    "shape": "url(http://ecl.informationbuilders.com/jschart/pencil.gif)",
    "color": "red",
    "border": {"width": 1, "color": "#DDDDDD"}
  }
}]
*END
ENDSTYLE
END

```

The output is shown in the following image.



**Example: Using a Standard Marker Shape With Backfill as a Pictogram**

The following request uses the fivestar maker shape with light gray backfill to generate the chart.

```

GRAPH FILE MOVIES
SUM COPIES
BY RATING
ON GRAPH PCHOLD FORMAT JSCHART
ON GRAPH SET LOOKGRAPH BAR
ON GRAPH SET STYLE *
type=data, column=N1, bucket=x-axis, $
type=data, column=N2, bucket=y-axis, $
INCLUDE=IBFS:/FILE/IBI_HTML_DIR/ibi_themes/Warm.sty,$
*GRAPH_JS
"chartType": "pictogram",
"pictogramProperties": {
  "fillMode": "repeatClip",
  "backFill": "lightgray",
},
"series": [{
  "series": 0,
  "color": "transparent",
  "marker": {
    "shape": "fivestar",
    "color": "gold",
    "border": {"width": 1, "color": "#FECF01"}
  }
}]
*END
ENDSTYLE
END

```

The output is shown in the following image.





## Web Development Enhancements

---

WebFOCUS provides you visual access to tools, functions, properties and features that WebFOCUS offers through the WebFOCUS Home Page. The modern, mobile-friendly design features an innovative user interface and intuitive layout. WebFOCUS Designer is a web-based development tool, allowing you to create interactive, responsive pages and meaningful InfoApps with content that you or other members of your organization create. Embedded Business Intelligence (BI) provides the capability of incorporating WebFOCUS content and functionality (features) into an external application.

Learn about the new capabilities and enhancements available for the WebFOCUS web development tools in this release of WebFOCUS.

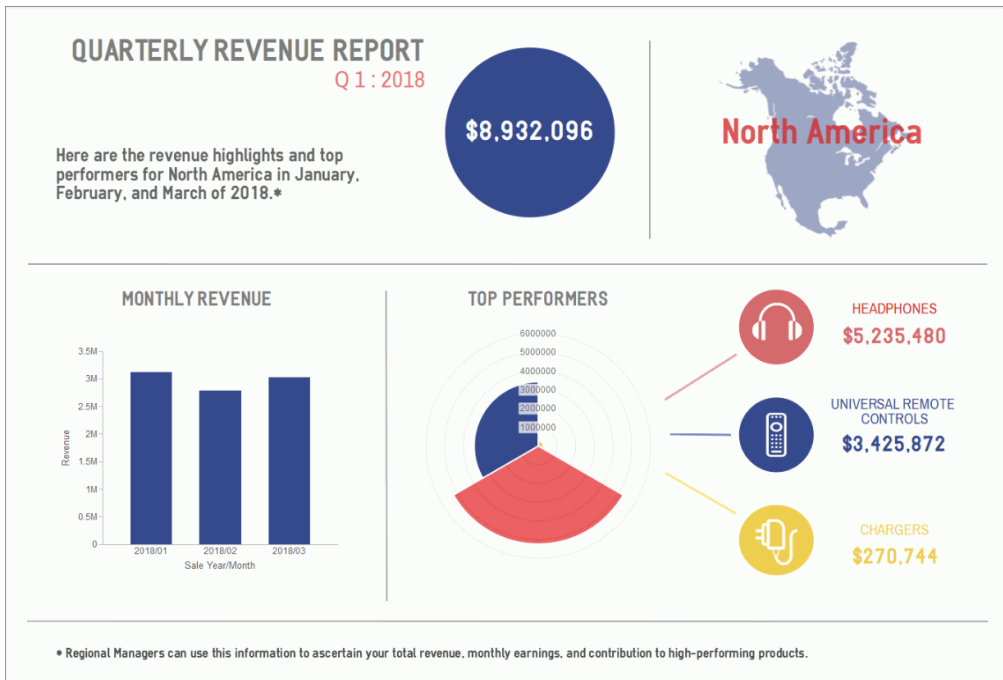
**In this chapter:**

- [Creating WebFOCUS Infographics](#)
  - [Adding Tags Column in WebFOCUS Explorer List View](#)
  - [Dragging and Dropping Folders and Files](#)
  - [Shared and Personal Tags](#)
  - [Search Options](#)
  - [Using Keyboard Shortcuts](#)
  - [Web Content Folder and Global Resources Folder](#)
  - [Repository Widgets](#)
  - [Hiding Content From Devices](#)
  - [Using Info Mode](#)
  - [ID and Classes Properties](#)
  - [Configuring Section Row Height](#)
-

## Creating WebFOCUS Infographics

WebFOCUS Infographics allow you to present ideas and metrics in a compelling visual format, using images to share information and convey complex concepts. Paired with the power and reporting capabilities of WebFOCUS, infographics become a powerful tool that lets you present your visuals with data from your corporate sources, and adopt key elements that are specific to different audiences.

Start building your infographic in the WebFOCUS Infographic Creation Tool, a web-based platform that features thousands of customizable infographic templates and design objects. As you create your infographic image, different objects can be tagged to be replaced with your data. The infographic can then be uploaded into the Home Page and used to create a new infographic procedure that places the data elements in the designated locations. The infographic procedure is a specialized InfoAssist document, in which each of the tagged objects becomes a data component in a compound document. InfoAssist provides specially designed functionality that allows you to easily fill each of these data components and generate data-driven infographic images. An example of a completed WebFOCUS Infographic is shown in the following image.



You can make your newly created WebFOCUS Infographic available to other users by publishing it in your repository, sharing it with specific users and groups, or by distributing it using WebFOCUS ReportCaster. You can also distribute it using the Burst option, which enables you to personalize sections of your infographic image to different members of your target audience.

To access the WebFOCUS Infographic Creation Tool, on the WebFOCUS Home Page, from the Administrator menu, under Tools, click the *WebFOCUS Infographics* option.

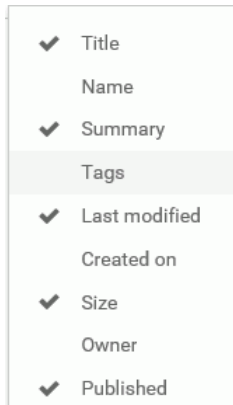
## Learn More

For more information about this feature, see the *Creating WebFOCUS Infographics* technical content.

## Adding Tags Column in WebFOCUS Explorer List View









In WebFOCUS Release 8.2 Version 04, from the WebFOCUS Home Page, you can now view Tags when working in WebFOCUS Explorer List view. This lets you see what tags are associated with each item in the list.

The Tags option is disabled by default, as shown in the following image.



Once enabled, the Tags column displays, as shown in the following image.

## Dragging and Dropping Folders and Files

Title	Summary	Tags	Last modified	Size	Published	⚙
 Brand Comparison YTD	Data from the consolidated mar...	Brand, Profit	4/15/2018 12:07:23 AM	21 KB	<input checked="" type="checkbox"/>	Title
 Brand Pie	Data from the consolidated mar...	Brand	4/15/2018 12:07:23 AM	11 KB	<input checked="" type="checkbox"/>	Name
 Business Region Revenue ...	Revenue summary Year To Date ...	Business Region	4/15/2018 12:07:23 AM	21 KB	<input checked="" type="checkbox"/>	Summary
 Customer Demographics	The Report lists all known demo...	Customer	4/15/2018 12:07:23 AM	41 KB	<input checked="" type="checkbox"/>	Tags
 Customer Lifetime Purcha...	A list of all historical purchases ...	Customer	4/15/2018 12:07:23 AM	71 KB	<input checked="" type="checkbox"/>	Last modified
 Customer List YTD	A year to date customer list sho...	Sales Metrics, Revenue, Customer	4/15/2018 12:07:23 AM	31 KB	<input checked="" type="checkbox"/>	Created on
 Product Category Revenue...	Product Category Revenue YTD	Product, Revenue	4/15/2018 12:07:23 AM	21 KB	<input checked="" type="checkbox"/>	Size
 Product Model Cost vs Rev...	A chart that shows the relations...	Model, Cost, Revenue	4/15/2018 12:07:23 AM	21 KB	<input checked="" type="checkbox"/>	Owner

- Title
- Name
- Summary
- Tags
- Last modified
- Created on
- Size
- Owner
- Published
- Shown

You can click the *Tags* column heading to alphabetize the items in the list, by tag.

### Learn More

For more information about this feature, see the *WebFOCUS Explorer* topic in the *Using the WebFOCUS Home Page* technical content.

## Dragging and Dropping Folders and Files

In WebFOCUS Release 8.2 Version 04, from the WebFOCUS Home Page, you can now drag and drop items between different areas of WebFOCUS Explorer.

You can drag and drop folders or files from the content area to other folders within the content area, or to other folders within the repository tree. You can also drag and drop folders from the repository tree to other folders within the repository tree, or to other folders within the content area.

You can drag and drop items, or hold the Ctrl key to drag and drop copies of items. Drag and drop functions the same as the cut-and-paste options from the context menu. Drag and drop while holding the Ctrl key functions the same as the copy-and-paste options from the shortcut menu.

**Note:** You can select multiple items by holding Ctrl while selecting each item.

### Learn More

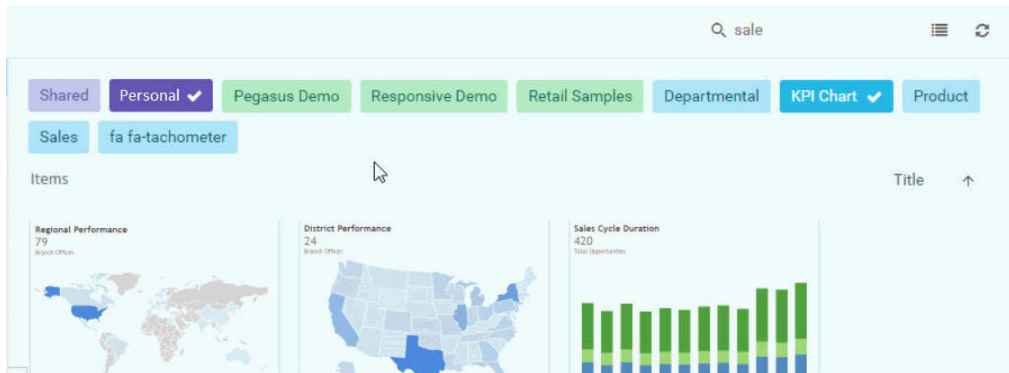
For more information about this feature, see the *Dragging and Dropping Folders and Files* topic in the *Using the WebFOCUS Home Page* technical content.

## Shared and Personal Tags

Two new tags have been added to the WebFOCUS Home Page, making it easy for you to categorize your content. The new tags, Shared and Personal, are particularly useful when choosing which tags to apply to your repository item.

The Shared tag helps you filter just the content that is specific to you. The Personal tag makes it easy for you to filter just your personal My Content.

The Shared and Personal tags are shaded in purple, and display when the folder search is initiated at a domain level or the root node above domains. They are the first two tags that display in your tag list, as shown in the following image.



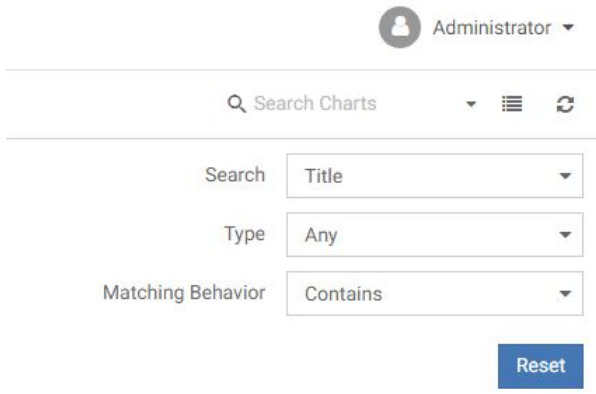
## Learn More

For more information about this feature, see the *Shared and Personal Tags* topic in the *Using the WebFOCUS Home Page* technical content.

## Search Options

In WebFOCUS Release 8.2 Version 04, from the WebFOCUS Home Page, you now have access to additional search options when searching folders. This allows you to be more specific in your search, and identify your content quickly and easily.

You can select Search options by criteria including Title, Type, and Matching Behavior, as shown in the following image.



## Learn More

For more information about this feature, see the *Search Options* topic in the *Using the WebFOCUS Home Page* technical content.

## Using Keyboard Shortcuts

In WebFOCUS Release 8.2 Version 04, from the WebFOCUS Home Page, you can use keyboard shortcuts to perform the common actions shown in the following table.

Action	Shortcut Keys
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Delete	DEL

The relevant shortcut keys display next to their corresponding options in the shortcut menu.

## Learn More

For more information about this feature, see the *Using Keyboard Shortcuts* topic in the *Using the WebFOCUS Home Page* technical content.

## Web Content Folder and Global Resources Folder

In WebFOCUS Release 8.2 Version 04, from the New Home Page and the Legacy Home Page, Administrators now have access to a Global Resources folder on the Domains level in the Resources tree. From the Home Page, Administrators also have access to a Web Content folder on the Domains level in the Resources tree.

The Global Resources folder contains files that are used to style and format your content in WebFOCUS Designer and Portal Page Designer. The Web Content folder lists applications that are located on the WebFOCUS Client.

The Web Content and the Global Resources folders are shown in the following image.



Right-click shortcut menu folder options include: Expand/Collapse, Paste, Refresh, Security, and Properties.

**Note:** On the Home Page, clicking the *Custom* subfolders under Global Resources displays additional Create New options on the Actions Bar.

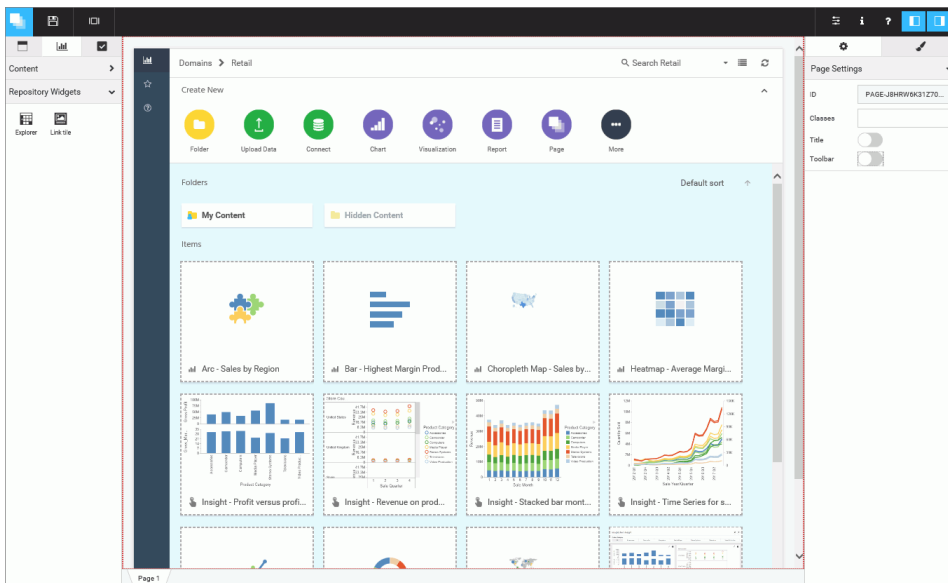
## Learn More

For more information about these features, see the *Web Content Node* topic and the *Global Resources Node* topic in the *Using the WebFOCUS Home Page* technical content.

## Repository Widgets

The Repository Widgets section is now available in the Content tab of the Resource Selector in WebFOCUS Designer. The repository widgets provide additional innovative ways of using your content and incorporating it into your page. There are two repository widgets currently available in WebFOCUS Designer, Explorer and Link tile.

The Explorer widget allows you to put the WebFOCUS Explorer onto your page and use the WebFOCUS Home Page features to navigate your content. A page that displays the Explorer widget can replace the default Workbench page in the Business Intelligence Portal. An example of a page displaying the Explorer widget is shown in the following image.



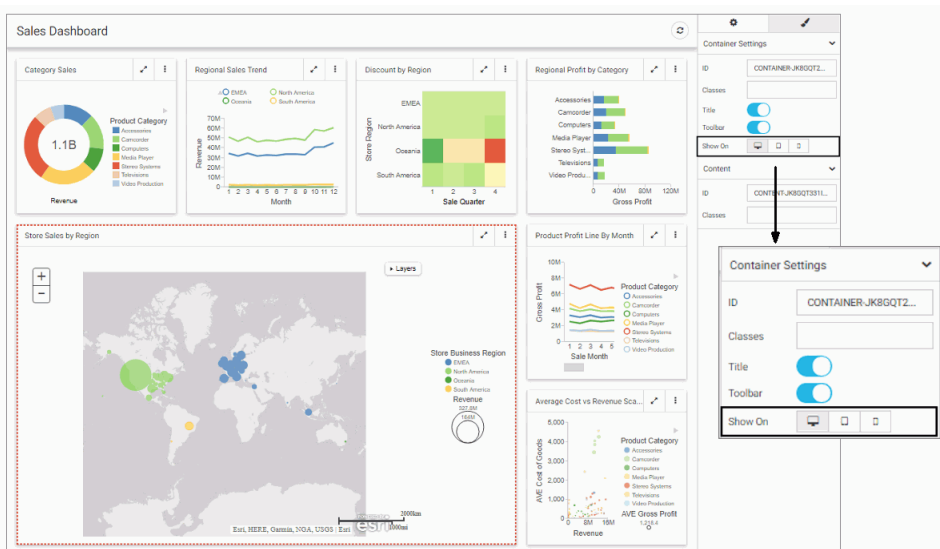
The Link tile widget allows you to arrange content in such a way that one content item becomes a click-through tile that opens another content item. This feature is especially useful when you need to incorporate a large or Insight-enabled item into a page and display it on all devices.



## Hiding Content From Devices

In WebFOCUS Designer, you can choose to hide certain content items from smaller devices. This feature is useful when dealing with large or multi-faceted items like maps and visualizations. Content visibility on devices is controlled by the Show On property, which you configure in the Properties panel. The options include desktop, tablet, and mobile. All three options are selected by default, making the item visible on all devices. Manually, clear the buttons to hide the item from specific device types.

An example of hiding a large item from mobile phones and tablets is shown in the following image.

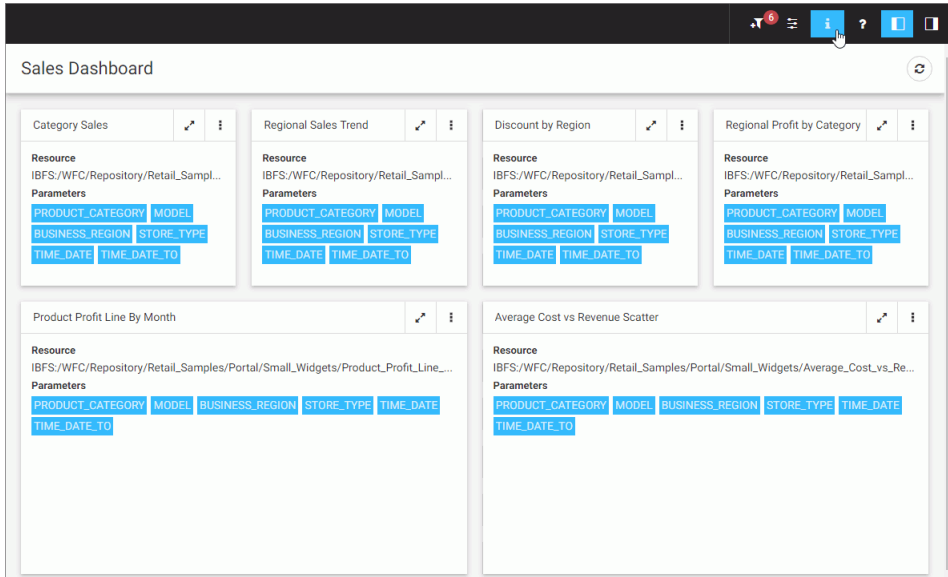


Once the item is hidden from a device, the other items around it re-flow into the empty space and retain the responsive layout.

## Using Info Mode

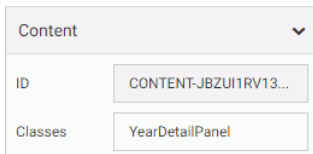
You can click the Info Mode button in the WebFOCUS Designer toolbar to enable the information mode. This mode changes the view of all content items on the canvas to display their paths in the repository and parameters configured within these items. This feature allows developers to easily find and edit content, determine whether each item is correct for the page, or quickly preview parameters before building a filter grid.

An example of the enabled info mode is shown in the following image.



## ID and Classes Properties

In WebFOCUS Designer, from the Properties panel, you can access the ID and Classes properties. The ID property contains a read-only unique CSS identifier of the object that is currently selected on the canvas. You can reference this value in custom JavaScript and CSS code. The Classes property allows you to add one or more custom CSS classes that you can reference in custom JavaScript and CSS code. On the content panel level these properties can also be used in drill-down targeting procedures. An example of the ID and Classes properties is shown in the following image.



## Configuring Section Row Height

In WebFOCUS Designer, you can change the height of the section that is currently selected on the canvas by configuring the Row Height property in the Properties panel. This feature is especially useful when creating pages with precise UI/UX requirements.

**Note:** Changing the section row height does not change the margin, which can be configured on the page level.





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# WebFOCUS

WebFOCUS New Features  
Release 8.2 Version 04



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