



WebFOCUS

Using WebFOCUS InfoAssist to
Create a Simple Application

August 16, 2018



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Introducing WebFOCUS InfoAssist

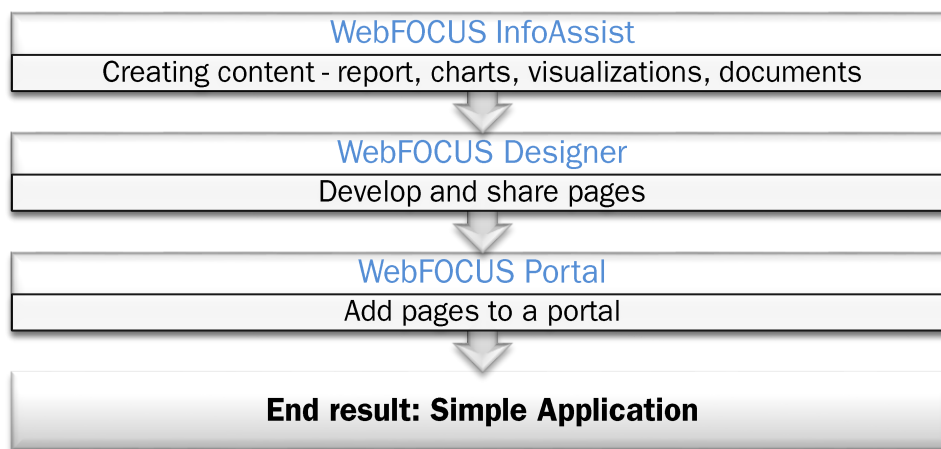


Introducing WebFOCUS InfoAssist

Data is one of your company's greatest assets. You and your enterprise users, no doubt, rely on corporate data to make business decisions that keep your organization successful. In most companies, data is organized into many reports or contained within numerous data sources. Providing data to corporate users in static report formats is often not sufficient. WebFOCUS InfoAssist offers a flexible option to enable self-service reporting and data access capabilities for all enterprise users.

With InfoAssist, it's easy to create reports or charts, which can be styled as pages for sharing, or positioned in a portal to create a simple application.

By bringing data from multiple reports and charts together in a single application, you can improve business operational processes and enable better decisions!



This Getting Started guide will show how you can do just that - use WebFOCUS InfoAssist to easily create a simple application.

InfoAssist Users Can Impact the Enterprise

Before we begin, let's take a closer look at InfoAssist from a user and workflow perspective to see how InfoAssist users can connect to data and impact their business, from a single, immediate decision to a fully operationalized information asset:

- InfoAssist users can access governed data from many sources, whether it originates from the enterprise, is hosted in the cloud, or sits on a desktop.
- InfoAssist aids in the creation of a more traditional report, including calculations, sorting, ranking, formatting, filtering, traffic-lighting, and drill-downs.
- Information Builders has more than 300 data adapters to a wealth of data sources, all of which can be cleansed, blended, validated, and easily presented to your users.

- Providing access to governed data sources is critical for users to interact with high-quality data, where single versions of the truth help to avoid costly mistakes attributed to poorly informed decisions originating from bad or user corrupted data.
- InfoAssist incorporates a configurable reporting and analytics environment that allows users to quickly and easily create simple queries, reports, and charts, all the way up to advanced dashboards and specialist documents, such as financial statements.
- InfoAssist's interface is familiar to Microsoft® Office users, and is a natural next step for any Word or Excel® user to easily create a broad array of information assets for personal or shared use.
- Once you create and configure content in InfoAssist, you can use WebFOCUS Designer to style your reports and charts, and then leverage the WebFOCUS Portal to securely save, organize, and share the InfoAssist content. This enables other business users in your organization to access and interact with the resulting reports, charts, and dashboards.
- Not all InfoAssist users require licenses, which is a significant factor if your organization has hundreds or thousands of people who would benefit from the shared applications.

Now you are ready to get started creating a simple application!

Using WebFOCUS InfoAssist to Create a Simple Application

For this work session, assume that your task is to develop an application that enables access to your company's retail sales data: sales revenue, products sold, and so on. Your role is to develop reports and charts that provide various views of this data for corporate executives, operational managers, and supply chain staff.

You have been given access to WebFOCUS, specifically InfoAssist, and need to create content, share results, and develop a basic application to support corporate stakeholders' use of the data represented.

Signing In to WebFOCUS

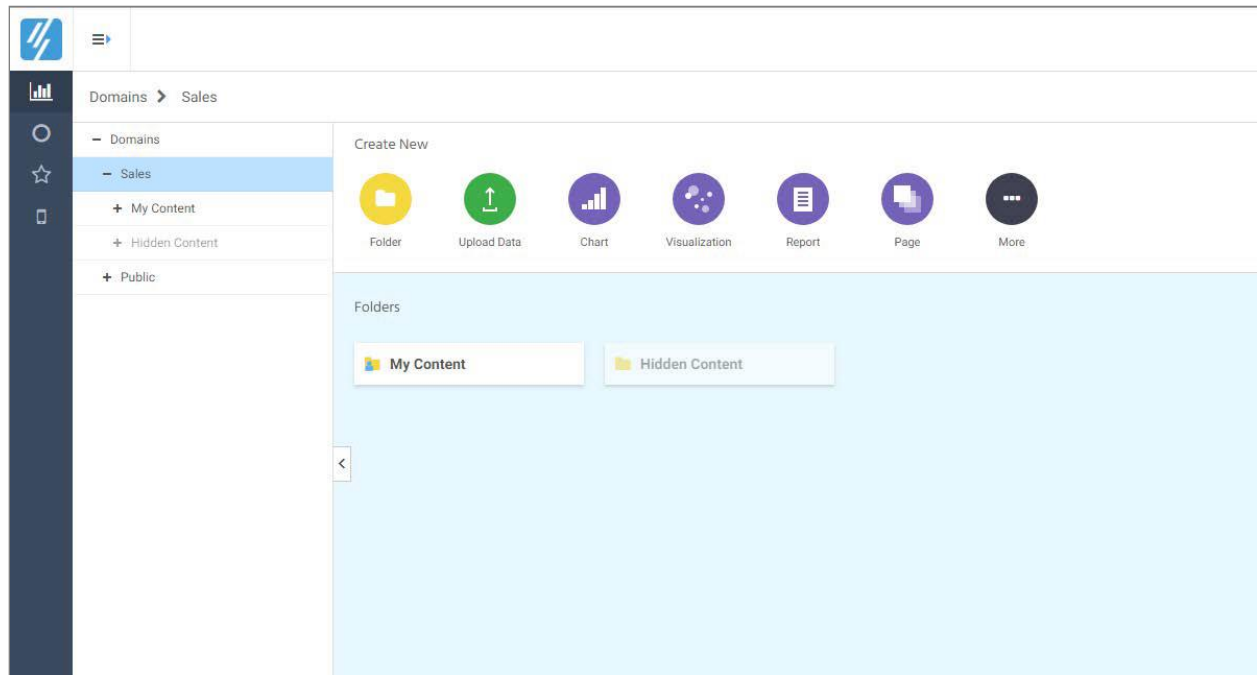
To begin, all you need is:

- **Access to WebFOCUS.** This can be a URL or machine where WebFOCUS is installed.
- **A valid user ID and password.** This is typically configured by your administrator. You will need developer access to a domain, which is necessary to develop the application.
- **Data.** In this exercise, we will use sample WebFOCUS Retail data, which is included with your WebFOCUS software installation.

For this exercise, we have created a sample domain and users.

Sign in to WebFOCUS using the Developer ID credentials provided by your administrator, which enables your access to the domain where you will create the application.

When you sign in to WebFOCUS, the Home Page appears, as shown in the following image.



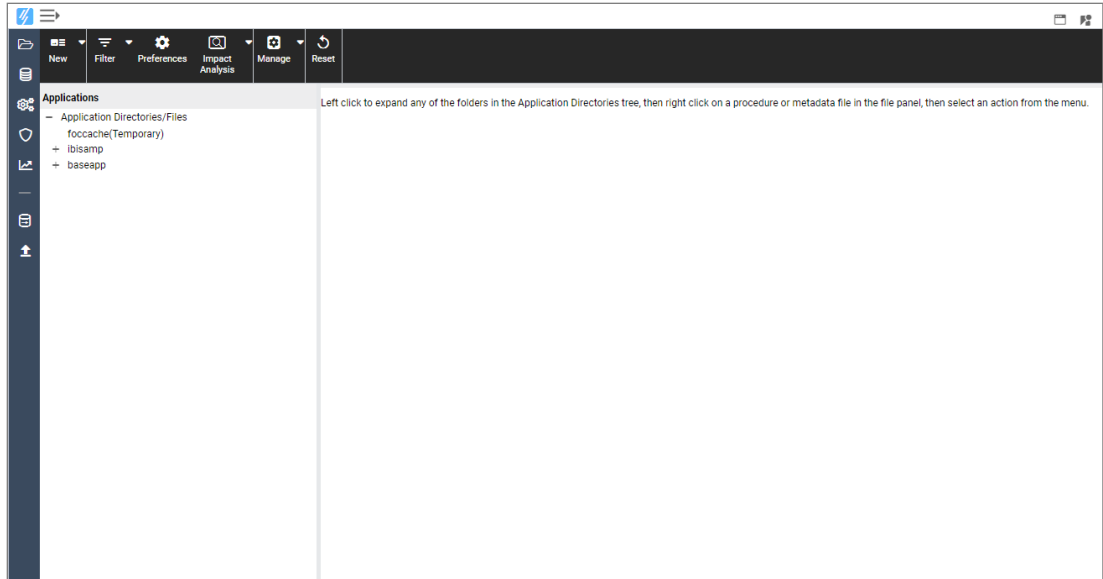
Here, you can access different views of content, domains, and the options that are available to you as you begin creating content for your application.

Identifying the Data File

With your installation of WebFOCUS, you were granted access to sample data, which you will use in this exercise to create content for the application that you will be developing. When you are using WebFOCUS apart from this exercise, you can follow these same steps to create content for your application.

In this example, we are going to use Retail Demo data, which provides a view of store information, products, and revenue. Here's how to access that data:

- On the Home Page, under Create New, click the **More** button and then click **Metadata**.
- The Reporting Server Console opens, as shown in the following image.



- In the Reporting Server Console, in the Applications pane, select the application folder that corresponds to the domain where you are creating the application.
- On the ribbon, click **New**, and then click **Tutorials**. This will create the sample data in your designated application folder.
- The Create Tutorial Framework tab opens. Here you can select the data that you want to upload for use in your application. In this example, we are going to load the WebFOCUS – Retail Demo.

Note that the information in the image below does not need to completely match your settings.

? Tutorial	WebFOCUS - Retail Demo
? Select DBMS:	DATREC
? Prefix for SQL Tables	wrd wrd or mylib/wrd or xxx.wrd
? Data Security (DBA)	None
? Tutorial Data Volume Limit	Large (285MB)
? Application	ibisamp
<input type="button" value="Create"/>	

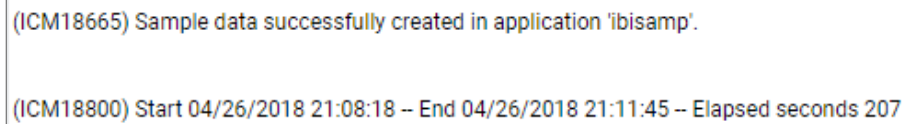
Modify the settings to ensure that they point to the folder or domain in which you are creating the application.

Note: If you have a Bulk Load Program installed on your machine, keep the Bulk Load option selected. If not, clear the check box.

The Application setting should point to the domain you are using to create content. If not, click the ellipsis (...) button and navigate to the location where you want to create your data and content.

- Click **Create**. Then, when prompted, click **OK**.

After the Retail Demo data loads, you will receive a message in the Create Tutorial Framework pane, confirming that your sample data was created successfully, as shown in the following image.



(ICM18665) Sample data successfully created in application 'ibisamp'.
(ICM18800) Start 04/26/2018 21:08:18 -- End 04/26/2018 21:11:45 -- Elapsed seconds 207

- Exit the Reporting Server Console.

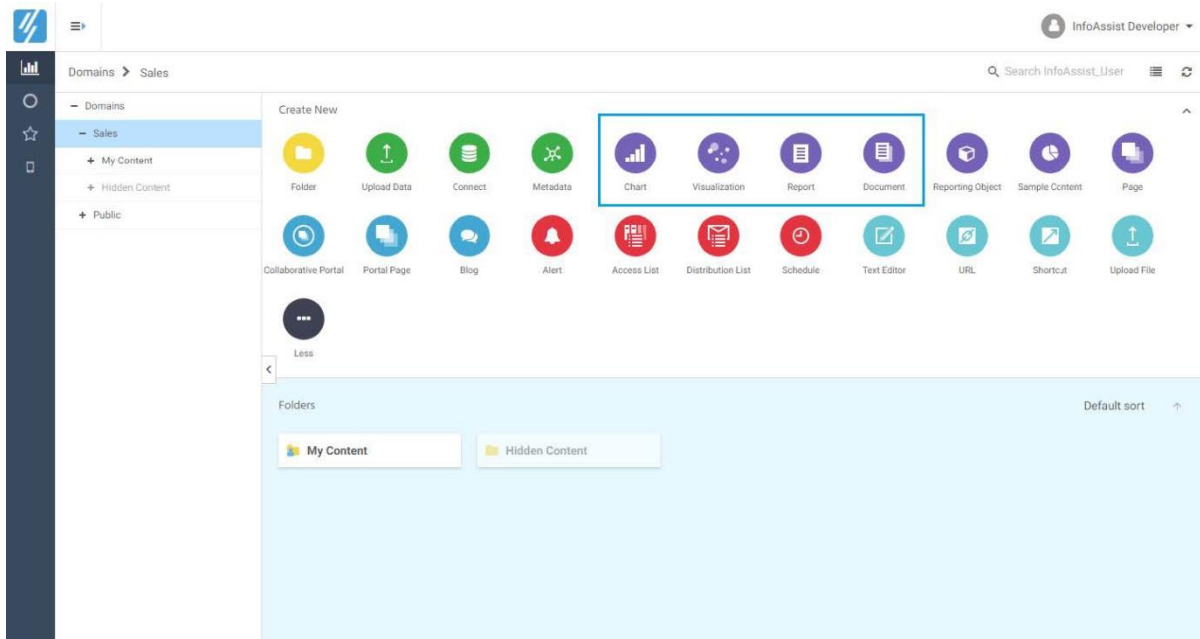
Now, you are ready to create content for your application. The next Getting Started sections will guide you through the process.

Step 1: Creating Content With InfoAssist



Step 1: Creating Content With InfoAssist

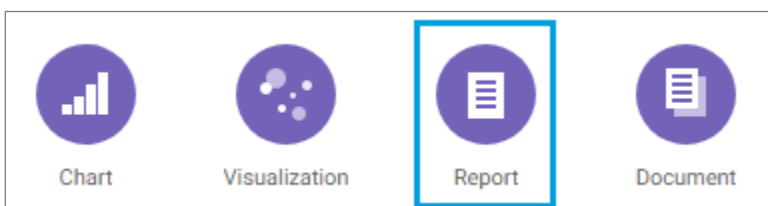
From the WebFOCUS Home Page, you can access the options that launch InfoAssist, as shown in the following image.



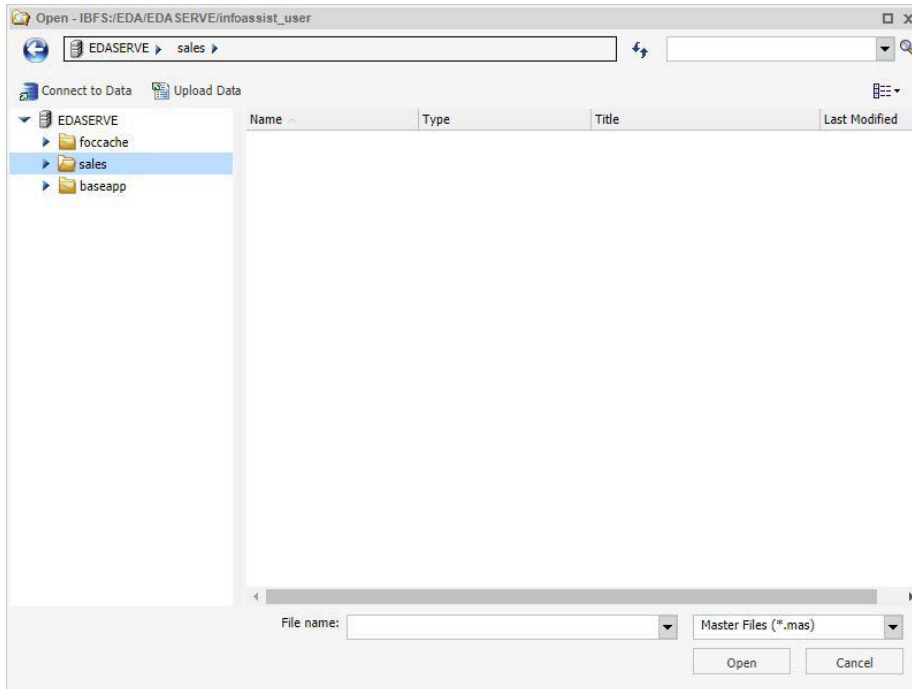
These correspond to the types of content that you can create (or modify) with InfoAssist, which are Chart, Visualization, Report, and Document.

To show a simple view of data, for example, store revenue for a set period of time and across business regions, we can create a simple report. Let's get started.

On the Home page, under Create New, click **Report**, as shown in the following image.



InfoAssist launches and the Open dialog box appears, as shown in the following image.



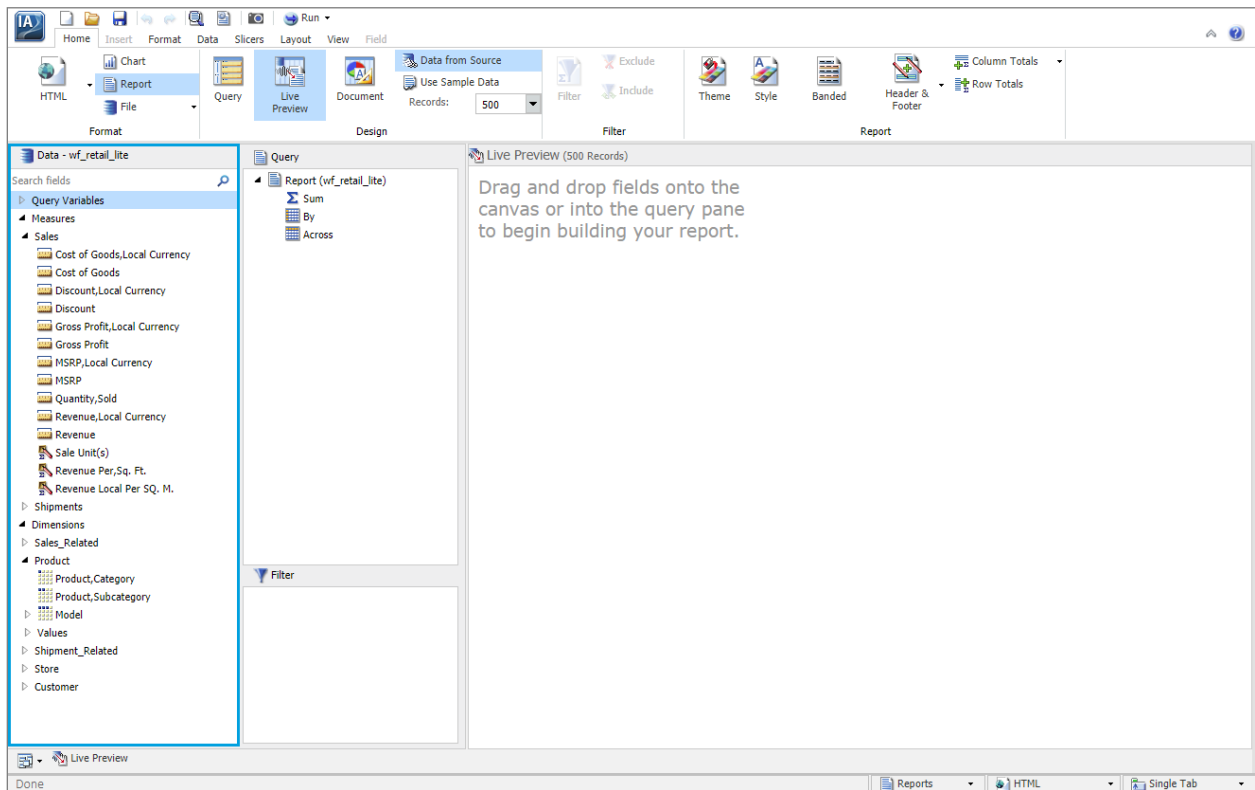
You have three options for identifying the data that you will use to create content:

1. Select your data from a location in the Repository.
2. Connect to existing data that is already available to you in a data source.
3. Upload data from an existing spreadsheet or CSV file.

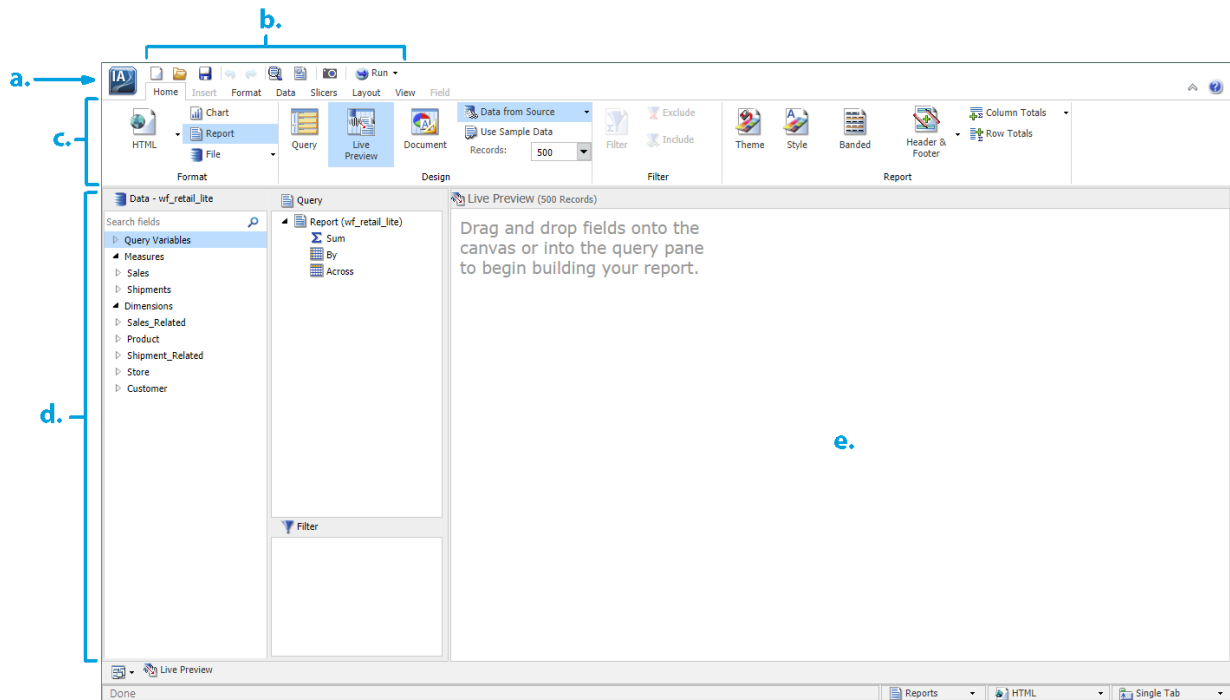
For this exercise, we are using the Retail Demo data that we uploaded into the domain earlier. So let's use option 1:

- Navigate to the location of the Retail Demo data.
- Select **wf_retail_lite.mas** and click **Open**.

In InfoAssist, you can see that your data is now available in the Resources panel, in the Data pane. You can expand or collapse the groups to view additional fields, as shown in the following image.



Before we continue, let's take a closer look at the InfoAssist user interface to learn more about what you can do to create and enhance your content, as shown in the following image.



The InfoAssist user interface contains:

- a. An Application button that opens a menu of options.
- b. A Quick Access Toolbar that you can customize.
- c. A context-sensitive ribbon of options.
- d. A Resources panel that contains the Data pane, Query pane, and Filter pane.
- e. A canvas, where your content appears as you develop it.

When you click a field in the content, or as you develop different components of your content, the options that you can use to refine your content change. You can access many of these directly from the ribbon, but you can also use the shortcut menus that open when you right-click an object.

You can drag data from the Data pane to the Query pane or canvas to begin creating your content. You can also drag data fields to the Filter pane to create filters.

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

Now, let's create a report that shows revenue by store and region over time:

- In the Data pane, begin by expanding **Dimensions** and then expanding **Store**. Drag the **Store,Business,Region** field from the Data pane to the canvas.
- Drag **Store Name** to the canvas.
- Drag **Store,Country** to the canvas.
- Expand **Sales_Related** and then **Transaction Date, Components**. Drag **Sale,Year** to the canvas.
- Expand **Measures** and then expand **Sales**. Drag **Revenue** to the canvas.

Tip: Instead of dragging the fields to the canvas, you can double-click the data field to add it to your canvas.

The report is shown in the following image.

Store Business Region	Store Name	Store Country	Sale Year	Revenue
EMEA	Amsterdam	Netherlands	2013	\$3,230,541.86
			2014	\$2,931,242.05
			2015	\$3,314,925.46
			2016	\$3,610,684.61
			2017	\$5,639,490.32
			2018	\$8,138,409.04
	Athens	Greece	2018	\$373,357.59
	Bangalore	India	2018	\$854,255.92
	Bangkok	Thailand	2018	\$42,720.78
	Barcelona	Spain	2018	\$994,604.39
	Beijing	China	2018	\$35,823.95
	Belfast	United Kingdom	2018	\$23,207.90
	Berlin	Germany	2013	\$3,163,246.85
			2014	\$2,735,170.08
			2015	\$3,191,542.41
2016			\$3,646,382.92	
2017			\$5,511,799.36	
		2018	\$7,270,052.64	

With a few actions, we have now created a simple report for corporate users that shows store revenues by region, as well as over time.

In addition to the information in the report as it stands, you can create filters that enable your users to drill down further in the data and focus on specific details within the report. For example, you can add a Revenue filter that shows specific dollar amounts or dollar ranges.

Let's add that filter next.

From the Data pane or Query pane, drag **Revenue** to the Filter pane, which is highlighted in the following image.

The screenshot shows a BI tool interface with three main panes. The left pane shows a search field tree with categories like Shipments, Dimensions, and Store. The middle pane shows a query tree for a report named 'Report (wf_retail_lite)', with a 'Filter' dialog box open over it. The right pane shows a 'Live Preview (500 Records)' of a table with columns: Store Business Region, Store Name, Store Country, Sale Year, and Revenue. The table contains data for various stores across different years, with revenue values ranging from approximately \$23,207.90 to \$3,314,925.46.

Store Business Region	Store Name	Store Country	Sale Year	Revenue		
EMEA	Amsterdam	Netherlands	2013	\$3,230,541.86		
			2014	\$2,931,242.05		
			2015	\$3,314,925.46		
			2016	\$3,610,684.61		
			2017	\$5,639,490.32		
			2018	\$8,138,409.04		
			Athens	Greece	2018	\$373,357.59
			Bangalore	India	2018	\$854,255.92
Bangkok	Thailand	2018	\$42,720.78			
Barcelona	Spain	2018	\$994,604.39			
Beijing	China	2018	\$35,823.95			
Belfast	United Kingdom	2018	\$23,207.90			
Berlin	Germany	2013	\$3,163,246.85			
		2014	\$2,735,170.08			
		2015	\$3,191,542.41			
		2016	\$3,646,382.92			
		2017	\$5,511,799.36			
		2018	\$7,270,052.64			
		Brussels	Belgium	2013	\$266,577.28	
		2014	\$2,328,064.56			

When the filter dialog box opens, click **<Value>** to refine the filter.

The screenshot shows the 'Create a filtering condition' dialog box. The 'WHERE' section is active, showing 'Revenue Equal to' followed by a dropdown menu containing '<Value>'. Below this, the 'Type' is set to 'Constant'. The 'Value' field is empty, and the 'Multiple Values' section is also empty. There are 'Get Values' and 'Search values' buttons, and 'OK' and 'Cancel' buttons at the bottom.

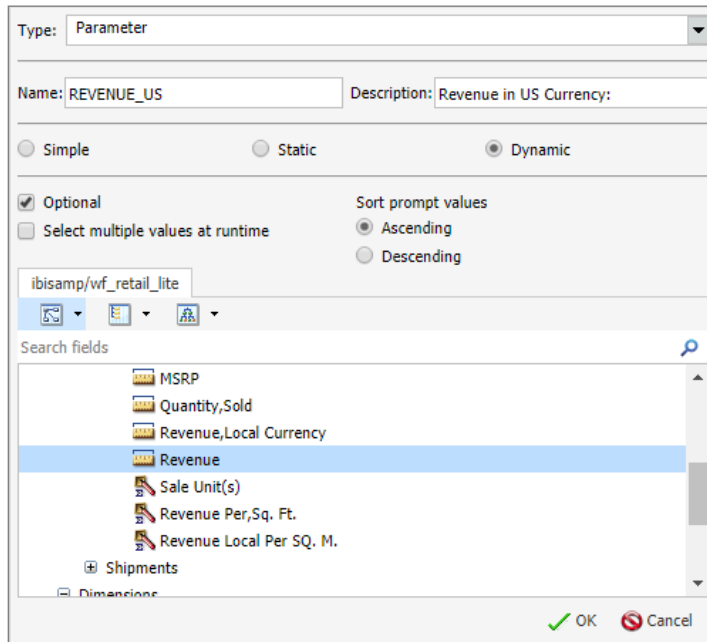
Under Type, choose the type of filter condition you want to create.

For this exercise, to give corporate users flexibility in filtering data, let's create a filter condition that uses parameters, dynamically changes, and allows users to select multiple values within the report.

Note: A parameter is a variable value that can be set when the report is run, such as by a user selection.

Let's create the Revenue filter now:

- In the Type drop-down list, select **Parameter**.
- Select the **Dynamic** radio button.
- Select the **Optional** check box to make the parameter optional, so the report can still run, even if we don't select a value at run time.



The screenshot shows a dialog box for configuring a parameter. At the top, the 'Type' is set to 'Parameter'. Below this, the 'Name' is 'REVENUE_US' and the 'Description' is 'Revenue in US Currency:'. There are three radio buttons: 'Simple', 'Static', and 'Dynamic', with 'Dynamic' selected. There are two checked checkboxes: 'Optional' and 'Sort prompt values'. Under 'Sort prompt values', there are two radio buttons: 'Ascending' (selected) and 'Descending'. Below these options is a search field containing 'ibisamp/wf_retail_lite'. A list of fields is shown below the search field, with 'Revenue' selected. The list includes: MSRP, Quantity,Sold, Revenue,Local Currency, Revenue, Sale Unit(s), Revenue Per,Sq. Ft., Revenue Local Per SQ. M., Shipments, and Dimensions. At the bottom right, there are 'OK' and 'Cancel' buttons.

The parameter filter for Revenue is now created. Click **OK** twice to accept the filter and return to the canvas.

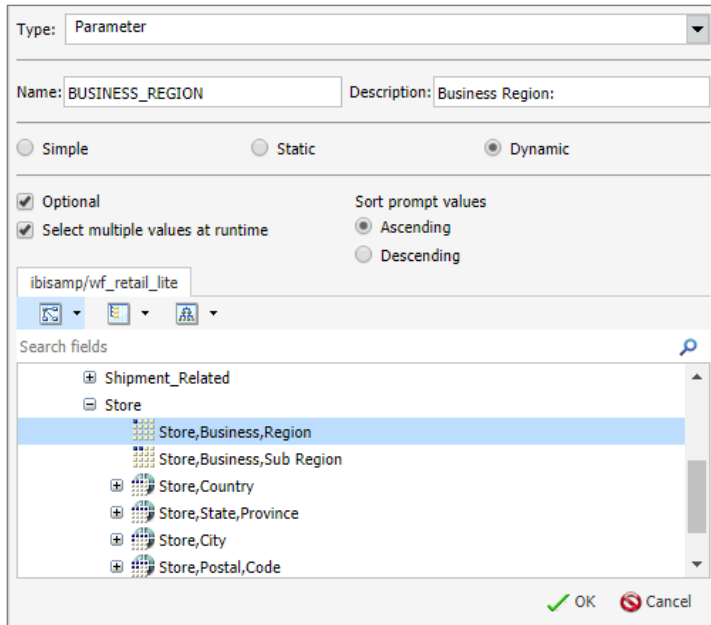
Store Business Region	Store Name	Store Country	Sale Year	Revenue
EMEA	Amsterdam	Netherlands	2013	\$3,230,541.86
			2014	\$2,931,242.05
			2015	\$3,314,925.46
			2016	\$3,610,684.61
			2017	\$5,639,490.32
			2018	\$8,138,409.04
Athens		Greece	2018	\$373,357.59
Bangalore		India	2018	\$854,255.92
Bangkok		Thailand	2018	\$42,720.78
Barcelona		Spain	2018	\$994,604.39
Beijing		China	2018	\$35,823.95
Belfast		United Kingdom	2018	\$23,207.90
Berlin		Germany	2013	\$3,163,246.85
			2014	\$2,735,170.08
			2015	\$3,191,542.41
			2016	\$3,646,382.92
			2017	\$5,511,799.36
			2018	\$7,270,052.64
Brussels		Belgium	2013	\$266,577.28
			2014	\$2,328,064.56

Next, let's add another filter that enables corporate users to select a single Store Region, or multiple Store Regions, to focus on a specific region's data to support business decisions.

Similar to how we created the filter for Revenue, drag **Store,Business,Region** to the Filter pane. In the dialog box, create another dynamic, optional Parameter condition.

This time, however, let's add the ability to multi-select values. This enables users to select one or more values in the report.

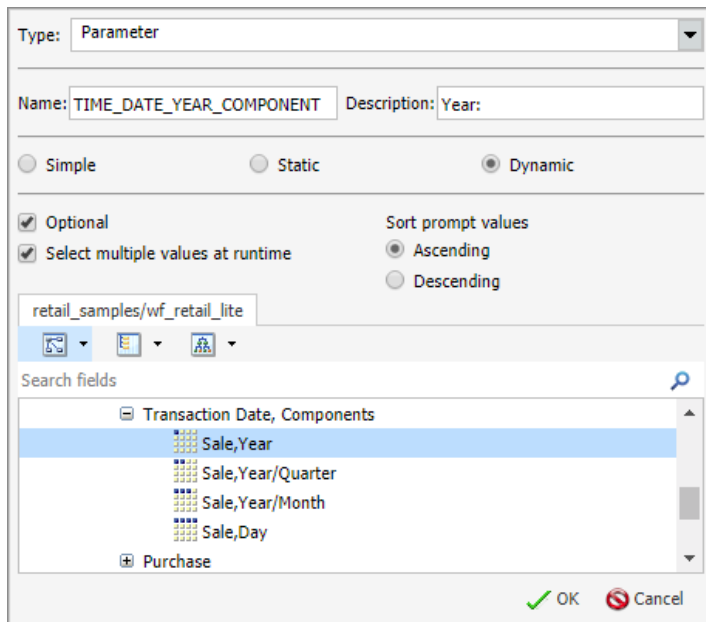
Choose the same options as the previous filter but also select the **Select multiple values at runtime** check box, as shown in the following image.



The parameter filter for Store, Business, Region is now created. Click **OK** twice to accept the filter and return to the canvas.

Finally, let's add one additional filter that will enable corporate users to view one or more years of data at a time. For example, to view the data that is available for the prior five years.

To create this filter, drag **Sale, Year** to the Filter pane. In the dialog box, create another dynamic, optional, multiselect Parameter condition, as shown in the following image.



The parameter filter for Sale, Year is now created. Click **OK** twice to return to the canvas.

We have created a report and option to help corporate users make the most of their corporate data.

Store Business Region	Store Name	Store Country	Sale Year	Revenue
EMEA	Amsterdam	Netherlands	2013	\$3,230,541.86
			2014	\$2,931,242.05
			2015	\$3,314,925.46
			2016	\$3,610,684.61
			2017	\$5,639,490.32
			2018	\$8,138,409.04
	Athens	Greece	2018	\$373,357.59
	Bangalore	India	2018	\$854,255.92
	Bangkok	Thailand	2018	\$42,720.78
	Barcelona	Spain	2018	\$994,604.39
	Beijing	China	2018	\$35,823.95
	Belfast	United Kingdom	2018	\$23,207.90
	Berlin	Germany	2013	\$3,163,246.85
			2014	\$2,735,170.08
			2015	\$3,191,542.41
			2016	\$3,646,382.92
			2017	\$5,511,799.36
			2018	\$7,270,052.64
Brussels	Belgium	2013	\$266,577.28	
		2014	\$2,328,064.56	
		2015	\$2,732,927.16	
		2016	\$3,083,975.82	
		2017	\$4,673,653.00	
		2018	\$7,219,510.40	
Budapest	Hungary	2013	\$90.00	
		2015	\$2,070,337.87	
		2016	\$2,498,651.05	

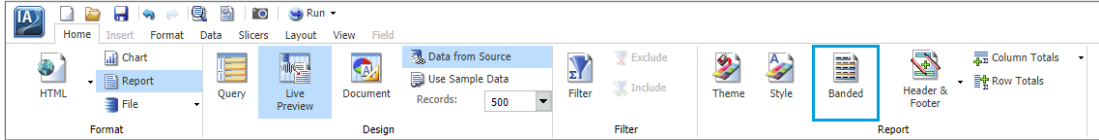
Styling the Report

To make the report visually and functionally easy to read, you can use InfoAssist to style the

To learn about all of the InfoAssist styling capabilities, see the *WebFOCUS InfoAssist User's Manual*.

report by adding a theme, modifying the font color and style, shading alternating rows, adding totals, and adding headers or footers.

For this report, let's shade the alternating rows by using the Banded option to make the data easier to read. On the ribbon, on the *Home* tab, in the *Report* group, click **Banded**, as shown in the following image.



The Color dialog box appears, where you can select the shading color:

- Select **light gray** for shading the rows.
- Click **OK**.

When you return to the canvas, notice that alternating rows appear gray, as shown in the following image, improving readability.

Store	Business	Region	Store Name	Store Country	Sale Year	Revenue
EMEA	Amsterdam	Netherlands			2013	\$3,230,541.86
					2014	\$2,931,242.05
					2015	\$3,314,925.46
					2016	\$3,610,684.61
					2017	\$5,639,490.32
					2018	\$8,138,409.04
	Athens	Greece			2018	\$373,357.59
	Bangalore	India			2018	\$854,255.92
	Bangkok	Thailand			2018	\$42,720.78
	Barcelona	Spain			2018	\$994,604.39
	Beijing	China			2018	\$35,823.95
	Belfast	United Kingdom			2018	\$23,207.90
	Berlin	Germany			2013	\$3,163,246.85
					2014	\$2,735,170.08
					2015	\$3,191,542.41
					2016	\$3,646,382.92
					2017	\$5,511,799.36
					2018	\$7,270,052.64
	Brussels	Belgium			2013	\$266,577.28
					2014	\$2,328,064.56
					2015	\$2,732,927.16

Next, let's edit the column names to be more meaningful, and so they appear on a single line in the heading row. You can right-click the column name to make changes to the field, as well as how it displays on the report. You can also perform additional functions, such as aggregations or sorts from this shortcut menu.

- Right-click **Store, Business, Region** and click **Change Title**.
- In the Edit Title dialog box, change the column title to **Store Region**.

- Click **OK**.

When you return to the canvas, the column title refreshes, and displays the title you entered.

Note: When you edit a column title, it does not change the field name that appears in the Data or Query panes.

Rename the following column titles, as shown in the example below:

- Change Store, Country to **Country**
- Change Sale, Year to **Sale Year**

Store Region	Store Name	Country	Sale Year	Revenue
EMEA	Amsterdam	Netherlands	2013	\$3,230,541.86
			2014	\$2,931,242.05
			2015	\$3,314,925.46
			2016	\$3,610,684.61
			2017	\$5,639,490.32
			2018	\$8,138,409.04
	Athens	Greece	2018	\$373,357.59
	Bangalore	India	2018	\$854,255.92
	Bangkok	Thailand	2018	\$42,720.78
	Barcelona	Spain	2018	\$994,604.39
	Beijing	China	2018	\$35,823.95
	Belfast	United Kingdom	2018	\$23,207.90
	Berlin	Germany	2013	\$3,163,246.85
			2014	\$2,735,170.08
			2015	\$3,191,542.41
			2016	\$3,646,382.92
			2017	\$5,511,799.36
			2018	\$7,270,052.64
	Brussels	Belgium	2013	\$266,577.28
			2014	\$3,230,541.86

See, now the report is changing!

Next, let's add a heading for the report:

- On the *Home* tab, in the *Report* group, click **Header & Footer**.
- Select the **Report Header** option. This adds a heading to the report, and provides options so we can change the heading font, the size of the heading font, as well as the justification, font color, and fill.
- Modify the font style:
 - a. Name the report **Yearly Store Revenue**.
 - b. Change the Font style to **Calibri**.
 - c. Change the Font size to **18**.
 - d. Center the Heading.
 - e. Change the font color to a dark blue.

For now, keep all other settings, and then click **OK**. When you return to the canvas, your report refreshes and displays the heading, as shown in the following image.



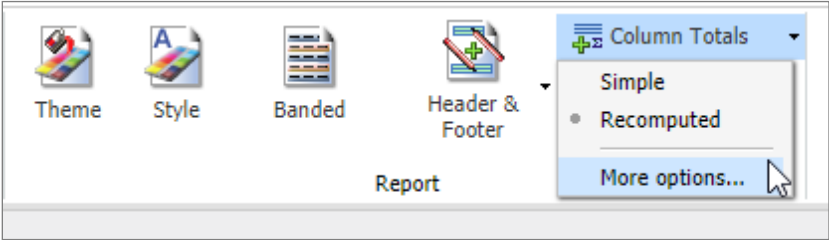
Store Region	Store Name	Country	Sale Year	Revenue
EMEA	Amsterdam	Netherlands	2013	\$3,230,541.86
			2014	\$2,931,242.05
			2015	\$3,314,925.46
			2016	\$3,610,684.61
			2017	\$5,639,490.32
			2018	\$8,138,409.04
	Athens	Greece	2018	\$373,357.59
	Bangalore	India	2018	\$854,255.92
	Bangkok	Thailand	2018	\$42,720.78
	Barcelona	Spain	2018	\$994,604.39
	Beijing	China	2018	\$35,823.95
	Belfast	United Kingdom	2018	\$23,207.90
	Berlin	Germany	2013	\$3,163,246.85

Enhancing the Report

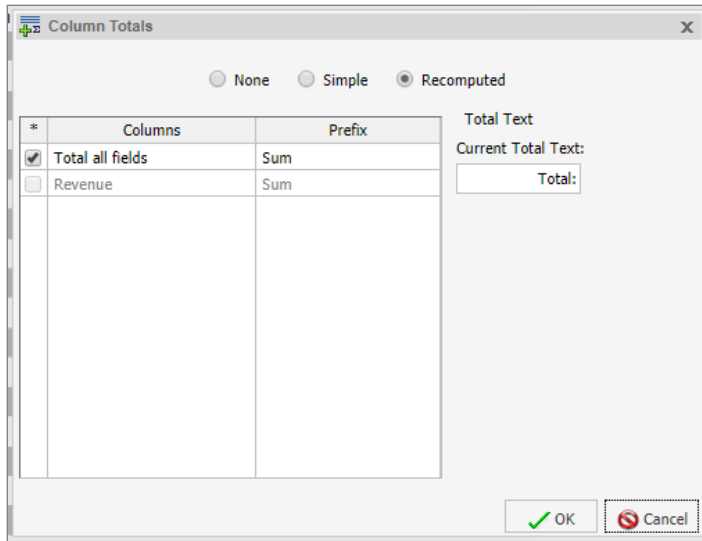
To provide an additional view of the information, when you have numeric fields or fields that can be summed, you can add column totals or row totals. Let's do that next.

Adding a column total for Revenue, as well as row totals, which will highlight the total revenue for each year, enhances the usability of the report.

On the *Home* tab, in the *Report* group, click **Column Totals**, and then click **More options**, as shown in the following image.



In the Column Totals dialog box, as shown in the following image, you can specify what fields or information you want to sum.



Make the following changes:


- Select the **Simple** radio button.
- Clear the **Total all fields** check box.
- Select the **Revenue** check box.
- In the Current Total Text field, change Total: to **Total Sales Revenue:**
- Click **OK** to return to the canvas.

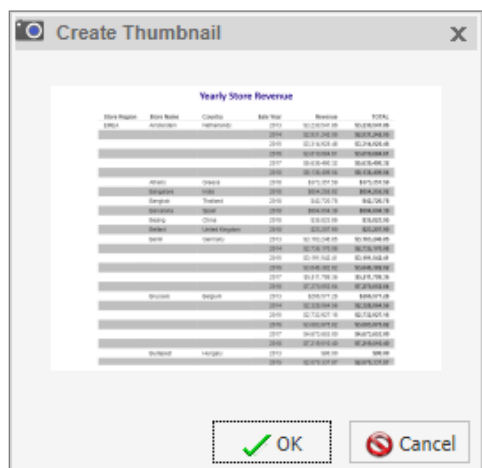
A total row appears at the bottom of the report with the label **Total Sales Revenue.**

Now, let's add the row totals. On the *Home* tab, in the *Report* group, click **Row Totals**. This adds a Total column next to the Revenue column in the report, as shown in the following image.

Store Region	Store Name	Country	Sale Year	Revenue	TOTAL
EMEA	Amsterdam	Netherlands	2013	\$3,230,541.86	\$3,230,541.86
			2014	\$2,931,242.05	\$2,931,242.05
			2015	\$3,314,925.46	\$3,314,925.46
			2016	\$3,610,684.61	\$3,610,684.61
			2017	\$5,639,490.32	\$5,639,490.32
	2018	\$8,138,409.04	\$8,138,409.04		
	Athens	Greece	2018	\$373,357.59	\$373,357.59
	Bangalore	India	2018	\$854,255.92	\$854,255.92
	Bangkok	Thailand	2018	\$42,720.78	\$42,720.78
	Barcelona	Spain	2018	\$994,604.39	\$994,604.39
Beijing	China	2018	\$35,823.95	\$35,823.95	
Belfast	United Kingdom	2018	\$23,207.90	\$23,207.90	
EMEA	Berlin	Germany	2013	\$3,163,246.85	\$3,163,246.85
			2014	\$2,735,170.08	\$2,735,170.08
			2015	\$3,191,542.41	\$3,191,542.41
			2016	\$3,646,382.92	\$3,646,382.92
			2017	\$5,511,799.36	\$5,511,799.36
	2018	\$7,270,052.64	\$7,270,052.64		
	Brussels	Belgium	2013	\$266,577.28	\$266,577.28
	2014	\$2,328,064.56	\$2,328,064.56		
	2015	\$2,732,927.16	\$2,732,927.16		
	2016	\$3,083,975.82	\$3,083,975.82		
2017	\$4,673,653.00	\$4,673,653.00			
2018	\$7,219,510.40	\$7,219,510.40			
EMEA	Budapest	Hungary	2013	\$90.00	\$90.00
			2015	\$2,070,337.87	\$2,070,337.87
			2016	\$2,498,651.05	\$2,498,651.05
			2017	\$3,673,113.68	\$3,673,113.68
			2018	\$4,811,537.46	\$4,811,537.46

Before saving the report, or creating other content items to add to the application, let's take advantage of a feature that enables us to create a thumbnail of the report so users can quickly access it from the WebFOCUS Home Page.

On the Quick Access Toolbar, click the **Create Thumbnail** icon . Note that the thumbnail is a representative visual of the actual report. An example is shown in the following image.



Finally, save the report:

- Click the Application button and then click **Save**.
- In the Save As dialog box, name the report. Since it shows the data on store revenue, let's name it **Yearly Revenue Report**.
- Click **Save**.

In a few minutes, we have created a comprehensive report for corporate users.

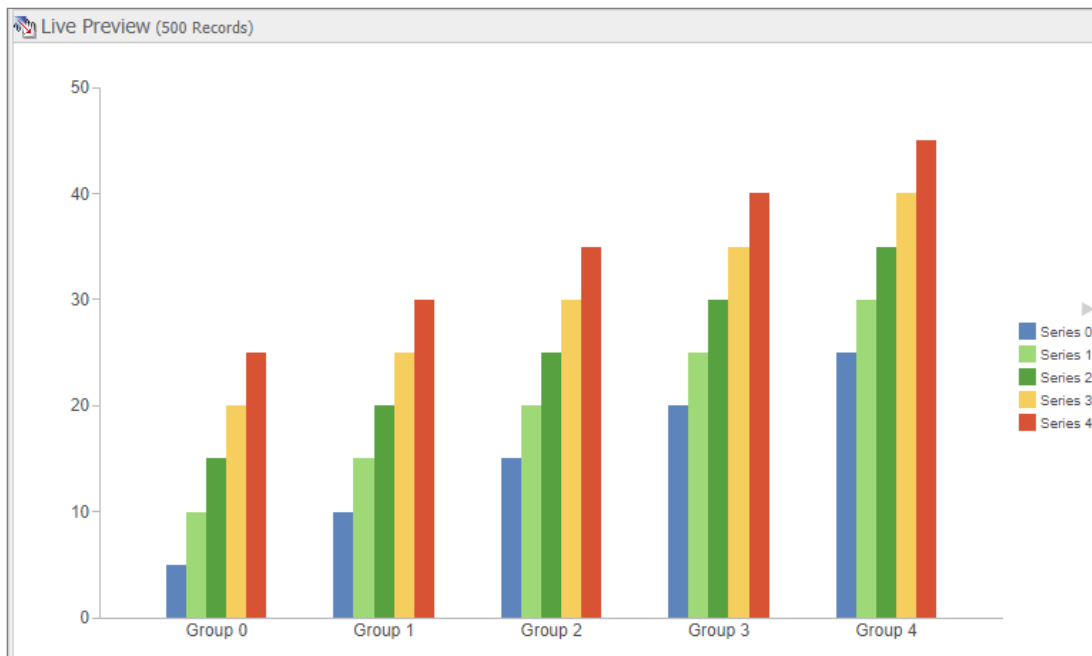
If you want to create additional content, you can continue to do that without closing InfoAssist and relaunching it from the Home Page. For this exercise, we will need more content for analysis, so let's remain in InfoAssist.

To create additional content:

- From the Application button, click **New**.
- Under Getting Started, you can select the type of content that you want to create.

Charts are very useful in relaying data views. With InfoAssist, it's easy to create powerful charts. Let's create a chart to provide users with a visual of products sold.

Click **Build a Chart** and select the **wf_retail_lite** Master File. When the InfoAssist window refreshes, a placeholder chart image appears on the canvas, as shown in the following image.

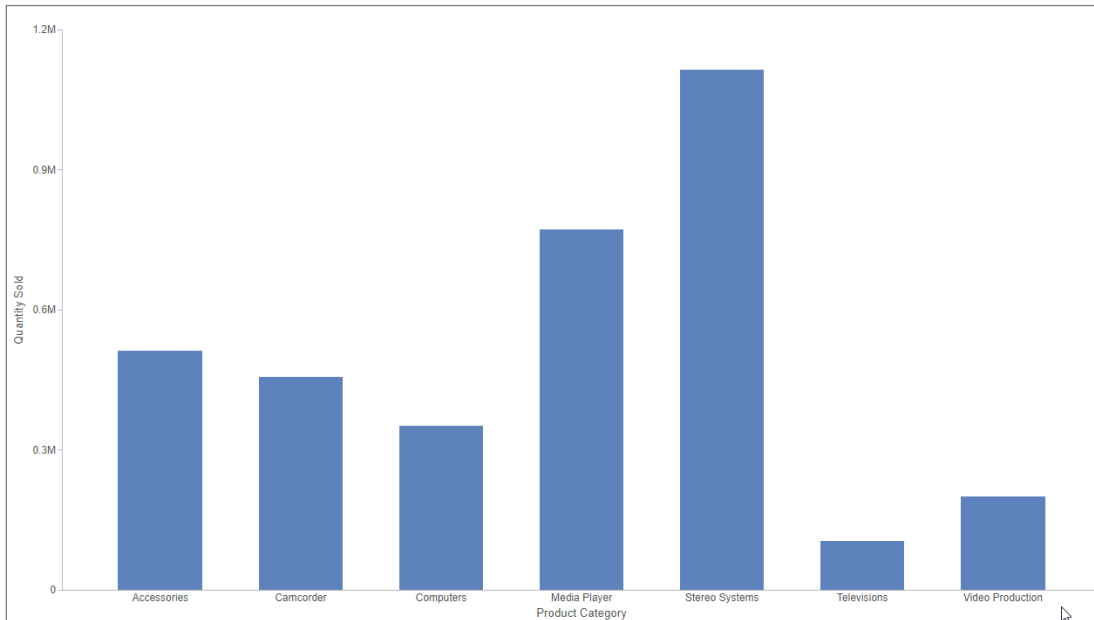


The image will change as you begin to add data fields to your canvas. Additionally, notice that the Resources panel and ribbon have changed as well. The options that are now available to you will allow you to easily create and customize your charts.

Let's begin creating a chart that will sort products by category and plot the quantity of products sold:

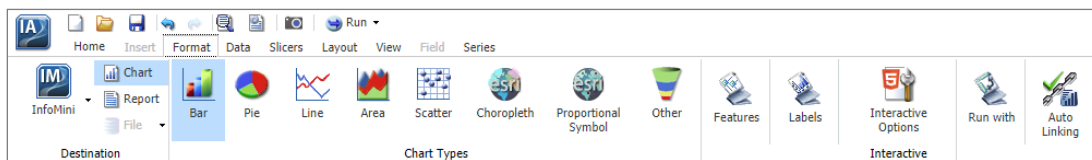
- Expand **Measures** and **Sales**, and then drag **Quantity,Sold** to the canvas. The canvas refreshes to show a single bar showing the total quantity of products sold.

- Next, expand **Dimensions** and **Product**, and drag **Product,Category** to the canvas. As you can see, the canvas refreshes, and you have a simple bar chart, with bars for each product category.



While the bar chart provides a quick and simple view of this data, let's make the chart more visual. With InfoAssist, it's easy to change the type of chart you are building, at any time during the content creation process, to be sure the resulting chart best supports the objective.

To change the chart type, click the **Format** tab on the ribbon, as shown in the following image.

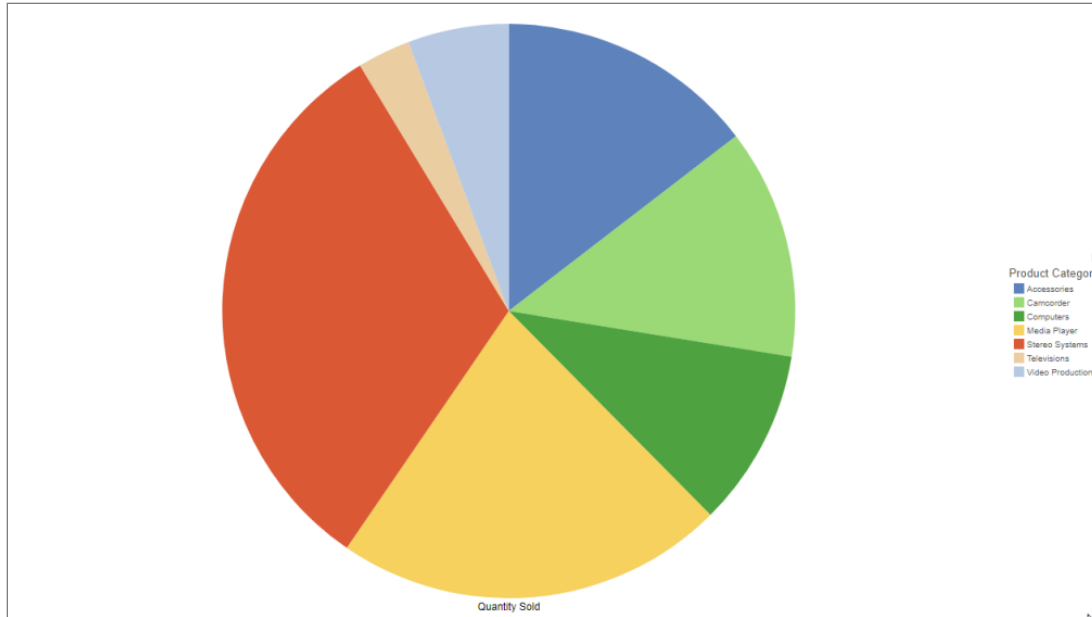


In the *Chart Types* group, you can see the chart options available for your action. You can also access a library of additional chart options and HTML5 plug-ins.

Let's change the chart type to a pie chart to see if that better illustrates the correspondence between product category and quantity sold:

- Select **Pie**.

The canvas refreshes and displays a pie chart. We can see that the pie chart enables a better view of the total sales breakdown for each product category.



Now that we have a chart that works best, it's time to customize it, which is easy with InfoAssist. For this exercise, let's customize the field names to make them clearer, and to enhance the visual appearance of the chart, which can increase usability.

To customize:

- In the Query pane, right-click the **Quantity, Sold** field, and then click **Change Title**.
- In the Edit Title dialog box, type **Quantity of Products Sold**, and then click **OK**. This changes the title of the pie chart to something more meaningful.

It's possible to add 3D effects to the chart and change the location of the legend to enhance the appearance of the chart further. Let's take advantage of these options:

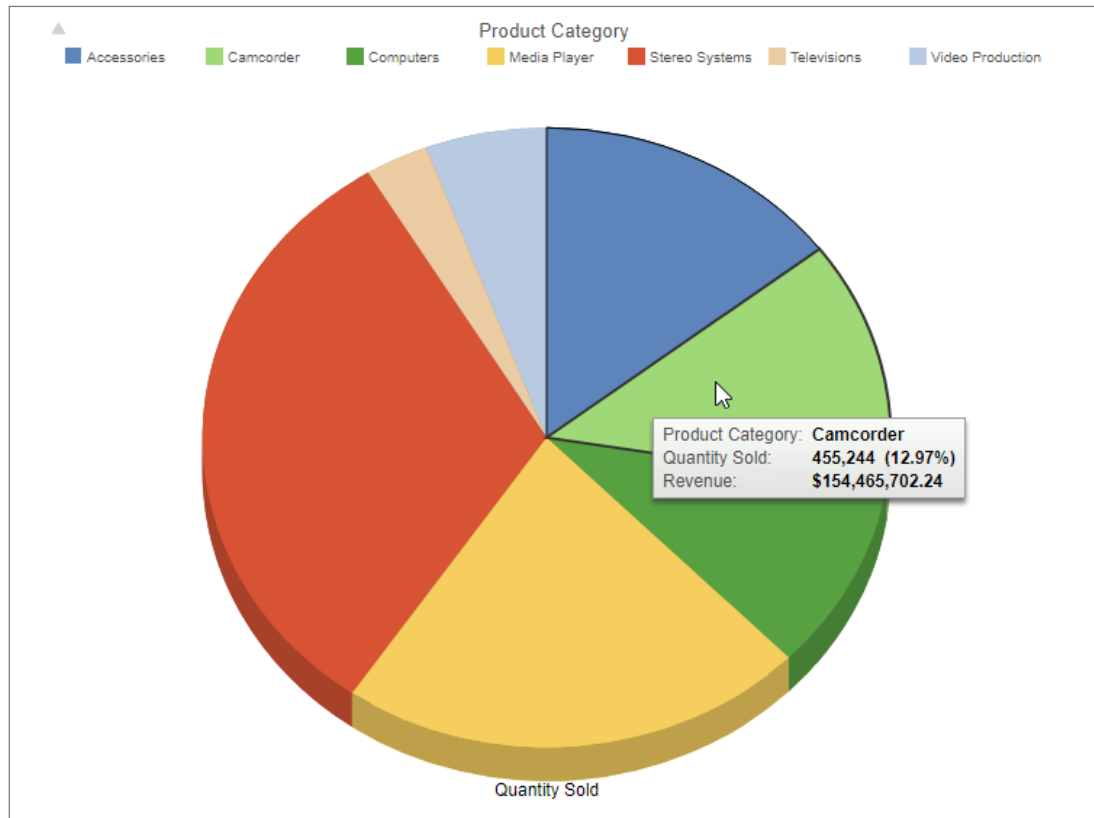
- On the *Format* tab, in the *Labels* group, click **Legend**.
- Let's change the position of the legend so it appears above the pie chart. Point to **Legend Position**, and then click **Top**. The legend automatically appears above the chart on the canvas.
- You can add the 3D effect by clicking **3D Effect** in the *Features* group. This changes the view of the pie chart so it appears to have more depth.

Let's add one more feature to the chart - a field to the tooltip that displays when users point to a specific section of the chart. This is another way to increase usability easily, by providing users with more information about the data that is available to them.

To add a tooltip:

- Drag **Revenue** under Tooltip in the Query pane

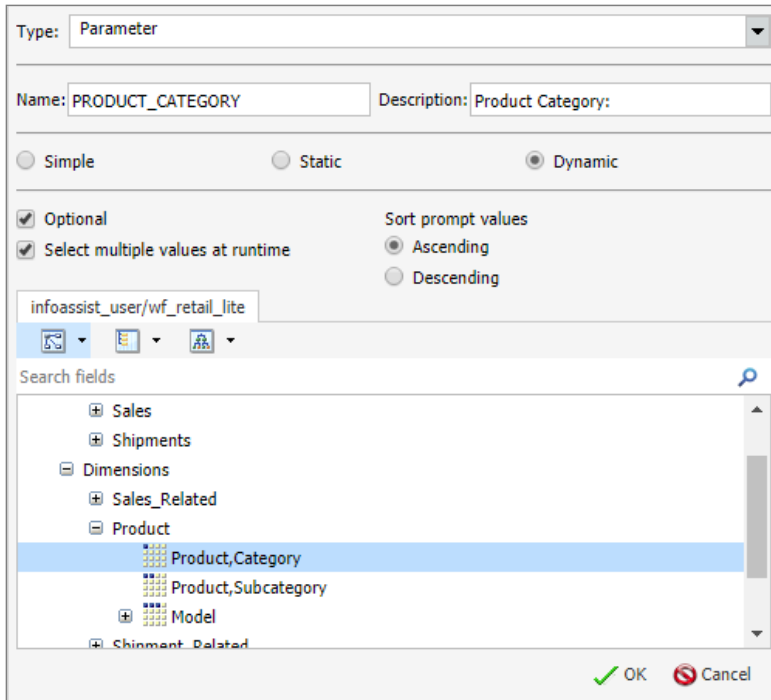
Now, when a user pauses over a slice of the pie at run time, the tooltip will display information about the category of products, how many units were sold, and the total revenue for the selected category. Very helpful!



Similar to how we created filters to refine the details in the report, let's add a few filters to the chart.

Let's begin with a filter on Product, Category that allows users to see information for one or more product categories. Similar to the filter we created earlier for Sales, Year in the report, let's make this filter multiselect.

- Drag **Product, Category** to the Filter pane.
- In the dialog box, click **<Value>**.
- Under Type, select **Parameter**.
- Click the **Dynamic** radio button.
- Select the **Optional** check box.
- Select the **Select multiple values at runtime** check box, as shown in the following image.



- Click **OK** twice to return to the canvas.

Let's create a similar filter that will enable users to view a specific quantity or range of quantities of products sold.

- Drag **Quantity,Sold** to the Filter pane.
- In the dialog box, click **<Value>**.
- Under Type, select **Parameter**.
- Click the **Dynamic** radio button.
- Select the **Optional** check box.
- Select the **Select multiple values at runtime** check box.

With InfoAssist, you can also add filters that define the information users can use to learn more about the data, without the data being visible in the chart. For example, you can create filters for data that does not appear on the chart itself, but can change the information that the chart displays. For this exercise, let's say that you want to enable your users to learn more about the highest selling accessories in the Accessory category. To do this, they will need to know more about the breakdown of each category by subcategory. In the Accessory example, you can easily add a filter for subcategories that will show data for each item in the category that makes it a whole.

Using the steps listed above, add a dynamic, optional parameter filter for **Product, Subcategory** and another for **Revenue**.

These two filters will enable users to select from a specific category or revenue amount, as well as see how these selections impact the information in the chart.

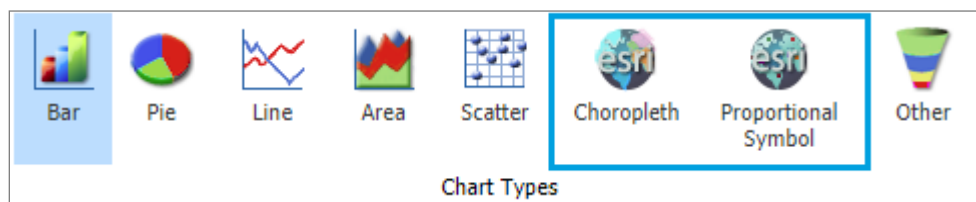
Next, let's create a thumbnail of this chart to make it easier to identify on the WebFOCUS Home Page.

- Save the chart and name it **Products Sold**.

Let's add one last content item to help your users make better business decisions. Since we have global data, it could be helpful to create a map that enables users to visualize the Quantity and Type of product sales based on geographic location.

A map is another chart type that is available in InfoAssist. To create a new map from within InfoAssist, click the Application button and then click **New**. Next, under Getting Started, click **Build a Chart**. Once again, select the **wf_retail_lite** Master File to use as data.

To create the map, click the **Format** tab and select from either **Choropleth** or **Proportional Symbol** as the chart type, as shown in the following image.



A choropleth is a type of map that colors in geographical areas, such as countries or states, using a measure-based color scale. A proportional symbol map, or bubble map, places points on the map that can be sized and colored. For this exercise, let's create a bubble map by selecting the **Proportional Symbol** option.

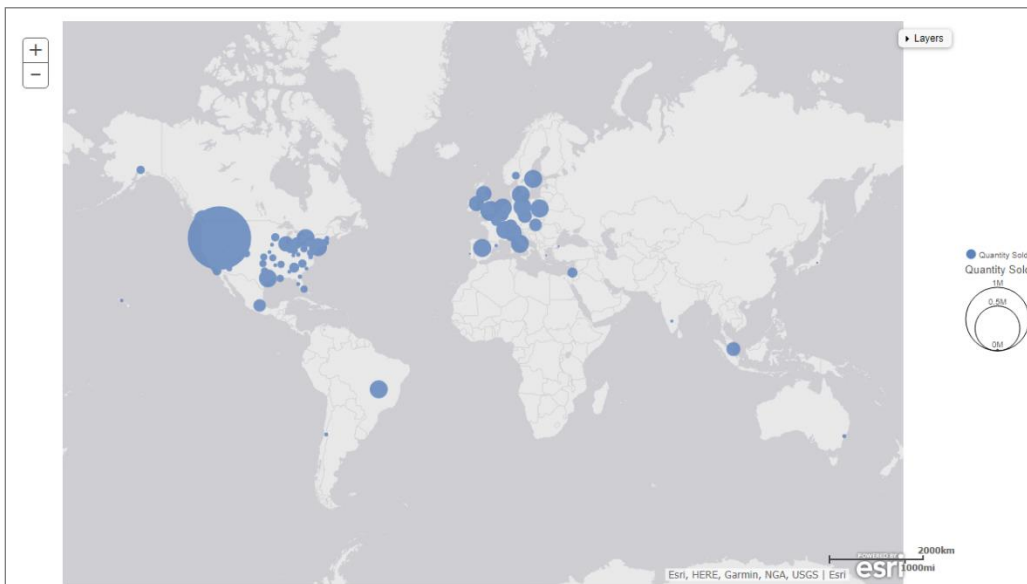
To create this map, we need to add location values. Let's show store locations on the map by using the Store,Address,GIS Point field. Expand **Dimensions**, then **Store**, and then **Store Name**. Double-click **Store,Address,GIS Point** to show the location values in that field on the map, as shown in the following image.



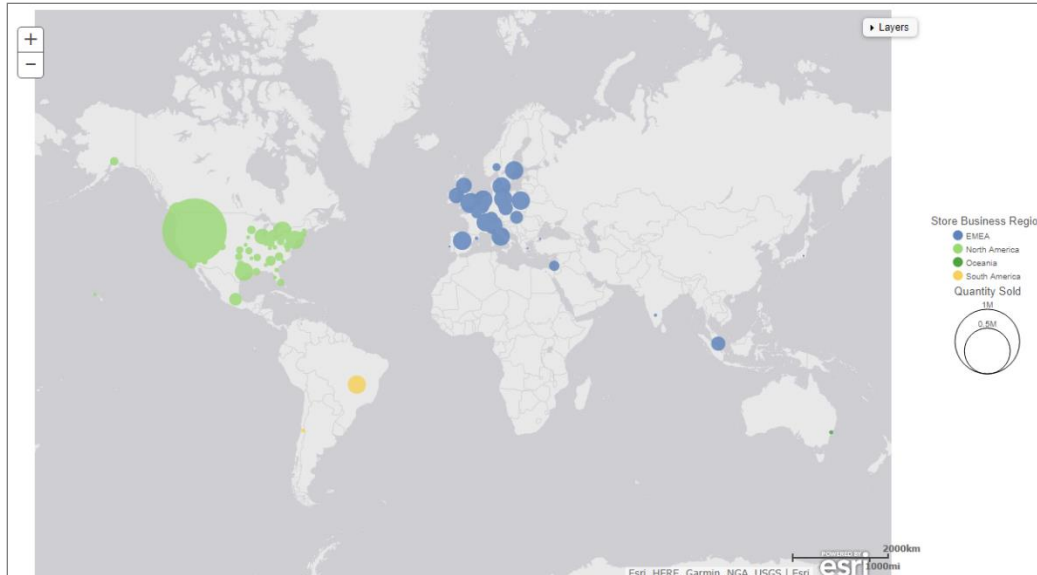
Note: This view may be different, depending on your Record Limit. The Record Limit controls how many records are displayed in the design-time preview and at run time.

Next, let's add the product quantities sold.

Expand **Measures** and **Sales**, select the **Quantity,Sold** field, and then drag it into the Size field container in the Query pane. An example is shown in the following image.



To provide more information, let's add the Store Business Region to visually separate the information. From under Store, drag **Store,Business,Region** to the Color BY field container. Now, the quantity sold for each business region is represented by different color bubbles, as shown in the following image.

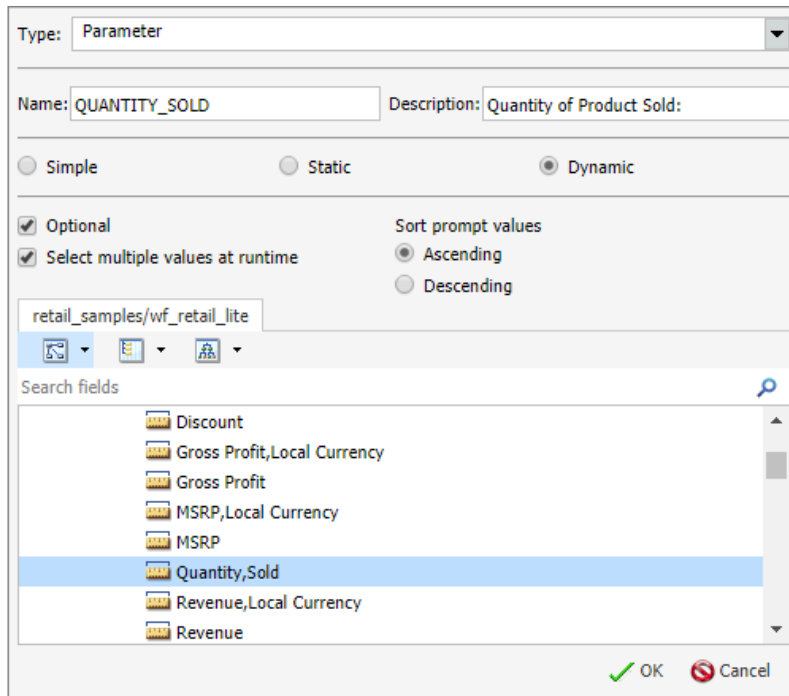


Next, let's create a filter for this map, as well, in order to easily show the type of stores that sold the highest quantities.

- From under Store Name, drag the **Store Type** field into the Filter panel.
- Click **<Value>**.
- Change the Type to **Parameter**, select the **Dynamic** radio button, and then select the **Optional** check box, as shown in the following image.

- Click **OK** twice to accept the new filter parameter.

You have now created a powerful map, but let's go a bit further, to enable users to drill down into the data view. For this exercise, let's create a similar filter that allows users to narrow down the data in the map, based on the quantity of products sold in a transaction. Drag **Quantity,Sold** from the Data pane to the Filter pane. Open the **<value>** menu. Change the Type to **Parameter**, select the **Dynamic** option, and then select the **Optional** and **Select multiple values as runtime** check boxes, as shown in the following image.



Now that the map is complete, create a thumbnail, save the map, and name it **Quantities Sold Across Regions**.

You now have two charts and a report to help users make great business decisions using this data. Let's bring them all into one place for access, sharing, and maximum usability.

Step 2: Creating Pages



Step 2: Creating Pages

Using the content that you created with InfoAssist, you can build pages and share the content with others. This is all it takes to create a simple application! To build pages and share them, use WebFOCUS Designer. WebFOCUS Designer makes it easy to create pages for your application.

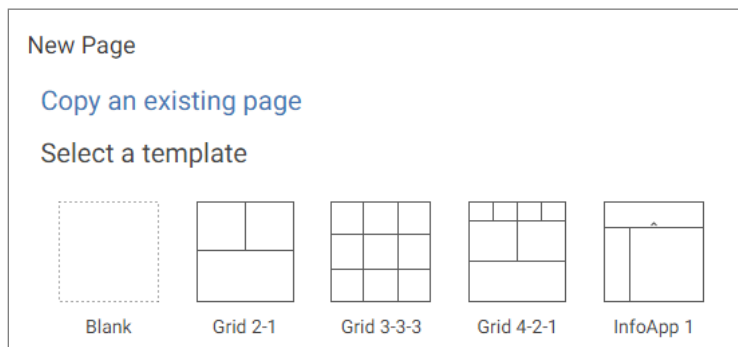
For more information about how you can use WebFOCUS Designer, see *Using WebFOCUS Designer*.

To start, let's publish the content that was created. This will make the content available for other users to view.

- On the WebFOCUS Home Page, after you have closed InfoAssist, right-click your report.
- Click **Publish**. Notice that the report thumbnail changes from gray to a colored display.
- Repeat these steps to publish the chart and map that you created in InfoAssist.

For this exercise, let's create a page that will display all of your content, as well as a filter bar that enables you or other users to refine the information that you show:

- On the Home Page, under Create New, click **Page**.
- WebFOCUS Designer launches and prompts you to choose a template for your page, as shown in the following image.



You can copy and modify an existing page, you can select a pre-configured template that comes standard with WebFOCUS, or you can also select a custom template that your organization built previously. In this exercise, we created three types of content, so let's select a pre-configured template that automatically sizes this content on the page. To do this, click **Grid 2-1**.


With WebFOCUS Designer, creating a page is as easy as dragging your content to the canvas, which automatically refreshes to show you a design view of your page. When you add content to a page, it is placed in a container. In addition, you can set up your page with multiple containers, enabling you to show multiple content items on a page. The default container type is a blank


panel. However, you can use tabbed containers, a carousel for rotating images, accordion containers that collapse or expand, or a grid to put multiple items in a single container.

You can also add basic controls that appear on a filter bar and customize the filter controls on your page. These enable users to interact with the page. For example, you can add a submit button so that when users make a selection in a filter control, they need to submit the request to refresh the view of the page, instead of having it refresh automatically every time they make a filter selection. You can access the different container types and basic control options from the tabs on the Resources panel on the left.

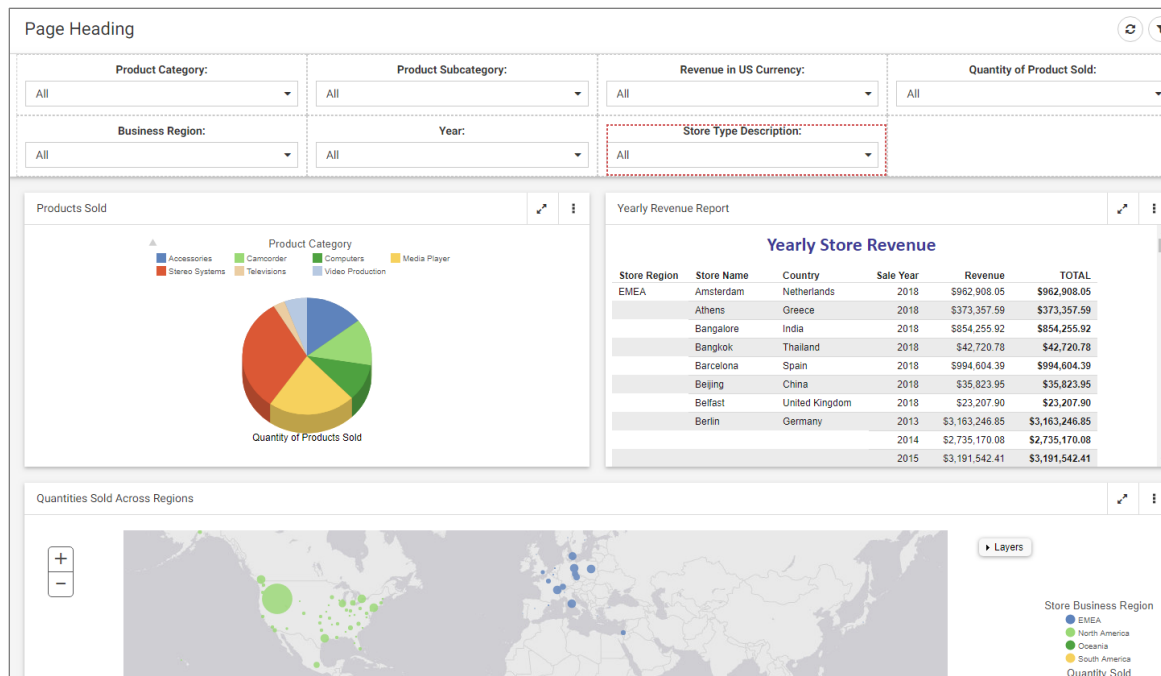
WebFOCUS Designer provides a preview so you can view your page as you add content and style the components of your page or customize filters.

Using the report, chart, and map that you've created previously, let's begin creating a page to best show the relationship between fields in the data.

Make sure the Content tab  is selected and navigate to the domain where you saved your content. Now, let's add the content to the page:

- Drag the Pie chart that shows products sold to the WebFOCUS Designer canvas in the top left container. As you drop the chart on the canvas, a pop-up message appears. This message alerts you that filter parameters, which can be used to filter your content, were automatically recognized. Click the **Quick Filter** button  to add filter controls to your page.
- Next, drag the report showing store revenue by year to the canvas next to your pie chart. Again, as you drop the report on the canvas, a pop-up message appears. This message alerts you that filter parameters, which can be used to filter your content, were automatically recognized. Click the **Quick Filter** button to add filter controls to your page.
- Drag the map to the page, and place it below the pie chart and report. Click the **Quick Filter** button when prompted to create an additional filter control.

The canvas refreshes, and displays the result of these actions, as shown in the following image.



This layout gives users a quick view of the data from three different perspectives:

- The pie chart highlights the quantity of products sold, by category, with a tooltip highlighting the revenue as well.
- The report identifies each store's revenue by year, and groups revenue by region.
- The map provides a view of the revenue, store type, and quantity of product sold in a full view.

Immediately, you can see that you have given your users a comprehensive set of views from which they can make new business decisions, and keep the organization successful.

In this exercise, we created three content items to add to the page. As you use WebFOCUS Designer apart from this exercise, you can similarly add content to your page.

Styling the Page

Next, let's style the page to make the content easily accessible and more immediately useful.

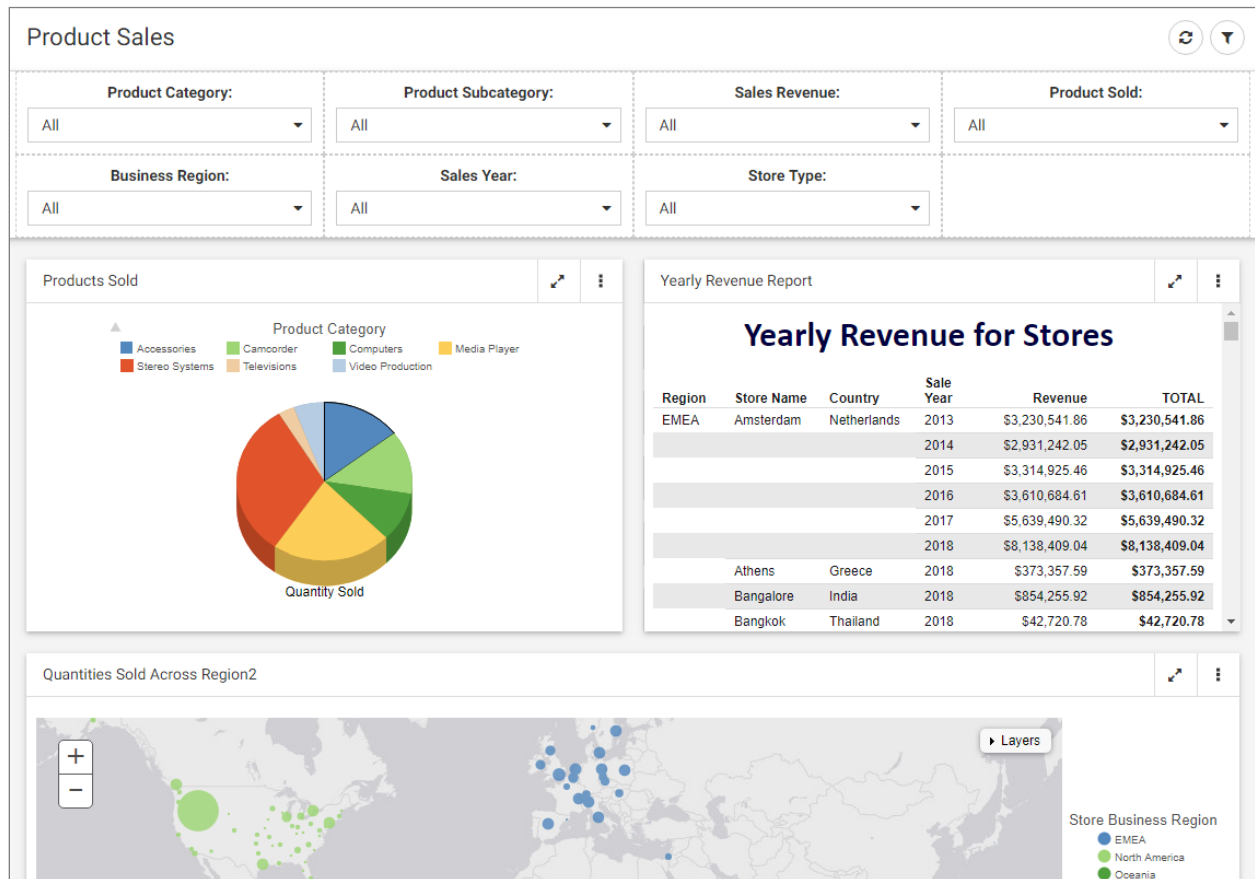
First, let's add a page heading.

Double-click the **Page Heading**, and begin typing a name for your page. Let's call this **Product Sales**.

Another way to easily enhance your page is by customizing the labels that appear above the filter controls. For our exercise, let's change the default text to change the heading labels. To do so, double-click the title of each filter control label and type the following values.

- Change the Quantity of Product Sold control label to **Product Sold:**
- Change the Revenue in US Currency control label to read **Sales Revenue:**
- Change the Year control label to **Sales Year:**
- Change the Store Type Description control label to read **Store Type:**

An example is shown in the following image.

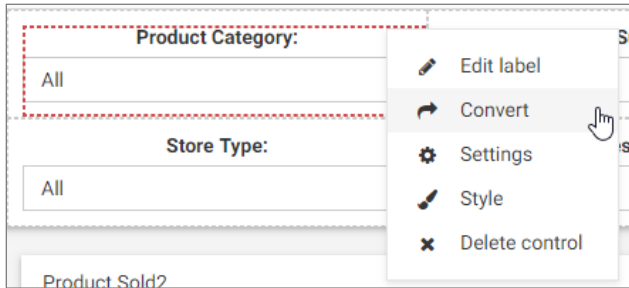


With WebFOCUS Designer, in addition to modifying the control labels, you can modify the alignment of the labels or the type of controls using the settings in the Properties panel. You can also change the theme for your page.

To learn more about how you can style pages with WebFOCUS Designer, see *Using WebFOCUS Designer*.

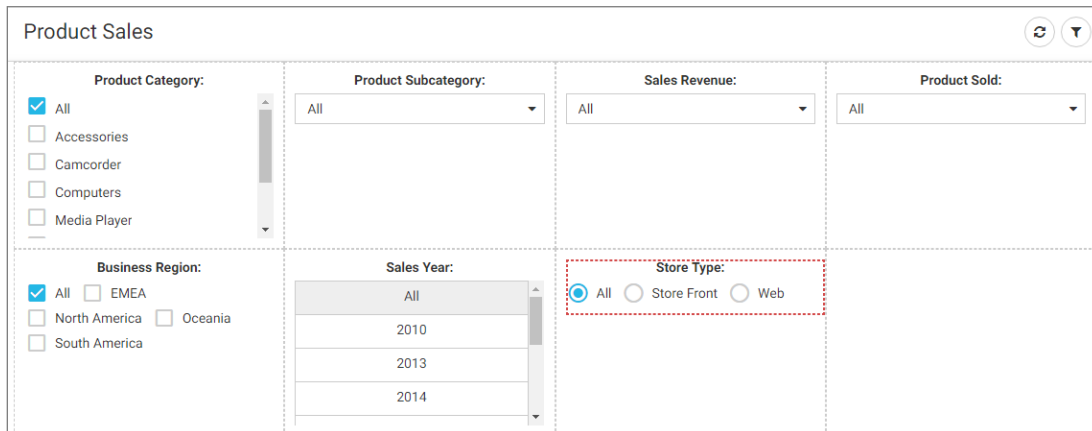
In this exercise, let's set up users for easy access to the data. To do this, let's retain the default styling and theme, but we are going to modify the type of controls and how they appear on the page.

- Right-click the **Product Category** control, and then click **Convert**, as shown in the following image.



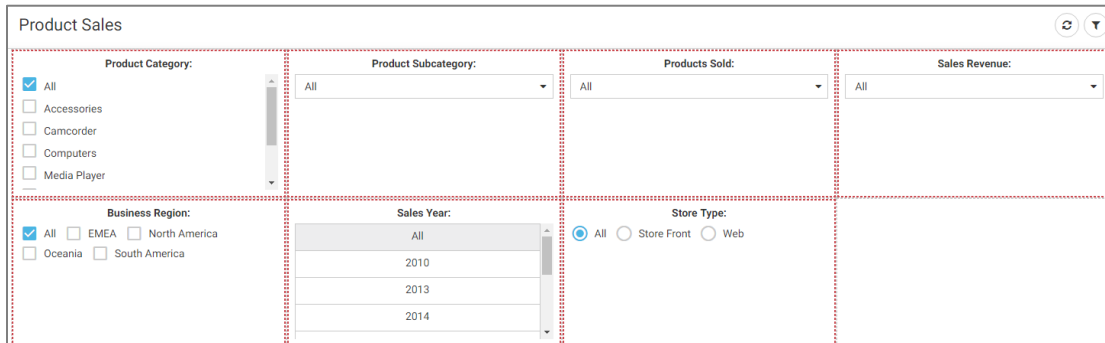
- In the Convert Control To dialog box, click **Checkbox**. This converts the type of control from a drop-down list to a series of check boxes.
- Modify the other controls as follows:
 - a. Convert the Business Region control to check boxes.
 - b. Convert the Sales Year control to a button set.
 - c. Convert the Store Type control to radio buttons.


An example is shown in the following image.



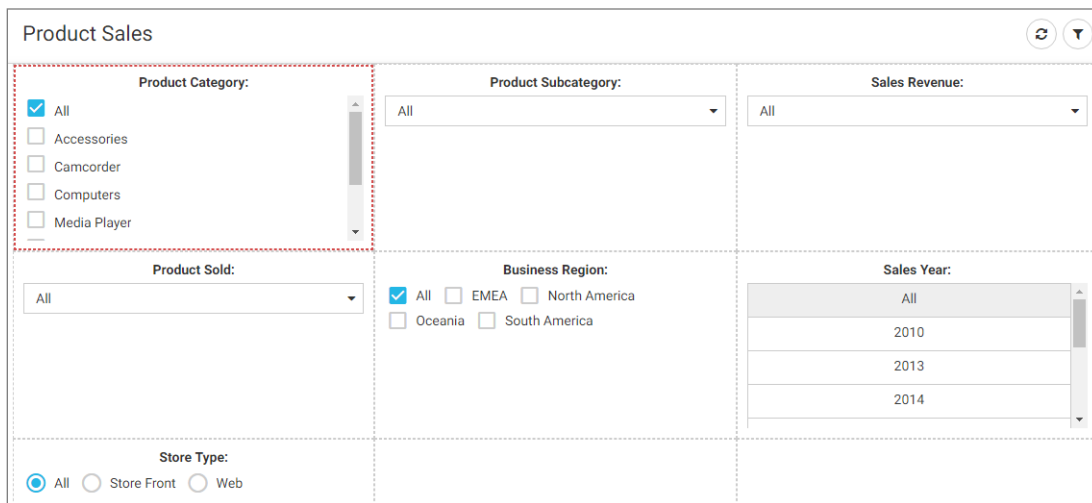
Now that you have changed the types of controls that appear on the page, let's style them so they display neatly on the page.

Multiselect the control cells by clicking the cell that contains each container and holding the Shift key down on your keyboard. Be sure to select the cell and not the filter control itself. One easy way to do this is to click in the area of the cell above the title. An example is shown in the following image.



With the control cells selected, click the **Properties** icon .

In the Properties panel, under Grid Style, select 3 Column.




See how the page is shaping up!

Now, let's style and reorganize the controls for enhanced usability, beginning with the first control, **Product Category**.

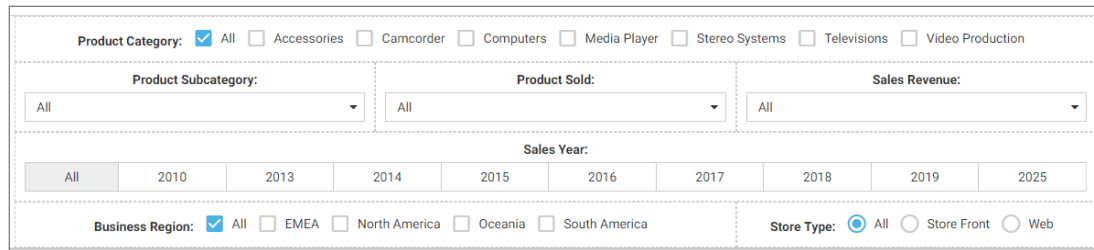
Note: Similar to Microsoft® Office products like Microsoft Word or Excel®, WebFOCUS Designer enables you to easily organize and reorganize content within cells or tables.

Right-click the **Product Category** cell (once again, make sure to right-click the cell and not the control itself), and click **Insert row above**. Multiselect the cells in the new row, right-click them, and then click **Merge**.

This creates a single cell that spans the width of the page. Drag **Product Category** to the new row and style the cell:

- In the Properties panel, click the **Style** tab .
- Under Label position, click **Label left**.
- Under Direction, click **Horizontal**.

Repeat this styling for each of the controls so they appear on the page as follows:




The screenshot shows a web form with several sections:

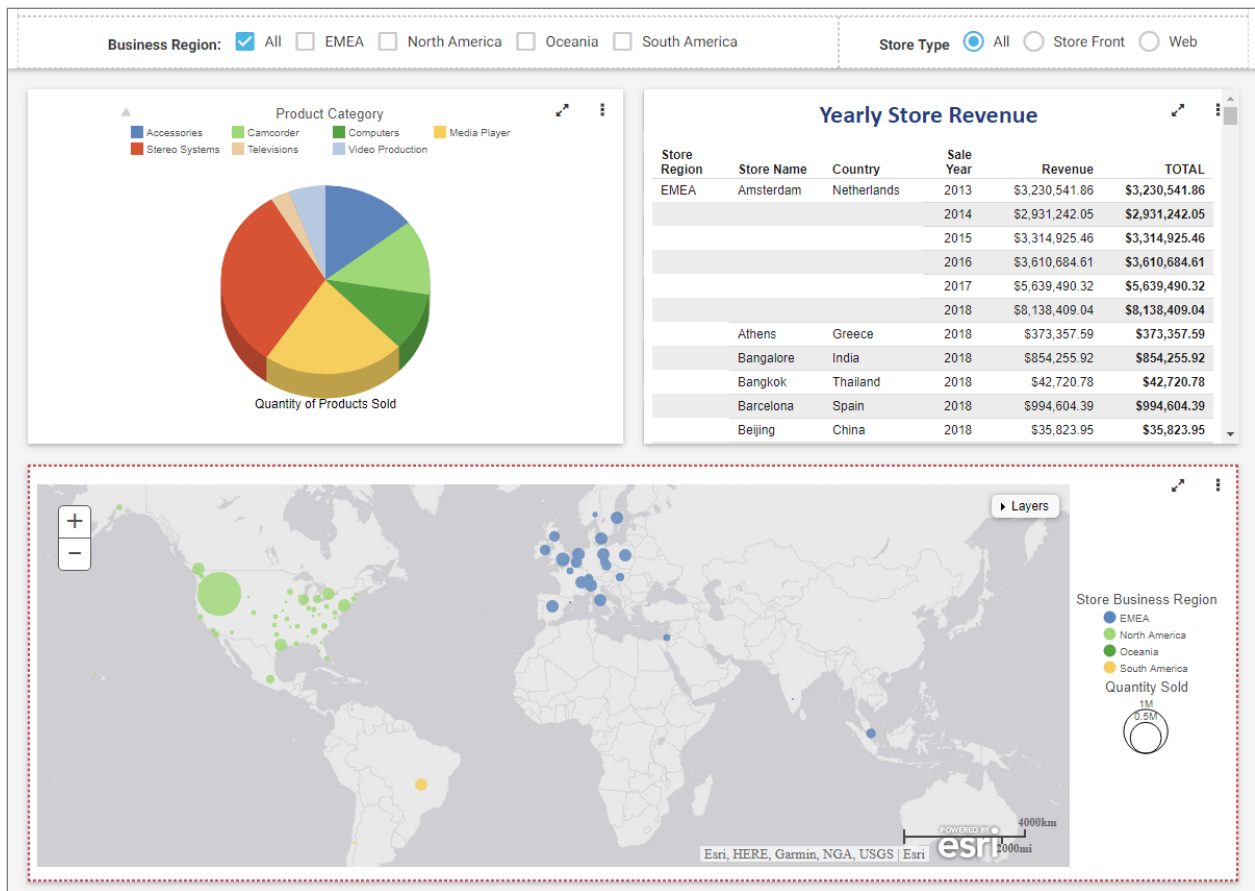
- Product Category:** A row of checkboxes for All (checked), Accessories, Camcorder, Computers, Media Player, Stereo Systems, Televisions, and Video Production.
- Product Subcategory:** A dropdown menu with 'All' selected.
- Product Sold:** A dropdown menu with 'All' selected.
- Sales Revenue:** A dropdown menu with 'All' selected.
- Sales Year:** A row of buttons for All, 2010, 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2025.
- Business Region:** A row of checkboxes for All (checked), EMEA, North America, Oceania, and South America.
- Store Type:** A row of radio buttons for All (selected), Store Front, and Web.

As an additional styling step, let's remove the titles from each panel so that they only show your content.

To do this:

- Select one of your content panels.
- In the Properties panel, click the **Settings** tab .
- Toggle off the **Title** option.

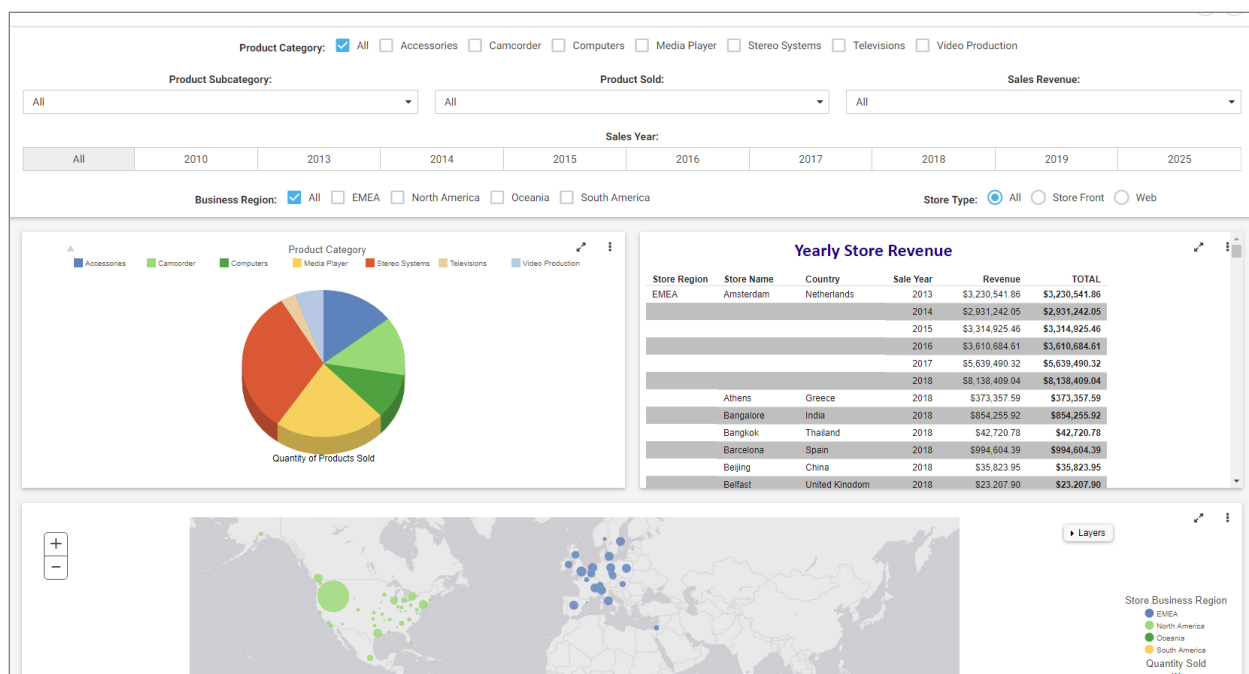
Let's do this for all three of your content containers. An example of the result is shown in the following image.



Before you save this page and add it to your application, you can preview it:

- Click the **Preview** icon .

A preview of the page displays, as shown in the following image.



Notice that the appearance of the page has changed - the development options are removed and the page displays as it will appear in the application.

Using this preview, you can select parameters within your filters to further support usability and analysis. For this exercise:

- Click through the different controls to modify and enhance the data that displays in each of the charts or report. Notice that when you select a Quantity or Business Region, more than one content item on the page changes. This is because we added the same parameters during the creation of content.
- Exit the preview by clicking the blue circle that is docked at the top of the page, and return to WebFOCUS Designer to save the page and add it to your application.
- Click the **Save** icon, and name the page. Let's name this page **Retail Stores Update**.
- Type the name of the page in the Title field, and then click **Save**.
- Exit WebFOCUS Designer and return to the WebFOCUS Home Page. Similar to the content we created, notice that the page appears gray.
- Right-click the page and then click **Publish**.

We have now created content and added it to a page, where we were quickly able to add filter controls, as well as add additional enhancements while previewing the page.

All that's left to do is add this page to the application!

Step 3: Adding a Page to Your Application



Step 3: Adding a Page to Your Application

The final step in creating a simple application is to add one or more pages to an application interface. Use WebFOCUS Portal Designer to do this—create a collaborative portal and add the page to the portal. The result will enable you to share the page with others via the Portal.

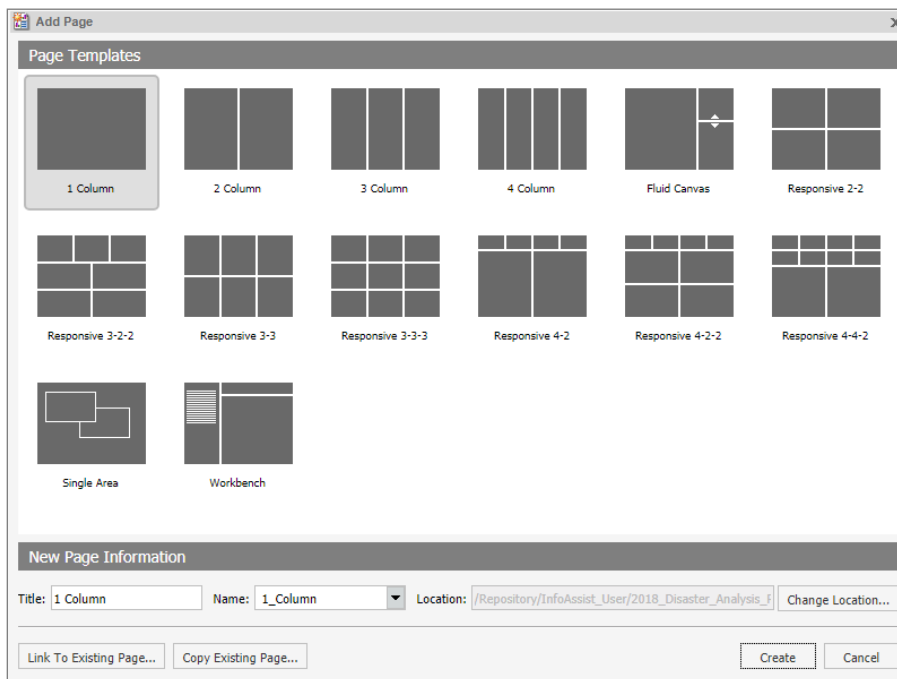
Note: A portal can contain multiple pages that users can navigate between.

For more information about creating portal applications, see the *Business Intelligence Portal* technical content.

To create an application using the page we previously created:

- On the Home Page, click the **More** button and then click **Collaborative Portal**.
- In the New Portal dialog box, in the Title field, type **2018 Sales Analysis**, and then click **Create**.

The Portal Designer launches and the Add Page dialog box appears, as shown in the following image.



Here, you can select a page template to specify the format for the page. You can also link to an existing page or copy an existing portal page.

For this exercise, since we will be adding the page with the filters we created earlier, let's select the 1 column template:

- In the Title field, let's name the page **Retail Sales**. Click **Create**.

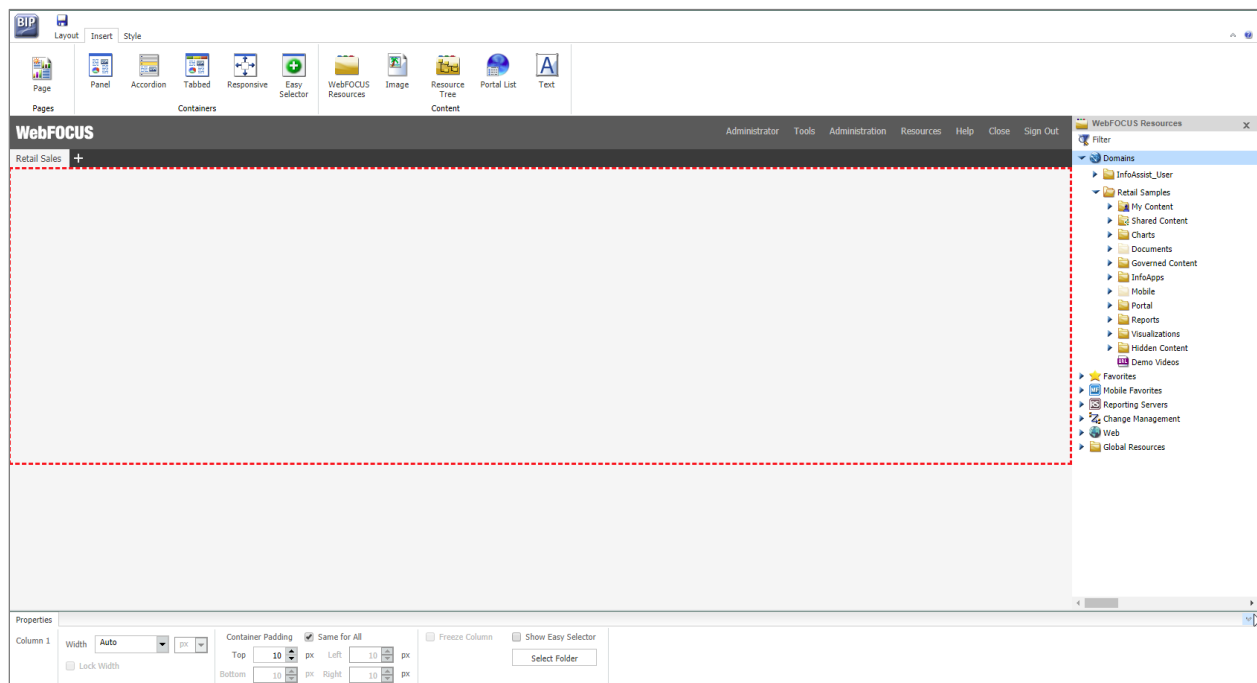
You can use Portal Designer to create simple or more robust applications. You can add more pages to your portal now, but you can also add pages later during your analysis.

You can also use this Portal Designer to:

- Customize the appearance of the portal application by changing the layout, theme, navigation, and banner; you can modify the security and properties as well.
- Insert a variety of containers, if you are adding your content to the portal page without using WebFOCUS Designer.

Next, let's add the content to the Portal page.

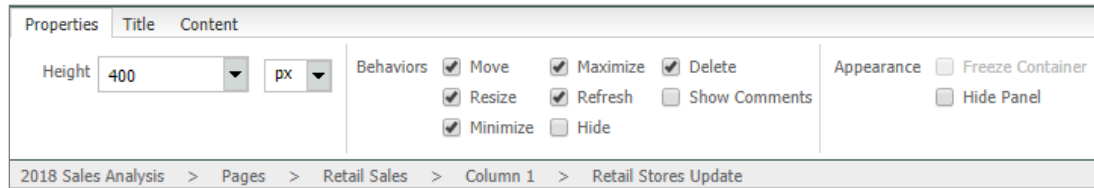
On the *Insert* tab, in the *Content* group, click **WebFOCUS Resources**. This opens the WebFOCUS Resources tree panel, as shown in the following image. Here, you can expand the domains in which you created your content, and drag that content to the canvas to populate the page.



Since you previously created a page with filters, let's pull that page into the application next.

- Drag the page, **Retail Stores Update**, to the Portal Designer canvas.

When the canvas refreshes, you can see that the Properties tab at the bottom of the application window shows changed options, as seen in the following image.

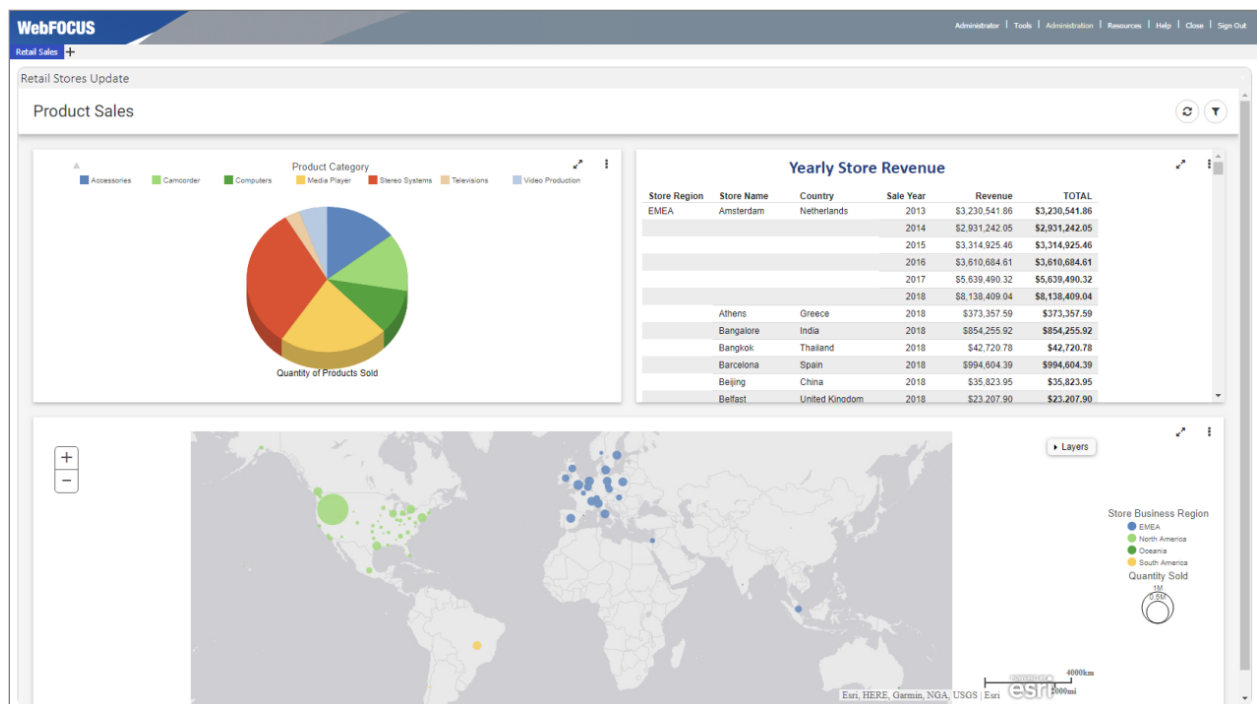


Specifically, notice that the Height of the page is set to 400px. If we leave this default setting, we will need to scroll to view our map. So let's change this to Auto, which will automatically respond when the size of the browser window changes.

You can continue to edit the application for increased usability. For this exercise, let's apply a theme:

- On the *Layout* tab, in the *Portal* group, click **Theme**.
- In the Portal Theme Files dialog box, click the **Base Theme CSS** drop-down menu, select **Flat**, and then click **OK**.

Notice that the color and styling of your Portal has changed, as shown in the following image.



Once you have made all of the changes that you want to see in the portal application, you can save and share it. Let's do that now:

- Click **Save**, and exit the Portal Designer.
- On the WebFOCUS Home Page, right-click your portal application, and then click **Run**.

Your application opens in new window. You can now share the results with others.

This is the end of your Getting Started experience. If you have any questions, feedback, or would like to speak to one of our Customer Success representatives, please contact us at customer_success@ibi.com.

Learn More

Access these online self-service resources to learn more about WebFOCUS:

- WebFOCUS 8.2.x Application and Enterprise Editions Information Center
 - <https://webfocusinfocenter.informationbuilders.com/wfappent>
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