

# WebFOCUS

Using WebFOCUS Mobile Voice  
Release 8205 and higher

May 30, 2019

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## Using WebFOCUS Mobile Voice

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With WebFOCUS Mobile Voice, it's possible to access information from your applications using only your voice and a mobile device, such as tablet or mobile phone, no computer needed. This new feature enables you to build voice-enabled, conversational applications that recognize voice requests for information. Users activate the application by speaking an intent phrase, which you define, into the microphone on their mobile device. The application can then:

- ☐ Run a report, chart, or dashboard.
- ☐ Speak a configurable sentence that includes relevant information from your data sources.
- ☐ Ask the user for more information before providing the requested information.

### **In this chapter:**


- ☐ [Introducing Mobile Voice](#)
  - ☐ [Getting Started With Mobile Voice](#)
  - ☐ [Enabling Mobile Voice](#)
- 

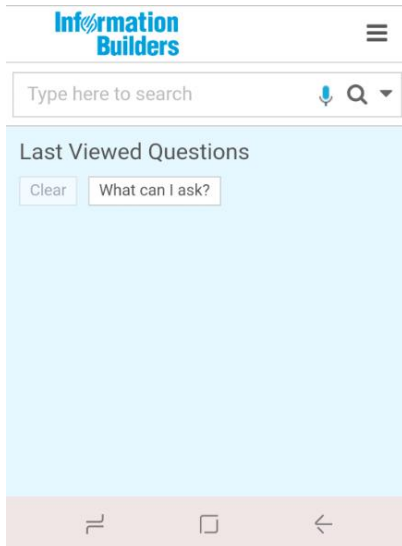
## Introducing Mobile Voice

WebFOCUS Mobile Voice integrates with existing WebFOCUS technology that you can use to easily find related reports, charts, and dashboards, which are indexed from key data elements in your BI content. When you combine these technologies, you can build applications that can be used by anyone in your organization to access the data they need without the use of a physical computer.

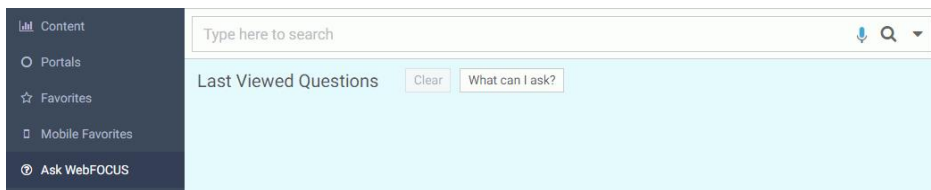
Let's say that you work in a department store that is gearing up for the upcoming holiday season. As you are walking around the stockroom, you can use your mobile device to quickly ask Mobile Voice a question, such as "Show me inventory for Boston" or "Tell me inventory for Boston". WebFOCUS interprets the words spoken, and compares them to the actual data values found in your BI sources. It then responds to your request by running a visual report or relaying the information that is available to you. With Mobile Voice, the data that is important to you can literally be accessed from the palm of your hand.


Using Mobile Voice is simple. Access the WebFOCUS Home Page from the WebFOCUS app for iOS devices or from the Google Chrome browser on your Android device or desktop, and speak your queries in the Ask WebFOCUS user interface.

To access Mobile Voice from your mobile browser or the WebFOCUS app for iOS, from the WebFOCUS Home Page, tap the menu icon  to open the sidebar, and then tap Ask WebFOCUS.



When accessing it on a desktop, from the WebFOCUS Home Page, click Ask WebFOCUS.



Tap the microphone icon , and begin asking a query, such as “Tell me inventory for Boston.” WebFOCUS interprets your words, and responds to you by either visually opening a report, or “talking” to you to gather more information before it provides a response.

For example:

User: *Tell me inventory for Boston.*

WebFOCUS: *Please say a value for product category.*

User: *Televisions.*

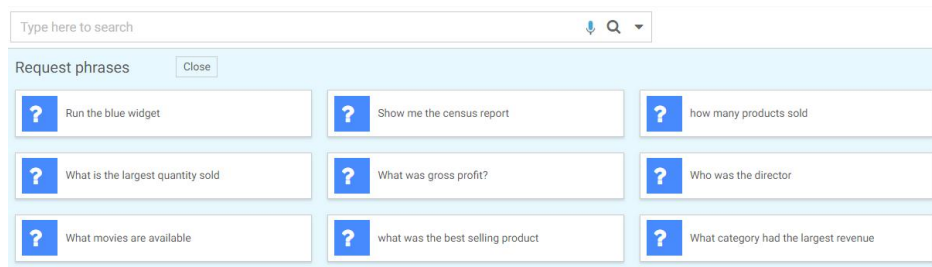
WebFOCUS:



But what if you are not sure of the exact questions you can ask? From the same screen, you can also tap *What can I ask?*, which is only shown if there is voice-enabled content available to you.



Tapping this button shows a list of the intent phrases that enable your interaction.



## Getting Started With Mobile Voice

Before you can begin to interact with Mobile Voice, you or a Domain developer in your organization must set up voice-enabled content and identify the data values that will be indexed for your queries. It also requires that you access WebFOCUS with a WebFOCUS Mobile license. By default, this enables your view of the Ask WebFOCUS interface. If you sign in to WebFOCUS, and do not see this view, you should contact your Administrator.

You can access Mobile Voice from the following supported devices:

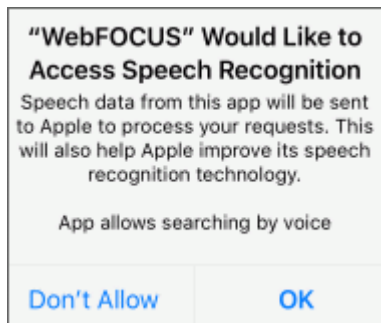
- ☐ WebFOCUS app for iOS devices

- ❑ Google Chrome browser with HTTPS on Android devices or desktop devices

When you interact with Mobile Voice from your desktop, in addition to using a Google Chrome browser, you must also have SSL configured with your installation of WebFOCUS. This ensures that you can use the voice API software with a microphone, and is typically set up by an Administrator.

To interact with Mobile Voice from your iOS device, you must also follow these steps:

- ❑ Download the latest WebFOCUS app for iOS from the Apple App Store.
- ❑ Enable access to the microphone and speech recognition settings on your device. To enable these permissions, tap Ask WebFOCUS in the side bar and then tap the microphone. Your device then prompts you to confirm speech recognition access for WebFOCUS.



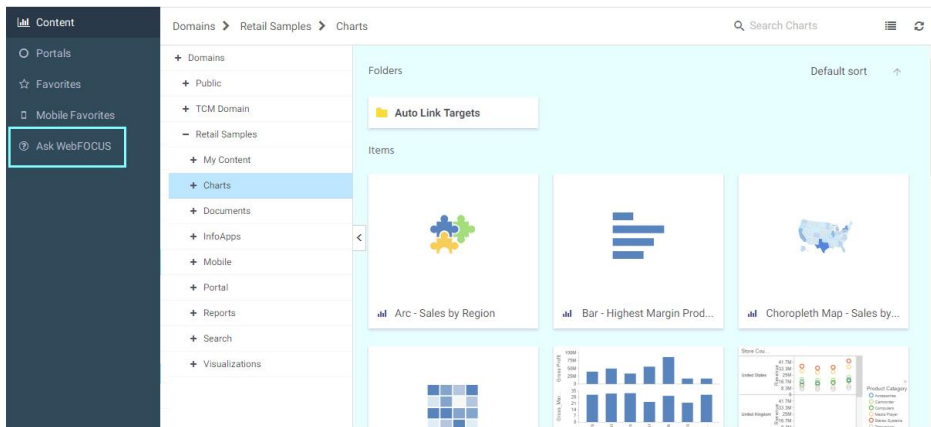
Tap *OK* for both permission requests that open.

- ❑ Ensure that the New Interface toggle is enabled on the Add/Edit site page.
- ❑ Connect to a WebFOCUS Release 8.2 Version 04 or higher environment.

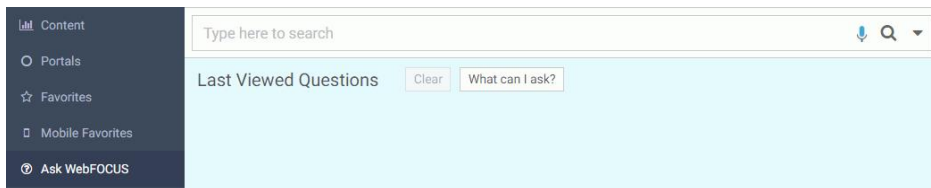
With the WebFOCUS app for iOS, you can easily run your WebFOCUS content, such as reports and dashboards and save it locally on your device for offline use. You can also print or email that content to share it with others in your organization and interact with Mobile Voice. To learn more about the WebFOCUS app for iOS, see the *WebFOCUS App for iOS User's Guide*.



To access Mobile Voice, sign in to WebFOCUS. From the WebFOCUS Home Page, Ask WebFOCUS is available in the sidebar.



Clicking or tapping Ask WebFOCUS opens the Ask WebFOCUS user interface, where you or other users in your organization can interact with WebFOCUS Mobile Voice enabled-content.



You can use Mobile Voice with any existing WebFOCUS content, or create new content.

## Enabling Mobile Voice

An administrator or user with Domain Developer privileges can enable Mobile Voice capabilities for users in their organization:

1. **Create a dimensional data procedure using the InfoSearch Index Builder.** This defines the dimensions in your data that can be used to interact with Mobile Voice, and loads it into the search index of the domain.
2. **Define Intent Phrases.** This assigns phrases to each content item in your repository, and enables users to interact with the Mobile Voice. These phrases are what WebFOCUS uses to identify content that supports your query and should be constructed based on the available data in your content. For example, if your content includes data values for both total revenue and store location, your intent phrases could read "Tell me store revenue" or "What were Chicago sales".





## Chapter 2

# Setting Up WebFOCUS Content to Work With Mobile Voice

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You can use Mobile Voice to interact with data in various ways. Depending on how you set up your content, Mobile Voice can be used to simply open a selected report, or to have a more interactive conversation, where WebFOCUS prompts you for information before providing a response.

If your content is a procedure that does not take parameters, you only have to define an intent phrase before you can query it. If your content is a procedure that takes parameters, you must first define an intent phrase, and load dimensional data into the search index before you can interact with it. For more information about indexing data, see [Indexing Dimensional Data for Use With Voice-enabled Content](#) on page 27.

### In this chapter:

- ❑ [Creating Sample Content for Mobile Voice](#)
  - ❑ [Running a Simple Chart or Report in Mobile Voice](#)
  - ❑ [Creating Content With Required Parameters](#)
  - ❑ [Creating a Talking Report](#)
  - ❑ [Creating a Talking Report With Required Parameters](#)
- 

## Creating Sample Content for Mobile Voice

The following examples show how to set up WebFOCUS content for use with Mobile Voice, using a sample chart that we create in WebFOCUS Designer, and a sample report that we create in InfoAssist. The content for both examples uses WebFOCUS Retail data that is available to you with your installation of WebFOCUS.

### **Procedure:** How to Create a Chart in WebFOCUS Designer

1. Load the WebFOCUS Retail sample data to a Domain, where you can create content.
2. From the WebFOCUS Home Page, select the Domain where you want to create your content, and, on the Action bar, click the *Designer* tab.
3. Click *Chart* or *Workbook*.

**Note:** Mobile Voice will only find and display individual charts in a workbook, and not the workbook as a whole.

4. As WebFOCUS Designer opens, select the Retail Sample data source that you previously loaded to your Domain, and then click *Select*.
5. Add the following data fields. You can double-click these fields or drag them to the canvas:
  1. *Store,Name*
  2. *Product,Category*
  3. *Revenue*
  4. *Gross Profit*
6. Save your report with a meaningful name, such as *Store Sales*.

### **Procedure:** How to Create a Report in InfoAssist

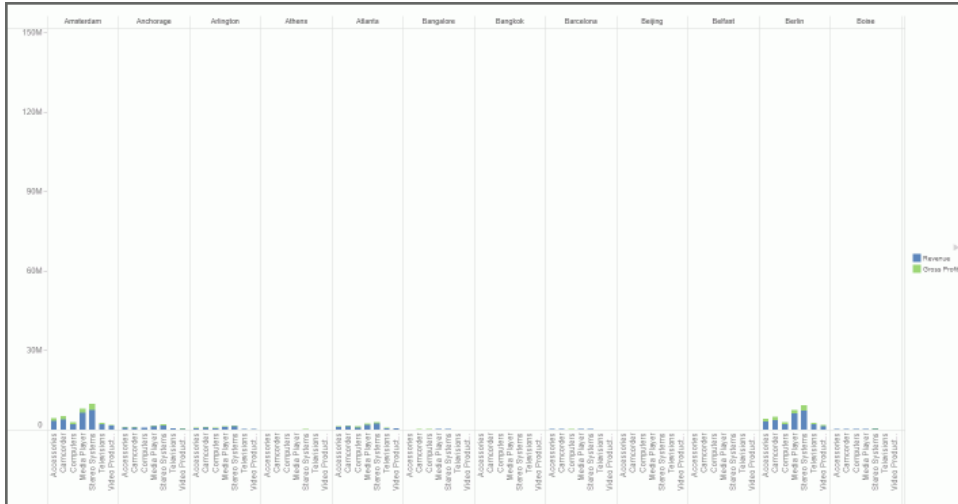
1. Load the WebFOCUS Retail sample data to a Domain, where you can create content.
2. From the WebFOCUS Home Page, select the Domain where you want to create your content, and under Create New, click *Report* to launch InfoAssist.
3. Create a report by adding the following data fields. You can double-click these fields or drag them to the canvas:
  1. *Store,Name*
  2. *Product,Category*
  3. *Revenue*
  4. *Gross Profit*
4. Save your report with a meaningful name, such as *Store Sales*.

**Note:** To ensure that you have set up your sample reports for use with Mobile Voice, you must save them to a Domain folder that is accessible to other users. If you save these sample charts or reports in the My Content folder, you will not be able to define intent phrases.

In this topic, we use both InfoAssist and WebFOCUS Designer to create our basic reports and charts, but you can also use App Studio to create your content. You must have access to WebFOCUS Designer, InfoAssist, or App Studio and your data to set up content for use with Mobile Voice..

## Running a Simple Chart or Report in Mobile Voice

You can set up content to run frequently accessed reports or charts when users submit a query in the Ask WebFOCUS user interface. Simply speak an intent phrase and Mobile Voice runs the chart or report that is associated with that phrase. For example, you can build a chart or report that shows store revenue for different products, and defines a related intent phrase, such as “Show me all store sales.” This prompts WebFOCUS to run a report that shows store sales for all store locations. An example of this chart is shown in the following image.



When you run a simple report with an intent phrase, you do not need to load a dimensional data procedure in search index for the domain.

## Creating Content With Required Parameters

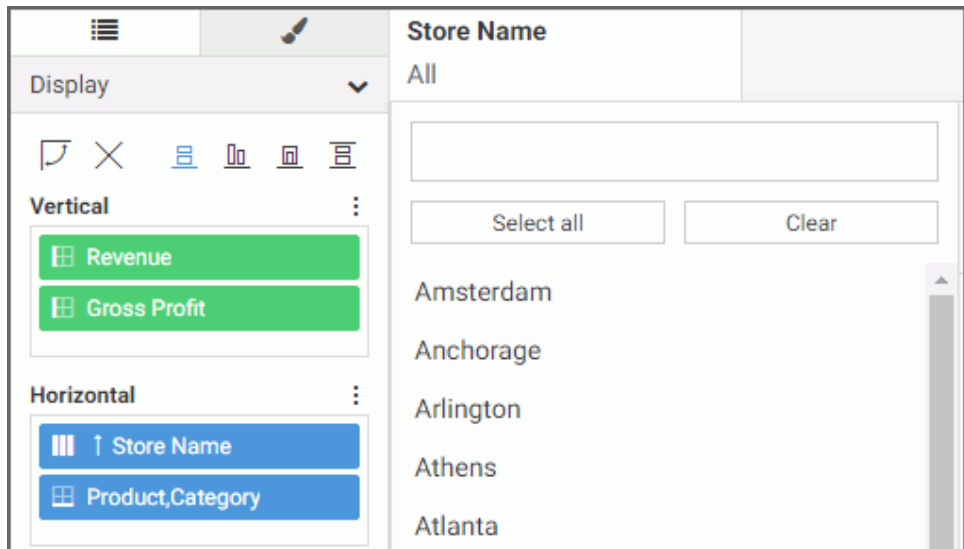
What if you don't want to view an entire chart or report? What if you just want to ask WebFOCUS about a specific field in your data, and view only the values that pertain to it? You can do that by adding a filter for the parameter that you want to specify to a chart or report.

Let's say you want to enable the ability to ask about store sales for a specific store. Using the sample chart and report we created in WebFOCUS Designer and InfoAssist as an example, you can quickly add a filter for that parameter.

### **Procedure:** How to Create a Filter in InfoAssist

1. Open an existing chart or create a new report in WebFOCUS Designer.
2. From the Data pane, drag the *Store,Name* dimension to the Filter toolbar located above the canvas. You can also right-click the dimension and click *Add to filter toolbar*.

The filter will show all of the available data values for that dimension, as shown in the following image.



There are two options you can choose from, when creating parameters the parameters that Mobile Voice will use for your WebFOCUS Designer content:

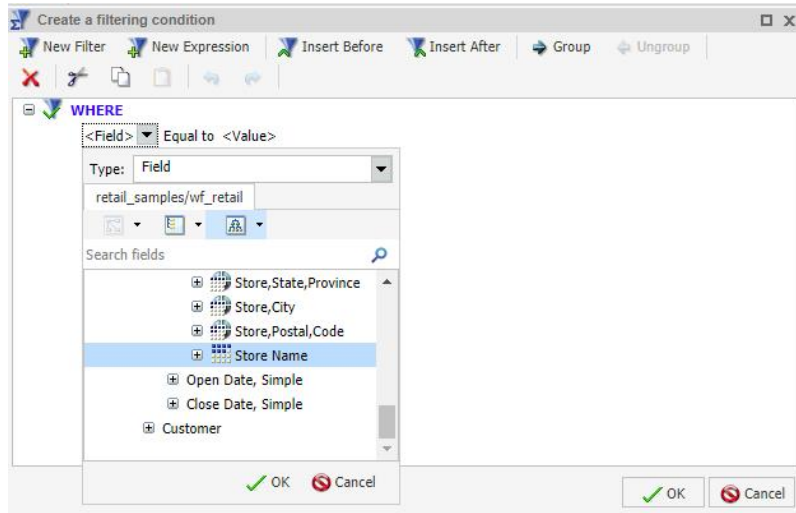
1. Set the parameter to required, by right-clicking the data field in the Filter toolbar and selecting *Require selection*. Doing so requires the user to specify a value before WebFOCUS can run a chart. They can do this by incorporating the parameter in the actual intent phrase. In the example using store name, this phrase could be “Tell me store sales for Boston” or “Show me store sales”. Both result in WebFOCUS prompting for a store name.
2. Keep the parameter value optional, which is the default. Doing so means the user can speak either of the two sample phrases noted above, except that when speaking the more general phrase of “what were store sales”, the chart will immediately run and show all store data.
3. Once you are done adding the filter, save the chart.
4. Close WebFOCUS Designer, and return to the WebFOCUS Home Page, where you can define an intent phrase, and load dimensional data in to the search index of the domain.

### **Procedure: How to Create a Filter in InfoAssist**

1. Open an existing report or create a new report in InfoAssist.
2. On the *Data* tab, in the *Filter* group, click *Filter*.

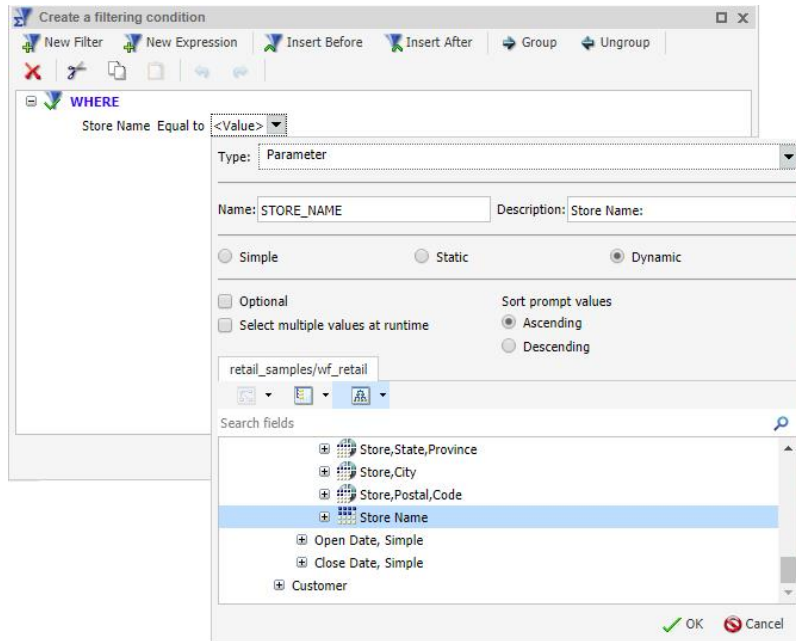
The Create a Filtering Condition dialog box opens.

3. Double-click *Double-click or press F2 to edit!* to open the drop-down menus that you can use to create a filter.
4. Use the Field drop-down menu to select a field from the Master File. For this example, we will use Store Name.



5. Click OK.

6. In the <Value> drop-down menu, select the value from the Master File. For this example, select *Parameter* from the Type drop-down menu, and select the *Dynamic* radio button. This creates a dynamic parameter for Store Name.

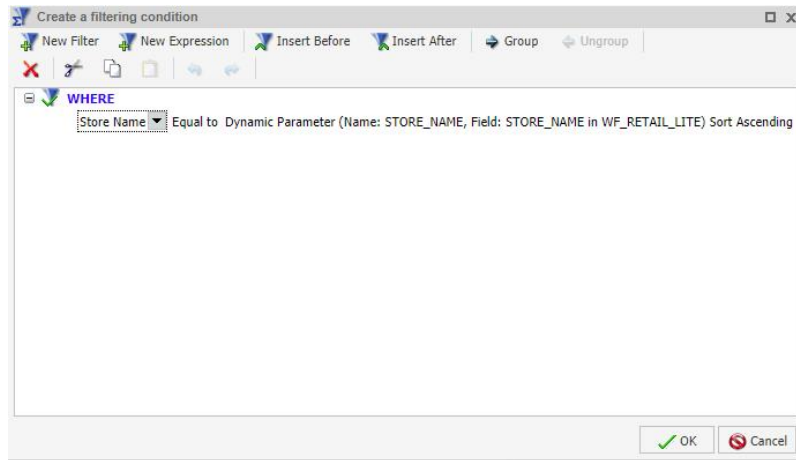


There are two options you can choose from, when creating parameters for your Mobile Voice reports:

1. Keep the parameter value required, which is the default. Doing so requires the user to specify a value before WebFOCUS can run a report. They can do this by incorporating the parameter in the actual intent phrase. In the example using store name, this phrase could be “Tell me store sales for Boston” or “Show me store sales”. Both result in WebFOCUS prompting for a store name.
2. Set the parameter to optional, by selecting the Optional checkbox. Doing so means the user can speak either of the two sample phrases noted above, except that when speaking the more general phrase of “what were store sales”, the report will immediately run and show all store data.



7. Click OK to view your complete filter, as shown in the following image.



8. Once you are done creating the filter, click *OK* to close the Create a filtering condition dialog box.

Close InfoAssist, and return to the WebFOCUS Home Page, where you can define an intent phrase, and load dimensional data in to the search index of the domain.

For both of these examples, defining the intent phrase to “Show me store sales”, will result in the following interaction:

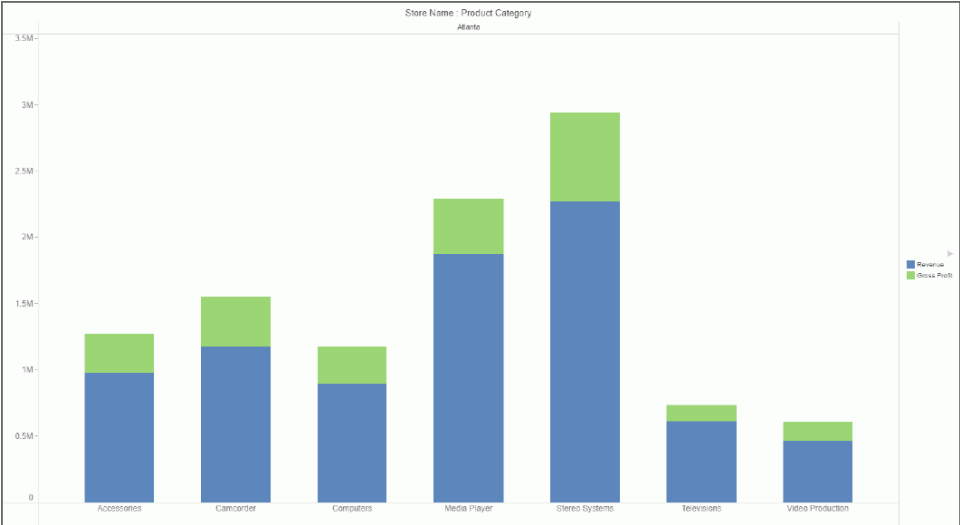
User: *Show me store sales.*

WebFOCUS: *Please say a value for store name.*

User: *Atlanta.*

WebFOCUS then opens the report showing store sales for the Atlanta location, which was the requested parameter.

For the chart created in WebFOCUS Designer, the result is shown in the following image.



For the report created in InfoAssist, the result is shown in the following image.

Store Name	Product Category	Revenue	Gross Profit
Atlanta	Accessories	\$972,804.98	\$300,385.98
	Camcorder	\$1,173,142.75	\$374,763.75
	Computers	\$892,505.31	\$285,043.31
	Media Player	\$1,873,480.86	\$415,344.86
	Stereo Systems	\$2,267,897.23	\$670,284.23
	Televisions	\$608,627.90	\$126,926.90
	Video Production	\$463,316.27	\$143,417.27

The following shows the fex behind the chart and report that we just set up. The highlighted area shows the filter for the required parameter that WebFOCUS needs to determine the correct report output.

```
SUM WF_RETAIL_LITE.WF_RETAIL_SALES.REVENUE_US
WF_RETAIL_LITE.WF_RETAIL_SALES.GROSS_PROFIT_US
BY WF_RETAIL_LITE.WF_RETAIL_STORE_SALES.STORE_NAME
BY WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY
WHERE WF_RETAIL_LITE.WF_RETAIL_STORE_SALES.STORE_NAME EQ @STORE_NAME.
(OR(FIND RETAIL_SAMPLES/WF_RETAIL_LITE.WF_RETAIL_STORE_SALES.STORE_NAME IN RETAIL_SAMPLES/WF_RETAIL_LITE
|FORMAT=A30V, SORT=ASCENDING, REQUIRED=TRUE)).Store Name.;
```

## Creating a Talking Report

Let's continue to build upon the same report example that shows store revenue for different cities, and enable WebFOCUS to respond to your query verbally, instead of visually running a report. To do this, you must create a Compute expression that can read back a result, and specify a field to respond to your query. You must also enable User Selection, which specifies the correct output for the report.

To create a Compute with TALKTEXT in InfoAssist:

1. Open an existing report or create a new report in InfoAssist.
2. Add a Compute expression to enable WebFOCUS to speak the answer back to you, instead of running the result in a report. To add a Compute field to your report or chart from InfoAssist:

- a. On the *Data* tab, in the *Calculation* group, click *Summary (Compute)*.

The Summary Field dialog box opens.

- b. In the Field text box, enter TALKTEXT.

**Note:** The field being computed must be called TALKTEXT.

- c. Set the format. In this example, we use A200, but you can change this value to allow for more characters in the response, if needed.
- d. Enter the expression that WebFOCUS will read back to you with a result.

In this example, the expression is formatted in the following way: 'Text for expression' | Data field | 'Text for expression' | Data field value | 'Text for expression' | Second Data field value

The expression must contain text that will be used to construct a complete sentence or response, as well as the data fields required for your query.

When creating the expression, the following conditions should be applied:

- ☐ The text used to create the sentence or response should be surrounded in single quotation marks (').
- ☐ Each segment of the reply should be separated by a pipe (|) symbol.
- ☐ Use the FPRINT function, which converts any type of field (except for a text field) to its alphanumeric equivalent for display. The basic expression for this function is:

```
FPRINT(in_value, 'usageformat', 'output')
```

where:

*in\_value*

Is the value to be converted and is any format, except TX.

*usageformat*

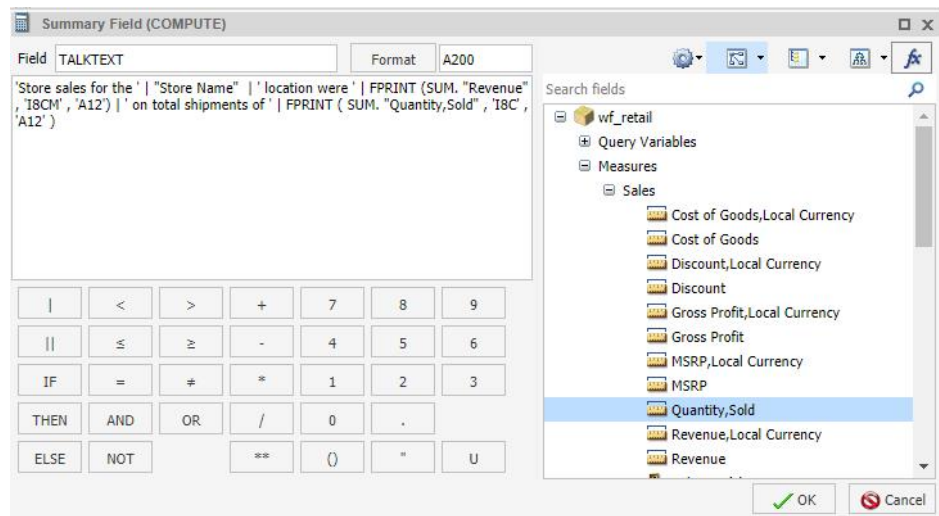
Is the usage format of the value to be converted, including display options. The format must be enclosed in single quotation marks.

*output*

Is the name of the output field or its format enclosed in single quotation marks. The output format must be long enough to hold the converted number itself, with a sign and decimal point, plus any additional characters generated by display options, such as commas, a currency symbol, or a percent sign.

For example, the I8C format used below is converted to A12 because it outputs an integer, with commas, that is up to 8 characters in length. The output format of A12 is long enough to correctly output the converted number for Quantity Sold.

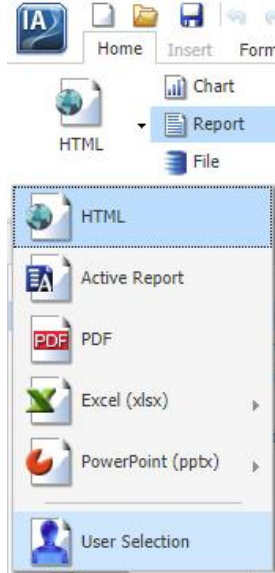
In the following example, the Compute is set to read: "Store sales for the Store Name location were Revenue on total shipments of *Quantity Sold*."



SUM is used as an aggregation function for both the Revenue and Quantity,Sold fields. You can apply aggregation functions (for example, Sum Average, and Percent) to the numeric field that you select. In InfoAssist, you can access the Aggregation Functions menu by right-clicking the selected measure field, pointing to *More*, and clicking *Aggregation Functions*.

**Note:** When you include an aggregation, ensure there are no spaces between the aggregation value and the field that you select.

3. Change the output format to User Selection. Using this option allows Mobile Voice to automatically specify the correct output format for a talking report. This option can be enabled from the InfoAssist Properties section of the Administration Console by your Administrator. Once enabled:
  - a. On the *Home* tab, in the *Format* group, click the drop-down menu and then click *User Selection*.



- b. Click the *Run* button to run the report.
  - c. Save the report.

Then, you can define your intent phrase to be “Tell me about sales and shipments”, which results in the following verbal interaction between you and WebFOCUS:

User: *Tell me about sales and shipments.*

WebFOCUS:



When you do not specify a parameter with a talking report, WebFOCUS replies with the first available value.

The following shows the fex behind the talking report that we just set up. The first highlighted area shows what the Compute looks like in the fex code, while the &WFFMT shows the output format detected by Mobile Voice that enables WebFOCUS to respond to your query with voice.

```
ENGINE INT CACHE SET ON
SET PAGE-NUM=NOLEAD
SET SQUEEZE=ON
-DEFAULTH &WF_HTMLCODE=ON;
SET HTMLCODE=&WF_HTMLCODE

SET HTMLCSS=ON
-DEFAULTH &WF_EMPTYREPORT=ON;
SET EMPTYREPORT=&WF_EMPTYREPORT

-DEFAULTH &WF_SUMMARY='Summary';
-DEFAULTH &WF_TITLE='WebFOCUS Report';
TABLE FILE retail_samples/wf_retail
SUM WF_RETAIL.WF_RETAIL_SALES.REVENUE_US NOPRINT
WF_RETAIL.WF_RETAIL_SALES.GROSS_PROFIT_US NOPRINT
COMPUTE TALKTEXT/A200='Store sales for the ' | WF_RETAIL.WF_RETAIL_STORE_SALES.STORE_NAME | ' location
were ' | FPRINT ( SUM.WF_RETAIL.WF_RETAIL_SALES.REVENUE_US , 'I8CM' , 'A12' ) | ' on total shipments of '
| FPRINT ( SUM.WF_RETAIL.WF_RETAIL_SALES.QUANTITY_SOLD , 'I8C' , 'A12' ) ;
BY WF_RETAIL.WF_RETAIL_STORE_SALES.STORE_NAME
BY WF_RETAIL.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY
ON TABLE PCHOLD FORMAT &WFFMT. (<HTML,HTML>,<Active Report,AHTML>,<PDF,PDF>,<Excel 2000,EXL2K>,<Excel
Formula,EXL2K FORMULA>,<Excel 2007,XLSX>,<Excel Formula (xlsx),XLSX FORMULA>,<PowerPoint
2007,PPTX>).Select an output type.

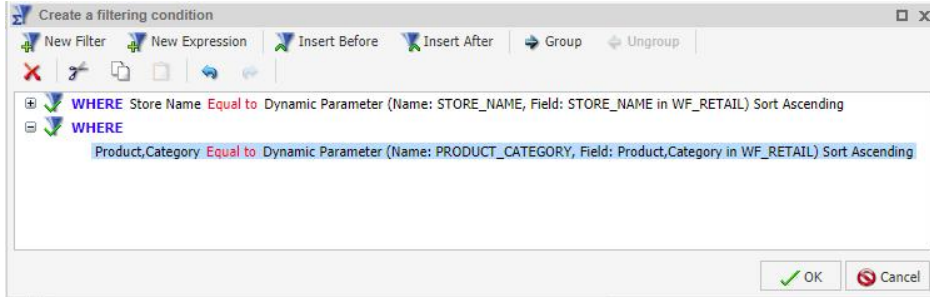
ON TABLE NOTOTAL
ON TABLE SET CACHELINES 100
ON TABLE SET STYLE *
INCLUDE=IBFS:/FILE/IBI_HTML_DIR/ibi_themes/Warm.sty,*
TYPE=REPORT, TITLETEXT=&WF_TITLE.QUOTEDSTRING, SUMMARY=&WF_SUMMARY.QUOTEDSTRING, ORIENTATION=LANDSCAPE, *
ENDSTYLE
END
-RUN
```

**Tip:** We recommend you use NOPRINT to guarantee that executing the standalone procedure and running it with Mobile Voice produce the same output.

## Creating a Talking Report With Required Parameters

In addition to enabling a verbal response to your query, you can also set required parameters in a talking report. This results in a more interactive conversation between you and WebFOCUS, where you are prompted for any required parameters before receiving a verbal response from WebFOCUS.

Let's use our sample talking report to continue this example. Along with defining a TALKTEXT Compute field and setting the output format as User Selection, you also define filters for your content. To do this, we use InfoAssist to create two filters: one for Product Category and one for Store Name.



Once these parameters are defined, and you have loaded dimensional data in to the search index, WebFOCUS prompts you for them before verbally responding to your query, resulting in the following interaction between you and Mobile Voice.

User: *What were store sales*

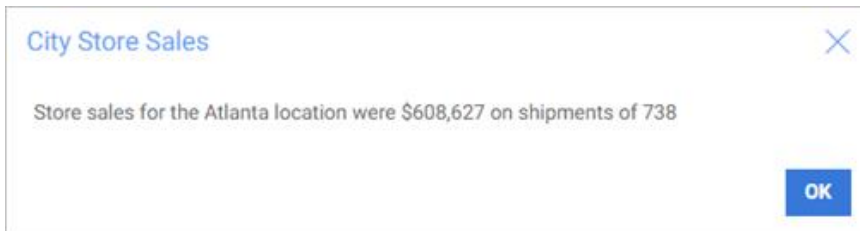
WebFOCUS: *Please say a value for product category.*

User: *Televisions*

WebFOCUS: *Please say a value for store name.*

User: *Atlanta*

WebFOCUS:



The following shows the fex behind this talking report with required parameters. The highlighted areas show the filters that we created for Store Name and Product Category. WebFOCUS uses these required parameters, along with the previously defined TALKTEXT Compute, to verbally prompt you for more information and provide an answer.

```
ENGINE INT CACHE SET ON
SET PAGE-NUM=NOLEAD
SET SQUEEZE=ON
-DEFAULTH &WF_HTMLENCODING=ON;
SET HTMLENCODING=&WF_HTMLENCODING

SET HTMLCSS=ON
-DEFAULTH &WF_EMPTYREPORT=ON;
SET EMPTYREPORT=&WF_EMPTYREPORT

-DEFAULTH &WF_SUMMARY='Summary';
-DEFAULTH &WF_TITLE='WebFOCUS Report';
TABLE FILE retail_samples/wf_retail
SUM WF_RETAIL.WF_RETAIL_SALES.GROSS_PROFIT_US NOPRINT
WF_RETAIL.WF_RETAIL_SALES.REVENUE_US NOPRINT
COMPUTE TALKTEXT/A200='Store sales for the ' | WF_RETAIL.WF_RETAIL_STORE_SALES.STORE_NAME | ' location
were ' | FPRINT ( SUM.WF_RETAIL.WF_RETAIL_SALES.REVENUE_US , 'I8CM' , 'A12' ) | ' on shipments of ' |
FPRINT ( SUM.WF_RETAIL.WF_RETAIL_SALES.QUANTITY_SOLD , 'I8C' , 'A12' ) ;
WF_RETAIL.WF_RETAIL_SALES.QUANTITY_SOLD
BY WF_RETAIL.WF_RETAIL_STORE_SALES.STORE_NAME
BY WF_RETAIL.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY
WHERE WF_RETAIL.WF_RETAIL_STORE_SALES.STORE_NAME EQ &STORE_NAME.(FIND
WF_RETAIL.WF_RETAIL_STORE_SALES.STORE_NAME IN retail_samples/WF_RETAIL (FORMAT=A30V, SORT=ASCENDING).Store
Name. QUOTEDSTRING;
WHERE WF_RETAIL.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY EQ &PRODUCT_CATEGORY.(FIND
WF_RETAIL.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY IN retail_samples/WF_RETAIL
(FORMAT=A40V, SORT=ASCENDING).Product Category. QUOTEDSTRING;
ON TABLE FCHELD FORMAT &WFMT. (<HTML, HTML>, <Active Report, HTML>, <PDF, PDF>, <Excel 2000, EXL2K>, <Excel
Formula, EXL2K FORMULA>, <Excel 2007, XLSX>, <Excel Formula (xlsx), XLSX FORMULA>, <PowerPoint
2007, PPTX>).Select an output type.
```

## Running a Talking Report With a Follow-up Question

You can also set up multiple reports to run off of each other, by asking WebFOCUS follow-up questions for the content of each report. In addition to a TALKTEXT Compute field, we will set a global parameter that will be used in and by both reports.

For this more advanced example, we will create two procedures that work with one another. To create this type of report, you must use the Text Editor that is available from the WebFOCUS Home Page.

From the WebFOCUS Home Page, under Create New, click *Text Editor* .

In the first report, we have values for City Name and Quantity Sold. Let's set City Name to be a global variable of &&CITY\_NAME, by using a SET command, and making it equal to the local variable of &CITY\_NAME. This variable will be required for the report to run.

You can copy and paste this sample code to test this example yourself. You must have access to WebFOCUS Retail Sample data for this example to work on your machine.



```

-SET &CITY_NAME = &CITY_NAME;
TABLE FILE retail_samples/wf_retail
SUM
WF_RETAIL.WF_RETAIL_SALES.QUANTITY_SOLD
COMPUTE
TALKTEXT/A200='Total number of units sold for &CITY_NAME is ' | FPRINT
( WF_RETAIL.WF_RETAIL_SALES.QUANTITY_SOLD , 'I8C' , 'A12' ) ;
WHERE WF_RETAIL.WF_RETAIL_GEOGRAPHY_STORE.CITY_NAME EQ &CITY_NAME.(FIND
WF_RETAIL.WF_RETAIL_GEOGRAPHY_STORE.CITY_NAME IN retail_samples/WF_RETAIL |
FORMAT=A50V).City Name:.QUOTEDSTRING;
ON TABLE SET PAGE OFF
ON TABLE PCHOLD FORMAT &WFFMT
END

```

The highlighted text in the TALKTEXT shows that the local parameter for local variable of City Name will be used by WebFOCUS to respond to your inquiry for the first report, and as context for the second report.

```

-SET &CITY_NAME = &CITY_NAME;
TABLE FILE retail_samples/wf_retail
SUM
WF_RETAIL.WF_RETAIL_SALES.QUANTITY_SOLD
COMPUTE
TALKTEXT/A200='Total number of units sold for &CITY_NAME is ' | FPRINT (
WF_RETAIL.WF_RETAIL_SALES.QUANTITY_SOLD , 'I8C' , 'A12' ) ;
WHERE WF_RETAIL.WF_RETAIL_GEOGRAPHY_STORE.CITY_NAME EQ &CITY_NAME.(FIND
WF_RETAIL.WF_RETAIL_GEOGRAPHY_STORE.CITY_NAME IN retail_samples/WF_RETAIL
|FORMAT=A50V).City Name:.QUOTEDSTRING;
ON TABLE SET PAGE OFF
ON TABLE PCHOLD FORMAT &WFFMT
END

```

Define your intent phrase to be “How many units were sold”, and load your dimensional data in to the search index. This then results in the following verbal interaction between you and WebFOCUS:

User: *How many units were sold*

WebFOCUS: *Please say a value for city name.*

User: *Chicago*

WebFOCUS:

Total Units Sold
✕

Total number of units sold for Chicago is 64,161

OK

Now, let's set up a second report that is called after the first report is run, and uses the same variable that was just spoken to WebFOCUS. Here, we use the SET command again, but in this example the local variable of &CITY\_NAME is set to equal the global variable from the first report. The TALKTEXT Compute then uses these variables to run the query.

You can copy and paste this sample code to test this example yourself:

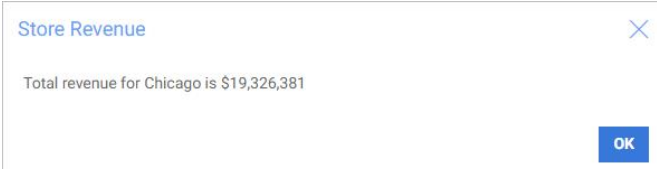
```
-SET &CITY_NAME = &&CITY_NAME;  
TABLE FILE retail_samples/wf_retail  
SUM WF_RETAIL.WF_RETAIL_SALES.REVENUE_US NOPRINT  
COMPUTE  
TALKTEXT/A200='Total revenue for &CITY_NAME is ' | FPRINT  
( WF_RETAIL.WF_RETAIL_SALES.REVENUE_US , 'I8CM' , 'A12' );  
BY WF_RETAIL.WF_RETAIL_GEOGRAPHY_STORE.CITY_NAME  
WHERE WF_RETAIL.WF_RETAIL_GEOGRAPHY_STORE.CITY_NAME EQ '&&CITY_NAME'  
ON TABLE PCHOLD FORMAT &WFFMT  
END
```

```
-SET &CITY_NAME = &&CITY_NAME  
TABLE FILE retail_samples/wf_retail  
SUM WF_RETAIL.WF_RETAIL_SALES.REVENUE_US NOPRINT  
COMPUTE  
TALKTEXT/A200='Total revenue for &CITY_NAME is ' | FPRINT  
( WF_RETAIL.WF_RETAIL_SALES.REVENUE_US , 'I8CM' , 'A12' );  
WHERE WF_RETAIL.WF_RETAIL_GEOGRAPHY_STORE.CITY_NAME EQ '&&CITY_NAME'  
ON TABLE PCHOLD FORMAT &WFFMT  
END
```

Define your intent phrase for this report to be “What was the revenue”, and load your dimensional data in to the search index. When you speak your query for the first report, and click the microphone again, WebFOCUS remembers the city name that you spoke, and responds to your second query using that information, resulting in the following interaction between you and Mobile Voice.

User: *What was the revenue*

WebFOCUS:



Store Revenue

Total revenue for Chicago is \$19,326,381

OK

WebFOCUS assumes that this intent phrase is related to the previous city name that was given, in this case, Chicago.

For more information on setting intent phrases, see [Defining Intent Phrases](#) on page 31.



# Chapter 3

## Indexing Dimensional Data for Use With Voice-enabled Content

---

To enable Mobile Voice, you must create a dimensional data procedure in each domain to define dimensions that will be used to search your repository content. These dimensions are the parameters that Mobile Voice should prompt for when running a search. The InfoSearch Index Builder creates a dimensional data procedure that gets loaded into the search index of the domain.

### In this chapter:

- ❑ [Using the InfoSearch Index Builder](#)
- 

### Using the InfoSearch Index Builder

In your browser, navigate to the InfoSearch Index Builder page, using the following link:

[https://machine:port/ibi\\_apps/ibxtools/explore/dimidxbuilder.jsp](https://machine:port/ibi_apps/ibxtools/explore/dimidxbuilder.jsp)

where:

*machine*

Is the network ID of your computer.

*port*

Is the number of the port that connects your computer to the server hosting WebFOCUS.

**Note:** You must be signed in to your WebFOCUS environment in order to access the InfoSearch Index Builder.

The InfoSearch Index Builder opens, as shown in the following image.

InfoSearch Index Builder

Domain: 

Select

Master File: 

Select

Save

Field Name	Title	Qualifying Name	Code Name
------------	-------	-----------------	-----------

Here, you must select the Domain in which you are defining data for the index, a Master File that provides dimension values, and the fields that you want to include.

When you build the dimensional data procedure, you must select a Field Name and Title for each value that you define. Note that if there is already a value for TITLE in your Master File, the Title box will automatically be populated with that information.

Optionally, you can specify a Code Name value that ties two associated values together so one can be used in place of the other in your query. For example, if your data contains values for a store, such as a number (or code) and name, you can select these values in the dimensional data procedure so that whenever a store number value appears in your content, it automatically uses the store name in the Mobile Voice response.

You may also have data values that have the same or a similar name, such as cities in different states. For example, let's say you are working with data values for City Name, and are aware that certain city names can be found in more than one state, such as Kansas City, Kansas and Kansas City, Missouri. In this scenario, the data value that correctly determines what report you are trying to run is State Name. However, setting this in the dimensional data procedure does not ensure that your query will reflect the appropriate information. To be sure that Mobile Voice outputs the correct data, both of these data values should be set as parameters in your report, which then prompts you for both of these values before responding to your query, and State Name should be set as the Qualifying field in the InfoSearch Index Builder. For an example on creating multiple parameters for a report, see [Creating a Talking Report With Required Parameters](#) on page 22.

Once you have identified the dimensions that you want to load into the index, click Save. This enables you to choose the domain and specify the name of your procedure.

While you are building the components of your index, you may come across additional scenarios that should be taken into consideration. These scenarios can include:

- ☐ Synonyms in your data that may not easily be recognized by Mobile Voice, such as “1st” versus “First”.
- ☐ Multiple data values with the same stem or root word, such as television and televisions.

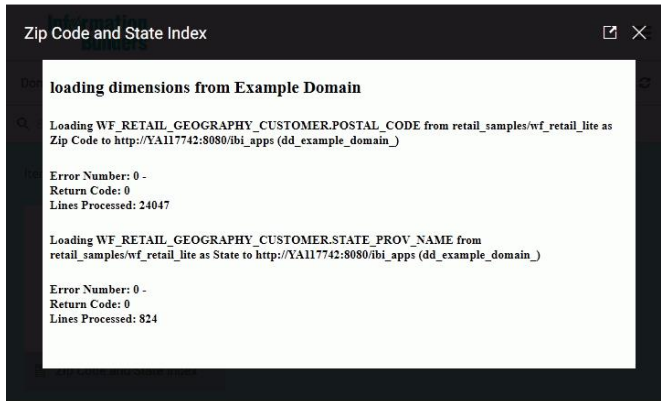
With your WebFOCUS installation you have access to WebFOCUS Magnify search technology, an Information Builders enterprise business intelligence search tool that you can use to create and find business content across an organization. Whether or not you have a WebFOCUS Magnify license, you can use components of this technology to enhance the Mobile Voice experience for your users.

- ☐ For more information on using Magnify technology to configure how synonyms are recognized, see the *Configuring Synonyms* topic in the *Magnify Search Security and Administration* manual.
- ☐ For more information on using Magnify technology to configure multiple data values with the same stem word, see the *Magnify Analyzers* topic in the *Magnify Search Security and Administration*.

To expand search beyond a single domain, you must load the same dimensional data procedure to each domain that shares the data that you want to index.

The final step in creating your index is running the procedure from the WebFOCUS Home Page. Close the InfoSearch Index Builder, and return to the WebFOCUS Home Page.

Right-click your dimensional data procedure and click *Run*. This generates the Domain search index, confirms the location of the procedure, and that it was generated successfully. An example of this message is shown in the following image.



You can now begin assigning intent phrases to each content item that you want to be accessible with Mobile Voice.

## Defining Intent Phrases

---

You or other users in your organization can interact with Mobile Voice using intent phrases that are defined for each content item. Items that can have intent phrases set to them are items that can be run, such as reports, HTML files, URLs, and so on. These phrases, such as “Tell me the highest grossing sales region in 2017” provide an “intent” or pre-defined criteria that can be used to learn more about the data that is available to you.

### In this chapter:

- ☐ [Intent Phrase Overview](#)
- 

### Intent Phrase Overview

Intent phrases will vary greatly, and should be defined using the available data in your repository. When setting up these phrases, some questions you can ask are:

- ☐ Who will be searching for this data?
- ☐ What data elements are in this content?
- ☐ What information is searched for regularly?
- ☐ What data elements are indexed?
- ☐ Should the reports be run visually, or should the result be returned verbally?
- ☐ Does the user know exactly what parameters to search for?

Questions such as these will help you determine the most helpful phrases for your search. Also, consider wording your phrases in such a way where the action taken by WebFOCUS is obvious directly from the phrase. For example, starting a phrase with “Show me” will result in WebFOCUS running a report, whereas starting one with “Tell me” will produce a verbal result.

When constructing intent phrases, it is best to avoid using words with similar pronunciation, such as “two”, “too”, or “to”, as well as incorporating special characters, such as \* or + into your query. Using these words may produce mixed results with the voice API, and your intent phrase may not be found correctly. When speaking your intent phrases, remember to speak in a normal, conversational pace, in order to ensure that the API properly understands you.

Let's take the report we have been working with and apply some of the questions above. While reviewing the following report:

Store Name	Product	Revenue	Gross Profit
	Category		
Amsterdam	Accessories	\$3,291,437.94	\$1,004,808.94
	Camcorder	\$3,865,579.61	\$1,234,188.61
	Computers	\$2,146,167.97	\$723,917.97
	Media Player	\$6,536,673.03	\$1,521,851.03
	Stereo Systems	\$7,480,434.60	\$2,221,117.60
	Televisions	\$2,122,953.25	\$470,670.25
	Video Production	\$1,422,046.94	\$441,816.94
Anchorage	Accessories	\$706,994.22	\$218,324.22
	Camcorder	\$827,433.44	\$264,771.44
	Computers	\$649,444.73	\$208,313.73
	Media Player	\$1,261,933.38	\$279,679.38
	Stereo Systems	\$1,589,822.92	\$468,508.92

We can start to see that some helpful, general phrases could be:

- ☐ What were all store sales.
- ☐ Tell me the revenue.
- ☐ Show me store inventory.
- ☐ Tell me product sales.

While the questions listed above are useful for obtaining general report information, or initiating an interactive exchange with WebFOCUS using required parameters, you can word your phrases to give you specific information in one sentence. For example, let's say you want to know product sales for televisions, regardless of city. As long as Product Category is indexed, every data value for that dimension can be searched for using a phrase constructed in the following way:

Show me product sales **for** televisions



In this example, the intent phrase is “Show me product sales” and the parameter is “televisions”. When using intent phrases, anything that comes after the word “for” will automatically be viewed by WebFOCUS as a parameter, since it separates the intent phrase from the variable found in the procedure. (Due to this, the word “for” should not be included in a saved intent phrase.) In this case, adding the words for televisions will result in WebFOCUS loading the following report:

Store Name	Product Category	Revenue	Gross Profit
Amsterdam	Televisions	\$2,122,953.25	\$470,670.25
Anchorage	Televisions	\$384,724.90	\$82,013.90
Arlington	Televisions	\$304,987.55	\$64,402.55
Athens	Televisions	\$30,800.07	\$6,380.07
Atlanta	Televisions	\$608,627.90	\$126,926.90
Bangalore	Televisions	\$50,742.02	\$10,494.02
Bangkok	Televisions	\$3,195.59	\$790.59
Barcelona	Televisions	\$92,070.46	\$20,889.46
Beijing	Televisions	\$2,776.98	\$507.98
Belfast	Televisions	\$1,728.97	\$226.97

You define intent phrases from the WebFOCUS Home Page that is accessed in a Web browser on your desktop. Right-click a report or chart in your repository, click *Properties*, and then click the *Advanced* tab.

General

Advanced

Query Detail


Explorer/Portal Properties

Thumbnail

☒ Default

☐ Embedded

☐ Link



Sort order

Language

English

View All

Load in iframe

☒ Yes

☐ No

Default width

Pixels

Default height

Pixels

Search Properties

Tags

Intent phrases

**Note:** You cannot add intent phrases to My Content items.

Under Search Properties, in the Intent Phrases setting, type an intent phrase for your content. You can add phrases such as “what was gross profit”.

Search Properties

Tags

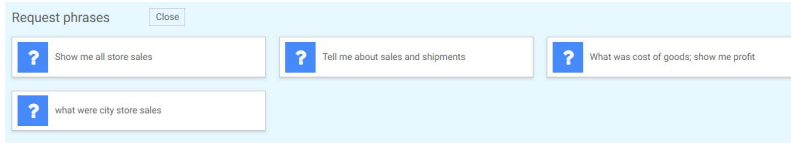
Intent phrases

What was gross profit

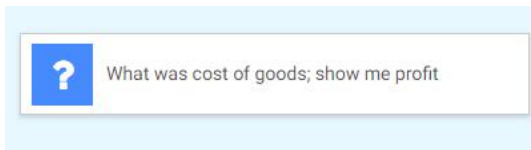
Once you have defined your intent phrases, you must save them. Click Save.

You may enter as many intent phrases per content item as you need, and punctuation is not necessary. When entering multiple intent phrases, use a semicolon (;) to separate them. The Intent Phrases box allows a maximum of 1040 characters.

Once you define intent phrases, the What can I ask? button becomes available in the Ask WebFOCUS interface. Once you click the What can I ask? button, all of the available intent phrases will display alphabetically.

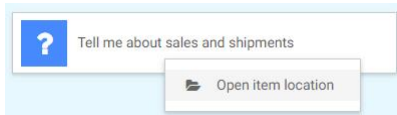


Content items with multiple intent phrases will be shown in one tile, and each phrase is separated by a semicolon (;).



Clicking any one of these tiles will run the intent phrase and begin the interaction with WebFOCUS.

**Tip:** You can easily find the content associated with a particular intent phrase by right-clicking the intent phrase tile on the Ask WebFOCUS user interface and clicking *Open item location*.



The content item associated to that intent phrase will be highlighted.

Your content is now ready to use with WebFOCUS Mobile Voice. You can access the Ask WebFOCUS user interface, and begin interacting with your content yourself, or share this access with others in your organization.





# Feedback

*Customer success is our top priority. Connect with us today!*

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Using WebFOCUS Mobile Voice  
Release 8205 and higher



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