

# TIBCO WebFOCUS®

## Release Notes

*Release 8207  
March 2022  
DN4501762.0322*





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## 8207.28.09 Release Notes

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The following topic provides all the information that you need to know about this release of TIBCO WebFOCUS®.

For an online version of this document and more information about the release, go to the [TIBCO WebFOCUS Product Documentation site](#), select the Documentation tab, and select the link to your product group.

### In this chapter:

- [Fixes](#)
- 

## Fixes

- The Indonesian (IBIWF\_language) is not set on the WebFOCUS Reporting Server. (02059063)
- The ./CreateLangRes.sh utility produces an error when used to add a new language. (02057886)
- An extra Create Report button appears on the InfoAssist ribbon with references to InfoAssist Visualization. (02085761)
- InfoAssist stops when two HOLD files that are joined are edited to add a COMPUTE. (02044094)
- After upgrading WebFOCUS, users are enabled as IA instead of IA Basic causing issues when opening existing IA Basic reports. (02081738)
- Page becomes unresponsive or results in an error when creating a HOLD file and editing the procedure. (02037161)
- InfoAssist will not open resulting in an error if a DEFINE contains an ampersand and format is alpha with variable length. (02083455)
- Chain filtering on a WebFOCUS Designer page does not display defaults for a child filter. (02087401)
- Traffic light with ACROSS is incorrect when report type is changed to Active. (02029331)
- Using a DBA NOPRINT restriction on a field in a multi-segment structure, with an IF or WHERE test on that field, may cause a crash. (02083342)

- ❑ On some environments, pipes and sockets created by a superuser ID are blocked from having world r/w or read access to these objects. To maintain the r/w access that the server requires, these pipes and sockets are now being created under the server owner ID to prevent this blocking. (02045125)
- ❑ When an AHTML report is included with an ESRI map in an HTML document, the map stops loading and generates errors in the browser console.
- ❑ An HTML page may not load after upgrading from WebFOCUS Release 8205 to WebFOCUS Release 8207.28.07. (02083429)
- ❑ An incorrect continuation of a -WRITE command in Dialogue Manager causes the agent/Web Console to hang. (02077388)
- ❑ The negative sign in a DEFINE expression was not recognized as a negative value. (02082540)

## 8207.28.06 Release Notes

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The following topic provides all the information that you need to know about this release of TIBCO WebFOCUS®.

### In this chapter:

- [Fixes](#)
- 

### Fixes

- Error when migrating DB from SQL to Postgresql and running db\_replicate. (02055124)
- Resizing Designer Esri map removes layer. (02061367)
- App Studio hangs after you add a custom CSS page to the settings and then a procedure file via Request and Data Sources. (02045089)
- Parameter prompting doesn't work correctly in a Portal when there are two pages that work with the same amper variable name and this variable has to return different values in each one pages. (02053254)
- Resolved issues which occurred when running Pages with filters on iOS devices. (02065131, 02052480)
- Page Designer filters gives a syntax error if the values have an apostrophe followed by a space. (02058535)
- Two different Designer pages in a portal with common filters not loading correct values. (02067587, 02060779, 02058721)
- Designer cannot be run from ibi\_apps/workbench since no link is available. (02032561)
- JSChart otherSliceDrillDown does not work. (02058793)



## 8207.28.05 Release Notes

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The following topic provides all the information that you need to know about this release of TIBCO WebFOCUS®.

### In this chapter:

- [Fixes](#)
- 

### Fixes

- The cursor position is incorrect for Japanese half-width katakana characters in the text editor. (02034777)
- Implement token authentication for EZ-reports instead of using REST. (02030728)
- Functions DATECVT, EDIT, and LTRIM used together result in blank output. (02043150)
- Custom Signin Page: The 'New PWs don't match' and 'Invalid user/pw' messages overlap. (02041301)
- Drilldown not set when applying conditional styling to reports in designer (DBCS). (02057211)
- Unable to change the width of the Paging/Search control. (02059220)
- Multi-select dropdown parameters do not display correctly when an & character is included in the value. (02062039)
- Keep selected values on a chained control is not kept. (02053343)
- After upgrading, HTML pages not rendering are throwing Script errors. (02057673, 02064714)
- Paging/Search control renders the wrong range if a control is chained. (02054085)
- Define does not appear in query panel when Two-part file name setting is disabled. (02053855, 02065947, 02055743)
- ESRI:Unable to translate map controls. (02049366)
- The character ñ is replaced by ? in Autodrill-enabled reports with Autoprompt (UTF-8). (02060937)

- ❑ After upgrading, the "last modified" column in Workspaces list view has no values. (02064236)
- ❑ After adding Hebrew characters to "Display text" for the filter, it hangs on saving. (UTF-8) (02057063)
- ❑ HTML Page not loading after upgrading to 8207.28. (02064714)
- ❑ NLS 137 displays incorrect characters from è to ? (02064881)
- ❑ Launch map throws connection error. (02064434, 02065694, 02065741, 02066722, 02069448)

## 8207.28.0 Release Notes

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The following topic provides all the information that you need to know about this release of TIBCO WebFOCUS®.

**In this chapter:**

- [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [Browser Information](#)
- 

### New Features

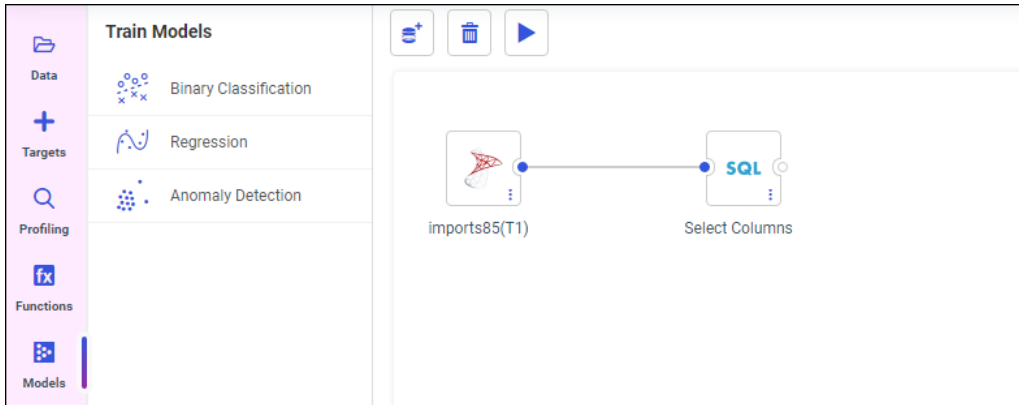
#### New Start Page

The new start page provides navigation to all areas of TIBCO WebFOCUS, serving as a unified tool that offers consolidated authoring capabilities and a seamless administrative experience. The new intuitive user interface allows developers, administrators, and consumers of analytical content maximize their use of WebFOCUS features in a single dynamic environment.

#### Running Predictive Analytics on Your Data

When creating a Data Flow, you can easily run predictive analytics on your data sets using Machine Learning functions, without prior knowledge of advanced statistics.

In addition to Regression models, you can now train and run Binary Classification and Anomaly Detection models on your data.



Binary Classification models predict binary values using four different algorithms: Random Forest, K-Nearest-Neighbors, Logistic Regression, and Extreme Gradient Boosting.

Anomaly Detection models detect anomalies, using the Isolation Forest clustering algorithm.

### Changing Metadata Classification Values When Uploading Data Files

If the Metadata Classification feature has been installed and configured, when uploading a data file you can view the recommended metadata classification values for each character-valued column. You can choose to keep the recommended values, or to change them.

When a recommended classification can be made, the columns that were classified have a Confidence Level associated with them, which indicates the probability that the classification is correct.



You can select from a column list of classifications, or enter your own classification, by typing into the text box next to the column. Clicking a column drop-down arrow shows the list of classifications, and indicates which is recommended, as shown in the following image.

The screenshot shows the 'Uploading Data' window. At the top, it displays 'SHEETS' with a table containing one row for 'sales\_orders'. Below this, the 'SALES\_ORDERS (RECOMMENDED CLASSIFICATIONS)' section is visible. It features a table with columns for 'Column', 'Confidence', 'Classification', 'Sample Data', 'Pattern', and 'Word Pattern'. The 'City' column has a confidence of 55% and a classification of 'ADDRESS\_1'. A dropdown menu is open for this column, listing various classification options: ADDRESS\_1, ADDRESS\_2, ADDRESS\_CITY, ADDRESS\_COUNTRY, ADDRESS\_POSTALCODE, ADDRESS\_STATE (marked as 'Recommended'), and FIRSTNAME. A 'Visualize Data' button is also present.

Including classification values in your data improves the accuracy of mapping column tables correctly to each other. This is useful if you are integrating data from multiple sources, or if integrating data into a system with a predefined hierarchy. When creating unions from different data sources, the metadata classification algorithm will match columns with similar data.

## TIBCO WebFOCUS DSML Services

TIBCO WebFOCUS® DSML Services are now delivered through binaries, which are available from the eDelivery site.

The following WebFOCUS products are included in DSML Services:

- Instant Insights.** You can easily run advanced analyses and generate visualizations and narratives on your data sets, without manually preparing and analyzing your data, or having prior knowledge of data science or statistics. With one click, the Instant Insights capabilities in Designer recognize trends in your data, generate customizable visualizations as charts with natural language headers, and categorize the charts into tabs. You can add these charts to the Designer canvas and build a page, or add them to existing pages or dashboards. Then, you can save and share your insights with others. For more information on Instant Insights, see the *TIBCO WebFOCUS® User's Guide*.

- ❑ **Machine Learning Functions.** When creating a Data Flow, you can easily run predictive analytics on your data sets using Machine Learning functions, without prior knowledge of advanced statistics. Build, train, and run multiple iterations of predictive models in parallel, evaluate and compare models actively, and select which model you want to save. Then, you can re-run your model against new data sets. For more information on Machine Learning Functions, see the *TIBCO WebFOCUS® User's Guide*.
- ❑ **Metadata Classification.** Examines your data and assigns classifications to the columns, which can then be used to match columns from separate data sources. You can classify data that you upload, and use it to match fields in a Union in a Data Flow. When uploading a data file, you can view the recommended metadata classification values for each character-valued column. You can choose to keep the recommended values, or to change them. Including classification values in your data improves the accuracy of mapping column tables correctly to each other. This is useful if you are integrating data from multiple sources, or if integrating data into a system with a predefined hierarchy. For more information on Metadata Classification, see the *TIBCO WebFOCUS® User's Guide* and the *TIBCO WebFOCUS® Reporting Server Administration* manual.

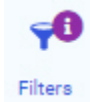
For more information on installing and configuring TIBCO WebFOCUS DSML Services, see [Installing and Configuring TIBCO WebFOCUS DSML Services](#).

### Chaining Filters in a Page Assembled From External Content

When a content item or page includes multiple filters, chaining ensures that those filters always return valid values to your content. When you select a value from one of the filter controls, the other controls can be filtered and updated based on the value that you select, if chaining is applied. For example, if you have a filter for Sale Quarter chained to a filter for Sale Month, then if you select Q1 from the Sale Quarter filter, the Sale Month filter updates to show only the months of January, February, and March, and automatically excludes any month values that were not in Q1.

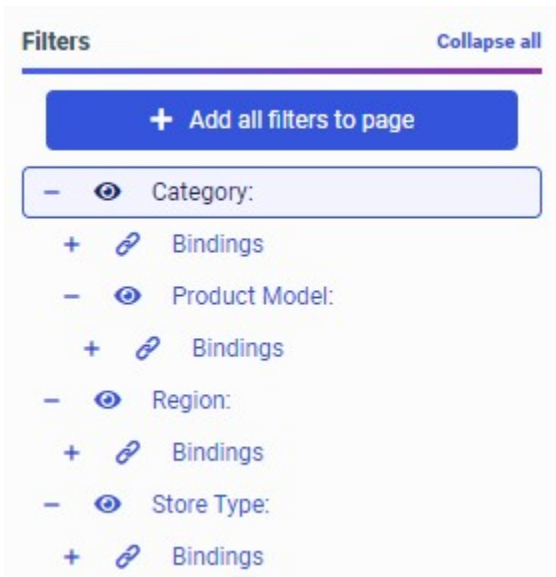
Chaining behavior is automatically applied to filter controls for new content and pages created from new content. In these content items, filter chaining is multidirectional, so it does not matter in what order the filter controls are arranged. Chaining is only applied to filters on alphanumeric dimension fields.

Chaining is also available in pages assembled from existing content, created by clicking *Assemble Visualizations* on the plus menu of the WebFOCUS Home Page. When you create a new assembled page and add content to it that contains dynamic parameter filters, a badge appears on the Filters tab on the sidebar, as shown in the following image.



When you open the Filters tab, the *Add all filters to page* button and a list of parameters from the content items on the page display. Click *Add all filters to page* to create filter controls for all of the listed parameters, or right-click each one and click *Add to page* to add them individually. Once added, the visibility icon next to the parameter is no longer faded.

Chaining relationships are indicated by indents in the parameter list. Filter controls are chained to any filters indented under it in the list. For example, in the following image, the Category filter is chained to the Product Model filter, so when you select a category, the list of available models in the filter control updates.



In this example, selections from the Category filter do not affect the Region or Store Type filters, since they are not part of the same chaining hierarchy, and, since filtering in an assembled page is unidirectional, values selected from the Product Model filter do not chain back up to the Category filter.

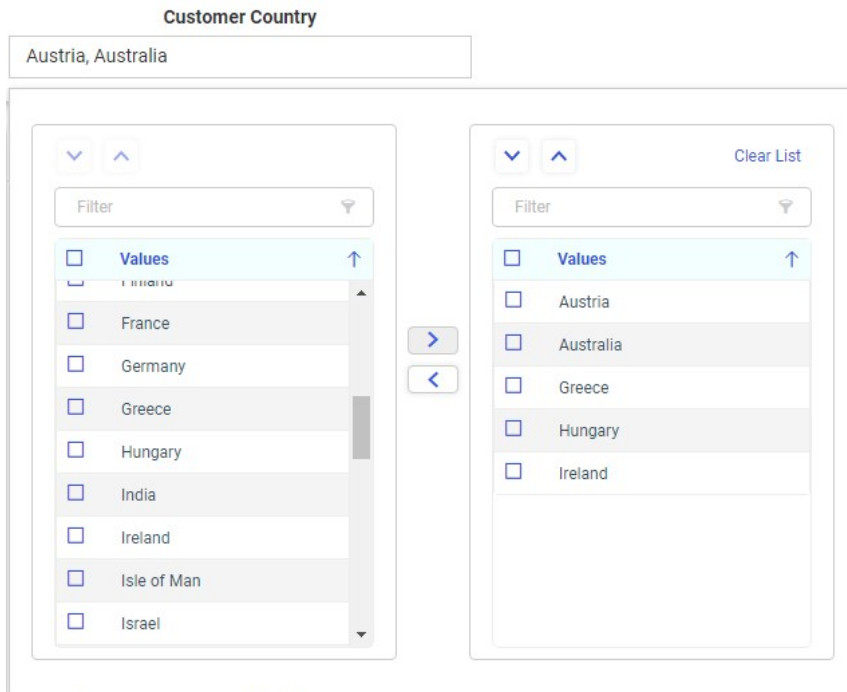
Filters for fields that are part of the same hierarchy in your metadata are automatically chained. You can also manually apply chaining by dragging one parameter onto another in the parameter list. The filter becomes a child, for chaining purposes, of the field onto which it was placed.



For more information, see the *Chaining Filter Control Selections* topic on the WebFOCUS KnowledgeBase.

## Double List and Toggle Controls For Assembled Pages

Two new controls are available for alphanumeric parameter filters in pages assembled from external content in WebFOCUS Designer. The double list control allows you to select multiple dimension values and reorder them, while the toggle control allows you to switch between two dimension values.

Each of these controls is specialized for use with particular kinds of parameters. The double list control can be used with any alphanumeric, multi-select parameter. The sorting capability of the double list control is especially useful for multi-select field list parameters in an InfoApp, where you can use it to change the order of sort and measure fields in the parameterized content. A double list control is shown in the following image.



To use the double list control in a page at run time, click the text that shows the selected filter values. The double list control opens. In the control, select a check box in the list of available values on the left for each value that you want to use in the filter, and then click the right arrow button  to add it to the list of applied filter values on the right. To remove a value from the list of applied values, double-click it or select its check box, and then click the left arrow button . Click outside the double list control to apply the new filter values.

The toggle control is useful when you want to only provide two available filter values, such as when the filter is used for a Boolean expression, in which a pre-defined flag field can be set to true or false. You can customize the display and actual values and hide the label for the second value in a toggle control from the Settings panel. A toggle control is shown in the following image.



To use a toggle control in a page at run time, click the toggle switch to select the second value, and click it again select the first value again. The creator of the page may choose not to show the label for the second value, if its value can be assumed based on the label for the first value.

To add a double list control or toggle control to a page assembled from external content, add a content item with a dynamic parameter for an alphanumeric field to the page, and then add the automatically generated filter controls to the page. Right-click a drop-down list control, click *Convert*, and then click *Double List* or *Toggle*. The double list control is available for multi-select parameters only.

For more information, see the *Working With Double List Controls* and *Working With Toggle Controls* topics on the WebFOCUS KnowledgeBase.

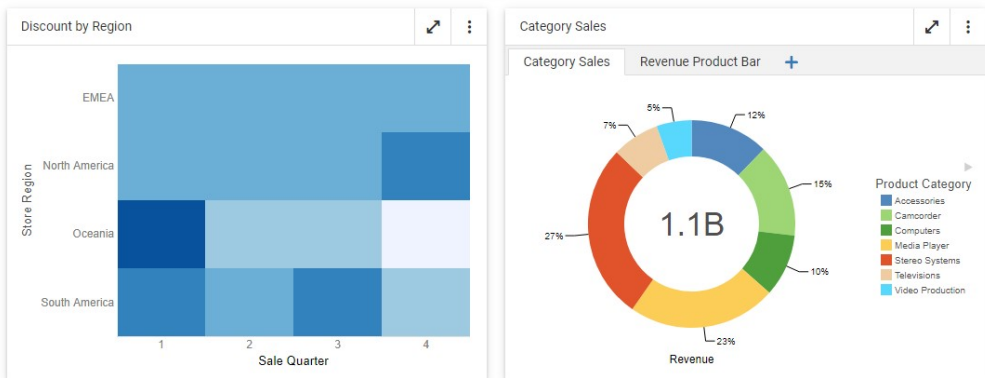
## Combining Containers in a Designer Page

In WebFOCUS Designer, you can add multiple content items to a tab, accordion, or carousel container. If you add a single content item to a page using a basic panel container, which can only contain a single item, and then drag a second content item into the same container, you have the option to transform this container into a type of container that supports multiple content items. Additionally, if you have previously added multiple items to a page in separate containers, you can combine them into a single, multi-content container.

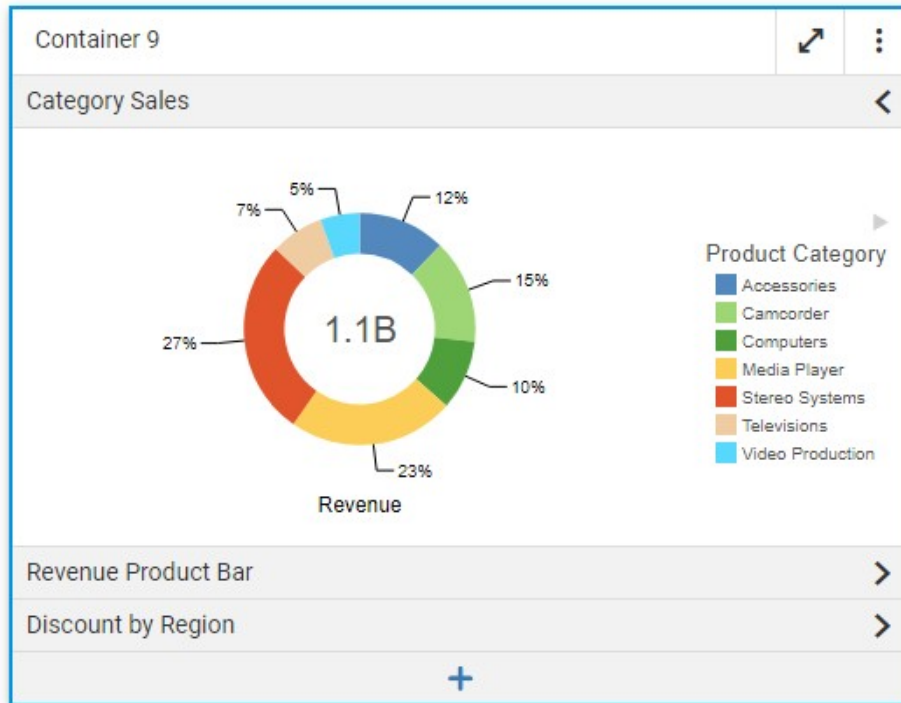
To combine multiple containers on a page, hold down the Ctrl key and select multiple containers by clicking the toolbar for each one. Next, right-click one of the containers, point to *Combine*, and select the type of multi-content container that you would like the containers to be merged into: either a tab, accordion, or carousel container.

This option is available for basic panel, tab, accordion, and carousel containers on a page. It is not available for link tile, grid, or panel group containers, nor for the Explorer widget, since these containers do not contain standard content items.

For example, the following image shows two separate containers on a page, before they have been combined.



In the following image, the two containers have been combined into a single accordion container.

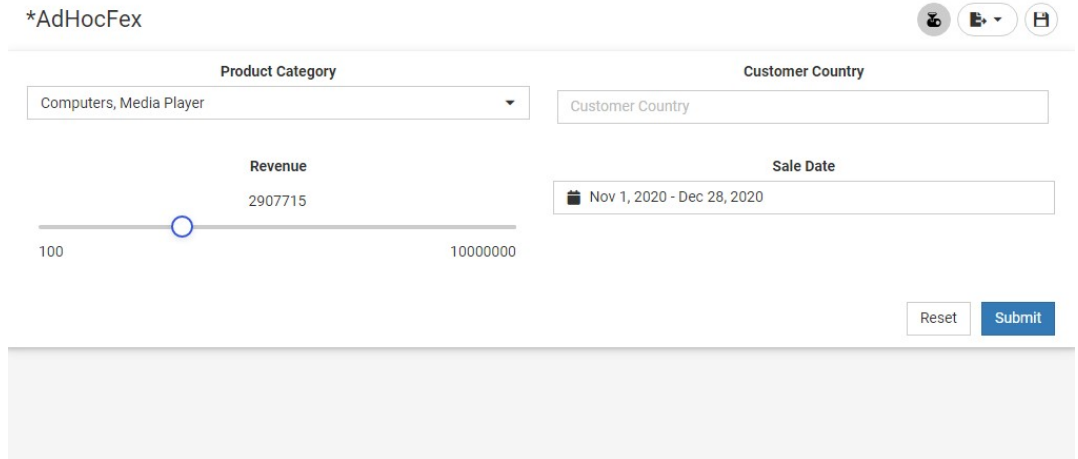


For more information on different types of containers in WebFOCUS Designer pages, see the *Working With Content Containers* topic on the WebFOCUS KnowledgeBase.

## Designer Autoprompt Page

Available as an alternative to the default Responsive Autoprompt page, the new Designer Autoprompt template provides the quick and intuitive automatic filtering behavior of autoprompt in a familiar layout that resembles a Designer page. When you run content that includes parameters without default values, an autoprompt page appears first, allowing you to provide values for these parameters before showing the content so that it displays correctly.

As in Designer pages, parameters with a list of values generate a drop-down list, parameters without a specified list or range of values generate an edit box, parameters for numeric fields with a specified range generate a slider, and parameters for date fields generate a calendar control. An example of the Designer Autoprompt page with a few automatically generated filter controls is shown in the following image.



When you run parameterized content using the Designer Autoprompt interface, you can make selections using the automatically generated filter controls, which adapt to present appropriate options, depending on the parameter format and a supplied range or list of values. Select filter values from the controls and click *Submit* to run your content. The chart, report, or other content loads with your parameter selections applied. You can then run the same content with multiple combinations of values to see how they affect your data set. To reset all controls to their default values, click *Reset*.

For more information, see *Designer Autoprompt* in *Chapter 3, Coding a User Interface* in the *Developing Reporting Applications* technical content.



## Applying Conditional Styling to Reports in Designer

Conditional styling is a feature that applies unique styling to cells in a chart or report when their values meet specified criteria. This allows you to highlight values that are especially high or low, or are higher and lower than those in another field, making it easy to spot important information in your content. You can even use conditional styling to add drill down links to values that match your set criteria, allowing users who run the chart or report to access additional context and information pertaining to those records. The following image shows a report to which conditional styling has been applied. Revenue values higher than 5,000,000 have a bright green background, while revenue values lower than 500,000 have a bright pink background.

Store Name	Sale Quarter	Quantity Sold	Revenue
Amsterdam	1	21,262	\$6,341,648.05
	2	20,016	\$5,975,387.79
	3	21,254	\$6,422,633.53
	4	26,757	\$8,125,623.97
Anchorage	1	4,101	\$1,209,002.68
	2	3,919	\$1,189,866.39
	3	4,780	\$1,494,626.99
	4	6,105	\$1,832,458.65
Arlington	1	3,452	\$1,079,601.63
	2	3,390	\$1,040,887.98
	3	3,328	\$971,228.37
	4	4,194	\$1,333,370.47
Athens	4	1,191	\$373,357.59
Atlanta	1	6,564	\$1,980,785.12
	2	6,577	\$1,974,945.67
	3	6,297	\$1,937,744.32
	4	7,723	\$2,358,300.19
Bangalore	3	309	\$99,173.60
	4	2,479	\$755,082.32
Bangkok	4	115	\$42,720.78
Barcelona	3	629	\$190,813.70
	4	2,449	\$803,790.69
Beijing	4	120	\$35,823.95
Belfast	4	81	\$23,207.90
Berlin	1	21,012	\$6,291,658.12
	2	20,207	\$5,989,913.09
	3	20,221	\$6,087,656.34
	4	23,825	\$7,148,966.71
Boise	1	947	\$291,905.43
	2	971	\$282,355.56
	3	950	\$297,327.28
	4	1,213	\$375,700.38

Conditional styling is set on the field level. To enable conditional styling for a field, right-click the field and then click *Conditional Styling*. The Conditional Styling panel opens, where you can set the criteria that, when met, will trigger conditional styling.

You can create a condition that compares values in the selected field to another field or to a static value that you specify. For a chart, you can set the color of risers that meet the conditional styling criteria. For a report, you can set the font, text size, text color, font style, justification, and background color of conditionally styled cells. The available styling options for a report are shown in the following image.



You can apply multiple conditions to the same field, and apply different styling properties to each one. This allows you, for example, to highlight particularly high and particularly low values in the same field.

Once you have set the conditions and the styling that you want to apply when those conditions are met, click *Apply*. You can then close the Conditional Styling panel. When you run the report, the values in the styled field that match your specified conditions have special styling applied, making them easy to identify at a glance.

For more information about conditional styling, see the *Setting Conditional Styling Based on Data Values* topic on the WebFOCUS KnowledgeBase.

## Setting a Time Zone for Date-Time Filters

Fields that include both the date and a timestamp, as opposed to just the date, are considered to have a date-time format. Date-time fields are considered a separate field type from regular date fields. The timestamp in a date-time value can be precise to the millisecond, microsecond, or nanosecond. When you filter a date-time field in a chart, report, or authored page in WebFOCUS Designer, you are presented with the ability to change the time zone in addition to the regular date filtering options, allowing you to filter content based on your local time zone. This means that you can filter content for a date range based on local time, even when the data was recorded in a different time zone. You can set a time zone based on a location or on a UTC offset.

When you set a time zone as part of a date-time filter, content is filtered to show data, which may have been recorded in a different time zone, based on whether it would fall within the defined date range in your current time zone. For example, if the data was recorded in Greenwich Mean Time, which is UTC±0 during standard time, and you set the time zone for your date range to a location that uses Eastern Standard Time, which is UTC-5, then the filtered data begins at 5:00 AM on the first day of the range. This is because 5:00 AM in UTC ±0, which is used as the time zone where your data originated, is the same time as midnight in Eastern Standard Time, the time zone that you selected for the filter. The start time for the filtered date range is shifted based on the difference between the two time zones. The data values displayed in your content do not change when you change the time zone used in your filter, and are assumed to have been written from a time zone with an offset of UTC±0.

To apply a time zone to a your filter, drag a date-time field into the Filter toolbar or Filters bucket. In addition to the range options that are also available for date fields, a Time Zone option appears, with the default time zone selected, if one has been set. To set the time zone for a prompted filter, click the Time Zone menu, as shown in the following image.



To set the time zone for a static filter, click the *Time Zone* option, as shown in the following image.

To select a time zone based on a location, on the Time zones tab of the Time Zone dialog box, first select a country or territory from the Country drop-down list. You can start typing the name of a country or territory to navigate to it more quickly. Once you select a country or territory, a list of available location-based time zones in that country appears, as shown in the following image.

Select a location and then click *OK* to apply it.

Time zones based on locations automatically apply daylight savings, depending on the time of year. For example, the North American Eastern Time zone has a UTC offset of UTC-5 during standard time, and a UTC offset of UTC-4 during daylight time.

To select a UTC offset instead of a location-based time zone, click the *Time Offsets (UTC)* tab and select an option. Click *OK* to apply the new time zone.

Once you set your time zone, select a date range for your filter and apply it. Your content refreshes, and the hour at which your date range starts and ends is adjusted based on the selected time zone.

For more information, see the *Setting a Time Zone in Date-Time Controls* topic on the WebFOCUS KnowledgeBase.

### Changing the Size of Charts and Risers

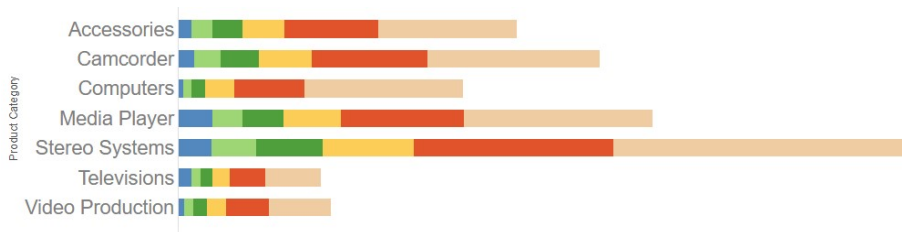
By default, when you create a chart, it fills the frame in which it is run, and risers and other sections within the chart are sized accordingly. This makes the chart flexible, allowing it to run in large and small containers alike without sacrificing the appearance and legibility of the chart. This automatic sizing also means that you do not need to manually set any size properties for the chart.

However, you also have the option to set a consistent size for the chart, if you prefer. You can also determine the width of bars in a bar chart as a percentage of the riser area, and set the width of risers in a bar, area, or line chart, based on the font size of the ordinal axis, or on an exact value that you specify.

You can set a static height and width for a chart, so that it remains the same size no matter where it is loaded. This can be useful, for example, if you want to add the chart to a PowerPoint presentation or PDF, and want to leave room for other content on each slide or page. To set the size of your chart, on the *Format* tab, select *General* from the quick access menu. In the *Other* section, notice that the *Fit to container* option is set to *Automatic*, by default, so that the chart automatically resizes to fill its container. To specify a size for the chart, change this setting to *Manual*, and then provide a width and height for the chart, in pixels. As you set these dimensions, you can select the *Lock Aspect Ratio* check box so that as you change the width or height, the other dimension changes as well, to maintain the same aspect ratio.

In bar, area, and line charts, values are represented by the height of a bar, area, or line at different points along the ordinal axis, which displays different dimension value labels. These points are generically called risers. You can set the width of these risers to fill the width of the chart, resize them based on the font size of the ordinal axis labels, or resize them manually by specifying a number of pixels.

To access these options, on the *Format* tab, select *Series*, and leave *All series* selected. By default, the riser width automatically adjusts based on the width of the chart to fill it evenly. In the *Shape* section, change the *Riser Width* property to *Tie to ordinal font size* to have the riser width increase with the size of the dimension labels on the ordinal axis of the chart. This is most useful in charts that are oriented horizontally, so the risers and labels occupy roughly the same amount of vertical space. To change the font size, on the *Format* tab, select *Axis* from the quick access menu and then select *X Axis* from the axis drop-down menu. The *Labels* section includes the options to change the font size of the axis labels. In the following image, the font size was increased to 18, and, since the *Riser Width* property was set to *Tie to ordinal font size*, the width of each riser has also increased accordingly.



You can also set the width of each riser in pixels. Set the *Riser Width* property to *Manual* and then use the slider to set the riser width. If the riser width is too wide to fit all risers in the chart frame, a scrollbar is added.

In bar charts, you can also set the percentage of the riser area that each bar or set of side-by-side bars occupies, using the slider for the *Riser Spacing* property. Reducing this value increases the amount of space between bars.

## Styling Reports in WebFOCUS Designer

You can style different areas of a report to highlight or call attention to certain groups of values, or to differentiate them to make your report easier to follow. WebFOCUS Designer provides a new set of report styling options that allow you to apply text and cell styling, as well as other properties, to the entire report, or to specific areas within it.

When you create a report, open the *Format* tab and select an option from the quick access menu to select the area of the report that you want to style. *General* is selected by default. Styling changes made using the General options affect the entire report. Alternatively, you can apply styling at the column, column group, column total, or row total level. You can also change page layout options such as page size and orientation. When you apply styling to columns, column groups, column totals and subtotals, or row totals, you can choose to style all fields in that area of the report, or a single field. You can also choose whether to style titles, data values, or both. Styling the titles and data values separately allows you to distinguish them from each other and call attention to different information in the report.

Styling options include text and cell formatting, as well as other options specific to certain areas of the report. You can change the font, font style, alignment, size, and text color. These options are shown in the following image.





You can format cells in different areas of a report by changing the background color and margins. You can set separate background colors for the titles and data values in the entire report, columns, across columns, column totals and subtotals, and row totals. When you select *General* or *Columns* you can apply banding to the data values in your report. Banding allows you to visually separate rows or sort values in a report with alternating background colors that repeat throughout it. You can set these colors to alternate with every row, or with every new value in the selected sort field. The following image shows a report with yellow, white, blue, and white bands that alternate with each value.

Sale Year	Sale Quarter	Product Category	Quantity Sold	Revenue	Gross Profit
2015	1	Accessories	4,580	\$1,125,123.02	\$347,865.02
		Camcorder	3,873	\$1,225,199.72	\$406,657.72
		Computers	1,343	\$302,839.60	\$117,086.60
		Media Player	11,717	\$3,427,197.08	\$925,302.08
		Stereo Systems	15,000	\$3,320,151.66	\$1,072,105.66
	2	Televisions	3,925	\$1,566,904.80	\$385,015.80
		Video Production	1,720	\$477,391.46	\$154,764.46
		Accessories	4,662	\$1,165,106.04	\$362,612.04
		Camcorder	3,812	\$1,244,408.92	\$409,405.92
		Computers	1,235	\$285,463.66	\$110,264.66
	Media Player	11,618	\$3,268,394.69	\$894,116.69	
	Stereo Systems	13,259	\$3,026,456.46	\$948,934.46	
	Televisions	3,748	\$1,577,021.42	\$387,599.42	
	Video Production	1,731	\$480,282.56	\$149,265.56	

The following image shows bands of the same colors that alternate with each different value in the Sale Quarter field.

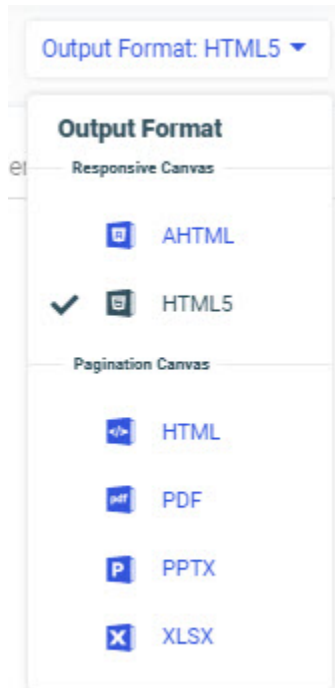
Sale Year	Sale Quarter	Product Category	Quantity Sold	Revenue	Gross Profit
2015	1	Accessories	4,580	\$1,125,123.02	\$347,865.02
		Camcorder	3,873	\$1,225,199.72	\$406,657.72
		Computers	1,343	\$302,839.60	\$117,086.60
		Media Player	11,717	\$3,427,197.08	\$925,302.08
		Stereo Systems	15,000	\$3,320,151.66	\$1,072,105.66
		Televisions	3,925	\$1,566,904.80	\$385,015.80
		Video Production	1,720	\$477,391.46	\$154,764.46
	2	Accessories	4,662	\$1,165,106.04	\$362,612.04
		Camcorder	3,812	\$1,244,408.92	\$409,405.92
		Computers	1,235	\$285,463.66	\$110,264.66
		Media Player	11,618	\$3,268,394.69	\$894,116.69
		Stereo Systems	13,259	\$3,026,456.46	\$948,934.46
		Televisions	3,748	\$1,577,021.42	\$387,599.42
		Video Production	1,731	\$480,282.56	\$149,265.56
	3	Accessories	4,783	\$1,270,872.45	\$390,073.45
		Camcorder	4,346	\$1,536,974.19	\$484,041.19
		Computers	1,659	\$349,989.27	\$137,694.27
		Media Player	12,688	\$3,585,613.72	\$976,931.72
		Stereo Systems	10,607	\$2,738,062.03	\$817,195.03
		Televisions	4,301	\$1,796,316.25	\$443,139.25
		Video Production	1,909	\$557,392.58	\$170,352.58
	4	Accessories	6,127	\$1,478,196.06	\$458,077.06
		Camcorder	5,691	\$1,871,848.70	\$608,214.70
		Computers	2,493	\$503,542.66	\$195,915.66
		Media Player	14,943	\$4,699,372.86	\$1,250,601.86
		Stereo Systems	14,541	\$3,790,147.58	\$1,124,739.58
		Televisions	4,431	\$1,540,975.20	\$373,803.20
		Video Production	2,675	\$753,824.57	\$232,170.57

These banding options allow you to visually group or separate values as needed.

These options and others allow you to flexibly customize the styling in your report, allowing you to separately style different sections of it as needed. For more information, see the *Styling Reports in WebFOCUS Designer* topic on the WebFOCUS KnowledgeBase.

## Paginated Canvas in WebFOCUS Designer

When creating charts and reports, you can change the type of file that is generated when you run your content, by changing the output format. To change the output format, use the Output Format menu, which is now available on the Visualization toolbar in WebFOCUS Designer, so that it is easier to access. The Output Format menu is shown in the following image:



The following output formats are available for charts and reports in WebFOCUS Designer:

- AHTML
- HTML5
- HTML
- PDF
- PPTX

### ❑ XLSX

The PDF, PPTX, and XLSX output formats generate PDF documents, PowerPoint presentations, and Excel spreadsheets, respectively. Since these are all paginated file types, a paginated canvas has been introduced to represent the scrolling navigation behavior of the run-time output.

The AHTML output format produces browser-based output that provides numerous run-time interaction options, and includes a page navigation toolbar for reports. Therefore, charts and reports with the AHTML output format use a responsive canvas that provides interactive options, such as tooltips and on-canvas filtering, at design time, and can be navigated using the page navigation toolbar instead of scrolling.

The HTML output format generates browser-based output with some interaction options, but is also paginated, and can be navigated by scrolling through the content in your browser. As a result, two HTML options are available. The HTML5 output format provides the responsive canvas at design time, while the HTML output format provides the paginated canvas. This gives you the ability to choose your preferred canvas style as you create your content. When you run your content, the HTML5 and HTML output formats are identical.

For more information about output formats for charts and reports in Designer, see the *Changing Output Formats in a Chart or Report* topic on the WebFOCUS KnowledgeBase.

## Changing the Format of Row Totals in a Report

When you add row totals to a report in WebFOCUS Designer, they are evaluated and displayed differently depending on whether across fields are present. If one or more dimension fields have been added to the Columns bucket to create across columns, then measure columns are repeated for each across field value. Consequently, when row totals are added to the report, they are evaluated separately for each measure field, resulting in a separate row total column for each measure. When you add row totals to a report without across fields, on the other hand, the values of all measure fields are summed to generate a single column of row totals. Since the measure fields may have different field formats, you can change the format of the row totals in a report without across fields, ensuring that they display the total values in a way that is useful and logical, instead of simply inheriting the format from one of the measure fields.

To add row totals to a report, on the Settings tab, in the Content Settings area, click *Enable row totals*. Once selected, the *Edit Data Format* option becomes available. Click it to open a format editor where you can change the numeric format used by the row totals. You can display row total values as integers, decimal values, monetary values, or percentages, depending on which of these types of values best represents the summed data in your report. You can also control how many characters to display in total and after the decimal point, how negative numbers display, whether to show thousands separators and leading zeroes, and which currency symbol to use, if applicable. The following image shows a report in which the row totals use commas as thousands separators and have one digit after the decimal point.

Country	Item	Production	Yield	TOTAL
Bulgaria	Apples	13134626	6533580	19,668,206.0
	Apricots	1375912	2895364	4,271,276.0
	Blueberries	1071	679036	680,107.0
	Cherries	2490576	4466702	6,957,278.0
	Cherries, sour	874412	4178366	5,052,778.0
	Peaches and nectarines	4064751	5165711	9,230,462.0
	Pears	3212457	9628981	12,841,438.0

For more information about row totals, see the *Add Column and Row Totals to a Report* topic on the WebFOCUS KnowledgeBase. For more information about field formats, see the *Changing a Field Format* topic on the WebFOCUS KnowledgeBase.

## Field List Parameters in Designer

Field list parameters are a powerful tool that allows you to provide users with a selection of fields that they can use at run-time to build charts and reports within a framework that you provide. Field list parameters can be added to buckets in place of fields in a chart or report. At run time, users select the fields that they want to display, giving them the power to choose the data that is represented by and displayed in your content. You can complement these field list parameters with fields that always appear in your content, providing a mix of customizable and static content. Field list parameters can be single select or, if the bucket allows multiple fields, multi-select, providing even more flexibility. Field list parameters are a key component of InfoApps, which are pages in which users can select the fields that display.

When you add a field list parameter, it becomes a field container into which you can add one or more measure and dimension fields. Create a new parameter by clicking *Add Parameter Field List* on the Settings tab. The Add Parameter Field List dialog box opens, as shown in the following image.

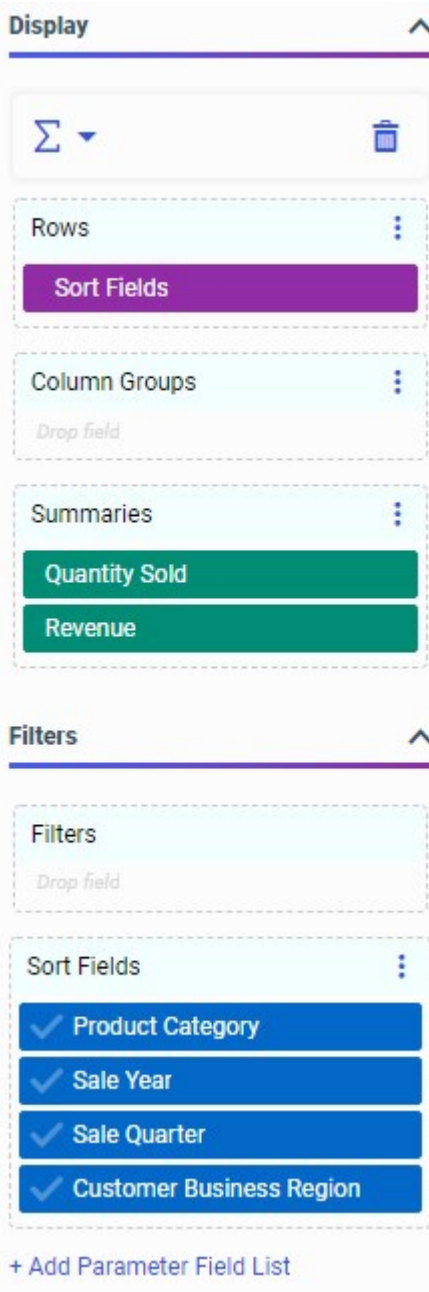
The image shows a dialog box titled "Add Parameter Field List" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- Prompt name:** A text input field containing "Parameter List Name 1".
- Bucket Type:** A dropdown menu.
- Control type:** Two radio buttons: "Single select" (which is selected) and "Multi-select".

At the bottom of the dialog are two buttons: "Cancel" and "Save".

Here, you can supply a prompt name, used as a label for the field list control and bucket, choose which bucket the field list selections should populate, and determine whether the field list parameter is single select or multi-select. When you click *Save* to create the parameter, a field list parameter placeholder appears in the location selected from the *Bucket Type* menu, and a new field list parameter bucket appears below the *Filters* bucket. The placeholder is a purple color to distinguish it from regular measure and dimension fields.

To add fields to the field list parameter, drag them into the new field list parameter bucket. These fields should be of a field type that can be added to the bucket to which the field list parameter was added. The following image shows the buckets for a report, in which the Product Category, Sale Year, Sale Quarter, and Customer Business Region fields have been added to a field list parameter, and the parameter itself has been added to the Rows bucket.



You can create multiple field list parameters, and add them to buckets together with regular fields that will always appear in your content, allowing you to have a mix of permanent and user selected fields in your charts and reports. Just like regular fields, field list parameters can be reordered relative to other fields and field list parameters in a bucket, giving you some control over the sort order of your content, even when user selected fields are used. Parameters can be added to any bucket in a report, and in any chart bucket, with the exception of the Multi-graph bucket.

When you run a chart or report with field list parameters, you can select the fields with which each one should be populated, using standard filter controls for alphanumeric values. If the chart or report is run stand-alone, these controls are presented in the autoprompt interface. If the chart or report is added to an assembled page, you can create filter controls for each field list parameter, to allow users to select fields for each one. The following image shows a page with controls for multiple field list parameters.



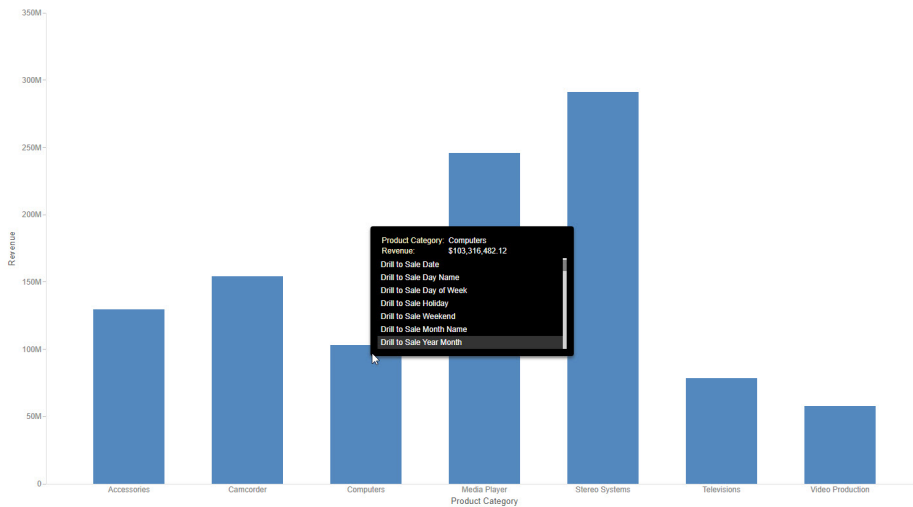
For more information, see the *Enabling Field Selection at Run Time With Field List Parameters* topic on the WebFOCUS KnowledgeBase.



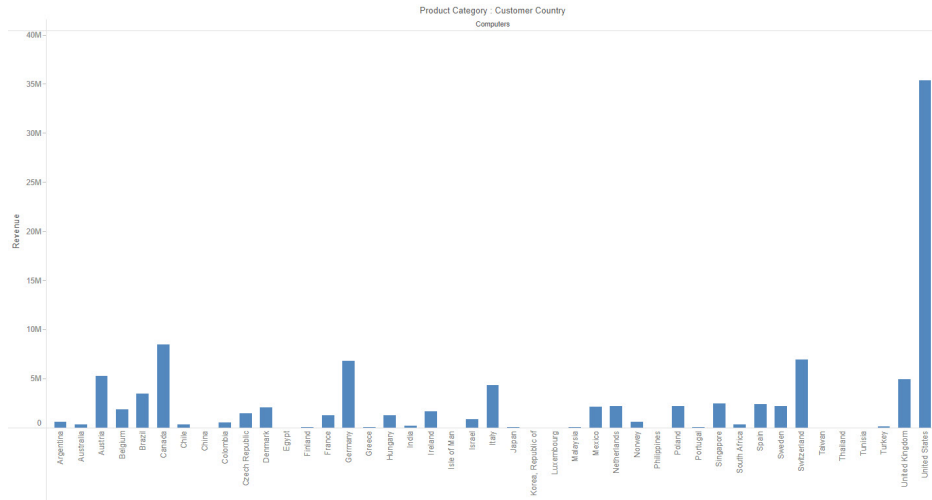
## Analyze Field Relationships With Drill Anywhere

Auto Drill is a feature that allows you to drill into values from fields that are part of a data hierarchy, to see which subcategories within that hierarchy contribute to the values that you drill into, and to what extent. Drill Anywhere, meanwhile, resembles an enhanced version of Auto Drill. It does not require the fields in your initial content to be part of a data hierarchy, and it allows you to drill to any field in your data source, providing a powerful tool to explore relationships between values in different fields. Instead of drilling from a dimension field to its children within a pre-defined data hierarchy, with Drill Anywhere, you drill into a sort value to see which dimension values from the field that you select constitute subsets of that value. The resulting content is filtered by the value that you drilled into.

With Drill Anywhere, you can investigate the dimension values that contribute to the value of the selected riser in a chart, or row of a report. For example, the following image shows a simple bar chart with revenue aggregated by product category. Drill Anywhere is enabled for the chart, so target fields appear in the tooltip.



If you point to the riser for the product category of Computers and click *Drill to Customer Country* in the tooltip, then the resulting chart shows information about how much revenue was generated by computer sales in each country, as shown in the following image.



To enable Drill Anywhere in your content, on the Settings tab, in the Content Settings area, click *Drill Anywhere*. When you run your content, the fields available as drill targets appear in the tooltips, in the Drill to menu. In reports, you can access these tooltips by clicking a hyperlink. Hyperlinks for Drill Anywhere in reports are available for all sort fields, allowing you to substitute a field of your choice for row or column group fields. In charts, you can access tooltips by pointing to a riser, allowing you to replace the sort field value that it represents.

You can use Drill Anywhere to drill through multiple levels, and drill through multiple different sort fields in the same content item. Once you have used Drill Anywhere, you can return to a previous drill level or to the original content using breadcrumb links. You can also return to the original state of the content item by selecting *Reset* from the tooltip.

Drill Anywhere is only available for stand-alone content items, when they are run on their own or when added to a page assembled from external content.

For more information, see the *Enabling Drill Anywhere to Analyze Field Relationships* topic on the WebFOCUS KnowledgeBase.

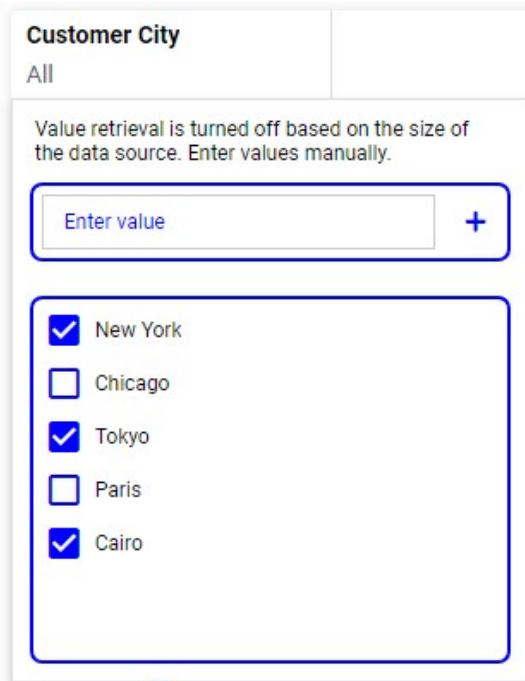
## Filtering Large and Streaming Data Sources

By default, the filter controls that you create in WebFOCUS Designer include, or are bounded based on, a list of values from your data source, which allows you to more easily select valid values from these controls. However, when working with large or streaming data sources, it may not be prudent to query the data source to retrieve this list, as a large number of values may exceed the maximum that can display in the filter control, or cause performance issues, while values from streaming data sources may change rapidly.

As an alternative, when creating a single chart or report, or a page with new content, you can provide dataless filters for specified segments in a data source, in order to conserve the resources needed to perform data retrieval. This filtering behavior is also applied at run time in pages created with new content. Filtering behavior in autoprompt and in pages assembled from existing content is not affected.

Once dataless filter controls are enabled for a segment in a data source, when you create a filter using a field from that segment, a predefined list or range of values is no longer provided in the filter control. For alphanumeric and numeric fields, the filter control is an edit box into which you can type your own values. In the case of alphanumeric fields, you can type multiple values, while for numeric fields, you type the start and end point for a range of values. For date fields, the filter is a calendar control in which only the previous week is selected by default. You should therefore be familiar enough with the data source to provide valid filter values.

The dataless edit box filter control used for alphanumeric fields is shown in the following image.



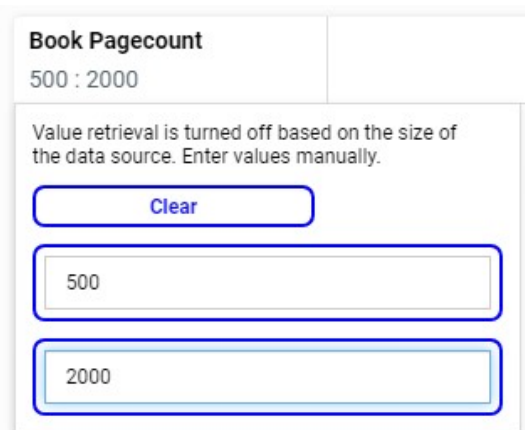
**Customer City**  
All

Value retrieval is turned off based on the size of the data source. Enter values manually.

Enter value +

- New York
- Chicago
- Tokyo
- Paris
- Cairo

The dataless edit box filter control used set a range of values for a numeric field is shown in the following image.



**Book Pagecount**  
500 : 2000

Value retrieval is turned off based on the size of the data source. Enter values manually.

Clear

500

2000

The dataless calendar control is shown in the following image. Notice that the same preset date options and calendar selection options are available as when data retrieval is performed. Only the default custom date range is affected.

**Sale Date**

All

Clear

Custom <

Previous month and current

Previous quarter and current

Previous year and current

YTD

Last 5 quarters

Last 13 months

Last 9 quarters

Last 25 months

Prior YTD

Last 7 days

Last 30 days

Value retrieval is turned off based on the size of the data source. Select values.

<

Jan

2021

February 2021

>

Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
					1	2	1	2	3	4	5	6	
3	4	5	6	7	8	9	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28						
31													

Static filters include a similar set of options when creating filters without referencing the data source. For all field types, the Select from data option is unavailable. For alphanumeric fields, this leaves the Select from file, Enter manually, and Wild card options, which allow the user to provide their own values. For date fields, this leaves the Select ranges, Select from file, and Enter manually options. The default date range for the Select ranges option is initially set to the current date, but you can set the start and end of the date range to any date, as needed. For numeric fields, this leaves the Select ranges, Select from file, and Enter manually options. When providing a range of values, the slider is removed, and you can provide start and end points for the range by typing a value into an edit box. The ability to create a filter by comparing two fields is unaffected.

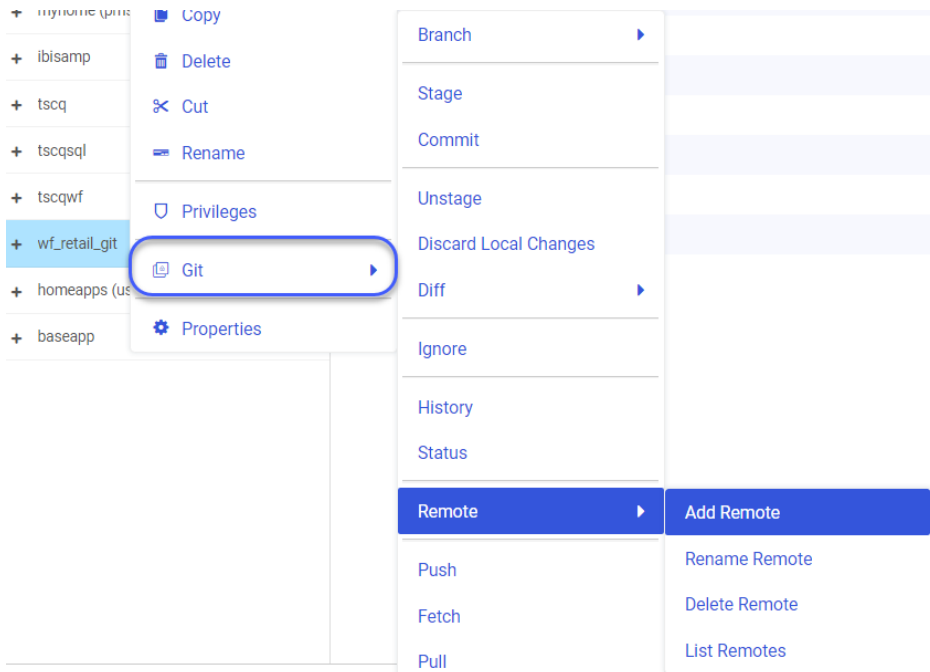
Dataless filter controls are activated for a segment in a data source by adding a property to the Access File of the synonym. Add the setting DATASIZE=INFINITE to turn on dataless filtering for a segment. This segment can represent an entire data source or a single table within a larger data structure, meaning that you can turn on dataless filtering for fields in individual segments that you want to filter without retrieving data values.

For more information, see the *Filtering Large and Streaming Data Sources* topic on the WebFOCUS KnowledgeBase.

## Associating Multiple Remote Git Repositories With One Local Git Repository

Once you have created a local Git repository as an application in the server, you can add additional remote Git repositories associated with the same local repository. For information about creating a local Git repository and setting the Git options, see Appendix E, *Source Management*, in the *TIBCO® Data Migrator User's Guide*.

When you right-click the local Git repository and click *Git*, there is a new *Remote* menu available, as shown in the following image.



This menu enables you to:

- Add connections to additional remote repositories to the local Git repository.
- Rename remote repositories on the local machine.
- Delete the connection to a remote repository from the local Git repository.
- List the remote repositories associated with the local Git repository.

### Adding a New Remote Repository

To add a new remote repository association to this local Git repository, right-click the local repository application, click *Git*, then *Remote*, then *Add Remote*.

The *Add Remote* pane opens, as shown in the following image.

Enter a name for the Remote repository and the remote URL. Then click *Add*.

If you entered the information correctly, you will see a status message that the repository was added successfully.

### Listing Remote Repositories

To see the repositories available, right-click the local Git repository, click *Git*, then *Remote*, then *List Remotes*. You will see the repositories you have added, as shown in the following image.

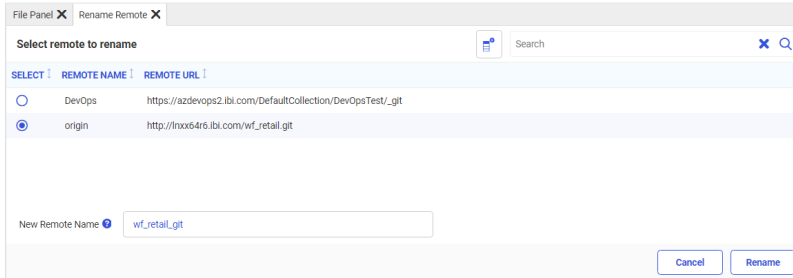
REMOTE NAME ↓	REMOTE URL ↓
DevOps	https://azdevops2.ibi.com/DefaultCollection/DevOpsTest/_git
origin	http://lnxx64r6.ibi.com/wf_retail.git

### Renaming a Remote Repository

The original remote repository has the default name *origin*. You can rename a repository.

Right-click the local Git repository, click *Git*, then *Remote*, then *Rename Remote*.

The *Remote Rename* pane opens, as shown in the following image.



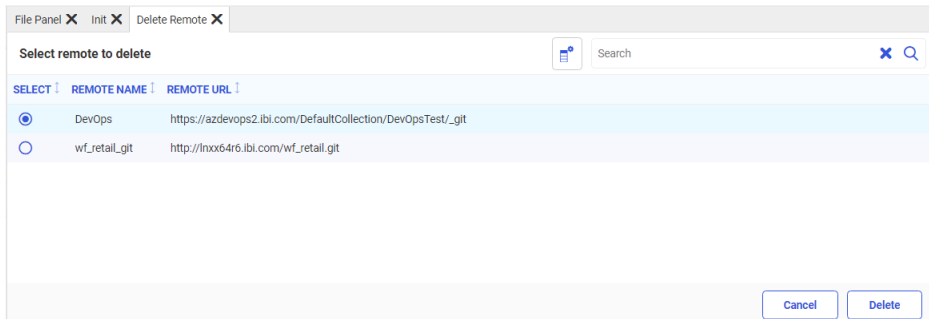
Select the radio button for the repository you want to rename, enter a new name in the *New Remote Name* entry field, and click *Rename*.

You will see a status message that the repository was successfully renamed. The new name will only apply to this server.

### Deleting a Connection to a Remote Repository

To delete a remote repository association from this local Git repository, right-click the local repository application, click *Git*, then *Remote*, then *Delete Remote*.

The *Delete Remote* pane opens, as shown in the following image.



Select the radio button for the remote repository you want to delete. Then click *Delete*.

You will see a status message that the repository was deleted successfully.

### Performing Git Operations on a Remote Repository

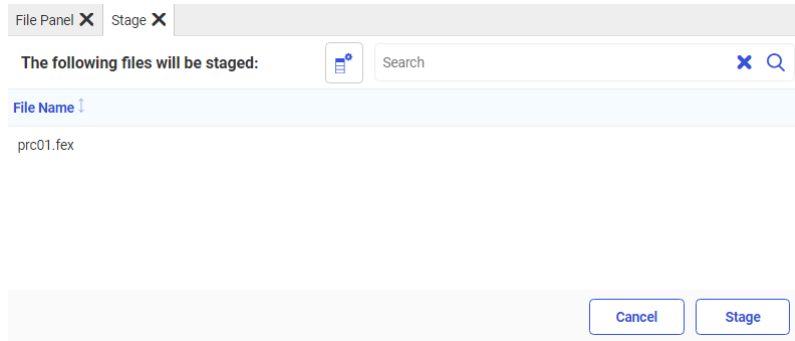
If you perform a Git operation, such as a Push operation using the local Git repository, you will need to select the repository on which you want to perform the operation.

For example, if you create a new procedure in the local Git repository, you can push the new file to a remote repository.



First, right-click the local Git repository, click *Git*, then *Stage*, to prepare the new content for the next commit.

The *Stage* pane will open, as shown in the following image.

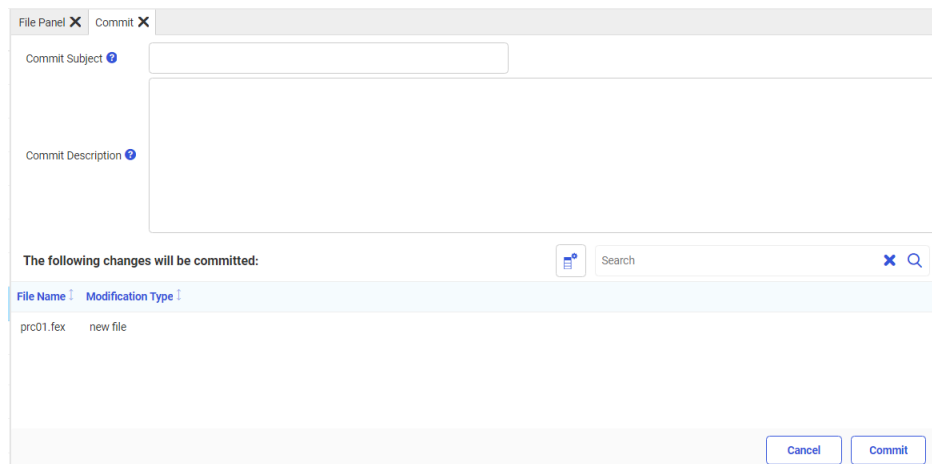


Click *Stage*.

You will see a status message that the changes were successfully staged.

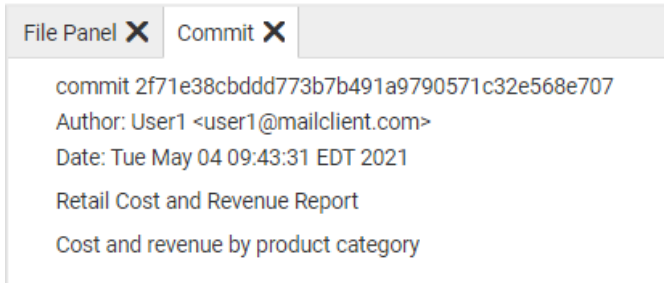
Next, right-click the local Git repository, click *Git*, then click *Commit*, to add the new content to the local Git repository.

The *Commit* pane opens, as shown in the following image.



Enter a subject, which is required. You can also enter optional comments. Click *Commit*.

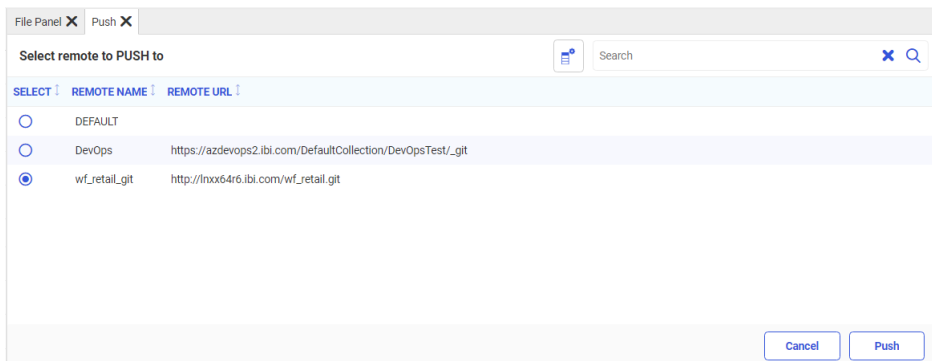
You will see a status message with all of the information about the commit, as shown in the following image.



Now you can push the changes to a remote repository.

Right-click the local Git repository, click *Git*, then click *Push*.

The Push pane opens, as shown in the following image.



Click the radio button for the repository to which you want to push the changes, and click *Push*.

If the local repository is up to date with the remote repository, you will see a status message that the Push was successful. If it was not up to date, you will have to issue a Pull command before issuing the Push command.

## Support for Trigonometric Functions

The following trigonometric functions are now available.

Name	Syntax	Description
Arccosine	<code>ACOS(<i>expression</i>)</code>	Returns the angle, in radians, whose cosine is the value of the numeric expression given as the input argument.
Arcsine	<code>ASIN(<i>expression</i>)</code>	Returns the angle, in radians, whose sine is the value of the numeric expression given as the input argument.
Arctangent	<code>ATAN(<i>expression</i>)</code>	Returns the angle, in radians, whose tangent is the value of the numeric expression given as the input argument.
Arctangent2	<code>ATAN2(<i>x</i>,<i>y</i>)</code>	Returns the angle, in radians, whose tangent has the x-coordinate and y-coordinate given as the input arguments.
Cosine	<code>COS(<i>expression</i>)</code>	Returns the cosine of the numeric input argument, which is an angle expressed in radians.
Cotangent	<code>COT(<i>expression</i>)</code>	Returns the cotangent of the numeric input argument, which is an angle expressed in radians.
Degrees	<code>DEGREES(<i>expression</i>)</code>	Converts radians to degrees.
Pi	<code>PI()</code>	Returns the value of pi as a floating point number.
Radians	<code>RADIANS(<i>expression</i>)</code>	Converts degrees to radians.
Sine	<code>SIN(<i>expression</i>)</code>	Returns the sine of the numeric input argument, which is an angle expressed in radians.

Name	Syntax	Description
Tangent	<code>TAN(<i>expression</i>)</code>	Returns the tangent of the numeric input argument, which is an angle expressed in radians.

**Note:** At points of discontinuity (for example, where the tangent value should be infinity), the maximum number that can be stored in a double precision field (16,331,239,353,195,372.00) is returned. This value should cause overflow and display as asterisks, if you set the EXTENDNUM parameter to OFF (the default value is ON, which displays all values in full regardless of the allotted space).

**Example:** **Calculating the Distances Between Stations**

The following request uses trip data available from Citibike to calculate distances in miles between start stations and end stations by applying the haversine formula, which determines the great circle distance between two points given their latitudes and longitudes.

```
TABLE FILE citibike_tripdata
PRINT END_STATION_NAME
COMPUTE
DISTANCE/D23.9=(3961 * ACOS (COS (RADIANS (START_STATION_LATITUDE)) * COS
(RADIANS (END_STATION_LATITUDE )
* COS (RADIANS (END_STATION_LONGITUDE) - RADIANS (START_STATION_LONGITUDE))
+ SIN (RADIANS (START_STATION_LATITUDE)) *
SIN (RADIANS (END_STATION_LATITUDE) ))) );
BY START_STATION_NAME
WHERE DISTANCE NE 0
WHERE START_STATION_NAME EQ '1 Ave & E 110 St'
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

<u>start station name</u>	<u>end station name</u>	<u>DISTANCE</u>
1 Ave & E 110 St	Lexington Ave & E 111 St	.371980597
	E 106 St & 1 Ave	.222567544
	Frederick Douglass Blvd & W 129 St	1.510575647
	2 Ave & E 96 St	.741439397
	5 Ave & E 126 St	1.028921401
	Adam Clayton Powell Blvd & W 118 St	1.081102773
	2 Ave & E 96 St	.741439397
	1 Ave & E 78 St	1.651278090
	E 114 St & 1 Ave	.188221081
	Pleasant Ave & E 116 St	.318375711
	E 65 St & 2 Ave	2.282781302
	2 Ave & E 96 St	.741439397
	E 10 St & Avenue A	5.024023721
	E 81 St & 3 Ave	1.499823621
	2 Ave & E 96 St	.741439397
	2 Ave & E 96 St	.741439397
	Lexington Ave & E 111 St	.371980597
	1 Ave & E 78 St	1.651278090
	Lexington Ave & E 111 St	.371980597

## Support for Negative Formats for Zero

Using the SET NEG-ZERO command, you can display the value zero (0) as a negative number when it is the result of rounding a negative decimal value.

### *Syntax:* How to Display Negative Zero Values

```
SET NEG-ZERO = {OFF|ALWAYS|EXCEL}
```

where:

#### OFF

Does not display negative zero values. This is the default traditional behavior.

#### ALWAYS

Applies negative formats, including a minus sign, for zero when it is the result of rounding a negative number.

**EXCEL**

Applies negative formats B, R, and CR for zero when it is the result of rounding a negative number.

Excel always displays zero negative values using this schema, no matter what value is set for NEG-ZERO.

**Note:**

- ❑ The NEG-ZERO parameter does not apply to exponential formats (for example E10.2).
- ❑ The NEG-ZERO parameter does not apply when rounding is done for purposes other than display. For example, it is not applied in conversion from floating-point to packed decimal or integer as part of a computation.

**Example: Displaying Negative Zero values**

The following request defines a small negative number and displays it with formats that will cause it to round the number to zero. The following version of the request uses the default value OFF for SET NEG-ZERO.

```
SET NEG-ZERO = OFF
DEFINE FILE EMPLOYEE
NEGFLD/D20.2 = -0.02;
END
-RUN
TABLE FILE EMPLOYEE
PRINT LAST_NAME NEGFLD
COMPUTE NEG_BRACKET/D20.1B = NEGFLD;
COMPUTE NEG_MINUS/D20.1 = NEGFLD;
COMPUTE NEG_CR/D20.1CR = NEGFLD ;
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image. The zero values have no negative indicators.

<u>LAST_NAME</u>	<u>NEGFLD</u>	<u>NEG_BRACKET</u>	<u>NEG_MINUS</u>	<u>NEG_CR</u>
STEVENS	-02	.0	.0	.0
SMITH	-02	.0	.0	.0
JONES	-02	.0	.0	.0
SMITH	-02	.0	.0	.0
BANNING	-02	.0	.0	.0
IRVING	-02	.0	.0	.0
ROMANS	-02	.0	.0	.0
MCCOY	-02	.0	.0	.0
BLACKWOOD	-02	.0	.0	.0
MCKNIGHT	-02	.0	.0	.0
GREENSPAN	-02	.0	.0	.0
CROSS	-02	.0	.0	.0

Changing the NEG-ZERO value to EXCEL, displays negative indicators for the bracket negative format (D20.1B) and credit negative (D20.1CR) format, but not the D20.1 format, as shown in the following image.

<u>LAST_NAME</u>	<u>NEGFLD</u>	<u>NEG_BRACKET</u>	<u>NEG_MINUS</u>	<u>NEG_CR</u>
STEVENS	-02	(.0)	.0	.0 CR
SMITH	-02	(.0)	.0	.0 CR
JONES	-02	(.0)	.0	.0 CR
SMITH	-02	(.0)	.0	.0 CR
BANNING	-02	(.0)	.0	.0 CR
IRVING	-02	(.0)	.0	.0 CR
ROMANS	-02	(.0)	.0	.0 CR
MCCOY	-02	(.0)	.0	.0 CR
BLACKWOOD	-02	(.0)	.0	.0 CR
MCKNIGHT	-02	(.0)	.0	.0 CR
GREENSPAN	-02	(.0)	.0	.0 CR
CROSS	-02	(.0)	.0	.0 CR

Changing the NEG-ZERO value to ALWAYS, displays negative indicators for the bracket negative format (D20.1B), credit negative (D20.1CR) format, and the D20.1 format, as shown in the following image.

<u>LAST_NAME</u>	<u>NEGFLD</u>	<u>NEG_BRACKET</u>	<u>NEG_MINUS</u>	<u>NEG_CR</u>
STEVENS	-.02	(.0)	-.0	.0 CR
SMITH	-.02	(.0)	-.0	.0 CR
JONES	-.02	(.0)	-.0	.0 CR
SMITH	-.02	(.0)	-.0	.0 CR
BANNING	-.02	(.0)	-.0	.0 CR
IRVING	-.02	(.0)	-.0	.0 CR
ROMANS	-.02	(.0)	-.0	.0 CR
MCCOY	-.02	(.0)	-.0	.0 CR
BLACKWOOD	-.02	(.0)	-.0	.0 CR
MCKNIGHT	-.02	(.0)	-.0	.0 CR
GREENSPAN	-.02	(.0)	-.0	.0 CR
CROSS	-.02	(.0)	-.0	.0 CR

## Adapters For Google Analytics and Google Sheets: Support for Proxy Server

When you configure the Adapter for Google Analytics or Google Sheets, you now have the option to configure the following proxy server properties in the *Advanced HTTP connection options* section:

### **PROXY Server IP Address**

Is the IP address of the proxy server, for example, 170.115.249.42.

### **PROXY Port**

Is the port number on which the proxy server listens. The default port number is 80.

### **PROXY HTTPS Relative Path**

When selected, the REST request sends the relative path rather than the absolute path when a proxy server is configured.

## Fixes

- ❑ The following adapters are configurable after installation of the Linux Kernel-4.18.0 x86\_64 version of the WebFOCUS Reporting Server: OLAP ESSBASE version 11.1.2.4, SQL DB2 version 115 cli, SQL Oracle version 19c and SQL Progress version12.0. (759000909)
- ❑ Users assigned to more than 1,000 groups no longer automatically generate an ORA-01795: maximum number of expressions in a list is 1000 error in the Event log when they sign in to an installation of WebFOCUS that runs its Repository database on an Oracle platform. (200623040)



- ❑ Parameter values defined in the Custom Settings tab (site.wfs) no longer fail to be included in the second execution of sign-in procedures executed after a user has signed out and signed back in. (210106132)
- ❑ System-generated sequence numbers are now based on the custom UUID to ensure they are unique even when originated across multiple database instances. (210322086)
- ❑ IBI script files are not loading from the cache, resulting in a jquery conflict issue, and impacting load performance. (210301095)
- ❑ Auto-prompt procedures that contain default values with embedded quotes no longer generate error message (FOC258) FIELDNAME OR COMPUTATIONAL ELEMENT NOT RECOGNIZED at run time. (210315100)
- ❑ The lower edges of action buttons displayed at the bottom of the License Information dialog box are no longer cut off when users run WebFOCUS in Japanese on any browser other than Internet Explorer. (210405001)
- ❑ When running App Studio in an Internet Explorer 11 browser, report frames in HTML pages no longer render garbled characters after changing the language of App Studio to Japanese. (200206005, 210409019)
- ❑ Repeated instances of the com.ibi.ibfs.error.IBFSEException: Item does not exist IBFS:/WFC/Repository/Getting\_Started error message in the rs.log can be eliminated by replacing the value in the Default List Repository Path (IBI\_DYNAMIC\_LIST\_PATH) setting with a single blank space. To help prevent this error, the IBFS path to the Getting Started workspace will not be assigned to this setting, by default, in future versions of the TIBCO WebFOCUS on premise installation. (210414005)
- ❑ Report procedures that include the &IBIMR\_domain parameter no longer fail to display the name of their current domain, even on their first run after being copied or cut and pasted from a different domain. (210428094)
- ❑ Last modified by in properties is changed but last accessed by is not changed after running a procedure. (201030075)
- ❑ Users who are granted the InfoAssist Basic from Metadata List and InfoAssist Basic from Reporting Object privileges no longer view duplicate Report buttons in the Action Bar of the Workstation View content area. (210125072)
- ❑ Users whose IDs begin with the letter u following a provider name and backslash ( ) are no longer presented with a blank screen when they sign in to WebFOCUS.(210312024)
- ❑ ReportCaster with failover configuration does not start after upgrade to 8207. (200723010)

- Users will no longer be prevented from signing in to WebFOCUS when the Session Privilege Search Depth (IBI\_SESSION\_PRIVILEGE\_SEARCH\_DEPTH) contains a value greater than one (1). (210318028)
- Defines in Reporting Object not showing in InfoAssist or WebFOCUS Designer with a SSAS Tabular data source. (210305114)
- Resolved issue with JDE WORLD adapter in WebFOCUS 8207. (210310013)
- Functions INT and CHAR\_LENGTH (with CAST, TRIM, SUBSTR) produce incorrect results. (201103080)
- Modifications to a Cluster synonym from a SAP BW are not visible after saving and reopening. (210412055)
- Resolved issue with Data Migrator not opening. (200806072)
- Resolved a business view settings issue in the Data Migrator desktop interface. (200901009)
- Business view structure is different in Server, InfoAssist and Designer when the Master File contains an inherit Business view. (210427116, 210510064)
- The Data Migrator desktop interface does not show technical names of the dimensions and metrics whereas the Reporting Server does show the technical names for them. (210413085)
- No check boxes in Resource Analyzer on the End stored procedure monitoring page. (200224162)
- An active report with WEBVIEWER=ON displays "undefined" and Total as "NAN". This occurs when Pivot(Cross tab) is selected on the 10th or more column in a report. (200921055, 200608143)
- AHTML report implementing in stylesheet section WHEN condition fails with an error. (210305062)
- On a WebLogic app server deployment, the 8207 gen number seems to be always showing as "12700". (210322030)
- With the latest Selenium Drivers and ChromeWebDrivers and setting Chrome as a default browser for AppStudio, executing a fex that takes longer than 60 seconds to execute will render an Selenium error. (210611181, 200923095)
- Ribbon on HTML Dashboard appears on the bottom instead of the top. (210209055)

- ❑ Responsive panels are not wrapping the filters when the screen size is reduced. (210218156)
- ❑ App Studio Responsive Panels not aligning properly after upgrading to 8207.26 release. (21031153)
- ❑ When loading an HTML page inside a portal, the hidden parameters become visible on initial load and once it finishes loading, they are hidden. Also, styling of the page inside the portal changes. (210318042)
- ❑ Calendar datetime filter in HTML page generates two time values instead of only one. (210330067)
- ❑ App Studio performance showing list of MASTER the first time to create a report. (210407009, 210421022)
- ❑ Values selected for one filter affecting others when run with Chrome. (210414082)
- ❑ Certain HTML pages no longer run properly after upgrade. (210129098)
- ❑ Validate property in HTML Composer in 8207.21 doesn't work after upgrading to 8207. (210527088, 210610140)
- ❑ Listbox does not populate based on textbox value. (210128017)
- ❑ Conditional Radio button is not populating the input fields after 8207 upgrade. (210622124)
- ❑ F12 displays multiple 404 errors on load of portal. (210325121, 210316099, 210416071)
- ❑ Portal created with Show Banner disabled still shows banner menu. (210528045)
- ❑ When setting autodrill in a chart it takes at least 30% longer (sometimes more like 60% longer) to load than if Auto Drill is turned off. (200923086)
- ❑ GIS configuration ignores titles for user context layer groups and context layers. (210128124)
- ❑ A stacked bar chart that has both Drilldown and Autodrill enabled produces bars that have no customization at runtime. (210317113)
- ❑ When using WebSphere app server, the left and right arrows in a calendar control popup are not displaying. (210318073, 210421038)

- ❑ After running new CM Export, created zipped files display with the same invalid Last Modified date of 12/31/19689 07:00 PM. (201222047, 210520106, 210531066, 210702113)
- ❑ 'Add New Resources Only' shouldn't 'Create' previously existing files. (210408155)
- ❑ Portal w/ many containers fails to load if Export to PDF/Image invoked immediately. (210208032)
- ❑ Designer tool seems to ignore ACCEPT Master File procedure. (210414088, 210429071)
- ❑ Common German characters (öäü) cause problems when used in drop down values in connection with Drill Down to page. (210422016)
- ❑ When running a page that has a Modal filter bar, with Amper Lazy Loading and a single-select filter, the modal window pops up at runtime. (210326093)
- ❑ Resolved issue with bookmarks when using Modal filter window. (210427094)
- ❑ Carrousel is not reflecting changes when you select different values from the listbox. (210525156)
- ❑ When a data layer comes back with only 1 data point and the layer's Symbol Setting is Use Color, it gives an error message. (210423094, 210519130)
- ❑ Feature layer overlays render on top of the data layer and prevent tooltip activation. (210519051)
- ❑ Unable to display MISSING numeric fields consistently/globally in Choropleth map charts in JSCHART or AHTML output formats. (210511006)
- ❑ No run defer option on the Favorites section of the home page. (210113044, 210310083)
- ❑ After clicking the Visualization option In Select Data Source Window it does not show the application folders for customer to select the synonym. (210209035)
- ❑ In Designer View, when doing a replace in the one of the content blocks and changing to LIST view is showing wrong information for size,owner etc. The columns are misaligned. (210512107)
- ❑ WebFOCUS Designer doesn't get the right Reporting Server path if there's a site profile. (210403001)
- ❑ Filter date displays incorrectly in InfoAssist. (200803087, 210301134)

- ❑ When working with a large dataset (1.5million records), selecting the "All" option for the Preview limit on the Slicers tab results in an Unrecoverable Error. When this occurs, the WebSphere logs show an Out of Memory error message. (210212029)
- ❑ Date Range filters are not working for reporting objects. (210225114)
- ❑ When deleting a report that is used within a task in a schedule that has multiple tasks, reopening the schedule does not populate any of the schedule information. (20915086)
- ❑ Reports in ReportCaster temp folder are not deleted after schedule completes. (210226099)
- ❑ Resolved execution time for purgelib.sh. (201405040)
- ❑ BYTOC XLSX not working with BY field having value with blank space. (210112018)
- ❑ Using a POST method with SET DRILLMETHOD=POST and after multiple runs, the agent is crashed. (210513086)
- ❑ Large numbers in D / X formats results in a "We found a problem with some content in ..." message with XLSX output format. (210504077)
- ❑ Query fails if search contains parentheses. (210526059)
- ❑ Adjust calculation of linrec size when expanding datrec. (210608005)
- ❑ Client rest adapter fails is password contains a + (plus sign). (210701032)
- ❑ When a user has access to a sub-directory, but not the top-level directory, the sub-directory will not appear in the list of applications. (210218047)
- ❑ When attempting to update a Multi-select pick list in Salesforce via a DM Flow the agent crashes. (210304144)
- ❑ Resource Management Log Archive does not run as scheduled. (210607126, 210608068, 210624050)
- ❑ Attempting to run a procedure via Advanced/Stress fails, when running through passthru servlet. (200917110, 200616117)
- ❑ FOC1130 Format Conversion Error on MDYY date. (201202048)
- ❑ WebFOCUS Reporting Server begin intermittently unavailable. (210322048, 210325046)
- ❑ Setting foccache\_maxage to 0 (unlimited) in the WebFOCUS Server Console returns an error that a positive integer was not inputted. (210421118)

- ❑ Error received for certain ReportCaster jobs. (210127102)
- ❑ When the Reporting Server browser interface is opened from the Client, the response includes the name of the Server host. (210609106)
- ❑ When changing the same GRAPH FILE Designer Chart to one of the Server Side Graphics FORMATS (PPTX, XLSX, DHTML or PNG), this font does not display correctly. (210308112).
- ❑ Size Legends on Scatter Charts should match the bubble sizes on the chart. (210422151)
- ❑ Due to Db2 translating the CAST statement incorrectly, Data Migrator flows that include a DEFINE field and processed APT are not returning the correct result. (210121122)
- ❑ Data labels aren't shown in a Visualization if Autodrill is enabled. (210525064, 210603008)
- ❑ In a Data Migrator flow, joining to a REST service with multiple incoming records crashes processing. (210330099)
- ❑ When you sample data or query a field in lower measure segments of a Cube data source, the call defaults to the first connection in the edasprof file and not the connection mentioned in the Access File of the metadata. (200918149)
- ❑ The splash screen freezes on the initial installation of the Reporting Server for Windows Release 8207. (210616115, 210601111)
- ❑ In Release 8207, the PTH Provider Properties on the Reporting Server browser interface lists the pthpass\_lifetime label twice. The second one should be pthpass\_length. In 8206, the labels are correct. (201120096)

## Upgrade Notes

- ❑ Customers who were given Tech Preview access to the certain localization features by their product manager may encounter an issue that prevents them from using their sign-in credentials after completing an upgrade in place to Release 8207.28.00. Therefore, before beginning an upgrade in place operation to release 8207.28.00, customers must confirm that Tech Previews of these location features do not appear in their current product installation. If evidence of these features does appear, contact the Customer Support to remove them before beginning the upgrade process. For more information, see the Knowledgebase topic, *How to Test for Tech Preview Localization Features Before Running the 8207.28.00 Upgrade in Place Operation*.

**Note:** This issue was resolved in release 8207.28.01. Customers who wish to avoid this configuration can upgrade directly to 8207.28.01.

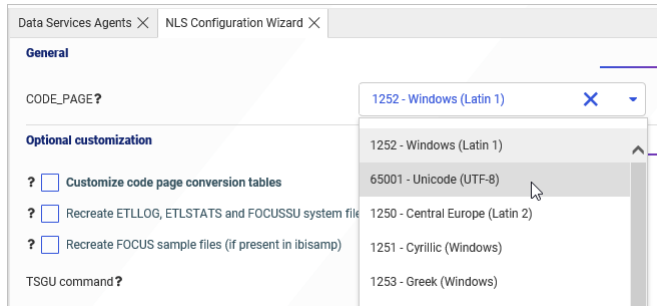
- ❑ As of Release 8207.27, Gainsight usage analytics is no longer supported, and the Usage Analytics setting no longer appears on the Other settings page of the Administration Console configuration tab.
- ❑ As of Release 8207.25, WebFOCUS App Studio Help is configured, by default, to use Online Help that is hosted by ibi servers. This Help configuration is applied for new installations or when upgrading from an earlier release. The installation package no longer includes the help files, which greatly reduces the installation file size and time required to install and configure the software.

For more details, see the [Configuring WebFOCUS App Studio Help](#) topic in the WebFOCUS KnowledgeBase.

In addition, the option to install and configure Tomcat is no longer applicable. Tomcat is removed from packaging and the installation program is adjusted to reflect these changes.

- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.
- ❑ Prior to Release 8207, when creating content using an Oracle Database 12c data source, design time record limits were applied prior to aggregation. In Release 8207 and higher, the record limit when using Oracle Database 12c is applied after aggregation.

## Software Branding

As of the following releases, ibi software and technical content are now branded under TIBCO® Software Inc.

- ❑ **WebFOCUS:** 8207.27.0
- ❑ **FOCUS:** 8207.27.0
- ❑ **iWay Service Manager:** 8.0.5



### ❑ **Omni-Gen: 3.16.0**

This change only impacts the names to which these products are referred. For example, WebFOCUS is now known as TIBCO WebFOCUS<sup>®</sup>, while iWay Data Migrator is now known as TIBCO<sup>®</sup> Data Migrator. You will begin to see this change throughout the software and corresponding technical content assets, including PDF covers and KnowledgeBase collections, where both new and former product names will be used interchangeably. For a full list of software branding, see below.

<b>Former Product Name</b>	<b>New Product Name</b>
WebFOCUS	TIBCO WebFOCUS <sup>®</sup>
WebFOCUS Client	TIBCO WebFOCUS <sup>®</sup> Client
WebFOCUS Server	TIBCO WebFOCUS <sup>®</sup> Reporting Server
iWay Data Migrator Server	TIBCO WebFOCUS <sup>®</sup> Reporting Server
iWay Data Migrator	TIBCO <sup>®</sup> Data Migrator
WebFOCUS App Studio	TIBCO WebFOCUS <sup>®</sup> App Studio
WebFOCUS Mobile App	TIBCO WebFOCUS <sup>®</sup> Mobile App
WebFOCUS Infographics	TIBCO WebFOCUS <sup>®</sup> Infographics
WebFOCUS Narrative Charts	TIBCO WebFOCUS <sup>®</sup> Narrative Charts
iWay Service Manager	TIBCO iWay <sup>®</sup> Service Manager
Omni-Gen	TIBCO Omni-Gen <sup>®</sup>
Omni Master Data Management	TIBCO Omni-Gen <sup>®</sup> MDM
Omni for Customer	TIBCO Omni-Gen <sup>®</sup> MDM
Omni-HealthData	TIBCO Omni-HealthData <sup>®</sup>
Omni-Insurance	TIBCO Omni-Insurance <sup>™</sup>
Data Quality	TIBCO Omni-Gen <sup>®</sup> Data Quality
FOCUS	TIBCO FOCUS <sup>®</sup>

## Technical Content Branding

As of Release 8207.27, ibi products are now branded under TIBCO® Software Inc. You will begin to see this change throughout the software and corresponding technical content assets, including PDF covers and KnowledgeBase collections, where both new and former product names will be used interchangeably. For a full list of software branding, see *Software Branding*.

The following tables provide a quick overview of the PDF titles that have changed to support this release. Note that the way you access these technical content offerings and information remains the same. As we continue the branding effort, you may notice additional changes within our technical content, which we will continue to communicate to you.

<b>Former Title</b>	<b>New Title</b>
<b>TIBCO WebFOCUS®</b>	
<i>WebFOCUS App Studio Installation and Configuration Guide</i>	<i>App Studio Installation and Configuration</i>
<i>WebFOCUS App Studio User's Manual</i>	<i>App Studio User's Manual</i>
<i>Creating HTML5 Charts With WebFOCUS Language</i>	<i>Creating HTML5 Charts With TIBCO WebFOCUS® Language</i>
<i>Creating Reports With WebFOCUS Language</i>	<i>Creating Reports With TIBCO WebFOCUS® Language</i>
<i>Describing Data With WebFOCUS Language</i>	<i>Describing Data With TIBCO WebFOCUS® Language</i>
<i>WebFOCUS Embedded Business Intelligence User's Guide</i>	<i>Embedded Business Intelligence User's Guide</i>
<i>WebFOCUS InfoAssist User's Manual</i>	<i>InfoAssist User's Manual</i>
<i>WebFOCUS and ReportCaster Installation and Configuration for UNIX</i>	<i>Installation and Configuration for UNIX</i>
<i>WebFOCUS and ReportCaster Installation and Configuration for Windows</i>	<i>Installation and Configuration for Windows</i>
<i>WebFOCUS Integrated Installation</i>	<i>Integrated Installation</i>

<i>Using the WebFOCUS Mobile App for iOS and Android</i>	<i>Mobile App for iOS and Android</i>
<i>Server Administration</i>	<i>Reporting Server Administration</i>
<i>Server Installation</i>	<i>Reporting Server Installation</i>
<i>Server Release Notes</i>	<i>Reporting Server and TIBCO® Data Migrator Release Notes</i>
<i>WebFOCUS Security and Administration</i>	<i>Security and Administration</i>
<i>WebFOCUS Security and Administration Best Practices</i>	<i>Security and Administration Best Practices</i>
<i>Using WebFOCUS</i>	<i>User's Guide</i>
<b>TIBCO® Data Migrator</b>	
<i>Server Release Notes</i>	<i>Reporting Server and TIBCO® Data Migrator Release Notes</i>
<i>iWay Data Migrator User's Guide</i>	<i>User's Guide</i>

## ReportCaster: Support for Number of Reports Per Day Based on License

ReportCaster will stop all schedules and distributions once the number of reports executed through it reaches the maximum per day, based on your license.

In a 24-hour day, the limits for each license type are:

- Essential.** 500 per day.
- Extended.** 2500 per day.
- Enterprise.** Unlimited.

When the limit is reached, ReportCaster will stop functioning until the 24-hour period has passed.

**Note:** Multiple installations of the same license key are not allowed.

## Retirement of 2010 and 2012 Esri Demographic Layers

As of June 2021, Esri has ended support for select demographic map services based on data from the 2010 United States census. Some of these map services were used as demographic layers, configured as part of the default WebFOCUS installation. The affected demographic layers no longer display in WebFOCUS maps. The list of retired demographic layers is as follows:

- USA Population Density 2012
- USA Population Change 2000-2010
- USA Population Change 2010-2012
- USA Projected Population Growth 2012-2017
- USA Median Household Income 2012
- USA Population Older than Age 64
- USA Unemployment Rate 2012
- USA Median Home Value 2012
- USA Population Younger than Age 18
- USA Average Household Size 2012
- USA Median Net Worth 2012
- USA Owner Occupied Housing 2012
- USA Labor Force Participation Rate 2010
- USA Population By Sex 2012
- USA Tapestry Segmentation 2012

For more information about the retired layers, see <https://doc.arcgis.com/en/esri-demographics/reference/legacy-demographic-maps.htm>.

## Designer Report Bucket and Display Option Name Updates

The following buckets, used to create reports in WebFOCUS Designer, have been renamed in order to better represent the behaviors of the fields added to them:

- The Columns bucket has been renamed to Column Groups. This bucket applies the WebFOCUS sort phrase ACROSS.

- ❑ The Summary display option and bucket have been renamed to Summaries. This bucket applies the WebFOCUS display command SUM.
- ❑ The Count display option and bucket have been renamed to Counts. This bucket applies the WebFOCUS display command COUNT.

The Count aggregation option has not been renamed.

- ❑ The Detail display option and bucket have been renamed to Details. This bucket applies the WebFOCUS display command PRINT.

The Detail bucket used in charts such as scatter plots and box plots, which uses a single field to provide a set of values to represent in the chart, has not been renamed.

- ❑ The Detail with counter display option and bucket has been renamed to Details with counter. This bucket applies the WebFOCUS display command LIST.

The behaviors of these display options and buckets have not changed.

## Reordered Reset and Submit Buttons in Assembled Pages

When assembling new pages from existing content in WebFOCUS Designer, the order of the Reset and Submit buttons, used to reset or apply filter selections, has switched. The Reset button now appears on the left and the Submit button appears on the right, in order to match the standard button order used in WebFOCUS user interfaces, as shown in the following image.

The image shows a filter interface with three input fields and two buttons. The first row contains two dropdown menus: 'Category:' with 'All' selected and 'Product Model:' with 'All' selected. The second row contains a 'Date Range:' field with a calendar icon on the left. To the right of the date range field are two buttons: 'Reset' (white with black text) and 'Submit' (blue with white text). The 'Reset' button is on the left and the 'Submit' button is on the right, which is the standard order.

Pages previously created with these buttons are not affected, and you can manually change the order by dragging the Reset or Submit button to the other side of the cell.

For more information, see the *Choosing an Event Model for Your Page Filter* topic on the WebFOCUS KnowledgeBase.

## Hide/Show Panes Menu in WebFOCUS Designer Relocated

In WebFOCUS Designer, when creating charts, reports, or pages, the Hide/show panes menu



allows you to hide or show the Resources panel, the Properties panel, including the Settings and Format tabs, and the Content picker. The ability to hide these sections of the user interface allows you to allocate more space on your screen to the canvas, so that you can see the content that you are creating more clearly.

The Hide/show panes menu has been moved from the Visualization toolbar to the WebFOCUS Designer toolbar, next to the Help button. The WebFOCUS Designer toolbar is shown in the following image.



For more information, see the *Using the Visualization Tab* topic on the WebFOCUS KnowledgeBase.

## Known Issues

- ❑ In WebFOCUS Release 8207.27.0, new licenses for second level geographies are not yet supported. Existing customers who have already licensed second level geographies can continue to use them.
- ❑ The Windows silent installations for `setup_dm_client` (the TIBCO Data Migrator client installation) and `setup_odbc_client` (the Open Visualization client installation) fail when there is a space in the path to the option file.
 

To avoid this failure, make sure the path to the option file does not contain a blank space.
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ When creating content in InfoAssist, if you add a drilldown that passes an amper variable as a constant value, when you save and reopen your content, the value passed by the drilldown is changed to a field in the Drill Down dialog box. Internally, the drilldown remains unchanged as long as it is not edited.

- ❑ When a document created in InfoAssist contains two HOLD files, InfoAssist freezes when you edit one of them and then attempt to return to the Document canvas.
- ❑ When you delete a HOLD file referenced by a document in InfoAssist, the compound document procedure is converted to a report. If you save and reopen the file, it opens in the InfoAssist Report canvas.
- ❑ If the name of a field used as a filter in a HOLD file is changed in the source synonym, an error occurs when opening content created using that HOLD file.
- ❑ When saving files to a repository on Db2 using the IBM-943 code page for Japanese, an error occurs if the file name contains certain special characters. These include certain mathematical symbols, letters of the Latin alphabet with diacritics, and other punctuation marks and printing symbols.
- ❑ An error occurs when running or reopening a report that was created in Developer Workbench using SQL statements.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

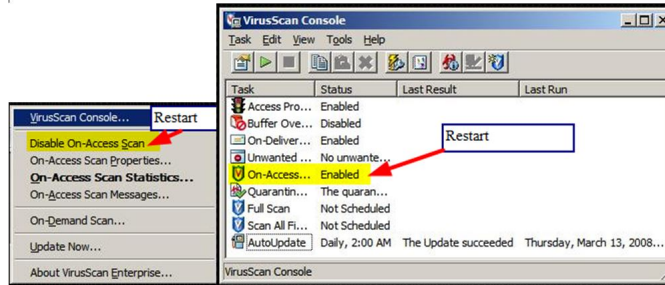
When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltre
rChain.java:166) ~
```

## Browser Information

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

- ❑ When using the Adapter for Amazon Redshift and upgrading from Release 8203 to Release 8207.28.05, you may receive a connectivity error. On Linux, the Redshift ODBC driver requires installation and use of an ODBC Driver Manager, such as unixODBC or iODBC, in addition to the ODBC driver. Additional environment variables may need to be set depending on the driver manager. For more information, see the Driver Manager documentation.

## Browser Information

This release is certified and has been tested with Google Chrome version 92, Firefox version 90, Microsoft Edge Chromium version 92 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

Effective April 1, 2021, all new releases of TIBCO WebFOCUS® following Release 8207.27.0 will no longer support Internet Explorer 11 as a certified browser. For the full statement, see [here](#).

For more information on supported clients and more, see [Release Information](#).





# Chapter 5

## 8207.27.0 Release Notes

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The following topic provides all the information that you need to know about this release of TIBCO WebFOCUS®.

**In this chapter:**

- [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [Browser Information](#)
  - [Additional Third-Party Legal Notices](#)
- 

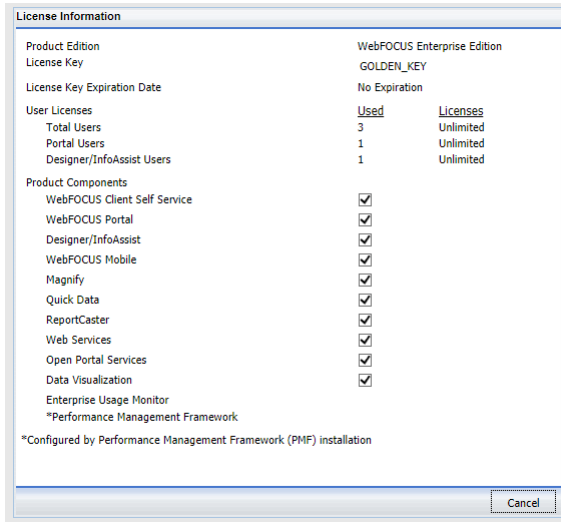
### New Features

#### Redirected Excel Report File Names Can Omit Default Timestamp

The new Do Not Add Timestamp to a Redirected Report Name (IBIWF\_AS\_NAME\_REPORT) setting prevents the default assignment of a unique date and time stamp to the file name of a redirected Microsoft Excel Spreadsheet report. Administrators can use this setting to ensure that the format of all Excel reports consistently omits a timestamp without having to modify individual report procedures.

## New Golden Key Product License Mode Delivers Unlimited Access to Product Resources

In release 8207.27, the new Golden Key license replaces the legacy License Key as the default product license. The Golden Key license automatically allows administrators to maintain an unlimited number of users, grants unlimited access to all features in the Enterprise Edition, and imposes no consumption limits, as shown in the following image. Administrators must use Configuration tab settings and individual Roles and Rules to limit the access of groups and users to individual products and features.

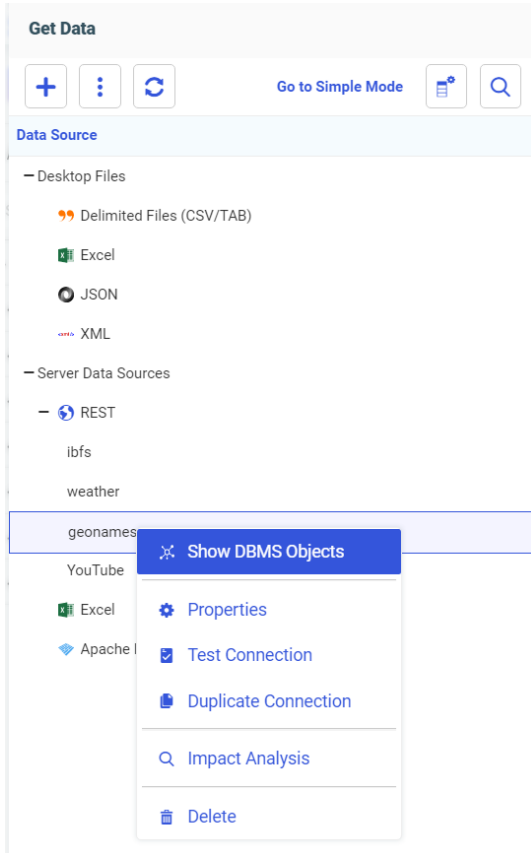


As of release 8207.27, the Golden Key license is assigned to new product installations automatically. Customers who upgrade to 8207.27 from an earlier release continue to maintain their Legacy license after the upgrade. However, they can change to the Golden Key license by updating the Client and Reporting Server background file configuration. For more information, see [Converting an Existing WebFOCUS Installation to the Golden Key Configuration](#).

## Adapter for REST: Populating XDEFAULT Attributes in a JSON Synonym for a POST Request

XDEFAULT attributes are now populated in the metadata for the Adapter for REST when JSON is used in the Document Sample for a POST Create Synonym request.

The following example shows how to start the synonym creation process for the geonames connection.



The synonym is created for a POST request, as shown in the following image.

The image shows a web interface for creating a REST synonym. The title is "Create Synonym for REST (geonames)". Below the title is a section "Create Synonym options" with a blue arrow icon. The form contains the following fields and controls:

- Select REST Operation:** A dropdown menu with "Post" selected.
- Service URL Extension:** A text input field containing "postalCodeSearchJSON". To its right, there is a "Sample:" label with "search.json" below it, and a "Parameterize" checkbox which is currently unchecked.
- Service URL Parameters:** A text input field containing "10024&country=us&maxRows=10&username: [REDACTED]". A sample URL "q=debate&page=1&rpp=100&lang=en" is shown in smaller text above the field.
- Provide document sample:** A large empty text area. The label indicates valid formats are JSON, XML, and Encoded.
- Custom Headers:** A large empty text area. The label indicates valid formats are Content-Type='CDF', PARAM1='ABC'.

An "Add" button is located at the bottom right of the form.

After you click *Add*, the following Master File is generated.

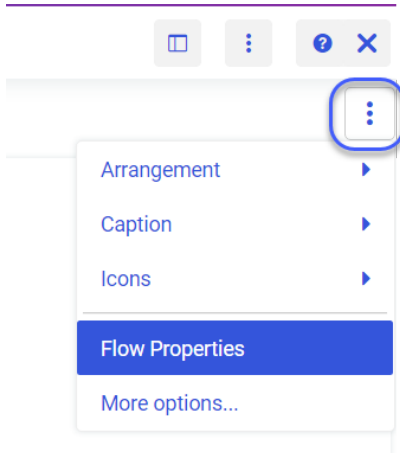
```

FILENAME=POSTALCODESEARCH1, SUFFIX=REST      , BV_NAMESPACE=OFF, $
  SEGMENT=M6ILO, SEGTYPE=S0, $
    GROUP=HEADER, ALIAS=Header, ELEMENTS=4, $
      FIELDNAME=10024&COUNTRY, ALIAS=10024&country, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
  XDEFAULT='us', $
    FIELDNAME=COUNTRY, ALIAS=country, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
  XDEFAULT='us',
  GEOGRAPHIC_ROLE=COUNTRY, $
  FIELDNAME=MAXROWS, ALIAS=maxRows, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
  XDEFAULT='10', $
  FIELDNAME=USERNAME, ALIAS=username, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
  XDEFAULT='xxxxxx', $
  FIELDNAME=__RESPONSE, USAGE=TX80L, ACTUAL=TX,
ACCESS_PROPERTY=(INTERNAL), $
SEGMENT=RESPONSE, SEGTYPE=S0, SEGSUF=JSON      , PARENT=M6ILO,
POSITION=__RESPONSE, $
  FIELDNAME=JSON_DUMMY_EL, ALIAS=JSON_DUMMY_EL, USAGE=A1, ACTUAL=A1,
ACCESS_PROPERTY=(INTERNAL),
  PROPERTY=ELEMENT, $
SEGMENT=POSTALCODES, SEGTYPE=S0, PARENT=RESPONSE, $
  FIELDNAME=POSTALCODES, ALIAS=postalCodes, USAGE=A55, ACTUAL=A55,
  REFERENCE=JSON_DUMMY_EL, PROPERTY=ELEMENT,
  GEOGRAPHIC_ROLE=POSTAL-CODE, $
  DEFINE POSTALCODES__CNTRY__/A50V WITH POSTALCODES='United States';
  TITLE='Country for Postal Code',
  GEOGRAPHIC_ROLE=COUNTRY, $

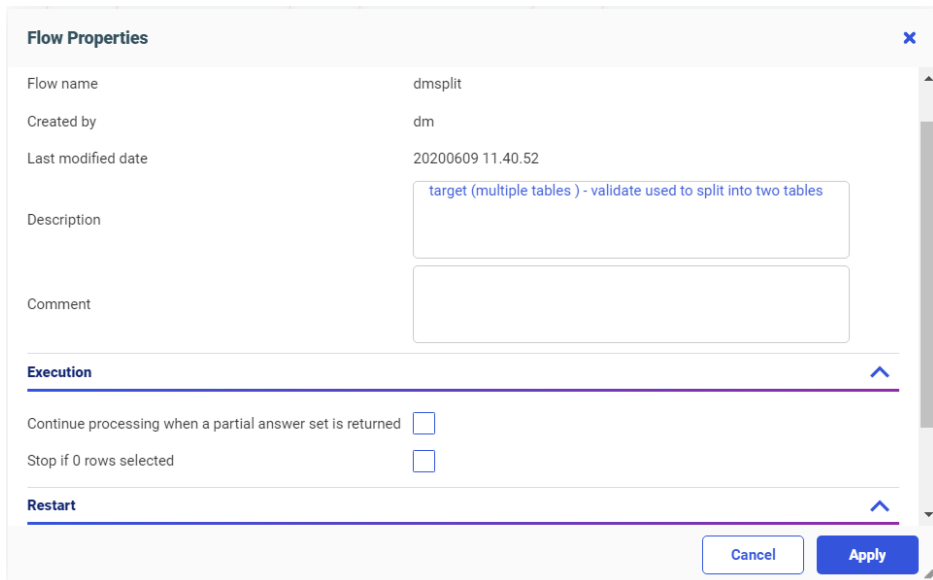
```

## Viewing Flow Properties on the Data Flow Canvas

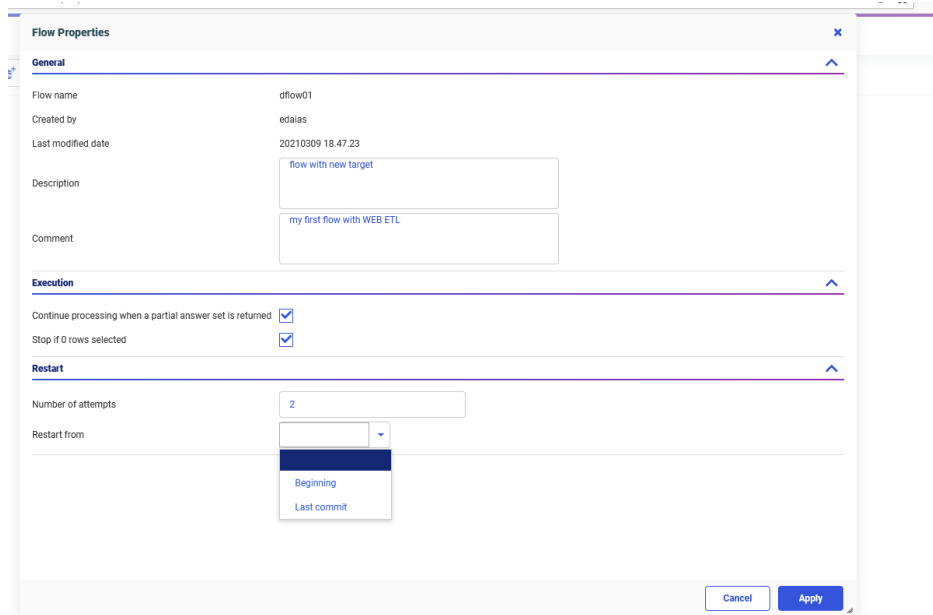
A new *Flow Properties* item has been added to the View Options menu on the Data Flow canvas, as shown in the following image.



Clicking this option opens a Flow Properties dialog box. The properties displayed depend on the type of Data Flow that is open in the canvas. For example, the following image shows a Data Flow that splits the source data into two target tables.



You can make selections, or change options, and click *Apply* to implement them. For example the following image shows how to select restart options for a flow.



Once you click *Apply*, your settings are saved, and the last modified date and creator ID are displayed. The dialog box closes automatically.

To close without applying any changes, click the Close button (x) to close the dialog box.

## Fixes

- ❑ After upgrading to WebFOCUS 8207, button controls for a double list box control do not display correctly in App Studio. (210204014)
- ❑ After double-clicking an accordion container tab, the display area shrinks in sized in App Studio. (210216009)
- ❑ Tabbing between calendar controls inserts a half-width blank when transitioning to the calendar control when using the Tab key. (210209018)
- ❑ After upgrading from WebFOCUS 8207.06 to 8207.23, an HTML report in App Studio does not load or throws an error. (210226058)

- ❑ When running a procedure that includes an HTML page via -HTMLFORM, a request within that page is having its path rewritten, resulting in a message, "Item does not exist". (210211098, 210216169)
- ❑ When adding a slider control to the HTML canvas that is explicit, a script error is thrown or the page just keeps spinning at run-time. (210225102)
- ❑ When 'Send Display Value', is selected, an InfoWindow renders after the submit button is clicked. (210215091)
- ❑ HTML responsive filter panel (for a Portal) embedded in an iFrame fails with a cross origin error. (210224136)
- ❑ Error when using active report and function [lbComposer\_selectTab] together. (210226007)
- ❑ Chrome 89 and Edge 89 cause an error when using SaveSelection component. (210309073, 210315028, 210317030, 210323042, 210323068)
- ❑ Setting an AREXPIRE date in early 2020 displays the report rather than the expired message. (200608139)
- ❑ Returning to an ARVERSION 1 report after exporting to excel causes the drilldown menu not to function. The issue does not occur with ARVERSION 2. (201127040)
- ❑ When a report uses a parameter that contains a very long string (400+ characters total), if the format is AHTML, an agent crash will occur. (210303029, 210308007)
- ❑ The plus (+) sign to add personal pages is missing after an upgrade to 8207.26. (210309137)
- ❑ Chart perform poorly with Autodrill turned on. (200923086)
- ❑ When utilizing multiple ACCEPT=SYNONYM clauses within a master file, the filter controls within Content Designer show the look up values instead of the display values in some scenarios. (201026144, 210126085)
- ❑ InfoAssist and Designer use the field name instead of the title on fields with DBA: RESTRICT=NOPRINT. (210122017)
- ❑ When running a procedure that INCLUDE's another procedure of the same name (different folder/path), an error message occurs. (21025110, 21020914)
- ❑ In InfoAssist Header & Footer, using a date variable in combination with a dot (period) at the end leads to an error that is not clear and doesn't prevent improper usage. (180511009)



- ❑ When setting a parameter to PRINT and adding two or more values in InfoAssist, then saving, the procedure cannot be restored. (20124013)
- ❑ After creating a join in InfoAssist, trying to add a DEFINE results in the block of code being inserted in the wrong place in the fex. This causes an error when the defined field depends on values from the JOIN. (201203118)
- ❑ After joining two HOLD files together, then creating a report with a Define referencing a field from one of the HOLD files, an error occurs. (201229081)
- ❑ When opening a procedure with two joins to the same datasource, the joins are duplicated. The issue occurs with default joins and where-based joins. (201211069, 210204037, 21035112)
- ❑ When using SET LAYOUTRTL=ON with ARVERSION=2, vertical sliders to filter numeric values are misplaced and obscured partially obscured. (201124083)
- ❑ "The password you entered is incorrect" error message is thrown when you run an active report in Japanese. Also occurs when creating the report in InfoAssist. (210211093)
- ❑ AHTML with POPUPDESC = ON SET reports against Master Files that contain field descriptions that are over 80 characters, the report never renders. (210223080)
- ❑ ReportCaster Stopit.sh script returns many variables to the screen once executed. (190319057)
- ❑ PDF, XLSX file names no longer respect 'AS lowercase' with SAVE FILE=YES. (200123073, 201107013)
- ❑ Integer displays incorrectly instead of overflow / asterisks. (200721046, 210303020)
- ❑ The numeric value -9998998 is shown as 0 with output format XLSX. Works with HTML, PDF and PPTX. (201126026)
- ❑ The drilldown on ACROSS COLUMNS fields on a VARCHAR field will cut off the first 2 characters, therefore no match in the target fex. (210106015)
- ❑ WebFOCUS fails to startup when the Repository is down for maintenance. Should have a way to configure the number of Repository reconnect attempts and interval between attempts. (200421085)
- ❑ Add Support for Array at Beginning of JSON Body. (210201072)
- ❑ Using PRINT DST. with Elastic Search results in an error. (210219041)
- ❑ Calling a Python script as a function in the focexec results in an error. (21208001)

- ❑ Upload to SQL shows Connection with "allow data load = n" as available. (201118136)
- ❑ A COMPUTE created from Reporting server console with format D12.2% or D20.2% changes to D28.2. (210122013)
- ❑ Using DMC synonym editor, the dimensions are duplicated when you refer a synonym business view and add a new folder dimension on the dimensions side. (210215084)
- ❑ When using a WHERE FIELD=' ' (a blank space) condition and saving and reopening the Metadata, the condition has changed and the blank space is removed. (210218032)
- ❑ Business view displays corrected in WebFOCUS Server, but not in InfoAssist or Designer. (210215047)
- ❑ Fieldname is replaced by title and msakes filter condition invalid when using 'OR'. (210303022)
- ❑ Title line of the csv file output in format COMT is missing the trailing double quote when the total length of the title is more than 4096 bytes. (201225005, 210310017)
- ❑ When utilizing the TRIM and TRIMV function in a 942 - Japanese (Shift-JIS) environment, different characters are displayed. Issue does not occur in Unicode 65001. (210113021)
- ❑ Output is wrong with double-byte characters using the POSITION and POSIT functions in the SJIS environment. (210215014)
- ❑ CTRAN returns no data with large string in Unicode. (210222068)
- ❑ When accessing the WebFOCUS Server via client, if CLM is configured with two or more nodes, the user gets prompted for "Session lost due to server restart" in the bottom-right corner of the screen. (210129029, 210208025, 210226087)
- ❑ If a pie chart has a very large value and a very small value, the chart will not display. (210202011)
- ❑ The M in the FormatPattern is converted to Mil. with German language setting. (210107009)
- ❑ Users assigned to more than 1,000 groups do not generate an ORA-01795: maximum number of expressions in a list is 1000 error message when signing into WebFOCUS that uses a repository database on an Oracle platform.

## Upgrade Notes

- ❑ In Release 8207.27.0, the new Golden Key license replaces the legacy License Key as the default product license. The Golden Key license is assigned to new product installations automatically. Customers who upgrade to 8207.27 from an earlier release continue to maintain their Legacy license.

You can manually enable the Golden Key after upgrading, by removing the following files from the `/ibi/WebFOCUS82/config` default folder:

- ❑ `license.cfg`
- ❑ `wflicense.key`

For information on how to apply this on the TIBCO WebFOCUS Reporting Server side, see the [Converting an Existing Installation to the Golden Key Configuration](#) topic.

- ❑ Upon your first login to the Cloud environment or after upgrading to the latest version, you will be prompted to read and accept the End User License Agreement, before you can proceed with the product.
- ❑ As of Release 8207.27, Gainsight usage analytics is no longer supported, and the Usage Analytics setting no longer appears on the Other settings page of the Administration Console configuration tab.
- ❑ When using Automated Insights, seasonality visualizations may be compromised and render incorrectly as a result of any editing of the field pills, filtering, or styling, after the visualizations are added to the Designer canvas.
- ❑ As of Release 8207.26, WebFOCUS Help is configured, by default, to use Online Help that is hosted by ibi servers. This Help configuration is applied for new installations or when upgrading from an earlier release. The installation package no longer includes the help files, which greatly reduces the installation file size and time required to install and configure the software. For more details, see the [Configuring WebFOCUS Help](#) topic in the WebFOCUS KnowledgeBase.
- ❑ As of Release 8207.25, WebFOCUS App Studio Help is configured, by default, to use Online Help that is hosted by ibi servers. This Help configuration is applied for new installations or when upgrading from an earlier release. The installation package no longer includes the help files, which greatly reduces the installation file size and time required to install and configure the software.

For more details, see the [Configuring WebFOCUS App Studio Help](#) topic in the WebFOCUS KnowledgeBase.

In addition, the option to install and configure Tomcat is no longer applicable. Tomcat is removed from packaging and the installation program is adjusted to reflect these changes.

- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.
- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.

We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.
- ❑ Microsoft has renamed its Azure Data Warehouse product to Azure Synapse Analytics. The adapter has been renamed to match the change in the product name.
- ❑ When creating or editing a Data Flow in the Reporting Server browser interface, you have the option to schedule the flow to run in the future.

In order for the flow to run on schedule, it must be saved in a directory on the application path of the scheduler (the user ID set to sched\_scan\_id).

- ❑ OpenSSL libraries are loaded dynamically at run time on UNIX and Windows. You are responsible for installing these libraries and making them available to the Server by specifying their location in the PATH or in the IBI\_LOAD\_SSL\_FROM or IBI\_LIBPATH environment variable value at Server startup time.

Open SSL libraries v1.1.1 and v1.0.2 are supported.

The current run-time version depends on the following configuration keyword in edaserve.cfg.

```
ssl_lib_vendor = {sslv11|sslv10}
```

The default value for `ssl_lib_vendor` is `sslv11`.

You should also set the environment variable `IBI_LOAD_SSL_FROM` or `IBI_LIBPATH` to point to the appropriate `openssl` library.

For example:

```
ssl_lib_vendor = sslv11
IBI_LIBPATH=/usr/local/ssl64/1.1.1/lib
```

or:

```
ssl_lib_vendor = sslv10
IBI_LIBPATH=/usr/local/ssl64/1.0.2/lib
```

**Note:** `OpenSSL-1.1.1` is available by default on Red Hat Enterprise Linux (RHEL) 8 and above but must be built from source on RHEL 7 and below.

- ❑ When using Data Preparation and editing the select statement using the Join, Union, SQL, or Target Business View editor, then clicking the X (Close) icon, any changes were discarded as though you had pressed cancel. Now, if any changes are made, a confirmation prompt opens asking you to confirm whether you want to discard your changes.
- ❑ The Properties Panel for entering parameters when configuring a connection or uploading data has been redesigned with a cleaner and more consistent user interface, to make it easier to use and to provide clearer on-screen help.
  - A tooltip is available when you hover over the help icon for each property.
  - If you click the help icon, more detailed help is displayed.
  - For some parameters, a sample value is available when you click Show Sample.
- ❑ In the Metadata and Data Flow editors, to indicate that the WebFOCUS Server logo on the Server Console has a menu, a down arrow has been added.
- ❑ In the Metadata Editor, all data profiling charts and reports now open on a new tab in the output pane. In prior releases, some charts opened in a separate pane.
- ❑ In prior releases, when you created a synonym containing date or date-time columns, eight additional virtual (DEFINE) fields were automatically generated for each date component and combination of components.

This could result in much larger synonyms that took longer to open and edit. This option is now disabled by default. If you want to have the date components generated, you can enable Decompose Dates on the Get Data page. To enable Decompose Dates so that it is always on when creating a synonym, click the link for *Common Adapter Settings*. Under the *Customize datatype mappings* section, for *DECOMPOSE-DATE* select *On*.

- ❑ The Expression Editor has an area that displays objects you can add to an expression, which are columns, variables, or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a drop-down menu that allows selecting what objects are displayed.
- ❑ From the Designer Data tab or the Reporting Server browser interface, when *Show title* is selected from the *View* shortcut menu, if a synonym does not have a field title for a column, the default column name is the field name, not the alias. This allows you to see the same column names in Data Preparation as in Designer and InfoAssist.
- ❑ When you join files or tables without keys, the join created automatically based on matching field names is now limited to three pairs of join fields, to avoid attempting a join on an excessive number of fields, especially when joining a table to itself.
- ❑ From the Designer Data tab or the Reporting Server browser interface, when you reload the profile charts after you have horizontally scrolled to and edited a profile chart field, the scroll bar is positioned so that the edited profile chart remains visible. You do not have to scroll to see the edited profile chart.

## Software Branding

As of the following releases, ibi software and technical content are now branded under TIBCO® Software Inc.

- ❑ **WebFOCUS:** 8207.27.0
- ❑ **FOCUS:** 8207.27.0
- ❑ **iWay Service Manager:** 8.0.5
- ❑ **Omni-Gen:** 3.16.0

This change only impacts the names to which these products are referred. For example, WebFOCUS is now known as TIBCO WebFOCUS<sup>®</sup>, while iWay Data Migrator is now known as TIBCO<sup>®</sup> Data Migrator. You will begin to see this change throughout the software and corresponding technical content assets, including PDF covers and KnowledgeBase collections, where both new and former product names will be used interchangeably. For a full list of software branding, see below.

<b>Former Product Name</b>	<b>New Product Name</b>
WebFOCUS	TIBCO WebFOCUS <sup>®</sup>
WebFOCUS Client	TIBCO WebFOCUS <sup>®</sup> Client
WebFOCUS Server	TIBCO WebFOCUS <sup>®</sup> Reporting Server
iWay Data Migrator Server	TIBCO WebFOCUS <sup>®</sup> Reporting Server
iWay Data Migrator	TIBCO <sup>®</sup> Data Migrator
WebFOCUS App Studio	TIBCO WebFOCUS <sup>®</sup> App Studio
WebFOCUS Mobile App	TIBCO WebFOCUS <sup>®</sup> Mobile App
WebFOCUS Infographics	TIBCO WebFOCUS <sup>®</sup> Infographics
WebFOCUS Narrative Charts	TIBCO WebFOCUS <sup>®</sup> Narrative Charts
iWay Service Manager	TIBCO iWay <sup>®</sup> Service Manager
Omni-Gen	TIBCO Omni-Gen <sup>®</sup>
Omni Master Data Management	TIBCO Omni-Gen <sup>®</sup> MDM
Omni for Customer	TIBCO Omni-Gen <sup>®</sup> MDM
Omni-HealthData	TIBCO Omni-HealthData <sup>®</sup>
Omni-Insurance	TIBCO Omni-Insurance <sup>™</sup>
Data Quality	TIBCO Omni-Gen <sup>®</sup> Data Quality
FOCUS	TIBCO FOCUS <sup>®</sup>

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As of Release 8207.27, ibi products are now branded under TIBCO® Software Inc. You will begin to see this change throughout the software and corresponding technical content assets, including PDF covers and KnowledgeBase collections, where both new and former product names will be used interchangeably. For a full list of software branding, see Software Branding.

The following tables provide a quick overview of the PDF titles that have changed to support this release. Note that the way you access these technical content offerings and information remains the same. As we continue the branding effort, you may notice additional changes within our technical content, which we will continue to communicate to you.

<b>Former Title</b>	<b>New Title</b>
<b>TIBCO WebFOCUS®</b>	
<i>WebFOCUS App Studio Installation and Configuration Guide</i>	<i>App Studio Installation and Configuration</i>
<i>WebFOCUS App Studio User's Manual</i>	<i>App Studio User's Manual</i>
<i>Creating HTML5 Charts With WebFOCUS Language</i>	<i>Creating HTML5 Charts With TIBCO WebFOCUS® Language</i>
<i>Creating Reports With WebFOCUS Language</i>	<i>Creating Reports With TIBCO WebFOCUS® Language</i>
<i>Describing Data With WebFOCUS Language</i>	<i>Describing Data With TIBCO WebFOCUS® Language</i>
<i>WebFOCUS Embedded Business Intelligence User's Guide</i>	<i>Embedded Business Intelligence User's Guide</i>
<i>WebFOCUS InfoAssist User's Manual</i>	<i>InfoAssist User's Manual</i>
<i>WebFOCUS and ReportCaster Installation and Configuration for UNIX</i>	<i>Installation and Configuration for UNIX</i>
<i>WebFOCUS and ReportCaster Installation and Configuration for Windows</i>	<i>Installation and Configuration for Windows</i>
<i>WebFOCUS Integrated Installation</i>	<i>Integrated Installation</i>



<i>Using the WebFOCUS Mobile App for iOS and Android</i>	<i>Mobile App for iOS and Android</i>
<i>Server Administration</i>	<i>Reporting Server Administration</i>
<i>Server Installation</i>	<i>Reporting Server Installation</i>
<i>Server Release Notes</i>	<i>Reporting Server and TIBCO® Data Migrator Release Notes</i>
<i>WebFOCUS Security and Administration</i>	<i>Security and Administration</i>
<i>WebFOCUS Security and Administration Best Practices</i>	<i>Security and Administration Best Practices</i>
<i>Using WebFOCUS</i>	<i>User's Guide</i>
<b>TIBCO® Data Migrator</b>	
<i>Server Release Notes</i>	<i>Reporting Server and TIBCO® Data Migrator Release Notes</i>
<i>iWay Data Migrator User's Guide</i>	<i>User's Guide</i>

## Known Issues

- ❑ In WebFOCUS Release 8207.27.0, new licenses for second level geographies are not yet supported. Existing customers who have already licensed second level geographies can continue to use them.
- ❑ The Windows silent installations for `setup_dm_client` (the TIBCO Data Migrator client installation) and `setup_odbc_client` (the Open Visualization client installation) fail when there is a space in the path to the option file.  
  
To avoid this failure, make sure the path to the option file does not contain a blank space.
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.

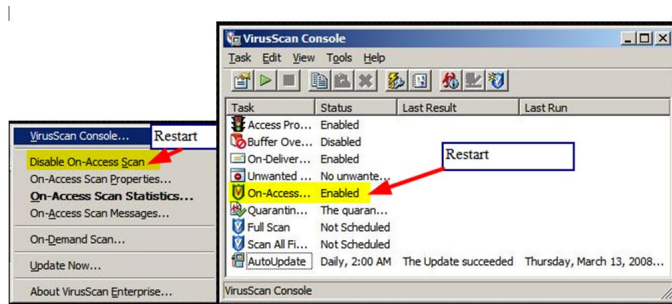
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltere
rChain.java:166) ~
```

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

## Browser Information

This release is certified and has been tested with Google Chrome version 89, Firefox version 86, Microsoft Edge Chromium version 89 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

Effective April 1, 2021, all new releases of TIBCO WebFOCUS® following Release 8207.27.0 will no longer support Internet Explorer 11 as a certified browser. For the full statement, see [here](#).

For more information on supported clients and more, see [Release Information](#).

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TOC.js

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## 8207.26 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [Browser Information](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Friday, February 26, 2021	wf022221a Gen 9 wi022221a as021921a	8207.26 Gen 1931

### New Features

#### Enhancements to Filter Control Loading in Assembled Pages

Enhancements have been made to improve the run-time performance of pages assembled from existing content to which multiple filters have been added. These enhancements especially improve the performance and reduce the initial loading time of assembled pages with multiple filter controls and filter chaining.

Previously, filter controls in assembled pages were populated with values when the page initially loaded. The loaded filter control values included all possible combinations of chained values. This delayed the loading of content that was dependent on values from those filter controls. Now, to improve performance and make loading more efficient, default values for all filters are loaded first, allowing filtered content on the page to load sooner. Additionally, chained filters are not populated until they are used, so that values do not load until they are needed.

To learn more about filters in pages assembled from existing content, see the *Applying Prompted Filters From External Content* topic on the WebFOCUS KnowledgeBase.

### **Classifying Metadata During Upload and Using it in a Data Flow**

Metadata Classification examines your data and assigns classifications to the columns, which can then be used to match columns from separate data sources. In this release, you can classify data that you upload, and use it to match fields in a Union in a Data Flow.

When uploading a data file, you can now view the recommended metadata classification values for each character-valued column. You can choose to keep the recommended values, or to change them.

Including classification values in your data improves the accuracy of mapping column tables correctly to each other. This is useful if you are integrating data from multiple sources, or if integrating data into a system with a predefined hierarchy.

The new Data Classification engine is a machine learning application, provided as a service, that will base class assignments on examining actual data values. It is trained by being given access to large volumes of data gathered throughout the world. This application will continually learn more about data and how to classify it, and new classes will be added as needed.

#### **Prerequisites for Metadata Classification**

In prior releases, automatic matching of columns from multiple data sources was based either on primary key/foreign key relationships in relational tables or, if those were not available, column names and formats. The new Data Classification engine is a machine learning application, provided as a service, that will base class assignments on examining actual data values. It is trained by being given access to large volumes of data gathered throughout the world. This application will continually learn more about data and how to classify it, and new classes will be added as needed.

A customer site wanting to use the Data Classification application will have to submit proprietary data to the classification API. To ensure the safety and integrity of proprietary data, the API will be installed as a service in the customer environment, and will be accessible only to the customer. Once the data is examined, feature vectors with encoded values will be sent to another service, available in the WebFOCUS or Omni environment, which will use these vectors to recommend class assignments for columns. If a classification cannot be recommended based on the known classes, an attempt will be made to classify columns based on column names and formats. You will be able to view and change the classifications prior to saving them in a synonym. Once they are stored in a synonym, they will be used to suggest column matches when you create a Union in a Data Flow on the server. In future releases, the functionality will be extended to other environments.

Instructions for installing the services are included your WebFOCUS Installation manual. Please make sure your installation team has installed them prior to using this feature.

After the services are installed, you must add the paths to the services in the edaserve.cfg file on the server.

#### **Changes Needed in the edaserv.cfg Configuration File**

The URLs pointing to the services (APIs) must be added to the edaserve.cfg configuration file on the WebFOCUS Server.

1. On the Server Console, navigate to the Workspace page using the Tools menu.
2. On the Resources Tree, expand *Configuration Files*.
3. Right-click *Workspace - edaserve.cfg* and click *Edit*.

The edaserve.cfg file opens in the Text Editor.

4. Enter values for the following keywords:

```
lblfeat_url = url_to_service_that_encodes_values
lblpred_url = url_to_service_calculates_labels_based_on_encoded_values
```

where:

```
url_to_service_that_encodes_values
```

Is the URL to the service that resides in the customer environment. For example:

```
lblfeat_url = https://myserver/api/1.0.0
```

This service is called by passing values of rows in a column, and it passes back a feature vector that describes the patterns of values in the column.

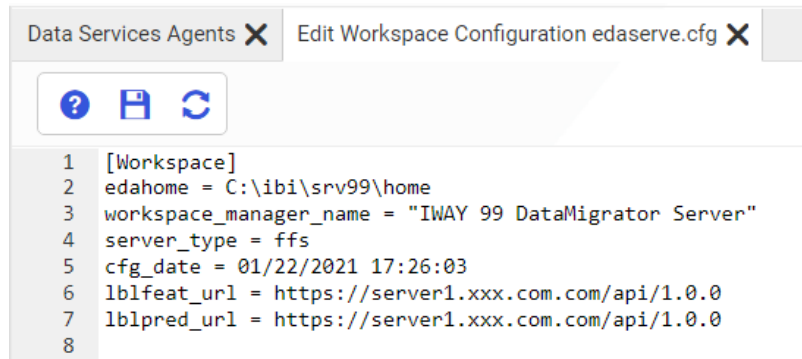
*url\_to\_service\_calculates\_labels\_based\_on\_encoded\_values*

Is the URL to the service that resides in the WebFOCUS and Omni environment. For example:

```
lblpred_url = https://ibiserver/api/1.0.0
```

This service is called using the feature vector created by the first service and returns the classification for the column.

The Text Editor should look similar to the following.



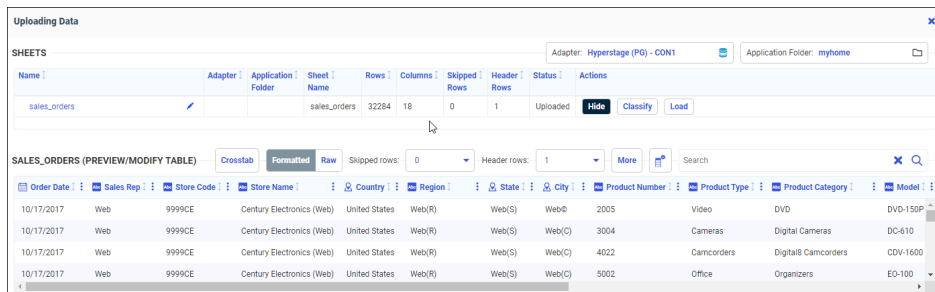
5. Click the Save icon and close the tab.

**Procedure: How to Change Metadata Classification Values When Uploading Data Files**

You can change the metadata classification values for your data during the upload process.

1. From the Home Page or Server Get Data page, upload an Excel or delimited file using Get Data.

A preview page opens, as shown in the following image.



2. Click the *Classify* button.



The Recommended Classifications page opens, as shown in the following image.

Columns	Confidence	Classification	Sample Data	Pattern	Word Pattern
Country	64%	ADDRESS_COUNTRY	Canada, United States... (3)	Aaaaa, Aaaaaaa... (2)	W, W W
Region	None Found	None Found	Andalucia, Western Canada... (22)	Aaa, Aaaaaaaaa... (15)	W, W-W-W-W... (5)
State	85%	ADDRESS_STATE	Alabama, Wyoming... (51)	Aaa Aaaa, Aaaaaaaaaaaaa... (19)	W, W-W-W (I)... (6)
City	55%	ADDRESS_CITY	Albany, Worcester... (96)	Aaa Aaaa, Aaaaaaaaaaaaa... (22)	W, W(W)... (2)

When a recommended classification can be made, the columns that were classified have a Confidence Level associated with them, which indicates the probability that the classification is correct.

You can select from a column list of classifications, or enter your own classification, by typing into the text box next to the column. Clicking a column drop-down arrow shows the list of classifications, and indicates which is recommended, as shown in the following image.

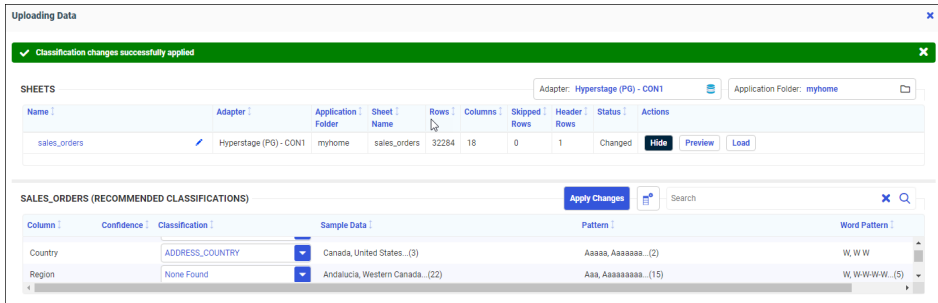
Columns	Confidence	Classification	Sample Data	Pattern	Word Pattern
Country	64%	ADDRESS_COUNTRY	Canada, United States... (3)	Aaaaa, Aaaaaaa... (2)	W, W W
Region	None Found	None Found	Andalucia, Western Canada... (22)	Aaa, Aaaaaaaaa... (15)	W, W-W-W-W... (5)
State	85%	ADDRESS_STATE	Alabama, Wyoming... (51)	Aaa Aaaa, Aaaaaaaaaaaaa... (19)	W, W-W-W (I)... (6)
City	55%	ADDRESS_CITY	Albany, Worcester... (96)	Aaa Aaaa, Aaaaaaaaaaaaa... (22)	W, W(W)... (2)

Next Steps:

- ADDRESS\_1
- ADDRESS\_2
- ADDRESS\_CITY
- ADDRESS\_COUNTRY
- ADDRESS\_POSTALCODE
- ADDRESS\_STATE **Recommended**
- FIRSTNAME

3. Click *Apply Changes*.

Your changes are applied, as indicated by a green message bar at the top of the page, as shown in the following image.



Once your data is loaded, with the proper permissions to edit synonyms, you can leverage further capabilities by accessing the server. For more information, see Technical Preview: Using Metadata Classifications in a Union in a Data Flow.

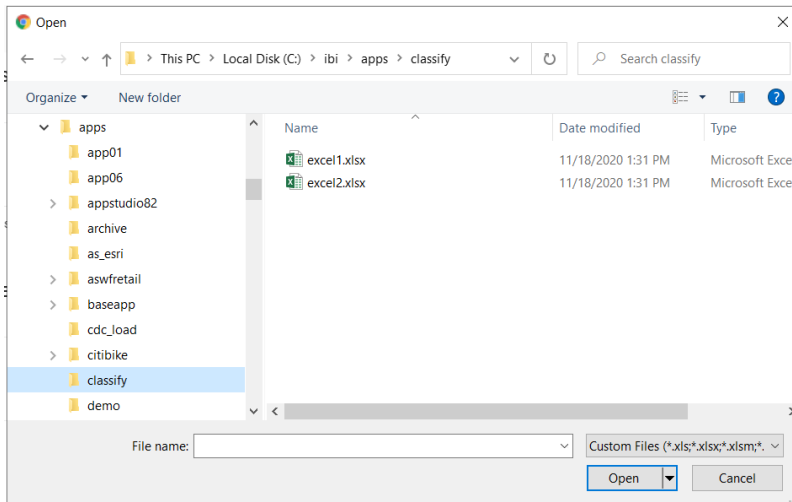
## Using Metadata Classifications in a Union in a Data Flow

In this release, the classifications are only available when you upload a file from the Home Page or the Get Data page of the Server Console. We will upload two Excel files, and examine the classifications, then use the two Excel files in a Union.

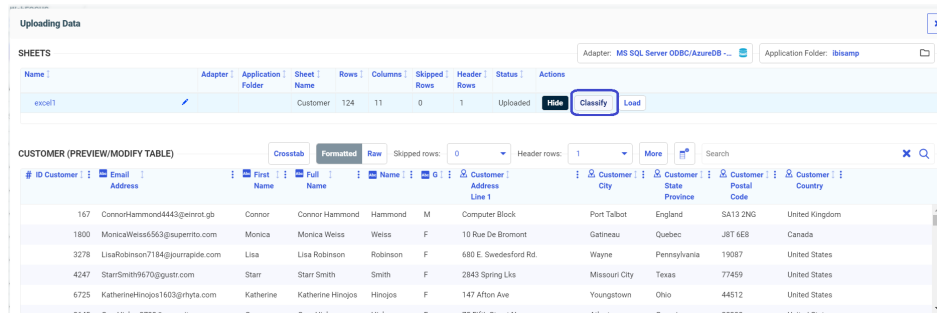
In the server environment, you can upload a file by clicking *Get Data* on the Applications page of the Server Console.

### Classifying Excel1

Click *Excel* in the Local Files section, and a file picker dialog box opens, as shown in the following image.



Selecting *Excel1* and clicking *Open* opens the Upload Data page. If the Metadata Classification feature has been installed and configured, the Upload Data page has a *Classify* button, as shown in the following image.



Clicking the *Classify* button opens the Recommended Classifications page, as shown in the following image.

Column	Confidence	Classification	Sample Data	Pattern	Word Pattern
ID Customer			167.374849..(121)		
Email_Address		None Found	AaronConway8532@teleworm.ca, WolfgangBumgarner4230@enrot.de..(121)	AaAaaa9999@aaaaaa.aaa, AaaaaaaaAaaaaaa999@aaaaaaa.aa..(98)	WlG W W
FirstName	85%	FIRSTNAME	Aaron, Wolfgang..(117)	Aa, Aaaaaaaa..(6)	W
FullName		None Found	Aaron Conway, Wolfgang Bumgarner..(120)	Aa Aaaaa, Aaaaaaaa Aaaaaaaa..(42)	W, W, W, W, W, W
Name		None Found	Allen, Winther..(116)	A Aaaa, Aaaaaaaa..(11)	W, W, W, W
G	88%	GENDER	F, M	A	W
CustomerAddress_Line 1	54%	ADDRESS_1	1 Queen's Crescent, Zitone Airport..(121)	9 A 99Aa Aa, Aaaaaaaa..(112)	1  W, W, W, W, W
CustomerCity	76%	ADDRESS_CITY	Abbeyleix, Zwolle..(109)	AA-Aaaaaa, Aaaaaaaa..(27)	W, W, W, W..(5)
CustomerState_Province	83%	ADDRESS_STATE	Alaska, Zurich..(71)	AaAaaa, Aaaaaaaa..(30)	W, W, W, W..(4)
CustomerPostal_Code		None Found	..W1F 0UJ..(66)	..AA99 9AA..(7)	..WWW  W ..(7)
CustomerCountry	85%	ADDRESS_COUNTRY	Austria, United States..(18)	Aaaa, Aaaaaaaa..(6)	W, W, W

Note that not all columns were classified. You can select from the list of classifications for a column, or enter your own classification, by typing it into the text box next to the column. The columns that were classified have a Confidence Level associated with them. The confidence level represents the probability that the classification is correct.

In this case, select FULLNAME for Full,Name and LASTNAME for Name, as shown in the following image.

Column	Confidence	Classification	Sample Data	Pattern	Word Pattern
ID Customer			167.374849..(121)		
Email_Address		None Found	AaronConway8532@teleworm.ca, WolfgangBumgarner4230@enrot.de..(121)	AaAaaa9999@aaaaaa.aaa, AaaaaaaaAaaaaaa999@aaaaaaa.aa..(98)	WlG W W
FirstName	85%	FIRSTNAME	Aaron, Wolfgang..(117)	Aa, Aaaaaaaa..(6)	W
FullName	85%	FULLNAME	Aaron Conway, Wolfgang Bumgarner..(120)	Aa Aaaa, Aaaaaaaa Aaaaaaaa..(42)	W, W, W, W, W, W
Name	88%	LASTNAME	Allen, Winther..(116)	A Aaaa, Aaaaaaaa..(11)	W, W, W, W
G	88%	GENDER	F, M	A	W
CustomerAddress_Line 1	54%	ADDRESS_1	1 Queen's Crescent, Zitone Airport..(121)	9 A 99Aa Aa, Aaaaaaaa..(112)	1  W, W, W, W, W
CustomerCity	76%	ADDRESS_CITY	Abbeyleix, Zwolle..(109)	AA-Aaaaaa, Aaaaaaaa..(27)	W, W, W, W..(5)
CustomerState_Province	83%	ADDRESS_STATE	Alaska, Zurich..(71)	AaAaaa, Aaaaaaaa..(30)	W, W, W, W..(4)
CustomerPostal_Code		None Found	..W1F 0UJ..(66)	..AA99 9AA..(7)	..WWW  W ..(7)
CustomerCountry	85%	ADDRESS_COUNTRY	Austria, United States..(18)	Aaaa, Aaaaaaaa..(6)	W, W, W

Click *Apply Changes*. A green message bar at the top of the page shows that the changes were successfully applied.

Click *Load*.

The file is uploaded, and the synonym is generated with the classifications added, as shown in the following partial synonym.

```
FILENAME=EXCEL1, SUFFIX=MSODBC , BV_NAMESPACE=OFF, $
SEGMENT=EXCEL1, SEGTYPE=S0, $
  FIELDNAME=ID_CUSTOMER, ALIAS=ID_CUSTOMER, USAGE=I9, ACTUAL=I4,
  MISSING=ON,
  TITLE='ID Customer', $
  FIELDNAME=EMAIL__ADDRESS, ALIAS=EMAIL__ADDRESS, USAGE=A42V,
ACTUAL=A42V,
  MISSING=ON,
  TITLE='Email ,Address', $
  FIELDNAME=FIRST_NAME, ALIAS=FIRST_NAME, USAGE=A11V, ACTUAL=A11V,
  MISSING=ON,
  TITLE='First,Name',
  CATEGORY='FIRSTNAME', CONFIDENCE=0.853071, $
  FIELDNAME=FULL_NAME, ALIAS=FULL_NAME, USAGE=A26V, ACTUAL=A26V,
  MISSING=ON,
  TITLE='Full,Name',
  CATEGORY='FULLNAME', $
  FIELDNAME=NAME, ALIAS=NAME, USAGE=A15V, ACTUAL=A15V,
  MISSING=ON,
  TITLE='Name',
  CATEGORY='LASTNAME', $
  FIELDNAME=G, ALIAS=G, USAGE=A1V, ACTUAL=A1V,
  MISSING=ON,
  TITLE='G',
  CATEGORY='GENDER', CONFIDENCE=0.883651, $
  FIELDNAME=CUSTOMER_ADDRESS__LINE_1, ALIAS=CUSTOMER_ADDRESS__LINE_1,
USAGE=A57V, ACTUAL=A57V,
  MISSING=ON,
  TITLE='Customer,Address ,Line 1',
  GEOGRAPHIC_ROLE=ADDRESS_LINE,
  CATEGORY='ADDRESS_1', CONFIDENCE=0.547940, $
```

## Classifying Excel2

Follow the same steps for file Excel2. The Classification Screen is shown in the following image.

Column	Confidence	Classification	Sample Data	Pattern	Word Pattern
ID Customer		None Found	167.374849..(121)		
Email Address		None Found	AaronConway8532@teleworm.ca,WolfgangBumgarner4230@enrot.de..(121)	AaAaaa9999@aaaaaa.aaa,AaaaaaaaAaaaaaa999@aaaaaaa.a..(98)	W@W.W
Nme	85%	FIRSTNAME	Aaron,Wolfgang..(117)	Aa,Aaaaaaaa..(6)	W
FullName		None Found	Aaron Conway,Wolfgang Bumgarner..(120)	AaAaaa,AaaaaaaaAaaaaaa..(42)	W.W.W.W.W
LastName		None Found	Allen,Winter..(116)	AaAaaa,Aaaaaaaa..(11)	W.W.W.W
Gender	88%	GENDER	F,M	A	W
CustomerAddress_Line 1	54%	ADDRESS_1	1 Queen's Crescent,Zitone Airport..(121)	9 A 95Aa Aa,Aaaaaaaa..(112)	W.W.W.W.W
CustomerCity	76%	ADDRESS_CITY	Abbeyleix,Zwolle..(109)	Aa-Aaaaaaa,Aaaaaaaa..(27)	W.W.W.W..(5)
CustomerState_Province	83%	ADDRESS_STATE	Alaska,Zurich..(71)	AaAaaa,Aaaaaaaa..(30)	W.W.W.W..(4)
CustomerPostal_Code		None Found	..W1F 00U..(66)	..AA99 9AA..(7)	..W1W (W)..(7)
CustomerCountry	85%	ADDRESS_COUNTRY	Austria,United States..(18)	Aaaa,Aaaaaaaa..(6)	W.W.W.W

Note that the first name column is called Nme in this file (it was called Name in Excel1), and the gender column is called GENDER (it was called G in Excel1).

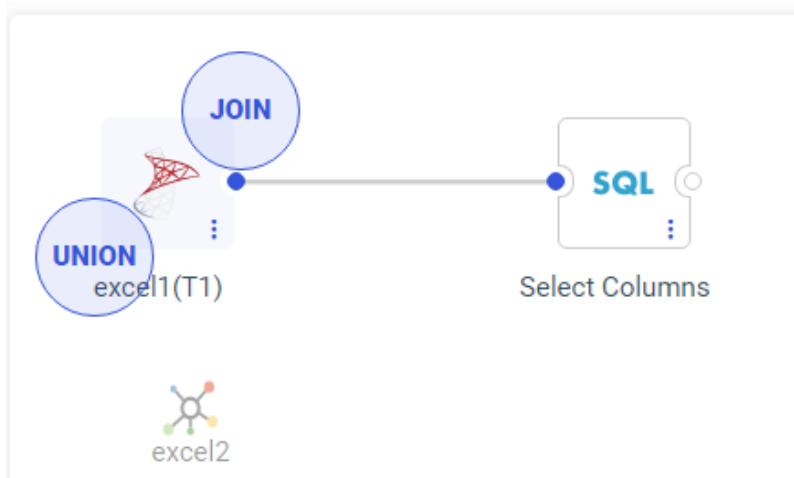
Again, select FULLNAME for Full,Name and LASTNAME for Name, click *Apply Changes*, and then *Load*.

### Creating a Union

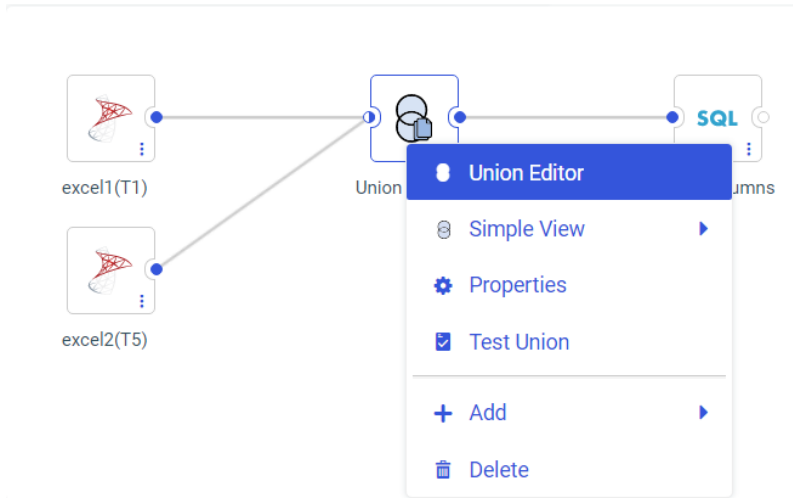
Now that the files have been uploaded and the synonyms have been generated with the classifications, click the New (+) button on the Server Console ribbon, and click *Flow*.

The Data Flow canvas opens.

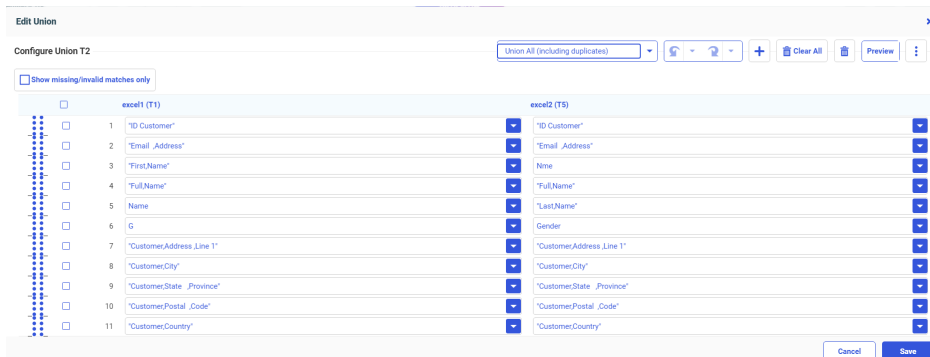
Drag Excel1 to the flow canvas, then drag Excel2 to the canvas and select Union, as shown in the following image.



A Union object is added to the flow. Right-click the Union object, and click *Union Editor*, as shown in the following image.



The Union Editor opens, as shown in the following image.

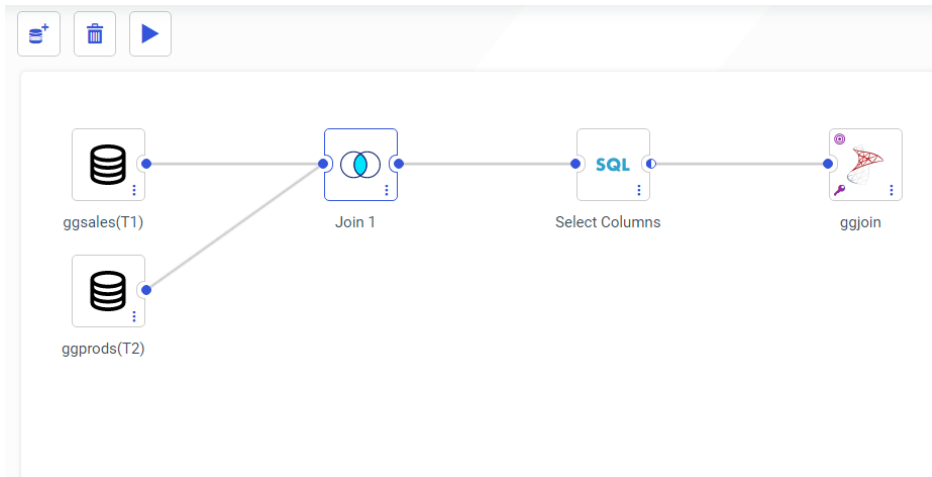


The classified fields are correctly matched. Fields that were not classified, such as Customer ID and Email Address, are matched based on column names and formats. If any matches are missing or incorrect, you can correct them using the drop-down lists.

## Joining to a Variable in a Data Flow

You will now be prompted to enter a value, if you create a join condition that compares a field to a variable, when that variable has no default value.

For example, the Data Flow in the following image joins the ggsales and ggprods data sources.



To open the Join Editor, right-click the Join object and click *Join Editor*.



To add a custom expression, click the *+Expression* button, as shown in the following image.

**Edit Join from SALES01 to PRODS01**

Configure 'Join 1'

Join Type

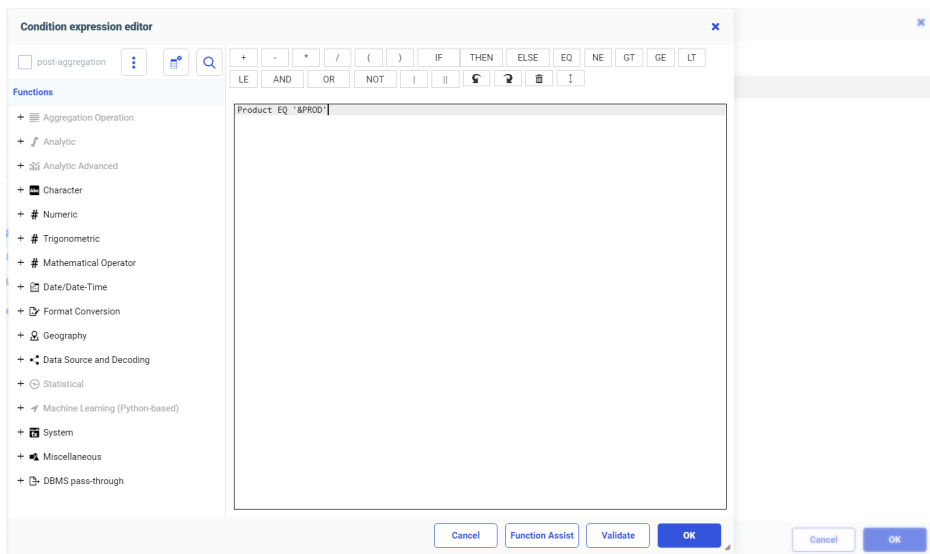
Inner Left Outer Right Outer Full Outer

Join Clauses

ggsales (T1)		ggprods (T2)	
Product ID	=	Product,Code	

+ + Expression Suggestions Clear All

The Expression Editor opens. Enter an expression that compares a field to a new variable that has not been assigned a default value, as shown in the following image.



Click OK to return to the Join Editor. The expression is now one of the Join conditions, as shown in the following image.

**Edit Join from SALES01 to PRODS01**

**Configure 'Join 1'**

Join Type

Inner

Left Outer

Right Outer

Full Outer

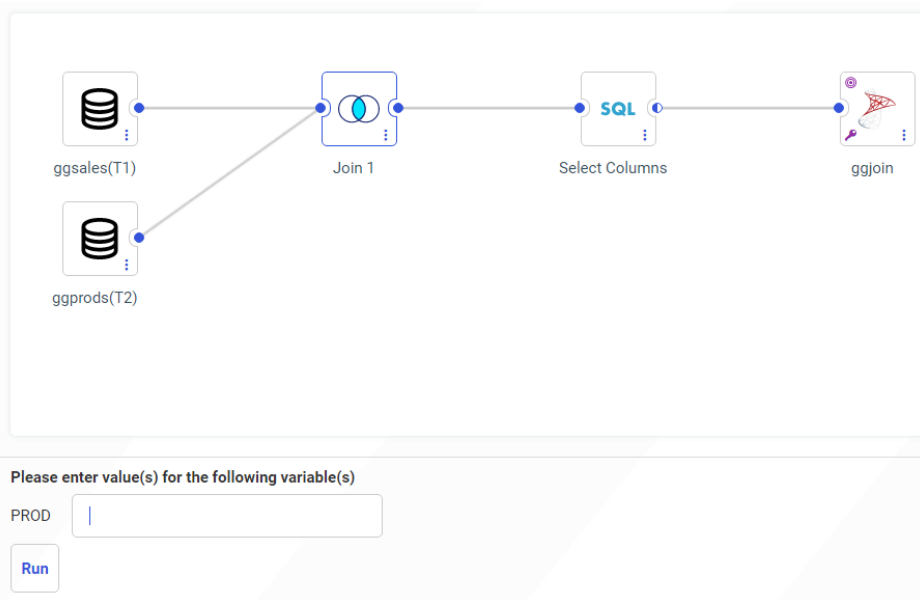
Join Clauses

ggsales (T1)		ggprods (T2)	
Product ID	=	Product,Code	
T1.Product	=	'&PROD'	

Expression
 Suggestions

Clear All

When you click *OK* and return to the Data Flow canvas, you are prompted to enter a value for the variable, as shown in the following image.



Enter a value for the variable, and click *Run*.

## Fixes

- ❑ Queries against an ElasticSearch synonyms that contain an ELASNEST segment results in errors: (FOC45640) Request Failed. HTTP Status: 400 Bad Request Reason: Bad Request (FOC45641) HTTP Response: {"error":{"root\_cause": [ {"type":"illegal\_argument\_exception","reason":"[nested] requires 'query' field" } ],"type":"illegal\_argument\_exception","reason":"[nested] requires 'query' field"},"status":400} (201204081)
- ❑ When joining to the input of a REST adapter Master File and the field is numeric, quotes are missing from around the value in the JSON body of the request. (201223055)
- ❑ When launching WebFOCUS Designer on a remote machine from a link in an HTML page, a cross-origin exception occurs. (210120080)
- ❑ When a control is chained, repeated clicks on the control causes an issue where a user cannot close the drop-down control. (201113001)
- ❑ When setting a button to refresh a drop-down control from the Tasks & Animation panel, it does not refresh the control when the drop-down is set to multiple. (210106019)

- ❑ Issue with filter drop-down control (popup style) shrinking after upgrade. (210127056)
- ❑ After loading a Saved Set of Parameters, the loaded value displays a "No data to display" error message. (201223001)
- ❑ When running a TABLE FILE request to a Vertica Master file, an error occurs if the user uses SEG.fieldname and ON TABLE SAMEDB. (200603049)
- ❑ When utilizing the STRREP function in a 942 - Japanese (Shift-JIS) environment, different characters are displayed. Issue does not occur in Unicode 65001. (210108004)
- ❑ Join to second segment defined via CRFILE results in crash agent on Windows and a FOC37001 error on Linux. (201103020)
- ❑ Traffic Lights causing errors when using different measure groups in InfoAssist report. (200820042, 210115048)
- ❑ Footer disappears when a report is run using 'KPI Table' chart extension (200918063)

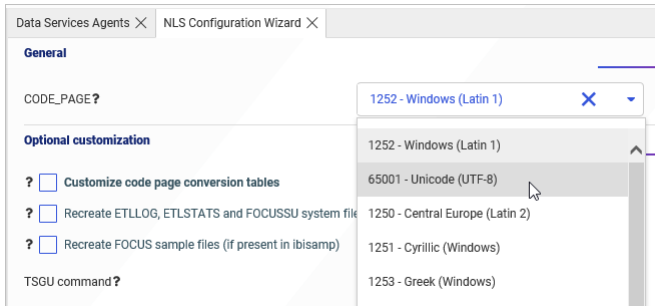
## Upgrade Notes

- ❑ As of Release 8207.26, WebFOCUS Help is configured, by default, to use Online Help that is hosted by ibi servers. This Help configuration is applied for new installations or when upgrading from an earlier release. The installation package no longer includes the help files, which greatly reduces the installation file size and time required to install and configure the software. For more details, see the [Configuring WebFOCUS Help](#) topic in the WebFOCUS KnowledgeBase.
- ❑ As of Release 8207.25, WebFOCUS App Studio Help is configured, by default, to use Online Help that is hosted by ibi servers. This Help configuration is applied for new installations or when upgrading from an earlier release. The installation package no longer includes the help files, which greatly reduces the installation file size and time required to install and configure the software.

For more details, see the [Configuring WebFOCUS App Studio Help](#) topic in the WebFOCUS KnowledgeBase.

In addition, the option to install and configure Tomcat is no longer applicable. Tomcat is removed from packaging and the installation program is adjusted to reflect these changes.

- ❑ When upgrading to Release 8207.21 and higher, ReportCaster might fail to start if there are encrypted password credentials in the configuration file. For example, for the SMTP Server, if the Java version that is used, does not contain the Java Cryptography Extension (JCE), ReportCaster might fail to start. In order for ReportCaster to work to encrypt and decrypt passwords, ReportCaster requires Java Cryptography Extension (JCE). This applies to both the Application Server and the ReportCaster Distribution Server. This is not an issue if you are using a current version of Java that includes the JCE by default, such as Java version 180\_62.
- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.
- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Designer Report Bucket and Display Option Name Updates

The following buckets, used to create reports in WebFOCUS Designer, have been renamed in order to better represent the behaviors of the fields added to them:

- ❑ The Columns bucket has been renamed to Column Groups. This bucket applies the WebFOCUS sort phrase ACROSS.
- ❑ The Summary display option and bucket have been renamed to Summaries. This bucket applies the WebFOCUS display command SUM.
- ❑ The Count display option and bucket have been renamed to Counts. This bucket applies the WebFOCUS display command COUNT.

The Count aggregation option has not been renamed.

- ❑ The Detail display option and bucket have been renamed to Details. This bucket applies the WebFOCUS display command PRINT.

The Detail bucket used in charts such as scatter plots and box plots, which uses a single field to provide a set of values to represent in the chart, has not been renamed.

- ❑ The Detail with counter display option and bucket has been renamed to Details with counter. This bucket applies the WebFOCUS display command LIST.

The behaviors of these display options and buckets have not changed.

## Reordered Reset and Submit Buttons in Assembled Pages

When assembling new pages from existing content in WebFOCUS Designer, the order of the Reset and Submit buttons, used to reset or apply filter selections, has switched. The Reset button now appears on the left and the Submit button appears on the right, in order to match the standard button order used in WebFOCUS user interfaces, as shown in the following image.

The image shows a portion of a WebFOCUS user interface. At the top, there are two dropdown menus: 'Category:' and 'Product Model:', both currently set to 'All'. Below the 'Category:' dropdown is a 'Date Range:' field with a calendar icon. To the right of the 'Date Range:' field are two buttons: 'Reset' and 'Submit'. The 'Reset' button is on the left and the 'Submit' button is on the right, which is the new order mentioned in the text.

Pages previously created with these buttons are not affected, and you can manually change the order by dragging the Reset or Submit button to the other side of the cell.

For more information, see the *Choosing an Event Model for Your Page Filter* topic on the WebFOCUS KnowledgeBase.

### Known Issues

- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

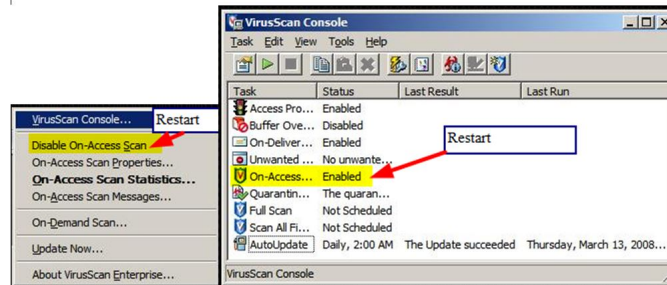
When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltre
rChain.java:166) ~
```



As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

## Browser Information

This release is certified and has been tested with Google Chrome version 88, Firefox version 85, Microsoft Edge Chromium version 87 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



## 8207.25 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [Browser Information](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Friday, February 5, 2021	wf013021a Gen 5 wi013021a as013021a	8207.25 Gen 1930

### New Features

#### Enhancements to Filter Control Loading in Assembled Pages

Enhancements have been made to improve the run-time performance of pages assembled from existing content to which multiple filters have been added. These enhancements especially improve the performance and reduce the initial loading time of assembled pages with multiple filter controls and filter chaining.

Previously, filter controls in assembled pages were populated with values when the page initially loaded. The loaded filter control values included all possible combinations of chained values. This delayed the loading of content that was dependent on values from those filter controls. Now, to improve performance and make loading more efficient, default values for all filters are loaded first, allowing filtered content on the page to load sooner. Additionally, chained filters are not populated until they are used, so that values do not load until they are needed.

To learn more about filters in pages assembled from existing content, see the *Applying Prompted Filters From External Content* topic on the WebFOCUS KnowledgeBase.

### Prefix Operators for Dimension Fields Aggregated in Reports

In order to provide more flexibility in how values from your data can be reinterpreted in your content, the number of available prefix operator aggregation options has been expanded for dimension fields added to the Summaries or Counts bucket of a report in WebFOCUS Designer.

To set the prefix operator aggregation, right-click a field in a measure bucket in a chart or report, point to *Aggregate*, and select an option.

The following aggregation options are available for dimension fields in the Summaries or Counts bucket of a report:

- Count
- Count distinct
- Percent of count
- Minimum
- Maximum
- First value
- Last value

The Count, Count distinct, and Percent of count options allow you to display information about the distribution of your data, while the Minimum, Maximum, First value, and Last value options allow you to see significant, unique values in the data set.

When dimension fields are added to a measure bucket in a chart, the following aggregation options are available:

- Count

- Count distinct
- Percent of count

The prefix operator aggregation options available for measure fields are unchanged. For more information, see the *Using Prefix Operator Aggregation Functions* topic on the WebFOCUS KnowledgeBase.

## Adapter for Microsoft Dynamics CRM: New Mappings for Long String/Memo and Image Data Types

In prior releases of the Adapter for Microsoft Dynamics CRM, a column defined as StringType with a MaxLength greater than 1024, or a column defined as MemoType, had metadata generated with format attributes USAGE=TX80L and ACTUAL=TX. In addition, columns defined as ImageType were not included in the generated metadata.

Now, StringType columns with MaxLength greater than 1024, and MemoType columns, are created with USAGE=STRING and ACTUAL=STRING. STRING is a character data type with no length specification. Also, ImageType columns are created with USAGE=BLOB and ACTUAL=BLOB.

Images stored as BLOB columns can be added to report output using the following StyleSheet declaration.

```
TYPE=DATA, COLUMN=columnname, IMAGE=(columnname), SIZE=(w h), $
```

where:

*columnname*

Is the name of the column that contains the image.

*w*

Is the width of the image specified in the units identified by the UNITS parameter.

*h*

Is the height of the image specified in the units identified by the UNITS parameter.

### **Example:** Displaying an Image Column on a Report

The ACCOUNT Master File has an ImageType column named ENTITYIMAGE generated with USAGE=BLOB and ACTUAL=BLOB.

```
FIELDNAME=ENTITYIMAGE, ALIAS=entityimage, USAGE=BLOB, ACTUAL=BLOB,
MISSING=ON,
REFERENCE=ACCOUNT, $
```

The following request prints the image stored in the ENTITYIMAGE field.

```
TABLE FILE ACCOUNT
PRINT
  NAME
  ENTITYIMAGE AS 'PICTURE'
WHERE NAME EQ 'Josh James'
ON TABLE SET PAGE NOPAGE
_*****
-* Lines between asterisk lines required for BLOB image support
-* for HTML and DHTML formats.
ON TABLE SET HTMLRENDERING AUTO
-* Required to support IE8 with images larger than 32K
ON TABLE SET HTMLARCHIVE ON
-*Required for image positioning in subheads in HTML reports
ON TABLE SET HTMLCSS ON
_*****
ON TABLE PCHOLD FORMAT HTML
ON TABLE SET STYLE *
TYPE=REPORT,COLOR=BLUE, FONT=ARIAL, GRID=OFF,$
TYPE=HEADING, SIZE = 18, COLOR=RED,$
TYPE=DATA, COLUMN=ENTITYIMAGE, IMAGE= (ENTITYIMAGE) ,SIZE=(1 1) ,$
ENDSTYLE
END
```

The output is shown in the following image.



## Fixes

- The Export To Microsoft Office product does not display the appropriate chart type, instead, it uses Microsoft default chart type when exporting from a pivot. (180726001)
- When scrolling through pages, the table display is corrupted. This issue only occurs in Legacy In-Document Analytics in Chrome, Firefox, and Edge browsers. (201216005)

- ❑ After unfreezing a FREEZE-COLUMN in an active report, the columns are still frozen. This impacts Legacy In-Document Analytics, not Designer Style In-Document Analytics. (201224037)
- ❑ Some HTML pages built in App Studio remain blank and need to be run multiple times. (201217061)
- ❑ When a full-width space is passed to Display value(parameter\_TEXT), it will be output as a half-width space. (210104138)
- ❑ When using the WF\_composer\_add\_ALL\_always=YES option, only Admin level users are able to see the correct behavior. (210106039)
- ❑ When a list box control is populated dynamically with a list of procedures and uses the Values are Procedures option, other parameters from the form are not passed on to the procedures being used. (201211059)
- ❑ Internal exception error occurs when a folder or file filename contains the ≈ character. (201002001)
- ❑ When running a visualization with Insight, changing sort order or changing the aggregation type does not take effect. (201118115)
- ❑ Unable to add BIN values to the Group bucket in WebFOCUS Designer when creating a Tree Map chart. (201209133)
- ❑ FOC error is not visible after creating a Hold file in a temporary location when using InfoAssist Sample Data for an In list parameter. (200817005)
- ❑ When creating a Define field, InfoAssist does not display all information (such as Title, Description, Name, Alias) from fields in a single page, and the first column is not resizable. (201005007)
- ❑ With NLS configured for 1252 encoding, a report won't run if the folder it resides in contains accent characters. Works when NLS is configured for UTF8. (201015073)
- ❑ When editing Users, Groups, or Roles that have leading zeros in the name, Security Center truncates the leading zeros. (190329001)
- ❑ Password in site.wfs visible in trace using External Security. (201112115)
- ❑ Results of an optimized TABLE command for a Hyperstage table (view) containing >2147483647 rows are incorrect. (201006142)
- ❑ Issue with Salesforce® adapter after upgrade installation. (201221017)

- ❑ Y-axis labels and legend labels do not display correctly when SET LAYOUTRTL=ON is applied on JSCHART or AHTML charts. (201123022)
- ❑ If you set up an area chart and apply a minimum to the y-axis, the area colors overflow past the boundaries of the chart itself. (201201034)
- ❑ When filtering a date-time field in Designer, the selected range ends at 00:00:00.000 on the end date, excluding most of the last day. (200901019)

## Upgrade Notes

- ❑ As of Release 8207.25, WebFOCUS App Studio Help is configured, by default, to use Online Help that is hosted by ibi servers. This Help configuration is applied for new installations or when upgrading from an earlier release. The installation package no longer includes the help files, which greatly reduces the installation file size and time required to install and configure the software.

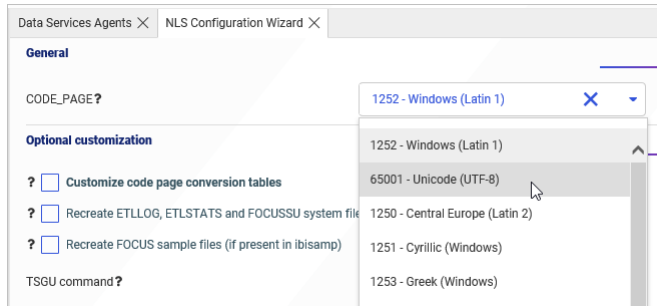
For more details, see the [Configuring WebFOCUS App Studio Help](#) topic in the WebFOCUS KnowledgeBase.

In addition, the option to install and configure Tomcat is no longer applicable. Tomcat is removed from packaging and the installation program is adjusted to reflect these changes.

- ❑ When upgrading to Release 8207.21 and higher, ReportCaster might fail to start if there are encrypted password credentials in the configuration file. For example, for the SMTP Server, if the Java version that is used, does not contain the Java Cryptography Extension (JCE), ReportCaster might fail to start. In order for ReportCaster to work to encrypt and decrypt passwords, ReportCaster requires Java Cryptography Extension (JCE). This applies to both the Application Server and the ReportCaster Distribution Server. This is not an issue if you are using a current version of Java that includes the JCE by default, such as Java version 180\_62.
- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.



- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Designer Report

### Bucket and Display Option Name Updates

The following buckets, used to create reports in WebFOCUS Designer, have been renamed in order to better represent the behaviors of the fields added to them:

- ❑ The Columns bucket has been renamed to Column Groups. This bucket applies the WebFOCUS sort phrase ACROSS.
- ❑ The Summary display option and bucket have been renamed to Summaries. This bucket applies the WebFOCUS display command SUM.
- ❑ The Count display option and bucket have been renamed to Counts. This bucket applies the WebFOCUS display command COUNT.

The Count aggregation option has not been renamed.

- ❑ The Detail display option and bucket have been renamed to Details. This bucket applies the WebFOCUS display command PRINT.

The Detail bucket used in charts such as scatter plots and box plots, which uses a single field to provide a set of values to represent in the chart, has not been renamed.

- ❑ The Detail with counter display option and bucket has been renamed to Details with counter. This bucket applies the WebFOCUS display command LIST.

The behaviors of these display options and buckets have not changed.

## Known Issues

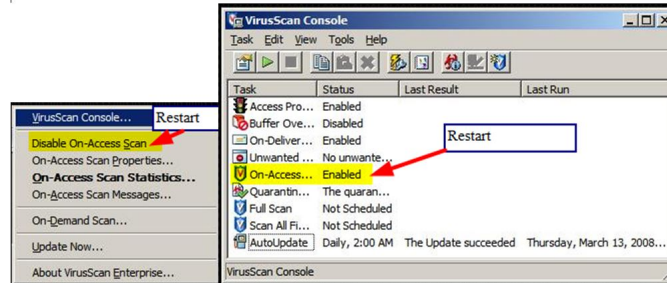
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltere
rChain.java:166) ~
```

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

## Browser Information

This release is certified and has been tested with Google Chrome version 87, Firefox version 84, Microsoft Edge Chromium version 87 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



# Chapter 8

## 8207.24 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [Browser Information](#)

### Release and Gen Information

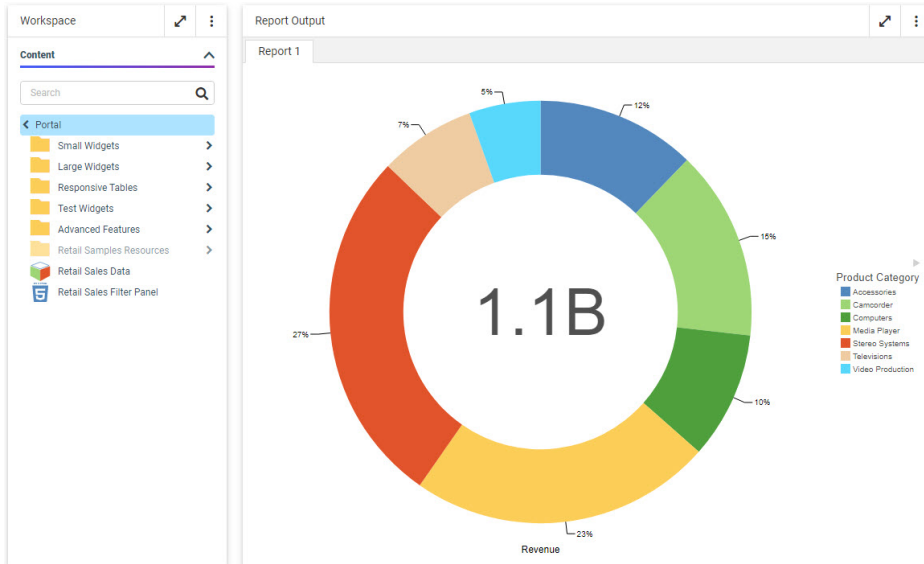
Release Date	Gen Information	Reporting Server
Friday, January 22, 2021	wf01152021 Gen 7 wi01152021 as01152021	8207.24 Gen 1929

### New Features

#### Using the Workbench Template to Run Content Items in a Page

When assembling pages from existing content in WebFOCUS Designer, you can use the Workbench template to provide access to content saved to your Repository. The Workbench template provides a resource tree that is linked to another container on the page. When you run a page created from the Workbench template, you can run content from your repository in the target container, providing access to numerous content items from a single page.

To add the Workbench template to a page, select it from the Choose Template dialog box when you start assembling a page from existing content. It is not recommended to delete either of the containers that are added as part of the template, but if you right-click the target container and point to *Convert to*, you can change it from a tab container to a basic panel, or to an accordion or carousel container. You can also change the theme used in the page and the styles used by each of the containers. When you run the page, you can run content items from your Repository, listed in the resource tree, in the section of the target container that is currently visible, by double-clicking them or by right-clicking them and clicking *Run*. To run an item in a new section of a tab, accordion, or carousel container, right-click it and click *Run in New Area*. This option is not available if you change the target container to a basic panel. Running items in a new area allows you to see the items that you previously ran by returning to the tab, accordion panel, or carousel slide where you ran them. The Workbench template is shown at run time in the following image.




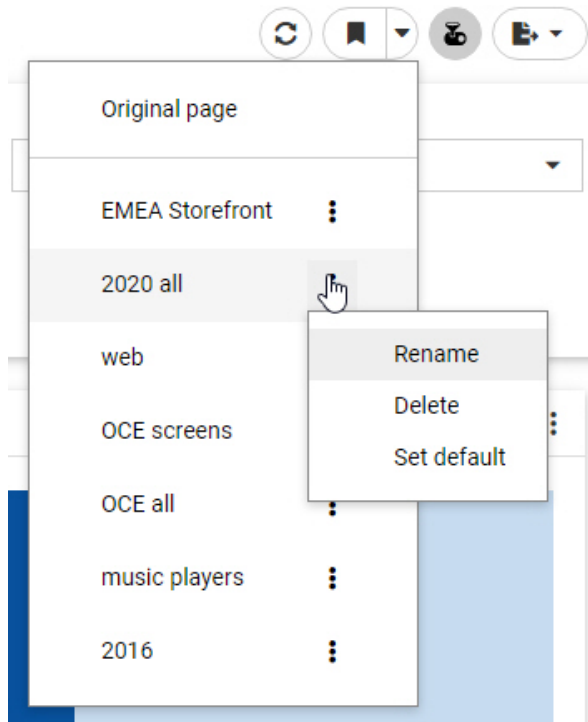
For more information, see the *Providing Access to Content Items and WebFOCUS Tools* topic on the WebFOCUS KnowledgeBase.

### Bookmarking Control Selections in a Page

Bookmarking allows users to save filter control selections and other run-time content customizations that they make in a page so that they can easily reapply them when they run the page again later. This is especially useful when there are many filter controls on a page that a user may want to apply each time they access it. Bookmarks are personal to each user and can easily be created and deleted as needed.

Bookmarking is enabled automatically once the page has been saved, and is available in authored pages created with new content and in assembled pages built from existing content. To add a bookmark, make some filter selections when running a page, and then click the

*Bookmarks* button , which appears on the page toolbar at run time. You are prompted to type a name for the bookmark. Click *OK* to apply it. A maximum of 46 characters display for each bookmark name. Once applied, the bookmark is added to the list, which you can open by clicking the drop-down menu arrow next to the Bookmarks button. Select a bookmark from the list to refresh the page and apply the associated set of filter values. The bookmark list also includes the *Original page* option, which reloads the page with the default filter values selected. From the bookmark list, you can also use the menu for each existing bookmark to rename or delete the bookmark, or make it your personal default set of filter values when you load the page, as shown in the following image.



Each user can create a maximum of ten personal bookmarks for a page. If you reach this limit on a page, delete an existing bookmark to add a new one. The *Original page* bookmark is always available and cannot be deleted.

Bookmarks also save certain user customizations made in the page. For example, if you use on-chart filtering in an authored page at run-time to create a new filter, you can create a bookmark to save it. In authored pages, you can also change the filter condition from included values to excluded values and change the aggregation operation, and in assembled pages, you can change the content that displays in unlocked containers. All of these changes are saved when you create a new bookmark.

## Viewing Checkpoint Files Generated by a Change Data Capture (CDC) Process

When you run a flow, a Checkpoint file is generated or, if it already exists, is updated. The Checkpoint file is in a proprietary internal binary format, so users cannot read it to see what happened during the processing. Now, a viewer for checkpoint files has been implemented that will show the checkpoint file contents in readable JSON format.

**Note:** The contents of a checkpoint file are specific to the DBMS being used.

In order for CDC to be enabled, the tables used must be log-enabled. The Data Flow is then run using the Log file as the source and Change Data Capture as the load option.

1. Create a synonym for the Table Log Records, as shown in the following image. You can create a new application folder to contain the log synonym and log file.

**Note:** This example uses Db2 tables on a server running on IBM i.

Create Synonym for DB2/DB2 Warehouse (CON1)

Object Type  Library  Supply value to avoid system-wide search, sample: S999

Table Name

Miscellaneous Parameters

Customize data type mappings

Create:  Cluster Synonym  Cluster Join for Star Schema  Base Synonym

Application  Prefix  Suffix

SYNONYM CANDIDATES Row Limit: 50 Search

Select	Default Synonym Name	Table Name	Library/Schema	Type
<input type="radio"/>	c1_tmix91b	C1_TMIX91B	DD999	Log Records
<input type="radio"/>	c1_tmix91c	C1_TMIX91C	DD999	Log Records
<input type="radio"/>	c1_tmix91d	C1_TMIX91D	DD999	Log Records
<input type="radio"/>	c1_tmix91e	C1_TMIX91E	DD999	Log Records
<input type="radio"/>	c1_tmix91m	C1_TMIX91M	DD999	Log Records
<input type="radio"/>	c1_trddc1	C1_TRDDC1	DD999	Log Records
<input type="radio"/>	c1_trddc2	C1_TRDDC2	DD999	Log Records
<input type="radio"/>	c1_trdxmla	C1_TRDXMLA	DD999	Log Records

Cancel Add

2. Select the table for which you want to create a synonym. If necessary, add a prefix or suffix that will identify this as a synonym for a log table, optionally change the default synonym name, and click *Add*.



The Synonym Editor opens.

3. Make any changes that are necessary, and click the right arrow on the ribbon to save the synonym.

The synonym contains variables that control the CDC processing. You can edit them in the Synonym Editor or in the Text Editor. To open the synonym in the Text Editor, right-click the synonym on the Resources tree, point to *Metadata Management*, and click *Edit as Text*.

The synonym opens as text, as shown in the following image.

```
FILENAME=C1_TRDCDC1_LOG, SUFFIX=DB2      , $
VARIABLE NAME=&&CDC_POLLING,
  PROMPT='DBMS log polling interval (in seconds) for LUW',
  USAGE=I5, DEFAULT='1', $
VARIABLE NAME=&&CDC_TIMEOUT,
  PROMPT='Timeout interval (in seconds) to listen DBMS log for LUW',
  USAGE=I5, DEFAULT='1', $
VARIABLE NAME=&&CDC_START,
  PROMPT='Starting point in reading log records',
  DEFAULT='CHKPT', ACCEPT=
  DECODE(<'CHKPT - After last LUW retained in checkpoint file',
  'CHKPT'>, <'CUR_TRAN - First LUW after DBMS log reading started',
  'CUR_TRAN'>, <'CUR_LOG - First available LUW in DBMS log',
  'CUR_LOG'>), $
VARIABLE NAME=&&CDC_MAXLUWS,
  PROMPT='Maximum number of LUWs processed in the request',
  USAGE=I10, DEFAULT='1', $
VARIABLE NAME=&&CDC_CHKPT_SAVE,
  PROMPT='Retain last processed LUW in checkpoint file',
  DEFAULT='YES', ACCEPT=
  DECODE(<'YES - Retain last processed LUW in checkpoint file', 'YES'>,
  <'NO - Don't retain LUWs in checkpoint file', 'NO'>), $
VARIABLE NAME=&&CDC_CHKPT_FILE,
  PROMPT='Checkpoint file location', USAGE=A99, DEFAULT=' ', $
VARIABLE NAME=&&CDC_LOG_NAME,
  PROMPT='DBMS log file name', DEFAULT=' ', $
VARIABLE NAME=&&CDC_LOG_LOCATION,
  PROMPT='DBMS log file location', DEFAULT=' ', $
VARIABLE NAME=&&CDC_COMMIT_MODE,
  PROMPT='Transactions Commit Mode',
  DEFAULT=' ', ACCEPT=
  DECODE(<'ON - Transactions Committed', 'ON'>,
  <'OFF - Transactions Autocommit', 'OFF'>), $
```

```

SEGMENT=C1_TRDCDC1_LOG, SEGTYPE=S0, $
  FIELDNAME=CDC_OPER, ALIAS=__C1, USAGE=A1, ACTUAL=A1, $
  FIELDNAME=CDC_TID, ALIAS=__C2, USAGE=A32, ACTUAL=A32, $
  FIELDNAME=CDC_TIMES, ALIAS=__C3, USAGE=A26, ACTUAL=A26, $
  FIELDNAME=FA01INT, ALIAS=FA01INT, USAGE=I11, ACTUAL=I4, $
  FIELDNAME=FA02INT, ALIAS=FA02INT, USAGE=I11, ACTUAL=I4,
  MISSING=ON, $
  FIELDNAME=FA03REAL, ALIAS=FA03REAL, USAGE=D20.2, ACTUAL=D8,
  MISSING=ON, $
  FIELDNAME=FA04NUMERIC16X4, ALIAS=FA04NUMERIC16X4,
  USAGE=P19.4, ACTUAL=P9, MISSING=ON, $
  FIELDNAME=FA05NUMERIC, ALIAS=FA05NUMERIC, USAGE=P16, ACTUAL=P8,
  MISSING=ON, $
  FIELDNAME=FA06CHAR_5, ALIAS=FA06CHAR_5, USAGE=A5, ACTUAL=A5,
  MISSING=ON, $
  FIELDNAME=FA07VARCHAR_5, ALIAS=FA07VARCHAR_5, USAGE=A5V, ACTUAL=A5V,
  MISSING=ON, $
  FIELDNAME=FA08CHAR_10, ALIAS=FA08CHAR_10,
  USAGE=A10, ACTUAL=A10, MISSING=ON, $
  FIELDNAME=FA09VARCHAR_10, ALIAS=FA09VARCHAR_10,
  USAGE=A10V, ACTUAL=A10V, MISSING=ON, $
  FIELDNAME=FA10DATE, ALIAS=FA10DATE, USAGE=YYMD, ACTUAL=DATE,
  MISSING=ON, $
  FIELDNAME=FA11TSTAMP, ALIAS=FA11TSTAMP, USAGE=HYMDm, ACTUAL=HYMDm,
  MISSING=ON, $
  FIELDNAME=FA12TIME, ALIAS=FA12TIME, USAGE=HHIS, ACTUAL=HHIS,
  MISSING=ON, $

```

4. Edit the variable values, as follows:

- &&CDC\_MAXLUWS.** Optionally, change this to zero (0) in order to add all LUWs to the checkpoint file.
- &&CDC\_CHKPT\_SAVE.** Make sure this is set to YES, in order to retain the last processed checkpoint in the checkpoint file.
- &&CDC\_CHKPT\_FILE.** Optionally, add the checkpoint file name. The extension must be .chp.

For example:

```

VARIABLE NAME=&&CDC_MAXLUWS,
  PROMPT='Maximum number of LUWs processed in the request',
  USAGE=I10, DEFAULT='0', $
VARIABLE NAME=&&CDC_CHKPT_SAVE,
  PROMPT='Retain last processed LUW in checkpoint file',
  DEFAULT='YES', ACCEPT=
  DECODE(<'YES - Retain last processed LUW in checkpoint file',
  'YES'>,
  <'NO - Don't retain LUWs in checkpoint file', 'NO'>), $
VARIABLE NAME=&&CDC_CHKPT_FILE,
  PROMPT='Checkpoint file location',
  USAGE=A99, DEFAULT='mycheck.chp', $

```

- Run the flow with the log table as the source and your existing target, as shown in the following image.



Change the Load Option to Change Data Capture, as shown in the following image.

### Load Options

Load Option ?  
Change Data Capture

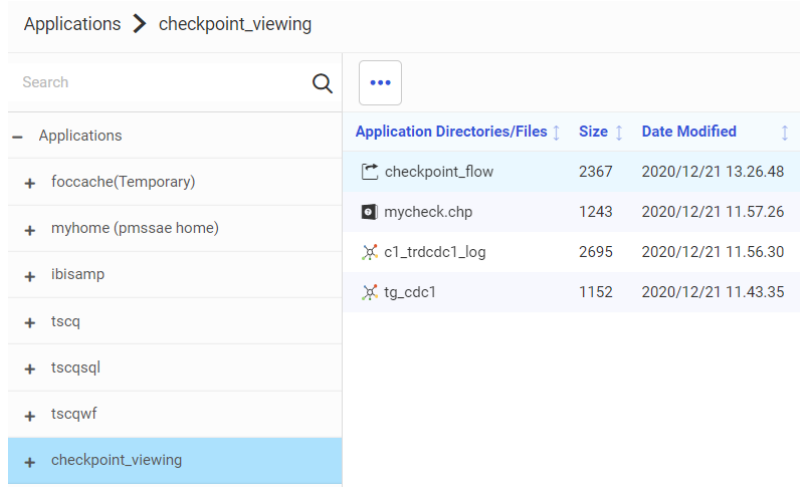
Prior to Load Option ?  
None

Select Target Synonym ?  
checkpoint\_viewing/tg\_cdc1.mas

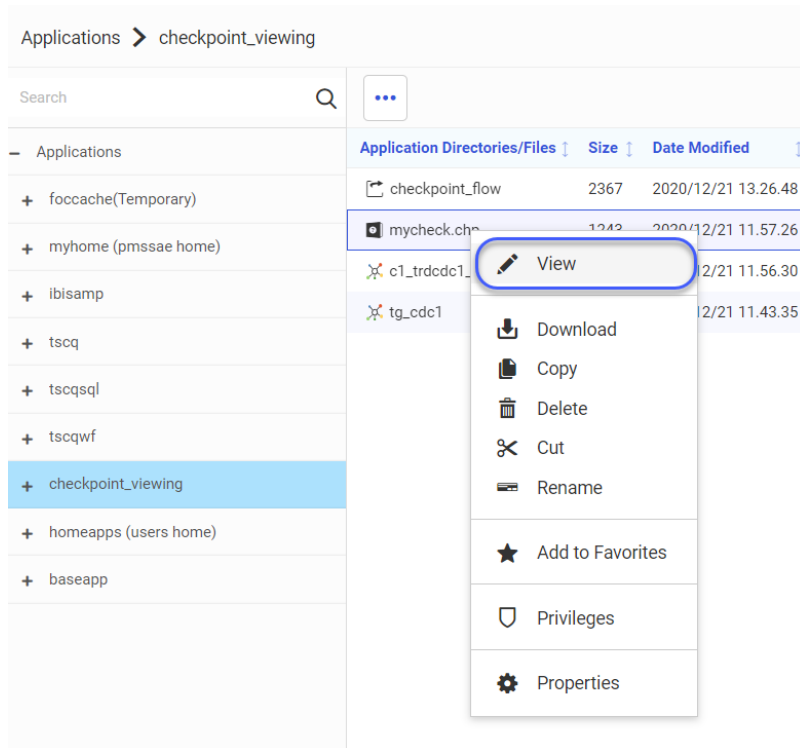
Control column ?  
CDC\_OPER

Cancel OK

The log file is generated in the application folder, as shown in the following image.



- To view the checkpoint file, either double-click the file or right-click the file and click *View*, as shown in the following image.



The checkpoint file is displayed in JSON format, as shown in the following image.

```
{
  "checkpoint": [
    {
      "name": "file",
      "value": "checkpoint_viewing/mycheck.chp",
      "description": "check point file full name"
    },
    {
      "name": "engine",
      "value": "DB2",
      "description": "data access adapter"
    },
    {
      "name": "catalog",
      "value": "*LOCAL",
      "description": "catalog / database name"
    },
    {
      "name": "table",
      "value": "DD999.C1_TRDCDC1",
      "description": "table name"
    },
    {
      "name": "chkp_id",
      "value": "###00000000000000000000",
      "description": "checkpoint ID / min entry LSN"
    },
    {
      "name": "commit_id",
      "value": "QSQRN0002##DD999    ##00000000000000199545",
      "description": "commit ID/LSN"
    },
    {
      "name": "tran_id",
      "value": "00000000000000199533",
      "description": "current transaction ID/LSN"
    },
    {
      "name": "timestamp",
      "value": "2020-12-21 06:27:58.630656000",
      "description": "transaction timestamp"
    }
  ]
}
```

## Adapter for Microsoft Dynamics CRM: Passing Client Credentials in the Body

You now have the option to pass the OAuth Grant Password Client ID and Client Secret in the Body of the Token request for the Adapter for Microsoft Dynamics CRM.

When configuring a connection, select the *Client Credentials in Body* check box, as shown in the following image.

The image shows a configuration window titled "Change Connect Parameters for Microsoft Dynamics CRM". It contains several sections: "Connect parameters" with a "Connection Name" field (value: CON01), "Dynamics CRM URL" (value: https://xxxxxxxxxxxx.crm.dynamics.com/api/data/v9.1), "Security" with an "OAuth Password" dropdown, and a checked checkbox for "Client Credentials in Body" which is pointed to by a red arrow. Below this are fields for "User", "Password", "Application ID", and "Application Secret". At the bottom right are "Test", "Cancel", and "Configure" buttons.

### Adapter for OData: Passing Client Credentials in the Body

You now have the option to pass the OAuth Grant Password Client ID and Client Secret in the Body of the Token request for the Adapter for OData.

When configuring a connection, select the *Client Credentials in Body* check box, as shown in the following image.

**Add Connection for OData OAuth**

**Connect parameters**

Connection Name: CON01

Base Url: https://services.odata.org/V4/Northwind/Northwind.svc/

Show Sample URLs

Security: OAuth

OAuth Grant Type: Password

Client Credentials in Body

User: [Empty field]

Password: [Empty field]

Client ID: [Empty field]

Test Back Configure

## Adapter for OData: Additional Token Parameters for OAuth Client Credentials

When you configure the Adapter for OData with OAuth Client Credentials authentication, you can add additional token parameters to be sent in the token request, as shown in the following image.

**OAuth Configuration for OData Connection**

CON01

Base Url: [Empty field]

Show Sample URLs

Security: OAuth

OAuth Grant Type: Client Credentials

Client ID: [Empty field]

Client Secret: [Empty field]

Token URL: [Empty field]

Additional Token Parameters: [Empty field]

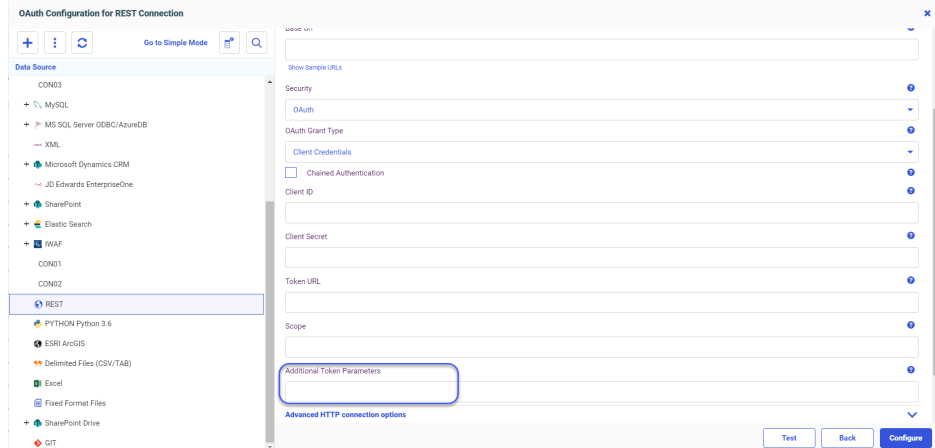
Advanced connection options

Environment

Test Back Configure

## Adapter for REST: Additional Token Parameters for OAuth Client Credentials

When you configure the Adapter for REST with OAuth Client Credentials authentication, you can add additional token parameters to be sent in the token request, as shown in the following image.



## Adapters for SharePoint and SharePoint Drive: Passing Client Credentials in the Body

You now have the option to pass the OAuth Grant Password Client ID and Client Secret in the Body of the Token request for the Adapters for SharePoint and SharePoint Drive.



When configuring a connection, select the *Client Credentials in Body* check box, as shown in the following image for the Adapter for SharePoint Drive.

The image shows a configuration window titled "Change Connect Parameters for SharePoint Drive". The window contains several sections for setting up a connection:

- Connect parameters**: A section header with an upward arrow icon.
- Connection Name**: A text input field containing "CON01".
- SharePoint URL**: A text input field containing "https://xxxxxxxxx.sharepoint.com/\_api/v2.1". Below this field is a "Show Sample" link.
- Security**: A dropdown menu currently set to "OAuth Password".
- Client Credentials in Body**: A checkbox that is checked, with a red arrow pointing to it from the left.
- User**: A text input field.
- Password**: A text input field.
- Application ID**: A text input field.
- Application Secret**: A text input field.

At the bottom right of the window, there are three buttons: "Test", "Cancel", and "Configure".

The following image shows the *Client Credentials in Body* option selected for the Adapter for SharePoint.

Change Connect Parameters for SharePoint

**Connect parameters**

Connection Name  
CONT

Graph API URL  
https://graph.microsoft.com/v1.0  
[Show Sample](#)

Security  
OAuth Password

Client Credentials in Body

User

Password

Application ID

Application Secret

Test Cancel Configure

## Fixes

- In WebFOCUS Designer, during the initial run of a page, a chart sometimes does not fit in the window properly, until you press Refresh. (200616014)
- Assemble Visualizations is not ordering filters correctly for date fields with the Mtr format. (201020064)
- When AmperLazyLoading is enabled and two controls are chained in a hierarchy, the default value of the first control is not respected when populating the second control. (201203116)
- The list of available control types for a date field changes depending on whether or not AmperLazyLoading is active. (201203140)
- Pages in portals do not maintain page level CSS on second visit. (201203138)
- Tooltip does not display the correct value in a radar chart. (200714018)
- Calculated field does not allow a user to remove the default value for the title. (201008123)

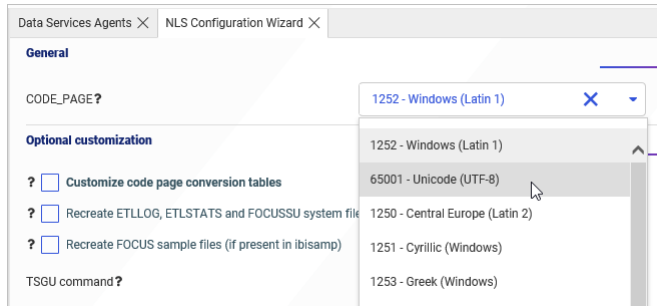
- ❑ Automatic Sign-Out no longer works from a Portal, and does not count down nor redirect to the Sign-Out landing page, but does work from the WebFOCUS Home Page. (201105086)
- ❑ Performance using ON TABLE HOLD FORMAT AHTML. (201009024)
- ❑ PDF documents using custom TrueTypeFonts which are created ON TABLE HOLD FORMAT PDF produce an error when opening them in Acrobat reader. (201130015)
- ❑ In AHTML report output, if you hide the first column, all the other columns are hidden as well when using RECOMPUTE, HFREEZE=ON, and FREEZE-COLUMN=Nn. (201125006)
- ❑ When hiding some columns of an active report, the vertical scroll bar disappears. (201124035)
- ❑ When selecting Data Profiling for a MS SQL table with bit type fields, the console returns an error. (200917094)
- ❑ Added the ability to add a Custom Header in the REST and OData Adapter Connection configuration in two new formats. (201120036)
- ❑ When using XML Write through Data Migrator, XML tags are not created when MISSING=ON and values are not defined with quotations. (201104050)
- ❑ Cannot create an ODBC User DSN when using the ODBC Connector (64bit) on Windows® 10. (201209001)
- ❑ When using a large SSAS cube with a lot of MEASGRPDIM in the Master File and then using ROW level security, it fails. (200224047)
- ❑ Ensure that values for fields with numeric field types, like USAGE=Pnn or USAGE=In, are not quoted within an array of a JSON Body for a REST adapter request. (201223010, 201223055)
- ❑ If the case of an Excel® file name in the DATASET= Master File attribute does not match a case of a real file name, the report will fail with an error. (201218131)
- ❑ jQuery Animations in an App Studio HTML page are not performing as required when using toggle. (201106085)
- ❑ Creating a Doublelist with Popup style and Add runtime Paging/Search, incorrect results are displayed after closing and reopening the search control. (201210153)
- ❑ After creating a Saved Set of Parameters in App Studio, if there is only one saved parameter, the tool does not allow you to select it. (201203011)

- ❑ Responsive Template unable to maximize report in full screen. (201218103)
- ❑ The size of the InfoWindow does not retain the size of the first InfoWindow if there are two InfoWindow controls. (210104002)
- ❑ App Studio crashes when creating and editing an HTML Mobile Design with Responsive Design. (210106011)
- ❑ Solr sometimes stops working when deleting the WebFOCUS cache. (201103022)
- ❑ Garbled text ("mojibake") occurs on Sybase® Japanese error messages. (201214005)
- ❑ The OLAP dimension tab names are wrapping over the fields. (200129140)

## Upgrade Notes

- ❑ When upgrading to Release 8207.21 and higher, ReportCaster might fail to start if there are encrypted password credentials in the configuration file. For example, for the SMTP Server, if the Java version that is used, does not contain the Java Cryptography Extension (JCE), ReportCaster might fail to start. In order for ReportCaster to work to encrypt and decrypt passwords, ReportCaster requires Java Cryptography Extension (JCE). This applies to both the Application Server and the ReportCaster Distribution Server. This is not an issue if you are using a current version of Java that includes the JCE by default, such as Java version 180\_62.
- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of Release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Designer Report

### Bucket and Display Option Name Updates

The following buckets, used to create reports in WebFOCUS Designer, have been renamed in order to better represent the behaviors of the fields added to them:

- ❑ The Columns bucket has been renamed to Column Groups. This bucket applies the WebFOCUS sort phrase ACROSS.
- ❑ The Summary display option and bucket have been renamed to Summaries. This bucket applies the WebFOCUS display command SUM.
- ❑ The Count display option and bucket have been renamed to Counts. This bucket applies the WebFOCUS display command COUNT.

The Count aggregation option has not been renamed.

- ❑ The Detail display option and bucket have been renamed to Details. This bucket applies the WebFOCUS display command PRINT.

The Detail bucket used in charts such as scatter plots and box plots, which uses a single field to provide a set of values to represent in the chart, has not been renamed.

- ❑ The Detail with counter display option and bucket has been renamed to Details with counter. This bucket applies the WebFOCUS display command LIST.

The behaviors of these display options and buckets have not changed.

## Known Issues

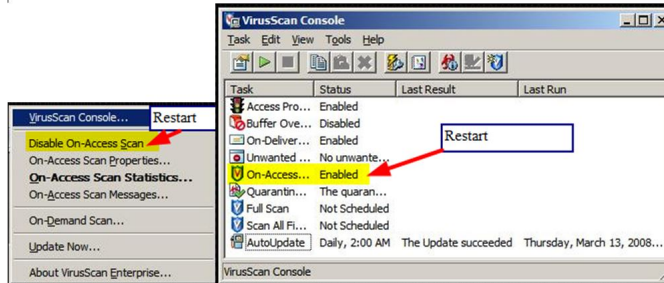
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltere
rChain.java:166) ~
```

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

## Browser Information

This release is certified and has been tested with Google Chrome version 87, Firefox version 83, Microsoft Edge Chromium version 87 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).





# Chapter 9

## 8207.23 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [Browser Information](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Thursday, January 7, 2021	wf123120b Gen 14 wi123120b as123120b	8207.23 Gen 1928

### New Features

#### International System (SI) Numeric Format Abbreviation Options

The International System standard provides numeric abbreviations for very large and very small numbers.

WebFOCUS supports the following SI-compliant numeric abbreviations. The SI-compliant format uses a two-character display code that consists of a lowercase *n* followed by the SI abbreviation.

<b>Prefix</b>	<b>WebFOCUS Format Code</b>	<b>Size</b>	<b>Example</b>	<b>English Name (American/British)</b>
yotta	nY	10**24	100000000000000000000000	septillion/quadrillion
zetta	nZ	10**21	10000000000000000000000	sextillion/trilliard
exa	nE	10**18	1000000000000000000000	quintillion/trillion
peta	nP	10**15	100000000000000000000	quadrillion/billiard
tera	nT	10**12	10000000000000000000	trillion/billion
giga	nG	10**9	1000000000	billion/milliard
mega	nM	10**6	1000000	million
kilo	nK	10**3	1000	thousand
milli	nm	10**(-3)	0.001	thousandth
micro	nu	10**(-6)	0.000001	millionth
nano	nn	10**(-9)	0.000000001	billionth/milliardth
pico	np	10**(-12)	0.0000000000001	trillionth/billionth
femto	nf	10**(-15)	0.000000000000001	quadrillionth/billiardth
atto	na	10**(-18)	0.0000000000000000001	quintillionth/trillionth
zepto	nz	10**(-21)	0.000000000000000000001	sextillionth/trilliardth
yocto	ny	10**(-24)	0.00000000000000000000001	septillionth/quadrillionth

The following request uses the mega and giga format options. The decimal precision is controlled by the format which, in this case, is a reformat specified in the SUM command.

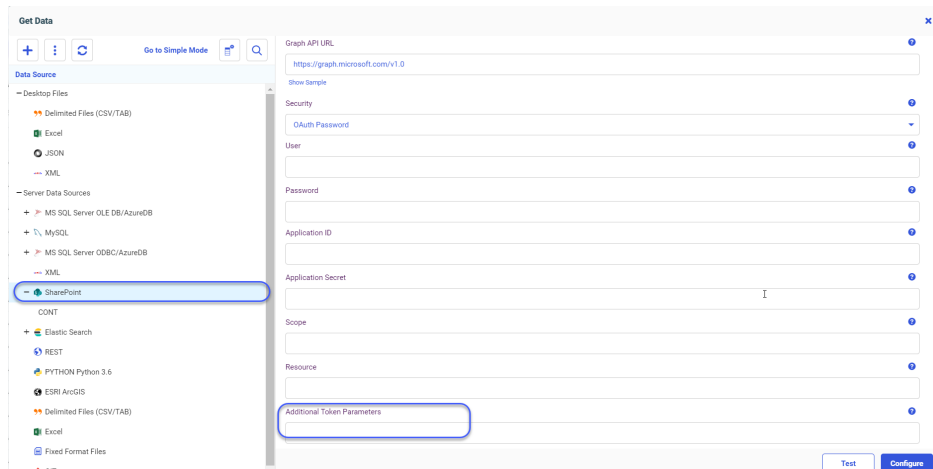
```
DEFINE FILE GGSALES
NEWDO LL/D12.2 = DOLLARS * 100;
END
TABLE FILE GGSALES
SUM DOLLARS NEWDO LL/D12.5nM AS Millions NEWDO LL/D12.3nG AS Billions
BY CATEGORY
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

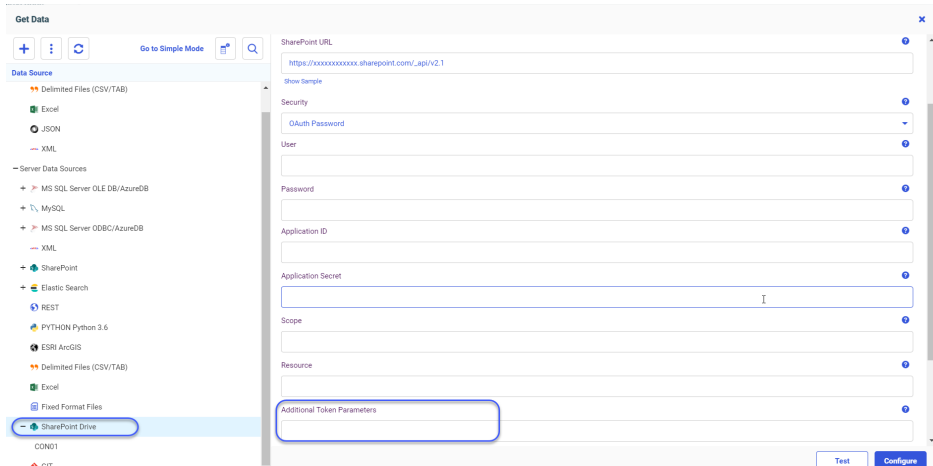
<u>Category</u>	<u>Dollar Sales</u>	<u>Millions</u>	<u>Billions</u>
Coffee	17231455	1,723.14550M	1.723G
Food	17229333	1,722.93330M	1.723G
Gifts	11695502	1,169.55020M	1.170G

## Adapters for SharePoint and SharePoint Drive: Support for Token Parameters With OAuth Grant Password Authentication

When you configure a connection for the Adapter for SharePoint or SharePoint Drive and select OAuth Grant Password authentication, you can add additional token parameters, as shown in the following image for the Adapter for SharePoint.



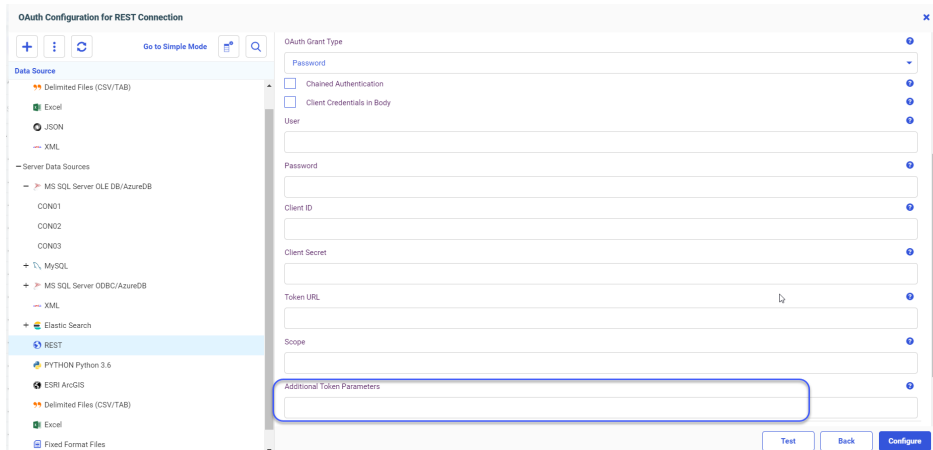
The following image shows the connection parameters for the Adapter for SharePoint Drive, with OAuth Grant Password authentication.



You can use this field to enter token parameters that may be required to connect to a specific SharePoint service, when the parameter is not part of the Scope.

### Adapter for REST: Support for Token Parameters With OAuth Grant Password Authentication

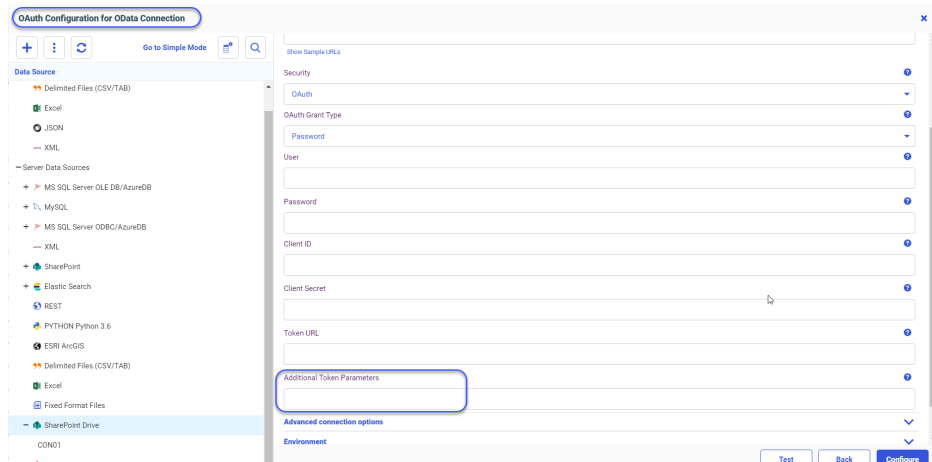
When you configure a connection for the Adapter for REST and select OAuth Grant Password authentication, you can add additional token parameters, as shown in the following image.



You can use this field to enter token parameters that may be required to connect to a specific REST service, when the parameter is not part of the Scope.

## Adapter for OData: Support for Token Parameters With OAuth Grant Password Authentication

When you configure a connection for the Adapter for OData and select OAuth Grant Password authentication, you can add additional token parameters, as shown in the following image.



You can use this field to enter token parameters that may be required to connect to a specific OData service, when the parameter is not part of the Scope.

## Adapter for Google Drive: Support for Google Slides

You can now create Google Slides using the Adapter for Google Drive.

The syntax is:

```
ON TABLE HOLD AS mappedapp/filename FORMAT PPTX
```

where:

*mappedapp*

Is a mapped Google Drive application.

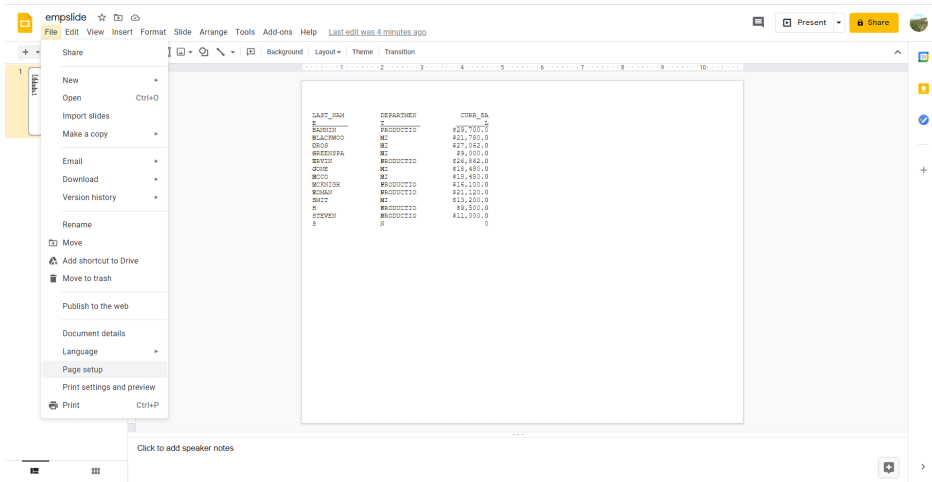
*filename*

Is the name of the Google Slide file to be generated.

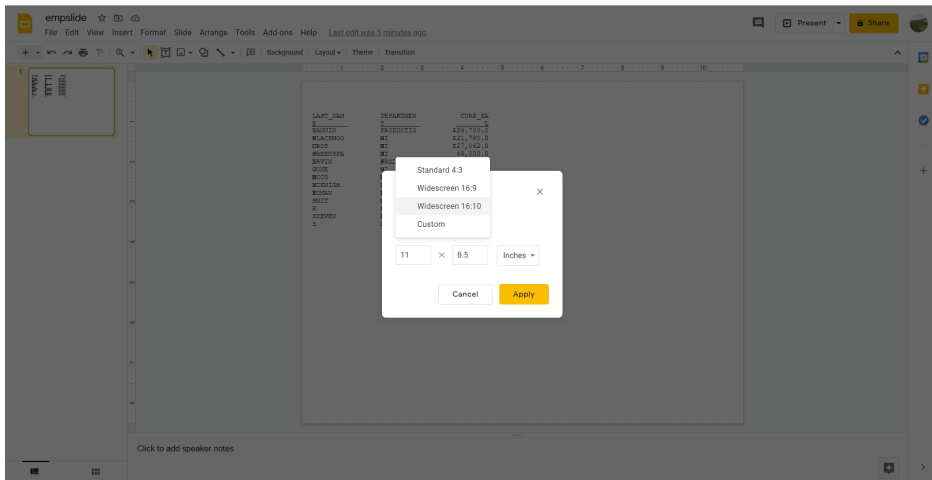
In the following example, the application directory `gdr01` is the application directory mapped to Google Drive. The following request uses the HOLD FORMAT PPTX command in the procedure.

```
TABLE FILE employe2
SUM CURR_SAL
BY LAST_NAME
BY DEPARTMENT
ON TABLE HOLD AS gdr01/empslide FORMAT PPTX
END
```

Sometimes, the page setup of the Google slide needs to be adjusted, as shown in the following image.



In this case, you can modify the Google slide page setup to have a different aspect ratio, as shown in the following image.



The following image shows the Google slide with the layout updated.

The screenshot shows a Google Slides presentation with a table of employee data. The table has three columns: LAST\_NAME, DEPARTMENT, and CURR\_SAL. The data is as follows:

LAST_NAME	DEPARTMENT	CURR_SAL
BANKING	PRODUCTION	\$29,700.00
BLAKWOOD	HR	\$24,780.00
CROSS	HR	\$27,062.00
GREENSPAN	HR	\$9,500.00
IRVING	PRODUCTION	\$26,862.00
JONES	HR	\$19,480.00
MCCOY	HR	\$15,480.00
MONTGOMERY	PRODUCTION	\$24,100.00
ROMANS	PRODUCTION	\$21,120.00
SMITH	HR	\$22,200.00
	PRODUCTION	\$9,800.00
STEVENSON	PRODUCTION	\$12,000.00

## Adapter for Microsoft Dynamics CRM: Support for Token Parameters With OAuth Grant Password Authentication

When you configure a connection for the Adapter for Microsoft Dynamics CRM and select OAuth Grant Password authentication, you can add additional token parameters, as shown in the following image.

The screenshot shows the 'Get Data' configuration window for Microsoft Dynamics CRM. The 'Data Source' is set to 'Microsoft Dynamics CRM'. The 'Security' dropdown is set to 'OAuth Password'. The 'Additional Token Parameters' field is highlighted with a blue box, indicating where users can enter custom token parameters.

You can use this field to enter token parameters that may be required to connect to a specific Dynamics CRM service, when the parameter is not part of the Scope.

## Fixes

- ❑ The client ID and Client Secret are sent as BASIC within the Authorization of the HTTP Header when using OAuth Password for Dynamics CRM, SharePoint, and OData adapters. (201130031)
- ❑ Slow Performance with ON TABLE HOLD FORMAT AHTML.
- ❑ When using a linear trendline, the equation label does not properly accept changes to the font size. (201105007)
- ❑ Esri maps created in prior WebFOCUS releases no longer render properly in 8207 if one of the layers is empty. (201111079)
- ❑ When using WebFOCUS with Kerberos authentication, the software fails to detect java if an OpenJDK distribution is used. This causes failures while deploying the WebFOCUS web application. (201126036, 201103039)
- ❑ Issue when using the Global Name option in Designer to keep the user's selection across pages. (200904017)
- ❑ Schedules are delayed for several minutes when the log contains a thousand lines.
- ❑ When using WRAP styling options with AUTOFIT ON, fields are being truncated when they still have room to display. (200828070)
- ❑ ARRAY\_ITEM Values duplicated with nested arrays. (201112051)
- ❑ When running a Data Flow that uses a REST API call, which sends an array item that has a start date and an end date, if the start and end dates are the same, the end date value is dropped from the Rest BODY of the request and all the other values shift over. (201116117)
- ❑ When changing the codepage to 62001, all Japanese SBCS katakana characters are broken and all graphic characters (ACTUAL=Kn) do not display on z/OS. (201021023, 201120050)
- ❑ When the CLM Server's workspace has NLS Codepage set to 65001/unicode, the Test of the CLM Cluster and any of it's member server connections, will fail. (201123075)
- ❑ In App Studio, making a selection from a drop-down menu causes the menu to reset and not display the selected value. (201111083)
- ❑ In App Studio, an error occurs when changing the title of a folder or fex through the ellipsis menu, twice in a row. (201021048)

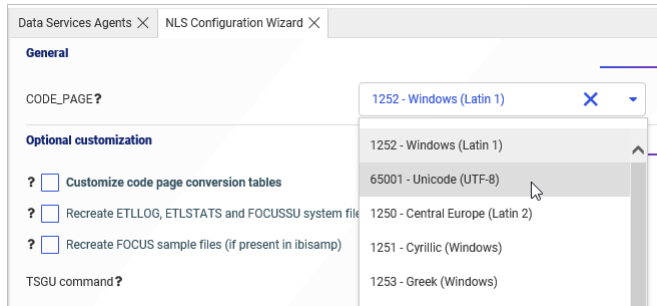


- ❑ When a Maintain procedure name contains a space, the application does not run correctly. (201201162)
- ❑ When creating a double list box or any controls in App Studio, the controls are generated at the top-left corner automatically. (201113011)
- ❑ If an AHTML report is associated with a radio button task to open the report in a new window, the event does not get triggered in App Studio. (201207074)
- ❑ When a colon is added to a report footer in conjunction with a WHERE filter in the App Studio Report canvas, source code is altered in source code and an error occurs. (201124114)
- ❑ Drilling down on a blank value generates a No Data to Display error and the report is not produced. (201026010)
- ❑ When using a set of -INCLUDE commands, the second -INCLUDE command is ignored and compiles the wrong focexec. (201204055, 201216124, 201217041, 201222014, 201229014, 210202060)

## Upgrade Notes

- ❑ When upgrading to Release 8207.21 and higher, ReportCaster might fail to start if there are encrypted password credentials in the configuration file. For example, for the SMTP Server, if the Java version that is used, does not contain the Java Cryptography Extension (JCE), ReportCaster might fail to start. In order for ReportCaster to encrypt and decrypt passwords, ReportCaster requires Java Cryptography Extension (JCE). This applies to both the Application Server and the ReportCaster Distribution Server. This is not an issue if you are using a current version of Java that includes the JCE by default, such as Java version 180\_62.
- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

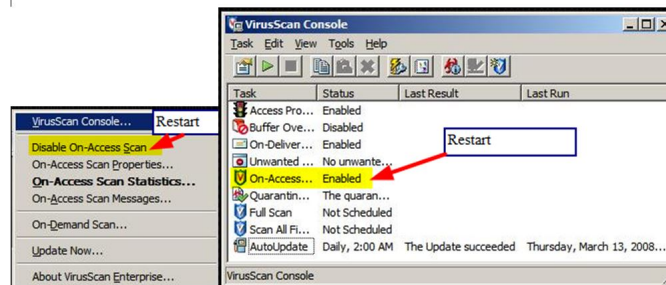
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltere
rChain.java:166) ~
```

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

### Browser Information

This release is certified and has been tested with Google Chrome version 87, Firefox version 83, Microsoft Edge Chromium version 86 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).

## 8207.22 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [Browser Information](#)
- 

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, December 14, 2020	wf121120c Gen 9 wi121120c as121120c	8207.22 Gen 1927

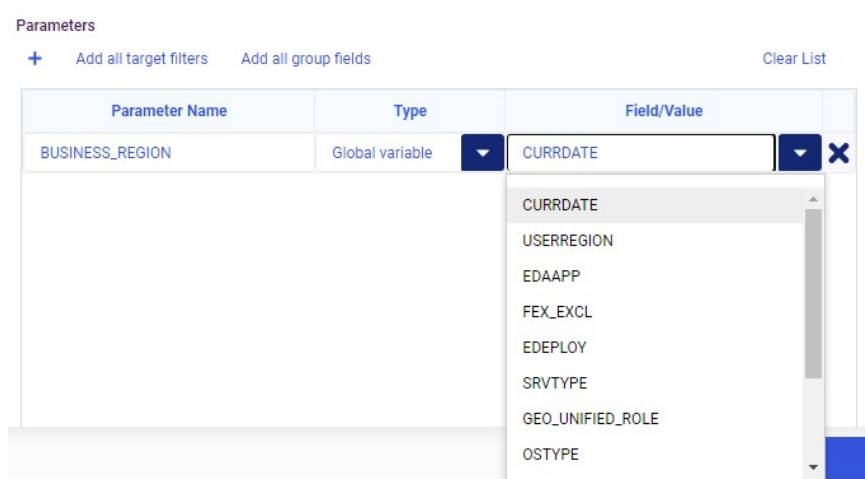
### New Features

#### Passing Global Variables Through Drilldowns

A global variable is a variable that maintains its value for the duration of a WebFOCUS session or until a different value is assigned. Global variables are identified by double ampersands. As opposed to local amper variables, which you can pass different values from a drilldown, to filter target content based on the value that you select, the best use for global variables is to maintain a single consistent value as you run different content items.

The advantage of using a global variable is that its value is not contingent on the content item that is passing it. A local variable, when passed through a drilldown, must be set in the parent procedure, so a field must be added that contains values that the local variables can pass. This is not the case for a global variable, which is set externally to the procedure. However, since the global variable is not set by the procedure that passes it, the drill-down value that you select will not affect the value that is passed, unless the global variable is set to be dependent on a local variable.

When creating drilldowns in WebFOCUS Designer, you can choose to pass a global variable as a parameter value, as an alternative to a static value or field value. If you choose to pass a global variable, you can choose the global variable that you want to pass from a menu that contains a list of all global variables defined in your environment, as shown in the following image.



Some of these global variables are automatically defined in your environment, and you can define others yourself by running a procedure that sets a value for a new global variable.

Once you select the global variable to pass as a parameter, you can use it to set filter values in the content that is the target of your drilldowns. To learn more, see the *Adding Drill-Down Links to Content* topic on the WebFOCUS KnowledgeBase.

### Adapter for REST: Passing Multiple Values to a Parameterized URL in a WHERE Phrase

If a WHERE phrase includes multiple values for a field that is defined as a parameter in the REST URL, multiple calls will be made to the REST service, one for each value.

For example, the following Master File, postalcodesearch1.mas, returns information for the default postal code 10024.

```
FILENAME=M6ILO, SUFFIX=REST, $
  SEGMENT=M6ILO, SEGTYPE=S0, $
    GROUP=HEADER, ALIAS=Header, ELEMENTS=1, $
      FIELDNAME=ID1, ALIAS=ID1, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE), $
      FIELDNAME=POSTALCODE, ALIAS=postalcode, USAGE=A30, ACTUAL=A30,
        ACCESS_PROPERTY=(NEED_VALUE), XDEFAULT='10024', $
      FIELDNAME=COUNTRY, ALIAS=country, USAGE=A30, ACTUAL=A30,
        ACCESS_PROPERTY=(NEED_VALUE), XDEFAULT='us', $
      FIELDNAME=MAXROWS, ALIAS=maxRows, USAGE=A30, ACTUAL=A30,
        ACCESS_PROPERTY=(NEED_VALUE), XDEFAULT='10', $
      FIELDNAME=USERNAME, ALIAS=username, USAGE=A30,
        ACTUAL=A30, ACCESS_PROPERTY=(NEED_VALUE), XDEFAULT='xxxxxx', $
      FIELDNAME=__RESPONSE, USAGE=TX80L, ACTUAL=TX,
ACCESS_PROPERTY=(INTERNAL), $
```

The corresponding Access File, postalcodesearch1.acx, has a parameter.

```
SEGNAME=M6ILO,
  CONNECTION=geonames,
  OBJECT=&ID1&,
  HEADER=HEADER,
  SERVICETYPE=REST,
  HTTPMETHOD=POST,
  RESTRESPONSE=JSON,
  HTTPBODY=ENCODE, $
```

The following procedure connects to the REST URL <http://api.geonames.org>, and has a WHERE phrase with two values.

```
SET END_OF_TEXT=' '
ENGINE REST SET CONNECTION_ATTRIBUTES
  geonames_ged/, : 'http://api.geonames.org'
TABLE FILE baseapp/POSTALCODESEARCH1
PRINT
  __RESPONSE
WHERE ID1 EQ 'postalCodeSearch' OR 'postalCodeSearchJSON'
ON TABLE HOLD AS BASEAPP/OUTPUT
END
```

The following output is returned. It contains the response with the two values specified in the WHERE phrase, 'postalCodeSearch' and 'postalCodeSearchJSON'.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<geonames>
  <totalResultsCount>1</totalResultsCount>
  <code>
    <postalcode>10024</postalcode>
    <name>New York</name>
    <countryCode>US</countryCode>
    <lat>40.78645</lat>
    <lng>-73.97638</lng>
    <adminCode1 ISO3166-2="NY">NY</adminCode1>
    <adminName1>New York</adminName1>
    <adminCode2>061</adminCode2>
    <adminName2>New York</adminName2>
    <adminCode3/>
    <adminName3/>
  </code>
</geonames>

{"postalCodes":[
  {
    "adminCode2":"061",
    "adminCode1":"NY",
    "adminName2":"New York",
    "lng":-73.976385,
    "countryCode":"US",
    "postalCode":"10024",
    "adminName1":"New York",
    "ISO3166-2":"NY",
    "placeName":"New York",
    "lat":40.786446
  }
]}
}
```



## Adapters for SharePoint and SharePoint Drive: Support for OAuth Grant Password Authentication

In prior releases of the Adapters for SharePoint and SharePoint Drive, the only type of OAuth authentication that was supported was OAuth Authorization Code authentication. Now OAuth Grant Password authentication is also supported, as shown in the following image for the Adapter for SharePoint Drive.

**Add SharePoint Drive to Configuration**

**Connect parameters**

Connection Name ?  
CON01

SharePoint URL ?  
https://xxxxxxxxx.sharepoint.com/\_api/v2.1  
[Show Sample](#)

Security ?  
OAuth Authorization Code

NTLM  
OAuth Authorization Code  
**OAuth Password**  
Trusted

[Show Sample](#)

Application ID ?

Refresh Token ? [Get Refresh Token](#)

[Test](#) [Configure](#)

The following image shows the Adapter for SharePoint configuration screen.

The screenshot shows a configuration window titled "Add SharePoint to Configuration". It has several sections: "Connect parameters" with a sub-section "Connection Name" containing a text box with "CON01"; "Graph API URL" with a text box containing "https://graph.microsoft.com/v1.0"; "Security" with a dropdown menu open showing "OAuth Authorization Code", "NTLM", "OAuth Authorization Code", "OAuth Password" (circled in red), and "Trusted"; "Application ID" with an empty text box; and "Refresh Token" with an empty text box and a "Get Refresh Token" link. At the bottom right are "Test" and "Configure" buttons.

Configure the following parameters for OAuth Grant Password authentication.

**Connection Name**

Is the logical name used to identify this particular set of connection attributes.

The default value is CON01.

**SharePoint URL** (for SharePoint Drive)

Is the URL of the SharePoint API request.

For example:

`https://xxxxxxxxxxxxx.sharepoint.com/_api/v2.1`

**Graph API URL** (for SharePoint)

Is the URL of the SharePoint request.

For example:

`https://graph.microsoft.com/v1.0`

**Security**

Select *OAuth Password* from the *Security* drop-down list.

**User**

Is the user ID used to authenticate to SharePoint, when using OAuth Password authentication.

**Password**

Is the password used to authenticate to SharePoint, when using OAuth Password authentication.

**Application Secret**

Is the Application Secret for the application created in the Azure Active Directory, when using OAuth Password authentication.

Obtain the Application Secret using the following steps:

1. Go to:

<https://portal.azure.com>

2. Click *Azure Active Directory* in the left panel.
3. Click *App registrations*.
4. Click the registered application.
5. Click *Certificates & secrets*.
6. Click + *New client secret* to create a Client Secret.

The Application Secret is the value for the created Client Secret.

**Scope**

Is the scope sent as part of the OAuth Token request, when using OAuth Password authentication (optional). For example, *openid*.

**Resource**

Is the resource sent as part of the OAuth Token request, when using OAuth Password authentication (optional). For example:

<https://shareptdomain>

where:

[shareptdomain](https://shareptdomain)

Is the domain when accessing SharePoint, for example, <https://mycompany.sharepoint.com>.

**Application ID**

Is the value that identifies your application to SharePoint when using OAuth Authentication.

Obtain this value using the following steps:

1. Go to:  
<https://portal.azure.com>
2. Click *Azure Active Directory* in the left panel.
3. Click *App registrations*.
4. Click the Application for the SharePoint Adapter that was previously created.
5. Use the value from the Application (client) ID.

### **Token URL**

Is the URL used to obtain a Token to access SharePoint.

Obtain this URL using the following steps:

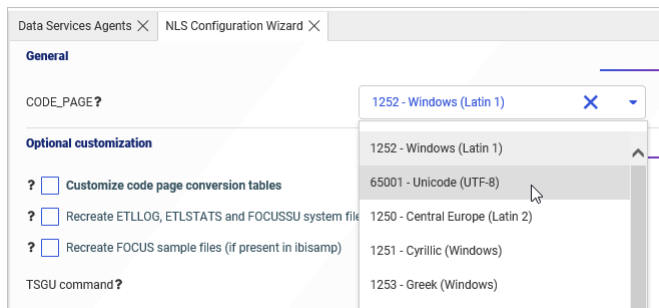
1. Go to:  
<https://portal.azure.com>
2. Click *Azure Active Directory* in the left panel.
3. Click *App registrations*.
4. Click *Endpoints*.
5. Use the URL from the OAuth 2.0 token endpoint (v1).

## Fixes

- Cannot create an empty array when using OMIT\_MISSING=NO, MISSING=ON, and ACCESS\_PROPERTY=(ARRAY\_ITEM) attributes. (201113013)
- Data Migrator lists branches after the remote or local repositories are deleted causing a code conflict and users do not receive a clear, informative message when the code conflicts occurs.
- Zero records are returned with a WHERE/IF clause for a field defined as STRING in a Unicode configuration.
- After uploading a chart extension .zip package, the extension shows the wrong name in the Administration Console. (201105114)
- When a data point in a percent area chart is flanked by 0 values on either side, a vertical line is displayed instead of a triangular spike. This results in gaps in the chart, and does not look correct. Non-percent area charts do not have this issue. (200708001)

## Upgrade Notes

- ❑ When upgrading to Release 8207.21 and higher, ReportCaster might fail to start if there are encrypted password credentials in the configuration file. For example, for the SMTP Server, if the Java version that is used, does not contain the Java Cryptography Extension (JCE), ReportCaster might fail to start. In order for ReportCaster to work to encrypt and decrypt passwords, ReportCaster requires Java Cryptography Extension (JCE). This applies to both the Application Server and the ReportCaster Distribution Server. This is not an issue if you are using a current version of Java that includes the JCE by default, such as Java version 180\_62.
- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollout, or pivot from the Column menu.
- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).

- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

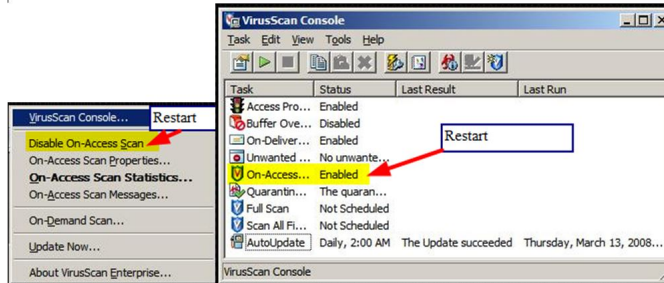
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilter
Chain.java:166) ~
```

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

## Browser Information

This release is certified and has been tested with Google Chrome version 87, Firefox version 82, Microsoft Edge Chromium version 86 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).





## 8207.21 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [Browser Information](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, November 30, 2020	wf112020a Gen 9 wi112020a as112020a	8207.21 Gen 1926

### New Features

#### New Processing Format Conversion Error Options when Uploading Data

When uploading data from a delimited or Excel file, a format conversion error can occur, such as when a numeric field contains a non-numeric value. You now have load options to control how to process rows that contain format errors, and to control how many format errors are allowed before processing stops.

The following conversion error load options are available when uploading files:

- Conversion error processing.

You can select values **Reject** or **Ignore**. **Reject**, the default value, rejects the record. **Ignore** replaces the values causing errors with default values, and continues processing the record.

Conversion error limit.

You can enter values of 0 to 999999. This sets a limit for the number of records allowed with warnings about data conversion errors. 0 is the default value, which allows unlimited warning messages.

### Get Data Page Accessibility

The initial Get Data page is now accessible, so that all options can be performed from the keyboard without requiring a mouse.

You can navigate through the page, using a combination of the Tab key, Shift+Tab key, and arrow key actions. Pressing the Enter key performs the primary action of the selected element. Pressing the Esc key closes a panel.

You can jump to areas of the page that are not near each other by pressing the key combination Shift+Ctrl+F10. This opens an accessible context menu that you can scroll through using the Up arrow and Down arrow keys. You can jump to the following areas:

- First tile in the LOCAL FILES section.
- First tile in the SERVER FILES section.
- Common Adapter Settings* link.
- Information Diagnostics* link.

#### Tab Key Navigation

The Tab key can be used to navigate forward, and the Shift+Tab key combination can be used to navigate backward, to the following options on the page.

1. Close dialog X icon.
2. First tile in the LOCAL FILES section.  
Use the arrow keys (up, down, left, and right) to navigate within the local files tiles.  
Pressing the Enter key or Spacebar opens the file picker for that type of file.
3. *Refresh* icon in the SERVER FILES section header.
4. *Search* in the SERVER FILES section header.
5. Close X icon in the search bar.

6. First tile in the SERVER FILES section.

Use the arrow keys (up, down, left, and right) to navigate within the server files tiles.

Pressing the Enter key or Spacebar opens an accessible context menu for that tile.

7. *Common Adapter Settings* link.

8. *Information & Diagnostics* link.

9. *Cancel* button.

10. *Select* button.

## Assigning Slowly Changing Dimension (SCD) Columns in the Reporting Server browser interface

A Slowly Changing Dimension (SCD) is a dimension in which the data does not change frequently or on a regular schedule. Slowly Changing Dimensions are common in data warehouses.

When a Synonym has SCD columns defined, the changes to the records in the database can be handled following Type I and Type II (Type 1 and Type 2) implementation techniques. The SCD implementation techniques are applied when such a Synonym is being used as a target in a Data Flow, and the Load Option on this target is set to *Slowly Changing Dimensions*.

For example, customer addresses change only when a customer moves. A customer who moves may change spending habits at the new address, so tracking customer data for that customer may depend on the address. Therefore, it could be useful to keep historical records of those changes.

Other types of changes may not require keeping a record of the change.

WebFOCUS supports two methodologies for handling Slowly Changing Dimensions.

- ❑ **Type I Processing.** SCD Type I processing does not store historical data in the dimension table. This method overwrites the old data in the dimension table with the new data. One common use for this is to correct data errors in the dimension, for example, to correct a misspelling. This type of processing is easy to maintain, and it does not add additional rows to the data.

- ❑ **Type II Processing.** SCD Type II processing stores the entire history the data in the dimension table. With this type of processing, unlimited history can be tracked. With Type II processing, WebFOCUS supports storing the data in two different ways, which can be used separately or in combination with each other. They are:
  - ❑ **Flagging.** With flagging, an activation flag column in the data identifies whether a row is active (current) or inactive (historical). Every time a change is made, a new row is created, with the flag value identifying it as active (for example, the value 1), and the record that was just replaced has its flag column changed to the inactive value (for example, 0).
  - ❑ **Effective Date.** With effective date processing, the period of the change is tracked using start\_date and end\_date columns in the dimension table. The current row has NULL in the end\_date column.

You can assign the required SCD column values in the Reporting Server browser interface.

**Reference: Summary of SCD Columns**

The following columns define SCD processing.

**Surrogate Key (required)**

Is an Integer column that uniquely identifies the row in the dimension. The Surrogate Key column must be assigned.

**Logical Key (required)**

Is the Source database key, which can consist of multiple columns. The Logical Key column must be assigned.

**Type I**

Defines columns whose values are overwritten with new values, no history preserved. Either Type I and/or Type II columns must be assigned.

**Type II**

Defines columns whose older values are preserved with inactive status, and whose new values are added with active status, in order to preserve the history. Either Type I and/or Type II columns must be assigned.

**Begin Date**

Is the Date or Date-Time column used to set the time when the row becomes the active row. Data Migrator sets a default value.

The format of this column should be identical with the format of the End Date column.

The Begin/End Date pair and/or Activation Flag mark the active row. Either the Begin/End Date columns pair and/or Activation Flag column must be assigned.

### End Date

Is the Date or Date-Time column used to set the time when the row becomes an inactive row. The user can set a value, otherwise Data Migrator sets a default value.

The format of this column should be identical with the format of the Begin Date column.

The Begin/End Date pair and/or Activation Flag mark the active row. Either the Begin/End Date columns pair and/or Activation Flag column must be assigned.

### Activation Flag

Is an Integer or Alphanumeric column that indicates if the row is current. The user can set a value, otherwise Data Migrator sets a default value.

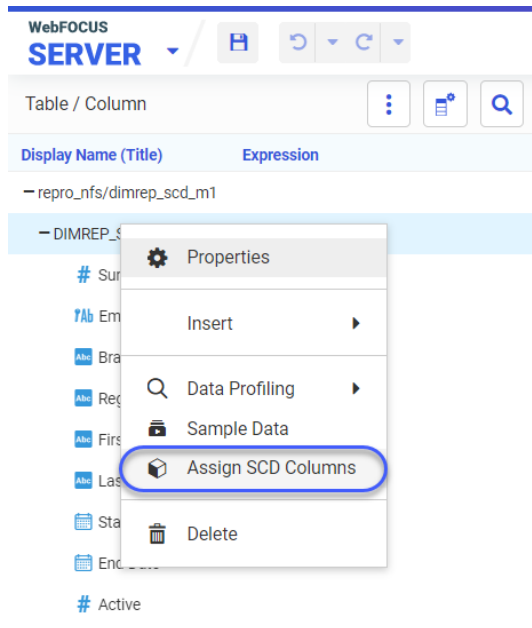
The Begin/End Date pair and/or Activation Flag mark the active row. Either the Begin/End Date columns pair and/or Activation Flag column must be assigned.

### Change Flag

Is a Date or Date-Time column that is used to set the time when the value of a Type I column changes. The user can set a value, otherwise Data Migrator sets a default value.

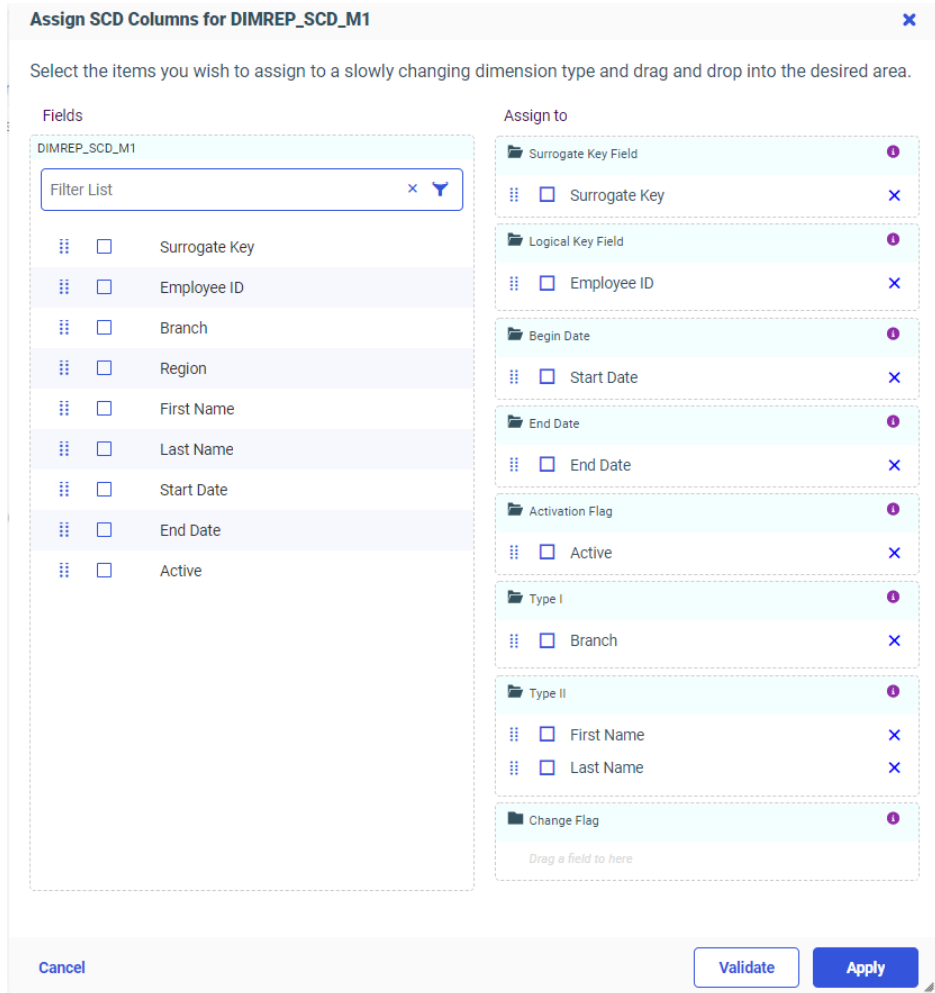
## **Procedure:** How to Assign SCD Columns

1. Open the synonym that has SCD columns in the Synonym Editor, by double-clicking the synonym, or by right-clicking and selecting *Open*.
2. Right-click the segment that has the SCD columns, and click *Assign SCD Columns*, as shown in the following image.



The Assign SCD Columns pane opens.

3. Drag the appropriate fields from the segment fields list to the SCD columns in the *Assign to* pane, as shown in the following image.



You can click the Information icon in each row, if you require help with the specific column, as shown in the following image.

**Assign SCD Columns for DIMREP\_SCD\_M1** ✕

Select the items you wish to assign to a slowly changing dimension type and drag and drop into the desired area.

**Fields**

DIMREP\_SCD\_M1

Filter List ✕ ▾

- Surrogate Key
- Employee ID
- Branch
- Region
- First Name
- Last Name
- Start Date
- End Date
- Active

**Assign to**

- Surrogate Key Field

  - Surrogate Key i ✕
- Logical Key Field

  - Employee ID i ✕
- Begin Date

  - Start Date i ✕
- End Date

  - End Date i ✕
- Activation Flag

  - Active i ✕
- Type I

  - Branch i ✕
- Type II

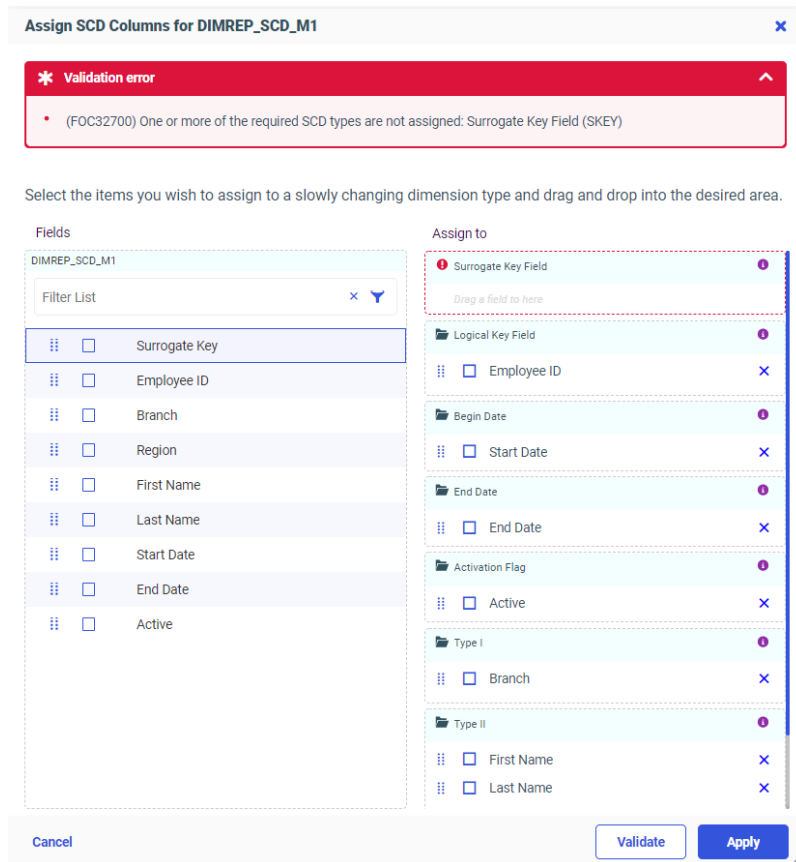
  - First Name i ✕
  - Last Name i ✕
- Change Flag

Drag a field to here

Cancel
Validate
Apply

4. When you have finished, click *Validate* to check that the columns you configured are valid.

If there are invalid selections, messages are displayed at the top of the pane in red, as shown in the following image.



5. If necessary, correct any issues.
6. Click *Apply*.

## Adapter for OData: Support for Date-Time Functions in Filters

When a field is defined with OData data type Date or DateTime, you have the option to enable Date Functions processing. With this option enabled, decomposed dates in WHERE/IF statements will be processed by the OData Service, rather than the Reporting Server engine. If *Enable Date Functions* is not selected, and *Decompose Date fields into components* is On, DEFINE fields will be created in the metadata for the Date and DateTime fields, and these will be processed by the Reporting Server.



In the following image of the Create Synonym screen, the Orders entity is selected, with *Enable Date Functions* also selected.

The screenshot shows the 'Create Synonym for OData (NorthWind)' interface. Under 'Miscellaneous settings', 'Application?' is set to 'baseapp'. Under 'Synonym Field Names Processing Options', 'Validate' and 'Make Unique' are checked. The table below has the following data:

Default Synonym Name	Entity	Function	Enable Date Functions
<input type="checkbox"/>	Customer_and_Suppliers_by_Cities	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Customers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Employees	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Invoices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Order_Details	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Order_Details_Extended	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Order_Subtotals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Orders	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Orders_Cities	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Product_Sales_for_1997	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Products	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Products_Above_Average_Prices	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following image shows the Create Synonym screen, with *Decompose Date fields into components* set On.

The screenshot shows the 'Create Synonym for OData (NorthWind)' interface. Under 'Customize data type mappings', 'Decompose Date fields into components?' is set to 'On'. Other settings include 'Date-Order?' set to 'Adapter specific: default', 'Activate GEOGRAPHIC\_ROLE assignment?' set to 'On', 'Set data type DOUBLE for numeric decimal columns?' set to 'On', and 'Set data type Any (On) / STRING for character columns?' set to 'On (Any)'. The table below has the following data:

Default Synonym Name	Entity	Function	Enable Date Functions
<input type="checkbox"/>	Customer_and_Suppliers_by_Cities	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Customers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Employees	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Invoices	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Order_Details	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following request uses a synonym created with *Decompose Date fields into components* set to *On*. ORDERDATE\_YEAR is the Year component of the ORDERDATE field, and is used in a WHERE phrase.

```
TABLE FILE ORDERS
PRINT
SHIPNAME
ORDERDATE
WHERE ORDERDATE_YEAR EQ '1996'
END
```

### Enable Date Functions not selected

With *Enable Date Functions* not selected and *Decompose Date fields into components* set to *On*, the following DEFINE field is generated in the Master File:

```
DEFINE ORDERDATE_YEAR/I4 MISSING ON ALL=DTPART(ORDERDATE, YEAR);
TITLE='ORDERDATE,Year', $
```

The following parameters are generated for the OData request, which return the entire date. The year component is then calculated on the Reporting Server, using the DEFINE field.

```
$select=OrderID,OrderDate,ShipName
```

### Enable Date Functions selected

With *Enable Date Functions* selected and *Decompose Date fields into components* set to *On*, the following field definition is generated in the Master File, which contains the OData year function in the ALIAS value, so the processing can be passed to the OData request:

```
FIELDNAME=ORDERDATE_YEAR, ALIAS='year(OrderDate)', USAGE=I11, ACTUAL=A11,
MISSING=ON, REFERENCE=ORDERS, $
```

The following parameters are generated for the OData request, which filter the data returned to the Reporting Server by the year component.

```
$select=OrderID,OrderDate,ShipName&$filter=year(OrderDate)%20eq%201996
```

## Adapter for Microsoft Dynamics CRM: Support for OAuth Grant Password Authentication

In prior releases of the Adapter for Microsoft Dynamics CRM, the only type of OAuth authentication that was supported was OAuth Authorization Code authentication. Now OAuth Grant Password authentication is also supported, as shown in the following image.

The screenshot shows the configuration interface for adding a Microsoft Dynamics CRM connection. The 'Security' dropdown menu is expanded, and 'OAuth Password' is selected and highlighted with a red circle. Other options visible are 'NTLM', 'OAuth Authorization Code', and 'Trusted'. The 'Connection Name' is set to 'CON01'. The 'Dynamics CRM URL' field has a sample URL: 'https://xxxxxxxxxxxx.crm.dynamics.com/api/data/v9.1'. The 'Application Secret' and 'Scope' fields are empty. At the bottom right, there are 'Test' and 'Configure' buttons.

Configure the following parameters for OAuth Grant Password authentication.

### Connection Name

Is the logical name used to identify this particular set of connection attributes.

The default value is CON01.

### Dynamics CRM URL

Is the URL of the Dynamics CRM API request.

For example:

<https://mycrmdomain/api/data/v8.1>

### Security

Select *OAuth Password* from the *Security* drop-down list.

### User

Is the user ID used to authenticate to Dynamics CRM, when using OAuth Password authentication.

### **Password**

Is the password used to authenticate to Dynamics CRM, when using OAuth Password authentication.

### **Application Secret**

Is the Application Secret for the application created in the Azure Active Directory, when using OAuth Password authentication.

Obtain the Application Secret using the following steps:

1. Go to:

<https://portal.azure.com>

2. Click *Azure Active Directory* in the left panel.
3. Click *App registrations*.
4. Click the registered application.
5. Click *Certificates & secrets*.
6. Click *+ New client secret* to create a Client Secret.

The Application Secret is the value for the created Client Secret.

### **Scope**

Is the scope sent as part of the OAuth Token request, when using OAuth Password authentication (optional). For example, *openid*.

### **Resource**

Is the resource sent as part of the OAuth Token request, when using OAuth Password authentication (optional). For example:

<https://mycrmdomain>

where:

[mycrmdomain](https://mycrmdomain)

Is the domain when accessing Microsoft Dynamics, for example, <https://mycompany.crm.dynamics.com>.

### **Application ID**

Is the value that identifies your application to Dynamics CRM when using OAuth Authentication.

Obtain this value using the following steps:

1. Go to:

<https://portal.azure.com>

2. Click *Azure Active Directory* in the left panel.
3. Click *App registrations*.
4. Click the Application for the Dynamics CRM Adapter that was previously created.
5. Use the value from the Application (client) ID.

**Token URL**

Is the URL used to obtain a Token to access Dynamics CRM.

Obtain this URL using the following steps:

1. Go to:  
<https://portal.azure.com>
2. Click *Azure Active Directory* in the left panel.
3. Click *App registrations*.
4. Click *Endpoints*.
5. Use the URL from the OAuth 2.0 token endpoint (v1).

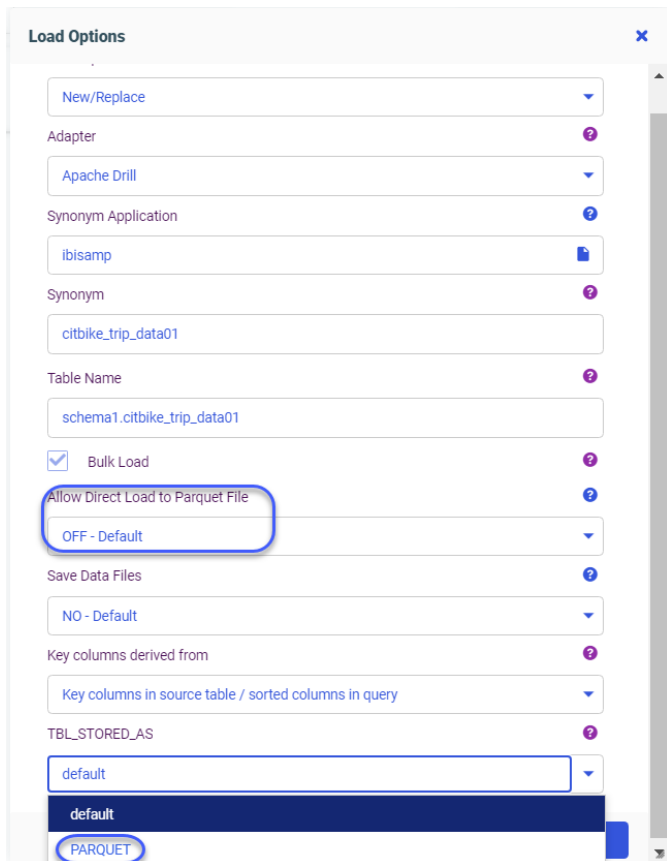
**Adapter for Apache Drill: Using Parquet as a Transfer File to HDFS**

In prior releases, when you used Data Migrator or a Data Flow to create a file in the Hadoop Distributed File System (HDFS) in Parquet format, an intermediate text file was created.

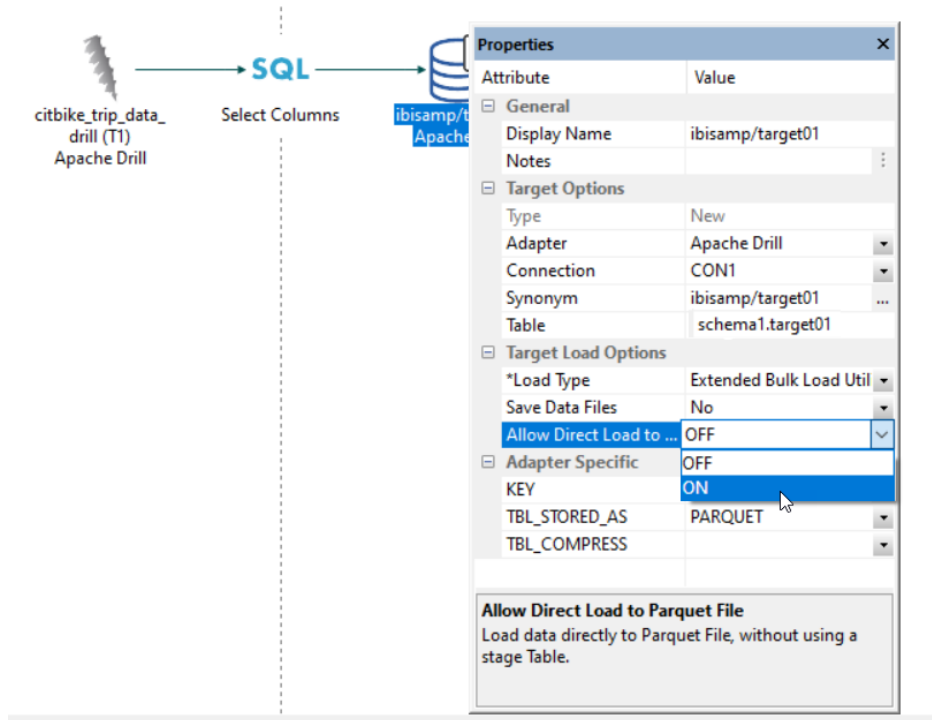
Now, a file in Parquet format can be created in the local file system and transferred to HDFS without the need to create an intermediate file.

This option can be enabled in the Load Options for a flow by setting *Allow Direct Load to Parquet File* to ON.

The following image shows this option in the Reporting Server browser interface.



The following image shows this option in the Data Migrator desktop interface.



## Changing the Number of Columns in a Page Section

When you resize a panel on a page, it snaps to the nearest row and column. The number of columns therefore affects the precision to which you can set the width of each panel. By default, each section in a page contains 12 columns. You can therefore set panel widths in increments of one twelfth of the page width.

Since 12 is divisible by 1, 2, 3, 4, 6, and 12, you can create panels that consume the entire page width, half the page width, one third of the page width, one quarter of the page width, one sixth of the page width, or one twelfth of the page width. Since 12 is not divisible by 5, for example, you cannot create a container that takes up one fifth of the page width. When using a 12-column section, therefore, you cannot create 5 equal-sized panels. However, if you use the 45 column or 80 column options, you can add 5 panels of equal width, and apply more granular panel widths.

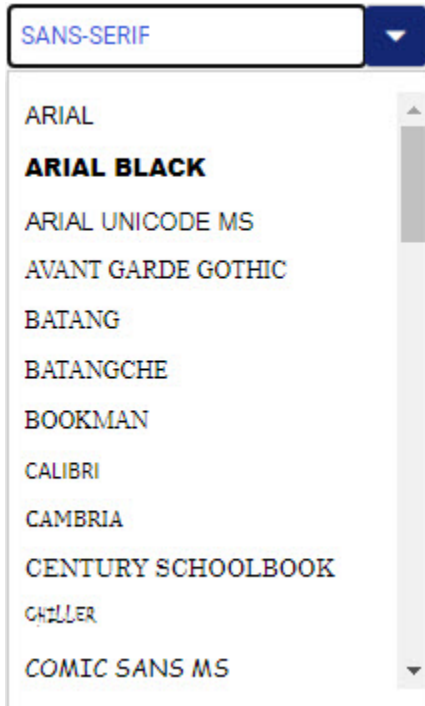
To change the number of columns in a section, select a section and then open the *Format* tab and select an option from the Number of Columns area. The canvas updates to reflect the new number of columns, as shown in the following image where the number of columns has been set to 45.





## Previewing Fonts in WebFOCUS Designer

When selecting a font to use in different areas of a chart, such as axis labels, the legend, data labels, or headers and footers, each font in the Font menu is labeled using its own typeface. This helps you to choose a font to fit the style and theme of your content, even if you do not already know what every font looks like. The Font menu, with font preview samples, is shown in the following image.



For more information about adding fonts to your WebFOCUS environment, see the *WebFOCUS Font Support* topic in the *Creating Reports With WebFOCUS Language* technical content. For information about font styling in WebFOCUS Designer, see the *Controlling Font Display in a Chart* topic on the WebFOCUS KnowledgeBase.

## Previewing Numeric Field Format Changes

The field format determines how the values in a field display in your content. Depending on your field type, you may be able to change the maximum number of characters in your field values, and the symbols that are added to your values to provide units, separation of components, and other information. For example, when changing the format of a numeric field, you first choose whether the numbers display as integers, decimal values, currency values, or percentages. Then, depending on the type of numeric value that you selected, you can set the total number of characters, the number of digits after the decimal point, currency symbols, thousands separators, and indicators for negative values. Format options for numeric fields are shown in the following image.

The image shows a configuration dialog for numeric fields. It is organized into several sections:


- Data type:** A row of four buttons: "Abc", "123" (highlighted in dark blue), "12/31/2020", and "...".
- Type:** A row of four buttons: "123", "11.11" (highlighted in dark blue), "\$", and "%".
- Max length:** A text input field containing "20" with up and down arrow icons.
- Decimal place:** A text input field containing "2" with up and down arrow icons.
- Negative number:** Two buttons: "-123" (highlighted in dark blue) and "(123)".
- Checkboxes:** Two options:  "Show 1000 separator" and  "Show leading zero".
- Sample data:** A text input field containing "12,345,678,901,234,567.89".
- Buttons:** "Cancel" and "OK" buttons at the bottom.

To change the format of a numeric field, right-click the field in one of the buckets used to create your chart or report, and point to *Format*. Select the numeric Data type option to set numeric field format options. As you set field format options for a numeric field, you can see a preview of how your data values may display in the Sample data text box. This allows you to see the immediate impact of your changes, so if there are any options with which you are unfamiliar, you can see how they would affect the display of values in your content before applying those options. When the sample value is formatted according to your preferences, click *OK* to apply the new field format options.

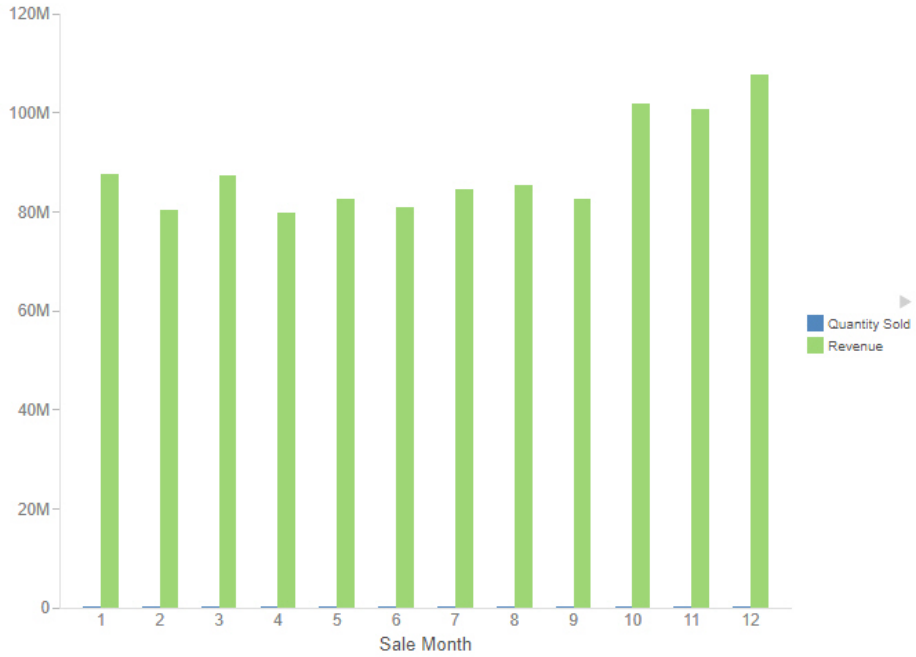
To learn more about changing the format of a field, see the *Changing a Field Format* topic on the WebFOCUS KnowledgeBase.

### Creating Dual-Axis and Bi-Polar Axis Bar, Area, and Line Charts

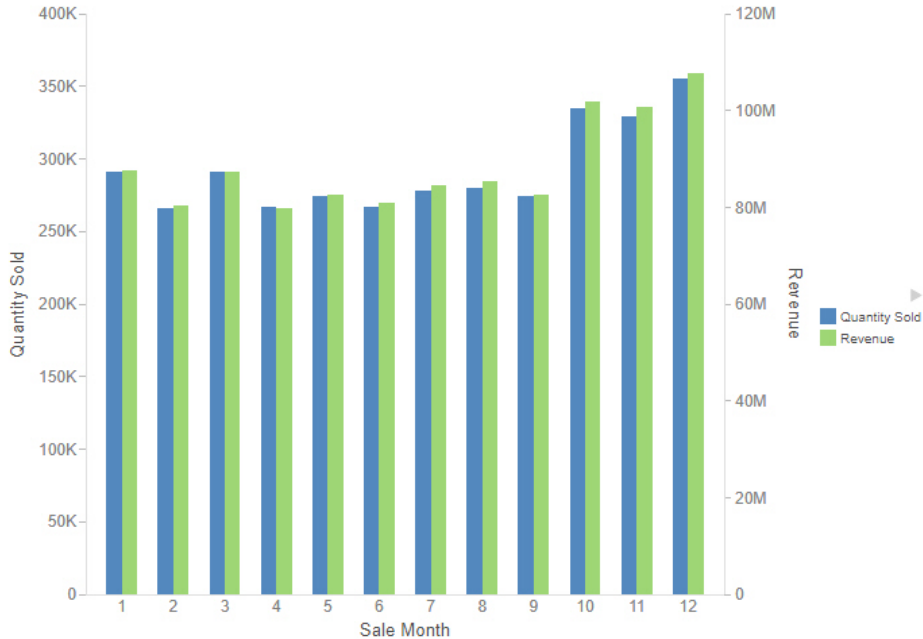
In many cases, the values in one of the measure fields in your data source may be much larger than those in another field. When these fields share the same axis in a bar, area, or line chart, it may be difficult to visually approximate or identify the smaller measure values.


One option to resolve this is to use dual axes. You can specify which measure fields display on the y1 axis on the left and the y2 axis on the right by clicking the axis icon  next to the field name in the measure bucket, or by right-clicking the field in the bucket and clicking *Left Axis (Y1)* or *Right Axis (Y2)*. In a horizontal bar, area, or line chart, the options affect the x axis instead. Once set, the measure fields are then plotted against the specified axes, which are scaled based on the maximum and minimum aggregated values of each field.

The following image shows a chart with both Quantity Sold and Revenue as measure fields. Notice that the Revenue values are many times greater than the Quantity Sold values, which are barely visible.

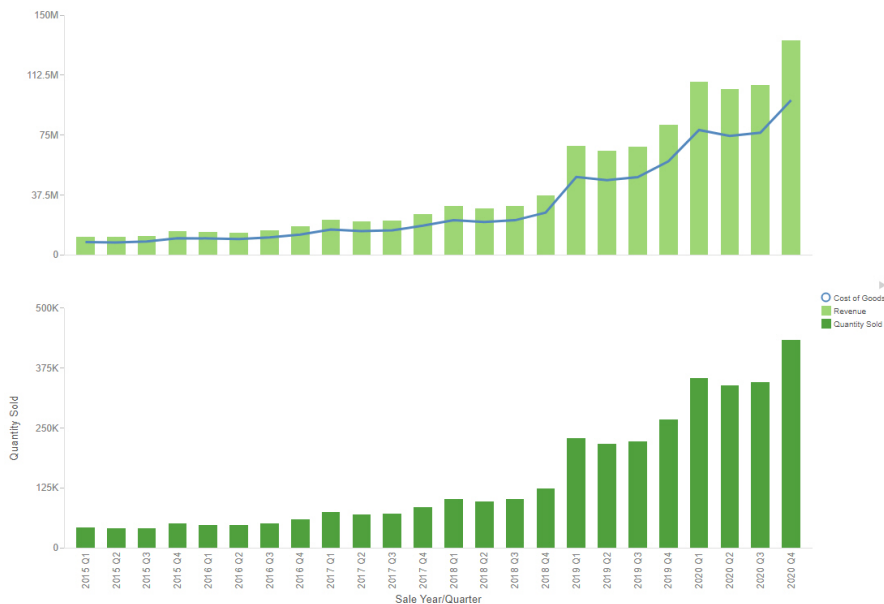


In the following image, the Revenue field has been moved to the y2 axis, allowing each measure field to use its own axis, resulting in a chart in which the patterns in both fields can be easily identified.



Another option, especially useful when there are more than two measure fields that you want to display in your bar, line, or area chart, is to use a bi-polar axis. To enable the bi-polar axis option, open the menu next to Vertical bucket and click *Bi-Polar axis*. The chart now includes two separate axes, one above the other. You can choose which measure fields display on the top axis, and which one display on the bottom axis. To assign a measure field to one of the two axes, click the axis icon  next to the field in the Vertical bucket, or right-click a measure field and click *Top Axis (Y1)* or *Bottom Axis (Y2)*.

When creating a bi-polar axis chart, it may be useful to change the chart type of the risers for one of the measures on an axis to differentiate it. Right-click the measure field in Vertical bucket (or the Horizontal bucket if the axes have been swapped), point to *Shape*, and choose whether the chart type for that measure should be bar, line, or area. The following image shows a bi-polar axis chart in which the Cost of Goods field is represented by a line chart and shares the top axis with the Revenue field. The Quantity Sold field is represented by bars on the bottom axis.

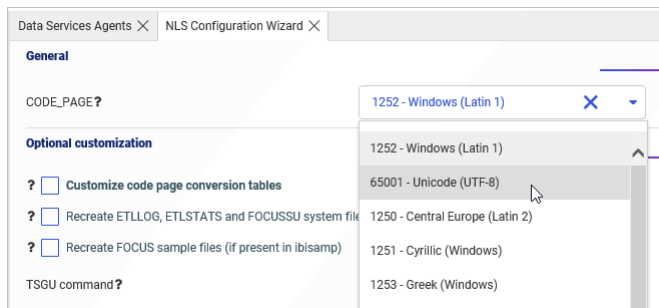


## Fixes

- WAVE Chrome extension for Accessibility identifies Paging or Search control that is not added by the user creating the HTML page with App Studio. (200918079)

## Upgrade Notes

- ❑ When upgrading to Release 8207.21 and higher, ReportCaster might fail to start if there are encrypted password credentials in the configuration file. For example, for the SMTP Server, if the Java version that is used, does not contain the Java Cryptography Extension (JCE), ReportCaster might fail to start. In order for ReportCaster to work to encrypt and decrypt passwords, ReportCaster requires Java Cryptography Extension (JCE). This applies to both the Application Server and the ReportCaster Distribution Server. This is not an issue if you are using a current version of Java that includes the JCE by default, such as Java version 180\_62.
- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollout, or pivot from the Column menu.
- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).

- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

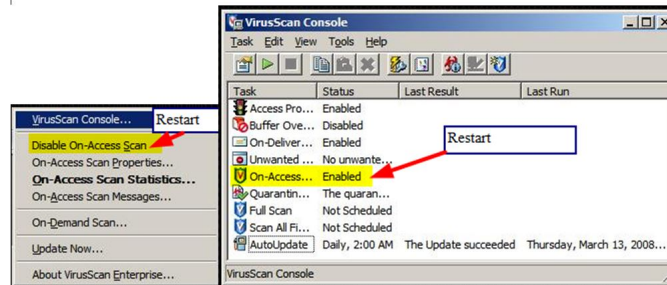
When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilter
Chain.java:166) ~
```



As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/virusscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

## Browser Information

This release is certified and has been tested with Google Chrome version 86, Firefox version 81, Microsoft Edge Chromium version 85 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



## 8207.20 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [Browser Information](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, November 16, 2020	wf110620a Gen 22 wi110620a as110620a	8207.20 Gen 1925

### New Features

#### Global WebFOCUS Server Monitoring Console

Cluster Manager (CLM) enables you to balance workload across a number of servers, by configuring any number of remote server nodes under one cluster name. CLM has polling and monitoring capabilities to identify which servers are up-and-running, average query response time, and the number of concurrent tasks running. CLM can also identify which remote servers are down, and appropriately re-route requests, as well as route a user connection to the most efficient remote server to enhance overall performance.

However, in prior releases, you had to open each remote server node separately in its own browser window in order to monitor and manage its agents. Now, CLM provides a Global Monitoring Console for all remote server nodes in a cluster, as well as remote servers defined dynamically.

A dynamic Remote Server is defined with the following setting in its edaserve.cfg file.

```
clm = http://host:port
```

where:

```
host:port
```

Is the hostname and port for connecting to the server that will have this server on its Remote Servers list.

To see the remote servers that are defined, navigate to the Workspace page of the Reporting Server browser interface, right-click *Cluster Manager*, and click *Remote Servers*. The list of cluster servers and dynamic servers opens, as shown in the following image.

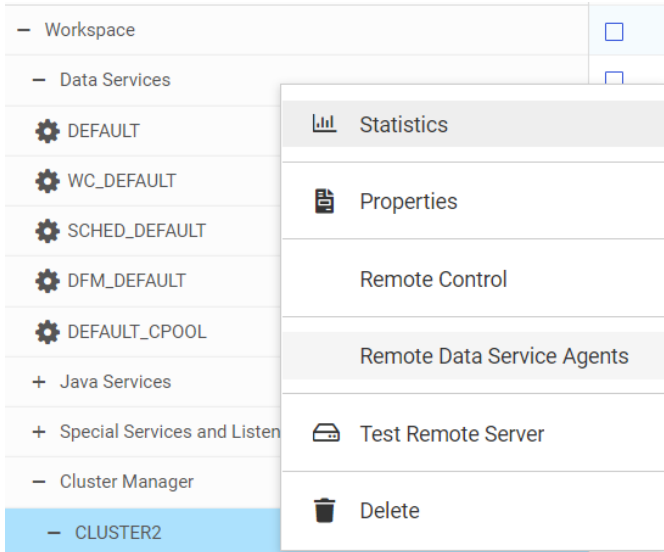
Type	Status	Cluster/Server	Agents Now	Agents Peak	Connections Total	Connections Completed	Avg. Response Time	Running Avg. Response Time
	-	CLUSTER2	8	6	8	8	0.128 seconds	0.000 seconds
	running	SOLSPARC	2	1	2	2	0.075 seconds	0.000 seconds
	running	SOLSPC11	2	1	2	2	0.281 seconds	0.000 seconds
	running	aixppc72.8981	2	2	2	2	0.105 seconds	0.000 seconds
	running	Inxx64r8.lbi.com.8981	2	2	2	2	0.051 seconds	0.000 seconds

In this image, the first two servers are part of CLUSTER2. The other two are dynamic remote servers.

You can open the Global Monitoring Console from this list, by right-clicking the cluster node and clicking *Remote Data Service Agents*, as shown in the following image.

Type	Status	Cluster/Server	Agents Now	Agents Peak	Connections Total	Connections Completed	Avg. Response Time	Running Avg. Response Time	Queued Now	Queued Peak
	-	CLUSTER2	8	6	8	8	0.110 seconds	0.000 seconds	0	0
	running	SOLSPARC	2	1	2	2	0.086 seconds	0.000 seconds	0	0
	running	SOLSPC11	2	1	2	2	0.193 seconds	0.000 seconds	0	0
	running	Inxx64r8.lbi.com.8981	2	2	2	2	0.054 seconds	0.000 seconds	0	0
	running	aixppc72.8981	2	2	2	2	0.107 seconds	0.000 seconds	0	0

You can also access the Global Monitoring Console from the Resources Pane. Expand *Cluster Manager*, right-click the cluster name, and click *Remote Data Service Agents*, as shown in the following image.



The Global Monitoring Console is shown in the following image. CLUSTER2 has two remote server nodes configured, both of which can be monitored from the Global Monitoring Console. The two dynamic remote server nodes that are not part of the cluster can also be monitored.

The screenshot shows the 'Remote Data Service Agents' tab in the Global Monitoring Console. It displays a table of agents grouped by cluster. Each cluster has a 'Kill Selected Agents' button and a search field.

Cluster	Tscomid	Service	State	Command	Focus I/O	DBMS I/O	DBMS Time	Query Time	CPU Time	Memory Usage (KB)	Disk Usage (KB)	Process ID
SOLSPARC	1	DEFAULT	idle	TABLE	0	1	0:00:00.000	Nov 09 11:30:14.131	0:00:00.296	99336	---	12254
	2	DEFAULT	idle	---	---	---	---	---	0:00:00.218	84248	---	12255
	3	WC_DEFAULT	idle	---	---	---	---	---	0:00:00.001	04740	---	12256
SOLSPC11	2	DEFAULT	idle	---	---	---	---	---	0:00:00.143	94784	---	23644
	3	WC_DEFAULT	idle	---	---	---	---	---	0:00:00.141	94784	---	23645
	4	WC_DEFAULT	idle	---	---	---	---	---	0:00:00.143	04784	---	23646
alxpc72	1	DEFAULT	idle	TABLE	0	1	0:00:00.000	Nov 09 11:28:31.043	0:00:00.000	17640	---	32375242
	2	DEFAULT	idle	TABLE	0	1	0:00:00.000	Nov 09 11:28:31.141	0:00:00.000	17640	---	18481906
	3	WC_DEFAULT	idle	---	---	---	---	---	0:00:00.000	00000	---	14419360
lxxx64r8	2	DEFAULT	idle	---	---	---	---	---	0:00:00.030	314144	---	37067

Each node is represented in its own table, the same interface used for individual data services, so you can kill selected agents for any node using this console. In addition, you can track a request from client to server, no matter which node the request is routed to.

If a remote server is stopped or becomes unavailable, the Global Monitoring Console will reflect the change.

## New Functions for Date-time Conversion Between Local and UTC Time

Coordinated Universal Time (UTC) is the time standard commonly used around the world. To convert UTC time to a local time, a certain number of hours must be added to or subtracted from the UTC time, depending on the number of time zones between the locality and Greenwich, England (GMT).

The following functions convert date-time values between UTC time and local time.

**DT\_TOUTC.** Converts local time to UTC time.

**DT\_TOLOCAL.** Converts UTC time to local time.

Converting timestamp values from different localities to a common standard time enables you to sort events into the actual event sequence.

These functions require IANA (Internet Assigned Numbers Authority) time zone database names (expressed as 'Area/Location') as parameters. You can find a table of IANA TZ database names on Wikipedia at [https://en.wikipedia.org/wiki/List\\_of\\_tz\\_database\\_time\\_zones](https://en.wikipedia.org/wiki/List_of_tz_database_time_zones), as shown in the following image.

**Legend** [ edit ]

UTC offsets (columns 6 and 7) are positive east of UTC and negative west of UTC. The UTC DST offset is different from the UTC offset for zones where daylight saving time is observed (see Individual time zone pages for details). The UTC offsets are for the current or upcoming rules, and may have been different in the past.

The "Status" field means:

- Canonical - The primary, preferred zone name.
- Alias - An alternative name, which may fit better within a particular country.
- Deprecated - An older style name, left in the tz database for backwards compatibility, which should generally not be used.

**List** [ edit ]

Country code	Latitude, longitude ±DDMM(SS) ±DDMM(SS)	TZ database name	Portion of country covered	Status	UTC offset ±hh:mm	UTC DST offset ±hh:mm	Notes
CI	+0519-00402	Africa/Abidjan		Canonical	+00:00	+00:00	
GH	+0533-00013	Africa/Accra		Canonical	+00:00	+00:00	
ET	+0902+03842	Africa/Addis_Ababa		Alias	+03:00	+03:00	Link to Africa/Nairobi
DZ	+3647+00303	Africa/Algiers		Canonical	+01:00	+01:00	
ER	+1520+03853	Africa/Asmara		Alias	+03:00	+03:00	Link to Africa/Nairobi
ML	+1239-00800	Africa/Bamako		Alias	+00:00	+00:00	Link to Africa/Abidjan
CF	+0422+01835	Africa/Bangui		Alias	+01:00	+01:00	Link to Africa/Lagos
GM	+1328-01639	Africa/Banjul		Alias	+00:00	+00:00	Link to Africa/Abidjan
GW	+1151-01535	Africa/Bissau		Canonical	+00:00	+00:00	
MW	-1547+03500	Africa/Blantyre		Alias	+02:00	+02:00	Link to Africa/Maputo
CG	-0416+01517	Africa/Brazzaville		Alias	+01:00	+01:00	Link to Africa/Lagos
BI	-0323+02922	Africa/Bujumbura		Alias	+02:00	+02:00	Link to Africa/Maputo
EG	+3003+03115	Africa/Cairo		Canonical	+02:00	+02:00	

If you do not know what Area and Location corresponds to your time zone, but you do know your offset from GMT, or your legacy time zone name (such as EST), scroll down in the table. There are TZ database names that correspond to these time zone identifiers, as shown in the following image.

	EST	Deprecated	-05:00	-05:00	Choose a zone that currently observes EST without daylight saving time, such as <a href="#">America/Cancun</a> .
	EST5EDT	Deprecated	-05:00	-04:00	Choose a zone that observes EST with United States daylight saving time rules, such as <a href="#">America/New_York</a> .
	Etc/GMT	Canonical	+00:00	+00:00	
	Etc/GMT+0	Alias	+00:00	+00:00	Link to Etc/GMT
	Etc/GMT+1	Canonical	-01:00	-01:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .
	Etc/GMT+10	Canonical	-10:00	-10:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .
	Etc/GMT+11	Canonical	-11:00	-11:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .
	Etc/GMT+12	Canonical	-12:00	-12:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .
	Etc/GMT+2	Canonical	-02:00	-02:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .
	Etc/GMT+3	Canonical	-03:00	-03:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .
	Etc/GMT+4	Canonical	-04:00	-04:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .
	Etc/GMT+5	Canonical	-05:00	-05:00	Sign is intentionally inverted. See the <a href="#">Etc area description</a> .

**Note:** If you use a standard IANA time zone database name in the form "Area/Location" (for example, "America/New\_York"), automatic adjustments are made for Daylight Savings Time. If you use a name that corresponds to an offset from GMT or to a legacy time zone name, it is your responsibility to account for Daylight Savings Time.

### DT\_TOUTC: Converting Local Time to UTC Time

DT\_TOUTC takes a local date-time value and an IANA time zone name and converts the local time to UTC time.

#### **Syntax:** How to Convert Local Time to UTC Time

`DT_TOUTC(datetime, timezone)`

where:

*datetime*

Date-time

Is a date-time expression representing local time, containing date and time components.

*timezone*

Alphanumeric

Is a character expression containing the IANA time zone name of the local time, in the form 'Area/Location' (for example, 'America/New\_York').

**Example: Converting Local Time to UTC Time**

The following request converts the current local date-time value for time zone America/New\_York to UTC time.

```
TABLE FILE GGSALES
SUM DOLLARS NOPRINT
COMPUTE LOCAL1/HYYMDS = DT_CURRENT_DATETIME(SECOND);
COMPUTE UTC1/HYYMDS = DT_TOUTC(LOCAL1, 'America/New_York');
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

<u>LOCAL1</u>	<u>UTC1</u>
2020/09/04 14:49:41	2020/09/04 18:49:41

**Example: Sorting by UTC Time**

The following request retrieves the current date and time into the field LOCALT1 and sets the field TIMEZONE to IANA time zone database names. It then uses DT\_TOUTC to convert the same local time, with different time zones, to the UTC time that corresponds to the given time zone, and sorts the output by the generated UTC time.

```
DEFINE FILE GGSALES
LOCALT1/HYYMDS=DT_CURRENT_DATETIME(SECOND);
TIMEZONE/A30=IF LAST TIMEZONE EQ ' ' THEN 'AMERICA/NEW_YORK'
ELSE IF LAST TIMEZONE EQ 'AMERICA/NEW_YORK' THEN 'AMERICA/CHICAGO'
ELSE IF LAST TIMEZONE EQ 'AMERICA/CHICAGO' THEN 'AMERICA/DENVER'
ELSE IF LAST TIMEZONE EQ 'AMERICA/DENVER' THEN 'ASIA/TOKYO'
ELSE IF LAST TIMEZONE EQ 'ASIA/TOKYO' THEN 'EUROPE/LONDON'
ELSE IF LAST TIMEZONE EQ 'EUROPE/LONDON' THEN 'AMERICA/NEW_YORK';
UTCTIME/HYYMDS=DT_TOUTC(LOCALT1, TIMEZONE);
END
TABLE FILE GGSALES
PRINT TIMEZONE LOCALT1 DOLLARS NOPRINT
BY UTCTIME
WHERE PRODUCT EQ 'Thermos'
IF RECORDLIMIT EQ 20
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```



The output is shown in the following image.

<u>UTCTIME</u>	<u>TIMEZONE</u>	<u>LOCALTIME</u>
2020/10/02 06:45:59	ASIA/TOKYO	2020/10/02 15:45:59
	ASIA/TOKYO	2020/10/02 15:45:59
	ASIA/TOKYO	2020/10/02 15:45:59
	ASIA/TOKYO	2020/10/02 15:45:59
2020/10/02 14:45:59	EUROPE/LONDON	2020/10/02 15:45:59
	EUROPE/LONDON	2020/10/02 15:45:59
	EUROPE/LONDON	2020/10/02 15:45:59
	EUROPE/LONDON	2020/10/02 15:45:59
2020/10/02 19:45:59	AMERICA/NEW_YORK	2020/10/02 15:45:59
	AMERICA/NEW_YORK	2020/10/02 15:45:59
	AMERICA/NEW_YORK	2020/10/02 15:45:59
	AMERICA/NEW_YORK	2020/10/02 15:45:59
2020/10/02 20:45:59	AMERICA/CHICAGO	2020/10/02 15:45:59
	AMERICA/CHICAGO	2020/10/02 15:45:59
	AMERICA/CHICAGO	2020/10/02 15:45:59
	AMERICA/CHICAGO	2020/10/02 15:45:59
2020/10/02 21:45:59	AMERICA/DENVER	2020/10/02 15:45:59
	AMERICA/DENVER	2020/10/02 15:45:59
	AMERICA/DENVER	2020/10/02 15:45:59
	AMERICA/DENVER	2020/10/02 15:45:59

### DT\_TOLOCAL: Converting UTC Time to Local Time

DT\_TOLOCAL takes a UTC date-time value and an IANA time zone name and converts the UTC time to local time.

#### **Syntax:** How to Convert UTC Time to Local Time

```
DT_TOLOCAL(datetime, timezone)
```

where:

*datetime*

Date-time

Is a date-time expression representing UTC time, containing date and time components.

*timezone*

Alphanumeric

Is a character expression containing the IANA time zone name of the local time, in the form 'Area/Location' (for example, 'America/New\_York').

**Example: Converting UTC Time to Local Time**

The following request converts the current date-time value from UTC time to local time for time zone America/New\_York.

```
TABLE FILE GGSales
SUM DOLLARS NOPRINT
COMPUTE UTC1/HYYMDS = DT_CURRENT_DATETIME(SECOND);
COMPUTE LOCAL1/HYYMDS = DT_TOLocal(UTC1, 'America/New_York');
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

<u>UTC1</u>	<u>LOCAL1</u>
2020/09/04 15:00:26	2020/09/04 11:00:26

**Adapter for PostgreSQL: Support for Change Data Capture (CDC)**

In Data Migrator, CDC updates the target using a log file that contains the list of changes to a source, which avoids having to process the entire source file.

Now, Data Migrator can support CDC with PostgreSQL through the consumption of Logical decoding in PostgreSQL.

**Preparing the Environment for CDC With PostgreSQL**

In order to use CDC with PostgreSQL, you must install the following on the system where the Data Migrator Server is installed.

- Java.
- PostgreSQL.
- The JDBC Driver.
- The output plugin wal2json.

## Reference: Configuring Java and the JDBC Driver

To use CDC with the Adapter for PostgreSQL, you must have Java installed. The System Environment Variable `JAVA_HOME` or `JDK_HOME` must be specified, and the `JAVA_HOME` location must be added to the `PATH` Environment Variable.

For example, if your Data Migrator Server is on Linux, add the following lines to your profile:

```
export JAVA_HOME=/usr/lib/jvm/jre-1.8.0_91
export JDK_HOME=/usr/lib/jvm/jdk-1.8.0_91
export PATH=$JAVA_HOME/bin:$PATH
```

The JDBC Driver jar file is needed in order to use CDC with PostgreSQL. You should download the jar file and save it to your path since you will be entering it in the `IBI_CLASSPATH` entry field during the configuration process. You can download the JAR file from the following site:

<https://www.postgresql.org/download/>

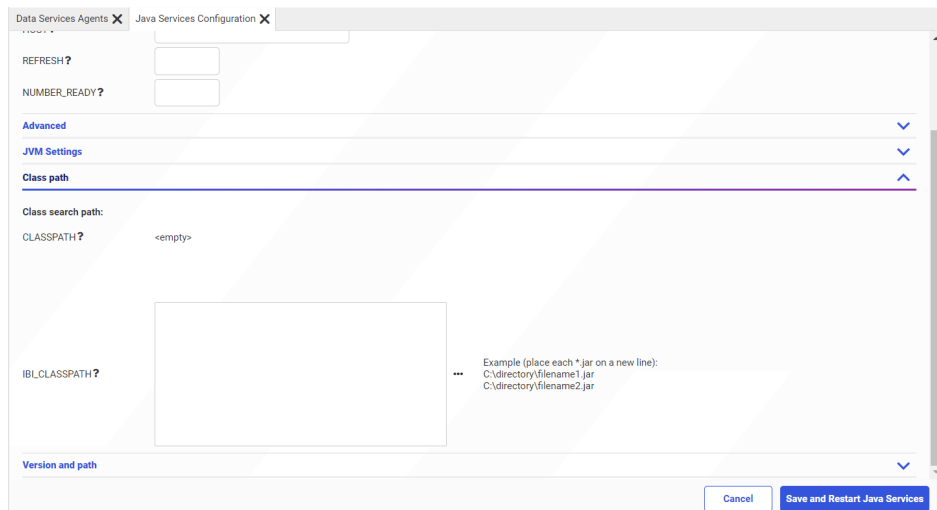
Copy the JDBC Driver jar file to any location on your system.

To specify the location of the jar file in the `IBI_CLASSPATH` variable of a Data Migrator Server, perform the following steps.

1. In the Reporting Server browser interface, navigate to the Workspace page or, in the Data Migrator desktop interface, expand Workspace. Then expand the Java Services folder.
2. Right-click `DEFAULT` and click `Properties`.

The Java Services Configuration pane opens.

3. Expand the Class path section, as shown in the following image.



4. In the IBI\_CLASSPATH field, enter the full path file name to the JDBC Driver jar file.
5. Click *Save and Restart Java Services*.

**Reference: Configuring Use of Write-Ahead Logs**

Logical decoding in PostgreSQL uses an output plugin called *wal2json*. This plugin converts the PostgreSQL Write-Ahead Log (WAL) to a readable format.

The plugin is available for download from the site <https://github.com/eulerto/wal2json>.

Follow the instructions on the site to install the plugin.

The following is an example installation command for Red Hat Enterprise Linux (RHEL)/CentOS 7 or 8:

```
sudo yum install wal2json12
```

The following is an example installation command for Debian:

```
sudo dnf install wal2json12
```

The following is an example installation command for Ubuntu:

```
sudo apt-get install postgresql-12-wal2json
```

When using Windows, follow the instructions from the same site and build the *wal2json.dll* with the following considerations.

- Use non-debug mode.
- Use the same operating system where PostgreSQL is installed.
- During the build, target the same version of PostgreSQL as the version used with the DLL.

Copy the created *wal2json.dll* to the *pkglibdir* location. To find this location, open a command prompt and navigate to the PostgreSQL bin directory. Use the following command, where *PGDATA* is an environmental variable that points to the *data* directory.

```
cd %PGDATA%\..\bin
```

From this location, enter the following command.

```
pg_config --pkglibdir
```

The following is a sample path on Windows.

```
C:\Program Files\PostgreSQL\12
```

In order to use the write-ahead logs, you must edit the `postgresql.conf` configuration file and set the options for the PostgreSQL `wal_level` parameter, which determines the information that is written to the WAL. This configuration file is in the data area directory:

```
%PGDATA%/postgresql.conf
```

The `wal_level` parameter should be set to the value `logical`, in order to support logical decoding.

If you connect to the database as user `postgres`, you can edit the `postgresql.conf` file using the following SQL statement.

```
ALTER SYSTEM SET wal_level = logical;
```

After making the changes, you need to recycle the server as user `postgres`. For example:

```
%PGDATA%\..\bin pg_ctl restart
```

To verify the value of the `wal_level` parameter, you can issue the following SQL statement.

```
SHOW wal_level;
```

## Using Logical Decoding and Monitoring Slots

Using a replication slot requires PostgreSQL replication privileges.

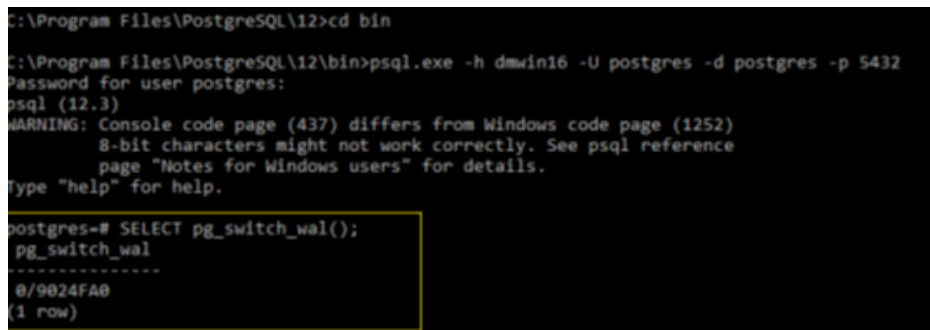
Each replication slot in PostgreSQL represents a stream of changes from a single database.

### **Procedure:** How to Create a Replication Slot

1. Connect to the database with a user that has a SUPERUSER permissions.
2. To archive the current write-ahead log file and to switch to a new log file, enter the following command:

```
SELECT pg_switch_wal();
```

The following image shows issuing this command in Windows.



```
C:\Program Files\PostgreSQL\12>cd bin
C:\Program Files\PostgreSQL\12\bin>psql.exe -h dmain16 -U postgres -d postgres -p 5432
Password for user postgres:
psql (12.3)
WARNING: Console code page (437) differs from Windows code page (1252)
         8-bit characters might not work correctly. See psql reference
         page "Notes for Windows users" for details.
Type "help" for help.

postgres=# SELECT pg_switch_wal();
 pg_switch_wal
-----
0/9024FA0
(1 row)
```

3. When a slot is no longer needed, drop it.

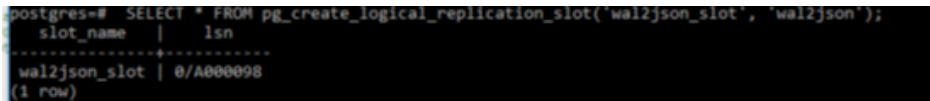
According to the PostgreSQL documentation, the logical replication slots are consumed continuously, and you need to drop a slot as soon as the replication slot is not needed anymore. Use the following command:

```
SELECT pg_drop_replication_slot('wal2json_slot');
```

4. Add new replication slots as needed, using the following command.

```
SELECT * FROM pg_create_logical_replication_slot('wal2json_slot',  
'wal2json');
```

The following image shows issuing this command in Windows.



```
postgres=# SELECT * FROM pg_create_logical_replication_slot('wal2json_slot', 'wal2json');  
 slot_name | lsn  
-----  
 wal2json_slot | 0/A000098  
(1 row)
```

### Reference: Monitoring Slots

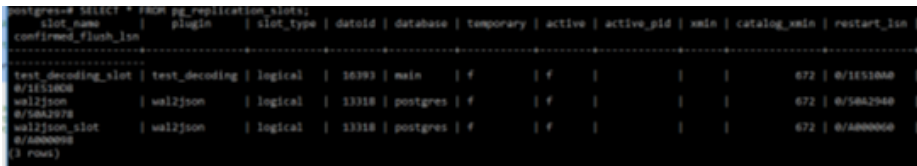
The following commands are used for logical decoding and monitoring the replication slots.

#### Listing Replication Slots

To list all replication slots in the primary server, issue the following command:

```
SELECT * FROM pg_replication_slots;
```

The following image shows issuing this command in Windows.



```
postgres=# SELECT * FROM pg_replication_slots;  
 slot_name | plugin | slot_type | dataid | database | temporary | active | active_pid | xmin | catalog_xmin | restart_lsn |  
-----  
 test_decoding_slot | test_decoding | logical | 16393 | main | f | f | | | | 672 | 0/1111000 |  
 0/1151800 |  
 wal2json | wal2json | logical | 13318 | postgres | f | f | | | | 672 | 0/5862948 |  
 0/5862978 |  
 wal2json_slot | wal2json | logical | 13318 | postgres | f | f | | | | 672 | 0/A000000 |  
 0/A000098 |  
(3 rows)
```

#### Listing the Current WAL Write Location

To list the current write-ahead log write location, issue the following command:

```
SELECT pg_current_wal_lsn();
```

The following image shows issuing this command in Windows.

```
postgres=# SELECT pg_current_wal_lsn();
pg_current_wal_lsn
-----
0/A000148
(1 row)
```

### **Reference:** Creating a User ID for Connection to PostgreSQL

A user ID on a connection to a PostgreSQL database must have the LOGIN and REPLICATION permissions. Please note that it is not advisable to add a SUPERUSER permission to this user, since it is insecure. This role allows you to bypass all permission checks. The following is sample syntax to create the user:

```
CREATE ROLE cdcuser1 WITH
    LOGIN
    NOSUPERUSER
    CREATEDB
    REPLICATION
    PASSWORD 'password' ;
```

Use the following statement to grant privileges to the user on the schema that will use the replications:

```
GRANT ALL PRIVILEGES ON ALL TABLES IN SCHEMA cdcschema1 TO cdcuser1;
```

Use the following statement to make the user an owner of the schema:

```
ALTER SCHEMA cdcschema1 OWNER TO cdcuser1;
```

### **Configuring the Adapter for PostgreSQL and Using CDC in a Flow**

You must create a connection for the Adapter for PostgreSQL that accesses the environment you prepared.

## **Reference:** Connection Attributes for the Adapter for PostgreSQL

The following image shows the configuration parameters for the Adapter for PostgreSQL.

The screenshot shows a configuration window titled "Add PostgreSQL to Configuration" with a link to "Prerequisites". Below the title is a section header "Connect parameters" with an upward-pointing arrow. The form contains the following fields:

- Connection Name:** A text input field containing "CON01".
- URL:** An empty text input field. Below it is a "Show Sample" link.
- Security:** A dropdown menu currently set to "Explicit".
- User:** An empty text input field.
- Password:** An empty text input field.

Each field has a blue question mark icon to its right.

From your PostgreSQL DBA, obtain the values for the node name, port number and database name, then enter them in the URL entry field in the following format.

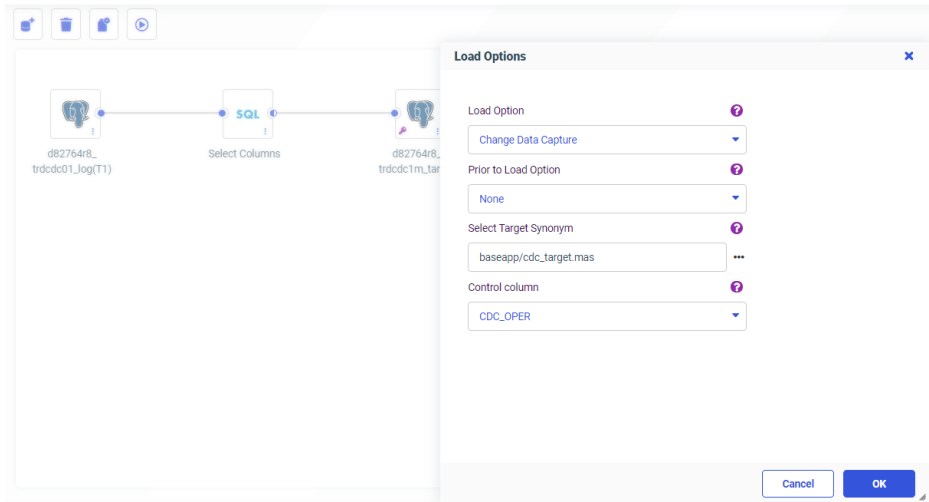
```
jdbc:postgresql://nodename:port/dbname
```

Leave Security as *Explicit*, and enter the User ID and Password associated with the role that you configured.




**Reference: Using CDC With PostgreSQL**

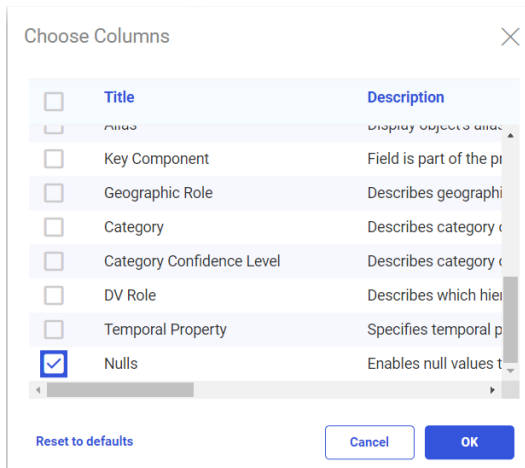
Once you have configured PostgreSQL for logging, you can create a data flow with Load Option Change Data Capture using a PostgreSQL log file as the source and an existing PostgreSQL target, as shown in the following image.



## Showing Whether a Column Supports Nulls in the Select, Merge, and Synonym Editors

The Choose Columns dialog box in the Select and Merge Editors in a Data Flow, and in the Synonym Editor, now enables you to see whether each column listed in the editor supports null values.

Click the *Choose Columns* icon (  ) and select the column named *Nulls*, as shown in the following image.

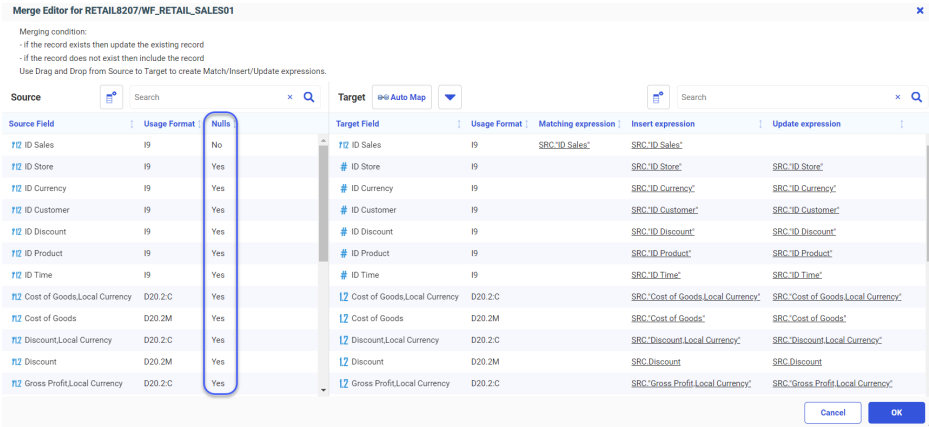


After you click *OK*, you can see whether each field supports null values, as shown in the following image for the Select Editor.

The screenshot shows the 'Select Editor' window. At the top, there are navigation buttons (back, forward) and a 'Metadata' section with a search icon. Below is a table with two columns: 'Segment/Field' and 'Nulls'. The table lists various fields grouped by segment, such as 'dmstar/dmord', 'dmstar/dmord(T1)', 'dmstar/dmsale(T2)', and 'DMPROD (T1)'. Each field has a corresponding 'Nulls' value, either 'No' or 'Yes'.

Segment/Field	Nulls
dmstar/dmord	
dmstar/dmord(T1)	
Order,Number	No
Date of,Order	No
Shipping,Date	Yes
Company,ID	No
Plant,Location	No
Order Date,Year	No
Order Date,Quarter	No
Order Date,Month	No
dmstar/dmsale(T2)	
Order,Number	No
Plant,Location	No
Employee,ID	No
Sales Rep	No
DMPROD (T1)	
Order,Number	No

The following image shows the Nulls column selected in the Merge Editor.



## Migrating Data Flows

When you create a Data Flow, an SQL request is generated that retrieves data from Source databases, applies transformations, if necessary, and loads the data to Target databases.

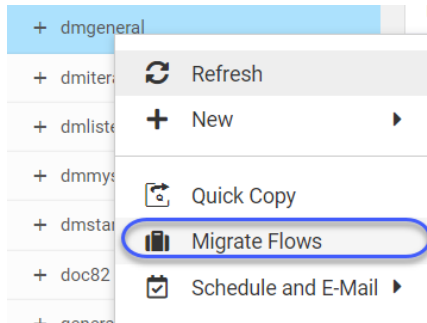
In new releases of Data Migrator, improvements are made, when possible, to the code that is generated for the Flows. The new code uses new back-end algorithms for reading and loading the data, allowing an improved performance.

If a Data Flow created in a prior release no longer runs, or seems to run too slowly, you can migrate the flow to the current release. This process will update the code for the generated Flow to the latest syntax, and take advantage of performance and optimization improvements available in the current release of Data Migrator.

### **Procedure:** How to Migrate Data Flows

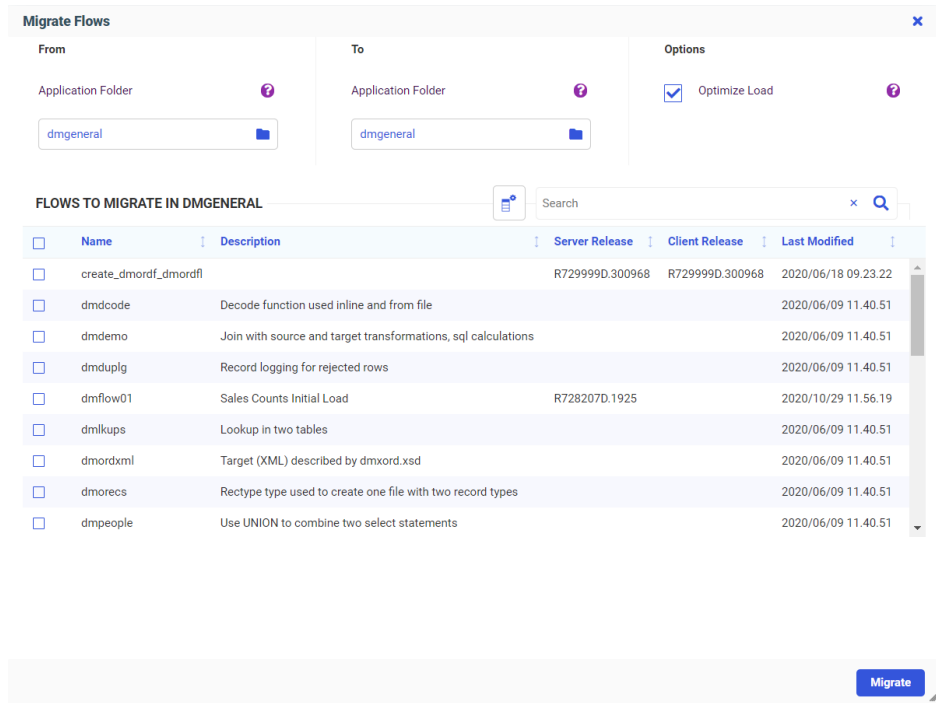
You can migrate flows in both the Reporting Server browser interface and the Data Migrator desktop interface.

1. Right-click an application directory, and click *Migrate Flows*, as shown in the following image.

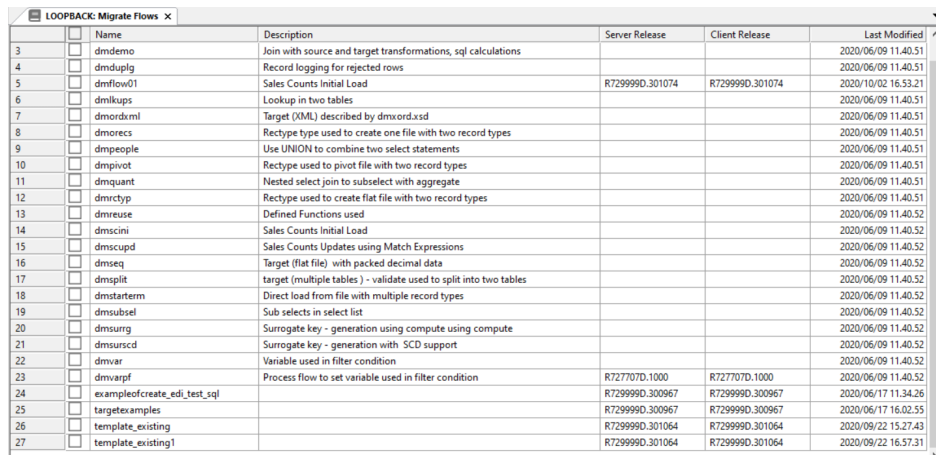


**Note:** In the Data Migrator desktop interface, if you do not see the menu item *Migrate Flows* on the Application Directory context menu, you can enable it from the Preferences pane. Right-click the server node name and select *Preferences* from the context menu to open the Preferences pane. Expand the Technical Preview Features section. Select Yes from the *Enable Migrate Flows* drop-down list.

In the Reporting Server browser interface, the *Migrate Flows* window opens, as shown in the following image.



In the Data Migrator desktop interface, the Migrate Flows panel opens in a new tab, as shown in the following image.



2. If you are using the Reporting Server browser interface, the Migrate Flows window enables you to change the application directories for the migration process and to deselect the Optimize Load option.

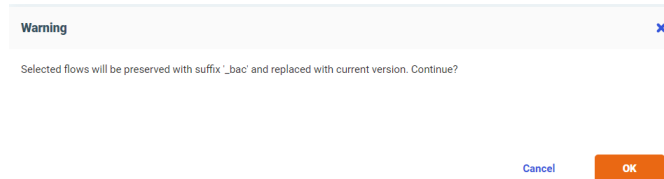
Initially, both the *From* and *To* application folders are set to the application directory from which you initiated *Migrate Flows*.

- Click in the *Application Folder* entry field to open the *Select Application Folder* dialog box to change one or both of the folders.
- By default, *Optimize Load* is selected. If you want to disable this feature, deselect the check box.

**Note:** The Data Migrator desktop interface version of *Migrate Flows* does not support changing the application folders or deselecting Optimize Load. In the Data Migrator desktop interface, Optimize Load will be used whenever it is supported for the Target DBMS.

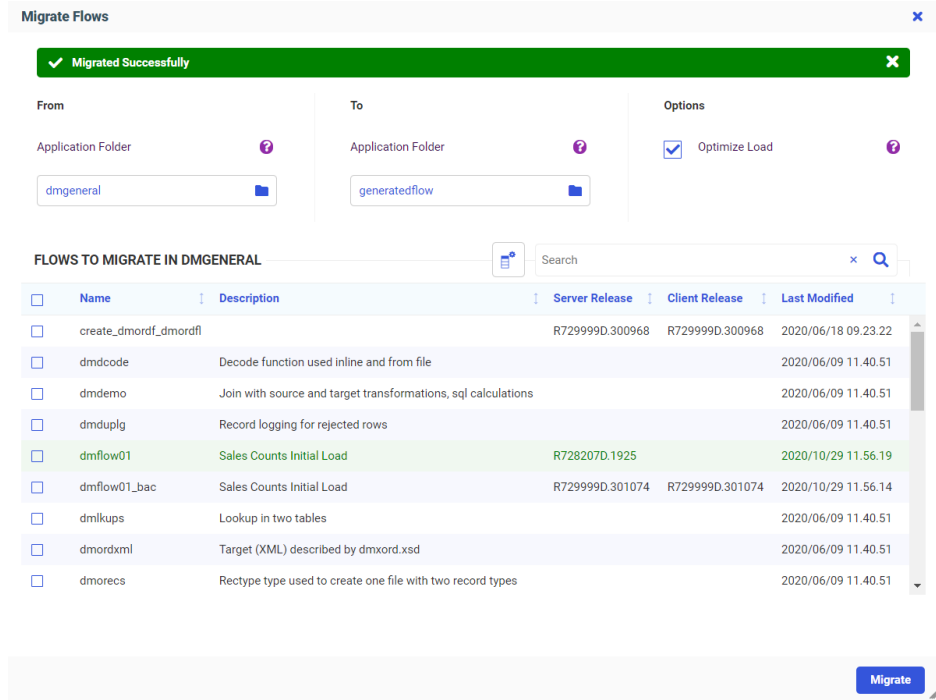
3. Select the check boxes next to the flows you want to migrate, and click *Migrate*.

If the *From* and *To* folders are the same, the original versions of the selected flows will be saved with the suffix `_bac` appended to the flow name. The migrated flows will have the original names. The following message displays to inform you of this.



If you receive this message, either click *OK* to migrate the flows and save the original versions with names that have the suffix `_bac`, or click *Cancel* to cancel the migration.

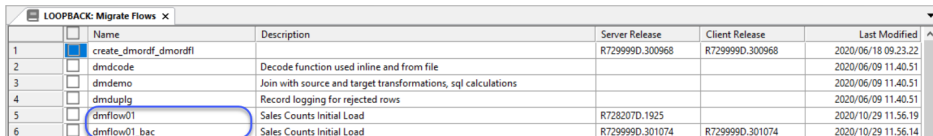
In the Reporting Server browser interface, the Migrate Flows window has either a green banner and success message at the top, if the flows were migrated successfully, or a red banner with error messages, if they were not. A successful migration is shown in the following image.



The flows on the list that were selected for migration are also highlighted.

4. Close the Migrate Flows window by clicking the X at the top right, if you are using the Reporting Server browser interface.

In the Data Migrator desktop interface, the original flows (with the \_bac suffix) and migrated flows (with the original names) will appear on the panel, as shown in the following image.





In the Reporting Server browser interface:

- ❑ if the *From* and *To* application folders were the same, the original flows (with the *\_bac* suffix) and migrated flows will appear in the application folder.
- ❑ If the *From* and *To* folders were different, the original flows will be in the *From* folder, with their original names, and the migrated flows will be generated in the *To* folder, with the same names.

## Selecting Excel as the Default Target Adapter in a Flow

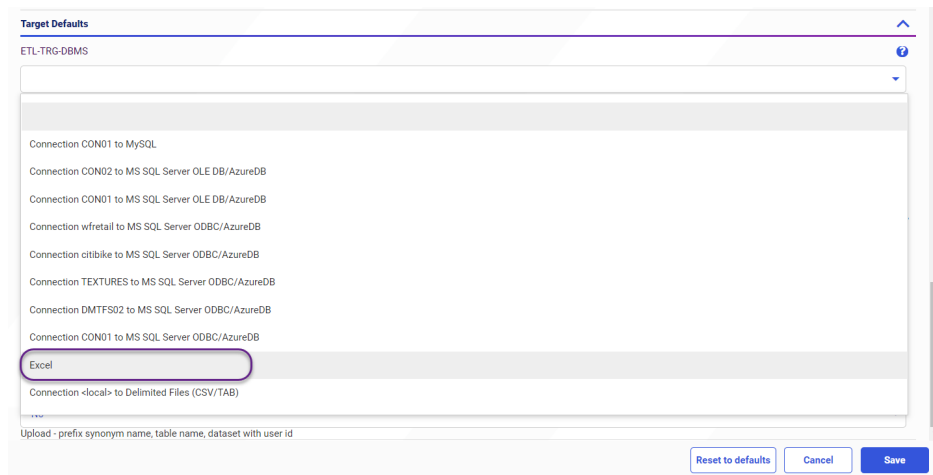
In prior releases, Excel could not be selected as the default target adapter for Data Flows. Now, if the Adapter for Excel is configured, Excel can be selected as the default adapter.

To select Excel as the default target adapter, navigate to the Workspace page in the Reporting Server browser interface, or expand Workspace in the Data Migrator desktop interface.

Click *Settings*, then *Settings for Web Console Preferences*. The *Change Settings for Web Console Preferences* panel opens.

Scroll down, and expand the Target Defaults section.

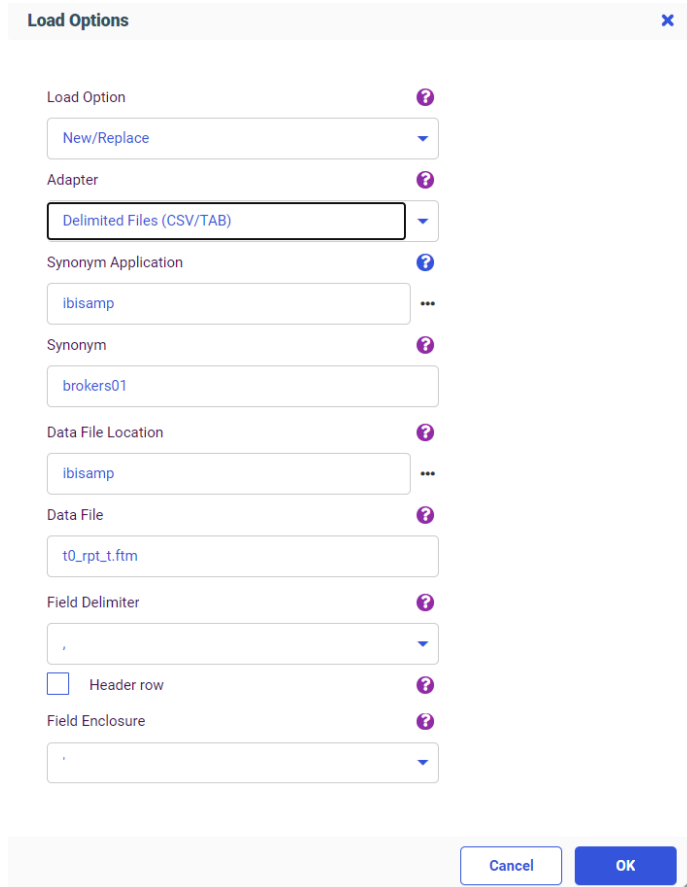
Select *Excel* in the ETL-TRG-DBMS drop-down list, as shown in the following image.



Click **Save**.

## Using a Delimited Target When No Relational Adapter is Available

If you create a Data Flow in the Reporting Server browser interface or the Data Migrator desktop interface, and no relational adapter is configured, the default Adapter will be Delimited Files, as shown in the following image.



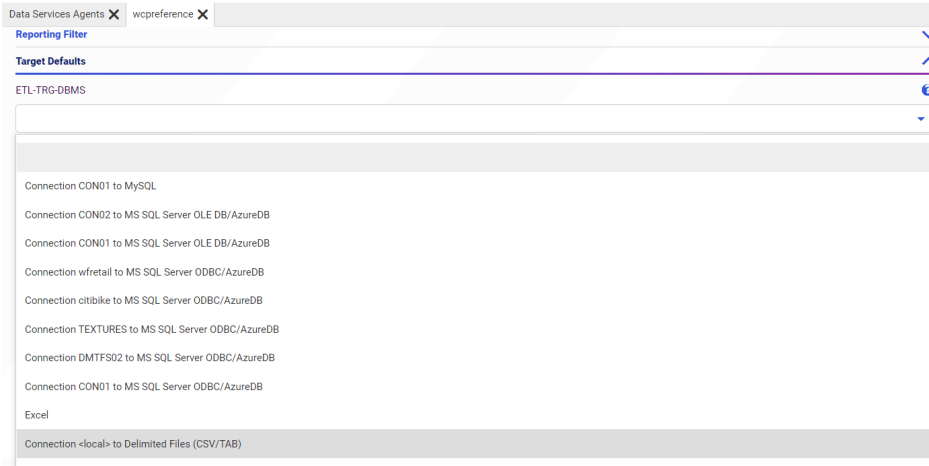
The image shows a 'Load Options' dialog box with the following fields and values:

- Load Option:** New/Replace
- Adapter:** Delimited Files (CSV/TAB)
- Synonym Application:** ibisamp
- Synonym:** brokers01
- Data File Location:** ibisamp
- Data File:** t0\_rpt\_t.ftm
- Field Delimiter:** ,
- Header row:**
- Field Enclosure:** ' (single quote)

Buttons for 'Cancel' and 'OK' are located at the bottom right of the dialog.

In addition, when a connection for the Adapter for Delimited Files is configured, you can select it as the default target adapter.

To set the connection to the Adapter for Delimited Files as the default target adapter, navigate to the Workspace page of the Reporting Server browser interface (or expand Workspace in the Data Migrator desktop interface). Click *Settings*, then *Settings for Web Console Preferences*. Scroll down to the *Target Defaults* section, and select the connection for the Adapter for Delimited Files in the *ETL-TRG-DBMS* drop-down list, as shown in the following image.



## Adapter for SharePoint: Create Synonym Support for Multiple Sites in List Mode

In prior releases, when you created a synonym using the Adapter for SharePoint and selected Lists mode, only one site displayed. Now, if multiple sites are available, they all appear, as shown in the following image.

### Create Synonym for SharePoint (SharePoint\_Online)

Mode:  Lists  Entities

Sites	↓ Drill Down
Information Builders Inc. Team Site	→
teamsitetest	→
PointPublishing Hub Site	→
Community	→
Test Team #2	→
Test Team	→

You can click the arrow to the right of any site in the Drill Down column to open a table of lists for that site, as shown in the following image.

#### Create Synonym for SharePoint (SharePoint\_Online)

Mode:  Lists  Entities

Select	Lists
<input checked="" type="radio"/>	AppPages
<input type="radio"/>	Hub Settings
<input type="radio"/>	PortalSiteList

Back Next

Select a list and click *Next*.

The Create Synonym page opens for the selected list, as shown in the following image.

Create Synonym for SharePoint (SharePoint\_Online) : AppPages

Go to Simple Mode

Customize data type mappings

Miscellaneous settings

Application: libisamp Synonym name: apppages

Synonym Field Names Processing Options

Validate  Make Unique

Back Add

Enter or select the appropriate options, as described in the chapter named *Using the Adapter for SharePoint* in the *Adapter Administration* manual, and click *Add* to create the synonym.

## Adapter for REST: Support for No Value in a Label in the JSON Body

The Adapter for REST can now pass a label with no value within the JSON Body for a POST request.

For example, WHERE COUNTRY EQ "" will be shown as "country": "" within the JSON Body.

Adding OMIT\_MISSING=NO in the Access (.acx) File will produce the following properties in the JSON Body:

- ❑ Fields defined in the Master File with MISSING=ON will send a null value, if there is no WHERE clause defined for that field.
- ❑ Fields with MISSING=OFF defined in the Master File will send the property "value":"" for a non-numeric field, and the property "value":0 for a numeric field, if there is no WHERE clause defined for that field.

### **Example:** Passing a Label With No Value in the JSON Body

The following Access File specifies a JSON POST response, with OMIT\_MISSING=NO.

```
SEGNAME=M6ILO,
CONNECTION=geonames,
OBJECT=postalCodeSearchJSON,
SERVICETYPE=REST,
HTTPMETHOD=POST,
RESTRESPONSE=JSON,
OMIT_MISSING=NO,
HTTPBODY=JSON, $
```

The Master File has the following field definition.

```
FIELDNAME=ADMINCODE1, ALIAS=adminCode1, USAGE=A55, ACTUAL=A55,
MISSING=OFF, ACCESS_PROPERTY=(NEED_VALUE), $
```

With these attributes defined, the JSON Body will automatically include "adminCode1": "", if there is no WHERE or IF clause for ADMINCODE1 defined in the WebFOCUS report request.

### **Adapter for REST: Support for CSV Format in a REST Response**

The Adapter for REST can create metadata for an XML or JSON Web Service response.

If a Web Service response is in CSV format, use the following process to create the response metadata.

1. To create the initial Adapter for REST metadata, follow the process described in the section named *Managing RESTful Web Services Metadata* in the chapter named *Using the Adapter for REST* of the *Adapter Administration* manual.
2. Comment out the SEGMENT=RESPONSE line in the Master file, by adding a dollar sign character (\$) in the first column. For example:

```
$ SEGMENT=RESPONSE, SEGTYPE=S0, PARENT=M6ILO, POSITION=__RESPONSE, $
```

3. Create and run a procedure to save the entire response of the Web Service call in a file, passing any required parameter values using WHERE statements.

The following is a sample procedure that saves the CSV response for a Web Service request to file *outfile.csv* in the baseapp application.

```
SET END_OF_TEXT=' '
FILEDEF OUTFILE DISK baseapp/outfile.csv
TABLE FILE CSV_RESPONSE
PRINT
    __RESPONSE
ON TABLE HOLD AS OUTFILE
END
```

4. Using the Adapter for Delimited Files (CSV/TAB), create metadata against the file *outfile.csv* that you created in step 3.

For information about creating metadata for a delimited file, see the section named *Managing Metadata for Fixed-Format and Delimited Files* in the chapter named *Using the Adapters for Fixed-Format and Delimited Files* of the *Adapter Administration* manual.

The following image shows the Create Synonym screen for Delimited Files.

The screenshot displays the 'Create Synonym for Delimited Files (CSV/TAB)' configuration interface. Key settings include:

- Scan All rows?**:
- Header row?**:
- Number of first rows to skip?**:
- Field Delimiter?**: ,(comma)
- Field Enclosure?**: "(double quote)"
- CODEPAGE?**: 1252 - Windows (Latin 1) - Server Default
- COLL?**: 3,045,000.76 - digit group separator - comma, decimal mark - dot - Server Default

Below the settings are sections for 'Advanced', 'Customize data type mappings', and 'Miscellaneous settings'. The 'Miscellaneous settings' section shows 'Application?' set to 'baseapp'. The 'Data File location:' is 'baseapp'. A table lists existing synonyms and their data files:

Default Synonym Name	Data File
<input type="checkbox"/> baseapp3330000b43e2d8abab	baseapp3330000b43e2d8abab.csv
<input type="checkbox"/> csv_response	csv_response.csv
<input checked="" type="checkbox"/> outfile	outfile.csv
<input type="checkbox"/> source_offix	source_offix.csv

At the bottom, there are 'Back' and 'Add' buttons.

5. Make the following modifications to the REST Master File.
  - a. Uncomment the `SEGMENT=RESPONSE` statement, and add `SEGSUF=DFIX`.
  - b. Copy all of the `FIELDNAME` metadata from the Master file created for the delimited file in step 4, and paste it under the `SEGMENT=RESPONSE` line in the REST Master file.

The following is a sample the Master File with these edits. The highlighted `SEGMENT=RESPONSE` declaration has `SEGSUF=DFIX`, and is followed by the FIELD definitions from the metadata created for outfile.csv in step 4.

```

FILENAME=M6ILO, SUFFIX=REST      , $
  SEGMENT=M6ILO, SEGTYPE=S0, $
  GROUP=HEADER, ALIAS=Header, ELEMENTS=1, $
  FIELDNAME=FORMAT, ALIAS=format, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
  XDEFAULT='csv', $
  FIELDNAME=__RESPONSE, USAGE=TX80L, ACTUAL=TX,
ACCESS_PROPERTY=(INTERNAL), $
SEGMENT=RESPONSE, SEGTYPE=S0, PARENT=M6ILO, SEGSUF=DFIX,
POSITION=__RESPONSE, $
  FIELDNAME=YEAR1, ALIAS=year, USAGE=A152V, ACTUAL=A152VB,
  MISSING=ON,
  TITLE='year', $
  FIELDNAME=WEIGHT, ALIAS=weight, USAGE=D33.5, ACTUAL=A64V,
  MISSING=ON,
  TITLE='weight', $
  FIELDNAME=GENDER, ALIAS=gender, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='gender', $
  FIELDNAME=RACE1R, ALIAS=race1R, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='race1R', $
  FIELDNAME=HISPANIC, ALIAS=hispanic, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='hispanic', $
  FIELDNAME=ETHNIC1R, ALIAS=ethnic1R, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='ethnic1R', $

FIELDNAME=AGER, ALIAS=ager, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='ager', $
FIELDNAME=MARITAL2, ALIAS=marital2, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='marital2', $
FIELDNAME=HINCOME, ALIAS=hincome, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='hincome', $
FIELDNAME=POPSIZE, ALIAS=popsiz, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='popsiz', $
FIELDNAME=REGION, ALIAS=region, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='region', $
FIELDNAME=MSA, ALIAS=msa, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='msa', $
FIELDNAME=DIREL, ALIAS=direl, USAGE=I11, ACTUAL=A11V,
  MISSING=ON,
  TITLE='direl', $

```



```

FIELDNAME=NOTIFY, ALIAS=notify, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='notify', $
FIELDNAME=WEAPON, ALIAS=weapon, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='weapon', $
FIELDNAME=WEAPCAT, ALIAS=weapcat, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='weapcat', $
FIELDNAME=NEWCRIME, ALIAS=newcrime, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='newcrime', $
FIELDNAME=NEWOFF, ALIAS=newoff, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='newoff', $
FIELDNAME=SERIOUSVIOLENT, ALIAS=seriousviolent,
USAGE=I11, ACTUAL=A11V, MISSING=ON,
TITLE='seriousviolent', $
FIELDNAME=INJURY, ALIAS=injury, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='injury', $
FIELDNAME=TREATMENT, ALIAS=treatment, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='treatment', $
FIELDNAME=VICSERVICES, ALIAS=vicservices, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='vicservices', $
FIELDNAME=LOCATIONNR, ALIAS=locationnr, USAGE=I11, ACTUAL=A11V,
MISSING=ON,
TITLE='locationnr', $

```

6. Make the following modifications to the REST Access File.

- a. Insert RESTRESPONSE=DFIX, before the dollar sign (\$).
- b. Add a line with SEGNAME=RESPONSE.
- c. Copy all of the lines under SEGMENT, except CONNECTION, from the Access file created for the delimited file outfile.csv in step 4, and paste it under the SEGMENT=RESPONSE line you added in the REST Access file.
- d. Add an RDELIMITER line.

The value of the attribute will be 0x0A for ASCII platforms such as Windows or Linux (RDELIMITER=0x0A).

The value of the attribute will be 0x25 for OS400 platforms (RDELIMITER=0x25).

The value of the attribute will be 0x15 for z/OS platforms (RDELIMITER=0x15).

- e. Add a comma and dollar sign (,\$) after the RDELIMITER value.

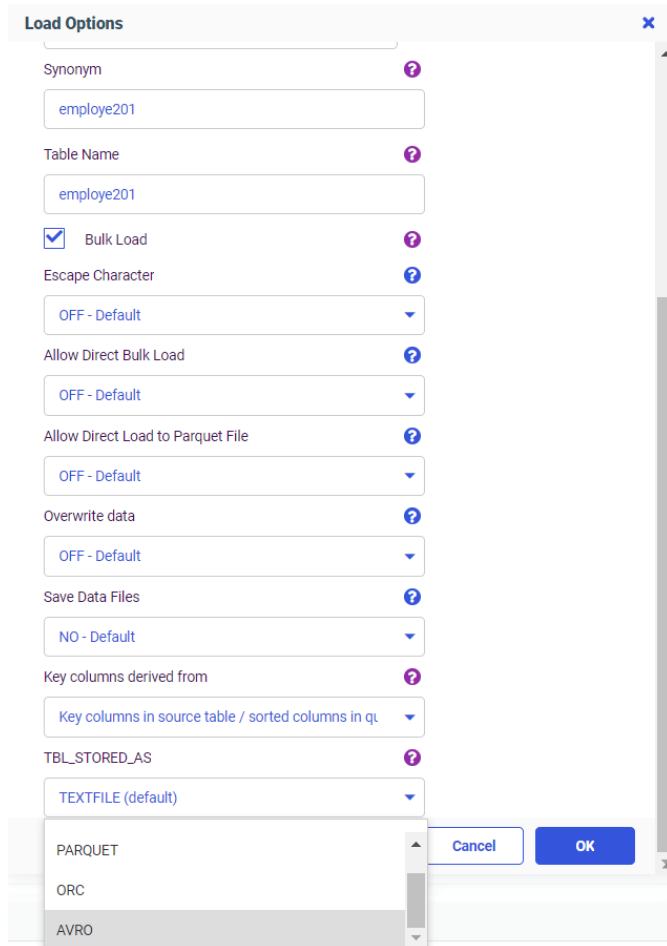
The following is a sample Access File with these edits, on a Windows or Linux platform.

```
SEGNAME=M6ILO,  
CONNECTION=bjsncvs,  
OBJECT=personal/2019,  
HEADER=HEADER,  
SERVICETYPE=REST,  
HTTPMETHOD=GET,  
RESTRESPONSE=DFIX,$  
SEGNAME=RESPONSE,  
DELIMITER=',',  
ENCLOSURE='',  
HEADER=YES,  
CDN=COMMAS_DOT,  
RDELIMITER=0x0A,$
```

### Adapter for Apache Hive: Creating Avro Files

Using the Adapter for Apache Hive, files can now be created in the Avro self-describing binary file format. Avro is a portable (language neutral) format that can be created in the Hadoop Distributed File System (HDFS).

To create Avro files, create a Data Flow with a new Hive target. In the Load Options dialog box, select Avro for the TBL\_STORED\_AS option, as shown in the following image.



## Fixes

- Performance of the Application Path has been improved when a mapped drive is configured. (200928035)
- Joining a parameterized URL and a JSON body using a REST Master File as the target results in an empty JSON body. (201015109)
- Using Get Data to create a synonym with the Default Synonym Name column displayed, the arrow keys cannot be used to position the cursor when trying to change the name.

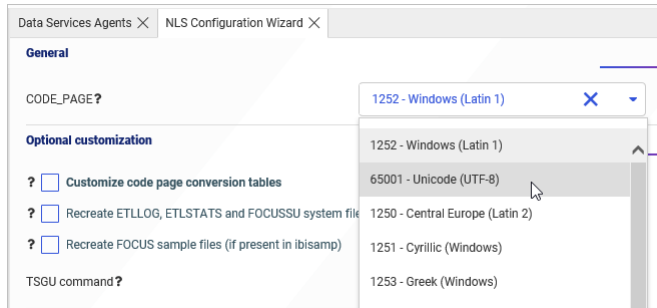
- ❑ When creating a synonym against a REST Web Service that returns a GZIP encoded JSON, the Response segments in the Master File are not created.
- ❑ The ODBC connector does not connect to a server with a code page that is different from the client. (201001034)
- ❑ Using the Synonym Editor with the Advanced Expression to add a new expression with illegal characters results in a Status 400 bad request error message when run instead of a warning message during creation. (200406120)
- ❑ Using Get Data to upload an Excel worksheet to the server with the adapters for Apache Hive or Apache Drill fails with a Could not initialize class error.
- ❑ Using Resource Analyzer with a PostgreSQL repository fails when bulk load is enabled and reverts to the slower row-at-a-time processing. (200422022)
- ❑ Unable to delete Attendre la fin de l'exécution (Waiting for completion) once assigned to a task in the PageWait Travaux & Animations option in the French version of App Studio. (200924004)
- ❑ When using the Data Management Console, attempts to rename an application directory fails sometimes and displays a blank dialog box. (200902102)
- ❑ Active report that previously worked, hangs with Loading... message. If you select F12, you will see console errors. (200914090)
- ❑ An Excel sheet exported from an Analytic Document is corrupted. This issue occurs with the following three conditions: COMPUTE or DEFINE field in Px.x% format, BY field, ACROSS field. (200617010)
- ❑ After using App Studio for some time, the user receives an error message when they try to close a FOCEXEC that is open on the canvas and has changes. (201008009)
- ❑ When using different folders to put objects into the domain (Reporting Objects, Graphs, Reports), during the execution of the procedures that have the same name as the Reporting Objects, you get an error. (200902138)
- ❑ When on-demand filter loading is turned on, drop-down menus do not populate with dates when the page is run in Internet Explorer. (201001088)
- ❑ After selecting Clear buckets content in an active chart, the user is unable to add fields to the query. Issue only pertains to ARVERSION 2. (200806017)
- ❑ A PDF report implementing horizontal tab characters in Unicode environment displays the characters as square boxes in the heading of the report. (200514031)

- ❑ Arabic characters generating wrong text in PDF format. (200917007)
- ❑ When a data cell has a single "space" character, it is not preserved in the report output for XLSX format. (200130099)
- ❑ The URL to Stop a Self-Service Request in a legacy application or environment has been fixed to stop self-service requests and continues to display the message to confirm the requests are stopped. (200819002)
- ❑ Data Migrator lists branches after the remote or local repositories are deleted causing a code conflict and users do not receive a clear, informative message when the code conflicts occurs. (201008137)

## Upgrade Notes

- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

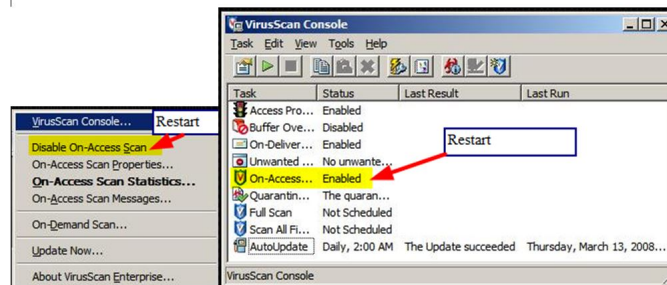
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltere
rChain.java:166) ~
```

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/viruscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

### Browser Information

This release is certified and has been tested with Google Chrome version 86, Firefox version 81, Microsoft Edge Chromium version 85 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



# Chapter 13

## 8207.19 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Thursday, November 5, 2020	wf102820a Gen 19 wi102820a as102820a	8207.19 Gen 1924

### New Features

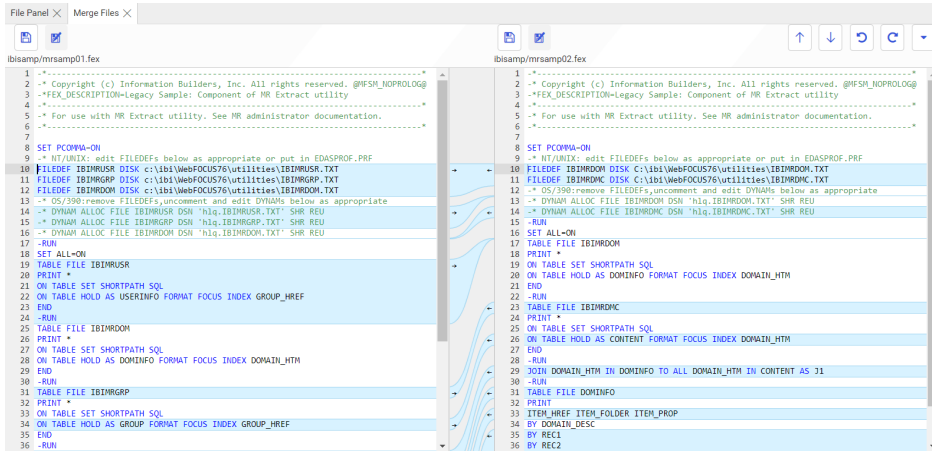
#### Server Text Editor Supports Jump to Next or Previous Difference in Compare and Merge

In the Server Console, the Text Editor Compare Files and Merge Files pages now have *Jump to Next Difference* and *Jump to Previous Difference* buttons.




These buttons enable you to see connected differences easily, without scrolling.




To compare or merge files, multi-select two files, right-click, and select either *Compare Files* or *Merge Files*. Although both can show the differences, only Merge Files enables you to move content between the files. Compare Files is read-only.

The files open with left and right scrolling locked to the first difference, aligned in the middle of the window (when the file sizes allow), as shown in the following image for Merge Files.



You can use the following buttons to move between differences and control the merge process. The arrows for the current difference will be aligned and displayed with left and right scrolling locked.

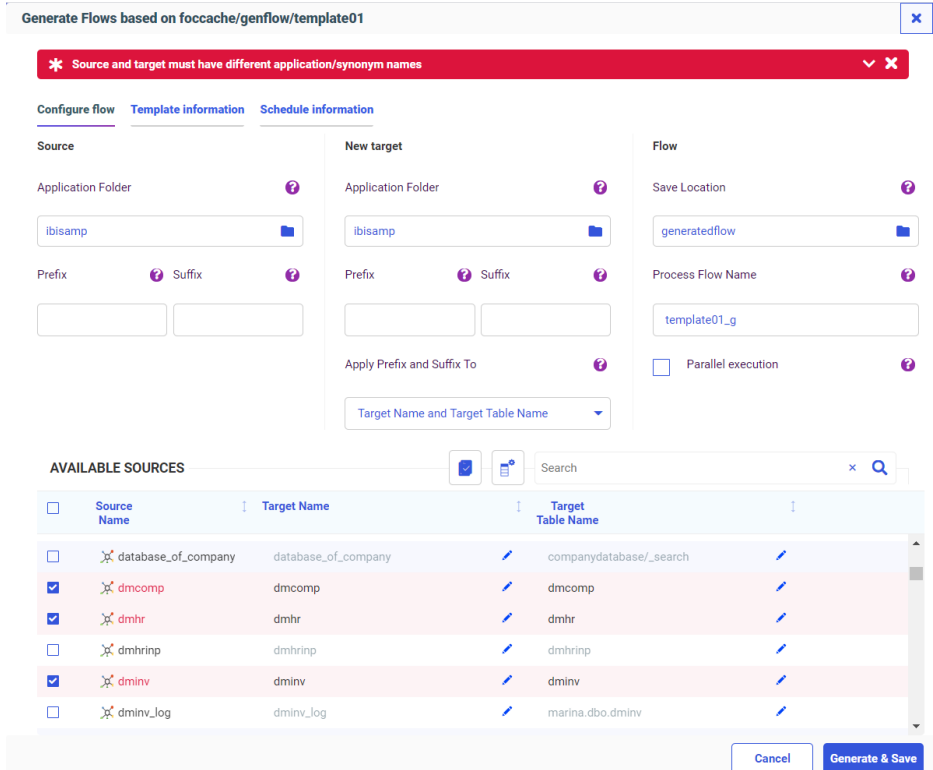
Button Image	Description
	<p>Save File (Merge only)</p> <p>Each file has its own Save icon (Save Left and Save Right), so that you can save the file when you are finished with the merge edits for each.</p>
	<p>Save File As (Merge only)</p> <p>Each file has its own Save As icon (Save Left As and Save Right As), so that you can save the file in a new folder and/or under a new name when you are finished with the merge edits for each.</p>
	<p>Jump to Previous Difference</p> <p>Locks and aligns the left and right scroll bars to the previous difference, if there is one.</p>

Button Image	Description
	<p>Jump to Next Difference</p> <p>Locks and aligns the left and right scroll bars to the next difference, if there is one.</p>
	<p>Undo (Merge Only)</p> <p>Undoes the previous merge action.</p>
	<p>Redo (Merge Only)</p> <p>Redoes the previously undone merge action.</p>

### Generate Flows Highlights Rows With Validation Errors

The Generate Flows process has two points of validation. When you click the Verify button on the Generate Flows screen, your selections and edits on the screen are validated. When you click *Generate & Save* or *Generate & Submit*, additional validation is done before the flows and synonyms are generated.

The list of validation errors appears in the widget at the top of the screen. In addition, if rows in the table at the bottom of the screen have validation errors, those rows are highlighted, as shown in the following image, in which the source and target folders and names are the same.



Correct the errors and click the *Verify* button to validate your changes.

### Empty Application Message in the Server Console

When the Server Console opens to the Applications page by default, only the top level folders are displayed, and when an application folder is selected, only files in that folder are shown.

If you select an application folder that has no files, a message telling you to select a different application displays on the empty canvas, as shown in the following image.



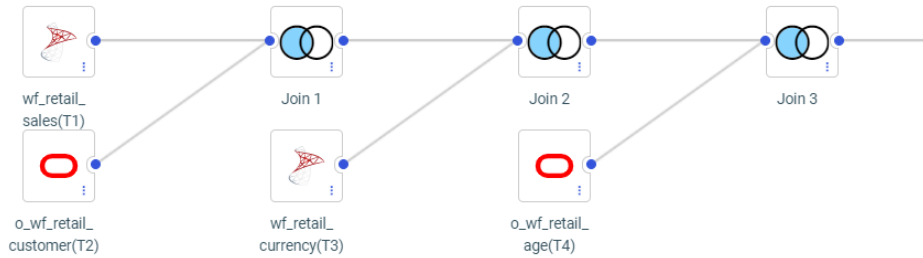
## Cross-Join Performance Improvements

The following retrieval performance improvements have been made for joining multiple tables in different databases.

- If there is more than one cluster of tables from the same DBMS in the FROM clause, joins between those tables are passed to the corresponding DBMS.
- If there is a WHERE condition on fields from the outer table in a left or right outer join, and this condition always fails for null values, that join is converted to an inner join.
- If there is WHERE condition on fields from the left, right, or both tables in a full outer join, and this condition always fails for null values, that join is converted to a left, right, or inner join.
- Merge sub-select phrases *if from*, *where*, *group by*, and *having* are the same and re-use the temporary table created for the merge sub-select statement.

**Example:** Improving Performance With Left Outer Joins

The following flow creates three left outer joins between Microsoft SQL Server tables and Oracle tables. The Oracle synonyms start with the characters o\_.



The following SQL statement corresponds to the joins generated by the flow.

```
SQL
SELECT
  T1.ID_SALES ,
  T1.ID_STORE ,
  T1.ID_CURRENCY ,
  T1.ID_CUSTOMER ,
  T1.ID_DISCOUNT ,
  T1.ID_PRODUCT ,
  T1.ID_TIME ,
  T1.COGS_LOCAL ,
  T1.COGS_US ,
  T1.DISCOUNT_LOCAL ,
  T1.DISCOUNT_US ,
  T1.GROSS_PROFIT_LOCAL ,
  T1.GROSS_PROFIT_US ,
  T1.MSRP_LOCAL ,
  T1.MSRP_US ,
  T1.QUANTITY_SOLD ,
  T1.REVENUE_LOCAL ,
  T1.REVENUE_US ,
  T2.ID_AGE ,
  T2.ID_EDUCATION ,
  T2.ID_GEOGRAPHY ,
  T2.ID_INCOME ,
  T2.ID_INDUSTRY ,
  T2.ID_MARITAL_STATUS ,
  T2.ID_OCCUPATION ,
  T2.ID_TIME_MIN ,
  T2.ID_TIME_MAX ,
  T2.EMAIL_ADDRESS ,
  T2.FIRSTNAME ,
  T2.FULLNAME ,
  T2.GENDER ,
  T2.LASTNAME ,
  T2.INCOME ,
  T3.CURRENCY_NAME ,
  T3.CURRENCY_RATE ,
  T4.AGE ,
  T4.AGE_RANGE ,
  T4.AGE_GROUP
```

```
FROM
  ((("ibisamp/facts".wf_retail_sales T1
    LEFT OUTER JOIN /*Join 1*/
    "ibisamp/dimensions".o_wf_retail_customer T2
    ON
    T1.ID_CUSTOMER = T2.ID_CUSTOMER )
    LEFT OUTER JOIN /*Join 2*/
    "ibisamp/dimensions".wf_retail_currency T3
    ON
    T1.ID_CURRENCY = T3.ID_CURRENCY )
    LEFT OUTER JOIN /*Join 3*/
    "ibisamp/dimensions".o_wf_retail_age T4
    ON
    T2.ID_AGE = T4.ID_AGE )
WHERE
  T1.REVENUE_US > 600 AND
  T2.LASTNAME LIKE 'C%' AND
  T3.CURRENCY_NAME = 'US Dollar' AND
  T4.AGE BETWEEN 35 AND 40
;
END
```



The Session Log shows the joins that were generated. The left outer joins were converted to inner joins, as shown in the following partial listing.

**JOIN INNER**

```

SQLAPP01.ID_AGE
  IN 'ibisamp/dimensions/o_wf_retail_customer' TAG SQLAPP01
TO ALL
  ID_AGE
  IN 'ibisamp/dimensions/o_wf_retail_age' TAG SQLJTG01
AS SQLJNM01
END
DEFINE FILE 'ibisamp/dimensions/o_wf_retail_customer' TEMP
SQLDEF01/I1 WITH SQLJTG01.O_WF_RETAIL_AGE.ID_AGE = 1;
END
TABLEF FILE 'ibisamp/dimensions/o_wf_retail_customer'
PRINT
  SQLAPP01.ID_AGE
  SQLAPP01.ID_EDUCATION
  SQLAPP01.ID_GEOGRAPHY
  SQLAPP01.ID_INCOME
  SQLAPP01.ID_INDUSTRY
  SQLAPP01.ID_MARITAL_STATUS
  SQLAPP01.ID_OCCUPATION
  SQLAPP01.ID_TIME_MIN
  SQLAPP01.ID_TIME_MAX
  SQLAPP01.EMAIL_ADDRESS
  SQLAPP01.FIRSTNAME
  SQLAPP01.FULLNAME
  SQLAPP01.GENDER
  SQLAPP01.LASTNAME
  SQLAPP01.INCOME
  SQLJTG01.AGE
  SQLJTG01.AGE_RANGE
  SQLJTG01.AGE_GROUP
  SQLAPP01.ID_CUSTOMER
  SQLDEF01 AS (, 'SQL$$HIDDEN01',)
  SQLJTG01.ID_AGE NOPRINT

WHERE ( SQLAPP01.LASTNAME LIKE 'C%' ) ;
WHERE ( ( SQLJTG01.AGE FROM 35 TO 40
AND SQLJTG01.AGE NE MISSING) ) ;
ON TABLE SET HOLDATTRS ON
ON TABLE SET CARTESIAN ON
ON TABLE SET ASNAMES MIXED
ON TABLE SET HOLDLIST PRINONLY
ON TABLE HOLD
  AS SQLHLD01
  FORMAT DATREC
END

```

In addition, joins that use the same DBMS are passed to that DBMS, as shown in the following partial listing.

```
SELECT
  T1."ID_CUSTOMER" ,
  T1."ID_AGE" ,
  T1."ID_EDUCATION" ,
  T1."ID_GEOGRAPHY" ,
  T1."ID_INCOME" ,
  T1."ID_INDUSTRY" ,
  T1."ID_MARITAL_STATUS" ,
  T1."ID_OCCUPATION" ,
  T1."ID_TIME_MIN" ,
  T1."ID_TIME_MAX" ,
  T1."EMAIL_ADDRESS" ,
  T1."FIRSTNAME" ,
  T1."FULLNAME" ,
  T1."GENDER" ,
  T1."LASTNAME" ,
  T1."INCOME" ,
  T2."ID_AGE" ,
  T2."AGE" ,
  T2."AGE_RANGE" ,
  T2."AGE_GROUP"
FROM
  wf_retail_customer_t T1,
  wf_retail_age_t T2
WHERE
  (T2."ID_AGE" = T1."ID_AGE") AND
  (T1."LASTNAME" LIKE 'C%') AND
  (T2."AGE" IS NOT NULL) AND
  (T2."AGE" BETWEEN 35 AND 40);
```

### New Setting for Controlling Display of Unreferenced Business View Fields

In prior releases, when a synonym had a Business View defined, the Object Inspector in the WebFOCUS tools, such as Designer, displayed only those fields that were referenced in a Business View folder.

A new setting is available in the Reporting Server browser interface that enables you to show all fields, even those not referenced in a folder.

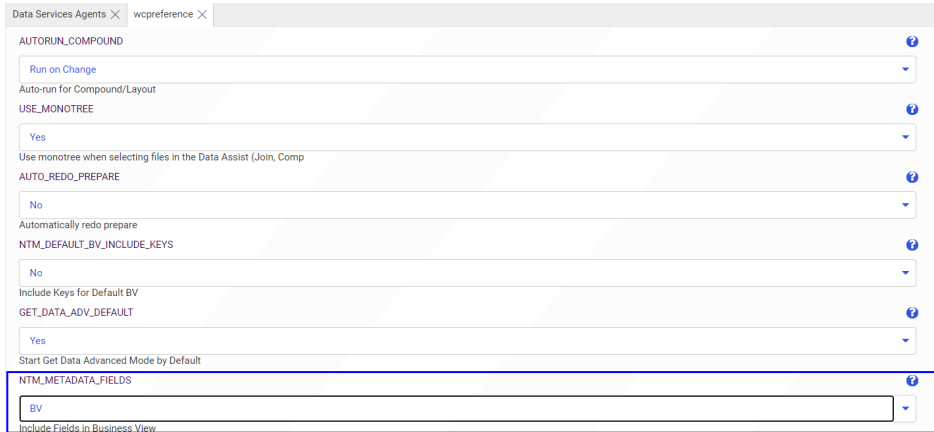
To access this setting, do the following.

1. Navigate to the Workspace page in the Reporting Server browser interface.
2. Click *Settings*, then *Settings for Web Console Preferences*.

The *Change Settings for Web Console Preferences* page opens.

3. Expand the *Data Assist* section.

4. Scroll down to find the NTM\_METADATA\_FIELDS setting, as shown in the following image.



By default, it is set to the value *BV*, to show only those fields referenced in Business View folders.

5. If you want the WebFOCUS tools to display all fields, change the value to *All* and click Save.

## Adapter for OData: Support for Reformatting Fields

In prior releases, the Adapter for OData did not pass aggregation to the OData engine if SUM or BY fields were reformatted to a different USAGE format in a request. The Adapter for OData can now pass aggregation to OData when SUM or BY fields are reformatted in a request.

## Adapter for OData: Support for MISSING

The Adapter for OData now translates the filters *field EQ MISSING* and *field NE MISSING* in a report request to *field eq null* and *field ne null* in the generated OData aggregated or non-aggregated request.

Only the root segment and unique child segments (SEGTYPE=U) are supported for filtering on MISSING in the OData request.

The following request is an example of a TABLE request that filters on MISSING.

```
TABLE FILE CUSTOMERS
PRINT
CUSTOMERS . CUSTOMERS . COMPANYNAME
CUSTOMERS . CUSTOMERS . COUNTRY
IF CUSTOMERS . CUSTOMERS . COUNTRY NE MISSING
END
```

The following is the generated OData request, with the filter translated to a filter on null.

```
https://services.odata.org/V4/Northwind/Northwind.svc/Customers?  
$select=CustomerID,CompanyName,Country&$filter=Country%20ne%20null
```

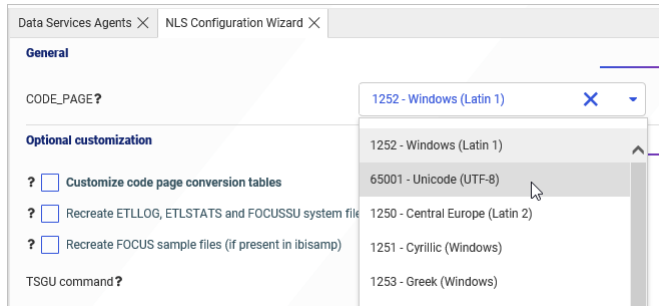
## Fixes

- When selecting a synonym from the Server Console and you choose the Show/Modify Data option, a new value containing spaces cannot be entered.
- The user receives an error opening a data flow on the Server Console that contained a WHERE condition with a variable and clicking the SQLPill.
- When the control is set to Popup Style and the multiple property is selected, after executing a search using the runtime paging/search control, the initial value that is selected is not applied to the control. (200513033)

## Upgrade Notes

- As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

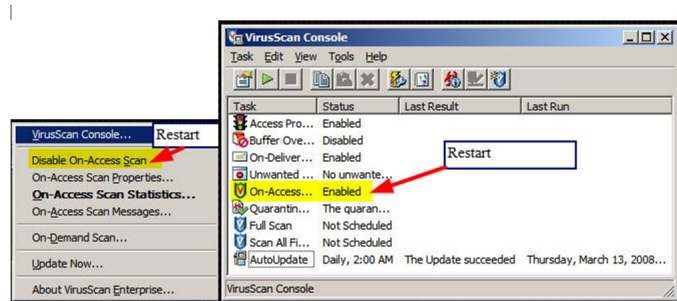
- ❑ When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.
- ❑ In Release 8207.19, McAfee VirusScan Enterprise prevents WebFOCUS JSP files from getting compiled during deployment of the WebFOCUS application.

When this issue occurs, errors will be captured in the application logs and event.log. Errors will also display in the browser when attempting to connect to WebFOCUS.

The following is an example of errors in the Tomcat localhost.log file.

```
WARN [http-nio-8080-exec-1: URLFilter] admin - Monitor.URLFilter caught
exception: org.apache.jasper.JasperException msg: Unable to compile
class for JSP
org.apache.jasper.JasperException: Unable to compile class for JSP
Stacktrace:Stacktrace: at
org.apache.jasper.servlet.JspServletWrapper.handleJspException(JspServlet
Wrapper.java:617) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServletWrapper.service(JspServletWrapper.jav
a:499) ~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.serviceJspFile(JspServlet.java:386)
~[jasper.jar:8.5.51] at
org.apache.jasper.servlet.JspServlet.service(JspServlet.java:330)
~[jasper.jar:8.5.51] at
javax.servlet.http.HttpServlet.service(HttpServlet.java:741) ~[servlet-
api.jar:?] at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(Applicat
ionFilterChain.java:231) ~[catalina.jar:8.5.51] at
org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFiltere
rChain.java:166) ~
```

As a workaround, on the machine where WebFOCUS and McAfee VirusScan Enterprise are installed, restart McAfee On-Access Scan from the Windows system tray or the VirusScan Console, as shown in the following images.



Or, exclude the WebFOCUS install directory from getting scanned by McAfee.

This issue does not occur with McAfee Endpoint or McAfee Total Protection.

**Note:** McAfee VirusScan Enterprise (VSE) 8.8 is replaced by McAfee Endpoint (latest release is 10.7) and McAfee recommends that customers migrate to this edition.

<https://www.mcafee.com/enterprise/en-us/products/viruscan-enterprise.html>

<https://kc.mcafee.com/corporate/index?page=content&id=KB93335>

## System Requirements

This release is certified and has been tested with Google Chrome version 86, Firefox version 81, Microsoft Edge Chromium version 85 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).





## 8207.18 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information


Release Date	Gen Information	Reporting Server
Friday, October 2, 2020	wf093020b Gen 13 wi093020b as093020b	8207.18 Gen 1923

### New Features

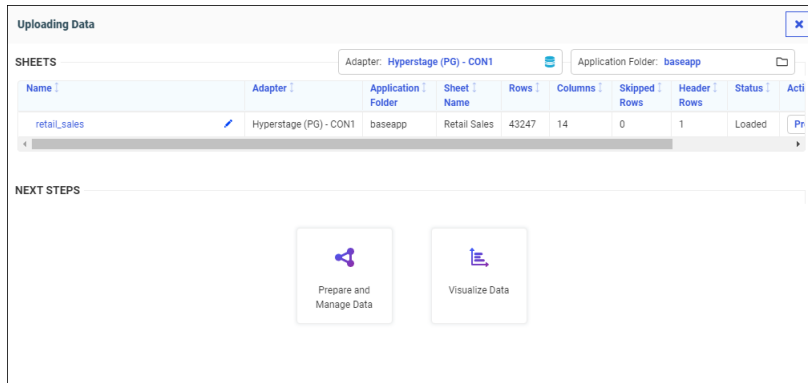
#### New Prepare and Manage Data Workflows from WebFOCUS Home Page

From the WebFOCUS Home Page, when using the Prepare and Manage Data option to open the Reporting Server browser interface, and then clicking *Get Data*, you can return to the Reporting Server browser interface to prepare or manage more data, or if you choose, visualize your data in Designer.

To enable the workflows, set the following Server preference: From the Tools menu in the Reporting Server browser interface, select *Workspace*, click *Settings*, select *Settings for Web Console Preferences*, click *Miscellaneous Settings*, and set NEWSYNSTAT to YES. Click *Save* to apply the new setting.

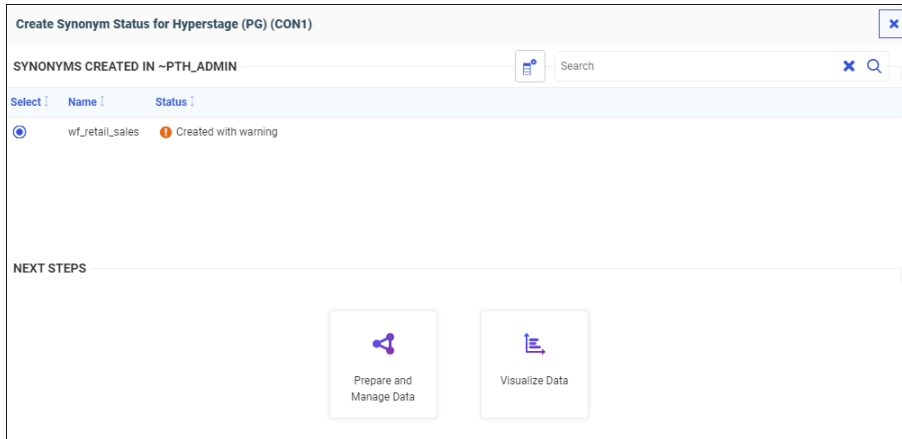
From the Home Page, click the plus sign , from the Plus menu, click *Prepare and Manage Data* to go to the Reporting Server browser interface, and then click *Get Data*.

When you upload a data file, on the Uploading Data page, you now have the option to click a *Prepare and Manage Data* button, as shown in the following image.



You can click *Prepare and Manage Data* to return to the Reporting Server browser interface, or if you choose, click *Visualize Data* to open Designer.

When you connect to a data source, and create a synonym, you are now taken to an intermediate Create Synonym Status page with the option to click a *Prepare and Manage Data* button, as shown in the following image.

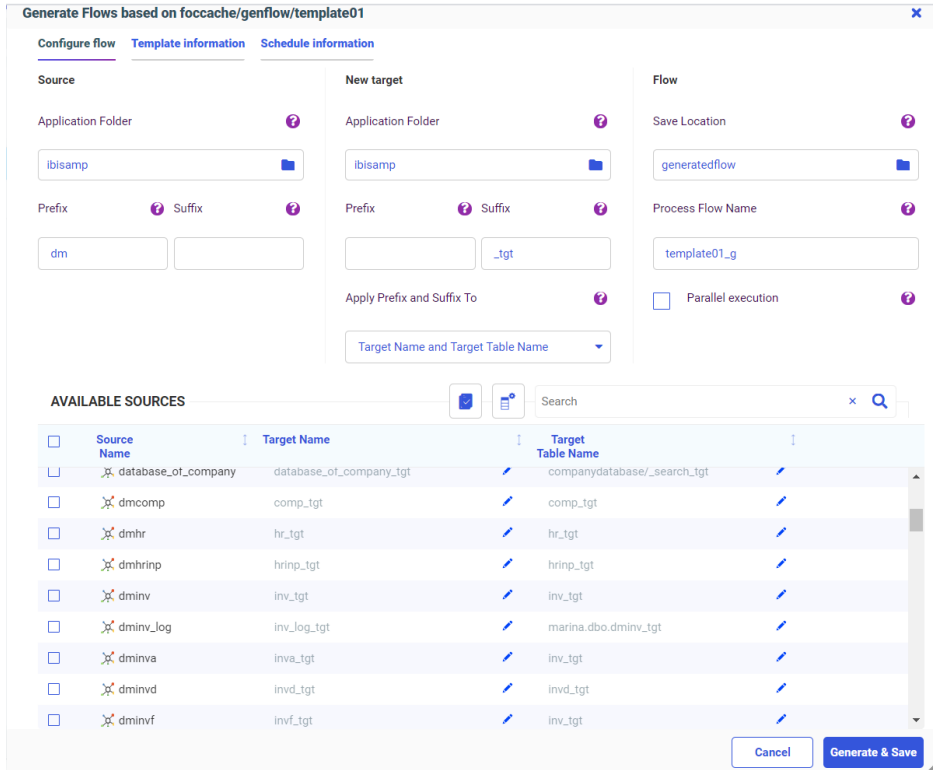


You can click *Prepare and Manage Data* to return to the Reporting Server browser interface, or if you choose, click *Visualize Data* to open Designer.

## Generate Flows Automatically Completes Target Names

On the Generate Flows screen, you can enter prefix and suffix characters to be removed from the source name when creating the target name, as well as prefix and suffix characters to add to the target name. When you enter one or more prefix and suffix values and move the focus away from the entered values, the target names are automatically updated on the synonym selection panel at the bottom of the screen.

On the following Generate Flows screen, if the prefix *dm* is found in the source synonym name, it is to be removed from the target synonym and table name. The suffix *\_tgt* is to be added to all target synonym and table names. The target names appear with these adjustments, as shown in the following image.



## Generate Flows Saves the Last Used Selections

When you use a template flow to generate new flows, on the Generate Flows screen you can change the default application directory locations, specify source and target prefixes and suffixes, change the Process Flow name, select parallel execution, and select the objects for which to apply the prefixes and suffixes. Once you click *Generate and Save* or *Generate and Submit*, these selections are saved and appear the next time you start the Generate Flows process using the same template flow.

The following image shows the default Generate Flows screen for the template flow named template01.

Generate Flows based on foccache/genflow/template01 ✕

**Configure flow** | **Template information** | **Schedule information**

**Source**

Application Folder ?

 📁

Prefix ? Suffix ?

**New target**

Application Folder ?

 📁

Prefix ? Suffix ?

Apply Prefix and Suffix To ?

 ▼

**Flow**

Save Location ?

 📁

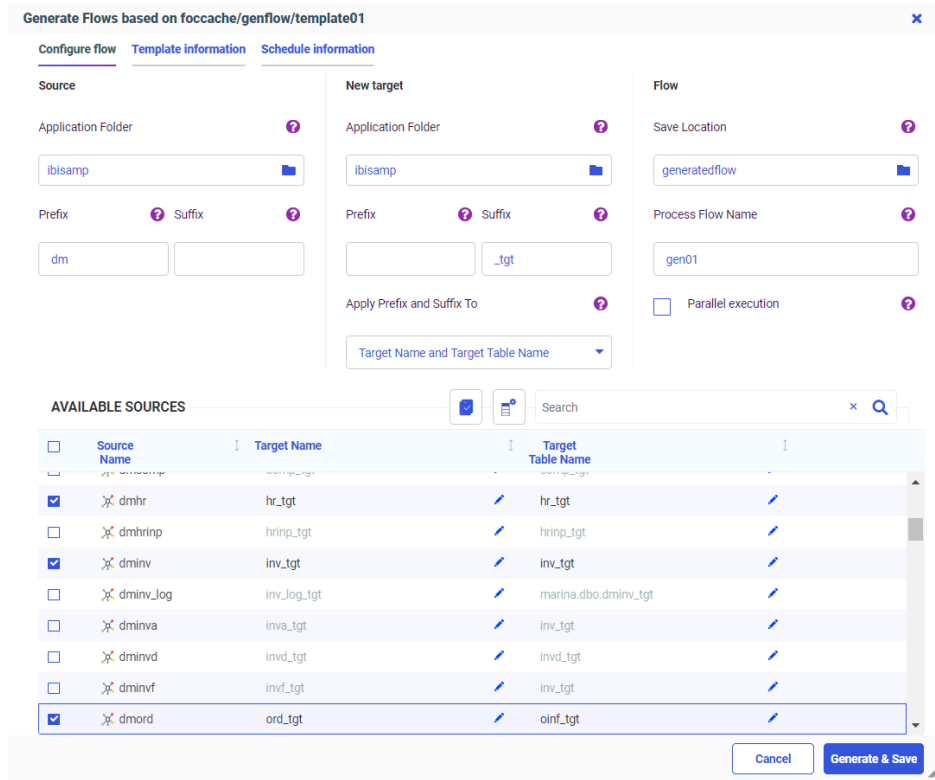
Process Flow Name ?

Parallel execution ?

**AVAILABLE SOURCES** 📁 📄 Search ✕ 🔍

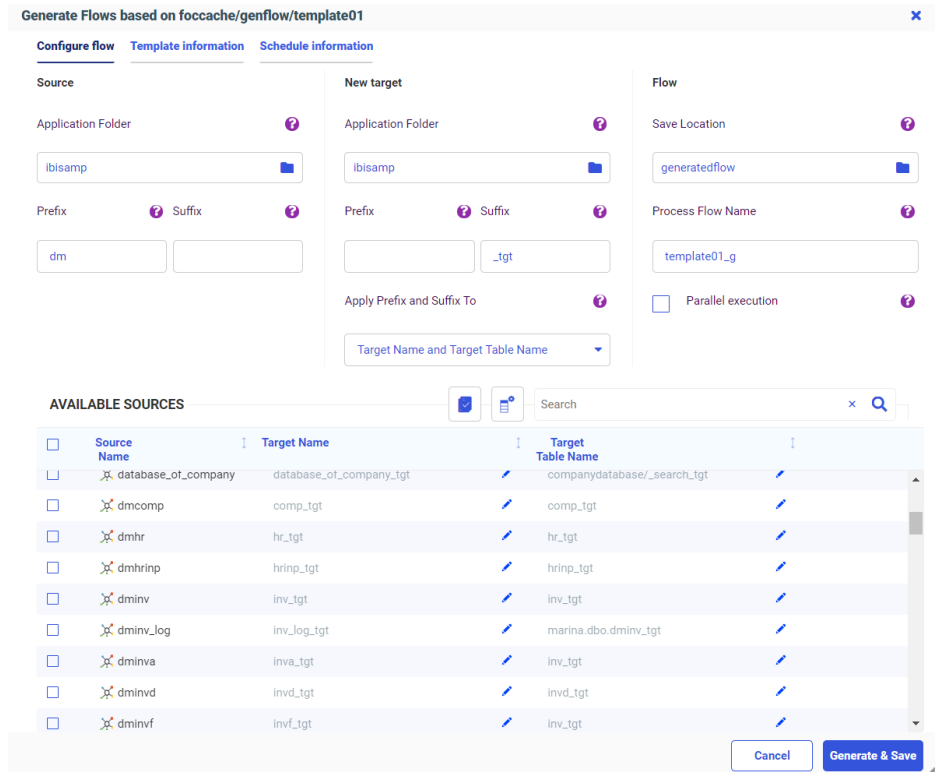
<input type="checkbox"/>	Source Name	Target Name	Target Table Name
<input type="checkbox"/>	citibike_tripdata01	citibike_tripdata01	citibike_tripdata01

The following image shows the changes made to the application directories, source prefix field, and target suffix field prior to generating the flows.



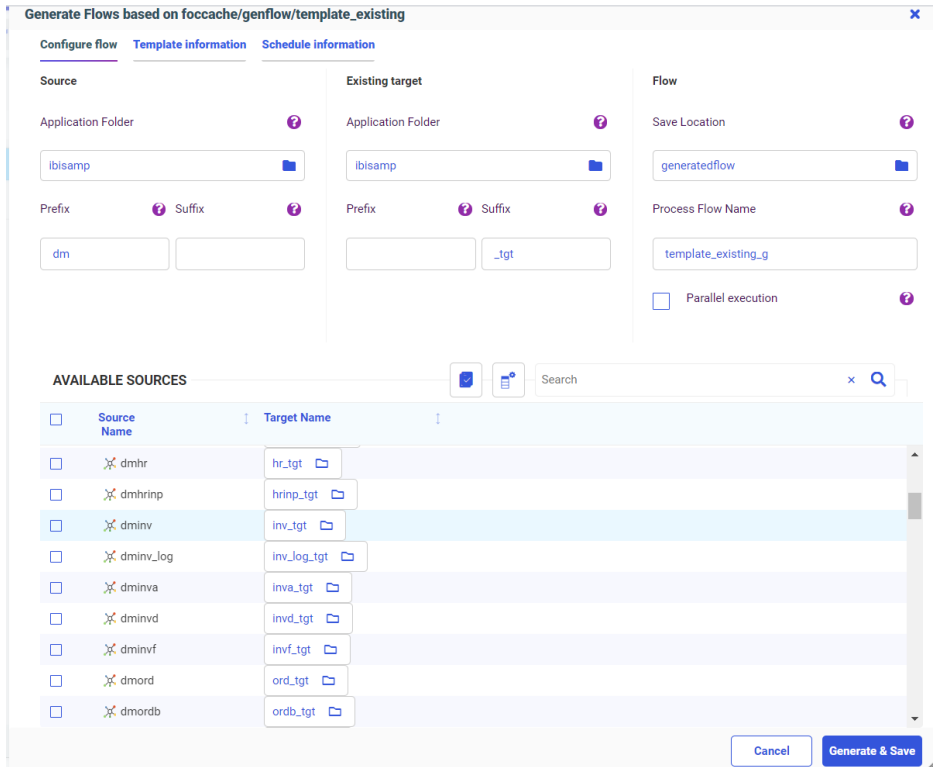
Note that if you change the Process Flow name, the *Parallel execution* selection, or the selection in the *Apply Prefix and Suffix To* drop-down list, those selections will also be saved.

Once you generate the flows using either *Generate and Save* or *Generate and Submit*, the selections are saved. If you then start the Generate Flows process using the same template flow, your prior selections appear on the screen, as shown in the following image.



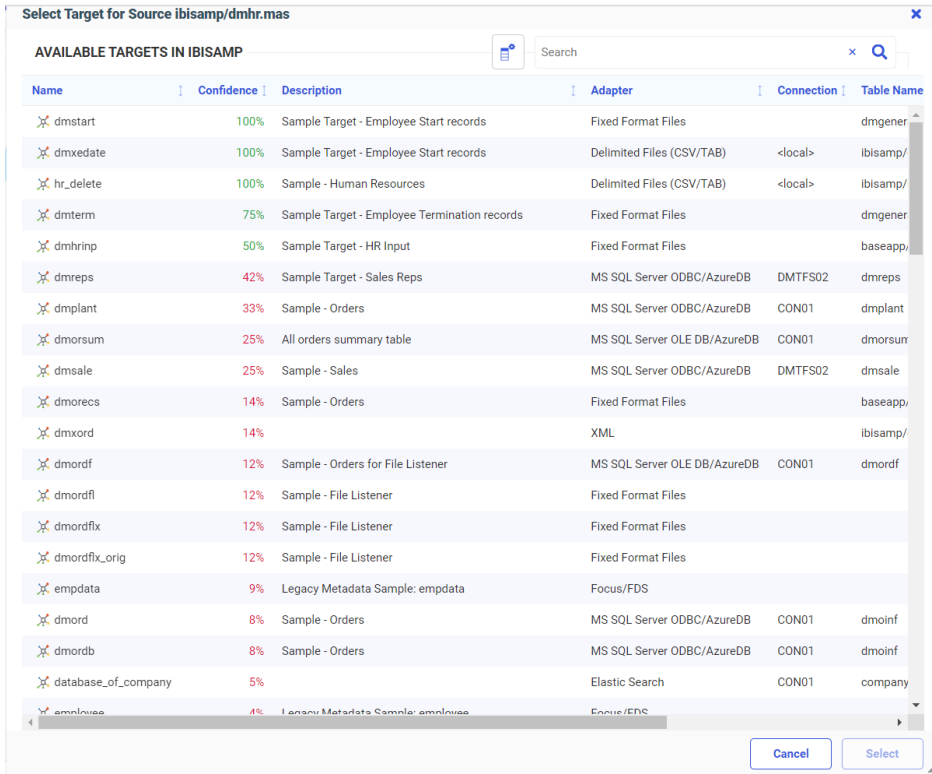
## Generate Flows Identifies Selected Existing Targets

When you use Generate Flows with an existing target, The Generate Flows screen opens initially showing the default suggested target names. These suggested targets are identified by a folder icon with a white fill color, as shown in the following image.

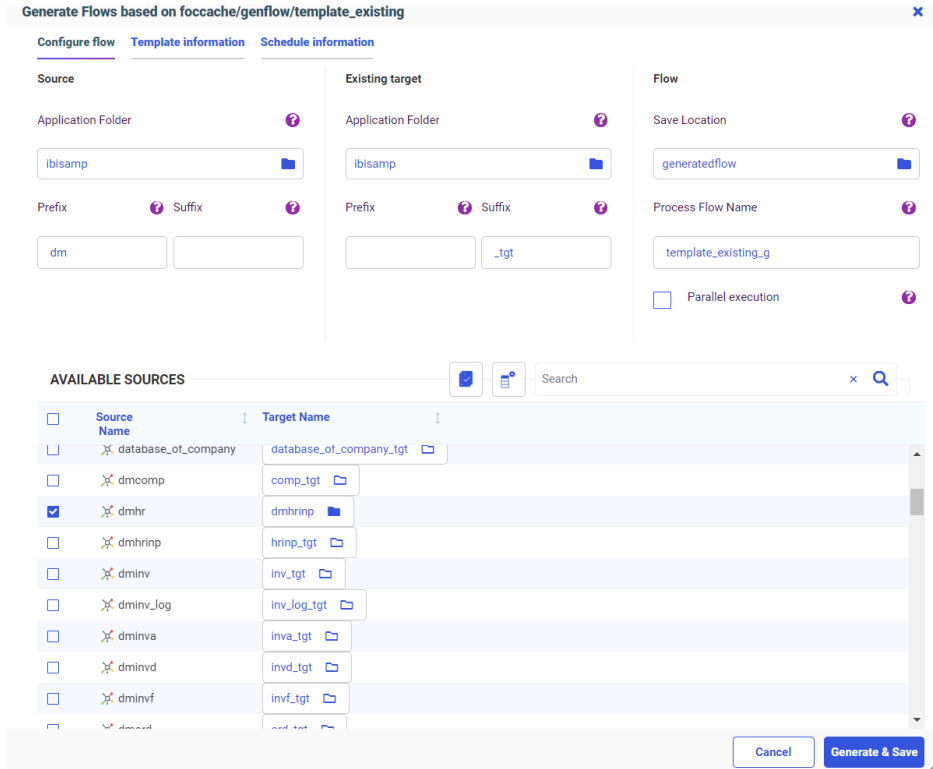




To select an existing target from a list of synonyms, click the target icon. The list of available targets from the Target application directory opens, as shown in the following image.



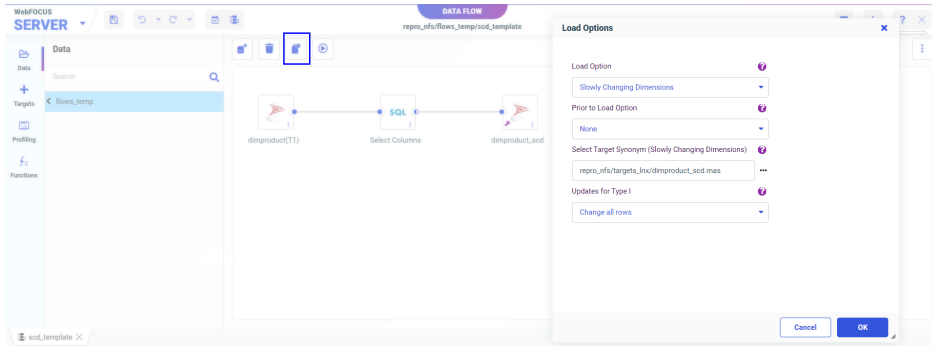
Once you select a target and click *Select*, the folder in the target icon appears with a blue fill color, providing a clear indication that the user made a selection, as shown in the following image.



## Generate Flows Supports Template Flows With an SCD Target

Generate Flows can be used with a template Data Flow that has one source and one target, where the target synonym has Slowly Changing Dimensions (SCDs), and in which the Load Option is *Slowly Changing Dimensions*.

The following image shows a Data Flow with one source and one target. The target synonym (dimproduct\_scd) has SCD fields defined, and the Load Type is Slowly Changing Dimensions.



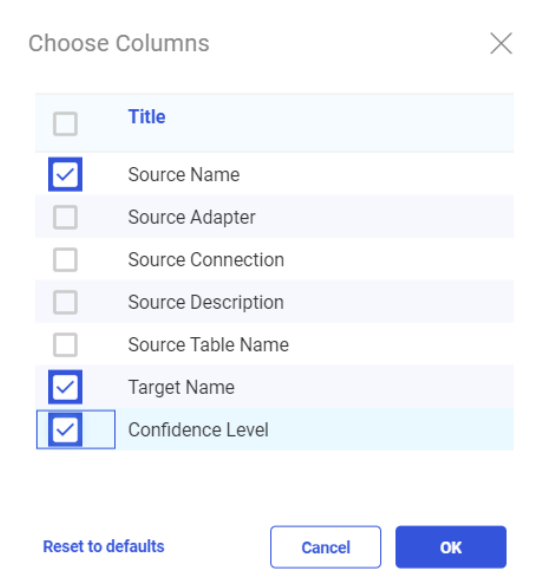
Note that this flow can be used as a template flow, as the *Generate Flows* button is available. You can also right-click the Data Flow in the application tree and click *Generate Flows*.

### Generate Flows Shows the Confidence Level for Existing Targets

Generate Flows uses a template flow to generate multiple Data Flows and a Process Flow that will contain all of the generated Data Flows. In prior releases, only a new target was supported with Generate Flows.

Now, an existing target is supported with Generate Flows, and the row for each existing target has a confidence level associated with it. The confidence level is expressed as a percentage and identifies the compatibility between the source and target based on matching column names and data types.

By default, the Confidence Level column does not display on the Generate Flows screen. To show it, click the Choose Columns icon, select *Confidence Level*, and click *OK*, as shown in the following image.



The following image shows the Generate Flows screen with the Confidence Level column added.

Generate Flows based on foccache/genflow/template\_existing

Configure flow | **Template information** | Schedule information

**Source**

Application Folder:

Prefix:  Suffix:

**Existing target**

Application Folder:

Prefix:  Suffix:

**Flow**

Save Location:

Process Flow Name:

Parallel execution

**AVAILABLE SOURCES**

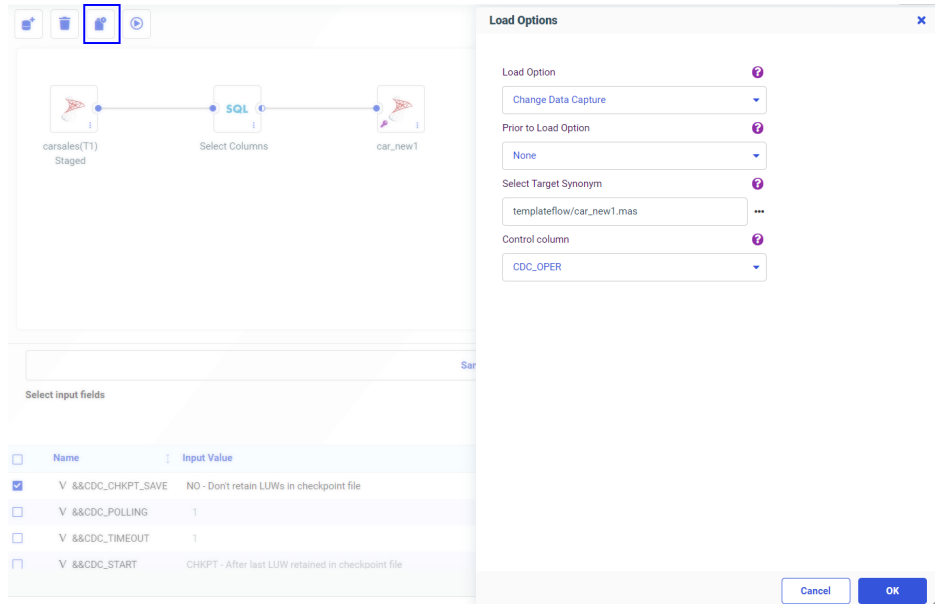
<input type="checkbox"/>	Source Name	Target Name	Confidence Level
<input type="checkbox"/>	dmduplg_dupl	dmduplg_dupl	-
<input type="checkbox"/>	dmhr	dmhr	100 %
<input type="checkbox"/>	dmhrinp	dmhrinp	100 %
<input type="checkbox"/>	dminv	dminv	100 %
<input type="checkbox"/>	dminva	dminva	85 %
<input type="checkbox"/>	dminvd	dminvd	100 %
<input type="checkbox"/>	dmlocs	dmlocs	-
<input type="checkbox"/>	dmord	dmord	100 %
<input type="checkbox"/>	dmordf	dmordf	87 %

Cancel **Generate & Save**

## Generate Flows Supports Template Flows With CDC Sources

Generate Flows can be used with a template flow that uses a Source Log synonym (Change Data Capture source) and one target that has Load Option *Change Data Capture*.

The following image shows a Data Flow with a source log synonym named carsales and a target with Load Option Change Data Capture.



Note that this flow can be used as a template flow, as the *Generate Flows* button is available. You can also right-click the flow in the application tree and select *Generate Flows* from the context menu.

## Controlling Format Conversion Error Processing in a Data Flow

A format conversion error occurs when a field described with a numeric USAGE format contains character values. In prior releases, format conversion errors in a Data Flow were displayed, but not counted or logged. Records with errors were discarded.

Two parameters have been added that control format conversion error processing in a Data Flow.

- CNVERR, which instructs the data engine to replace values that cause data truncation or conversion errors with the default value (null if the column is nullable, zero otherwise).

The default value, REJECT, rejects the record. The value IGNORE replaces the values causing errors with default values, and continues processing the record.

- CNVERRLIMIT, which sets a limit, up to 999999, for the number of records with warnings about data conversion errors.

The default value (0) allows unlimited warning messages. When the limit is reached, processing terminated and the system variable FOCERRNUM is set to 1346.

The following are the warning messages counted for this limit.

```
(FOC1277) RECORD %1. FIELD %2 HAS FORMAT ERROR, VALUE%3: %4
```

```
(FOC1130) FORMAT CONVERSION ERROR FIELD/KEY %1%2%3%4
```

An error occurred attempting to convert the specified field from its ACTUAL to USAGE format. Either the ACTUAL format is described incorrectly or the data may be invalid. Check the MFD.

```
(FOC1346) %1%2%3%4
```

This message provides the record number and position in this record when data conversion interruption occurs.

**Note:** These settings apply when the source is a delimited or Excel file.

These parameters are available in the Reporting Server browser interface and in the Source Properties for a Data Flow in the Data Migrator desktop interface.

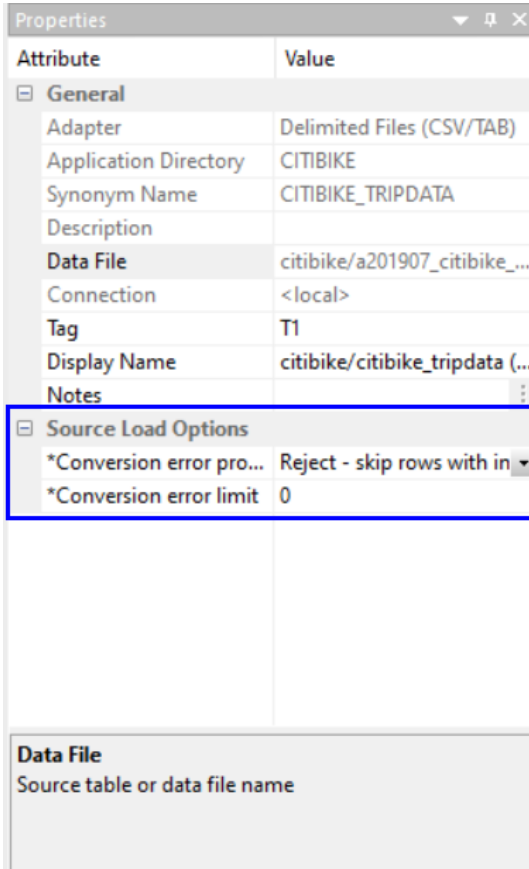
- In the Reporting Server browser interface, navigate to the Workspace page. Click *Settings*, point to *FOCUS Sets and Info*, and click *Core Engine Settings*.

Select *Data Utility Service*, and click *Next*. The Data Utility Service page opens, as shown in the following image.

The screenshot shows the 'Data Utility Service' configuration window. It contains several settings, each with a dropdown menu and a descriptive text. The 'CNVERR?' setting is highlighted with a red box, showing 'REJECT' selected. The 'CNVERRLIMIT?' setting is set to '0'. Other settings include 'ALPHACLEAN?' (OFF), 'NODATA?' (.), 'OVERFLOWCHAR?' (.), 'EXTENDNUM?' (AUTO), 'DISPLAYROUND?' (ON), 'NEG-ZERO?' (OFF), 'VMSFLOATCONV?' (IEEE), 'VMSTIMESTAMP?' (INTERNAL), 'PHONETIC\_ALGORITHM?' (METAPHONE), and 'ALLOWCVTERR?' (OFF). At the bottom right, there are 'Cancel', 'Save', and 'Back' buttons.

- In the Data Migrator desktop interface, right-click a delimited, fixed-format, or Excel source, and click *Properties*.

The Properties panel opens, as shown in the following image.



**Reference:** CNVERR: Controlling Processing of Records With Format Conversion Errors in a Data Flow

```
SET CNVERR = {REJECT|IGNORE}
```

where:

REJECT

Does not process rows with incorrect data, and issues a warning message. This is the default value.



**IGNORE**

Accepts rows with incorrect data, and substitutes default values (null if the column is nullable, zero otherwise).

**Reference: CNVERRLIMIT: Setting a Limit for the Number of Format Conversion Errors in a Data Flow**

`SET CNVERRLIMIT = {0|nnnnnn}`

where:

*nnnnnn*

Is an integer value up to 999999. When the limit is reached, processing is terminated and the system variable FOCERRNUM is set to 1346. The default value, zero (0), allows unlimited format conversion errors.

## Adapter for SharePoint

The Adapter for SharePoint is new in this release. It is used to report against SharePoint Lists residing in the SharePoint Online/Modern environment.

The Adapter for SharePoint is in the XML Based adapter category.

## Fixes

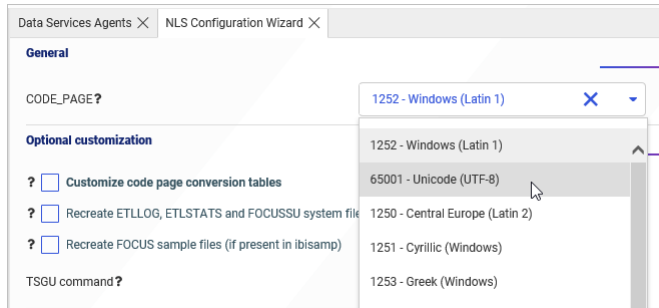
- ❑ When adding a measure from an SSAS Tabular data source to a filter in WebFOCUS Designer, an error message is displayed and the filter is not added. (200507031)
- ❑ In WebFOCUS Designer. you can change the Submit button name, however, the Reset button does not retain changes to its name. (200526024)
- ❑ Fixed: When running an existing HTML file after an upgrade to 8207, an `ib_composer` uncaught Type JS error occurs. (200826071)
- ❑ Count Distinct/CNT.DST throws a server crash on WebFOCUS client and WebFOCUS Server console. (200824043)
- ❑ When creating a visualization of the Grid type in InfoAssist, only 15 measures can be used. When the sixteenth measure is added, it will instead replace the fifteenth measure. (180402051)
- ❑ When the format of the report of the dynamic address book is not XML, the ReportCaster job displays a status of In Progress and the Distribution Server will go into an infinite loop. (200901024)

- ❑ After customizing a portal, the parameters drop-down is empty. (200518066)
- ❑ WebFOCUS Designer is unable to filter if the field has an apostrophe in the title. (200904036)
- ❑ When a procedure that contains amper variables set in an MFD profile is run deferred, an error message is generated at run time. (200512098)
- ❑ When adding an image in a portal created in WebFOCUS Designer, you cannot expand the width of the logo to fill out the banner area. (200908044)
- ❑ An InfoAssist report created in 8207.09 with a one-part filename and sample data cannot be reopened in 8207.16 and later releases. (200922009)

## Upgrade Notes

- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

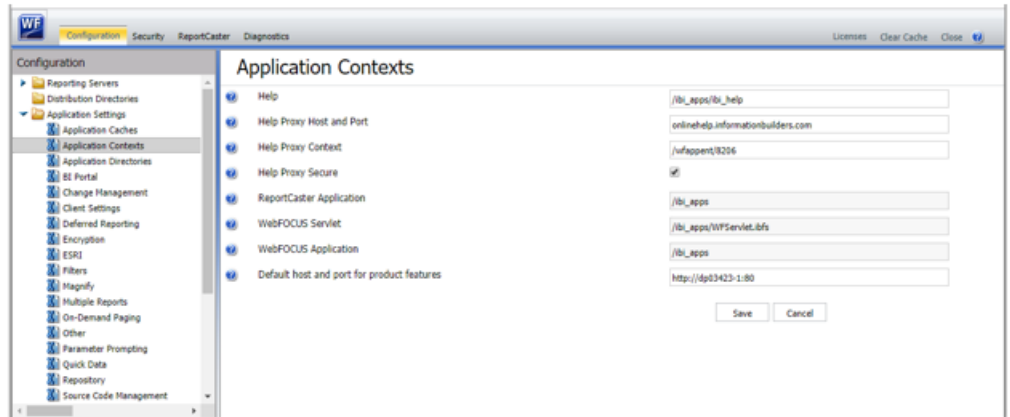
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for Help should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to `onlinehelp.informationbuilders.com`.
4. Set the *Help Proxy Context* to `/wfappent/8206`. If you are using WebFOCUS Release 8207, set the value to `/wfappent/8207`.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.

## System Requirements

This release is now certified and has been tested with Google Chrome version 85, Firefox version 80, Microsoft Edge Chromium version 85 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



## 8207.17 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

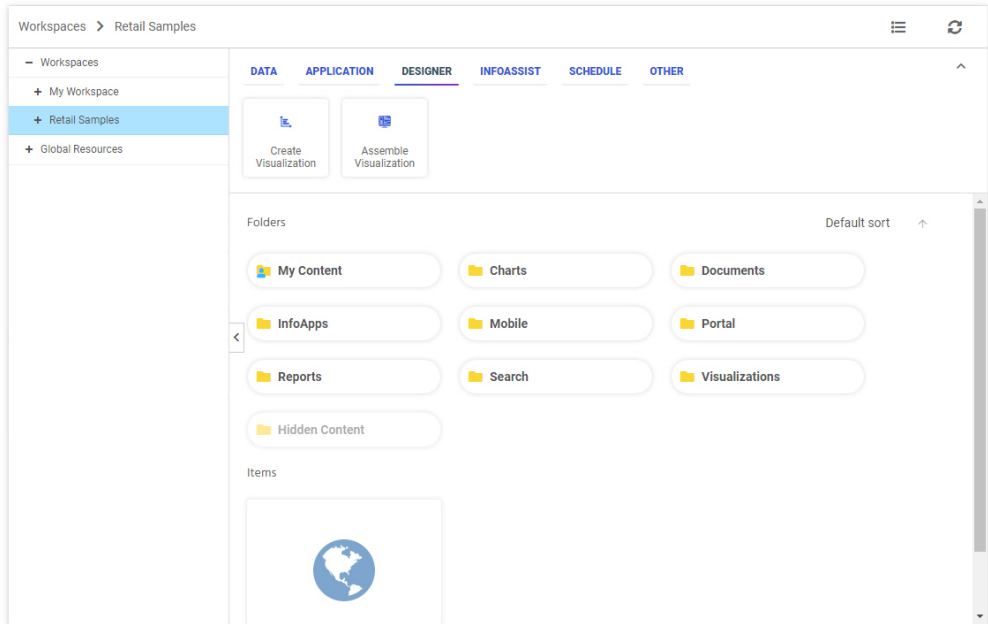
Release Date	Gen Information	Reporting Server
Tuesday, September 17, 2020	wf091520a Gen 7 wi091520a as091520a	8207.17 Gen 1922

### New Features

#### Providing Access to Content Items and WebFOCUS Tools From a Page

When creating a page from existing content in WebFOCUS Designer, you can use the Explorer widget to provide access to the Workspaces view of the WebFOCUS Home Page. This allows anyone accessing the page, or a portal containing the page, to open and run content items and create new content, depending on their privileges. When an administrator uses the Redirect / ibi\_apps to option in the Administration Console to enable a custom welcome page with the Explorer widget, you can provide an enhanced home page combining all of the options available from the Workspaces view with custom content of your choice.

By default, the Explorer widget fills the entire page in order to provide ample space to display any content items and content creation options. As a best practice, leave the Explorer widget as the only item on a page, and add that page to a portal with other pages whose contents you want to display. A page with the Explorer widget is shown in the following image.



### Adapter for Amazon Web Services: Loading a File From AWS S3 Directly to Amazon RDS

Using Data Migrator or a Data Flow, a delimited file (.csv) stored on Amazon Web Services (AWS) S3 can now be loaded directly to Amazon Relational Database Service (RDS), stored in PostgreSQL.

In prior releases, you had to use the Adapter for Athena to read the file.

In order to load the file directly:

- The adapter for AWS S3 must be configured.

For information about configuring the Adapter for AWS S3, see the chapter named *Using the Adapter for AWS S3* in the *Adapter Administration* manual.



- ❑ The Adapter for PostgreSQL must be configured to point to the PostgreSQL database in Amazon RDS, as shown in the following image that points to the example URL `jdbc:postgresql://database-1.xxxxxxxxxxxxxx.rds.amazonaws.com:9999/postgres`.

**Add PostgreSQL to Configuration** [Prerequisites](#)

---

**Connect parameters** ^

Connection Name ?

URL ?

[Show Sample](#)

Security ?

User ?

Password ?

**Advanced Parameters** v

**Environment** v

Select profile ?

The 'Test' option for the connection is only available after initial configuration is complete.

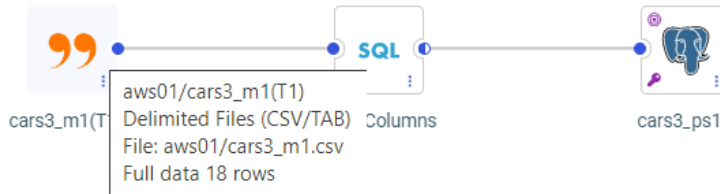
**Configure**

For information about configuring the Adapter for PostgreSQL, see the chapter named *Using the Adapter for PostgreSQL* in the *Adapter Administration* manual.

- ❑ An application directory must be added that is mapped to the AWS S3 connection.

For information about mapping an application directory to an AWS S3 connection, see the chapter named *Using the Adapter for AWS S3* in the *Adapter Administration* manual.

In the following image, aws01 is the application directory mapped to the AWS S3 connection, and the Data Flow loads a delimited file from the AWS S3 repository to PostgreSQL.



### Generating Table and Column Names With DBMS-Specific Length Limits

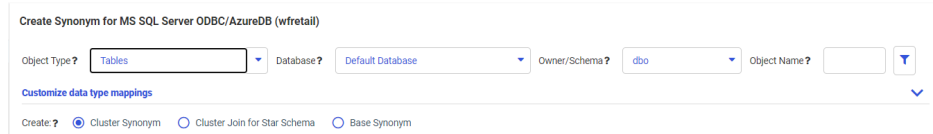
When you use Get Data to upload files, a Data Flow to load data to a target, or Quick Copy to copy data from one DBMS to another, the column names generated may be truncated in order to account for variations in DBMS-specific name length limits.

The name length limit used in a Master File has been increased to the maximum length supported by the DBMS. In most cases this is 128 characters, although some have shorter limits, including the following:

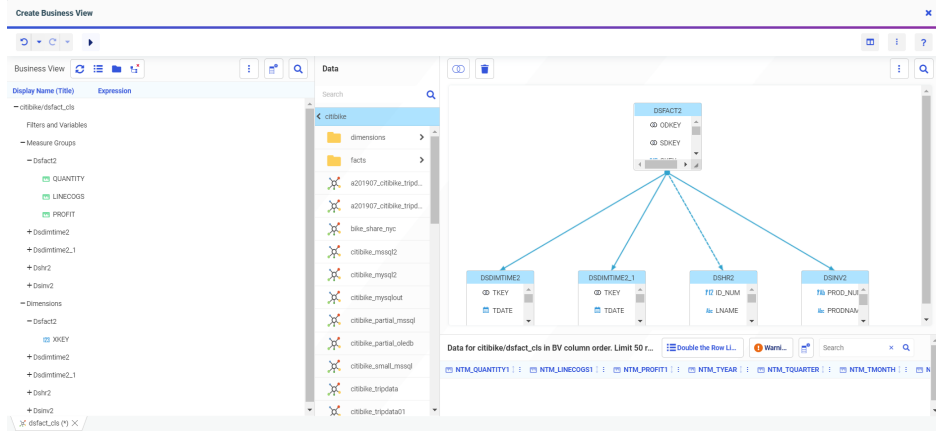
- SAP HANA, Amazon Redshift.** 127 bytes.
- MySQL, MariaDB.** 64 bytes.
- PostgreSQL, Greenplum, Hyperstage.** 63 bytes.
- Progress.** 32 bytes.
- Oracle.** 30 bytes.
- DB2 on z/OS.** 30 bytes.

## Enhanced Options for Creating Cluster Joins

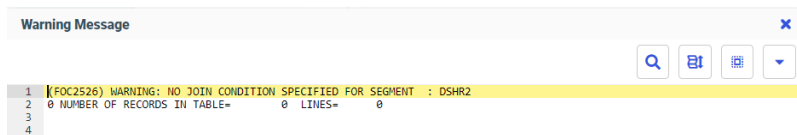
When you use *Get Data* in Advanced Mode to create a synonym for multiple tables, two options are now available, as shown in the following image.



- Cluster Synonym.** All selected tables are added, and join columns can be selected as needed, as shown in the following image.



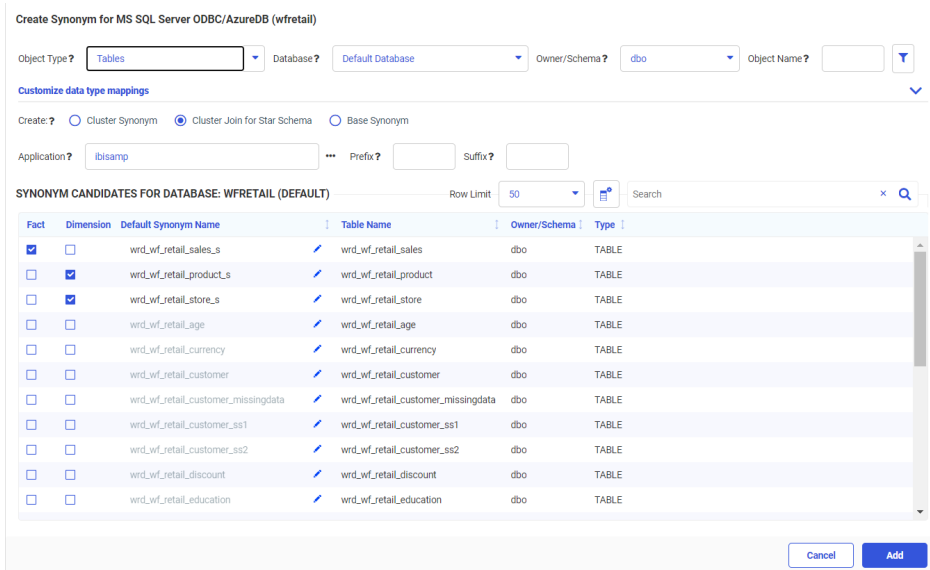
The dotted line indicates where no join condition could be identified. You can click the Warning in the Sample Data area to see the details, as shown in the following image.



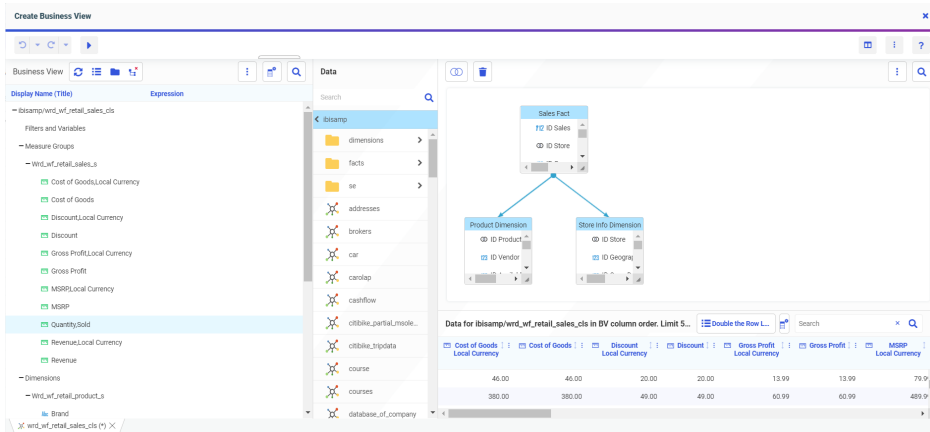
You can create a join condition in the Join Editor, if possible, or remove the table from the cluster.

- Cluster Join for Star Schema.** Only creates join conditions when the tables have Primary Key/Foreign Key relationships.

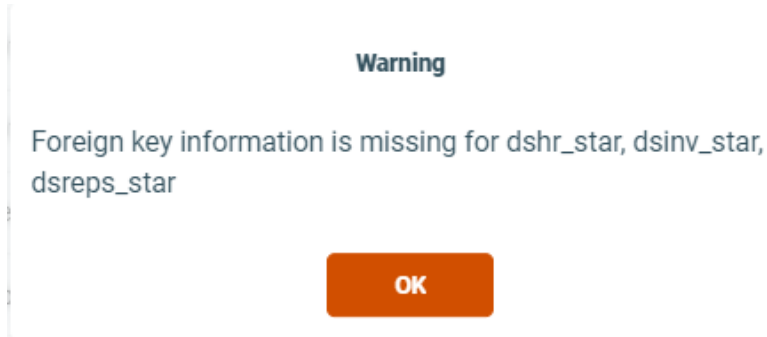
The following image shows the fact table and two related dimension tables selected to generate a cluster join for a star schema.



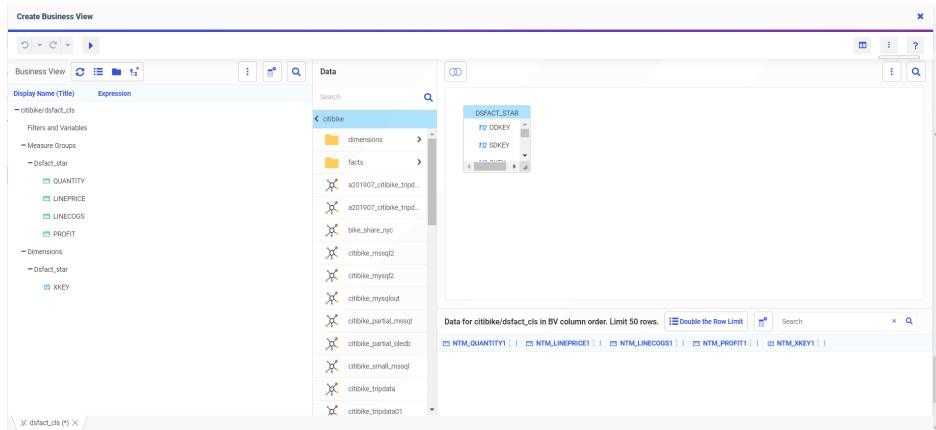
The following image shows the cluster join that was created.



If no primary key/foreign key relationship is found, the corresponding dimension table is not added to the cluster, and a diagnostic message is issued, as shown in the following image.



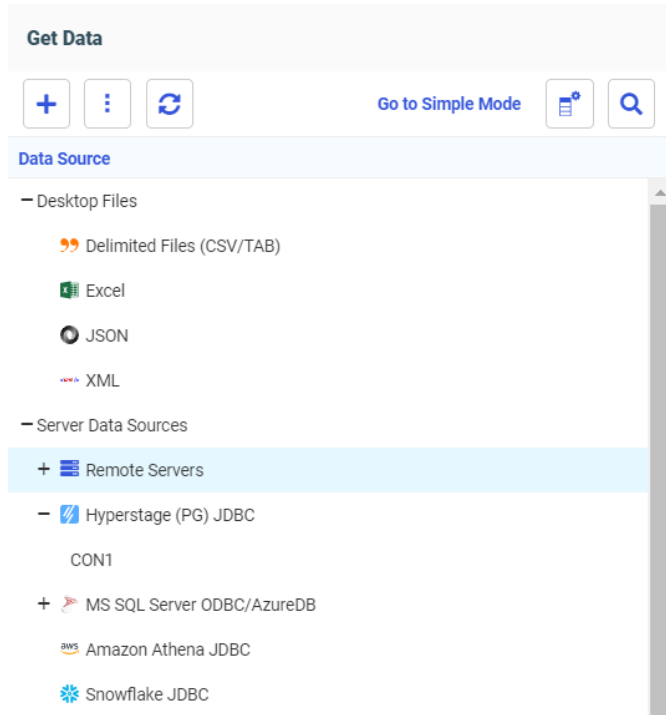
The dimensions were not added because of the lack of Primary Key/Foreign Key relationships, as shown in the following image.



## Displaying the Remote Servers List Collapsed on the Get Data Advanced Page

In prior releases, the Remote Servers folder was shown expanded on the Get Data Advanced Mode page of the Server Console. When this list was long, a lot of scrolling was required to get past this list and see the configured adapters.

Now, the Remote Servers folder is collapsed by default, and the first adapter folder is open, as shown in the following image.



## New Regular Expression Pattern Matching Functions

The following FOCUS and SQL functions search for strings that match a pattern expressed as a regular expression.

- REGEXP\_COUNT.** Counts the number of matches to a regular expression pattern in a string.
- REGEXP\_INSTR.** Returns the first position of a regular expression pattern in a string.
- REGEXP\_REPLACE.** Replaces all matches to a regular expression pattern in a string with a replacement string.
- REGEXP\_SUBSTR.** Returns the first match to a regular expression pattern in a string.

You can search online for information about the symbols used to create a regular expression pattern. For example, Wikipedia has a good introduction at:

[https://en.wikipedia.org/wiki/Regular\\_expression](https://en.wikipedia.org/wiki/Regular_expression)

## REGEXP\_COUNT: Counting the Number of Matches to a Pattern in a String

REGEXP\_COUNT returns the integer count of matches to a specified regular expression pattern within a source string.

### **Syntax:** How to Count the Number of Matches to a Pattern in a String

```
REGEXP_COUNT(string, pattern)
```

where:

*string*

Alphanumeric

Is the input string to be searched.

*pattern*

Alphanumeric

Is the regular expression pattern to match.

### **Example:** Counting the Number of Matches to a Pattern in a String

The following examples use the following Regular Expression symbols.

❑ \$, which searches for a specified expression that occurs at the end of a string.

❑ ^, which searches for a specified expression that occurs at the beginning of a string.

REGEXP\_COUNT counts the number of occurrences of the characters 'umpty' that occur at the end of the string 'Humpty Dumpty'.

```
REGEXP_COUNT('Humpty Dumpty', 'umpty$')
```

The result is 1.

REGEXP\_COUNT counts the number of occurrences of the characters 'umpty' that occur at the beginning of the string 'Humpty Dumpty'.

```
REGEXP_COUNT('Humpty Dumpty', '^umpty')
```

The result is 0.

## REGEXP\_INSTR: Returning the First Position of a Pattern in a String

REGEXP\_INSTR returns the integer position of the first match to a specified regular expression pattern within a source string. The first character position in a string is indicated by the value 1. If there is no match within the source string, the value 0 is returned.

**Syntax:**      **How to Return the Position of a Pattern in a String**

```
REGEXP_INSTR(string, pattern)
```

where:

*string*

Alphanumeric

Is the input string to be searched.

*pattern*

Alphanumeric

Is the regular expression pattern to match.

**Example:**      **Finding the Position of a Pattern in a String**

The following examples use the following Regular Expression symbols.

❑ \$, which searches for a specified expression that occurs at the end of a string.

❑ ^, which searches for a specified expression that occurs at the beginning of a string.

REGEXP\_INSTR finds the position of the characters 'umpty' that occur at the end of the string 'Humpty Dumpty'.

```
REGEXP_INSTR('Humpty Dumpty', 'umpty$')
```

The result is 9.

REGEXP\_INSTR finds the position of the characters 'umpty' that occur at the beginning of the string 'Humpty Dumpty'.

```
REGEXP_INSTR('Humpty Dumpty', '^umpty')
```

The result is 0.

**REGEXP\_REPLACE: Replacing All Matches to a Pattern in a String**

REGEXP\_REPLACE returns a string generated by replacing all matches to a regular expression pattern in the source string with the given replacement string. The replacement string can be a null string.

**Syntax:**      **How to Replace Matches to a Pattern in a String**

```
REGEXP_REPLACE(string, pattern, replacement)
```



where:

*string*

Alphanumeric

Is the input string to be searched.

*pattern*

Alphanumeric

Is the regular expression pattern to match.

*replacement*

Alphanumeric

Is the replacement string.

### **Example:** Replacing Matches to a Pattern in a String

The following example uses the following Regular Expression symbol.

□ ^, which searches for a specified expression that occurs at the beginning of a string.

REGEXP\_REPLACE replaces the characters 'ENG' at the beginning of the field COUNTRY with the replacement string 'SCOT'.

```
REGEXP_REPLACE(COUNTRY, '^ENG', 'SCOT')
```

For 'ENGLAND', the result is 'SCOTLAND'.

### **REGEXP\_SUBSTR: Returning the First Match to a Pattern in a String**

REGEXP\_SUBSTR returns a string that contains the first match to a specified regular expression pattern within a source string. If there is no match within the source string, a null string is returned.

### **Syntax:** How to Returning the First Match to a Pattern in a String

```
REGEXP_SUBSTR(string, pattern)
```

where:

*string*

Alphanumeric

Is the input string to be searched.

*pattern*

Alphanumeric

Is the regular expression pattern to match.

**Example: Returning the First Match of a Pattern in a String**

The following example uses the following Regular Expression symbols.

[A-Z], which matches any uppercase letter.

\$, which searches for a specified expression that occurs at the end of a string.

REGEXP\_SUBSTR searches for a string with any uppercase letter followed by the characters 'umpty' at the end of the string 'Humpty Dumpty'.

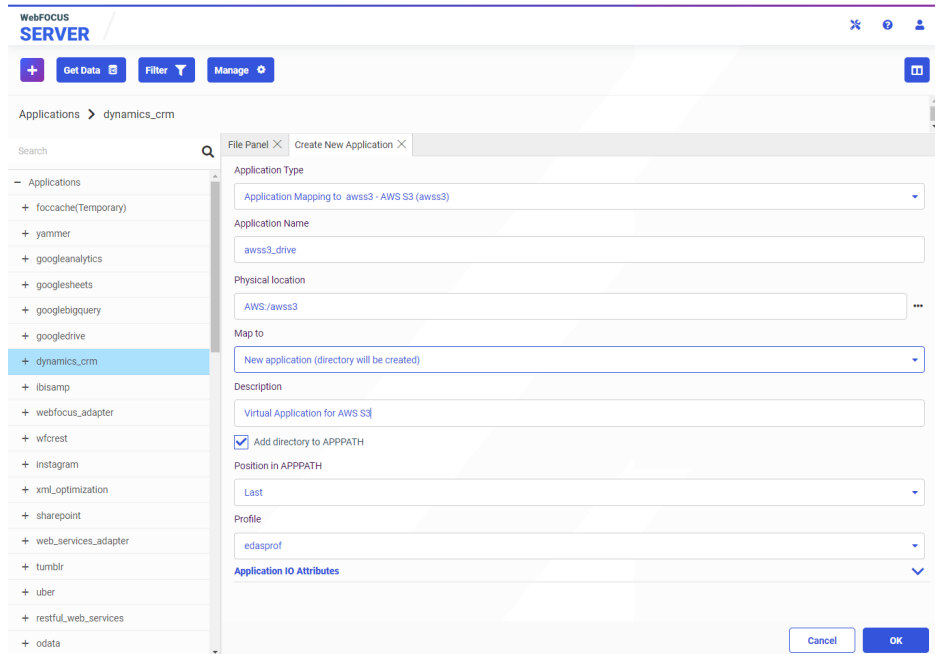
```
REGEXP_SUBSTR('Humpty Dumpty', '[A-Z]umpty$')
```

The result is 'Dumpty'.

**Support for Direct Load Flows to Load AWS S3 Data to PostgreSQL**

If you have configured both the Adapter for AWS S3 and the Adapter for PostgreSQL, you can create a direct load flow from a delimited file in the AWS S3 repository to a PostgreSQL target.

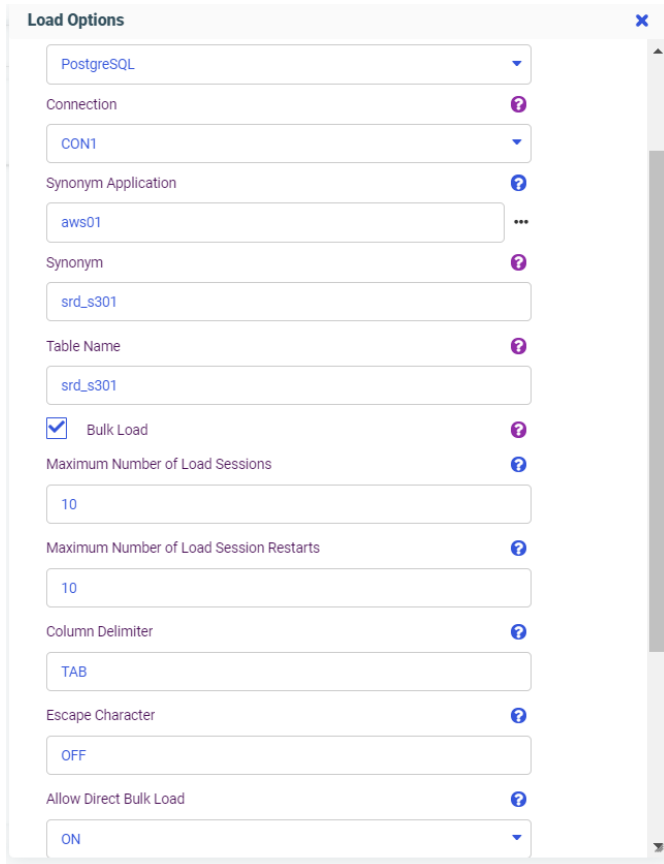
When you configure the Adapter for AWS S3, you map the AWS S3 repository to an application on the server, as shown in the following image.



Then, you can drag a file from that application directory to the Data Flow canvas as a source for the flow. The following image shows a Data Flow in the Reporting Server browser interface with an AWS S3 source and a PostgreSQL target.



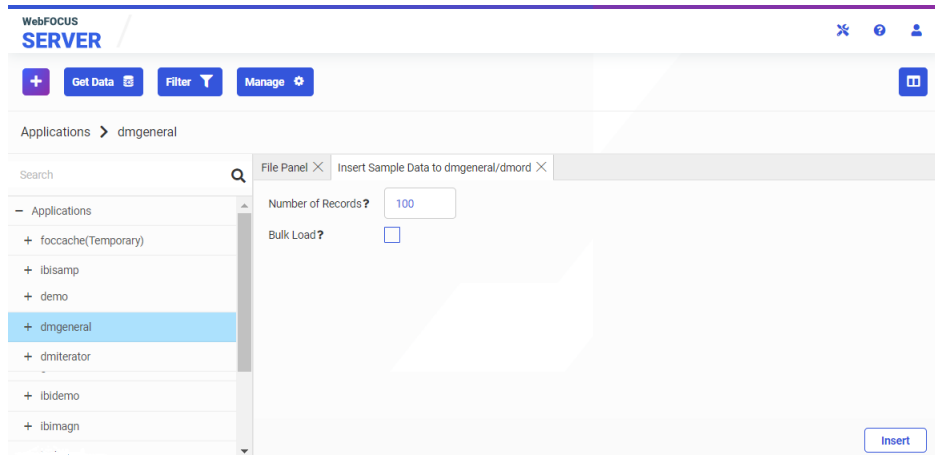
In the Load Options dialog box, select *PostgreSQL* from the *Adapter* drop-down list, select the *Bulk Load* check box, and select *On* from the *Allow Direct Bulk Load* drop-down list, as shown in the following image.



When you run the flow, the AWS S3 data will be loaded directly to the PostgreSQL table.

## Using Bulk Load to Insert Sample Data

On the Data Migrator desktop interface and the Reporting Server browser interface, *Insert Sample Data* is an option if you right-click a synonym and point to *Data Management*. If the synonym is for an adapter that supports Bulk Load, a *Bulk Load* check box is available in the Insert Sample Data dialog, as shown in the following image.



If you select the Bulk Load check box and click *Insert*, the sample data will be inserted using Bulk Load. This reduces load times when a large number of sample rows are inserted.

## Fixes

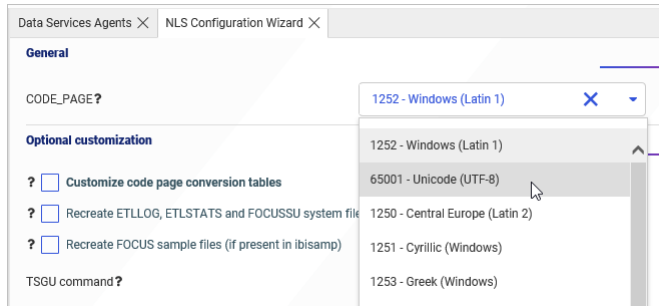
- ❑ Sorting a table shifts all the columns to the left outside of their proper headers on the *Shared with Me* and *My Workspace* pages while using Internet Explorer® 11. (200528045)
- ❑ A data flow crashes when the SQL statement uses a CASE statement with aggregation functions. (200823110)
- ❑ Some error messages returned by WebFOCUS Server are not translated when the server is configured for another language.
- ❑ Empty values are created within the array of a JSON input for the REST request using the REST adapter when ACCEPT=SYNONYM is in the fieldname definition. (200803011)
- ❑ Using an SQL SELECT statement to retrieve data using the adapter for Couchbase® results in an agent crash and the ODBC connector results in a communication error.
- ❑ In Internet Explorer 11, a chart's heading text overlays the top of the chart while the footing text has additional space and then appears cut off. (200901085)

- ❑ A Data Flow crashes when the SQL statement uses a CASE statement with aggregation functions. (200828110)
- ❑ Request with two variables with common characters such as &XYZ and &abcXYZ referenced in filters as a quoted string and an OR list, which is not a quoted string, results in incorrect quoting of the assigned value. For example: WHERE CAR.ORIGIN.COUNTRY EQ &XYZ.(FIND CAR.ORIGIN.COUNTRY IN IBISAMP/CAR |  
FORMAT=A10, SORT=ASCENDING).COUNTRY:..QUOTEDSTRING; WHERE CAR.COMP.CAR EQ &abcXYZ.(OR(FIND CAR.COMP.CAR IN IBISAMP/CAR |  
FORMAT=A16, SORT=ASCENDING)).CAR:.; (191121003)
- ❑ A -INCLUDE statements that call style sheet files from the WebFOCUS server no longer generate a (FOC3294) CANNOT OPEN INCLUDED STYLESHEET error message when they are preceded by a /t (tab) character at the beginning of the line. (200414062)

## Upgrade Notes

- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

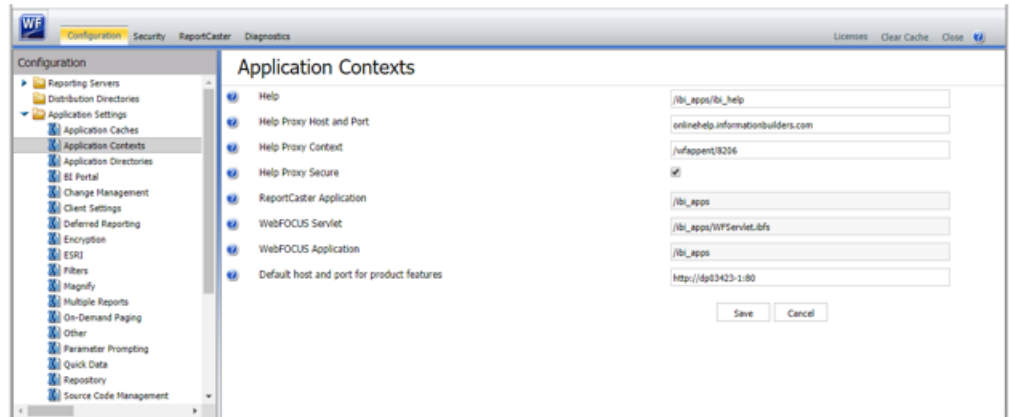
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for Help should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to `onlinehelp.informationbuilders.com`.
4. Set the *Help Proxy Context* to `/wfappent/8206`. If you are using WebFOCUS Release 8207, set the value to `/wfappent/8207`.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.

## System Requirements

This release is now certified and has been tested with Google Chrome version 85, Firefox version 80, Microsoft Edge Chromium version 85 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).



For more information on supported clients and more, see [Release Information](#).



## 8207.16 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

### Release and Gen Information

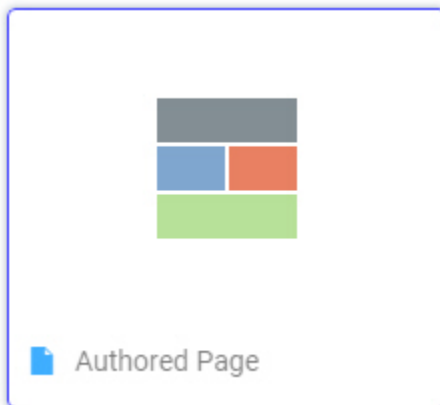
Release Date	Gen Information	Reporting Server
Friday, September 4, 2020	wf090120b Gen 8 wi090120b Gen 8 as090120b	8207.16 Gen 1921

### New Features

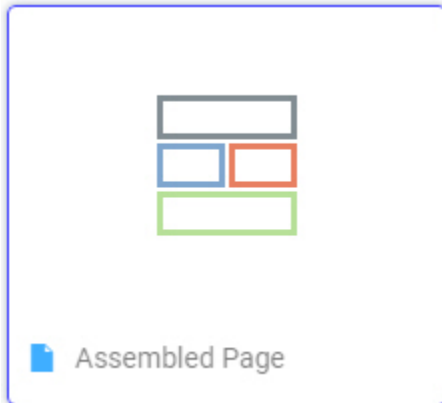
## Identifying Authored and Assembled Pages From the WebFOCUS Home Page

In WebFOCUS Designer, you can create two different kinds of pages. If you create a new chart or report using the *Visualize Data* option on the WebFOCUS Home Page, you can convert it into an authored page. Authored pages feature out of the box filtering functionality, such as chaining and on-canvas filtering, and allow you to build new charts and reports directly within the page canvas, facilitating the data discovery process. Alternatively, you can use the *Assemble Visualizations* option, in the plus menu on the WebFOCUS Home Page, to create an assembled page. You can build an assembled page from existing content items, such as charts, reports, images, URLs, and more. Assembled pages also allow you to customize filter styling and behavior.

You can now differentiate new authored and assembled pages by the icon they use on the WebFOCUS Home Page. Authored pages use an icon in which the stylized containers are filled in, as shown in the following image.



Assembled pages, meanwhile, show the stylized containers in the icon as hollow, as shown in the following image.



This gives you a better idea of the options and functionalities that are available when you run or edit a particular page.

### New Prepare and Manage Data Workflows from WebFOCUS Home Page

New workflows are available from the WebFOCUS Home Page when using the Prepare and Manage Data option to open the Reporting Server browser interface, and then clicking *Get Data*, that allow you to return to the Reporting Server browser interface to prepare, manage, or upload more data before visualizing your data.

To enable the workflows, set the following Server preference: From the Tools menu in the Reporting Server browser interface, select *Workspace*, click *Settings*, select *Settings for Web Console Preferences*, click *Miscellaneous Settings*, and set NEWSYNSTAT to YES. Click *Save* to apply the new setting.

From the Home Page, on the plus menu, click *Prepare and Manage Data* to go to the Reporting Server browser interface, and then click *Get Data*.

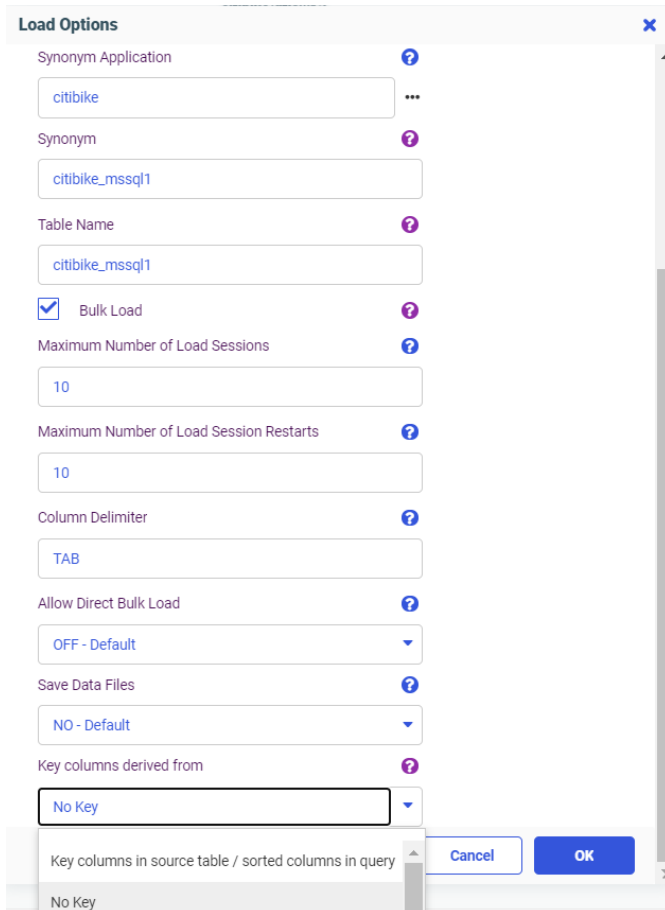
When you connect to a data source, and create a synonym, you are now taken to an intermediate Create Synonym Status page. You now have the option to click a *Prepare and Manage Data* button to return to the Reporting Server browser interface, instead of proceeding directly to Designer.

When you upload a data file, on the Uploading Data page, you now have the option to click a *Prepare and Manage Data* button to return to the Reporting Server browser interface, instead of proceeding directly to Designer.

### Support for New Data Flow Targets With No Key Fields

When you create a Data Flow with a new target, you can now specify in the load options that the target has no key fields.

To specify that the target has no key columns, select *No Key* from the *Key columns derived from* drop-down list, as shown in the following image.



## Autoprompt Multiselect Static Lists Can Now Automatically Select All Values at Runtime

You can use the new Preselect all values for static list controls (IBI\_FOCALL\_DEFAULT) setting to ensure that all values in multiselect static selection lists are automatically selected when running Responsive Autoprompt interface queries, as shown in the following image.



Multiselect static selection lists that identify a specific default value as their initial selection continue to display that value and are not affected by this new setting.

By activating this feature, you can improve the usability of Responsive Autoprompt procedures that include multiselect static selection lists. Users are no longer required to open each list and individually select all values when they wish to conduct a comprehensive search. Instead, queries are automatically configured to provide the broadest range of results that users can refine into more focused queries.

This new setting is located on the Parameter Prompting page of the Administration Console Configuration tab.

## Fixes

- Using Jupyter running on Linux and an ODBC connector to retrieve character data fails with a data type conversion error.
- Non-encoded special characters within a REST response displays incorrectly in a WebFOCUS Report when using the REST adapter.
- Empty values are created within the array of a JSON input for the REST request using the REST adapter when ACCEPT=SYNONYM is in the fieldname definition. (200803011)
- An error message occurs using an ODBC data source to configure an ODBC connection and entering a Data Source Name (DSN) that contains spaces or other invalid characters.
- When creating a synonym for a CSV file that contains fields with numeric values, are created as character values.
- Creating a synonym for a Stored Procedure does not return candidates if the SQL Server database is using case-sensitive collation. (191121110)

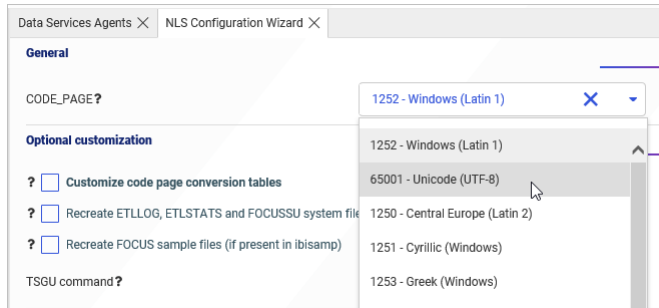
- ❑ Creating a representative sample of a data set from a complex data structure fails when some of the source tables contained no data.
- ❑ When a data flow is saved with a multi-part target table name (dfs.tmp.sales) and is reopened, the name would be the table name, or the first part of the name is lost.
- ❑ In a Data Flow when a field name is renamed in the SQL editor, the new name is not reflected in the MERGE editor when used.
- ❑ When using an ODBC Data Sources and adding a new DSN with the same name but different case from an existing DSN, will delete the existing DSN.
- ❑ Using the ODBC Connector from Power BI and Get Data to retrieve data from a large source table fails with a memory allocation failure.
- ❑ When using the JDBC connector to retrieve a small aggregated answer set from a large table, a query that ordinarily took less than two seconds now takes much longer.
- ❑ The list of files entered for the IBI\_CLASSPATH was not saved when entered on the Adapter's for Git connection page. (200807091)
- ❑ Non-encoded special characters within a REST response displays incorrectly in a WebFOCUS Report when using the REST adapter. (191203041)

## Upgrade Notes

- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.



- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

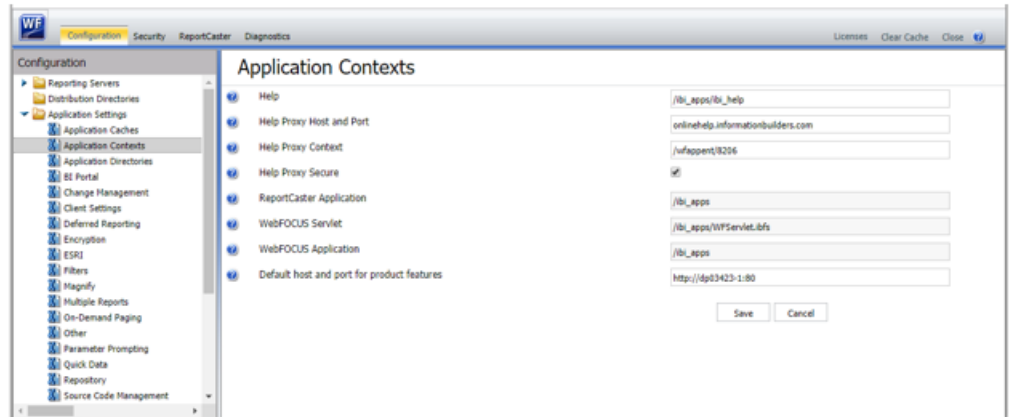
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for Help should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to `onlinehelp.informationbuilders.com`.
4. Set the *Help Proxy Context* to `/wfappent/8206`. If you are using WebFOCUS Release 8207, set the value to `/wfappent/8207`.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.

## System Requirements

This release is now certified and has been tested with Google Chrome version 84, Firefox version 79, Microsoft Edge Chromium version 83 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



## 8207.15 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Tuesday, August 25, 2020	wf082120a Gen 11 wi082120a	8207.15 Gen 1920

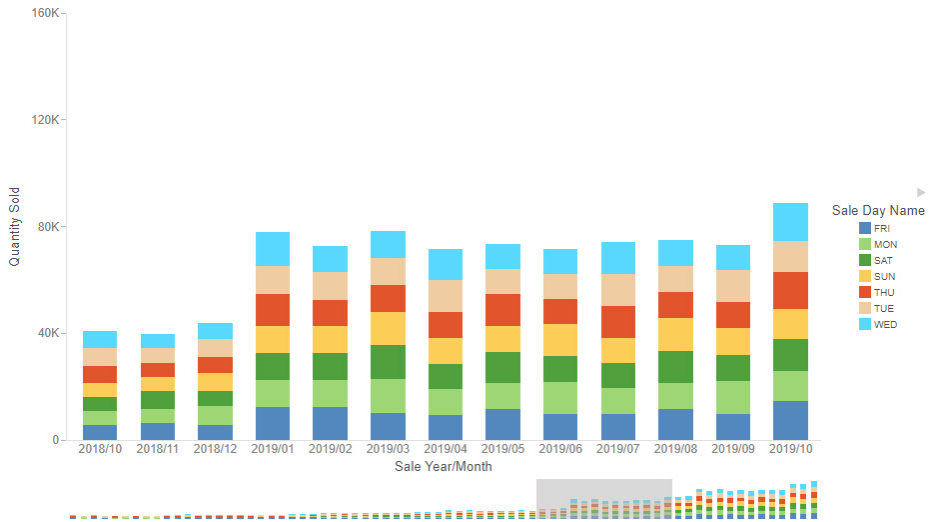
### New Features

#### Changing the Scrollbar Style in WebFOCUS Designer

When creating bar, line, and area charts in WebFOCUS Designer, you can change the scrollbar style from the Format tab, in the Axis options, by using the Scroll menu, allowing you to control how users navigate the chart when it shows a large number of sort values.

When a bar, line, or area chart has enough values on the x axis that all bars or points cannot fit comfortably, a scrollbar is generated by default. A limited number of bars or points are displayed in the chart at any given time, depending on the width of the chart area, and you can scroll to see additional values. You can remove the scrollbar by changing the Scroll option to *Off*. The values on the x axis are compressed together so that they all display on the chart.

As a third option, you can show the scrollbar on a minichart. The minichart shows a simplified representation of your chart with a translucent scrollbar layered over it, representing the area of the chart that is currently visible. This option provides additional context, so that you can have an idea of what the entire chart looks like, and use the scrollbar to see additional details about a specific area. An example of a bar chart that uses a minichart scrollbar is shown in the following image.



To enable the minichart scrollbar, set the Scroll option to *MiniChart*. When using the MiniChart option, you can also set the number of values that are visible on the x axis of the chart by using the Count option.

## Support for Functions Used in ODBC Connector Client Tools

FOCUS and the SQL translator now support the following functions used by client tools with the ODBC Connector.

### FOCUS and SQL Functions

Function Name	Description	Syntax
ASCII	Returns the ASCII code value of the leftmost character of a character expression.	<i>ASCII(charexp)</i> For example, the following returns the value 65. <i>ASCII('A')</i>
DAYNAME	Returns a character string that contains the data-source-specific name of the day for the day part of a date expression.	<i>DAYNAME(date_exp)</i> For example, the following returns Monday: <i>DAYNAME('August 3, 2020')</i>
DIFFERENCE	Returns an integer value measuring the difference between the SOUNDEX or METAPHONE values of two different character expressions. Zero (0) represents the least similarity. For SOUNDEX, 4 represents the most similarity, and for METAPHONE, 16 represents the most similarity.  The use of SOUNDEX or METAPHONE depends on the PHONETIC_ALGORITHM setting. METAPHONE is the default algorithm.	<i>DIFFERENCE(chrexp1, chrexp2)</i> For example, the following returns the value 4 when SOUNDEX is the phonetic algorithm: <i>DIFFERENCE('Green', 'Greene')</i>

Function Name	Description	Syntax
LEFT	Given a character string, or an expression that can be converted to varchar, and an integer number, returns that number of characters from the left of the string.	<p><code>LEFT(<i>chr_exp</i>, <i>int_exp</i>)</code></p> <p>For example, the following returns the value <i>ab</i>:</p> <p><code>LEFT('abcdefg', 2)</code></p>
LOG10	Returns the base-10 logarithm of a numeric expression.	<p><code>LOG10(<i>num_exp</i>)</code></p> <p>For example, the following returns the value 2.161:</p> <p><code>LOG10(145)</code></p>
MONTHNAME	Returns a character string that contains the data-source-specific name of the month for the month part of a date expression.	<p><code>MONTHNAME(<i>date_exp</i>)</code></p> <p>For example, the following returns August:</p> <p><code>MONTHNAME('August 3, 2020')</code></p>
OVERLAY	Given a starting position, length, source string, and insertion string, replaces the number of characters defined by <i>length</i> in the source string with the insertion string, starting from the starting position.	<p><code>OVERLAY(<i>src</i>, <i>ins</i>, <i>start</i>, <i>len</i>)</code></p> <p>For example, the following returns SCOTLAND by replacing the first 3 characters in ENGLAND with the characters SCOT:</p> <p><code>OVERLAY('ENGLAND', 'SCOT', 1, 3)</code></p>
POSITION	Given a search string, a source string, and a starting position, returns the position of the search string within the source string. The search starts at the given starting position. If the string is not found, returns zero (0). The search is case sensitive.	<p><code>POSITION(<i>search</i>, <i>source</i>, <i>start</i>)</code></p> <p>For example, when CustomerName is Sandra Arzola, the following returns 8:</p> <p><code>POSITION('A', CustomerName, 3)</code></p>



Function Name	Description	Syntax
REPEAT	Given a source string and an integer number, returns a string with the source string repeated that number of times, each repetition separated from the previous one with a space.	<pre>REPEAT(<i>source_str</i>, <i>number</i>)</pre> <p>For example, when FIRST_NAME is MARY, the following returns the string MARY MARY MARY:</p> <pre>REPEAT(FIRST_NAME, 3)</pre>
RIGHT	Given a character string, or an expression that can be converted to varchar, and an integer number, returns that number of characters from the right of the string.	<pre>RIGHT(<i>char_exp</i>, <i>integer_exp</i>)</pre> <p>For example, the following returns the value fg:</p> <pre>RIGHT('abcdefg', 2)</pre>
ROUND	Given a numeric expression and an integer count, returns the numeric expression rounded to that number of decimal places. If the number of decimal places is negative, it rounds to the left of the decimal point.	<pre>ROUND(<i>num_exp</i>, <i>count</i>)</pre> <p>For example, the following returns 1.23500.</p> <pre>ROUND(1.23456, 3)</pre>
SIGN	Given a numeric expression, returns the value 1 if it is positive, or -1 if it is negative. SIGN(0) returns 0.	<pre>SIGN(<i>num_exp</i>)</pre> <p>For example, the following returns 1.</p> <pre>SIGN(1.23456)</pre>
SPACE	Given an integer count, returns a string consisting of that number of spaces.	<pre>SPACE(<i>count</i>)</pre> <p>For example, the following returns a string consisting of two spaces.</p> <pre>SPACE(2)</pre>

Function Name	Description	Syntax
TRUNCATE	Truncates a numeric expression to a given number of decimal places. If the number of decimal places is negative, the number is truncated to the left of the decimal point.	<pre>TRUNCATE(<i>num_exp</i>, <i>count</i>)</pre> <p>For example, the following returns 1.23400.</p> <pre>TRUNCATE(1.23456, 3)</pre>

### SQL Functions

Function Name	Description	Syntax
CHR	Takes a number as an argument and returns the ASCII character.	<pre>CHR(<i>number</i>)</pre> <p>For example, the following returns ¾.</p> <pre>CHR(190)</pre>
LOCATE	Given a substring, a source string and a starting position (the default is 1), returns the position of the first occurrence of the substring, starting the search at the starting position. If the substring is not found, returns zero (0). The search is case insensitive.	<pre>LOCATE(<i>substr</i>, <i>source</i> [, <i>start</i>])</pre> <p>For example, when CustomerName is Sandra Arzola, the following returns 6:</p> <pre>LOCATE('a', CustomerName, 3)</pre> <p>The following returns 2:</p> <pre>LOCATE('a', CustomerName)</pre>

### Directly Accessing the Advanced Mode of Get Data

Using *Get Data* from the Reporting Server browser interface, or from the WebFOCUS home page option *Prepare and Manage Data*, opens a standard user interface with the most common options. A link on that page for *Advanced mode* provides additional options.

Now, users who always want to use advanced mode can enable the GET\_DATA\_ADV\_DEFAULT setting. To enable this setting do the following:

1. Navigate to the Workspace page on the Reporting Server browser interface.

- Click *Settings*, then click *Settings for Web Console Preferences*.  
The *Change Settings for Web Console Preferences* page opens.
- Expand the *Data Assist* section and scroll down, as shown in the following image.

The screenshot shows a configuration page for 'Data Assist' settings. The settings are as follows:

- NTM\_SUPPORT\_BV\_PLUS\_FOR\_CUBE**: Yes
- SUPPORT\_BIZ\_FOLDERS\_FOR\_CUBE**: Support Business Folders for Cube
- AUTORUN\_COMPOUND**: Run on Change
- AUTO\_RUN\_FOR\_COMPOUND\_LAYOUT**: Auto-run for Compound/Layout
- USE\_MONOTREE**: Yes
- USE\_MONOTREE\_DESCRIPTION**: Use monotree when selecting files in the Data Assist (Join, Comp)
- AUTO\_REDO\_PREPARE**: No
- AUTOMATICALLY\_REDO\_PREPARE**: Automatically redo prepare
- NTM\_DEFAULT\_BV\_INCLUDE\_KEYS**: No
- INCLUDE\_KEYS\_FOR\_DEFAULT\_BV**: No
- GET\_DATA\_ADV\_DEFAULT**: No (dropdown menu is open showing 'No' and 'Yes')

At the bottom of the page, there are three buttons: 'Reset to defaults', 'Cancel', and 'Save'.

- Select Yes for `GET_DATA_ADV_DEFAULT`.
- Click Save.

With this setting in place, *Get Data* or *Prepare and Manage Data* will open the advanced mode of Get Data without first opening the simple mode.

## Adapter for REST: Adding Scope to OAuth Access Token Request

When you configure a connection for the Adapter for REST using OAuth authentication, a *Scope* parameter has been added when you select the Password or Client Credentials Grant Type.

When there is a value configured for Scope, the Scope parameter will be sent in the Token request.

## Support for Standard Deviation in PARTITION\_AGGR

The `PARTITION_AGGR` function generates rolling calculations based on a block of rows from the internal matrix of a `TABLE` request. Population Standard Deviation (STDP) and Sample Standard Deviation (STDS) have been added as operations for the rolling calculation.

**Note:** Using the STDS or STDP aggregation operators requires that the request use the PRINT display command to avoid duplicate aggregation steps.

The syntax is:

```
PARTITION_AGGR([prefix.]measure,reset_key,lower,upper,operation)
```

where:

*prefix.*

Defines an aggregation operator to apply to the measure before using it in the rolling calculation. Valid operators are:

- SUM.** which calculates the sum of the measure field values. SUM is the default operator.
- CNT.** which calculates a count of the measure field values.
- AVE.** which calculates the average of the measure field values.
- MIN.** which calculates the minimum of the measure field values.
- MAX.** which calculates the maximum of the measure field values.
- FST.** which retrieves the first value of the measure field.
- LST.** which retrieves the last value of the measure field.
- STDP.** which retrieves the population standard deviation of the measure field.
- STDS.** which retrieves the sample standard deviation of the measure field.

**Note:** The operators PCT., RPCT., TOT., MDN., and DST. are not supported. COMPUTEs that reference those unsupported operators are also not supported.

*measure*

Is the measure field to be aggregated. It can be a real field in the request or a calculated value generated with the COMPUTE command, as long as the COMPUTE does not reference an unsupported prefix operator.

*reset\_key*

Identifies the point at which the calculation restarts. Valid values are:

- The name of a sort field in the request.
- PRESET, which uses the value of the PARTITION\_ON parameter, as described in the *Using Functions* manual *Specify the Partition Size for Simplified Statistical Functions*.

- TABLE**, which indicates that there is no break on a sort field.

The sort field may use **BY HIGHEST** to indicate a HIGH-TO-LOW sort. **ACROSS COLUMNS AND** is supported. **BY ROWS OVER** and **FOR** are not supported.

#### *lower*

Identifies the starting point for the rolling calculation. Valid values are:

- n, -n**, which starts the calculation  $n$  rows forward or back from the current row.
- B**, which starts the calculation at the beginning of the current sort break (the first line with the same sort field value as the current line).

#### *upper*

Identifies the ending point of the rolling calculation. The *lower* row value must precede *upper* row value.

Valid values are:

- C**, which ends the rolling calculation at the current row in the internal matrix.
- n, -n**, which ends the calculation  $n$  rows forward or back from the current row.
- E**, which ends the rolling calculation at the end of the sort break (the last line with the same sort value as the current row.)

**Note:** The values used in the calculations depend on the sort sequence (ascending or descending) specified in the request. Be aware that displaying a date or time dimension in descending order may produce different results than those you may expect.

#### *operation*

Specifies the rolling calculation used on the values in the internal matrix. The new supported operations are:

- STDP**, which calculates a population standard deviation.
- STDS**, which calculates a sample standard deviation.

**Example: Using PARTITION\_AGGR to Calculate a Population Standard Deviation**

The following request uses the STDP aggregation operator in PARTITION\_AGGR to calculate the standard deviation for each category.

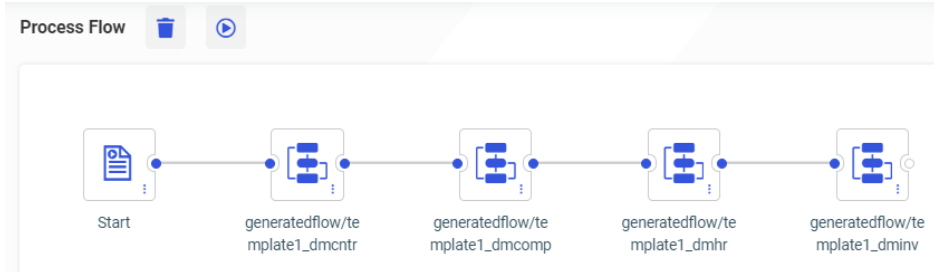
```
TABLE FILE ggsales
PRINT DOLLARS
COMPUTE STDP1/D12.2M = PARTITION_AGGR(DOLLARS, CATEGORY, B, E, STDP);
BY CATEGORY
BY PRODUCT
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

Partial output is shown in the following image.

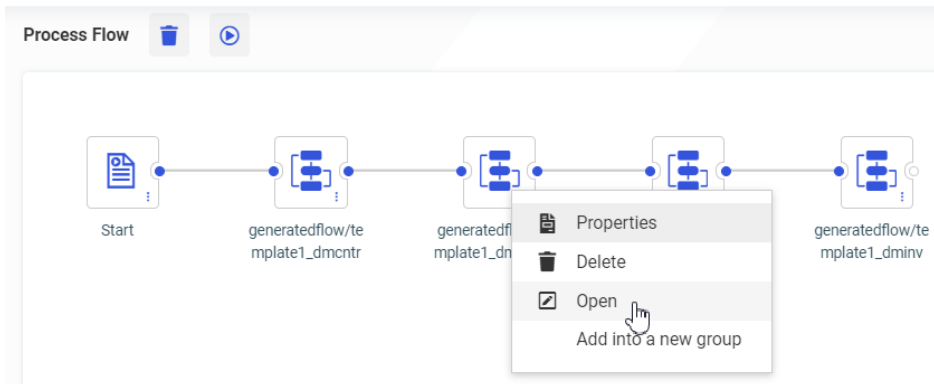
<u>Category</u>	<u>Product</u>	<u>Dollar Sales</u>	<u>STDP1</u>
Coffee	Capuccino	20805	\$6,358.13
		20748	\$6,358.13
		20376	\$6,358.13
		20028	\$6,358.13
		19905	\$6,358.13
...			
Food	Biscotti	18200	\$6,565.19
		18084	\$6,565.19
		17100	\$6,565.19
		16918	\$6,565.19
		16656	\$6,565.19
...			
Gifts	Coffee Grinder	7752	\$4,518.06
		7715	\$4,518.06
		7623	\$4,518.06
		7485	\$4,518.06

## Opening a Data Flow From a Process Flow

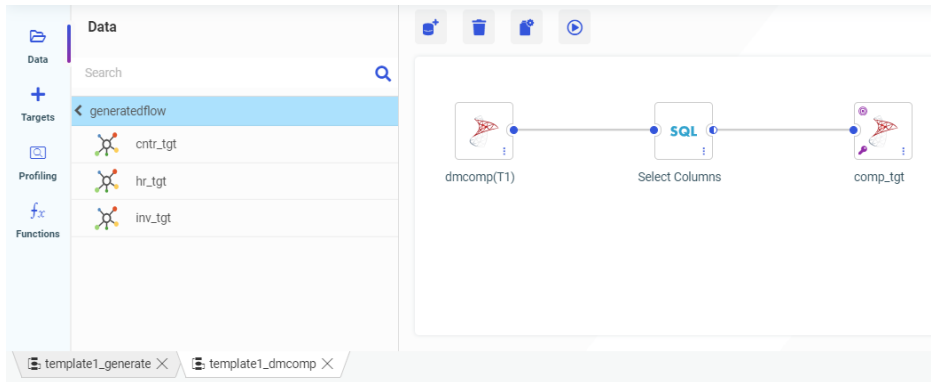
The following image shows a Process Flow that runs four Data Flows open in the Server Reporting Server browser interface.



To open one of the Data Flows, right-click the flow you want to open and click *Open*, as shown in the following image.



The Data Flow opens in a new tab, as shown in the following image.



## Enhanced Sampling on Joined Tables

When Representative Sampling is enabled, you can prioritize joins in the sampling by setting the new parameter `SMPL_PRIORITIZE_JOIN` to Yes.

When preparing data using very large data sets, the performance of many tasks can be greatly improved by working with a representative sample instead of the entire data set.

However, when data sets are joined, sampling can be problematic when not all values of a joined column are present in both samples.

For example, when joining from a (large) sales fact table to a foreign key in a customer dimension table, sampling each table separately may not include rows from the customer table that match every customer key in the sample of the fact table.

When the new `SMPL_PRIORITIZE_JOIN` parameter is enabled, the first (fact) table selected is sampled first. Then, when the sample of the second (dimension) table is taken, every customer that was selected in the fact table is included in the sample of the dimension table. This ensures that every row in the fact table is matched.

To prioritize joins when sampling, do the following:

1. Navigate to the *Workspace* page of the Reporting Server browser interface.
2. Click *Settings*, then *Settings for Web Console Preferences*.

The *Change Settings for Web Console Preferences* page opens.



- Expand the *Data Assist (Representative Sampling)* section, as shown in the following image.

**Data Assist (Representative Sampling)**

**ENABLE\_SAMPLING** ⓘ  
On  
Controls Representative Sampling in Data Flow

**SAMPLING\_APPROOT** ⓘ  
foccache  
Application for representative samples. Default: foccache

**SHOW\_SAMPLING\_INFO** ⓘ  
Yes  
Show Sampling Info

**SMPL\_ETL\_TRG\_DBMS** ⓘ  
No  
Use ETL-TRG-DBMS for Sampling

**SMPL\_PRIORITIZE\_JOIN** ⓘ  
Yes  
Prioritize join when creating sampling

- Select *On* for `ENABLE_SAMPLING`. This enables sampling wherever it is available.
- Select *Yes* for `SMPL_PRIORITIZE_JOIN`.

This ensures that the sampling for a dimension table in a join will contain all of the key values from the sample rows generated for the fact table to which it is joined. The default value is *No*.

You can also change the following parameters.

**SAMPLING\_APPROOT**

Is the application where the sampling files will be generated. The default is *foccache*.

**SHOW\_SAMPLING\_INFO**

The default value is *Yes*. This shows sampling information on the data flow canvas.

**SMPL\_TRG\_DBMS**

Use the adapter set as `ETL_TRG_DBMS` for sampling. The default value is *No*.

- Click *Save*.

## Adapter for SharePoint Drive

The Adapter for SharePoint Drive is the WebFOCUS Adapter used to integrate with SharePoint Drive.

Instructions for configuring the Adapter for SharePoint Drive are included in the chapter *Using the Adapter for SharePoint Drive* of the *Adapter Administration* manual.

Output formats such as PDF, JSON, and XML generated from WebFOCUS reports can be stored in SharePoint Drive.

Adapters, such as JSON and XML, can be used to report against their respective documents stored in SharePoint Drive.

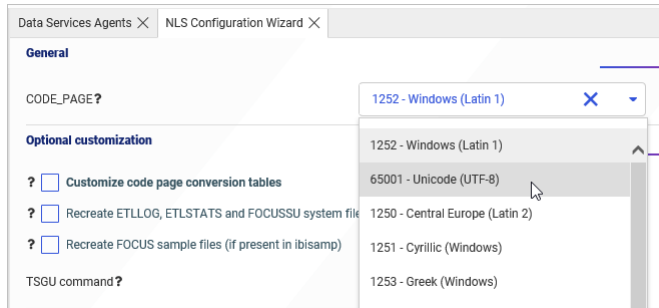
## Fixes

- ❑ Conditional styling is lost in an AHTML report that contains an ACROSS and NOPRINT. (190123118, 190501052, 200305105, 200305026, 200409065)
- ❑ When adding or configuring an ODBC Connector through an ODBC Data Sources (64 bit), the connection cannot be saved unless a description is entered.
- ❑ When opening a Data Flow with Joins and it does not contain keys on a new Target, the flow is re-parse and the keys are added automatically. (200611036)
- ❑ Sorting a table shifts all the columns to the left outside of their proper headers on the Shared with Me and My Workspace pages while using Internet Explorer 11. (200528045)
- ❑ Some errors and warning messages are displayed in a bolder and centered in a dialog which makes them hard to read on the Server Console.
- ❑ When restoring a user-defined Georole in InfoAssist, an error occurs. (190607027, 190430020, 191120175, 200518029)

## Upgrade Notes

- ❑ As of WebFOCUS 8207.15, the default setting for ALLOW-NOPRINT is ON. In AHTML reports using the new Designer style (ARVERSION=2), you can select hidden or NOPRINT fields, when you create a new component from the Options menu. These fields are also available in the fields list, when you create a chart, rollup, or pivot from the Column menu.

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

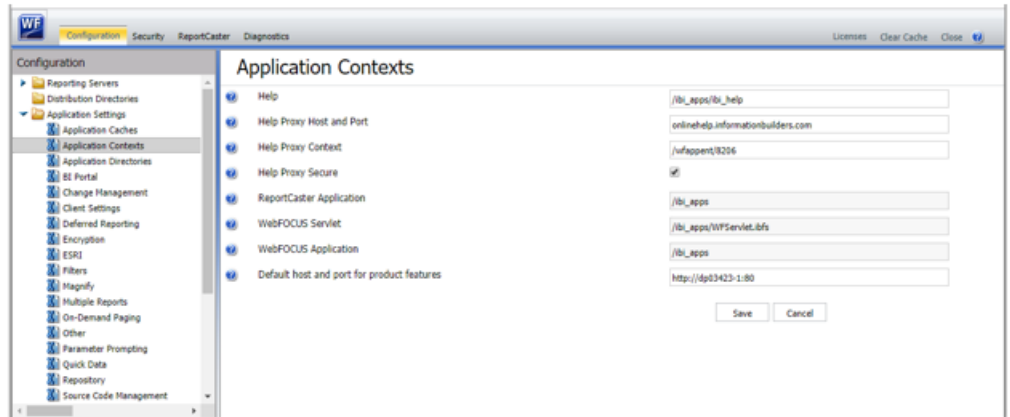
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for Help should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to `onlinehelp.informationbuilders.com`.
4. Set the *Help Proxy Context* to `/wfappent/8206`. If you are using WebFOCUS Release 8207, set the value to `/wfappent/8207`.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.

## System Requirements

This release is now certified and has been tested with Google Chrome version 84, Firefox version 79, Microsoft Edge Chromium version 83 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



## 8207.14 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

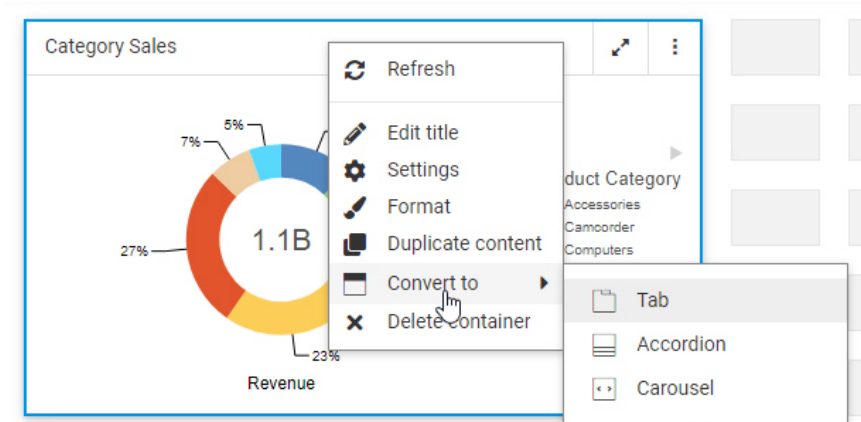
### Release and Gen Information

Release Date	Gen Information	Reporting Server
Friday, August 7, 2020	wf080520b Gen 22 wi080520b	8207.14 Gen 1919

### New Features

## Changing Container Types

In WebFOCUS Designer pages, you can add content items to several different types of containers. These include basic panel containers, into which you can add a single content item, and tab, carousel, and accordion containers, which can support multiple content items. You can quickly change the type of a container by right-clicking it and pointing to *Convert to*, and then selecting an option, as shown in the following image.



The ability to easily change container types gives you more flexibility in creating pages with multiple content items, and allows you to choose the container behavior you find the most intuitive and visually pleasing.

If you convert a container to a type that supports multiple content items, you can continue to add more content to new sections of the container. If you convert a multi-content container, such as a tab, carousel, or accordion container, to a basic panel container, which only supports one content item, a new panel container is created for each content item from the original container.

## Cross Database Join Performance Improvements

Retrieval performance has been improved under certain conditions when you join tables from different Relational database systems.

The performance improvements result from extracting data from the cross-referenced table prior to performing the join or issuing a sub-select. You can disable this optimization process by issuing the following command:

```
SQL SET HOLDSQLJOIN = OFF  
END
```



By default, this parameter is ON.

The following performance improvements have been implemented:

- ❑ For a non-aggregated query, the cross-referenced (TO) table is saved as a file in an internal binary format. This is faster than joining to a table in a different database system.
- ❑ For an aggregated query, for the cross-referenced table joined from any aggregation functions (min, max, sum, avg, count), the retrieval is passed to the relational database in a sub-select. This can result in retrieving a much smaller answer set, which improves performance.
- ❑ For a request with a clause that tests if two columns are equal or both are NULL, the TO table is held in an internal binary format, also improving performance.

You can view the generated query in either the Session Log or the trace file.

The following SQL request joins a Microsoft SQL Server named citibike\_mssql table to a MySQL table named station\_zip\_mysql.

```
SQL
SELECT
  T1.TRIPDURATION,
  T1.START_STATION_NAME ,
  T1.END_STATION_NAME ,
  T1.BIKEID ,
  T1.BIRTH_YEAR ,
  T1.GENDER ,
  T1.STARTTIME ,
  T1.STOPTIME ,
  T1.USERTYPE ,   T2.ZIP_CODE ,
  T2.COUNTY ,
  T2.CITY
FROM
  citibike.citibike_mssql T1
  INNER JOIN /*Join 1*/
  citibike.station_zip_mysql T2
  ON
  T1.START_STATION_ID = T2.STATION_ID
;
TABLE
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

When this request is run, the Session Log shows the generated request. First the station\_zip\_mysql table is held in an internal format:

```
TABLEF FILE STATION_ZIP_MYSQL
PRINT
  ZIP_CODE
  COUNTY
  CITY
  STATION_ID
ON TABLE SET CARTESIAN ON
ON TABLE SET ASNAMES ON
ON TABLE SET HOLDLIST PRINONLY
ON TABLE HOLD
  AS SQLHLD01
  FORMAT DATREC
END
```

Next the citibike\_mssql table is joined to the HOLD file.

```
JOIN INNER
  CITIBIKE_MSSQL2.START_STATION_ID
  IN CITIBIKE_MSSQL
TO ALL
  E04
  IN SQLHLD01
  AS SQLJNM01
END
```

Finally, the joined structure is queried to produce the output.

```
TABLEF FILE CITIBIKE_MSSQL
PRINT
  CITIBIKE_MSSQL.TRIPDURATION
  CITIBIKE_MSSQL.START_STATION_NAME
  CITIBIKE_MSSQL.END_STATION_NAME
  CITIBIKE_MSSQL.BIKEID
  CITIBIKE_MSSQL.BIRTH_YEAR
  CITIBIKE_MSSQL.GENDER
  CITIBIKE_MSSQL.STARTTIME
  CITIBIKE_MSSQL.STOPTIME
  CITIBIKE_MSSQL.USERTYPE
  SQLHLD01.E01
  SQLHLD01.E02
  SQLHLD01.E03
  SQLHLD01.E04 NOPRINT
ON TABLE SET CARTESIAN ON
ON TABLE SET ASNAMES ON
ON TABLE SET HOLDLIST PRINONLY
END
```

Partial output is shown in the following image.

tripduration	start_station_name	end_station_name	bikeid	year	gender	starttime	stoptime	usertype	ZIP_CODE	COUNTY	CITY
897	W 45 St & 6 Ave	E 51 St & 1 Ave	18340	1966	1	2019/07/01 00:00:00.132000	2019/07/01 00:14:58.004000	Subscriber	10036	New York County	New York
267	5 Ave & E 78 St	W 82 St & Central Park West	21458	1996	1	2019/07/01 00:00:05.178000	2019/07/01 00:04:32.450000	Customer	.	.	.
2201	E 6 St & Avenue B	India St & West St	39874	1986	1	2019/07/01 00:00:05.213000	2019/07/01 00:36:46.749000	Subscriber	0	New York County	New York
1660	Harrison St & Hudson St	Washington Pl & 6 Ave	38865	1988	1	2019/07/01 00:00:08.601000	2019/07/01 00:27:48.805000	Subscriber	10013	New York County	New York
109	W 113 St & Broadway	W 110 St & Amsterdam Ave	30256	1997	1	2019/07/01 00:00:12.158000	2019/07/01 00:02:01.567000	Subscriber	10025	New York County	New York
106	31 St & Broadway	Crescent St & Broadway	16875	1988	1	2019/07/01 00:00:12.668000	2019/07/01 00:01:59.606000	Subscriber	11106	Queens County	Astoria
550	Park Ave & E 124 St	Frederick Douglass Blvd & W 112 St	34139	1992	1	2019/07/01 00:00:14.494000	2019/07/01 00:09:25.397000	Subscriber	10035	New York County	New York

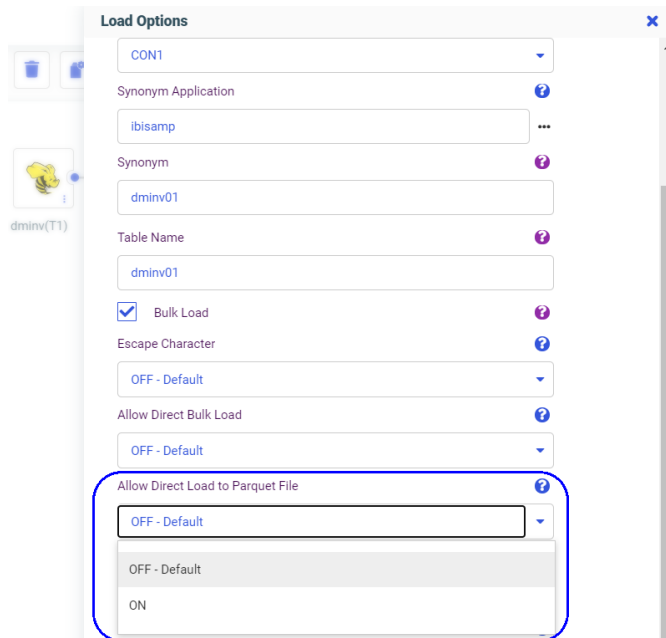
## Adapters for Hive and Impala: Using Parquet as a Transfer File to HDFS

In prior releases, when you used Data Migrator or a Data Flow to create a file in the Hadoop Distributed File System (HDFS) in Parquet format, an intermediate text file was created.

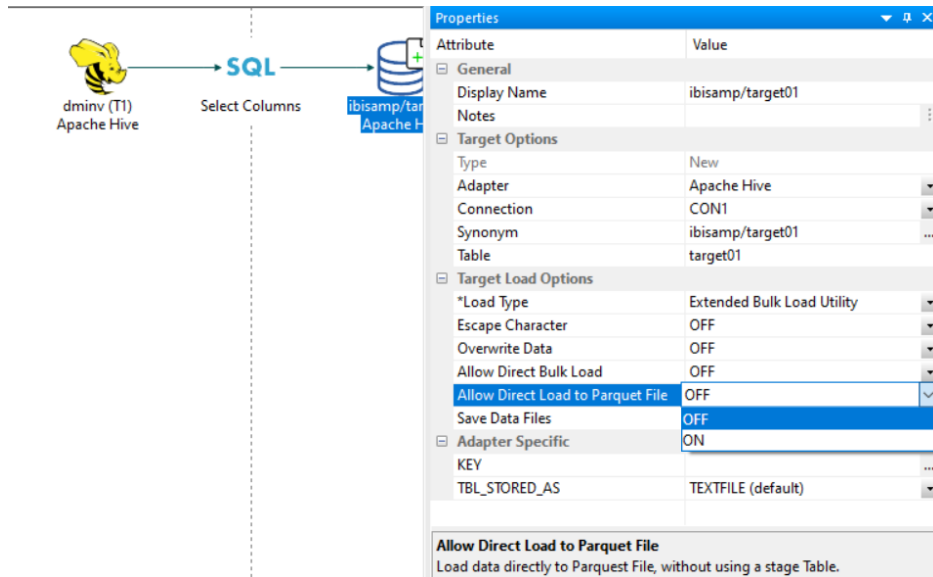
Now, a file in Parquet format can be created in the local file system and transferred to HDFS without the need to create an intermediate file.

This option can be enabled in the Load Options for a flow by setting *Allow Direct Load to Parquet File* to ON.

The following image shows this option in the Reporting Server browser interface.



The following image shows this option in the Data Migrator desktop interface.



### Adapter for OData: Turn Off Aggregation for ENTITY\_SET Requests

In prior releases, aggregation requests were always sent for aggregate functions (such as CNT.DST.) when Aggregation was set on in the Connection string (EXT\_AGGR:Y) and retrieval was started at the child segment by adding the ENTITY\_SET attribute in the Child Segment definition of the Access File (for example, ENTITY\_SET=Assets).

Now, if no fields from the root segment are referenced in the request, aggregation will not be performed. The Session Log will contain a message indicating that aggregation was turned off for the request.

### Adapter for REST: Encoding Special Characters When Creating a Synonym

In prior releases of the Adapter for REST, users had to manually enter encoded values for special characters within parameter values in the *Create Synonym Service URL Parameters* and *Document Sample* text boxes.

The Adapter for REST now automatically encodes special characters within parameter values when creating a synonym.

For example, the synonym named postalsearch1 was generated using Service URL Extension *postalCodeSearch* and Service URL Parameters *placename=Thézan-des-Corbières&maxRows=20&username=demo*. The default placename value contains special characters. The Base URL in the connection attributes is <http://api.geonames.org>.

The following is the generated Master File.

```

FILENAME=M6ILO, SUFFIX=REST      , $
  SEGMENT=M6ILO, SEGTYPE=S0, $
    GROUP=HEADER, ALIAS=Header, ELEMENTS=3, $
      FIELDNAME=PLACENAME, ALIAS=placename, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
      XDEFAULT='Thézan-des-Corbières', $
      FIELDNAME=MAXROWS, ALIAS=maxRows, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
      XDEFAULT='1000', $
      FIELDNAME=USERNAME, ALIAS=username, USAGE=A30, ACTUAL=A30,
ACCESS_PROPERTY=(NEED_VALUE),
      XDEFAULT='ibiibi', $
      FIELDNAME=__RESPONSE, USAGE=TX80L, ACTUAL=TX,
ACCESS_PROPERTY=(INTERNAL), $

SEGMENT=RESPONSE, SEGTYPE=S0, SEGSUF=XML      , PARENT=M6ILO,
POSITION=__RESPONSE, $
  FIELDNAME=GEONAMES, ALIAS=geonames, USAGE=A1, ACTUAL=A1,
ACCESS_PROPERTY=(INTERNAL),
  PROPERTY=ELEMENT, $
  FIELDNAME=TOTALRESULTSCOUNT, ALIAS=totalResultsCount, USAGE=P32,
ACTUAL=A32,
  REFERENCE=GEONAMES, PROPERTY=ELEMENT, $
  FIELDNAME=CODE, ALIAS=code, USAGE=A1, ACTUAL=A1,
ACCESS_PROPERTY=(INTERNAL),
  REFERENCE=GEONAMES, PROPERTY=ELEMENT, $
  FIELDNAME=POSTALCODE, ALIAS=postalcode, USAGE=P32, ACTUAL=A32,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=NAME, ALIAS=name, USAGE=A55, ACTUAL=A55,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=COUNTRYCODE, ALIAS=countryCode, USAGE=A55, ACTUAL=A55,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=LAT, ALIAS=lat, USAGE=P20.3, ACTUAL=A20,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=LNG, ALIAS=lng, USAGE=P20.3, ACTUAL=A20,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=ADMINCODE1, ALIAS=adminCode1, USAGE=A30, ACTUAL=A30,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=ISO3166_2, ALIAS=ISO3166-2, USAGE=A30, ACTUAL=A30,
  REFERENCE=ADMINCODE1, PROPERTY=ATTRIBUTE, $
  FIELDNAME=ADMINNAME1, ALIAS=adminName1, USAGE=A55, ACTUAL=A55,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=ADMINCODE2, ALIAS=adminCode2, USAGE=P32, ACTUAL=A32,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=ADMINNAME2, ALIAS=adminName2, USAGE=A55, ACTUAL=A55,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=ADMINCODE3, ALIAS=adminCode3, USAGE=P32, ACTUAL=A32,
  REFERENCE=CODE, PROPERTY=ELEMENT, $
  FIELDNAME=ADMINNAME3, ALIAS=adminName3, USAGE=A55, ACTUAL=A55,
  REFERENCE=CODE, PROPERTY=ELEMENT, $

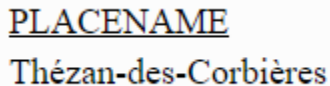
```

The following is the generated Access File.

```
SEGNAME=M6ILO,  
  CONNECTION=CON02,  
  OBJECT=postalCodeSearch,  
  HEADER=HEADER,  
  SERVICETYPE=REST,  
  HTTPMETHOD=GET,  
  RESTRESPONSE=XML, $
```

The following request prints the PLACENAME field, where the special characters were encoded.

```
TABLE FILE postalcodesearch1  
PRINT PLACENAME  
ON TABLE SET PAGE NOLEAD  
ON TABLE SET STYLE *  
GRID=OFF,$  
ENDSTYLE  
END
```



PLACENAME  
Thézan-des-Corbières

## Enhancements to Generating Flows Using a Template Flow

*Generate Flows* automatically generates a Process Flow and multiple Data Flows based on a template flow that has one source and one new target. This feature enables you to easily move any number of single sources to new targets.

The *Generate Flows* process has been enhanced to support prefixes and suffixes for target table names, as well as prefixes and suffixes for target synonym names, to have an advanced verification dialog, and to provide the *Generate Flows* button on the flow canvas for a flow that conforms to the requirements of a valid template flow.

In addition, there are now two options for generating flows:

- Generate & Save**, which saves the generated Process Flow and Data Flows. Once they are saved, you can run or submit them manually. This option gives you the ability to edit generated flows prior to submitting them.
- Generate & Submit**, which automatically submits the generated Process Flow, but does not save the Process Flow or Data Flows, which are generated in the temporary foccache application and deleted when the session ends. Only the target synonyms and tables are saved.

### Procedure: How to Generate Data Flows

The template data flow and the generated data flows can each have one source and one new target. In addition, WHERE filters are not supported in the SQL statement in the template Data Flow.

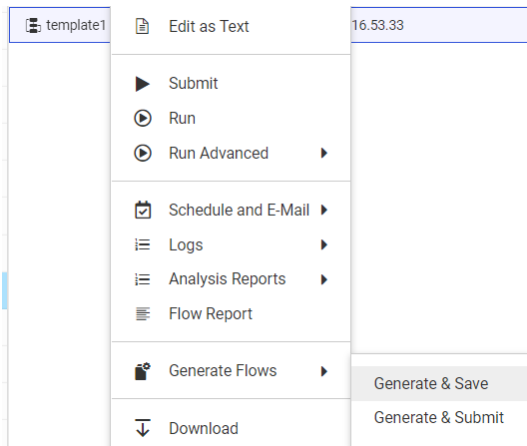
1. Create and save a data flow that has one source and one new target to use as the template.

The template flow is a normal data flow that can have any name and be saved in any application directory.

For example, the following image shows a flow named template1 that has a delimited source and new SQL Server target.

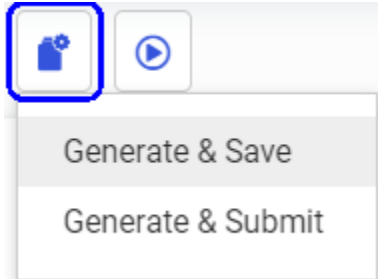


2. Right-click the template flow and point to *Generate Flows*, as shown in the following image.



**Note:** The *Generate Flows* option appears as long as the flow conforms to the requirements for a template flow. That is, it can have one source and one new target, and no WHERE filter.

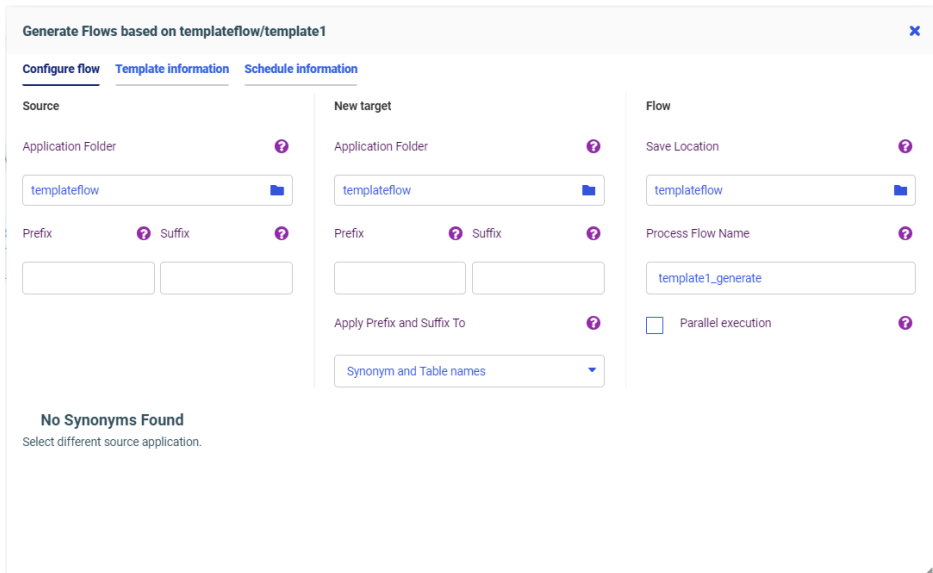
When a Data Flow that conforms to the requirements for a template flow is open in the flow canvas, there is a *Generate Flows* button at the top of the window, as shown in the following image.



Click either:

- Generate & Save* to save the generated flows but not submit them automatically.
- Generate & Submit* to submit the generated flows. The flows are not saved, they are generated in a temporary location. Only the target synonyms and tables are saved.

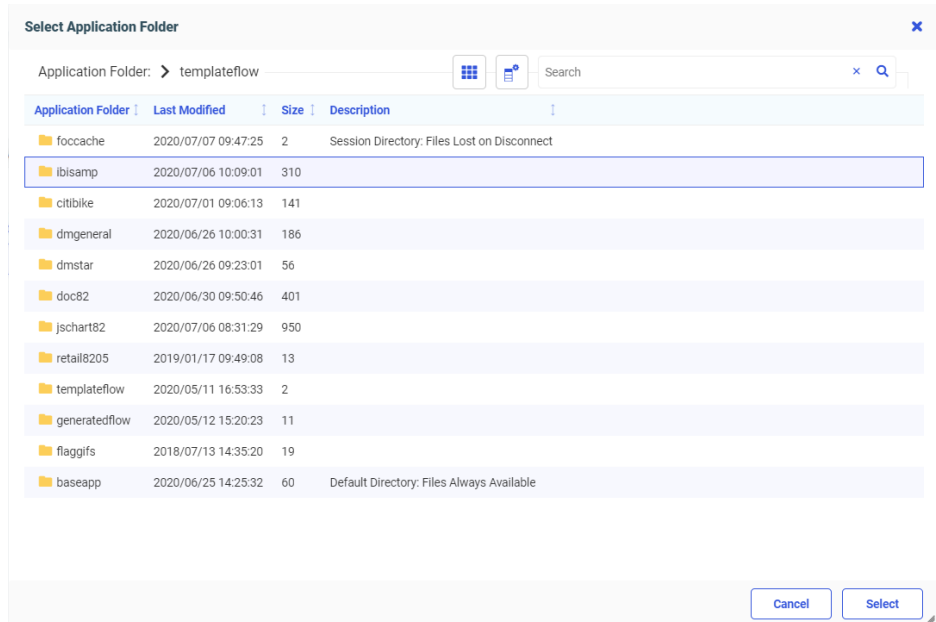
The *Generate Flows* window opens, as shown in the following image.



3. Select the source, target, and, if you are saving the flows, the flow application folders.

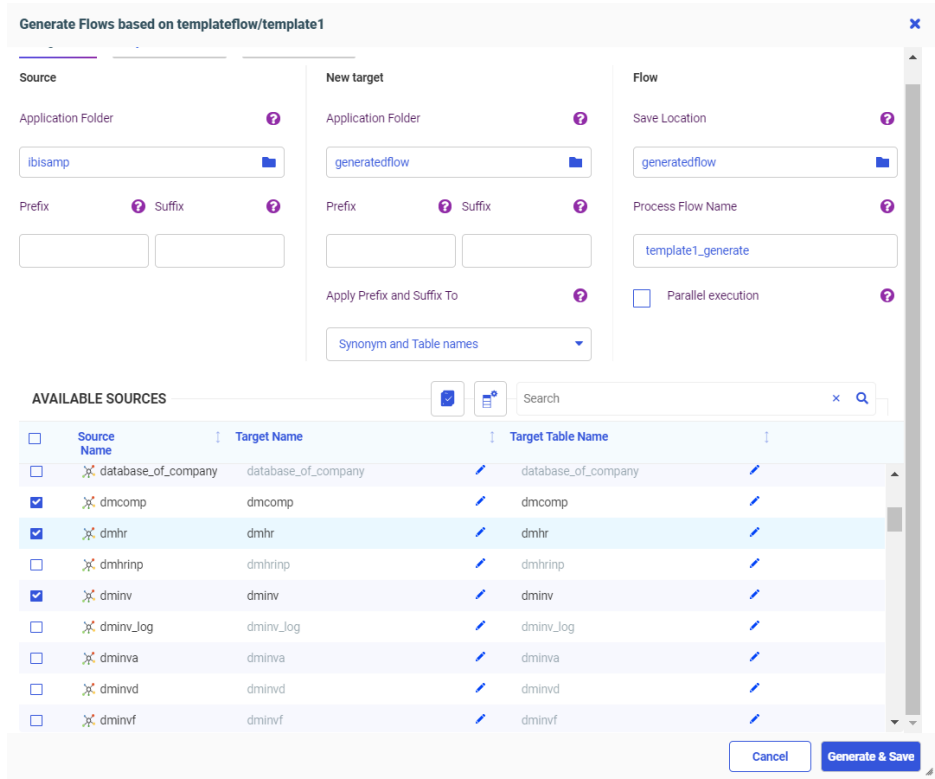


If the source application folder does not have the sources you want to use, click the application name and navigate to the application you need, as shown in the following image.



Do the same for the New Target application and the Flow application (if you are saving the flows). The source and target applications must be different if the target names match the source names. The New Target application will contain the new target synonyms. The Flow application will contain the generated data flows and process flow. The Target and Flow application folders can be the same or different.

- Select the sources for the new flows, as shown in the following image.



The sources do not have to be the same type as the source in the template flow. Any source type can be selected.

- Optionally, use one of the following techniques to edit generated target synonym and table names.
  - You can type over the default target names to create new names.
  - You can use the Source *Prefix* text box to specify characters that will be removed from the start of the source synonym names when creating the target names, and the Source *Suffix* text box to specify characters that will be removed from the end of the source synonym names when creating the target names.
  - You can use the Target *Prefix* text box to specify characters to be added to the start of the target names, and the Target *Suffix* text box to specify characters to be appended to the end of the target names.

By default, the Prefix and Suffix transformations will be applied to both target synonym and table names. However, you can use the *Apply Prefix and Suffix To* drop-down list to select whether to apply them to:

- Target Synonym and Table names (the default).
- Target Synonym names only.
- Target Table names only.

The following image shows that the characters *dm* will be removed from the beginning of the source synonym name when creating the target synonym name, and that the characters *\_tgt* will be appended to the synonym name for the new target.

**Generate Flows based on templateflow/template1**

**Source**

Application Folder: lbaseamp

Prefix: dm

**New target**

Application Folder: generatedflow

Prefix: [ ] Suffix: \_tgt

Apply Prefix and Suffix To: Synonym name

**Flow**

Save Location: generatedflow

Process Flow Name: template1\_generate

Parallel execution

**AVAILABLE SOURCES**

Source Name	Target Name	Target Table Name
database_of_company	database_of_company	database_of_company
<input checked="" type="checkbox"/> dmcomp	dmcomp	dmcomp
<input checked="" type="checkbox"/> dmhr	dmhr	dmhr
dmhrinp	dmhrinp	dmhrinp
<input checked="" type="checkbox"/> dminv	dminv	dminv
dminv_log	dminv_log	dminv_log
dminva	dminva	dminva
dminvd	dminvd	dminvd
dminvf	dminvf	dminvf

Buttons: Cancel, Generate & Save

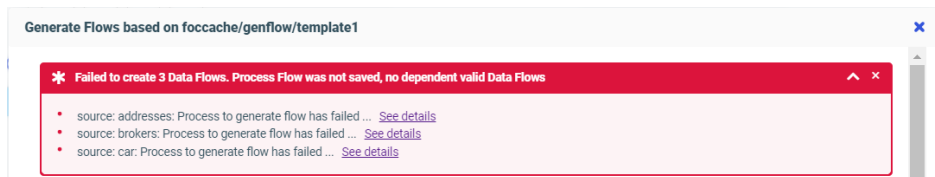
For example, the source synonym name *dminv* will generate a target synonym named *inv\_tgt*.

6. Optionally, type over the target table names to generate the table names you need.
7. Optionally, type over the default process flow name to generate the process flow name you need.

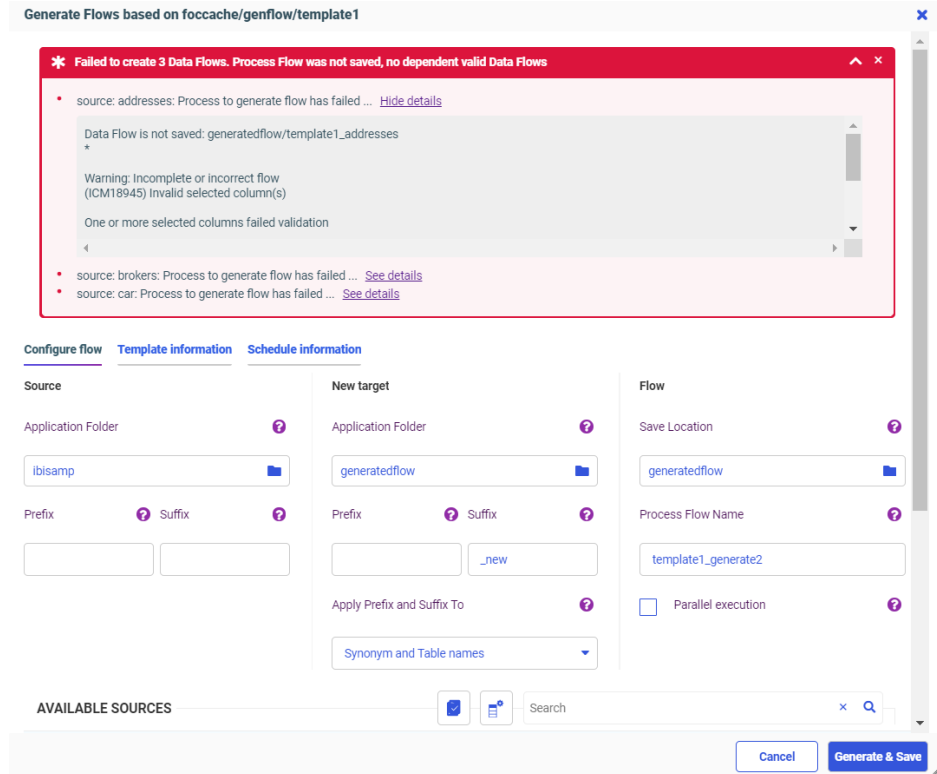
8. Optionally, select the *Parallel execution* check box to create a group with the data flows inside.
9. Once you have made all of your changes, click the *Verify* button to check that your selections are valid, as shown in the following image.



If there were any problems with your choices, warning messages will display in orange and error messages will display in red at the top of the window, identifying the issues. If a message is long, a *See details* link appears, as shown in the following image.



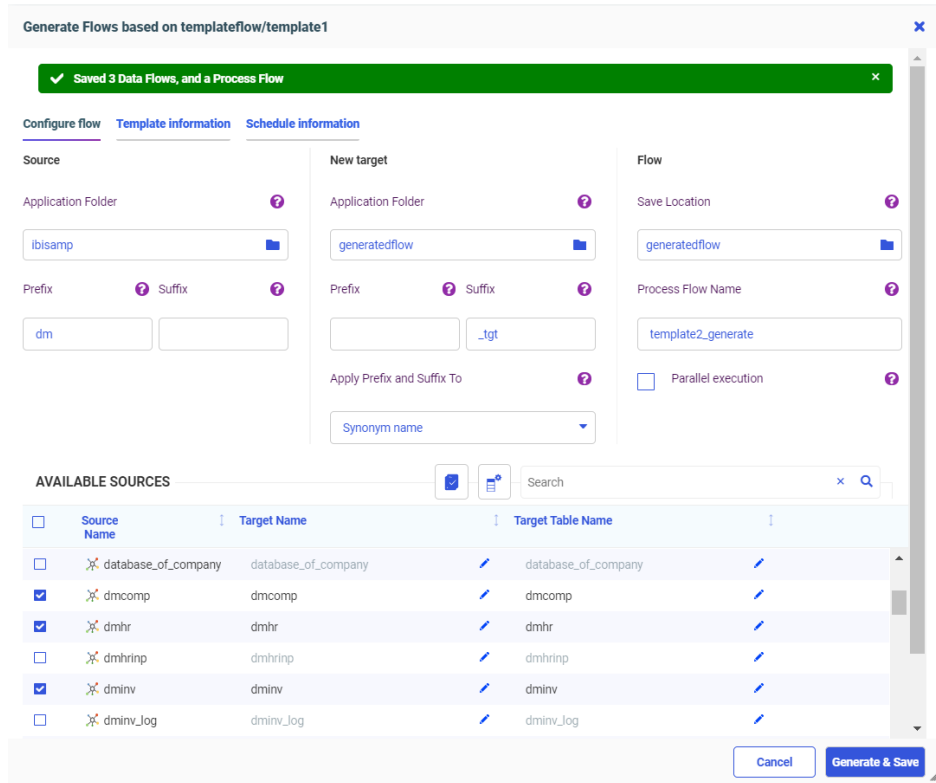
If you click a *See details* link, the Message box expands to show the details. If the details are long, scroll bars enable you to scroll through all of the details, as shown in the following image, in which the sources selected are not valid for the transformations in the flow.



You can click *Hide details* to close the details box.

Note that the *Generate & Save* button is still available, so you can save the erroneous flow.

If your choices are valid, a successful verification message displays in green, as shown in the following image.



10. If there were problems identified, correct them.

Examples of choices that could prevent verification are:

- The application folders for source and target are the same, with the source names matching the target names. The application folders must be different, unless you change the target names.
- The target synonym name is not valid. It should not exceed 64 characters, and the general guidelines for a synonym name should be followed.
- The target adapter is not available. It must be available (not removed accidentally) at the time when *Generate Flows* is in progress.

- ❑ Transformations you made in the template data flow are not valid for the generated flows. Any transformations you made in the template data flow must be valid for the generated flows. If the source tables do not have the columns necessary to apply the transformations, the flows will not be successfully verified.
11. Once the verification is successful, click either *Generate & Save* or *Generate & Submit*, depending on your selection when you started the Generate Flows process.

Some additional verification processes will be run. If problems occur, messages will display in red at the top of the window, identifying the problems. If no problems occur, a message will display in green, indicating that the save was successful and identifying the objects that were generated, as shown in the following image,

Generate Flows based on templateflow/template1

✓ Saved 3 Data Flows, and a Process Flow

Configure flow | Template information | Schedule information

Source

Application Folder: ibisamp

Prefix: dm

New target

Application Folder: generatedflow

Prefix: \_tgt

Apply Prefix and Suffix To: Synonym name

Flow

Save Location: generatedflow

Process Flow Name: template2\_generate

Parallel execution

AVAILABLE SOURCES

Source Name	Target Name	Target Table Name
<input type="checkbox"/> database_of_company	database_of_company	database_of_company
<input checked="" type="checkbox"/> dmcomp	dmcomp	dmcomp
<input checked="" type="checkbox"/> dmhr	dmhr	dmhr
<input type="checkbox"/> dmhrinp	dmhrinp	dmhrinp
<input checked="" type="checkbox"/> dminv	dminv	dminv
<input type="checkbox"/> dminv_log	dminv_log	dminv_log





Cancel Generate & Save

If additional problems were identified, correct them.

If you selected *Generate & Submit* when you started the Generate Flows process, the flows will be submitted, but not saved. Only the target synonyms and target tables will be saved.

12. Close the *Generate Flows* window by clicking *Cancel*.

13. If you selected *Generate & Save*, the generated data flows and the process flow are generated in the flow application directory you selected, as shown in the following image.

Application Directories/Files ↓	Size ↓	Date Modified ↓
 template1_dmcomp	2197	2020/07/07 10.42.47
 template1_dmhr	2979	2020/07/07 10.42.47
 template1_dminv	2299	2020/07/07 10.42.47
 template1_generate	1698	2020/07/07 10.42.47

The flow named `template1_generate` is the generated process flow. The other flows are the generated data flows, one for each source synonym (identified by having the source synonym name at the end of the flow name).

The following image shows the data flow generated for the `dminv` source synonym. The target synonym name was generated by removing the characters `dm` from the start of the source synonym name and adding the characters `_tgt` to the end of the target synonym name, as specified on the Generate Flows window.





If you selected *Synonym and Table names* from the *Apply Prefix and Suffix To* drop-down list, the prefix and suffix transformations will be applied to the target table name as well as the synonym name, as shown in the following image.

**Load Options** [X]

Load Option [?]   
 New/Replace [v]

Adapter [?]   
 MS SQL Server OLE DB/AzureDB [v]

Connection [?]   
 CON01 [v]

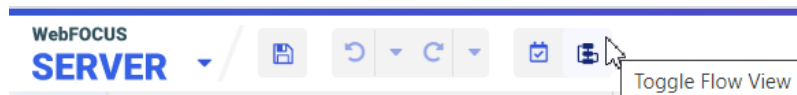
Synonym Application [?]   
 generatedflow [...]

Synonym [?]   
 inv\_tgt

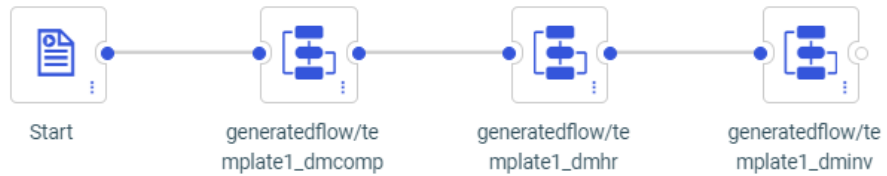
Table Name [?]   
 inv\_tgt

The data flows are generated with the same load options as the template flow, but, you can now open any of the flows and edit them as needed.

To open the process flow, you will have to toggle the flow view by clicking the *Toggle Flow View* button at the top of the window, as shown in the following image.



The following image shows the generated process flow.



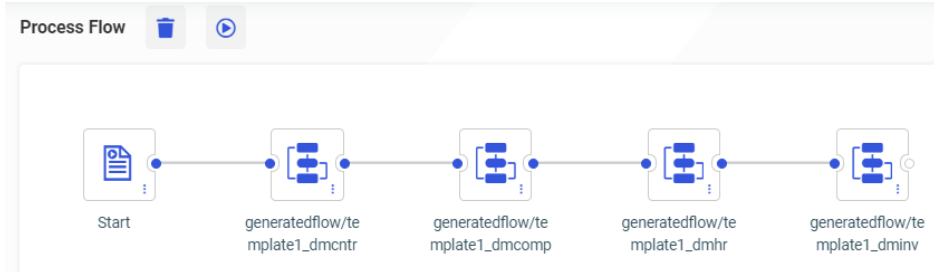
14. If you selected *Submit & Save*, once you have finished your edits to the flows, if any, you can submit the generated process flow by right-clicking it and selecting *Submit*.

The targets are generated in the New Target application folder (which, in this example, is the same as the Flow application folder), as shown in the following image.

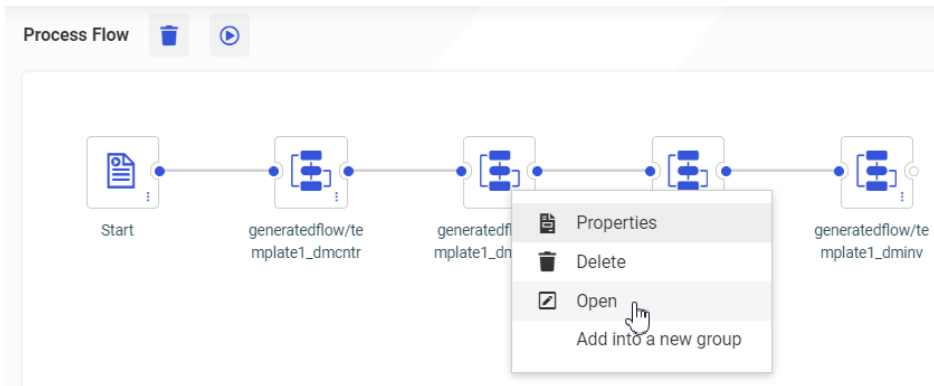
Application Directories/Files ↓	Size ↓	Date Modified ↓
template1_dmcomp	2197	2020/07/07 10.58.56
template1_dmhr	2979	2020/07/07 10.58.56
template1_dminv	2299	2020/07/07 10.58.56
template1_generate	1698	2020/07/07 10.58.56
hr_tgt	3485	2020/07/07 10.59.15
inv_tgt	985	2020/07/07 10.59.16

## Opening a Data Flow From a Process Flow

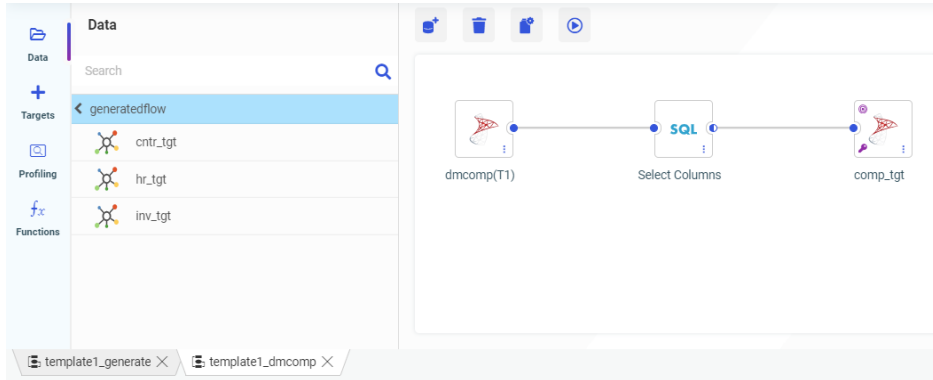
The following image shows a Process Flow that runs four Data Flows open in the Server Reporting Server browser interface.



To open one of the Data Flows, right-click the flow you want to open and click *Open*, as shown in the following image.



The Data Flow opens in a new tab, as shown in the following image.



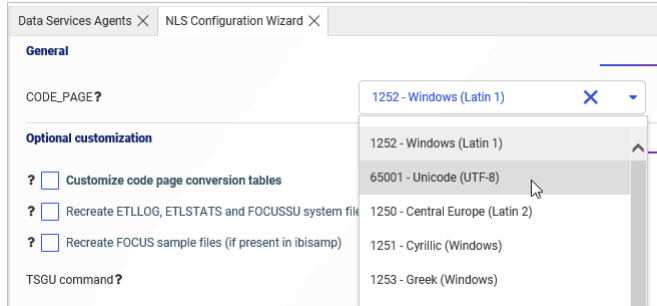
## Fixes

- When a BY field is dynamically reformatted, the value of that field in the hyperlink is incorrectly listed as a comma instead of the correct value. (180504005)
- An HTTP 400 error is returned when clicking on a drilldown link using the backslash (\) character in a Unicode environment. (200618124)
- When an AHTML report contains HFREEZE and sorting and filtering the data at run-time, the columns titles are misaligned with the columns when there are many columns in the report. (200402081)
- The value of TITLETEXT is not displayed in the browser title tab when using ARVERSION=2. (191023224)
- Missing data shows in a Dynamics CRM adapter report when the ALIAS of the field has the same name as the ALIAS of the field being referenced. (200702066)
- Attempts to pivot multiple columns to rows with Repeating groups of columns selected from the Data Management Console, results in an error: Pivot column expression is missing
- Accessing the Information Database Management System in a 64-bit release results in an abend: ABEND=SOC1 U0000 REASON=00000001 (200629074)
- On the My Workspace page, if you click on the view as list button, the page renders but the button disappears and you cannot switch back to the grid view while using Internet Explorer 11. (200601098)
- In AutoPrompt, Undefined displays in the selection dialog for optional static parameters. (200624063)

- ❑ When clicking the Run button on an HTML page that allows no parameter value selection as per option WF\_composer\_send\_empty\_value=YES, the empty parameter value is not sent on the request resulting in the Autoprompt page displaying a prompt for the parameter or an error stating the parameter has no value. (200429005)
- ❑ The Double list box control is not passing multiple selected values to a report and is only displaying the first value. (200624003)
- ❑ Connection to Server is slow if the profiles directory contains a large number of group or user profiles. (200610091, 200707150)
- ❑ When using a combination of bullets and numbering options, a </lispan> tag renders in the PDF. (200608011)
- ❑ When a new folder is added to the multi-source tree control, subfolders are also created. However, in this case, the folder does not have any sub-folders designated. The control is generating numerous subfolders that are located in the other folders.  
The data or XML also does not indicate that the new folder has any subfolders.  
(200615057)

## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

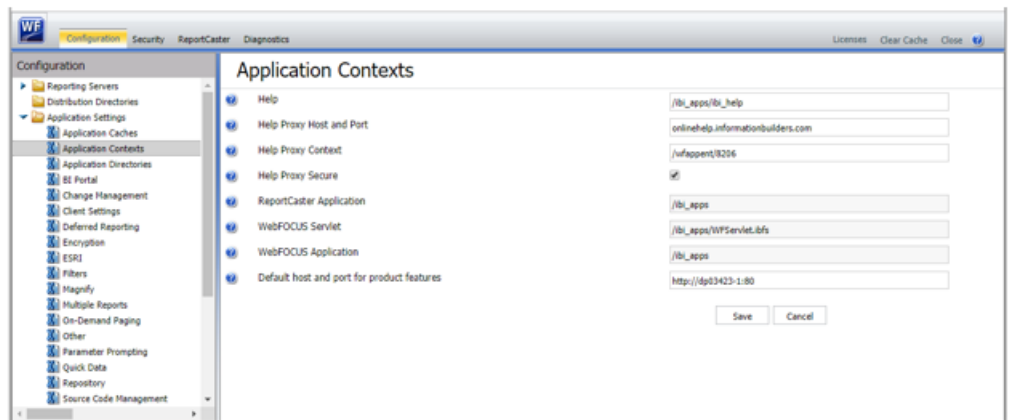
1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.

2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- When creating stacked bar, area, and line charts in WebFOCUS Designer, you can select *Show stacked totals*, in the Series options on the Format tab, to show the total value of the stacked riser above each bar or point in the chart. You can also use series-level data labels to show a value for each series, representing a subset of the stacked riser. If the position of the series-level data labels is set to *Above*, then the label for the top-most series may overlap with the total label for the stacked riser. To avoid this overlap, select a different option from the Position menu.

## System Requirements

This release is now certified and has been tested with Google Chrome version 83, Firefox version 77, Microsoft Edge Chromium version 83 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



## 8207.13 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

### Release and Gen Information

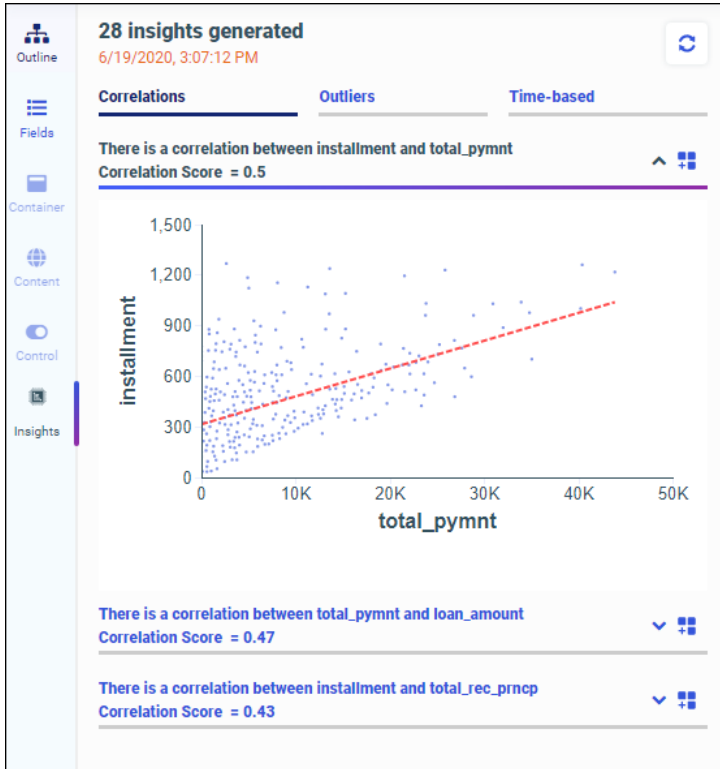
Release Date	Gen Information	Reporting Server
Friday, July 10, 2020	wf070820a Gen 15 wi070820a as070820a	8207.13 Gen 1918

### New Features

#### Automated Insights

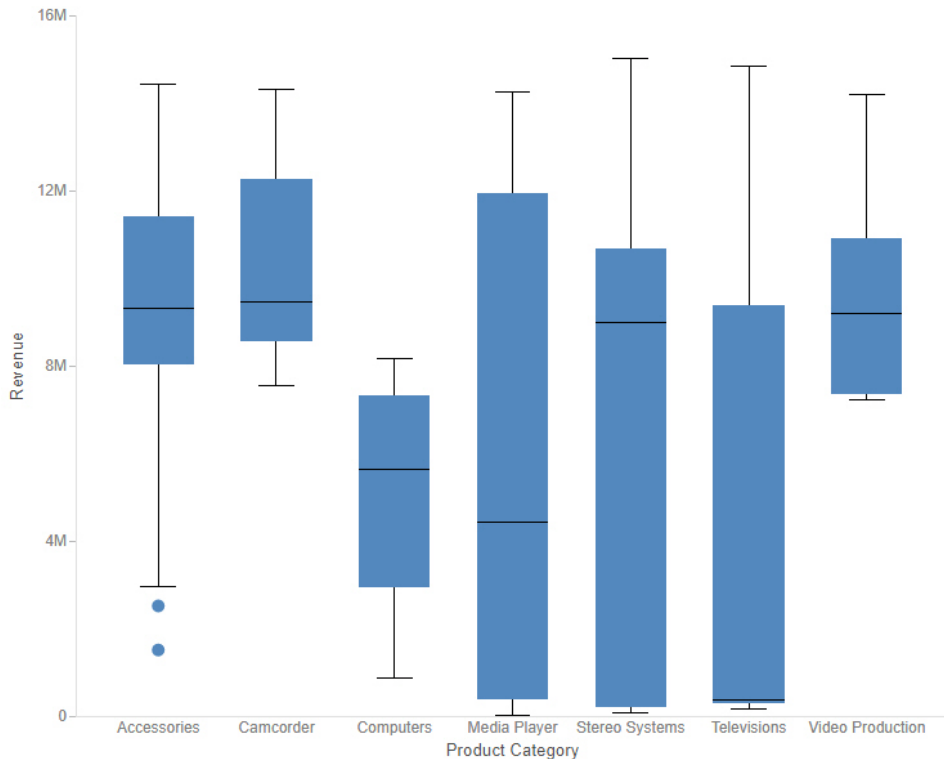
Using Automated Insights in WebFOCUS Designer, available in Trial and Product versions, you can now easily run advanced analyses and generate visualizations and narratives on your data sets. You do not need to manually prepare and analyze your data, or have prior knowledge of data science or statistics. Automated Insights is available for use on-premises and in the WebFOCUS Cloud Trial.

With one click, Automated Insights recognizes the trends in your data, generates customizable visualizations as charts with natural language headers, and categorizes the charts into tabs. You can add these charts to the Designer canvas and build a page, or add them to existing pages or dashboards. Then you can save and share your insights with others.



## Creating Statistical Box Plots in WebFOCUS Designer

A box plot, also known as a box-and-whisker plot, is a chart type that is commonly used to display distribution information about your data. Box plots provide numerous key data points for multiple dimension values, allowing you to quickly compare the range, skewness, and dispersion of each one. The box represents the range between the upper and lower quartiles, and the line inside the box represents the median. The whiskers represent the maximum and minimum with outliers excluded, and outliers are represented by individual points. An example of a box plot is shown in the following image.



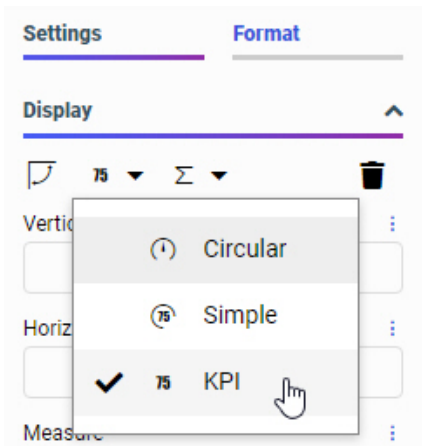
To create a box plot, add a measure to the Vertical bucket and a dimension to the Horizontal bucket, then either use the Detail (PRINT) calculation method or add a dimension to the Detail bucket to provide individual values to the data set for which the box plot is generated.

## Creating Simple KPI Visuals

You can create KPI visuals to display simple metrics in a straightforward manner, without extra styling or graphics. These allow you to clearly communicate the values of key metrics in a format that can be easily added to a page with other content items. An example of a KPI chart is shown in the following image.

512K

To create a KPI chart, select the *Gauge* chart type from the Content picker, and then, from the display options, select the *KPI gauge* type, as shown in the following image.



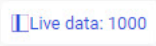
You can style the text in a KPI chart or in one of the other gauge chart types by selecting *Gauge Properties* on the *Format* tab. These properties include the option to show and position the field name along with the measure value, and change the font, size, and color of both.

## Representative Sample Data in WebFOCUS Designer

When you create charts, reports, and pages in WebFOCUS Designer, the canvas displays a design-time preview of your content. By default, the preview uses a subset of the data available in your selected data source, reducing the resource usage required in running a full data set, while still providing a representative and useful preview of your content.

You can now use a representative sample of the values in your data source to generate the preview in the WebFOCUS Designer canvas. The size of this sample is based on the number of records required to achieve a 99% confidence level. Previously, the preview data sample was always taken from the start of your data source. For example, if you used a record limit of 500, the first 500 records from the data source were used. This meant that, in certain data sources, the preview may not have represented the content as it would display when using the full data set at run time. With a representative data sample, the design-time preview better reflects the distribution of values in the full data source, while still significantly reducing resource usage.

The representative sample option is now the default sample data setting. To change this setting to show the first records in the data source, or to use placeholder test values, click the

data settings button  on the Visualization toolbar. The Canvas Data Limit dialog box opens, as shown in the following image.

Canvas Data Limit

Live Record Limit

500  
 1000  
 5000  
 10000  
 All  
 Custom

Enforce limit

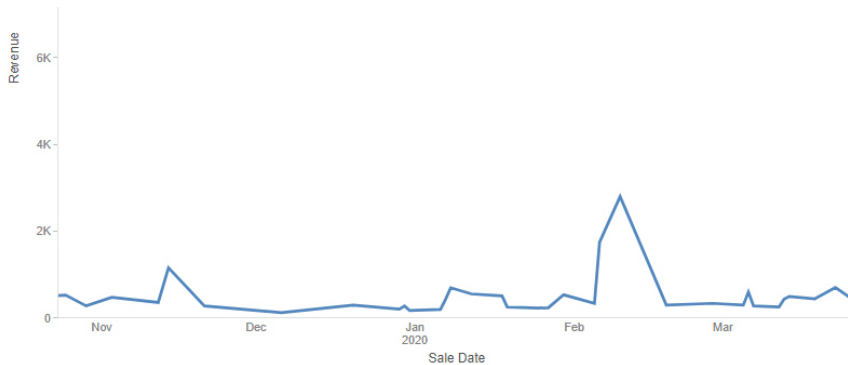
At the source     Post retrieval

You can change the type of sample, the number of records used, and, when using values from the start of your data source, whether the record limit is applied at the data source level or after records have been retrieved for the request. When you create a page from new content, you can also choose to apply the sample at run time, if you think it is an effective reflection of the full data set.

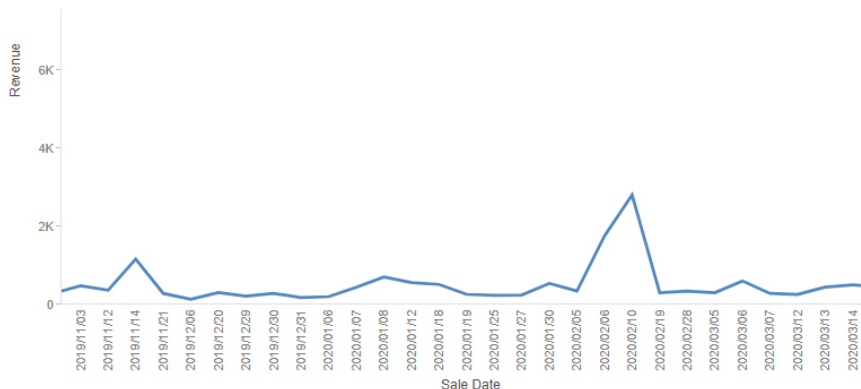
## Displaying Date and Date-Time Fields on a Continuous Axis

In line and area charts created in WebFOCUS Designer, date and date-time fields on a dimensional axis are now displayed, by default, as a continuous range instead of discrete values. When this option, called the time axis, is enabled, missing values within the date range are extrapolated based on the nearest values. This allows you to see changes in your data over time on a continuous scale, displaying date values more intuitively and making it easier to recognize gaps in your data.

When the time axis option is enabled, the values in the chart are plotted along a continuous date axis, as shown in the following image.



The same chart with the time axis option disabled is shown in the following image. Only dates with values in the data set of the chart display. Since not all dates appear in the chart, each existing date value is labeled on the axis.



To disable the time axis option and show only the date values in your data source, right-click the date or date-time field in the Horizontal or Vertical bucket of your chart and deselect *Time axis*.

To re-enable the time axis option, right-click the date or date-time field and click *Time axis* again.

## Adding Trend Lines to Charts in WebFOCUS Designer

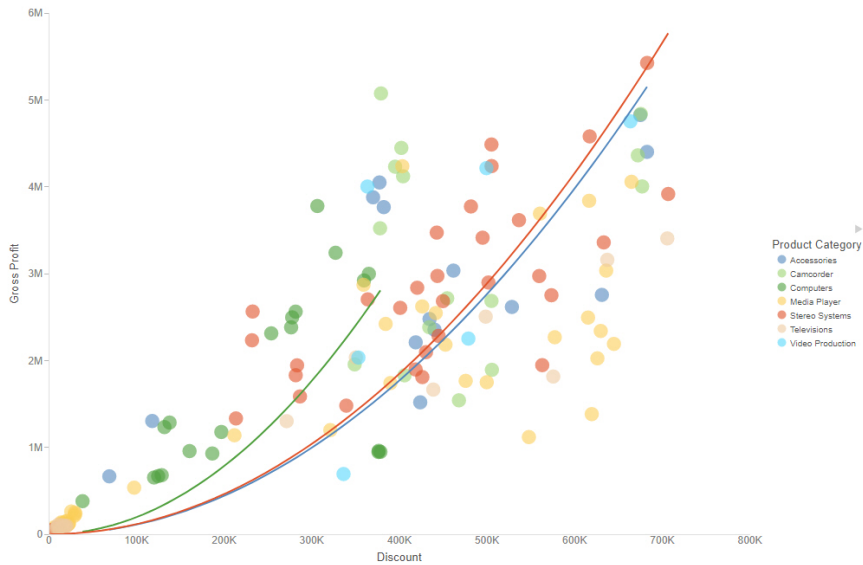
When creating bar, line, area, or scatter plot charts, you can apply trend lines to a series to more easily recognize and visualize the patterns in your data. You can choose from a number of different trend line calculation equations, including linear, parabolic, logarithmic, or even polynomial equations for which you can specify the degree.

To add trend lines to your chart, create a bar, line, area, or scatter plot chart and, on the *Format* tab, select *Series* from the quick access menu. Select a series for which to draw a trend line, or leave *All* selected to generate a global trend line for the entire chart, then, under the Trend Lines section, select the *Show trend line* check box. Trend lines use the series color by default, but you can specify a different color, line style, and line thickness for each one. You can also select from the following trend line equation types:

- Linear
- Logarithmic
- Exponential
- Polynomial
- Geometric
- Hyperbolic
- Log Quadratic
- Modified Exponential
- Modified Hyperbolic
- Quadratic
- Rational

If you select the *Polynomial* option, you can use the Order menu to set the degree of the polynomial equation.

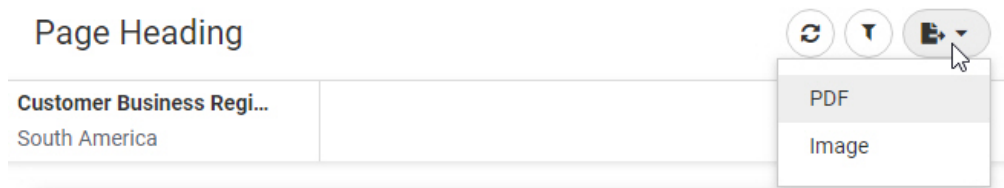
Trend lines appear, representing the data patterns of each series for which they were enabled, as shown in the following image.



### Exporting a Page as a PDF or Image

You can instantly download a snapshot of your page as a PDF document or .png image using the Export to file menu on the page toolbar. This allows you and anyone running the page to quickly capture its current state, with filter selections applied, in a format that can be easily reused, distributed, added to PowerPoint presentations, and more.

When designing or running the page, the Export to file menu appears on the page toolbar by default. Click it to display options to download a snapshot of the page as a PDF or image, as shown in the following image.



The .pdf or .png file is downloaded using your browser. The file can be opened immediately and saved to distribute and reuse later.



## Pivoting Columns with Date Headers

If pivoting an uploaded data file with multiple repeating columns into rows, and the column headers are dates, the fields are now recognized as date values, so you can report from the table using date functions.

PREVIEW COVID\_DEATHS\_USAFACTS

countyFIPS	County Name	State	stateFIPS	1/22/20	1/23/20	1/24/20	1/25/20	1/26/20	1/27/20	1/28/20	1/29/20
0	Statewide Unallocated	AL	1	0	0	0	0	0	0	0	0
1001	Autauga County	AL	1	0	0	0	0	0	0	0	0
1003	Baldwin County	AL	1	0	0	0	0	0	0	0	0
1005	Barbour County	AL	1	0	0	0	0	0	0	0	0

## Creating a Synonym in a Data Flow Using Variables for the Existing Excel File Name

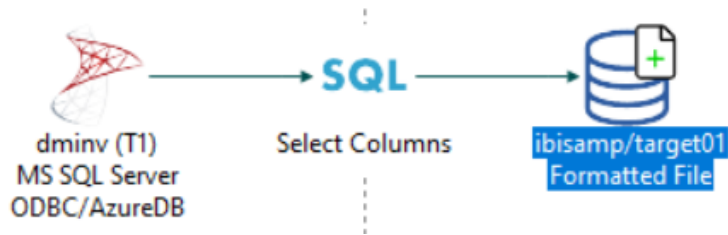
Using the Data Migrator desktop interface, you can now create a synonym in a flow for an existing Excel target using variables for the data file name, as shown in the following image.

Attribute	Value
<b>General</b>	
Display Name	ibisamp/target01
Notes	
<b>Target Options</b>	
Type	New
Adapter	Formatted File
Format	EXCEL
Synonym	ibisamp/target01
Data File	ibisamp/&TARGET_FILE.x...
<b>Target Load Options</b>	
*Load Type	Load via Hold

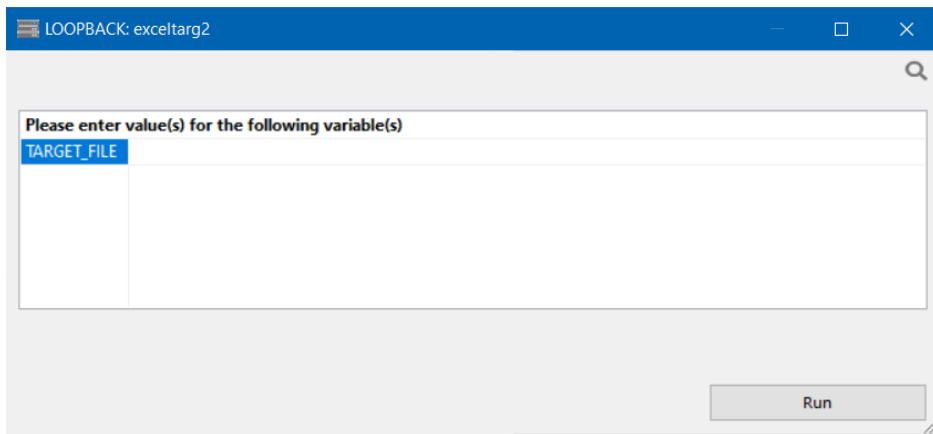
The Formatted File adapter is used with the format EXCEL.

While the Excel file must exist prior to running the flow, the synonym does not have to exist prior to running the flow.

The following flow loads the existing Excel target file with the data from the dminv table created as part of the Data Migrator - General tutorial.



Running the flow opens the following dialog box for entering the name of the existing Excel file.



Entering the name `excel01` and running the flow loads the table and generates the synonym.

The generated Master File, target01.mas, is:

```

FILENAME=TARGET01, SUFFIX=DIREXCEL,
DATASET=ibisamp/excel01.xlsx, $
SEGMENT=EXCEL01, SEGTYPE=S0, $
  FIELDNAME=PRODUCT_NUMBER, ALIAS='Product,Number', USAGE=A5V, ACTUAL=A5V,
  MISSING=ON,
  TITLE='Product,Number', $
  FIELDNAME=PRODUCT_NAME, ALIAS='Product,Name', USAGE=A37V, ACTUAL=A37V,
  MISSING=ON,
  TITLE='Product,Name', $
  FIELDNAME=QUANTITY_IN_STOCK, ALIAS='Quantity,in Stock',
  USAGE=I8, ACTUAL=A11V,
  MISSING=ON,
  TITLE='Quantity,in Stock', $
  FIELDNAME=SALE_PRICE, ALIAS='Sale,Price', USAGE=D9.2, ACTUAL=A64V,
  MISSING=ON,
  TITLE='Sale,Price', $
  FIELDNAME=OUR_COST, ALIAS='Our,Cost', USAGE=D9.2, ACTUAL=A64V,
  MISSING=ON,
  TITLE='Our,Cost', $
  FIELDNAME=PRODUCT_CATEGORY, ALIAS='Product,Category',
  USAGE=A27V, ACTUAL=A27V,
  MISSING=ON,
  TITLE='Product,Category', $
  FIELDNAME=PRODUCT_TYPE, ALIAS='Product,Type', USAGE=A8V, ACTUAL=A8V,
  MISSING=ON,
  TITLE='Product,Type', $

```

The generated Access File, target01.acx is:

```

SEGNAME=TARGET01,
  WORKSHEET=Sheet1,
  HROWS=1,
  NUMDATA=RAW, $

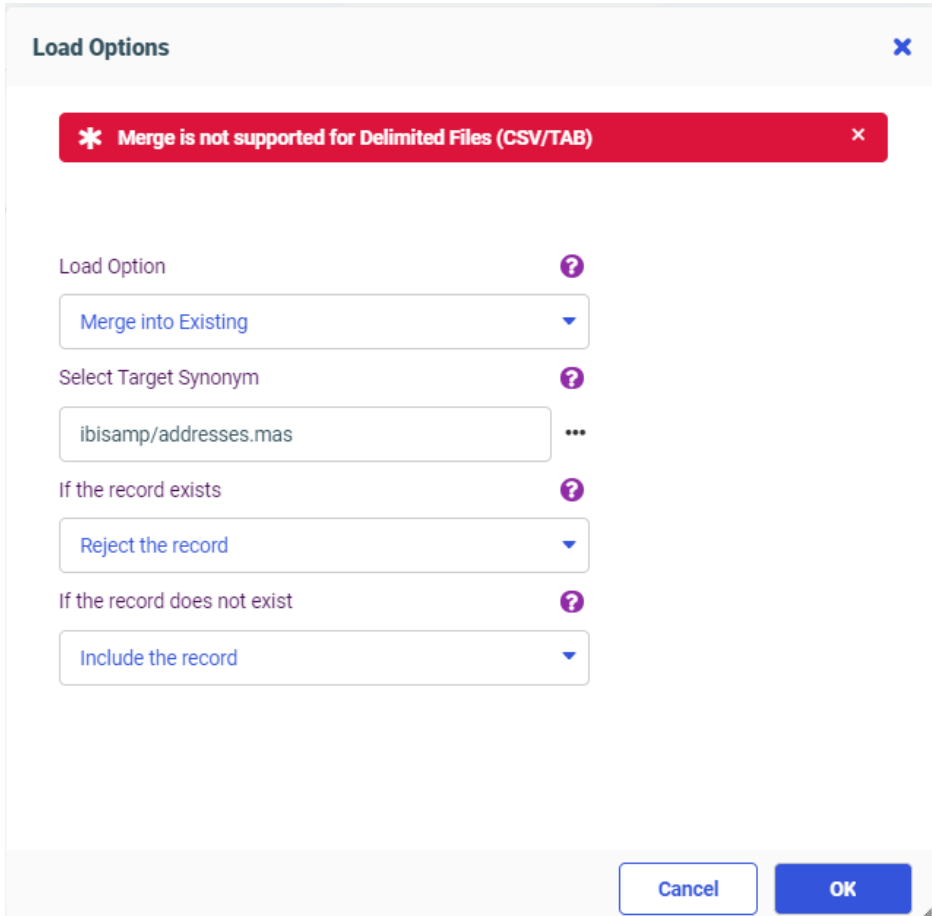
```

The following image shows the Excel target, excel01.xlsx, after running the flow.

	A	B	C	D	E	F	G
1	Product Number	Product Name	Quantity in Stock	Sale Price	Our Cost	Product Category	Product Type
2	1004	2 Hd VCR LCD Menu	43,068	179.00	129.00	VCRs	Analog
3	1006	Combo Player - 4 Hd VCR + DVD	13,527	399.00	289.00	DVD	Digital
4	1008	DVD Upgrade Unit for Cent. VCR	199	199.00	139.00	DVD	Digital
5	1010	750SL Digital Camcorder 300 X	10,758	999.00	750.00	Camcorders	Digital
6	1012	650DL Digital Camcorder 150 X	2,972	899.00	710.00	Camcorders	Digital
7	1014	340SX Digital Camera 65K P	990	249.00	199.00	Cameras	Digital
8	1016	330DX Digital Camera 1024K P	12,707	279.00	199.00	Cameras	Digital
9	1018	250 8MM Camcorder 40 X	60,073	399.00	320.00	Camcorders	Analog
10	1020	150 8MM Camcorder 20 X	5,961	319.00	240.00	Camcorders	Analog
11	1022	120 VHS-C Camcorder 40 X	2,300	399.00	259.00	Camcorders	Analog
12	1024	110 VHS-C Camcorder 20 X	4,000	349.00	249.00	Camcorders	Analog
13	1026	AR3 35MM Camera 10 X	12,444	129.00	95.00	Cameras	Analog
14	1028	AR2 35MM Camera 8 X	11,499	109.00	79.00	Cameras	Analog
15	1030	QX Portable CD Player	22,000	169.00	99.00	CD Players	Digital
16	1032	R5 Micro Digital Tape Recorder	1,990	89.00	69.00	Digital Tape Recorders	Digital
17	1034	ZT Digital PDA - Commercial	21,000	499.00	349.00	PDA Devices	Digital
18	1036	ZC Digital PDA - Standard	33,000	299.00	249.00	PDA Devices	Digital
19	2002	Memory Stick	1,000	80.00	40.00	PDA Devices	Analog
20	2003	Memory Stick Pro	1,000	200.00	100.00	PDA Devices	Analog
21							
22							
23							

## Displaying Messages at the Top of the Load Options Screen

When you edit the load options for a data flow, error messages, if there are any, are now displayed in red on the top of the screen where they can more easily be seen, as shown in the following image.



When you correct the problems, the messages disappear.

## Key Analysis Using Sample Data

The Key Analysis report helps you select one or more fields that uniquely identify each record in a data set, so that these fields can be used as the key when loading the data to a relational database table.

Using Key Analysis, you select a synonym and then select fields that you think may be good candidates to become key fields. The server will then evaluate the fields, separately and in groups of two, three, and so on, to generate statistics that enable you to select an optimal set of key fields.

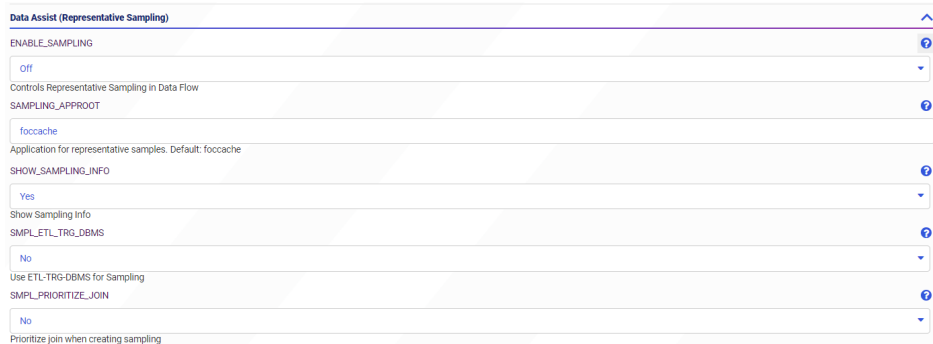
While using the entire data set ensures total accuracy in determining the uniqueness of the fields, for large data sets this could take a long time to process. Therefore, if you enable sampling in your Reporting Server browser interface preferences, a representative sample of the data will be used, enhancing performance while providing a reasonable assessment of the uniqueness of the selected fields.

After determining which fields should be key fields using the sample, rerun the analysis for those fields using the full set of data, in order to be sure that they uniquely identify each row.

The Key Analysis report is most useful when run against a data set that does not already have keys defined in the metadata. Most relational tables already have key definitions.

**Procedure: How to Enable Sampling**

1. Go to the Workspace page of the Reporting Server browser interface, click *Settings*, then click *Settings for Web Console Preferences*. The *Change Settings for Web Console Preferences* page opens.
2. Expand the *Data Assist (Representative Sampling)* section, as shown in the following image.



3. Select *On* for *ENABLE\_SAMPLING*.

This enables sampling everywhere it is available.

You can also change the following parameters. Not all of them are related to Key Analysis.

**SAMPLING\_APPROOT**

Is the application where the sampling files will be generated. The default is foccache.

**SHOW\_SAMPLING\_INFO**

The default value is Yes. This shows sampling information on the data flow canvas.

**SMPL\_TRG\_DBMS**

Use the adapter set as ETL\_TRG\_DBMS for sampling. The default value is *No*.

**SMPL\_PRIORITIZE\_JOIN**

Prioritize the join when creating sampling. When this is set to *Yes*, the sampling for a dimension table in a join will contain all of the key values from the sample rows generated for the fact table to which it is joined. The default value is *No*.

4. Click Save.

**Procedure: How to Run the Key Analysis Report**

The samples shown in this section use a .csv file uploaded from the Citibike bike share web site that contains data about bike rides during a specific month.

1. Right-click a synonym, point to *Data Profiling*, and click *Key Analysis*.

The Key Analysis page opens, as shown in the following image.

<input type="checkbox"/>	Segment Name	Display Field Name	Data Type	Nulls	Description
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	tripduration	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	start station id	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	end station id	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	bikeid	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	birth year	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	gender	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime	Date and Time	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	stoptime	Date and Time	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	usertype	Character	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime,Year	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime,Quarter	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime,Month	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime,Day	Integer	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime,Y	Date (Y)	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime,Y-Q	Date (YQ)	Yes	
<input type="checkbox"/>	CITIBIKE_TRIPDATA_CSVVOUT	starttime,Y-M	Date (YM)	Yes	

Analyze (All Data) Analyze

2. Select the check boxes next to the columns you want to have analyzed, and click *Analyze*.

The key analysis report opens, showing statistics for all combinations of the columns you selected, as shown in the following image.

Key Analysis for "start station id"/"end station id"/bikeid/starttime/stoptime/usertype (CITIBIKE/CITIBIKE\_TRIPDATA\_CSV)

Segment	Name	Data Type	Elements	Count	Distinct Count	Distinct Percent	Duplicate Count	Duplicate Percent
CITIBIKE_TRIPDATA_CSVOUT	<u>start station id</u>	Integer	1	16466	777	4.72	15689	95.28
CITIBIKE_TRIPDATA_CSVOUT	<u>end station id</u>	Integer	1	16466	777	4.72	15689	95.28
CITIBIKE_TRIPDATA_CSVOUT	<u>bikeid</u>	Integer	1	16466	9096	55.24	7370	44.76
CITIBIKE_TRIPDATA_CSVOUT	<u>starttime</u>	Date and Time	1	16466	16466	100.00	0	.00
CITIBIKE_TRIPDATA_CSVOUT	<u>stoptime</u>	Date and Time	1	16466	16466	100.00	0	.00
CITIBIKE_TRIPDATA_CSVOUT	<u>usertype</u>	Character	1	16466	2	.01	16464	99.99
CITIBIKE_TRIPDATA_CSVOUT	<u>start station id/end station id</u>	Integer/Integer	2	16466	13715	83.29	2751	16.71
CITIBIKE_TRIPDATA_CSVOUT	<u>start station id/bikeid</u>	Integer/Integer	2	16466	16419	99.71	47	.29
CITIBIKE_TRIPDATA_CSVOUT	<u>start station id/starttime</u>	Integer/Date and Time	2	16466	16466	100.00	0	.00
CITIBIKE_TRIPDATA_CSVOUT	<u>start station id/stoptime</u>	Integer/Date and Time	2	16466	16466	100.00	0	.00
CITIBIKE_TRIPDATA_CSVOUT	<u>start station id/usertype</u>	Integer/Character	2	16466	1421	8.63	15045	91.37
CITIBIKE_TRIPDATA_CSVOUT	<u>end station id/bikeid</u>	Integer/Integer	2	16466	16432	99.79	34	.21
CITIBIKE_TRIPDATA_CSVOUT	<u>end station id/starttime</u>	Integer/Date and Time	2	16466	16466	100.00	0	.00
CITIBIKE_TRIPDATA_CSVOUT	<u>end station id/stoptime</u>	Integer/Date and Time	2	16466	16466	100.00	0	.00
CITIBIKE_TRIPDATA_CSVOUT	<u>end station id/usertype</u>	Integer/Character	2	16466	1403	8.52	15063	91.48
CITIBIKE_TRIPDATA_CSVOUT	<u>bikeid/starttime</u>	Integer/Date and Time	2	16466	16466	100.00	0	.00
CITIBIKE_TRIPDATA_CSVOUT	<u>bikeid/stoptime</u>	Integer/Date and Time	2	16466	16466	100.00	0	.00

Clicking a column heading sorts on that column, toggling between ascending and descending order.

The following columns are included in the report.

**Segment**

Specifies the segment in the synonym that contains the field.

**Name**

Is the field name or title of the field or combination of fields, depending on your name display strategy.

You can right-click a row in the Name column and select one of the following:

- Duplicate values.** Shows the count and percent of duplicate values for each combination of field values.
- Duplicate values chart.** Available for single fields only. Displays a horizontal bar chart showing the count of duplicate values for each field value.
- Distribution chart.** Available for single fields only. Displays a vertical bar chart showing the count of values for each range of field values.
- Duplicate values pie chart.** Available for single fields only. Displays a pie chart showing the count of duplicate values for each field value.



**Data Type**

Is the data type or combination of data types for the fields listed on each row.

**Elements**

Is the number of fields included in the analysis for each row.

**Count**

Is the number of instances of the field or combination of fields for each row, based on the sample.

**Distinct Count**

Is the number of distinct instances of the field or combination of fields for each row, based on the sample.

**Distinct Percent**

Is the percent of distinct instances of the field or combination of fields for each row, based on the sample.

**Duplicate Count**

Is the number of duplicate instances of the field or combination of fields for each row, based on the sample.

You can right-click a row in the Duplicate Count column and select one of the following:

- Duplicate values.** Shows the count and percent of duplicate values for each combination of field values.
- Duplicate values chart.** Available for single fields only. Displays a horizontal bar chart showing the count of duplicate values for each field value.
- Distribution chart.** Available for single fields only. Displays a vertical bar chart showing the count of values for each range of field values.
- Duplicate values pie chart.** Available for single fields only. Displays a pie chart showing the count of duplicate values for each field value.

**Duplicate Percent**

Is the percent of duplicate instances of the field or combination of fields for each row, based on the sample.

3. Look for fields or combinations of fields on the report that provide 100% distinct values.

In order to be a key, the combination of fields must provide 100% distinct values. Select the smallest combination of fields that provide distinct values and that are good candidates to be key fields.

- ❑ If no combination of fields provides 100% distinct values, either add additional fields to the Key Analysis or create a field (such as a row number) that will provide a distinct value for each row.
- ❑ If multiple fields or combinations of fields on the report provide 100% distinct values, use your knowledge of the data to select a good combination.

For example, in the sample report shown, both the starttime and endtime fields provide 100% distinct values, but that may be an anomaly due to the sample chosen. There is always the possibility that multiple bike rides will start or end at the same time. Similarly, the combination of starttime and endtime may not always provide unique values. The combination of bikeid with either starttime or endtime is probably unique, as the same bike could not be used for multiple rides at the same exact date and time. Also, combinations that include more than two fields are not as desirable as combinations that include only two fields.

4. Once you have chosen a key, rerun the Key Analysis report, selecting only those candidate fields, and this time clicking *Analyze (All Data)*.

Check to make sure that this selection provides a unique key for all of the data, not just the sample. In this example, the combination bikeid/starttime provides a unique key, as shown in the following image.

Key Analysis for bikeid/starttime (CITIBIKE/CITIBIKE\_TRIPDATA\_CSV)

Segment	Name	Data Type	Elements	Count	Distinct Count	Distinct Percent	Duplicate Count	Duplicate Percent
CITIBIKE_TRIPDATA_CSVOUT	<u>bikeid</u>	Integer	1	2181064	14356	.66	2166708	99.34
CITIBIKE_TRIPDATA_CSVOUT	<u>starttime</u>	Date and Time	1	2181064	2179730	99.94	1334	.06
CITIBIKE_TRIPDATA_CSVOUT	<u>bikeid/starttime</u>	Integer/Date and Time	2	2181064	2181064	100.00	0	.00

### Adapter for Oracle: Support for Instant Client Basic Package

The Adapter for Oracle can now be configured to work with the Oracle Instant Client Basic package, in addition to the Database Client supported in prior releases.

### Adapter for OData: Starting Retrieval With the Child Object in a Static Join

The Adapter for OData can now access data directly from a Related Entity rather than using the \$expand parameter in the OData request.

A related Entity is described in the Master File as a child segment of the parent.

Add the following attribute in the child segment definition of the Access file to create an OData request directly against the defined Entity, assuming all requested fields are from that child segment.

```
ENTITY_SET=entityname
```

where:

*entityname*

Is the name of the Related Entity.

**Example: Accessing Data Directly From a Related Entity**

The following is the Master File customers.mas, which has three segments. The parent segment is CUSTOMERS. The child segment from which data will be retrieved is ORDERS.

```

FILENAME=M6ILO, SUFFIX=ODATAV4 , $
  SEGMENT=CUSTOMERS, SEGTYPE=S0, $
    FIELDNAME=CUSTOMERS, ALIAS=value, USAGE=A1, ACTUAL=A1,
ACCESS_PROPERTY=(INTERNAL), $
  FIELDNAME=CUSTOMERID, ALIAS=CustomerID, USAGE=A5, ACTUAL=A5,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=COMPANYNAME, ALIAS=CompanyName, USAGE=A40, ACTUAL=A40,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=CONTACTNAME, ALIAS=ContactName, USAGE=A30, ACTUAL=A30,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=CONTACTTITLE, ALIAS=ContactTitle, USAGE=A30, ACTUAL=A30,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=ADDRESS, ALIAS=Address, USAGE=A60, ACTUAL=A60,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=CITY, ALIAS=City, USAGE=A15, ACTUAL=A15,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=REGION, ALIAS=Region, USAGE=A15, ACTUAL=A15,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=POSTALCODE, ALIAS=PostalCode, USAGE=A10, ACTUAL=A10,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=COUNTRY, ALIAS=Country, USAGE=A15, ACTUAL=A15,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=PHONE, ALIAS=Phone, USAGE=A24, ACTUAL=A24,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
  FIELDNAME=FX, ALIAS=Fax, USAGE=A24, ACTUAL=A24,
  MISSING=ON,
  REFERENCE=CUSTOMERS, $
SEGMENT=ORDERS, SEGTYPE=S0, PARENT=CUSTOMERS, $
  FIELDNAME=ORDERS, ALIAS=Orders, USAGE=A1, ACTUAL=A1,
ACCESS_PROPERTY=(INTERNAL), $
  REFERENCE=CUSTOMERS, $
  FIELDNAME=ORDERID, ALIAS=OrderID, USAGE=I11, ACTUAL=A11,
  MISSING=ON,
  REFERENCE=ORDERS, $
  FIELDNAME=CUSTOMERID1, ALIAS=CustomerID, USAGE=A5, ACTUAL=A5,
  MISSING=ON,
  REFERENCE=ORDERS, $
  FIELDNAME=EMPLOYEEID, ALIAS=EmployeeID, USAGE=I11, ACTUAL=A11,
  MISSING=ON,
  REFERENCE=ORDERS, $

```

```

FIELDNAME=ORDERDATE, ALIAS=OrderDate, USAGE=HYMDm, ACTUAL=A35,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=REQUIREDDATE, ALIAS=RequiredDate, USAGE=HYMDm, ACTUAL=A35,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPPEDDATE, ALIAS=ShippedDate, USAGE=HYMDm, ACTUAL=A35,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPVIA, ALIAS=ShipVia, USAGE=I11, ACTUAL=A11,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=FREIGHT, ALIAS=Freight, USAGE=P19.4, ACTUAL=A19,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPNAME, ALIAS=ShipName, USAGE=A40, ACTUAL=A40,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPADDRESS, ALIAS=ShipAddress, USAGE=A60, ACTUAL=A60,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPCITY, ALIAS=ShipCity, USAGE=A15, ACTUAL=A15,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPREGION, ALIAS=ShipRegion, USAGE=A15, ACTUAL=A15,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPPOSTALCODE, ALIAS=ShipPostalCode, USAGE=A10, ACTUAL=A10,
MISSING=ON,
REFERENCE=ORDERS, $
FIELDNAME=SHIPCOUNTRY, ALIAS=ShipCountry, USAGE=A15, ACTUAL=A15,
MISSING=ON,
REFERENCE=ORDERS, $
SEGMENT=CUSTOMERDEMOGRAPHICS, SEGTYPE=S0, PARENT=CUSTOMERS, $
FIELDNAME=CUSTOMERDEMOGRAPHICS, ALIAS=CustomerDemographics,
USAGE=A1, ACTUAL=A1, ACCESS_PROPERTY=(INTERNAL),
REFERENCE=CUSTOMERS, $
FIELDNAME=CUSTOMERTYPEID, ALIAS=CustomerTypeID, USAGE=A10, ACTUAL=A10,
MISSING=ON,
REFERENCE=CUSTOMERDEMOGRAPHICS, $
FIELDNAME=CUSTOMERDESC, ALIAS=CustomerDesc, USAGE=A30, ACTUAL=A30,
MISSING=ON,
REFERENCE=CUSTOMERDEMOGRAPHICS, $

```

The corresponding Access File, customers.acx, has the attribute *ENTITY\_SET=Orders* in the ORDERS segment definition.

```

SEGNAME=CUSTOMERS,
  CONNECTION=NorthWind,
  TABLENAME=Customers,
  OBJECT_URL=CUSTOMERID,
  EXTCALL=YES, $
FIELD=CUSTOMERID,
  TYPE=ID,
  IN_URL=TRUE, $
SEGNAME=ORDERS,
  OBJECT_URL=ORDERID,
  EXTCALL=NO,
  ENTITY_SET=Orders, $
FOREIGN_KEY=Orders,
  PRIMARY_KEY_TABLE=Order,
  FOREIGN_KEY_COLUMN=OrderID,
  PRIMARY_KEY_COLUMN=OrderID, $
FIELD=ORDERID,
  TYPE=ID,
  IN_URL=TRUE, $
SEGNAME=CUSTOMERDEMOGRAPHICS,
  OBJECT_URL=CUSTOMERTYPEID,
  EXTCALL=NO,
  ENTITY_SET=CustomerDemographics, $
FOREIGN_KEY=CustomerDemographics,
  PRIMARY_KEY_TABLE=CustomerDemographic,
  FOREIGN_KEY_COLUMN=CustomerTypeID,
  PRIMARY_KEY_COLUMN=CustomerTypeID, $
FIELD=CUSTOMERTYPEID,
  TYPE=ID,
  IN_URL=TRUE, $

```

Consider the following request.

```

TABLE FILE CUSTOMERS
BY CUSTOMERS.ORDER.SHIPNAME
IF CUSTOMERS.ORDER.SHIPNAME NE MISSING
END

```

When it is run with *ENTITY\_SET=Orders* in the Access File, it creates the following OData request, which references only the Orders entity.

[https://services.odata.org/V4/Northwind/Northwind.svc/Orders?\\$select=OrderID,ShipName&\\$orderby=ShipName](https://services.odata.org/V4/Northwind/Northwind.svc/Orders?$select=OrderID,ShipName&$orderby=ShipName)

If it were run *without* ENTITY\_SET=Orders in the Access File, it would create the following OData request, which references the CUSTOMERS segment and performs \$expand to reference the ORDERS fields.

[https://services.odata.org/V4/Northwind/Northwind.svc/Customers?\\$select=CustomerID&\\$expand=Orders\(\\$select=OrderID,ShipName;\\$orderby=ShipName\)](https://services.odata.org/V4/Northwind/Northwind.svc/Customers?$select=CustomerID&$expand=Orders($select=OrderID,ShipName;$orderby=ShipName))

This would read every CustomerID from the Customers Entity, even though only data from the ORDERS child segment is requested.

Adding a field from the CUSTOMERS segment, such as COMPANYNAME, would cause the OData request to go against the Customer entity and perform \$expand on the Orders entity.

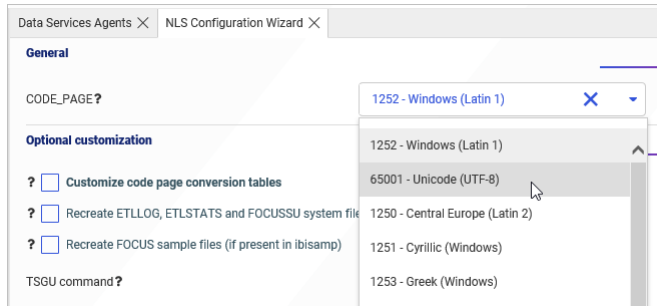
[https://services.odata.org/V4/Northwind/Northwind.svc/Customers?\\$select=CustomerID,CompanyName&\\$expand=Orders\(\\$select=OrderID,ShipName;\\$orderby=ShipName\)](https://services.odata.org/V4/Northwind/Northwind.svc/Customers?$select=CustomerID,CompanyName&$expand=Orders($select=OrderID,ShipName;$orderby=ShipName))

## Fixes

- Radio buttons typically do not use the ID attribute of the object and use the name instead, however, if custom JavaScript makes use of the ID, it will not work. (200612010)
- When an HTML Canvas page loads, the window\_onload() function is called after the UpdateData() call and now requires the use of onInitialUpdate(). (200612011)
- A page is loaded before and after translations when the page contains Multilanguage. (200612007)
- Invalid JSON is sent in the body of the POST request based on an authentication Master defined by chained authentication.
- Creating a Data Flow with a subquery attempting to add a WHERE condition to the final SELECT statement results in an FOC003 error. (200401067)
- When an ARVERSION=2 request returns a large recordset, it is taking an excessive amount of time to display the content. The more unique the dataset the worse the performance.
- When an ODBC connector is unable to connect to a data source, a terse error message is displayed which does not aid in problem determination: {{{[IBI][EDA] 'NG failed to load}}
- A multiple select listbox is not populating an existing single parameter with OR. (200611030)
- Procedures that contain references to the V7 handle and V8 IBFS paths can now run without generating the Unknown subsystem in path error. (200608091)

## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.

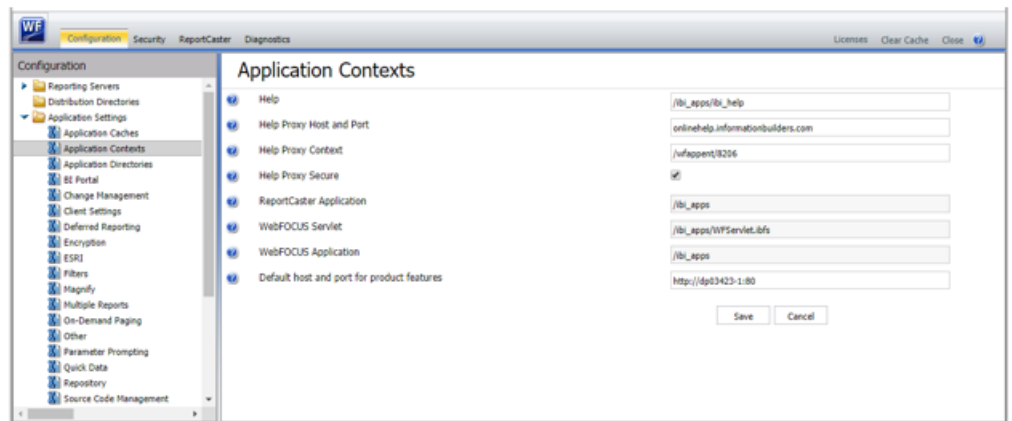


2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
  - ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.

- ❑ When creating a data grid in WebFOCUS Designer, italic formatting may not work for Japanese and Chinese characters in row and column headings, depending on the font and browser that are used. This applies to both Unicode and applicable DBCS code pages.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDDENNULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.

- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 83, Firefox version 77, Microsoft Edge Chromium version 82 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



# Chapter 20

## 8207.12 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

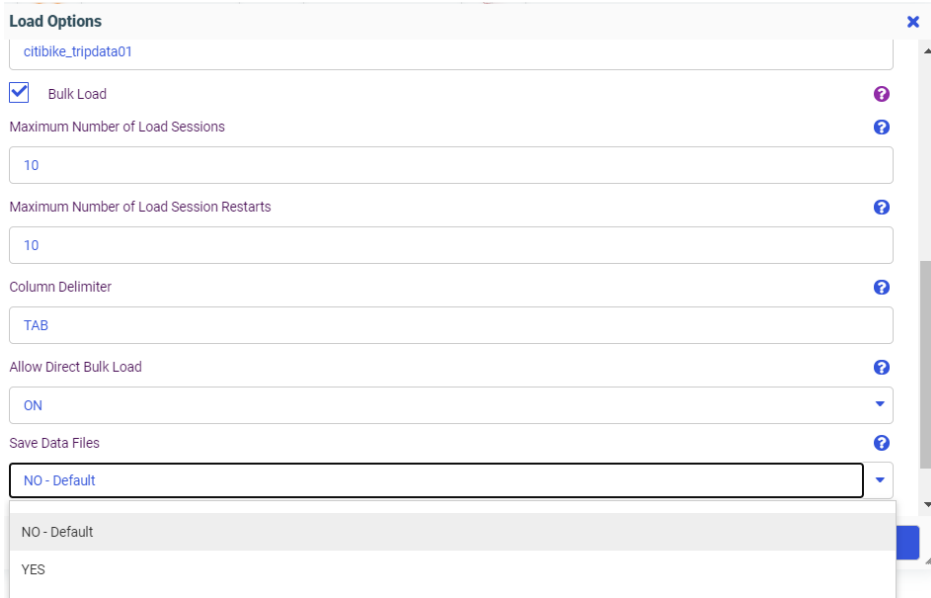
### Release and Gen Information

Release Date	Gen Information	Reporting Server
Wednesday, June 24, 2020	wf061920a Gen 9 wi061920a as061920a	8207.12 Gen 1917

### New Features

## New Option to Save Data Files When Bulk Load is Used in a Flow

When Bulk Load is selected for a target in a Data Flow, the option *Save Data Files* appears, as shown in the following image.

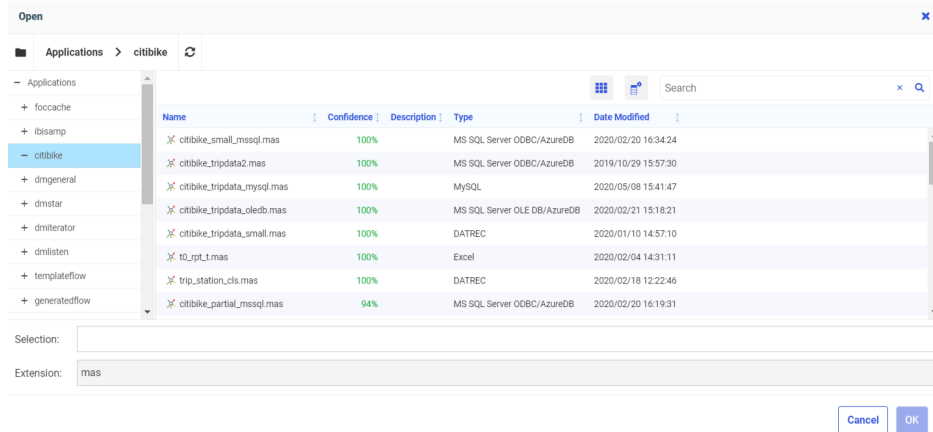


The default value, *No*, deletes intermediate \*.ftm files from the directory for temporary files (for example, edatemp) after the corresponding portion of data is successfully committed to the target table during the Bulk Load Flow execution.

If you select *Yes*, intermediate \*.ftm files are deleted from the temporary directory (for example, edatemp) after the job completes execution.

## Show Confidence Level When Selecting an Existing Target in a Flow

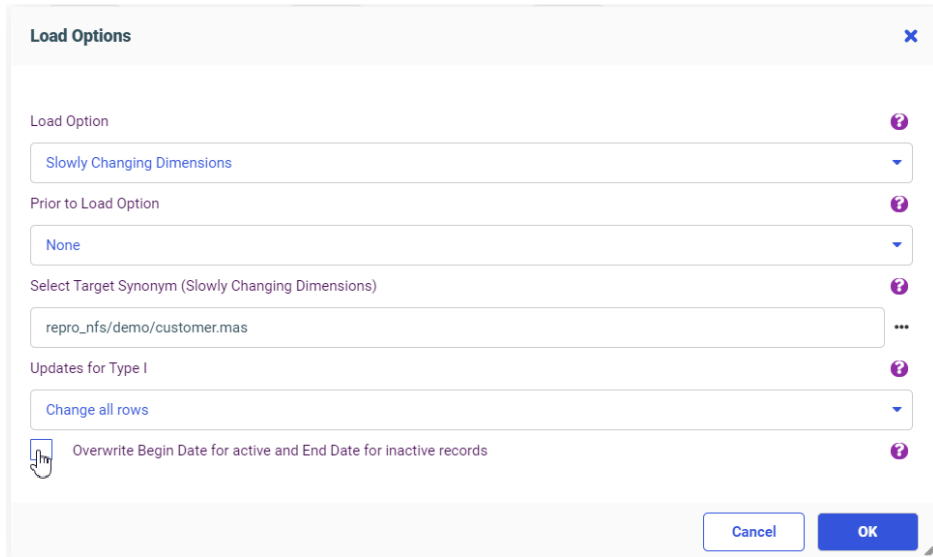
When selecting an existing target in a data flow, the file picker shows the confidence level, based on matching column names and data types for each prospective new target, showing how compatible it is with the existing source, as shown in the following image.



## Slowly Changing Dimensions (SCD): Re-run for Missing Date

Using the Reporting Server browser interface and Slowly Changing Dimensions, you can re-run an SCD flow for a missed day, after subsequent days have already been processed.

When the Data Flow has an SCD target, the Load Options dialog box has the option *Overwrite Begin Date for active and End Date for inactive records*, as shown in the following image.





Check this box to select Begin Date and End Date options. Both Begin Date and End Date must be described with the same data type. The choices for overwriting the dates for Begin Date and End Date follow.

### Begin Date

A Calendar Control opens, so you can select a beginning date, as shown in the following image.

The screenshot shows the 'Load Options' dialog box with the following fields and options:

- Prior to Load Option:** None
- Select Target Synonym (Slowly Changing Dimensions):** repro\_nfs/demo/customer.mas
- Updates for Type I:** Change all rows
- Overwrite Begin Date for active and End Date for inactive records**
- Begin Date for active records:** 2020/06/10

A calendar control is open, showing the month of June 2020. The date 10 is selected. The calendar grid is as follows:

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

The dialog box also includes 'Cancel' and 'OK' buttons.

### End Date

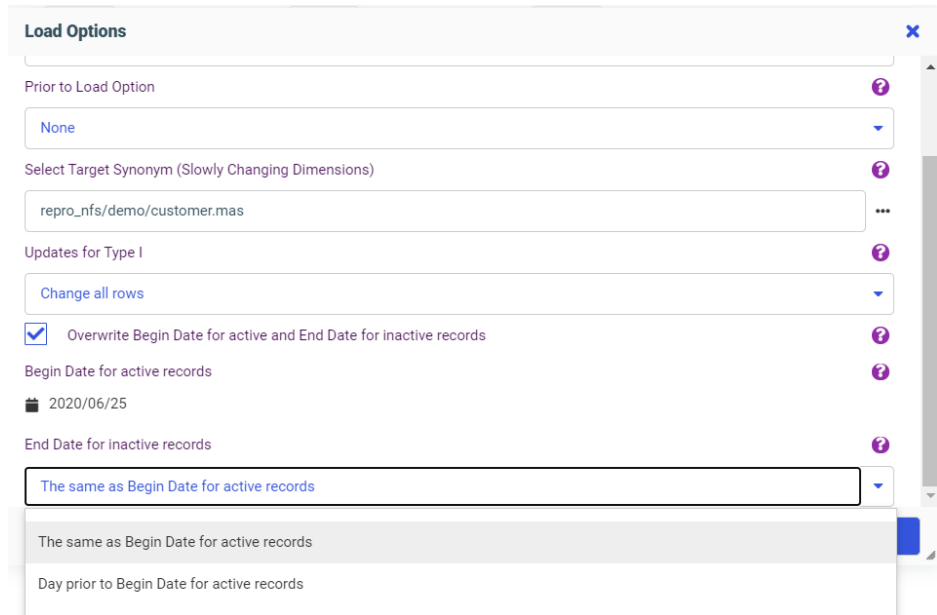
The choices for End Date depend on the data type:

**DATE format (for example, YYMD)**. The options are:

The same as Begin Date for active record

Day prior to Begin Date for active record

These options are shown in the following image.



- Date-Time (Timestamp) format (for example, HYYMDS).** Only one option is available:  
The same as Begin Date for active record

## Adapter for REST: Sending Multipart/Form Data in a POST Request

You can send a single part of content type Multipart/Form data in a POST request using the Adapter for REST.

You need the following declarations in the synonym.

- Define the body of the POST request to be sent as multipart/form-data.**

### Access File Declaration:

`HTTPBODY=MULTIPART, $`

**Result.** Adds Content-Type: multipart/form-data to the HTTP Header of the REST request.

- Define the field name that contains the value for *Content-Disposition* within the Part Header.**

### Example:

`Content-Disposition: form-data`

**Access File Declaration:**

```
FIELD=part1_content_disposition, FORMAT=PARTHEADER, $
```

**Master File Declaration:**

```
FIELDNAME=part1_content_disposition, ALIAS=Content-Disposition,  
USAGE=A30, ACTUAL=A30, XDEFAULT='form-data', $
```

- Define the field name that contains the value for *name* within the Part Header.**

**Example:**

```
name="file"
```

**Access File Declaration:**

```
FIELD=part1_name, FORMAT=PARTHEADER, $
```

**Master File Declaration:**

```
FIELDNAME=part1_name, ALIAS=name,  
USAGE=A30, ACTUAL=A30, XDEFAULT='file', $
```

- Define the field name that contains the value for *filename* within the Part Header.**

**Example:**

```
filename="reportcaster_version.xlsx"
```

**Access File Declaration:**

```
FIELD=part1_filename, FORMAT=PARTHEADER, $
```

**Master File Declaration:**

```
FIELDNAME=part1_filename, ALIAS=filename, USAGE=A100, ACTUAL=A100, $
```

- Define the field name that contains the value for *Content-Type* within the Part Header.**

If the value is not supplied, Content-Type will be set based on the extension of the value for *filename*.

**Example:**

```
Content-Type: application/vnd.openxmlformats-  
officedocument.spreadsheetml.sheet
```

**Access File Declaration:**

```
FIELD=part1_content_type, FORMAT=PARTHEADER, $
```

### Master File Declaration:

```
FIELDNAME=part1_content_type, ALIAS=Content-Type,  
USAGE=A200, ACTUAL=A200, $
```

### Adapter for REST: Sending Credentials in the POST Request Body

When OAuth authentication is used for the Adapter for REST, and the OAuth Grant Type is *Password*, the configuration parameter *Client Credentials in Body* has been added to the connection configuration panel, as shown in the following image.

The screenshot shows the 'Add Connection for REST OAuth' configuration panel. The 'Connect parameters' section is expanded. The 'Client Credentials in Body' checkbox is checked, and a mouse cursor is pointing at it. Other options include 'Chained Authentication' (unchecked), 'User' (text input), 'Password' (text input), 'Client ID' (text input), and 'Client Secret' (text input). The 'OAuth Grant Type' is set to 'Password'. The 'Security' dropdown is set to 'OAuth'. The 'Connection Name' is 'CON02'. The 'Base Url' is empty. The 'Test', 'Back', and 'Configure' buttons are at the bottom right.

Selecting this option will add the attribute *bdyclt:true* in the connection string.

By default, client credentials for OAuth Grant Type *Password* are sent Base64 encoded in the HTTP header. However, if the web service being used does not support sending these credentials in the HTTP header, you can use this feature to send them in the body instead.

### Adapter for MS Dynamics CRM: Support for Printing LOOKUP Fields

In prior releases, lookup fields were returned as missing values in requests using the Adapter for Microsoft Dynamics CRM. Now, the values for these fields are returned. It is recommended that you recreate the metadata prior to issuing a request with a lookup field.

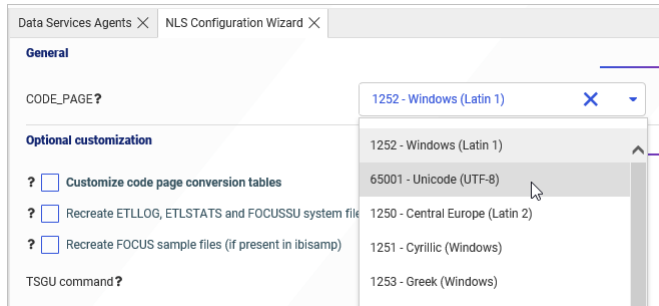
## Fixes

- ❑ When opening a data flow with Optimize Load unchecked in the Data Management Console, it would reparse and the Optimize Load would be enabled automatically.
- ❑ In a Data Flow when viewing the Profile charts showing the distribution of values for a field, in the pop-up that appears when you hover over a bar that shows the name of the bar, the count and the ratio show incorrect values.
- ❑ When adding a function from the palate to a data flow and hovering over a source node in a data flow, the Union and Join bubbles appeared inappropriately.
- ❑ An issue occurs when interpreting the XML response from a REST request using the REST adapter when the XML response contains only two tags. (200512100)
- ❑ While refreshing the ETL Log report, the selected sort order is not retained. (200526141)
- ❑ When the AnV format is run in conjunction with conditional styling with all styled formats, the null value is not accounted for. (200401125)
- ❑ If an application folder contains one or more sub-folders, and you update a Data Migrator Flow's schedule, the folder tree listing collapses and it must be expanded again. (200528116)
- ❑ Using the Power BI installed from the Microsoft Store with the ODBC connector fails to connect when using the Power Bi required downloading and running the setup program.
- ❑ When you select Popup style for a control and Add runtime Paging/Search Control at runtime, the paging/search control will render all values despite the range set. (200414007, 200414009, 200421020)
- ❑ Under Tasks & Animations, the Refresh action ignores the Number or Range properties of the Paging/Search control. (200430097)
- ❑ When changing visualization formats from a Standard Report to a map in Designer, the Rows field will carry over as a Color field for the map. However, for the Choropleth map format, this field will not be displayed in the query panel. Instead, the Color bucket will show no field. If the procedure is run, it will still execute with the color field in place despite not appearing in Designer. (200506033)
- ❑ Using an -HTMLFORM request to display a report and a graph returns an internal exception processing error. (200302033)
- ❑ User receives an error when retrieving data from a Cluster Join synonym that uses Master Profiles and DBA: \_EDATEMP/tmp\_from\_src HELD AS SQL\_SCRIPT (FOC14010) NOT A VALID COLUMN NAME: name (200129146)

- ❑ In a Unix environment when installing the WebFOCUS Client, the pre-installation process logic checks for available space at /root when it should check the space available for the installation location. (200109120, 200129011, 200401108, 200416049, 200504047, 200515054)
- ❑ When using Internet Explorer or certain versions of Microsoft Edge, a JavaScript error occurs when logging into WebFOCUS or creating a new visualization in WebFOCUS Designer. (200528122)
- ❑ Incorrect user description is displayed when using x509 after authentication. (200521130)
- ❑ WebFOCUS default security roles do not allow for default users to exist without using a Portal User license seat. This has been addressed for the Anonymous user group with the AnonymousRestrictions role. However, if the Anonymous user group has ListAndRun role on public, it still requires a Portal User seat. (200604094)
- ❑ Using the Power BI install from the Microsoft Store with the ODBC connector fails to connect when using the Power Bi required download and running the setup program. (190906149)
- ❑ After upgrading from WebFOCUS 8202 to 8206, the drilldowns for a responsive design HTML page do not work when the height of the Filter panel is overlapping the report drilldown. (200522044)
- ❑ When selecting Save Selection to save the report with the selected filter values, the initial report display is unresponsive. (200602005)
- ❑ AppStudio crashes when using the down and up arrow icons in the filter dialog. (200605035)
- ❑ An agent crashes when sorting on a COMPUTE field in a DEFINE in a visualization. (200319053)

## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.
- ❑ As of release 8207.12, new installations of WebFOCUS install Apache Solr™ Release 8.5.1.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

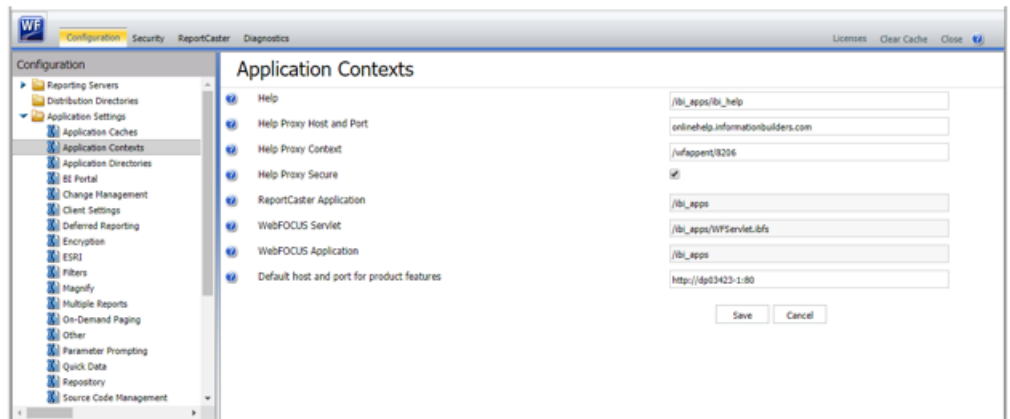
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for Help should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.



- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When creating a data grid in WebFOCUS Designer, italic formatting may not work for Japanese and Chinese characters in row and column headings, depending on the font and browser that are used. This applies to both Unicode and applicable DBCS code pages.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDDENNULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.

- ❑ The Expression Editor has a an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when then size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 83, Firefox version 77, Microsoft Edge Chromium version 82 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

As of this release, new installations of WebFOCUS install Apache Solr™ Release 8.5.1.

For more information on supported clients and more, see [Release Information](#).

# Chapter 21

## 8207.11 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, June 8, 2020	wf060420a Gen 6 wi060420a as060420a	8207.11 Gen 1916

### New Features

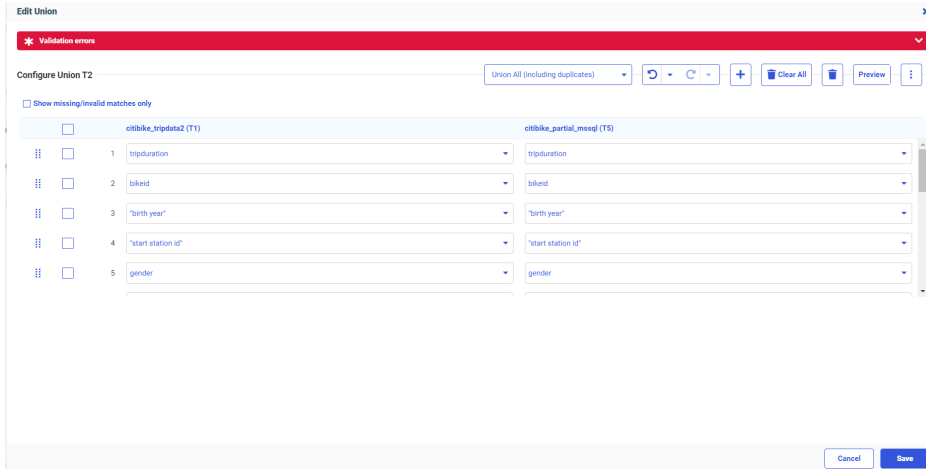
#### Enhancements to the Union Editor

The union editor has been redesigned to show clearly what needs to be corrected, if there are validation problems.

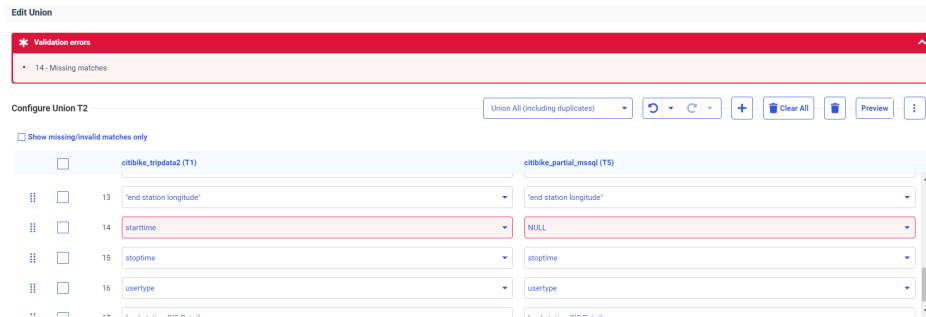
**Reference: Correcting Validation Errors and Editing the Matches**

The Union Editor has two areas. The top area shows the matches between the fields in the two tables. The bottom area contains a preview of the data in the union. When you first open the Union Editor, the Preview area is hidden.

If any validation errors exist, a message appears at the top of the window, as shown in the following image.



You can click the down arrow in the message area to see a list of problems. In the following image, line 14 has a missing match and, when you scroll down to that line, it is outlined in red.



You can also select the check box *Show missing/invalid matches only*, to display only those lines with missing or invalid matches.

To correct a missing match, you can:

- Click the down arrow next to the right table and select a different field that matches the field from the left table.
- Click the down arrow next to the left table and select a different field that matches the field from the right table.
- Select the check box next to the line and click the *Delete selected columns* button (trash can) at the top of the page.

You can select multiple columns and delete them all at once.

- Click the *Clear All* button (trash can with the text *Clear All*) at the top of the page to remove all columns.

You will then need to add pairs manually using the *Add a pair (+)* button.

- Click the *Add a pair (+)* button to add a matching pair.

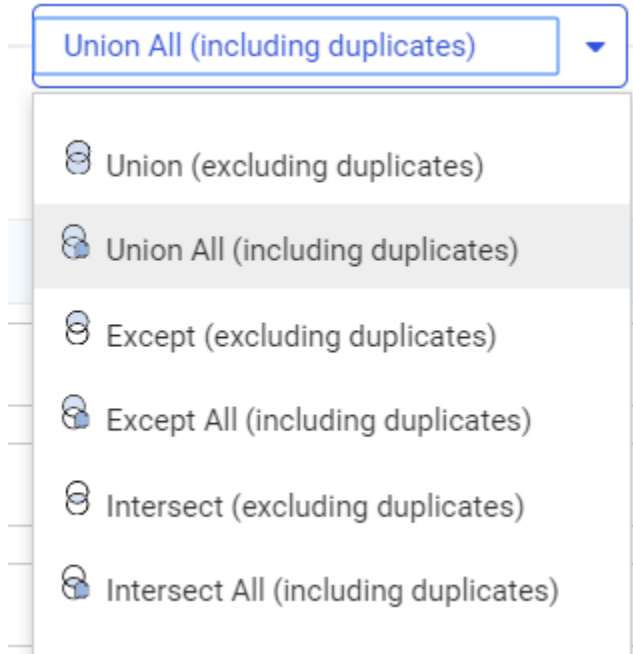
Clicking this button adds a line with NULL selected for each table. Select fields from the left and right tables using the drop-down lists, to create a matching pair.

- Change the type of union generated, if that is appropriate. For information, see [Selecting the Type of Union](#) on page 410.

When all validation problems are resolved, the message area disappears.

**Reference: Selecting the Type of Union**

By default, Union All, including duplicates, is selected. However, you can change the type of union that is generated by selecting an option from the drop-down list at the top of the page, as shown in the following image.








A union combines the output of two SELECT statements into one answer set, where the number of columns in each is the same, and the data types are compatible. You can select the following types of union:


- Union (excluding duplicates).** Returns the rows from both SELECT statements with duplicate rows removed.
- Union All (including duplicates).** Returns all rows from both SELECT statements, including duplicates. This is the default union type.
- Except (excluding duplicates).** Returns distinct rows from the left SELECT statement that are not returned by the right SELECT statement.
- Except All (including duplicates).** Returns all rows from the left SELECT statement that are not returned by the right SELECT statement.

- Intersect (excluding duplicates).** Returns matching rows from the left SELECT statement and the right SELECT statement based on matching all columns. Duplicate rows are removed.
- Intersect All (including duplicates).** Returns matching rows from the left SELECT statement and the right SELECT statement based on matching all columns. Duplicate rows are retained.

**Reference: Editing the Union Properties and View**

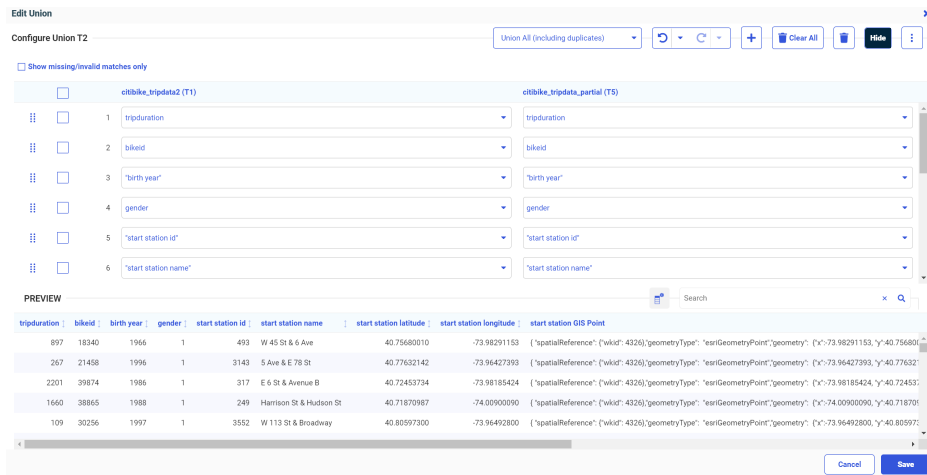
The following table list changes you can make to the union properties and view.

Operation	Icon	Description
Move columns		Click to drag a pair up or down on the list.
Undo		Undoes the most recent change made to the union properties. You can click the down arrow next to the button to see a list of the changes that have been made, and select from the list. Selecting an item undoes that change and all prior changes.
Redo		Redoes the most recent change made to the union properties. You can click the down arrow next to the button to see a list of the changes that have been made and, select from the list. Selecting an item redoes that change and all prior changes.
View		Provides the following options. <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Show title.</b> Displays the field title. This is the default view.</li> <li><input type="checkbox"/> <b>Show Name.</b> Displays the field name.</li> <li><input type="checkbox"/> <b>Show source name.</b> Displays the name from the source file.</li> <li><input type="checkbox"/> <b>Diagnostics.</b> Has two options, Session Log, which opens the Session Log, and Clear Session Log, which clears the Session Log.</li> </ul>
Choose Columns		In the Preview area, enables you to select the columns that display.

Operation	Icon	Description
Sort		In the Preview area, for each column, changes the sort order of the rows based on the data in that column. The sort toggles between the original order, descending, and ascending.

**Reference: Viewing Sample Data**

Click the *Preview* button at the top of the page to display sample data for the union, as shown in the following image.



The *Preview* button changes to a *Hide* button, which you can click to hide the sample data.

You can enter characters in the *Search* box to display lines with data values that match those characters.

You can use the *Choose Columns* button to select which columns display in the preview.

You can use the *Sort* button in a column to sort the rows based on that column.

**Reference: Saving the Union**

When you have resolved all validation errors and made any edits you need, click *Save*.

Click *Cancel* if you do not want to save your changes.



## Slowly Changing Dimensions: Enhanced Processing for Type I Columns

In prior releases, if a source row had Type I field values that were the same as the existing row, the Changed Flag was restored and the record was updated with the same value.

Now, when Data Migrator Slowly Changing Dimension processing is used to load a dimension table with Type I columns, only rows in which the source and target rows have different values for the Type I columns are updated. This can result in reduced processing time, especially for large dimension tables.

## Returning an Ordered Answer Set of a Limited Number of Rows in a Sub-Select

A sub-select can now contain the TOP n, ORDER BY, and FETCH FIRST n ROWS ONLY phrases to return an ordered answer set with a limited number of rows.

The syntax is:

```
ORDER BY column ... FETCH FIRST n ROWS ONLY
```

or:

```
SELECT TOP n ... ORDER BY column
```

where:

*column*

Is a column in the subquery used to sort the rows. The column can be expressed as an index number, column name, or AS name.

*n*

Is the number of rows in the sub-select to retrieve.

**Example: Using FETCH FIRST n ROW ONLY in a Subquery**

The following request retrieves the first 5 rows from dmsale, ordered by plant in descending order, and then retrieves rows from dminv that have plant values retrieved from the sub-select.

```
SQL
SELECT
    order_num,
    order_date,
    plant
FROM
    dmord

WHERE
    plant IN (
        SELECT
            plant
        FROM
            dmsale

ORDER BY
1 DESC
FETCH FIRST 5 ROWS ONLY
    )
;
TABLE
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

<u>Order Number</u>	<u>Date of Order</u>	<u>Plant Location</u>
93677	2004/03/30	STL
93705	2005/02/07	STL
93706	2006/02/14	STL
93708	2005/03/08	STL
93710	2005/02/14	STL
93711	2005/02/14	STL
93712	2005/02/14	STL
93713	2005/03/06	STL
93714	2005/02/23	STL
93717	2005/02/14	STL
93718	2006/02/14	STL
93719	2005/02/14	STL
93727	2005/02/14	STL
93729	2005/02/09	STL
93734	2005/02/14	STL
93743	2005/02/14	STL
93753	2006/02/22	STL
93755	2005/02/15	STL
93770	2005/02/15	STL
93774	2006/02/14	STL
93779	2006/02/14	STL
93780	2006/02/14	STL
93791	2006/02/14	STL
93793	2005/02/14	STL
93797	2005/02/14	STL
93812	2005/02/20	STL
93816	2006/03/06	STL
93822	2005/03/06	STL
93825	2005/03/06	STL
93829	2006/02/20	STL
93843	2006/02/20	STL
93847	2005/02/20	STL
93848	2006/02/20	STL
93855	2006/02/20	STL
93856	2005/02/15	STL
93858	2005/02/15	STL
93860	2005/02/15	STL

If the ORDER BY phrase had been ascending instead of descending, the plant location would have been BOS.

**Example:** Using SELECT TOP n in a Subquery

The following request retrieves the top 2 plant values from dmsale, ordered by plant in ascending order, and then retrieves rows from dminv that have plant values retrieved from the sub-select.

```
SQL
SELECT
    order_num,
    order_date,
    plant
FROM
    dmord

WHERE
    plant IN (
        SELECT TOP 2
            plant
        FROM
            dmsale
        ORDER BY 1
    )
;
TABLE
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

<u>Order Number</u>	<u>Date of Order</u>	<u>Plant Location</u>
93674	2005/02/15	BOS
93675	2005/02/15	BOS
93693	2006/02/10	BOS
93700	2006/02/14	BOS
93715	2005/02/10	BOS
93730	2006/02/14	BOS
93702	2006/02/14	BOS
93744	2006/02/14	BOS
93742	2005/02/14	BOS
93754	2005/02/15	BOS
93775	2005/02/15	BOS
93776	2005/02/20	BOS
93777	2006/02/20	BOS
93787	2005/02/14	BOS
93788	2005/02/16	BOS
93769	2006/02/20	BOS
93796	2005/02/14	BOS
93803	2005/03/06	BOS
93805	2006/02/20	BOS
93818	2005/02/20	BOS
93839	2005/02/20	BOS
93849	2005/02/20	BOS
93850	2005/02/20	BOS
93853	2005/02/15	BOS
93861	2005/02/15	BOS

If the ORDER BY phrase had been descending instead of ascending, the plant location would have been STL.

### Adapter for REST: Support for STRING Format

The Adapter for REST now supports STRING USAGE and ACTUAL formats in both the request and response. Since STRING format supports an unlimited string, PDF, binary, and graph output can be retrieved from a variety of Web Services using this format.

## Raised Limit for Join Fields

In prior releases, the limit for field pairs in a join was 20. The number of join field pairs has now been raised to 128.

## Generating Data Flows Using a Template Flow

You can now use a template data flow that has one source and one new target to generate multiple new data flows. A process flow will be created that contains all of the generated data flows. This feature enables you to easily move any number of single sources to new targets.

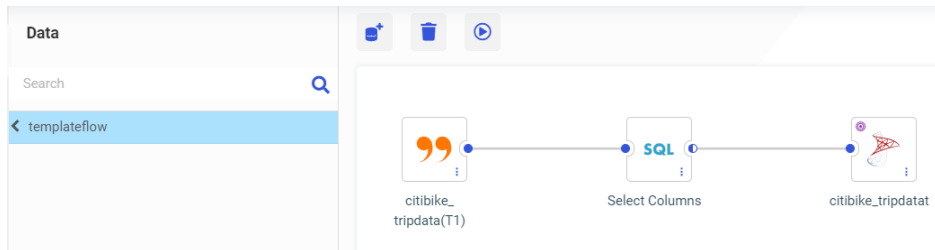
### **Procedure:** How to Generate Data Flows

The template data flow and the generated data flows can each have one source and one new target.

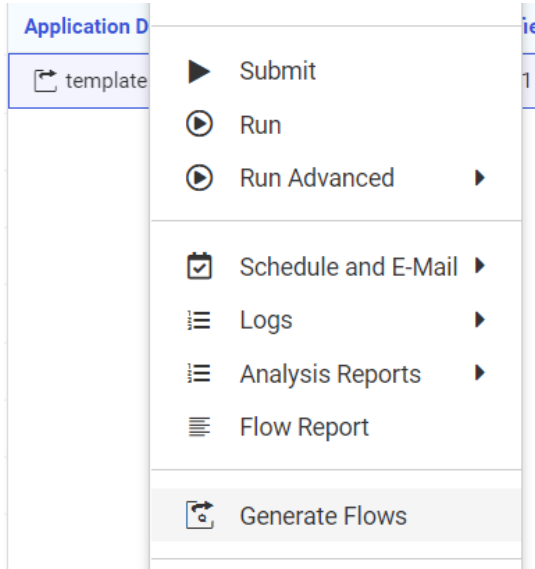
1. Create and save a data flow that has one source and one new target to use as the template.

The template flow is a normal data flow and can have any name and be saved in any application directory.

For example, the following image shows a flow named template1 that has a delimited source and new SQL Server target.



- Right-click the template flow and click *Generate Flows*, as shown in the following image.

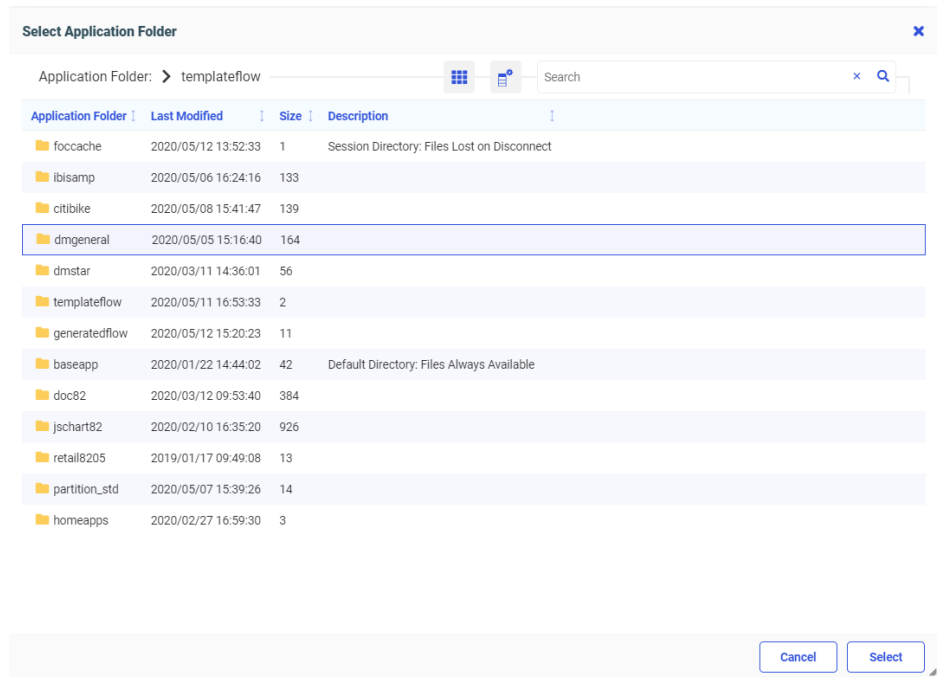


**Note:** The *Generate Flows* option appears as long as the flow conforms to the requirements for a template flow (one source, one new target).

The *Generate Flows* window opens, as shown in the following image.

- Select the source, target, and flow application folders.

If the source application folder does not have the sources you want to use, click the application name and navigate to the application you need, as shown in the following image.



Do the same for the New Target application and the Flow application. The source and target applications must be different. The New Target application will contain the new target synonyms. The Flow application will contain the generated data flows and process flow. The Target and Flow application folders can be the same or different.



- Select the sources for the new flows, as shown in the following image.

Generate Flows based on templateflow/template1

Configure flow | Template information

Source | New target | Flow

Application Folder: dmgeneral | generatedflow | generatedflow

Prefix: | Suffix: | Prefix: | Suffix: | Process Flow Name: template1\_generate

Parallel execution

AVAILABLE SOURCES

<input type="checkbox"/>	Source Name	Target Name	Target Table Name
<input checked="" type="checkbox"/>	dmcntr	dmcntr	dmcntr
<input checked="" type="checkbox"/>	dmcomp	dmcomp	dmcomp
<input checked="" type="checkbox"/>	dmhr	dmhr	dmhr
<input type="checkbox"/>	dmhrinp	dmhrinp	dmhrinp
<input checked="" type="checkbox"/>	dminv	dminv	dminv
<input type="checkbox"/>	dminva	dminva	dminva

Submit | Cancel | Save

The sources do not have to be the same type as the source in the template flow. Any source type can be selected.

- Optionally, use one of the following techniques to edit generated target synonym names.
  - You can type over the default target names to create new names.
  - You can use the Source *Prefix* text box to specify characters that will be removed from the start of the source synonym name when creating the target synonym name, and the Source *Suffix* text box to specify characters that will be removed from the end of the source synonym name when creating the target synonym name.
  - You can use the Target *Prefix* text box to specify characters that will be added to the start of the target synonym name, and the Target *Suffix* text box to specify characters that will be added to the end of the target synonym.

The following image shows that the characters *dm* will be removed from the beginning of the source synonym name when creating the target synonym name, and that the characters *\_tgt* will be appended to the synonym name for the new target.

For example, the source synonym name *dminv* will generate a target synonym named *inv\_tgt*.

6. Optionally, type over the target table names to generate the table names you need.
7. Optionally, type over the default process flow name to generate the process flow name you need.
8. Optionally, select the *Parallel execution* check box to create a group with the data flows inside.
9. Once you have made all of your changes, click the *Verify* button to check that your selections are valid, as shown in the following image.

If there were any problems with your choices, messages will display in red at the top of the window, identifying the problems. If your choices are valid, a successful verification message displays in green, as shown in the following image.

Generate Flows based on templateflow/template1

✓ Verified Successfully

Configure flow | Template information

Source | New target | Flow

Application Folder | Application Folder | Save Location

dmgeneral | generatedflow | generatedflow

Prefix | Suffix | Prefix | Suffix | Process Flow Name

dm | | | \_tgt | template1\_generate

Parallel execution

AVAILABLE SOURCES

<input type="checkbox"/>	Source Name	Target Name	Target Table Name
<input checked="" type="checkbox"/>	dmcntr	dmcntr	dmcntr
<input checked="" type="checkbox"/>	dmcomp	dmcomp	dmcomp
<input checked="" type="checkbox"/>	dmhr	dmhr	dmhr
<input type="checkbox"/>	dmhrinp	dmhrinp	dmhrinp
<input checked="" type="checkbox"/>	dminv	dminv	dminv

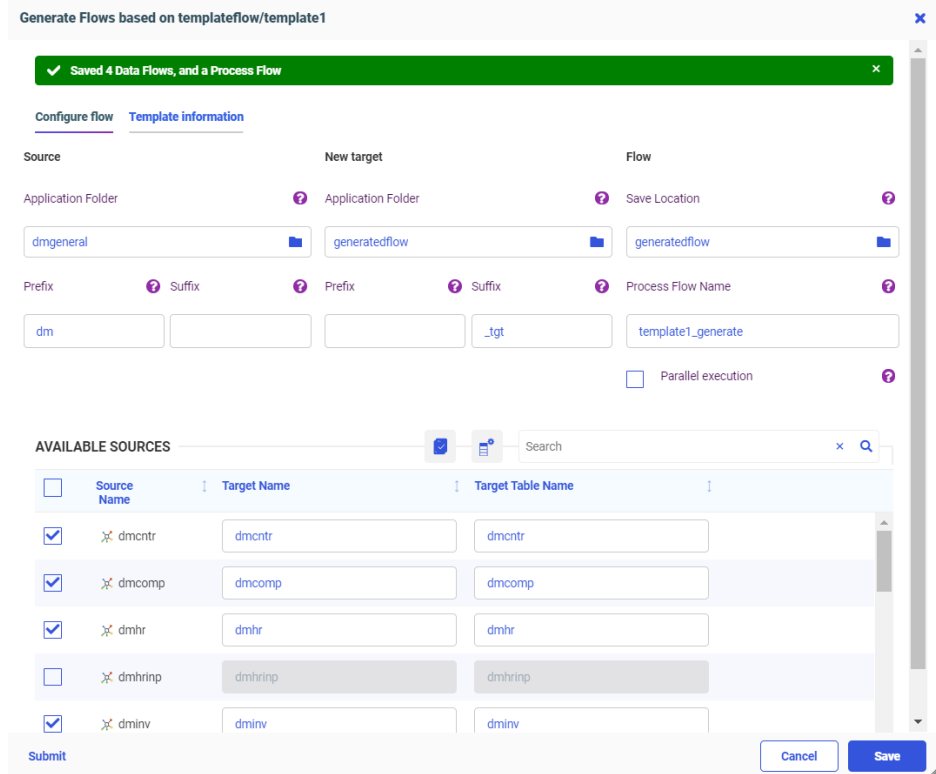
Submit | Cancel | Save

If there were problems identified, correct them. Examples of choices that could prevent verification are:

- The application directories for source and target are the same. They must be different.
- The target synonym name is not valid. It should not exceed 64 characters, and the general guidelines for a synonym name should be followed.
- The target adapter is not available. It must be available (not removed accidentally) at the time when *Generate Flows* is in progress.
- Transformations you made in the template data flow are not valid for the generated flows. Any transformations you made in the template data flow must be valid for the generated flows. If the source tables do not have the columns necessary to apply the transformations, the flows will not be successfully verified.

10. Once the verification is successful, click **Save**.

Some additional verification processes will be run. If problems occur, messages will display in red at the top of the window, identifying the problems. If no problems occur, a message will display in green, indicating that the save was successful and identifying the objects that were generated, as shown in the following image,



If there were problems, correct them.

You can submit the flows at this point, by clicking the *Submit* button.

11. Close the *Generate Flows* window by clicking *Cancel*.

The generated data flows and the process flow are generated in the application directories you selected, as shown in the following image.

Application Directories/Files ↓	Size ↓	Date Modified ↓
template1_dmcntr	2146	2020/05/12 13.43.43
template1_dmcomp	2233	2020/05/12 13.43.43
template1_dmhr	3015	2020/05/12 13.43.43
template1_dminv	2335	2020/05/12 13.43.43
template1_generate	2031	2020/05/12 13.43.43

The flow named `template1_generate` is the generated process flow. The other flows are the generated data flows, one for each source synonym (identified by having the source synonym name at the end of the flow name).

The following image shows the data flow generated for the `dminv` source synonym. The target synonym name was generated by removing the characters `dm` from the start of the source synonym name and adding the characters `_tgt` to the end of the target synonym name, as specified on the Generate Flows window.

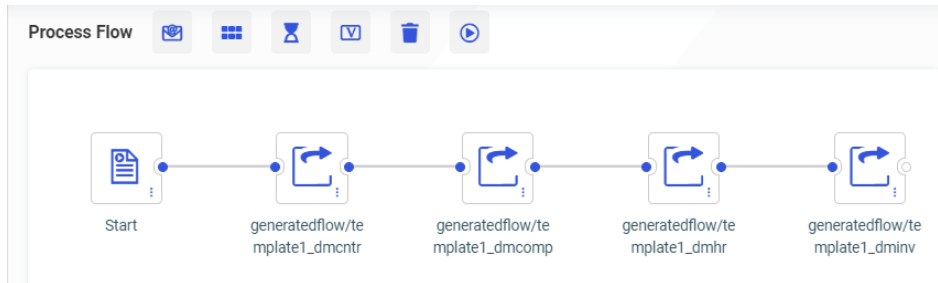


The data flows are generated with the same load options as the template flow, but you can now open any of the flows and edit them as needed.

To open the process flow, you will have to toggle the flow view by clicking the *Toggle Flow View* button at the top of the window, as shown in the following image.

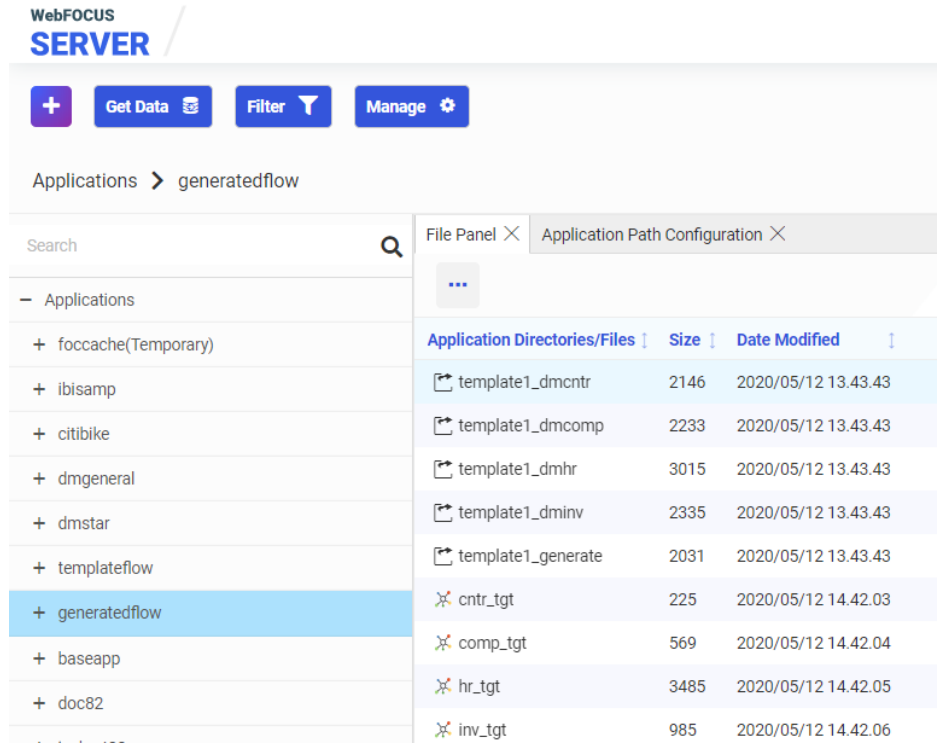


The following image shows the generated process flow.



12. You can add a schedule, an email node, variables, a wait node, or a parallel group to the process flow using the buttons at the top of the page.
13. Once you have finished your edits to the flows, if any, you can submit the generated process flow by right-clicking it and selecting *Submit*.

The targets are generated, as shown in the following image.



## Fixes

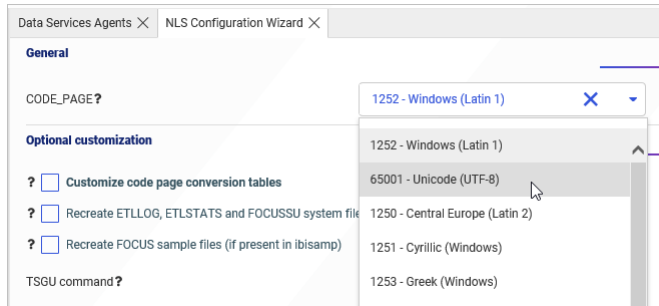
- Using more than 14 fonts in a PDF report request does not apply properly to the report output. (191230051)
- When creating metadata with a default dataset configured, a FOC45645 error occurs.
- When connecting from a client tool, the user is prompted for their ID and password even when it is stored and encrypted in the communications configuration file.
- The client ID and secret are not sent in the token request body during Create Synonym when BDYCLT:TRUE is configured in the REST connection. (200519060)
- When using App Studio with the adapter for SAP configured and opening a synonym, the HTTP listener crashes. (200330086, 200430012)
- When a synonym is created for a file with a name that starts with a number, the synonym and segment name would start with a number causing the join profiler to fail.

- ❑ Removing selected items in a double list box hangs the browser session. (200522071, 200527041)
- ❑ Portal hang on loading when Usage Analytics is enabled on iOS devices. (200424080)
- ❑ App Studio is removing the br tags from the JavaScript code. (200518064)
- ❑ The default format used (I3) is not large enough for the value calculated when a dimension is added as a measure to a Designer chart. (200423136)
- ❑ If a DEFINE field is created in InfoAssist which references another field, and then a JOIN is created, the Define is duplicated. (191121013)
- ❑ Editing a Reporting Object with multiple DEFINE fields or a report created from the Reporting Object is making multiple calls to the Reporting Server which is impacting performance. (180404044)
- ❑ Importing a Blackout Dates file 1.38MB in size results in the browser hanging and F12 displays an uncaught type error. (200403013)
- ❑ An X/Y scatter chart with valid syntax to turn on data labels does not show the data labels. However, turning the chart into an X/Y/Z scatter chart with a measure in the SIZE bucket shows the data labels. (191211100)
- ❑ When saving a local version of an AHTML report using German as the language, the umlauts are not correct when the report is opened. (200514028, 200812111)



## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

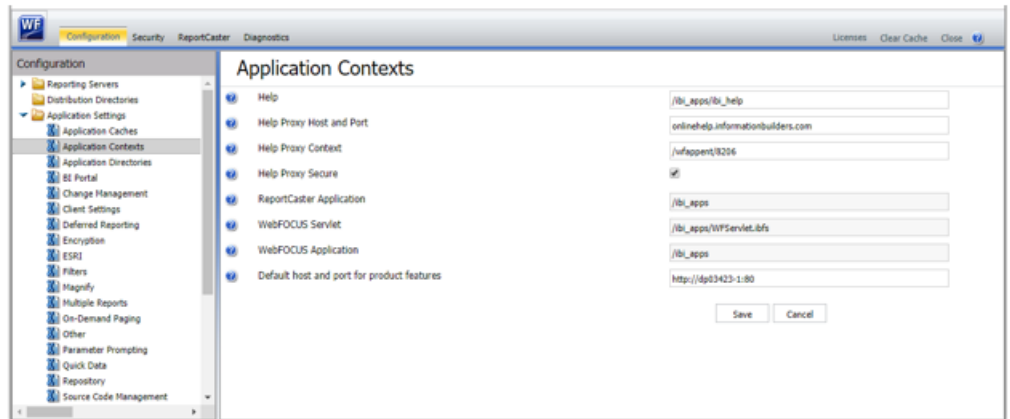
1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.

2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
  - ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.

- ❑ When creating a data grid in WebFOCUS Designer, italic formatting may not work for Japanese and Chinese characters in row and column headings, depending on the font and browser that are used. This applies to both Unicode and applicable DBCS code pages.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDDENNULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.

- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 83, Firefox version 76, Microsoft Edge Chromium version 81 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).

# Chapter 22

## 8207.10 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)


### Release and Gen Information

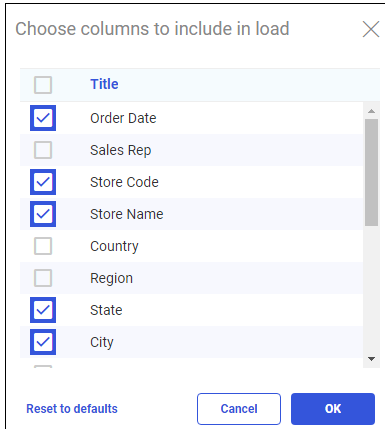
Release Date	Gen Information	Reporting Server
Friday, May 22, 2020	wf052120a Gen 9 wi052120a as052120a	8207.10 Gen 1915

### New Features

#### Choosing Columns to Load When Uploading Files

When using Get Data to upload a file, you can choose which columns will be loaded to the target database or data store, so you only load the columns you need.

From the file upload Preview page, click the *Choose Columns* icon . The Choose Columns dialog box displays, as shown in the following image.



All columns are selected by default. You can clear the check boxes for the columns you do not want to be loaded.

## Change Data Capture (CDC) on a Data Flow

In the Reporting Server browser interface, when a table is log-enabled, you can use the load option *Change Data Capture* along with the log file to update only the rows that have changed since the last load.

### **Procedure:** How to Use CDC on a Data Flow

In order to use CDC on a Data Flow, you need a synonym for the log file, a synonym for the existing target table, a Data Flow, and, optionally, a synonym for the source table (which is not used in this type of load). When changes are made to the source table, the log file is updated. If you submit a flow that has Change Data Capture as its load option, the target table will be updated using the information in the log.

1. Create a synonym for the log table.
  - a. Right-click the connection for the adapter with the log-enabled tables, and select *Show DBMS Objects*.

The Create Synonym page opens.

- b. Select *Table Log Records* from the Object Type drop-down list, as shown in the following image.

Create Synonym for MS SQL Server ODBC/AzureDB (DMTFS02)

Object Type? **Table Log Records** Database? **Default Database** Owner/Schema?  Object Name?

**Customize data**

Create?  Tables, Views and Other Objects

Application?  External SQL Scripts  ... Prefix?  Suffix?

SYNONYM CA **Table Log Records** (DEFAULT) Row Limit **50** Search

Fact	Dimension	Default Synonym Name	Table Name	Owner/Schema	Type
<input type="checkbox"/>	<input type="checkbox"/>	m1_orders	M1_ORDERS	dbo	Log Records
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	dimrep_s	dimrep_s	dbo	Log Records
<input type="checkbox"/>	<input type="checkbox"/>	lobvarbin	LOBVARBIN	dbo	Log Records
<input type="checkbox"/>	<input type="checkbox"/>	car_new_mss	car_new_mss	dbo	Log Records
<input type="checkbox"/>	<input type="checkbox"/>	carsales	CARSALES	dbo	Log Records
<input type="checkbox"/>	<input type="checkbox"/>	carsales_enriched	carsales_enriched	dbo	Log Records
<input type="checkbox"/>	<input type="checkbox"/>	lobtest	LOBTEST	dbo	Log Records

- c. Click the *Base Synonym* button.
- d. Either accept the default application in the *Application* text box, enter an application name, or click the ellipsis (...) next to the text box to select the application name.
- e. Select the check boxes for one or more log records.

If you want to distinguish the synonym name for the log record from the synonym name for the base table, you can add a prefix or suffix using the *Prefix* or *Suffix* entry fields, or you can change the synonym name by typing over the default synonym name. (If the *Default Synonym Name* column is not showing, click the *Choose Columns* button and select that column.)

The following image shows one log table record named *dimrep\_s* selected, with the synonym name changed to *dmrep\_s\_log* (the characters *\_log* are entered in the *Suffix* field).

Create Synonym for MS SQL Server ODBC/AzureDB (DMTFS02)

Object Type?  Database?  Owner/Schema?  Object Name?

Customize data type mappings

Create?  Cluster Synonym  Base Synonym

Application?  ... Prefix?  Suffix?

SYNONYM CANDIDATES FOR DATABASE: MARINA (DEFAULT) — Row Limit: 50  Search

Select	Table Name	Owner/Schema	Type
<input type="radio"/>	M1_ORDERS	dbo	Log Records
<input checked="" type="radio"/>	dimrep_s	dbo	Log Records
<input type="radio"/>	LOBVARBIN	dbo	Log Records
<input type="radio"/>	car_new_mss	dbo	Log Records
<input type="radio"/>	CARSALES	dbo	Log Records
<input type="radio"/>	carsales_enriched	dbo	Log Records
<input type="radio"/>	LOBTEST	dbo	Log Records

- f. Click *Add*.
2. You should already have a synonym for the existing target table and, optionally, the source table. If you do not have a synonym for the target, create it now.
3. Create a Data Flow using the log file synonym as the source and the existing target as the Target, as shown in the following image.

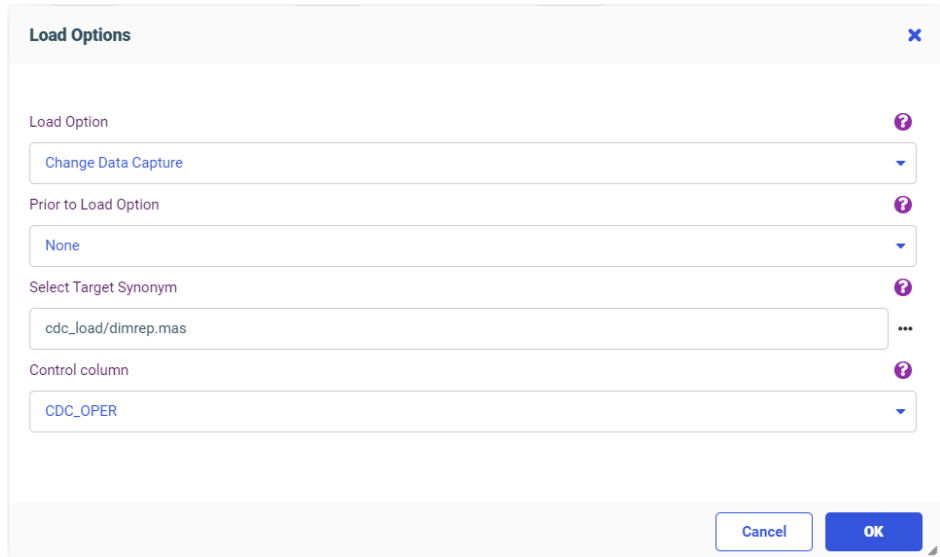




4. Right-click the target synonym and select *Load Options*.

The Load Options dialog box opens.

5. Select *Change Data Capture* from the Load Option drop-down list, as shown in the following image.



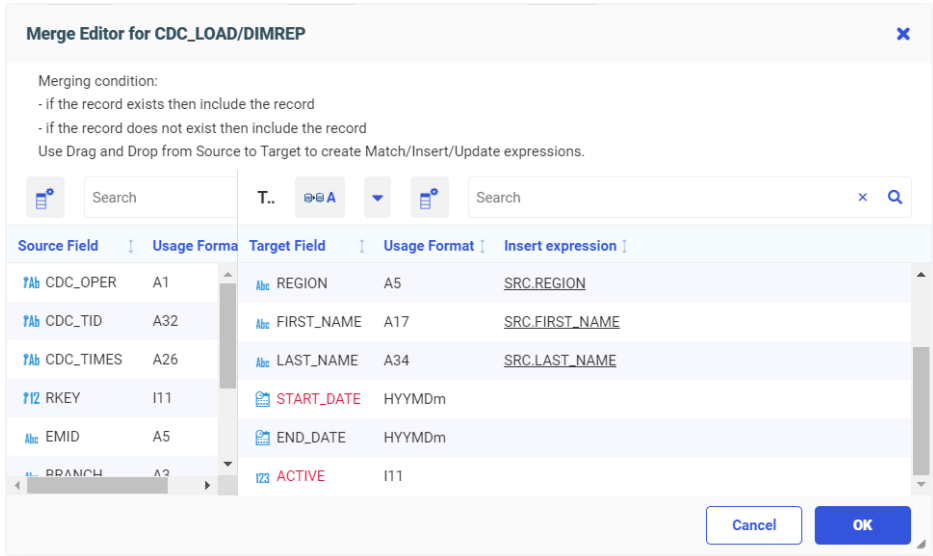
The screenshot shows a dialog box titled "Load Options" with a close button (X) in the top right corner. The dialog contains the following fields:

- Load Option:** A dropdown menu with "Change Data Capture" selected.
- Prior to Load Option:** A dropdown menu with "None" selected.
- Select Target Synonym:** A text input field containing "cdc\_load/dimrep.mas" and a search icon (magnifying glass) on the right.
- Control column:** A dropdown menu with "CDC\_OPER" selected.

At the bottom right of the dialog, there are two buttons: "Cancel" and "OK".

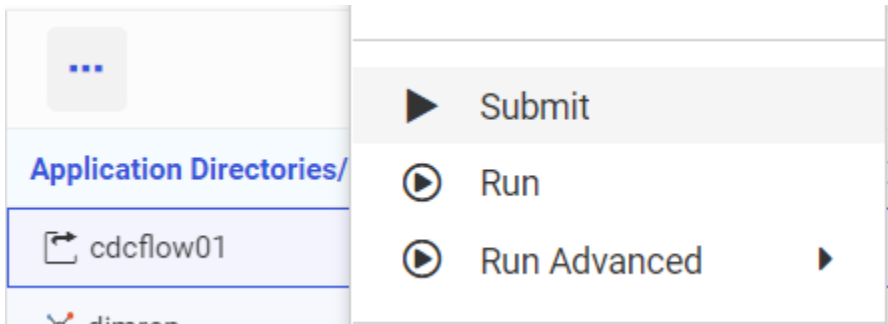
6. Click *OK*.

The Merge Editor opens, as shown in the following image.



Missing matches display in red.

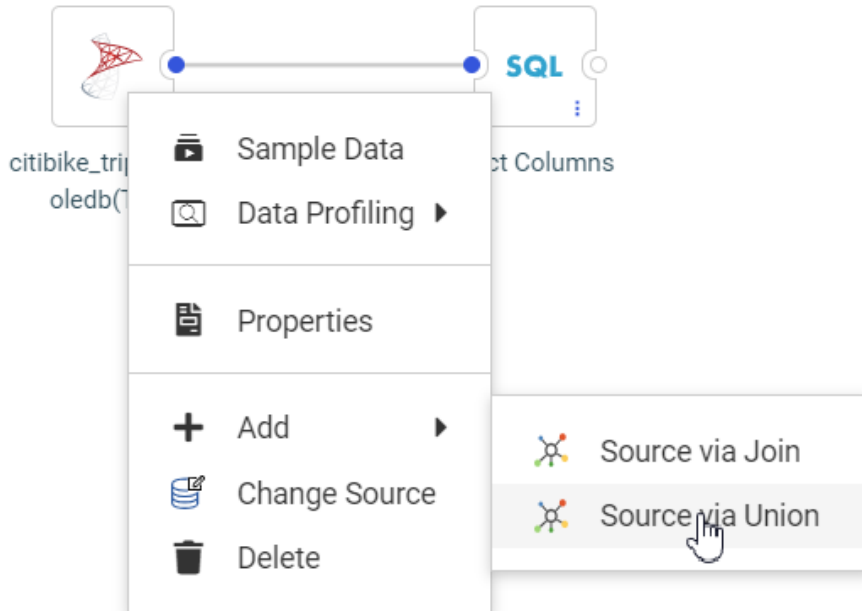
7. Drag source columns to the Insert Expression field for the target where needed to eliminate missing matches, and click **OK**.
8. Save the flow.
9. If the flow is scheduled to run at set intervals, once the source table and log have been updated, the target will be updated the next time the flow runs. You can also right-click the flow and select *Submit*, as shown in the following image.



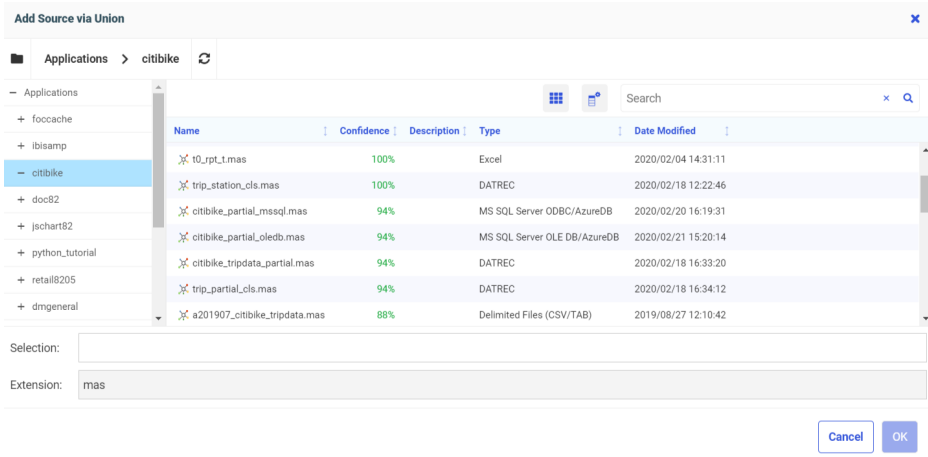
You can see the number of changes that were applied by right-clicking the flow, clicking *Logs*, and selecting *Last Log*.

## Showing the Confidence Level for Adding a Union to a Data Flow

You can right-click a source in a data flow and add a new source as a union, as shown in the following image.



A list of tables displays for choosing the new source to add. This table now includes a confidence level, based on matching column names and data types for each prospective new source, showing how compatible it is with the existing source, as shown in the following image.



## Support for GROUP BY On Column Position or AS Name

In prior releases, a GROUP BY clause in an SQL SELECT statement could only use a column name or expression. Now, the GROUP BY clause can also use the column position (such 1 to indicate the first column) or an AS name from the SELECT list.

This syntax is commonly generated by some third-party tools and can also be used in Data Migrator in a custom SQL flow, or in WebFOCUS in an SQL query.

### *Example:* Using an AS Name in a GROUP BY Clause

The following SQL request uses the AS name CATEGORY in the GROUP BY clause.

```
SQL
SELECT
PRODCAT AS CATEGORY,
COUNT(QTY_IN_STOCK)
FROM
DMINV T1
GROUP BY CATEGORY
;
TABLE
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF, $
ENDSTYLE
END
```

The output is shown in the following image.

<u>CATEGORY</u>	<u>Quantity in Stock</u>
Camcorders	6
Cameras	4
CD Players	1
Digital Tape Recorders	1
DVD	2
PDA Devices	2
VCRs	1

**Example:** Using a Column Position in a GROUP BY Clause

The following SQL request uses the column position 1 in the GROUP BY clause.

```
SQL
SELECT
PRODCAT,
COUNT(QTY_IN_STOCK)
GROUP BY 1
FROM
DMINV T1
GROUP BY 1
;
TABLE
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

<u>Product Category</u>	<u>Quantity in Stock</u>
Camcorders	6
Cameras	4
CD Players	1
Digital Tape Recorders	1
DVD	2
PDA Devices	2
VCRs	1

### Adapter for REST: Setting a Default Field Length

The Adapter for REST SET FIELDLENGTH command sets a default USAGE and ACTUAL length for alphanumeric fields to be used when creating a synonym.

The syntax is:

```
ENGINE REST SET FIELDLENGTH nnn
```

where:

*nnn*

Is the default length.

For example, the following command sets the default USAGE and ACTUAL lengths for alphanumeric fields to 100.

```
ENGINE REST SET FIELDLENGTH 100
```

### Adapter for REST: Support for Passing Text and Binary in a REST POST Request

The Adapter for REST now can read text and binary data from a file and pass it in the body of a POST request.

The following Access File attribute is used for passing text data to another REST request.

```
HTTPBODY=TEXT
```

The following Access File attribute is used for passing binary data to another REST request.

```
HTTPBODY=BINARY
```

The following Access File attribute is used to define the field used to pass the location of the file to be read for input to the REST call.

```
FIELD=DATAFILE, INPUT=FILENAME
```

Support has also been added for reading the binary response from a REST Web Service request and saving the output to a file. The USAGE and ACTUAL formats for the field containing the Binary output must be defined as STRING.

The following Access File attribute is used for reading binary data from a REST request.

```
RESTRESPONSE=BINARY
```

The following command is used to HOLD the binary output:

```
ON TABLE HOLD FORMAT BINFILE DATASET filename
```

where:

*filename*

Is the name of the file where the output is to be stored.

For example:

```
ON TABLE HOLD FORMAT BINFILE DATASET baseapp/wfretail.xlsx
```

You can also join the binary response from one REST Web Service request to the input of a subsequent REST Web Service request. The fieldname containing the binary response and the fieldname for the binary input both must be defined with USAGE=STRING and ACTUAL=STRING.

### **Example: Reading Binary Data from a REST POST Request and Storing the Output to a File**

The following Master File describes the GET\_LIBRARYVERSION REST call. The \_\_RESPONSE field is described with USAGE and ACTUAL formats STRING:

```
FILENAME=M6ILO, SUFFIX=WFCREST, $
SEGMENT=M6ILO, SEGTYPE=S0, $
  FIELDNAME=IBIRS_ACTION, ALIAS=IBIRS_action, USAGE=A30, ACTUAL=A30,
  ACCESS_PROPERTY=(NEED_VALUE),
  XDEFAULT='run', $
  FIELDNAME=IBIRS_SERVICE, ALIAS=IBIRS_service, USAGE=A30, ACTUAL=A30,
  ACCESS_PROPERTY=(NEED_VALUE),
  XDEFAULT='ibfs', $
  FIELDNAME=IBIRS_PATH, ALIAS=IBIRS_path, USAGE=A100, ACTUAL=A100,
  ACCESS_PROPERTY=(NEED_VALUE), $
  FIELDNAME=__RESPONSE, USAGE=STRING, ACTUAL=STRING,
  ACCESS_PROPERTY=(INTERNAL), $
```

Following is the associated Access File:

```
SEGNAME=M6ILO,  
CONNECTION=WIN10HYPER1,  
OBJECT=rs,  
SERVICETYPE=REST,  
TIMEOUT=60,  
HTTPMETHOD=POST,  
HTTPBODY=ENCODE, $
```

The following request issues the REST call and stores the result in a file named holdversion.xlsx in the baseapp application:

```
SET EQTEST=EXACT  
TABLE FILE GET_LIBRARYVERSION  
PRINT  
  __RESPONSE  
WHERE IBIRS_PATH EQ  
  'IBFS:/WFC/Repository/Binary_Data_TSCQ/Lle7us4uhe01.lib$(1)'  
ON TABLE HOLD FORMAT BINFILE DATASET baseapp/holdversion.xlsx  
END
```

## Adapter for ElasticSearch

The Adapter for ElasticSearch is new in this release and can be found in the Search Engines group folder.

ElasticSearch is a highly-scalable search engine that performs fast searches and analytics against large amounts of data. It centrally stores all types of data, including textual, numerical, geospatial, structured, and unstructured. The Adapter for ElasticSearch is used to send search requests to the ElasticSearch engine and report against the information returned.

## Fixes

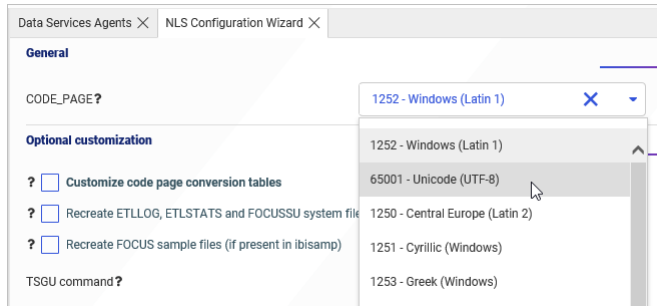
- Multiple portals are not loading when invoked at the same time from the same portal. (200203134)
- Using the bulk load process to load Hyperstage data that contains missing or null values results in an error: FOC1426 DATA ELEMENT VALUE TOO BIG (200311100)
- Links to the log for failed flows are not displayed in red in Statistics reports In the Data Management Console. (200408156)
- When editing a synonym, adding a new DEFINE and deleting it, results in a TCP/HTTP listener crash when attempting to add another DEFINE. (200505013)
- The DECIMAL parameter marker value is formed incorrectly when an ODBC connector is used to read data from an Access database causing it to crash and terminate the connection. (200422045)



- ❑ Synonym Editor hangs and the edapgwy.exe CPU usage rises to ~50% when opening a Business View with two DEFINEs that were added to the Master File during creation.  
  
The two DEFINEs use the same measure field. If only one of the fields is removed or commented out under the Measures folder or the measures field from the Dimension folder is removed or commented out, then the Master File opens without issue. (200415038)
- ❑ Designer Page chained parameter filters do not display expected values for some requests. (191211098)
- ❑ After importing the Fintoso Demo, the comparison me or comparison people report display HTML code characters in the heading. (191216033)
- ❑ Including a repository focexec procedure using the legacy relative folder reference (INCLUDE ./subfolder/xxxx.fex) fails when the main focexec procedure is run. (200429027)
- ❑ Favorites are slow to load with a large number of users. (200217090)
- ❑ Running a Change Management import of a Portal twice results in an error: IBFSEException 1244: ERROR\_IBFS\_INVALID\_ARGUMENT\_VALUE (200211001, 200226123, 200115003)
- ❑ When using the GIS\_POINT function to build a JSON point or define a geometry object, the values for longitude and latitude are altered when using SET CDN=ON or other LOCALE settings that converted the decimal point to something other than the period (.). (190823013, 200219043)

## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.

2. Change the *Help* value to `/ibi_apps/ibi_help`.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for *Help* should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to `onlinehelp.informationbuilders.com`.
4. Set the *Help Proxy Context* to `/wfappent/8206`. If you are using WebFOCUS Release 8207, set the value to `/wfappent/8207`.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.

- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has a an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when then size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.

- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 81, Firefox version 75, Microsoft Edge Chromium version 81 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



# Chapter 23

## 8207.09 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Tuesday, May 12, 2020	wf050720a Gen 8 wi050720a as050720a	8207.09 Gen 1914

### New Features

#### Adapter for Salesforce.com: Creating Custom Objects

In prior releases, you could load data into a Salesforce.com custom object in a data flow as an *Existing Target*, but the custom object first had to be created in Salesforce.com. Now, you can create a Salesforce.com custom object as a *New Target* in a data flow and load it

### Fixes

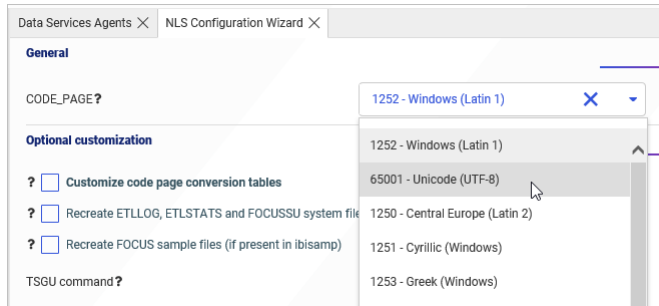
- When using Google Chrome™ in App Studio, the value of a DBCS parameter and text box are garbled in an HTML page. (200319049)

- ❑ When using the Security Center to search for an external group using an asterisk, the group does not list in the group membership report. (190402021)
- ❑ When adding a WebFOCUS Server file adapter for Excel® spreadsheets, the adapter is added but does not appear on the page of configured adapters. (200403037)
- ❑ Reporting from a Teradata® BIGINT field returns incorrect data if the metadata mapping is using I11,I4. (200326124)
- ❑ When running a Data Migrator flow that has a DateTime value coming from PostgreSQL® and it uses this as a filter for a Salesforce.com® call, the filter is not working properly. (200407096)
- ❑ Errors occur when using concatenated field names on the left side of a WHERE/IN expression. (200325015)
- ❑ In a data flow when viewing the data profiling for a date component, such as Day, and selecting "Sort by value", the values were shown in alphabetical order (1,10,11) instead of numeric (1,2,3).
- ❑ Error status:403 occurs when accessing the Reporting Server Console from the WebFOCUS Administration Console, when the user ID has previously been forced off a different browser session that accessed the Reporting Server Console. (20032608)
- ❑ Page templates are not shown when editing a v4 portal. (191114039)
- ❑ Panels do not respect the maximum width in Internet Explorer 11. (191023076)
- ❑ The POSITION and TOKEN functions generates incorrect SQL resulting in errors from Db2. (200228064)
- ❑ The country georole is not rendering in App Studio mapping. (200403129)
- ❑ If the user selects more than one map demographic layer, only one of the demographic layers is written to the focexec request. (200129013)
- ❑ InfoAssist JOIN does not display the host field in the Join dialogue when editing a request that creates a DEFINE field and HOLD file and then joins the field in the HOLD file to another file. The Join dialogue link appears at the top of the host table. (191002001)
- ❑ The scroll bar for the Portal does not display after changing the zoom percentage to 150% or higher. (200122116)



## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

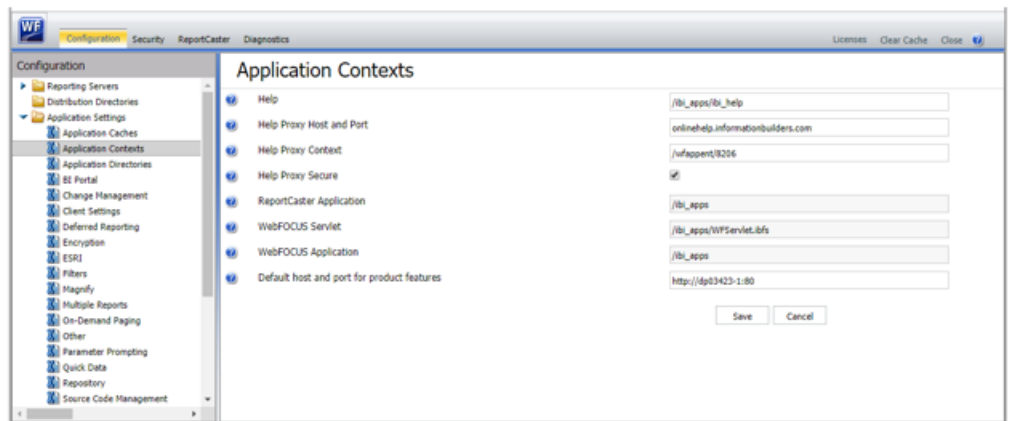
1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.

2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.

- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has a an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when then size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.

- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 81, Firefox version 75, Microsoft Edge Chromium version 81, and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).

# Chapter 24

## 8207.08 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, April 27, 2020	wf042220a Gen 5 wi042220a as042220a	8207.08 Gen 1913

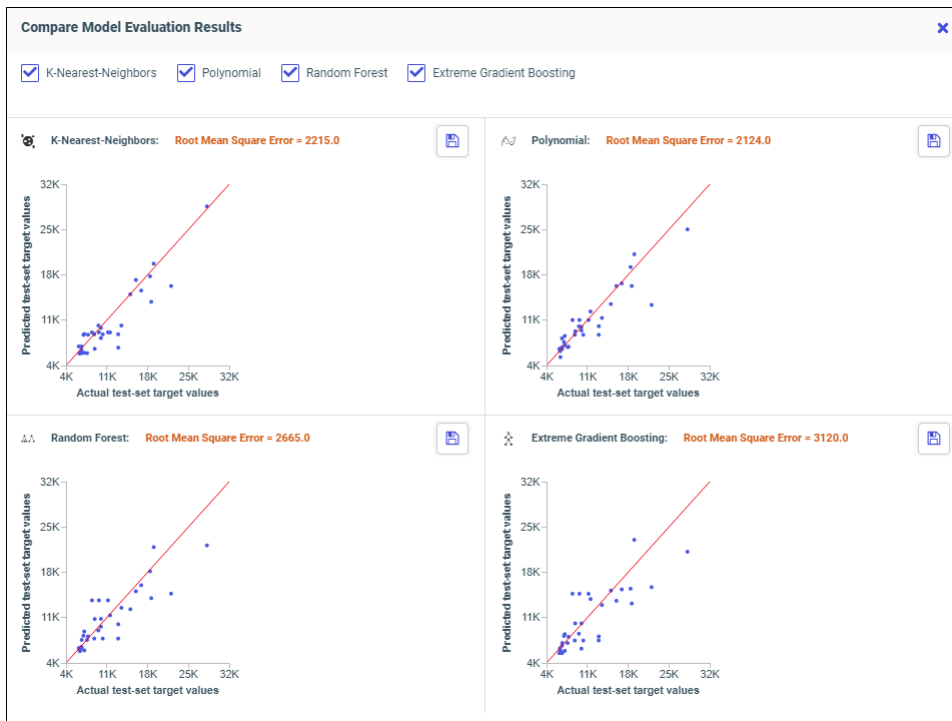
### New Features

#### Compare Multiple Models When Running Predictive Analytics

When running predictive analytics on your data using Regression models, you can now compare multiple models at once.

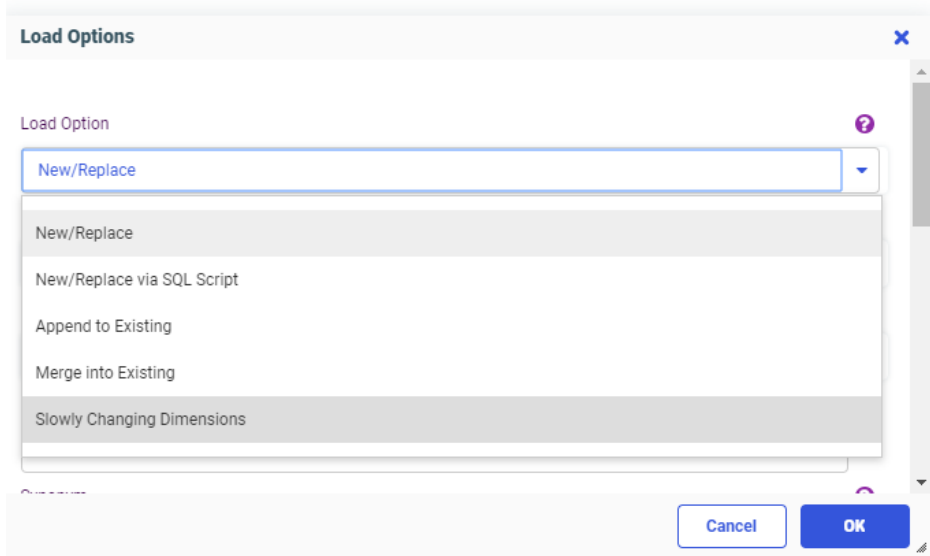
A Compare dialog box displays the evaluation reports for each model comparison, including an RMSE value and scatter plot, so you can quickly choose which model is the best.

You can also filter the model comparisons and save models individually.



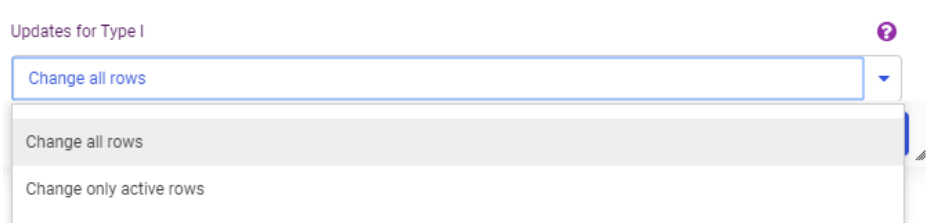
## Slowly Changing Dimensions on a Data Flow

When loading to a target in a data flow on the Reporting Server browser interface that supports Slowly Changing Dimensions (SCDs), you can select the load type *Slowly Changing Dimensions* from the Load Options drop-down list, as shown in the following image.



If your target synonym has columns with:

- Type II SCDs, those columns will be loaded using the rules established for Type II slowly changing dimensions.
- Type I SCDs, you can choose whether to update all rows (the default) or only active rows, as shown in the following image.



**Note:** Although this option appears whether the synonym has Type I SCDs or not, it is ignored for Type II SCDs.

## Generating a Google Sheets Spreadsheet

When you have the Adapter for Google Sheets and the Adapter for Google Drive configured, you can generate a Spreadsheet in the Google Sheets environment from a WebFOCUS request using the HOLD FORMAT GGLSHTS command.

The syntax is:

```
ON TABLE HOLD FORMAT GGLSHTS AS GoogleDriveApplication/Name
```

where:

*GoogleDriveApplication*

Is the name of the WebFOCUS Server application mapped to Google Drive.

*Name*

Is the name of the Google Spreadsheet that is to be stored in Google Sheets.

## Adapter for Google Drive

The Adapter for Google Drive is the WebFOCUS Adapter used to integrate with Google Drive. It is also used in conjunction with the Adapter for Google Sheets to create spreadsheets in the Google Sheets environment from a WebFOCUS report.

Output formats such as PDF, JSON, and XML from WebFOCUS reports can be stored in Google Drive.

Adapters, such as JSON and XML, can be used to report against their respective documents stored in Google Drive.

## Adapter for Google Sheets

The Adapter for Google Sheets is now available and can be used to report off of spreadsheet data resident in the Google Sheets environment.

## Adapter for Google Analytics: Support for Service Account Authentication

In prior releases, only OAuth20 authentication was supported for the Adapter for Google Analytics. Service Account Authentication support has now been added. A service account is a non-human user that needs to authenticate to Google and be authorized to access data in Google APIs, for example, for running reports distributed by ReportCaster.



To configure Service Account authentication, select *Service Account* from the *Security* drop-down list, as shown in the following image.

Add Google Analytics to Configuration

**Connect parameters** ^

Connection Name ?

CON01

Google Analytics URL ?

<https://www.googleapis.com/analytics/v3/data>

Web Profile ID ?

Security ?

OAuth

OAuth

Service Account

The following fields appear for configuring Service Account authentication.

### Key File Location

Is the location of the JSON Key File that was created in the Google Development environment. For example:

`C:\ibi\apps\googleanalytics\webfocus-55555-874feowfwojoe7.json`

### Client Email Address

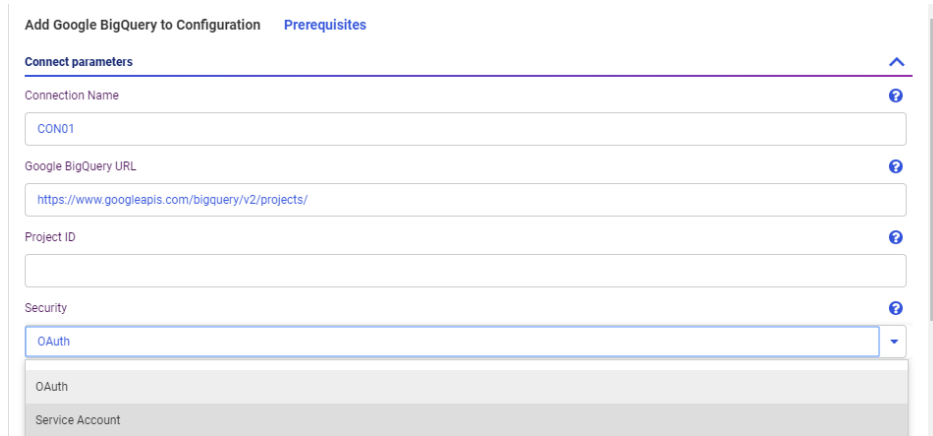
Is the client email address defined in the JSON Key File. For example:

`xxxxxxxxxxxx-compute@developer.gserviceaccount.com`

## Adapter for Google BigQuery: Support for Service Account Authentication

In prior releases, only OAuth20 authentication was supported for the Adapter for Google BigQuery. Service Account Authentication support has now been added. A service account is a non-human user that needs to authenticate to Google and be authorized to access data in Google APIs, for example, for running reports distributed by ReportCaster.

To configure Service Account authentication, select *Service Account* from the *Security* drop-down list, as shown in the following image.



The screenshot shows a configuration window titled "Add Google BigQuery to Configuration" with a "Prerequisites" link. Under the "Connect parameters" section, there are several input fields: "Connection Name" (containing "CON01"), "Google BigQuery URL" (containing "https://www.googleapis.com/bigquery/v2/projects/"), and "Project ID" (empty). The "Security" dropdown menu is open, showing "OAuth" as the selected option and "Service Account" as an available option below it.

The following fields appear for configuring Service Account authentication.

### Key File Location

Is the location of the JSON Key File that was created in the Google Development environment. For example:

```
C:\ibi\apps\googlebigquery\webfocus-555555-874feowfwojoe7.json
```

### Client Email Address

Is the client email address defined in the JSON Key File. For example:

```
xxxxxxxxxxxx-compute@developer.gserviceaccount.com
```

## Adapter for Google BigQuery: Support for SQL Immediate Commands

The SQL Passthru commands INSERT, UPDATE, and DELETE are now supported for the Adapter for Google BigQuery.

For example:

```
SQL SQLGBQ
DELETE FROM 'focus-100020.informationbuilders_tables.car_file' WHERE
country="ENGLAND"
END
```

## Adapters for Google Sheets and Google Drive: Service Account Authentication

Service Account Authentication is available for Google Sheets and Google Drive. A service account is a non-human user that needs to authenticate to Google and be authorized to access data in Google APIs, for example, for running reports distributed by ReportCaster.

To configure Service Account authentication, select *Service Account* from the *Security* drop-down list, as shown in the following image.

Add Google Sheets to Configuration

**Connect parameters** ^

Connection Name ?

CON01

Base Uri ?

<https://sheets.googleapis.com/v4/spreadsheets>

Security ?

Service Account v

OAuth

Service Account

The following fields appear for configuring Service Account authentication.

### Key File Location

Is the location of the JSON Key File that was created in the Google Development environment. For example:

`C:\ibi\apps\googlesheets\webfocus-555555-874feowfwojoe7.json`

### Client Email Address

Is the client email address defined in the JSON Key File. For example:

`xxxxxxxxxxxx-compute@developer.gserviceaccount.com`

## Fixes

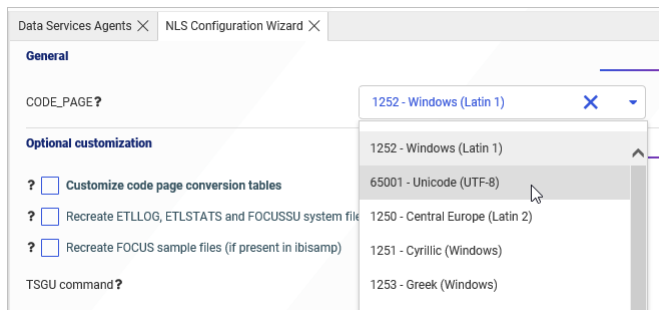
- In an esriGeometryPolyline map in App Studio, a drilldown from a line to a report does not work and the Selection Widget is blank. (191023147)
- A div tag and other code are added to the HTML page when SQUEEZE is used with a DEFINE that contains HTML code characters in the expression. (191021082)
- Invalid SQL data type error occurs when using a Microsoft Access Driver to join a hold file to an Access table. (190130144)
- When accessing and opening a wide In-Document Analytics report as an email attachment from an iPad with iOS version 13, you will get a blank space if you switch the orientation from Landscape to Portrait mode. (200403106)

- ❑ When creating a synonym for any SQL DBMS, if a valid or invalid schema is entered and the enter button is selected, the Data Management Console becomes unresponsive and eventually crashes and terminates. (200408157)
- ❑ Issue with interpreting JSON response for REST, OData, and Dynamics Customer Relationship Management adapters on OS400 platforms.
- ❑ The ACTUAL for datetime fields is incorrect when creating a synonym for a business object using the adapter for Salesforce.com. (200407113)
- ❑ When an Adapter for Git connects to an Azure DevOps using Personal Access Token for authentication, Data Migrator returns errors for the Git operations. (200406112)
- ❑ When parameters are added to site.wfs with incorrect coding, it can result in a non-responsive WebFOCUS client, or failure of the app to start. To address this for <SET> parameter definitions, the \"\n\r\t(,)= characters between a variable name and the open parenthesis character are ignored. (181108129)
- ❑ Japanese characters are garbled after importing a Change Management package.
- ❑ When using the Security Center to search for an external group using an asterisk, the group does not list in the group membership report. (190402021)
- ❑ Error status:403 occurs when accessing Reporting Server Console from the WebFOCUS Administration Console when the user ID has previously been forced off a different browser session that accessed the Reporting Server Console. (200326089)
- ❑ The Datetime column in the ETL log is empty if a FOC2590 or FOC2594 error is returned for a procedure or flow. (200207056)
- ❑ Dynamic Language settings for Hebrew are not reflected in the Paging Control or Search Control menu settings. (191029043)
- ❑ A custom login page does not work and goes to the default page. (200408049)
- ❑ When a field evaluated in the inner query is set to NOT NULL and the inner query does not return a value, a FOC295 error is returned to the non-APT correlated sub-query or incorrect result. (190626058)
- ❑ Data is not returned from a remote synonym that has a column with MDYY format. (200304045)
- ❑ The Visualize Data Chart Designer results in a pop-up error (unknown error message(IA\_200324\_010306-1) when you have a filter and click to turn on or off the Run with Insights option. (200323146)

- ❑ Adding CSSURL reference in a stylesheet (\*.STY) prevents the stylesheet from being used in Designer. (200402091)
- ❑ Garbled characters are generated in a focexec when pasted to the desktop outside of AppStudio. (200331072)
- ❑ The ESRI adapter does not return a successful test for silent authentication. (200401031)

## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

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## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

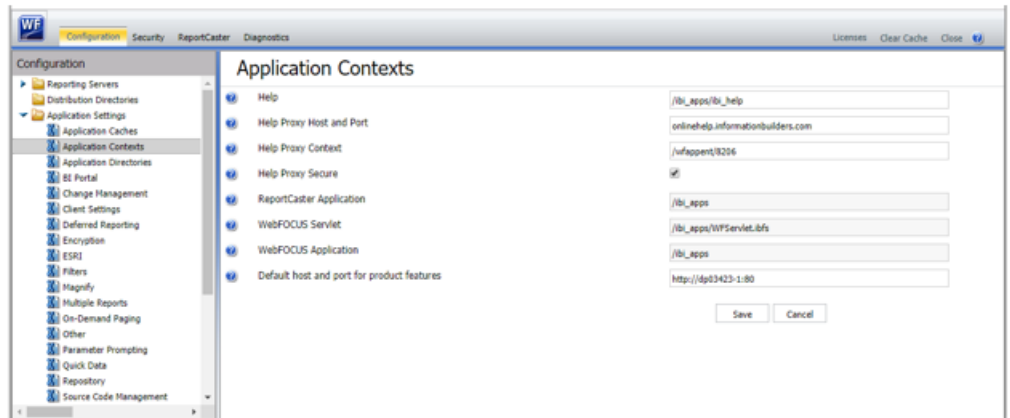
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
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For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.

- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 81, Firefox version 75, Microsoft Edge Chromium version 80 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



# Chapter 25

## 8207.07 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Upgrade Notes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

### Release and Gen Information

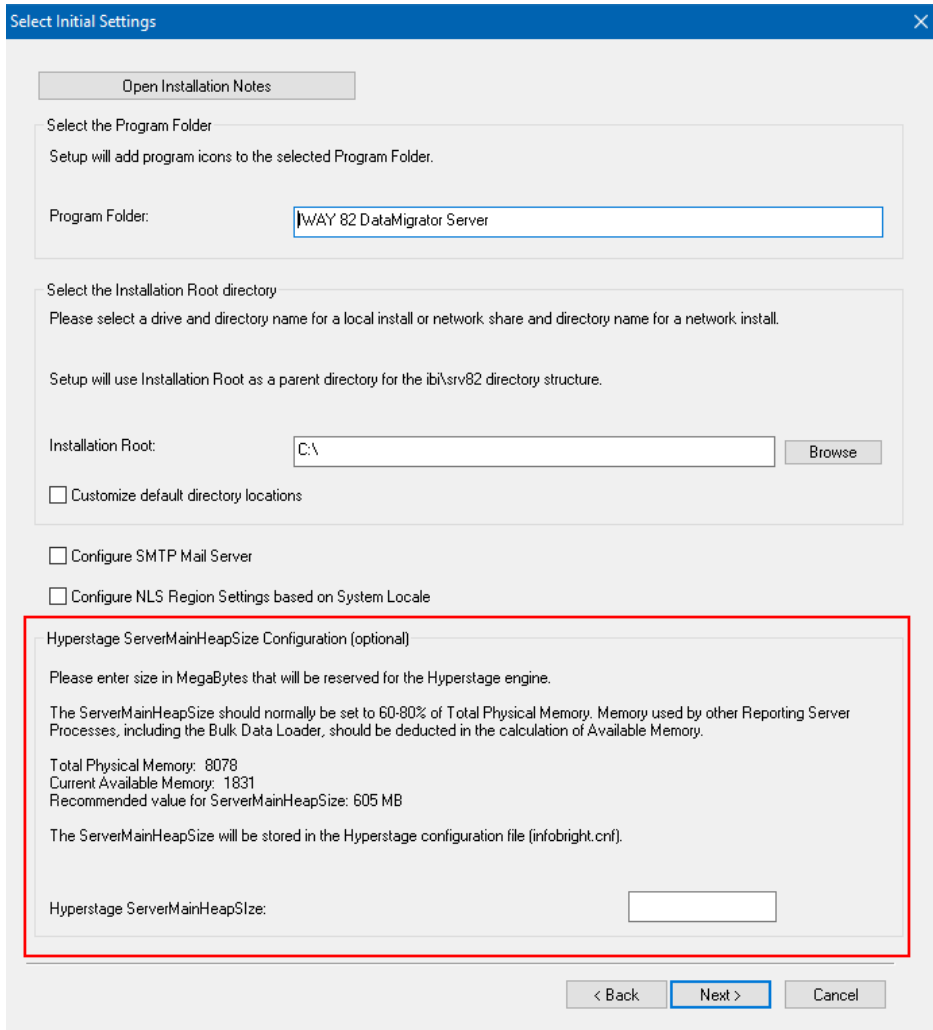
Release Date	Gen Information	Reporting Server
Monday, April 13, 2020	wf040920b Gen 15 wi040920b as040920b	8207.07 Gen 1912

### New Features

## Adapter for Hyperstage (PG): Installation Setting for Heap Size

By default, Hyperstage reserves 75% of memory for use in its functionality. If other processes are running during the Hyperstage installation, Hyperstage may not be able to reserve that much memory, and the installation process may not complete properly.

The amount of memory that Hyperstage reserves can be adjusted during installation using the `ServerMainHeapSize` setting on the *Set Initial Settings* page, as shown in the following image.



The setting will be added in the `infobright.cnf` file within the `HyperstagePG\ib_data` directory.

## Supporting Direct Bulk Load for a Flow

Direct Bulk Load is a feature of Data Migrator and Data Flow that can significantly shorten load times when a source file is in the expected format of the bulk load program for the database to be loaded. The faster load times result from loading the file directly, without creating an intermediate file.

In prior releases, Direct Bulk Load could only be enabled as an adapter setting, meaning that all flows using that adapter would use it. This could be problematic if some input files met the requirements of a database and some did not.

Now you can enable or disable Direct Bulk Load on each data flow. However, in order for Direct Bulk Load to be enabled for a flow, Extended Bulk Load must be used and Optimize Load must be enabled.

When Extended Bulk Load is used and Optimize Load is enabled, data is loaded directly to the target database without the additional extract and transformation steps provided the following conditions are met:

- The data source is a delimited flat file.
- The file attributes including Header, Enclosure, Delimiter and Record Delimiter are supported by the target database.
- Only insert operations are used (no updates).
- No filters are used.
- No aggregation is specified.
- No transformations are used.

When Direct Bulk Load is used, the following message appears in the Data Migrator log:

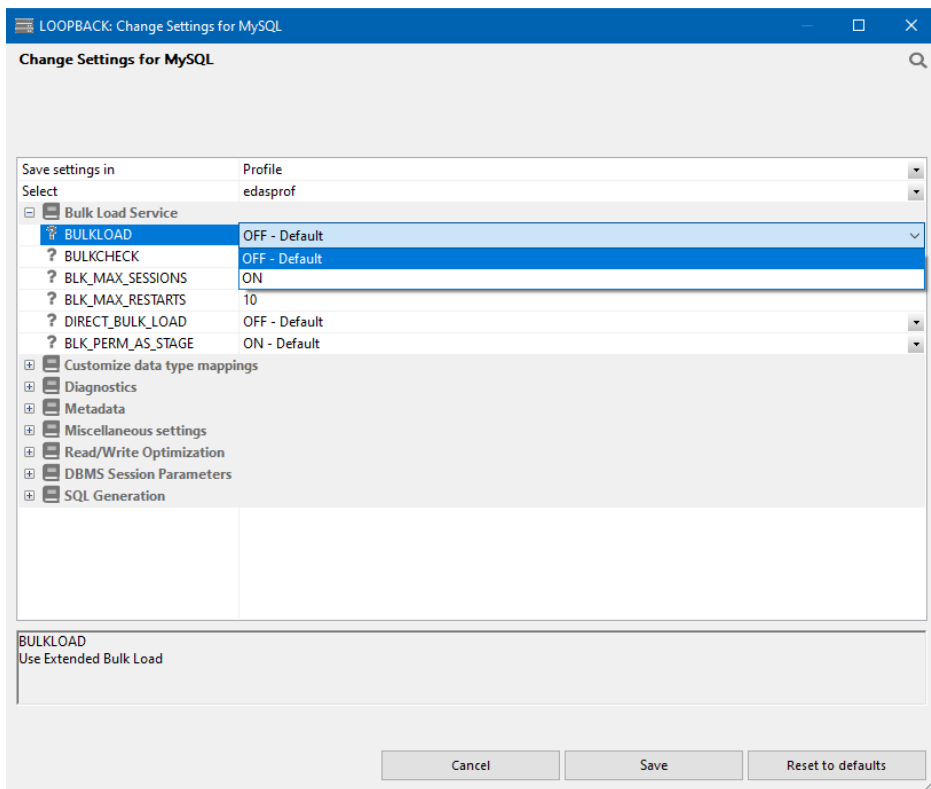
```
(ICM18637) Load Operation will use Direct Bulk Load Feature
```

The following are the supported databases and data stores:

- Apache Hive
- Apache Impala
- Apache Spark
- Amazon RedShift
- ExaSQL

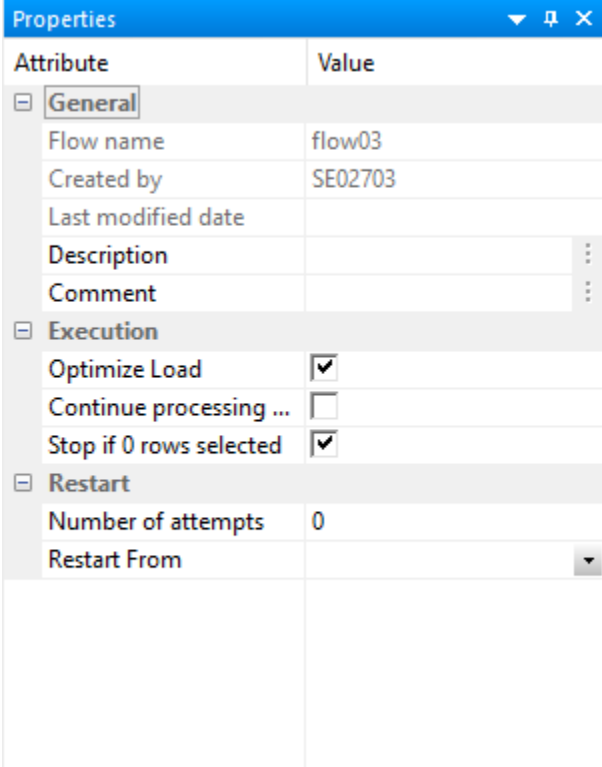
- Jethro
- MariaDB
- MS SQL Server
- MongoDB
- MySQL
- PostgreSQL
- Snowflake
- Salesforce.com
- Sybase ASE
- Vertica

To enable Extended Bulk Load, right-click an adapter that supports bulk load, and select Change Settings, as shown in the following image.



Select ON and click Save.

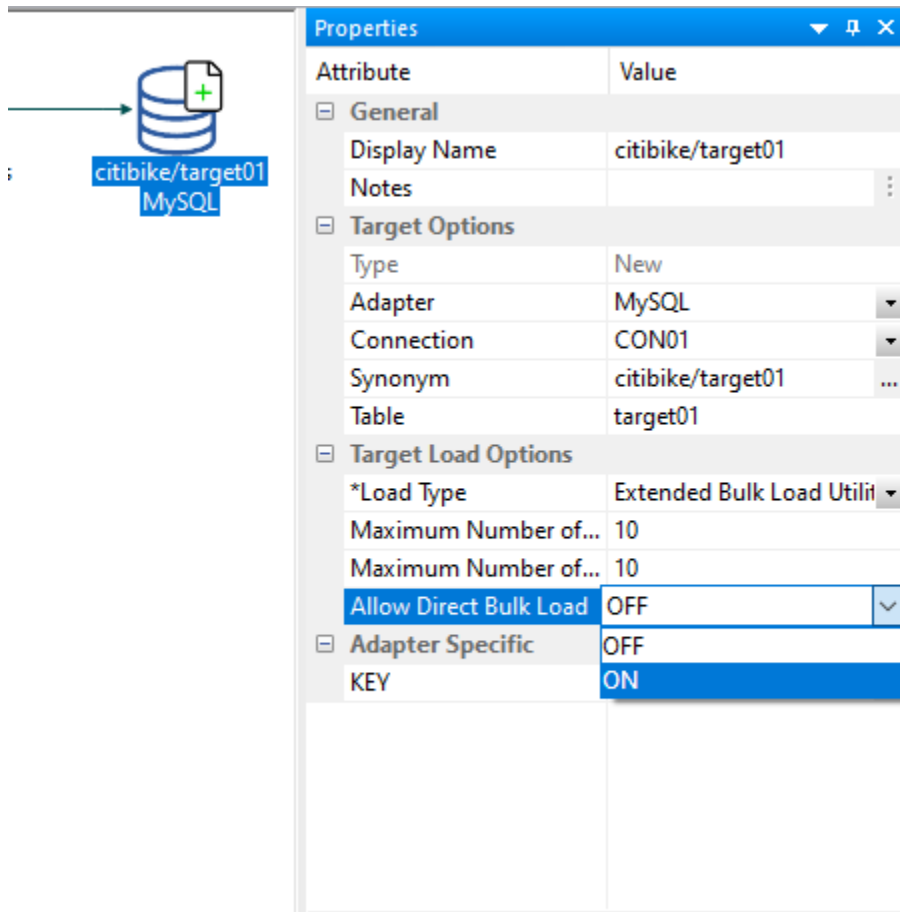
The following image shows Optimize Load enabled in the Flow Properties (right-click the canvas to the right of the SQL object and select Flow Properties).



The screenshot shows a 'Properties' window with a table of attributes and values. The 'Execution' section is expanded, and the 'Optimize Load' checkbox is checked.

Attribute	Value
<b>General</b>	
Flow name	flow03
Created by	SE02703
Last modified date	
Description	
Comment	
<b>Execution</b>	
Optimize Load	<input checked="" type="checkbox"/>
Continue processing ...	<input type="checkbox"/>
Stop if 0 rows selected	<input checked="" type="checkbox"/>
<b>Restart</b>	
Number of attempts	0
Restart From	

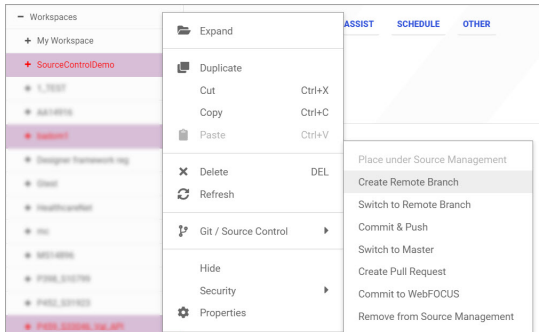
The following image shows the option to enable Direct Bulk Load in the Load Options for a flow.



## Source Control Management

Now you can use Source Control management directly from the Home Page. Any workspace can be added to the external GIT Source Control repository, where it can be stored, synced, and safely backed up. This feature allows you to easily reconcile edits made to the same content by different users, store your source code in a centralized location, view historical record of changes overtime, retrieve a specific version of a file, and more. The Source Control feature must be enabled in the Administration Console.

Additional enhancements, such as SCM History and DIFF or Command Line functionality, will be included in a future release.



## Slowly Changing Dimensions Activation Flag Enhancement

Synonyms for data sources that have Type I and Type II Slowly Changing Dimensions (SCD) have an activation flag that identifies whether a record is part of the history or is currently active.

In prior releases, the flag had to be an integer value, where the value 1 identified the active record and the value zero (0) identified inactive (historical) records.

Starting in this release, the activation flag can be a user-defined alphanumeric value up to 20 characters. For example:

`FIELDNAME=ACTIVE, ALIAS=ACTIVE, USAGE=A20V, ACTUAL=A20V, $`

When this field is described as a character field, you can still use the values 1 and 0 as in prior releases, or you can assign other values. To assign values, you can use the Set Variables object on a Process Flow tab and set values for the global variables `CM_SCDACT` and `CM_SCDINACT`.

**Example:** Using an Alphanumeric Activation Flag for a Slowly Changing Dimension

The Master File ***dsdimprod\_activealpha.mas*** has a field named PROD\_NAME defined as SCD Type II, as shown in the following image.

Display Name (Title)	Usage Format	Expression	Description	Nulls
— srvdm_148/dsdimprod_activealpha			Product Dimension	
— DSDIMPROD				
Internal,Product,Key	I5		Internal Product Key	No
Product,Number	A4		Product Number	No
Product,Name	A30V		Product Name	No
Product,Category	A22V		Product Category	No
Product,Type	A19V		Product Type	No
Active	A20		Active	No

Attribute	Value
FIELDNAME	PRODNAME
TITLE	Product,Name
Usage Format	A30V
Type	Character
Length	30
DBMS/Source Data Attributes	
Miscellaneous	
DESCRIPTION	Product Name
ACCEPT	None
SORT_BY	
PROPERTY	
REFERENCE	
FIELDTYPE	
I - Index	<input type="checkbox"/>
R - Readonly	<input type="checkbox"/>
ACCESS_PROPERTY	
INTERNAL	<input type="checkbox"/>
NEED_VALUE	<input type="checkbox"/>
Select By	
HELPMESSAGE	
SCD Type	Type II
GEOGRAPHIC_ROLE	

The field named ACTIVE is the activation flag, as shown in the following image.

Display Name (Title)	Usage Format	Expression	Description	Nulls
— srvdm_148/dsdimprod_activealpha			Product Dimension	
— DSDIMPROD				
Internal,Product,Key	I5		Internal Product Key	No
Product,Number	A4		Product Number	No
Product,Name	A30V		Product Name	No
Product,Category	A22V		Product Category	No
Product,Type	A19V		Product Type	No
Active	A20		Active	No

Attribute	Value
Length	20
Options	
H - right to left	<input type="checkbox"/>
DBMS/Source Data Attributes	
Miscellaneous	
DESCRIPTION	Active
ACCEPT	None
SORT_BY	
PROPERTY	
REFERENCE	
FIELDTYPE	
I - Index	<input type="checkbox"/>
R - Readonly	<input type="checkbox"/>
ACCESS_PROPERTY	
INTERNAL	<input type="checkbox"/>
NEED_VALUE	<input type="checkbox"/>
Select By	
HELPMESSAGE	
SCD Type	Activation Flag
GEOGRAPHIC_ROLE	

The field ACTIVE has format A20.



The following image shows how the records are stored when a new source comes in for product number 1006 with a non-matching product name.

	Internal Product Key	Product Number	Product Name	Product Category	Product Type	Active
1	1	1004	2 Hd VCR LCD Menu	VCRs	Analog	active
2	2	1006	producta	PDA Devices	Analog	NOT ACTIVE
3	18	1006	productn	PDA Devices	Analog	active
4	3	1008	DVD Upgrade Unit for Cent. VCR	DVD	Digital	active
5	4	1010	750SL Digital Camcorder 300 X	Camcorders	Digital	active
6	5	1012	650DL Digital Camcorder 150 X	Camcorders	Digital	active

The activation flag value for the active record is *active*. The activation flag value for the inactive record is *NOT ACTIVE*.

## Fixes

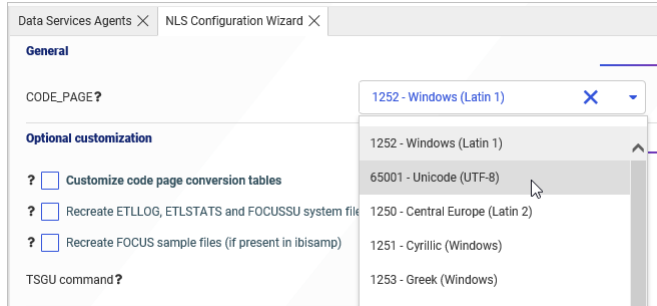
- Under certain circumstances, the reporting server agent crashes when creating an AHTML chart. (191104054)
- When selecting a connection and the list of synonym candidates is empty, a message appears without the ability to dismiss it. (191004007)
- When using the adapter for Salesforce.com<sup>®</sup>, some server-generated SOQL (Salesforce Object Query Language) queries to retrieve data were not valid or efficient.
- Using the adapter for Salesforce.com for a request using the NOT-FROM operator is converted to NOT BETWEEN a AND b in a SOQL request.
- Data is loaded incorrectly when using the adapter for Amazon Athena to load data from a table containing newline or carriage return characters.
- The displayed output for sorting a field in descending order is not sorted correctly in an aggregated OData request. (200311015)
- Metadata of a cross-data partitioned table contains extra information that causes the report to fail with errors. (200313007)
- Only the first value is retrieved from the primary file when joining to a parameterized URL using the REST adapter. (200225058)
- Cannot edit field characteristics, only titles when uploading an Excel<sup>®</sup> workbook that contains multiple worksheets and using advanced mode. (191030041)

- ❑ GEO ROLE is still generated when using Get Data after setting Activate GEOGRAPHIC\_ROLE to Off and uploading a file. (190902027)
- ❑ When using the advanced mode to upload an Excel workbook with a name that includes periods and contains multiple worksheets, dragging a worksheet to the Join editor results in an error. (200128075)
- ❑ When opening a synonym and selecting a Frequent Values chart or Pie chart from Data Profiling in App Studio, the chart does not display. (200306003)
- ❑ TABLEF with MISSING and COMPUTE produces different output than when using TABLE. (190201019)
- ❑ From the Data Management Console when selecting an Application Directory and selecting Get Data more than six times, the adapter selection screen does not appear.
- ❑ On windows, the Reporting Server's TCP listener sporadically becomes unresponsive after a large number of connections. (190708017)
- ❑ The sort order of DBCS values in a dynamic drop-down list is set to locale UTF-8 instead of SJIS. (191126009)
- ❑ An EXL07 report that includes a drilldown that passes a parameter value over 2000 bytes in length crashes. (191203132)
- ❑ Selecting SORT ASCENDING, SORT DESCENDING or PAGING for next page or last page on an AHTML report that includes RANKED BY and WEBVIEWER ON returns an error: WebFOCUS Error Executing (11143007, 190806024, 190816066, 200203011, 180928004)
- ❑ When creating a coordinated compound document using a sort field that is defined as A87 or greater on a Unicode (UTF8) server, the agent crashes. (200317134)
- ❑ When parsing an XML file, the parser does not disable the access to external entities, thus, enabling payloads that might cause the server to perform unexpected actions. (200211064)
- ❑ An error occurs when the output viewer in App Studio is set to Microsoft Edge. (200204016)
- ❑ Using a font family that contains a space in the name will not render in a check box or radio button control. (190920097)
- ❑ Refreshing a portal page keeps the last values and does not reset the report parameters. (200203003)

- ❑ The Distribution List displays Name and To values as blanks when editing a schedule. (191023147)
- ❑ When a connection to a remote server is deleted from one user profile, it is deleted from all user profiles. (200117051)
- ❑ The user is unable to use InfoAssist to edit a JOIN and add the Join host field when the JOIN was created and request saved before adding the Join host field. (181009084, 190801007)
- ❑ In InfoAssist, opening a request with a static filter that includes a space character results in an error: Unrecoverable error Code: 10005 opening report with <> in static filter (200228043)
- ❑ Double-precision data fields without decimal places in an Active Report are not sorted correctly after a roll-up. (200123011)
- ❑ Cannot change the title of multiple ACROSS fields by selecting them from the Live Preview canvas without generating an unrecoverable error. (180130002, 180626023, 191023186)
- ❑ Using IN-GROUPS-OF n TILES to group data in percentiles for reports or charts causes an abend when used with SET EMPTYREPORT=ON and the request returns no data. (200124059)
- ❑ A WHERE clause using a field with the DBA property RESTRICT=NOPRINT is ignored, allowing the field value to be printed. The WHERE generates an internal DEFINE that is not associated with the original field. (200310047)
- ❑ Clicking on the Data tab from a Workbook results in an agent crash on the server when the server has a WebFOCUS Client REST adapter configured. (191209113)

## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.
- ❑ The WebFOCUS Server on Linux using the Adapter for salesforce.com now requires using OpenSSL version 1.1.1. While current distributions include this release older ones do not.

This software can be downloaded from <https://www.openssl.org/source/> and it must be compiled with the shared option.

Then, specify the location where to find the OpenSSL libraries. For example, if the directory used was `/usr/local/ssl`, issue one of the following commands and add it to your profile.

```
export IBI_LOAD_SSL_FROM=/usr/local/ssl/lib
```

```
export IBI_LIBPATH=/usr/local/ssl/lib
```

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

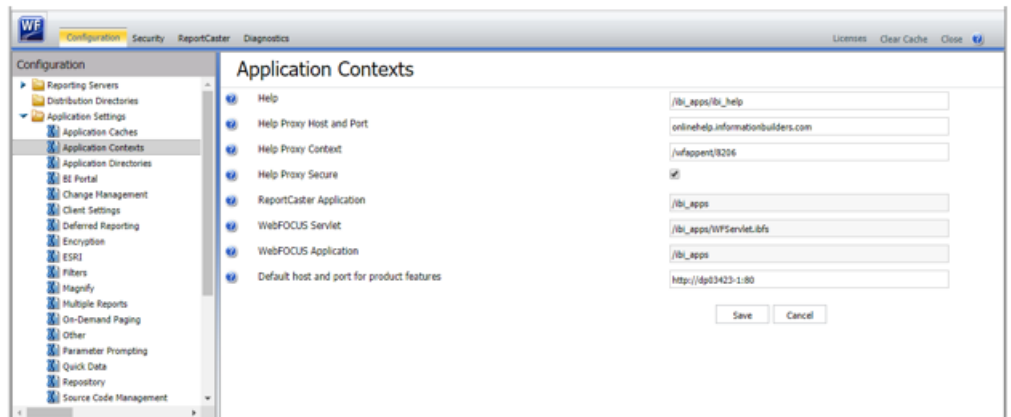
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.

- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.
- ❑ In Release 8207, you cannot install a standalone version of ReportCaster. If you attempt to do so, you receive an error message after you click *Next* to exit the Advanced Configuration page of the installation wizard. Currently, there is no workaround for this issue. However, you can successfully install ReportCaster by including it in a WebFOCUS installation.

## System Requirements

This release is now certified and has been tested with Google Chrome version 80, Firefox version 74, Microsoft Edge version 80 (WebFOCUS only), Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer version 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).





# Chapter 26

## 8207.06 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Upgrade Notes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, March 23, 2020	wf031920c Gen 20 wi031920c as031920c	8207.06 Gen 1911

### New Features

#### Adding Drilldowns to Content in WebFOCUS Designer


Drilldowns are links that you can execute by clicking on a hyperlink in a report or a section of a chart at runtime. You can use these links to access other content items, open web pages, or execute JavaScript functions. Drilldowns can even be parameterized, so the target of the drilldown is contextualized based on user selection. Drilldowns are a flexible and powerful tool that you can use to greatly enhance the amount of information available from a single content item.

To create drilldown links in a report, right-click any field and click *Configure drill downs*. In a chart, right-click a measure field in the default measure bucket and click *Configure drill downs*. You can specify the type of drilldown, where to open a target item or webpage, the parameters you want to pass, and more.

For more information, see the *Adding Drill-Down Links to Content* topic in the WebFOCUS KnowledgeBase.

### Chaining Filters in a Visualization

Drop-down list filter controls for new content are now chained in all directions by default in WebFOCUS Designer. Chaining applies filter selections from one filter control to other filter controls in the visualization, removing values that would result in no data displaying in your content. This helps to ensure that only relevant filter values are available for selection, resulting in more user-friendly and intuitive filter behavior.

You can also use the Filter options menu  to change the chaining setting from multidirectional to hierarchical, in which filter chaining is applied from left to right based on hierarchies in your metadata, or to turn chaining off.

## Advanced Subtotal Options

You can create subtotals and recomputes with more additional customization options, such as different aggregations and cascading to all higher level sort fields. This allows you to communicate more detailed information in your subtotals and easily create them for all dimension fields in a report. To access these options, right-click a field in the Rows bucket of a report, point to *Insert breaks*, and click *More options*. The Configure Subtotals dialog box opens, as shown in the following image.

Configure Subtotals for Sale,Year

**Display Subtotals**

None  Aggregate columns  Recalculate totals

**Apply Subtotals At**

Current level  Current and higher level groups

**Columns**

<input checked="" type="checkbox"/>	Columns	Calculation
<input checked="" type="checkbox"/>	Quantity Sold	Summary ▼
<input checked="" type="checkbox"/>	Revenue	Summary ▼
<input checked="" type="checkbox"/>	Gross Profit	Summary ▼

**Subtotals Text**

Subtotal:

**Options**

Only show subtotals when the group has more than one row

Cancel OK

Select the *Aggregate columns* radio button to create subtotals, or the *Recalculate totals* radio button to create recomputes. These can be created at only the current level, that is, the selected field, or you can create them for the current level and all higher level sort fields. In the Columns grid, you can specify which measure fields are subtotaled, and specify the aggregation that is applied. You can also change the subtotal label text and choose whether or not to display subtotals for single-row groups.

To learn more, see the *Using Breaks and Subtotals on Rows in a Report* topic on the WebFOCUS KnowledgeBase.

## Generating a Data Extract or Image From Content

When creating a stand-alone chart or report in WebFOCUS Designer, you can export a snapshot of your content as a data extract in a .xlsx Excel spreadsheet or as a .png image, which are downloaded from your browser. This allows you to quickly generate a representation of your content at any time, in a format that can be easily saved and distributed.

To generate the image or data extract, click the *Application* menu and, in the Export As section, click *Data* or *Image*. The file is downloaded using your browser. When you export a data extract of your chart or report, it is downloaded as an Excel spreadsheet with the data displayed as a basic tabular report. When you export an image, a snapshot of the item is taken as it currently exists, and saved in .png format. Headers, footers, and legends are included in the image, but external items such as filter controls are not.

## Upload Message Added in the Edaprint Log

An informational message similar to the following has been added to the edaprint.log file for each upload request:

```
I request to upload file=station_zip.csv,size=24398,u=PTH\user1
```

This enables you to generate a list of uploaded files from the edaprint.log showing the user ID (with security provider), name, size, and date and time of each upload.

## Displaying the Number of Times an Agent Has Been Used

The Data Service Agents page, available on the Workspace page of the Server Console, now has a column named *Connections* that shows the number of connections that have been used for each agent, as shown in the following image.

<input type="checkbox"/>	Tscomid	Service	State	Connections	User	Group	Client Address	Scheduler Job ID	Command	Procedure	Top Level Procedure	Master File	Focus I/O	DBMS
<input type="checkbox"/>	11	WC_DEFAULT	idle	16	--	--	--	--	APP	--	ctlibike/foctrans2	HOLD	0	715
<input type="checkbox"/>	12	WC_DEFAULT	idle	1	--	--	--	--	TABLEF	--	--	HOLD	0	74
<input type="checkbox"/>	16	WC_DEFAULT	idle	1	--	--	--	--	--	--	--	--	0	0
<input type="checkbox"/>	13	SCHED_DEFAULT	idle	0	--	--	--	--	--	--	--	--	--	--
<input type="checkbox"/>	14	SCHED_DEFAULT	idle	0	--	--	--	--	--	--	--	--	--	--
<input type="checkbox"/>	18	DEFAULT	idle	0	--	--	--	--	--	--	--	--	--	--
<input type="checkbox"/>	3	DEFAULT	idle	0	--	--	--	--	--	--	--	--	--	--
<input type="checkbox"/>	4	DEFAULT	idle	0	--	--	--	--	--	--	--	--	--	--

You can compare this number to the maximum number set for each service. The maximum number of agents allowed for each service can be changed by right-clicking the service and clicking *Properties*.

## Using Stratified Sampling

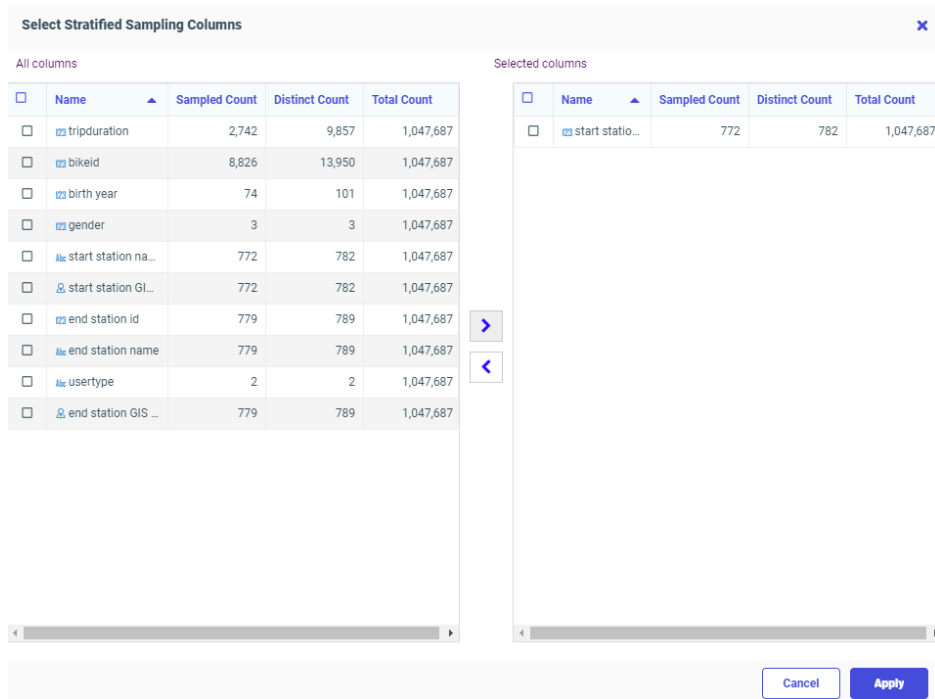
When preparing data and viewing the distribution profile of the data, Representative Sampling can be used. This provides better responsiveness, especially for large data sets.

However, there may be times when you want to ensure that the sample includes every distinct value of one or more fields. For example, if a file has a field with the value State, and some states have very few records, a representative sample may not include all of them.

With Stratified Sampling, you can select one or more fields, and the sampling process will include records with every unique value of the selected fields, as long as the number of values does not exceed the sample size.

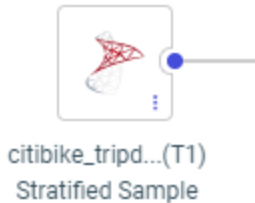
When sampling is enabled, this option can be selected by right-clicking a source node and clicking *Recreate Stratified Sampling*. The Stratified Sampling dialog box opens. Select the fields to use from a list of available fields, and move them to the list of selected fields using the arrow buttons. The list shows the count of unique and total values for each field. Key fields are omitted from this list, as are floating point fields and timestamp fields with precision of less than a second, as they cannot be used.

The following image shows that the `start_station_id` field is selected for stratified sampling. This ensures that every start station will be represented in the sample, even those that are rarely used and may be omitted from a random sample.



When the required fields are selected, click *Apply*.

When Stratified Sampling is applied, the label of the node says *Stratified Sampling*, as shown in the following image.



To remove stratified sampling and return to representative sampling, right-click the node and click *Recreate Sampling*.

### Adapter for Stratio Crossdata: Support for TIMESTAMP Data Type

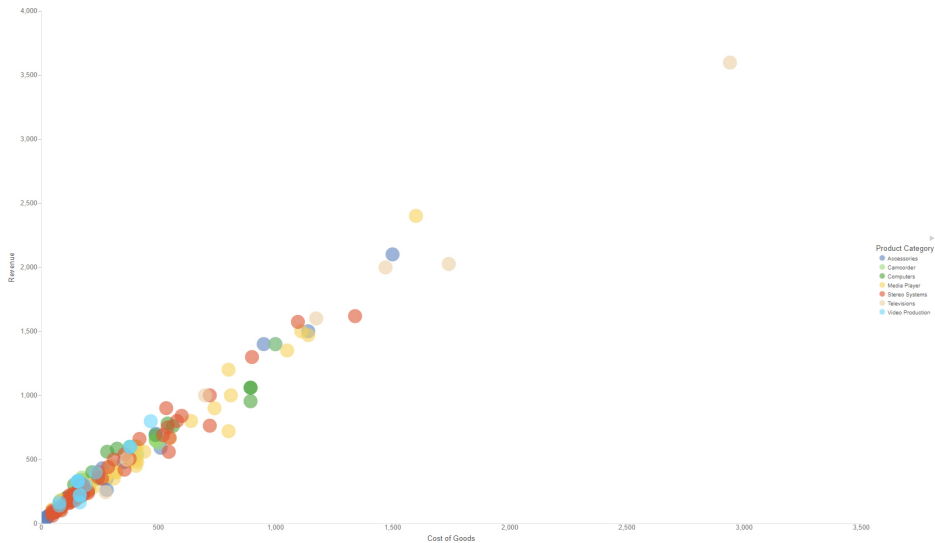
The Adapter for Stratio Crossdata now supports the TIMESTAMP data type with microseconds, if that data type is supported by the version of Crossdata being run.

### Displaying Count and Detail Values in a Chart

You can change the display of measure values in a chart to count or detail values using the Calculation Options menu. By default, when you create a chart, the Summary option is used, so measure values are aggregated as sums for each sort value.

Select the *Count* option to display a count of records for each sort value. This allows you to see the distribution of your data, such as in a histogram. When you select the Count calculation option, every measure bucket in your chart displays as a count, allowing you to apply a count aggregation to multiple fields faster than using the prefix operator.

Select the *Detail* option to display the value of each individual record from your data set. This allows you to analyze your data on a more granular level. Since every record is displayed, the Detail option is best used for chart types that can display lots of values effectively. For example, the following image shows a scatter plot where each point represents a different record. The Revenue and Cost of Goods values represented by each axis are the non-aggregated revenue and cost of goods for each individual record.



## Fixes

- A geographic role that uses an uploaded .dbf file does not work with App Studio.
- The Select All option does not run if the Required/no validate option is enabled.
- When using toggle visibility/Request, setting Effect to None does not work.
- Deselecting a push button does not remove the filter on an HTML page or the dashboard.
- A second chained listbox does not automatically scroll up to show All as checked.
- Global Names set in App Studio are not updated across portal tabs.
- Retrieval issue when JSON Metadata is created with an XPATH to the element subtree and an array at the top level.
- The HTML Canvas only allows 4px grid increments instead of 1px. (191203071)
- Only one of many files appear in the Domain folder when the items do not have an EDA connection defined. (191217063)

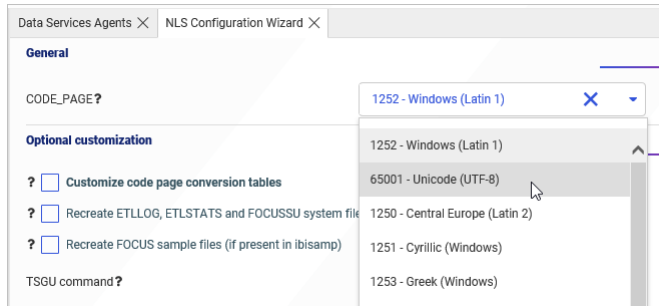


- ❑ An HTML page does not autofit correctly in Responsive Design. Initially, the containers do not align correctly, but if you minimize then maximize the page, they will align correctly. (191119115)
- ❑ The Move function deletes the folder even if you cancel the move. (180807086)
- ❑ Disabling forms based authentication does not allow the /signinout page to work for IWA, SAML, and OIDC. (190912059, 191119086)
- ❑ Enhanced protection in the JavaScript API addresses security vulnerabilities in the WebFOCUS WFClientTrace endpoint preventing users from injecting misleading information to the event log. (200211075)
- ❑ Modified the example for the Facebook's Page\_Insights due to a change in the Facebook API.
- ❑ Using the adapter for Salesforce.com for a request with a BY TOTAL results in an invalid SOQL query which results in a MALFORMED QUERY error from Salesforce. (200210058)
- ❑ When an adapter's Bulk Load Service setting for DIRECT\_BULK\_LOAD is set to ON and the checkbox for Optimize Load is checked in the Flow properties, if the source file contains a header line with field names, a Data Migrator flow fails with the error: ERROR: syntax error at or near "HEADER" (200113126)
- ❑ Agent crashes intermittently with the Google BigQuery adapter when response paging is performed. (200226121)
- ❑ Lines are commented out with \$\$ when opening a large synonym in the Data Migrator desktop interface or from the Synonym Editor on the Reporting Server browser interface even when the segment limit is not reached. (191122015)
- ❑ Retrieval issue when JSON Metadata is created with an XPATH to the element subtree and an array at the top level. (200204023)
- ❑ The onLoad controls overlap each other instead of being hidden. (200225127)
- ❑ A script error occurs when an HTML page loads: Cannot read property target of undefined (200225123)
- ❑ A section of the Graph Limit controls are visible and should be hidden. (200225126)
- ❑ The maximize icon is missing in the title bar of the report or chart panel. (200225122)
- ❑ Checkboxes in an HTM report cannot be selected or unselected. (200225101)

- ❑ When a Search control is set to Keep selected values and is added to a Multiple Drop Down List box, the search control does not keep all the selected values. (200227107)
- ❑ When executing a migrated HTML Canvas page, a script error occurs: Unexpected token o in JSON at position 1 (200225119)
- ❑ In App Studio, buttons do not resize when the panel or screen is resized. (200225132)
- ❑ A basic user receives an access denied error when accessing a Portal with a Visualization that was created by converting a Designer Page. (200109059)
- ❑ When a Portal uses shortcuts to Pages and you replace the content in a panel, the replacement will not be displayed when you run the Portal in a new session. (200123141)
- ❑ NOPRINT fields are appearing in column menu tools of In-Document Analytics reports. (191021095)
- ❑ Descending axis labels with custom grid steps are not displayed. (200204016)

## Upgrade Notes

- ❑ When upgrading from release 8206.xx to 8207.xx, the WebFOCUS Integrated Installation does not automatically assign the Unicode UTF-8 (CP65001) code page to the Reporting Server configuration. In order to configure the Reporting Server to use the UTF-8 code page, you can select the entry directly from the CODE\_PAGE? list, as shown in the following image. In the Web Server console, this list appears in the NLS Configuration tab of the Workspace node.



We recommend that you apply this change because, as of release 8207, WebFOCUS Integrated Installations configure all installed components to use the UTF-8 code page. Changing the Reporting Server code page to UTF-8 will ensure that there is no mismatch of code pages between WebFOCUS, Tomcat, and the Reporting Server, which could result in data retrieval issues.

- ❑ In Release 8207, Magnify functionality is not available. To add Magnify functionality to Release 8207 and higher, see the manual steps outlined in this [topic](#).
- ❑ As of Release 8207, in App Studio, the *Domains* node in the Configured Environments tree has been renamed to the Workspaces node.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

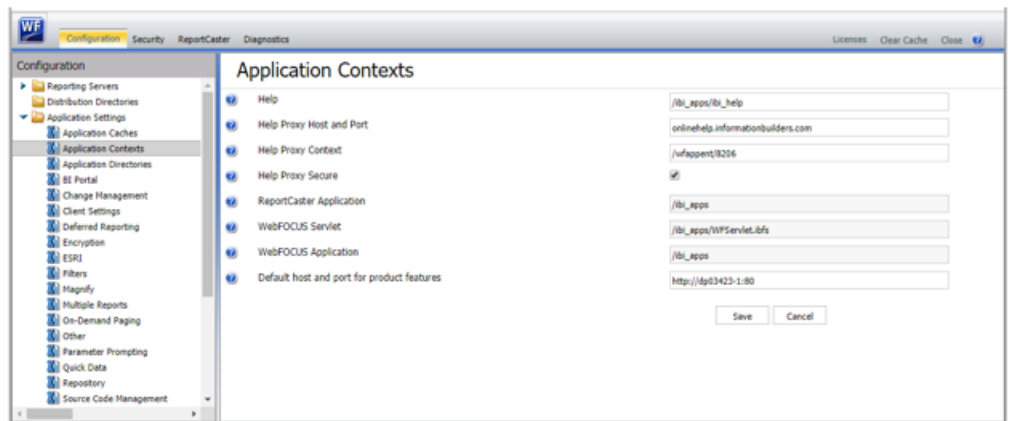
1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.

2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.

- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has a an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when then size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.

- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.
- ❑ App Studio upgrades are currently not supported. Messages related to failures that occurred while merging changes in the mime.wfs and languages.xml files display during the upgrade installation process.
- ❑ In Release 8207, you cannot install a standalone version of ReportCaster. If you attempt to do so, you receive an error message after you click Next to exit the Advanced Configuration page of the installation wizard. Currently, there is no workaround for this issue. However, you can successfully install ReportCaster by including it in a WebFOCUS installation.
- ❑ The upgrade installation for WebFOCUS Release 8207 does not preserve the Enable Dynamic Language check box selection, preventing the display of any non-English language configurations. In order to restore the configuration after completing the upgrade installation, you must open the Dynamic Language Switch page from the WebFOCUS Administration Console Configuration tab, select the Enable Dynamic Language check box, and then save the change.
- ❑ When using MS SQL Server as the database platform for the WebFOCUS Repository and upgrading from 8105M to 8207.06, only MS SQL Server 2008 and 2012 are supported. MS SQL Server 2014 and later versions are not supported.
- ❑ The following two files:

- ❑ eclipselink-\*.jar

- ❑ javax.persistence\*.jar

that are identified in the *How to Create the WebSphere Application Server Shared Library* section of the *8207 WebFOCUS and ReportCaster Installation and Configuration Guide for Windows and UNIX*, have been replaced by the following six files in the java source file package:

- ❑ org.eclipse.persistence.jpa-\*.jar

- ❑ org.eclipse.persistence.asm-\*.jar

- ❑ org.eclipse.persistenceantlr-\*.jar

- org.eclipse.persistence.jpa.jpql-\*.jar
- org.eclipse.persistence.core-\*.jar
- jakarta.persistence-\*.jar

## System Requirements

This release is now certified and has been tested with Google Chrome version 80, Firefox version 73, Microsoft Edge version 44 (WebFOCUS only) and Internet Explorer 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).





# Chapter 27

## 8207.05 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

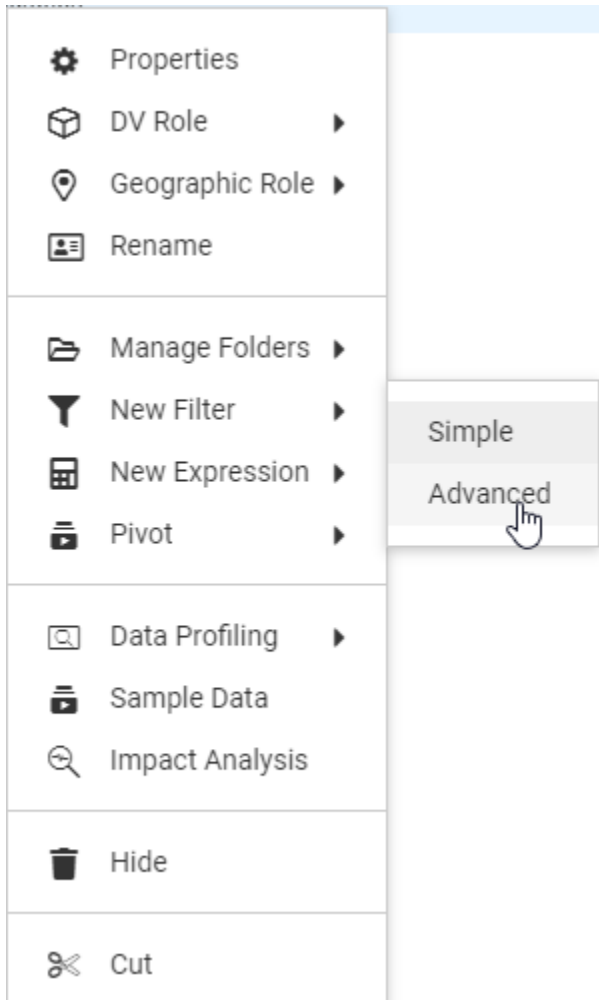
### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, March 2, 2020	wf021920b Gen 2 as021920b	8207.05 Gen 1910

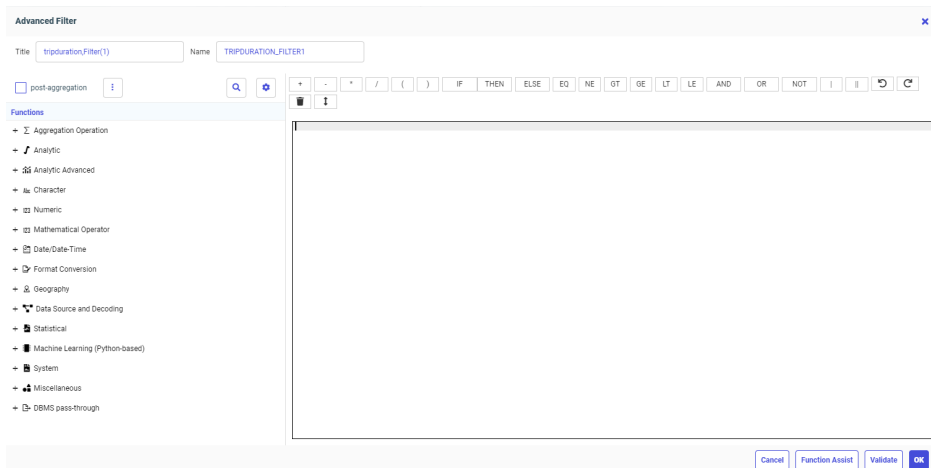
### New Features

## Creating Advanced Filters

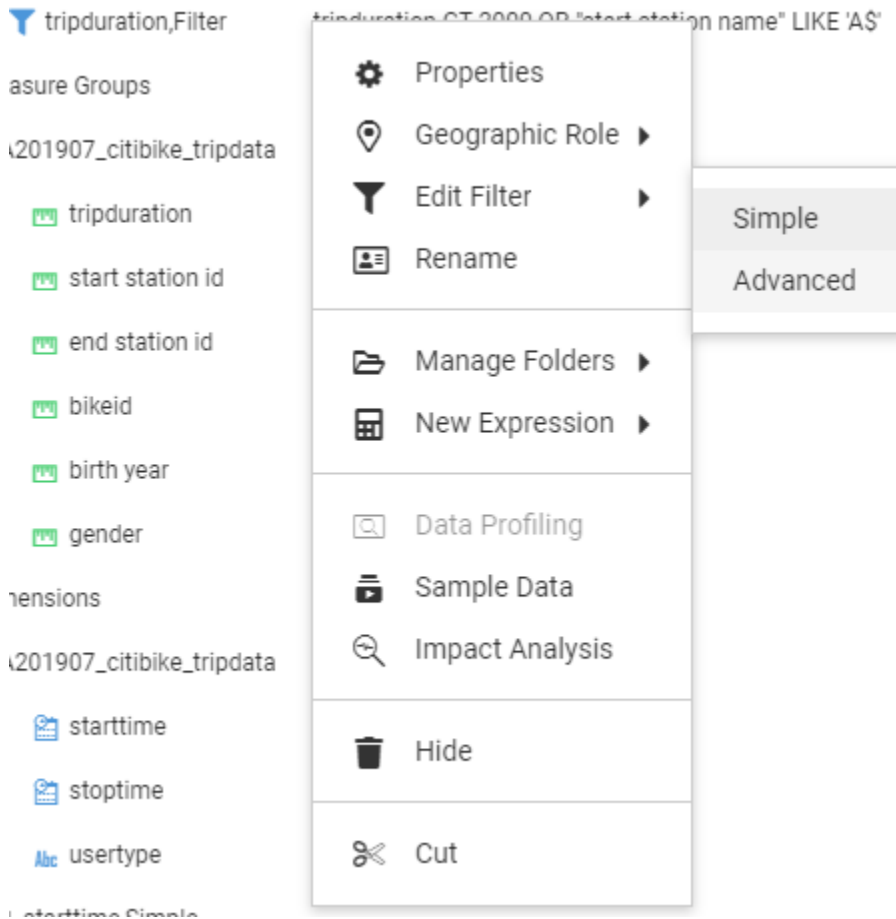
You can now create a complex filter in a data flow or the Synonym Editor using the expression calculator. To create an advanced filter, right-click the field you want to filter, click *New Filter*, and click *Advanced*, as shown in the following image.



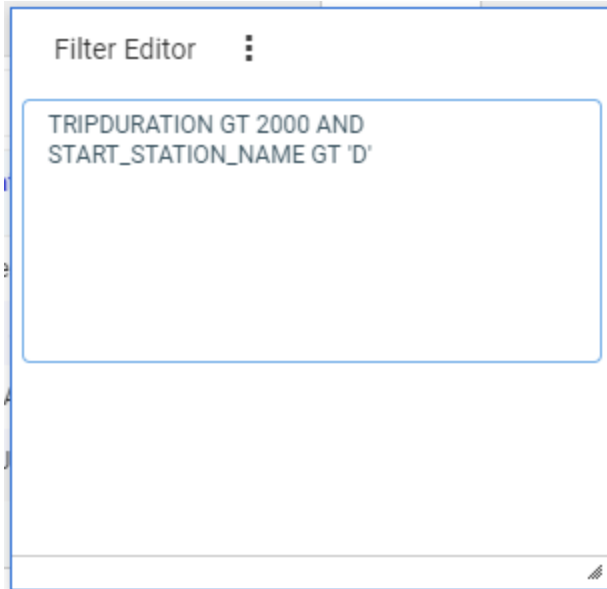
The Advanced Filter Expression Calculator opens. Unlike the calculators that open for DEFINE and COMPUTE, there is no Format entry field, as shown in the following image.



When you edit a filter, you also have the choice of *Simple* or *Advanced*, as shown in the following image.



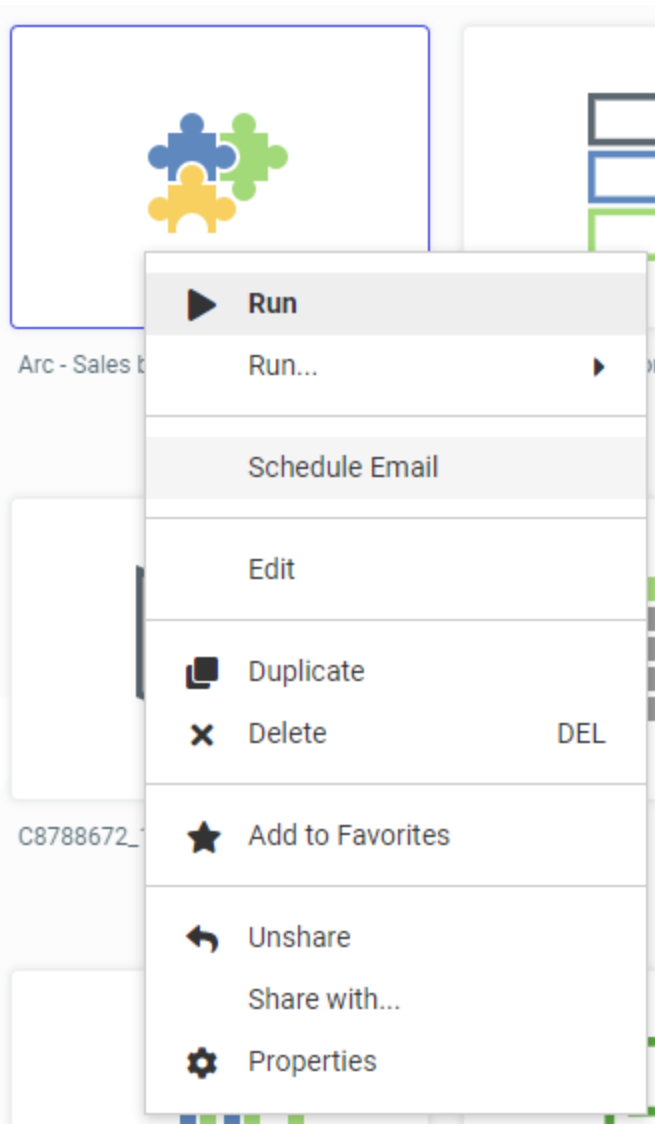
If you edit an advanced filter but click *Simple* instead of *Advanced*, the filter opens in read-only mode in the simple filter tool, as shown in the following image:



### ReportCaster Email Scheduling From the Designer Home Page

You can easily schedule emailing of procedure (.fex) output directly from a Workspace on the Home Page using a simple user interface.

Right-click the procedure you want to schedule, and click *Schedule Email*, as shown in the following image.



The *Schedule Email* dialog box opens.

The dialog box has the following tabs:

- Properties.** Provides a Title, Path where the schedule will be created or was opened from, Summary, and Owner, and enables the schedule.
- Email Options.** Provides options to specify the recipients to which the procedure will be distributed.
- Recurrence.** Provides run-time intervals for distribution and repeat options.
- Parameters.** Specifies values for parameters that are required at run time by the procedure being scheduled.
- Notifications.** Provides options to set up notification of the schedule status.

To save a schedule, click **Save**, after you have entered all of the options. The required information in the Properties, Recurrence, Distribution, and Notification tabs must be provided. If required schedule information is missing when you save the schedule, a message will display informing you of the schedule information that needs to be entered. If the schedule is saved successfully, the scheduling dialog box closes.

A saved schedule is identified by the schedule icon, as shown in the following image.



Once you have saved a schedule using the Designer Scheduler tool, you can edit the schedule by right-clicking it and clicking *Edit With Designer Scheduler*.

## Entering Scheduling Properties on the PROPERTIES Tab

The PROPERTIES tab is shown in the following image.

**Schedule Email** [X]

**PROPERTIES** | EMAIL OPTIONS | RECURRENCE | PARAMETERS | NOTIFICATIONS

Schedule Title  
Arc - Sales by Region

Schedule Path  
IBFS:/WFC/Repository/Domain1/~admin

Schedule Summary  
[Empty text box]

Enable Schedule

Procedure Path  
IBFS:/WFC/Repository/Domain1/~admin/Sales\_by\_Re...

Procedure Title  
Arc - Sales by Region

User ID  
1

Password  
[Masked]

Cancel Save

Configure the following entries on the tab.

### Schedule Title

You can edit the name for the schedule in the Title box. By default, the schedule name is the procedure name.

### Schedule Path

The Schedule Path box is automatically filled in based on the Workspace from which you opened the Scheduling tool.

### Schedule Summary

Optionally, type a descriptive summary in the Summary box.



**Enable Schedule**

Enable Schedule is automatically implemented. To disable the schedule, click the button.

**Procedure Path**

The Procedure Path box is automatically filled in based on the procedure from which you opened the Scheduling tool.

**Procedure Title**

The Procedure Title box is automatically filled in based on the procedure from which you opened the Scheduling tool.

**User ID**

Select or enter the user ID under which the procedure will run on the server from the User ID drop-down list.

**Note:** The User ID and Password fields only appear if the ReportCaster data server security was set to *User* in the ReportCaster Configuration tool. You access the configuration tool from the WebFOCUS Administration Console, which has a ReportCaster tab, if ReportCaster is installed.

**Password**

Select or enter the password under which the procedure will run on the server from the Password drop-down list. The password may be automatically entered and is hidden.

**Note:** The User ID and Password fields only appear if the ReportCaster data server security was set to *User* in the ReportCaster Configuration tool. You access the configuration tool from the WebFOCUS Administration Console, which has a ReportCaster tab, if ReportCaster is installed.

## Entering Email Options on the EMAIL OPTIONS Tab

The EMAIL OPTIONS tab is shown in the following image.

The screenshot shows a 'Schedule Email' dialog box with a close button (X) in the top right corner. The dialog has five tabs: 'PROPERTIES', 'EMAIL OPTIONS' (which is selected and underlined), 'RECURRENCE', 'PARAMETERS', and 'NOTIFICATIONS'. Under the 'EMAIL OPTIONS' tab, there are several sections: 'Distribution' with radio buttons for 'Send to' (selected) and 'Send to list'; 'To', 'CC', and 'BCC' fields, all currently empty; 'From' field containing 'bigscm15@ibi.com'; 'Subject' field containing 'se\_rpt1'; 'Burst Report' toggle switch which is turned on; 'Receive' section with radio buttons for 'As one email' (selected) and 'As separate emails'; and a 'Send report' label. At the bottom right, there are 'Cancel' and 'Save' buttons.

When you distribute a report through email, you can include the report in the body of the email (known as an inline email message) or send it as an attachment. Only the DHTML, DOC, GIF, HTML, JPG, PNG, SVG, and WP formats can be distributed as an inline email message.

Distributing a report as an inline email message is particularly useful when the report is distributed to mobile devices or through email systems that do not support attachments.

Configure the following entries on the tab.

### Distribution

The Distribution options are *Send to* and *Send to list*.

- Send to* is selected by default. Multiple email addresses can be entered for *Send to*. They can be separated by commas (,) if you want all email addresses to be visible to all recipients, or by semi-colons (;) to send a separate email to each recipient.
- Click *Send to list*, if you have a distribution list. A Browse button appears, as shown in the following image.

The image shows a user interface for selecting distribution options. At the top, the word "Distribution" is written in purple. Below it are two radio button options: "Send to" (unselected) and "Send to list" (selected). Underneath, there is a text input field labeled "To" and a "Browse" button with a person icon and a plus sign.

Either enter the path and name of the distribution list, or click the button to navigate to the distribution list you want.

**Note:** You create distribution lists using the ReportCaster tool, as in prior releases.

### CC

Enter the email addresses to receive carbon copies, separated by commas (,) or semi-colons (;). Whichever delimiter you use, separate emails will be sent to each carbon copy recipient. All carbon copy recipients will receive every section of a burst report.

### BCC

Enter the email addresses to receive blind carbon copies, separated by commas (,) or semi-colons (;). Whichever delimiter you use, separate emails will be sent to each blind carbon copy recipient. All blind carbon copy recipients will receive every section of a burst report.

### From

Enter the email address of the sender.

### Subject

Subject is automatically filled in with the procedure name. You can change it by entering your own subject text.

### Burst Report

Click to burst the report output into separate files based on the first sort field.

**Receive**

Recipients can receive the burst report as one email or separate emails. By default, one email will be sent.

**Send Report**

The Send Report options enable you to send the report output as an attachment (the default) or within the body of the email (click *Inline*).

**Note:** The display of a report that is distributed as an inline email message can be affected by settings and restrictions of your email server or email client.

If you are distributing the report output as attachments, you have the following additional options.

**Attachment Name**

Enter a name for the attachment.

**Attachment Message**

By default, *Message* is clicked, and the text box contains a default message, which you can change by entering your own text. If you have your message text saved in a file, click *File*. A *Browse* button appears that enables you to navigate to the file that contains your message text. Alternatively, you can enter the file path and name in the text box.

## Entering Recurrence Options on the RECURRENCE Tab

The following image shows the RECURRENCE tab.

**Schedule Email** ×

**PROPERTIES**   **EMAIL OPTIONS**   **RECURRENCE**   **PARAMETERS**   **NOTIFICATIONS**

Options

Run Once    Daily    Weekly    Monthly    Yearly

Every

Week(s)

On

S    M    T    W    T    F    S

Start Date      Start Time

      :  :

End

Never

End Date      End Time

      :  :

The following RECURRENCE tab options enable you to define how often to run the schedule.

### Options

Click one of the following recurrence options.

- Run Once.** This is the default option.
- Daily.** If you click this option, the schedule will run every *n* days, where you select or enter the interval in the *Every* field. The default value is 1, to run it every day.

- Weekly.** If you click this option, the schedule will run every  $n$  weeks, where you select or enter the interval in the *Every* field. The default is 1, to run it every week. In the *On* field, you can select one or more days within the week for running the schedule. The default is Sunday.
- Monthly.** If you click this option, the schedule will run every  $n$  months, where you select or enter the interval in the *Every* field. The default is 1, to run it every month. In the *On* field, you can select a numeric day within the month for running the schedule, or a week and day of the week within the month (for example the second Tuesday of each month). The default is either day 1, or the first Sunday of the month.
- Yearly.** If you click this option, the schedule will run every  $n$  years, where you select or enter the interval in the *Every* field. The default is 1, to run it every year.

**Start Date**

Opens the calendar control for selecting a start date for running the schedule.

**Start Time**

Select the start time in the Start Time control. If the start date is the current date, make sure the start time is set to a time after you save and enable the schedule, or it will not run on the current date.

**End**

For every option except Run Once, you need to identify when the schedule should stop running. The options are *Never* or *End Date*. The default is *Never*. For *End Date*, the following options are available.

**End Date**

Opens the calendar control for selecting an end date for running the schedule.

**End Time**

Select the end time in the Start Time control. If the start date is the current date, make sure the start time is set to a time after you save and enable the schedule, or it will not run on the current date.


**Entering Parameter Values on the PARAMETERS Tab**

If the procedure being scheduled includes parameters (amper variables) defined within the request, you can set the parameter values on the PARAMETERS tab.

The following image shows the PARAMETERS tab when the procedure has one parameter named REGION defined.

Schedule Email ×

[PROPERTIES](#)  
 [EMAIL OPTIONS](#)  
 [RECURRENCE](#)  
 [PARAMETERS](#)  
 [NOTIFICATIONS](#)

	Name	Description	Display Value	Value	Use Default
	REGION	Region code:			No

1. Click the *Edit* icon in the first column to enter the parameter value. The Edit Parameter dialog box opens, as shown in the following image.

Edit Parameter: REGION ×

Always use the default values specified in the procedure

Please enter a value

**Note:** If the parameter is a multi-select parameter, a double-list dialog box opens. You can select multiple values from the available values list, then move them to the selected values list.

3. If the procedure specifies a default value for the parameter, you can click *Always use the default values specified in the procedure* to always use the default values.
4. Click *OK*.

### **Entering Notification Options on the NOTIFICATION Tab**

The Notification tab provides the options to send a notification of the schedule status to specific email recipients.



The following image shows the NOTIFICATIONS tab.

The screenshot shows a 'Schedule Email' dialog box with a close button (X) in the top right corner. Below the title bar are five tabs: PROPERTIES, EMAIL OPTIONS, RECURRENCE, PARAMETERS, and NOTIFICATIONS. The NOTIFICATIONS tab is selected and underlined. Under this tab, there is a 'Type' section with three radio button options: 'Never' (selected), 'Always on', and 'On error'. Below this are four text input fields: 'Reply address', 'Subject' (containing 'Arc - Sales by Region'), 'Brief message to', and 'Full message to'. At the bottom right of the dialog are two buttons: 'Cancel' and 'Save'.

Configure the following entries on the tab.

### Type

Select one of the following notification types.

- Never.** This option does not send notifications of the schedule status. This is the default option.
- Always on.** This option always sends notification of the schedule status
- On error.** This option only sends notifications if an error occurred when running the schedule.

**Reply address**

Enter the email address of the sender. If report recipients reply to the report sender, then their messages are sent to this address. If your email system is unable to deliver a report, the undeliverable report message is also returned to this address.

**Subject**

Enter the text you want to display as the message subject in the *Subject* box. There is a limit of 255 alphanumeric characters. By default, this field inherits the title of the schedule.

**Brief message to**

Enter the email address to which you want a brief status message sent. Use this option when you are sending notification to devices that have limited memory, such as pagers and cell phones.

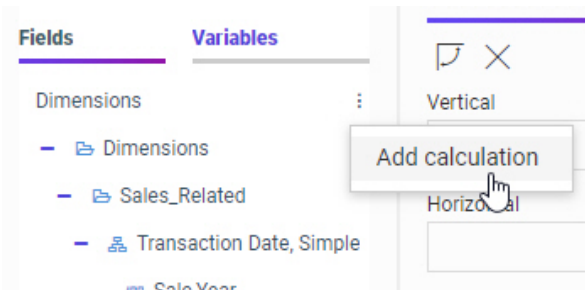
**Full message to**

Enter one or more email address to which you want a full notification sent. You can use either commas (,) or semi-colons (;) to separate addresses, but, in either case, all recipients see the full list of email addresses.

**Creating Calculated Fields From the Field List**

In past releases of WebFOCUS Designer, pre-aggregation, or DEFINE, fields were created from the field list, and post-aggregation, or COMPUTE, fields were created from a field in a measure bucket. Now, both types of fields can be created from the field list, meaning that the type of field that you create is no longer predetermined by the location where you create it, and you do not need to have a measure field already added to your content in order to create a COMPUTE field. This gives you more flexibility in creating calculated fields.

To create a DEFINE or COMPUTE field, right-click a field in the field list, or click the field list shortcut menu and click *Add calculation*, as shown in the following image.



When the calculator opens, select *Calculate at the source* to create a pre-aggregation DEFINE field, or select *Calculate after aggregation* to create a post-aggregation COMPUTE field.

To learn more, see the *Performing Basic Calculations* topic.

## Generating the Standard Deviation Using Prefix Operators

In WebFOCUS Designer, you can add the standard deviation of a measure field to your content by using one of two standard deviation prefix operators. Prefix operator aggregations can quickly be added to and removed from measure fields in your content, so you can now evaluate the variance of your data even more easily. To display the standard deviation of a field, add a measure field to a chart or report, right-click the measure in the bucket where you added it, point to *Aggregation*, and click *Standard Deviation, Sample* or *Standard Deviation, Population*. The field is immediately aggregated to display standard deviation values.

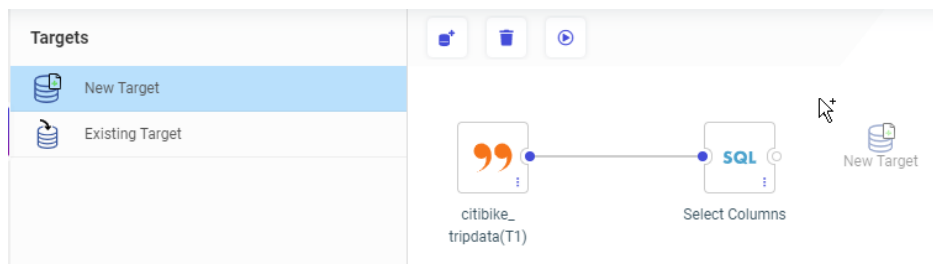
Use *Standard Deviation, Sample* to display the standard deviation for a subset of the full data set, performing the evaluation using Bessel's correction. Use *Standard Deviation, Population* to display the standard deviation of your entire data set, performing the evaluation using the full count of records.

Now that standard deviation is available as a prefix operator aggregation, it is no longer available as a quick transform option in WebFOCUS Designer.

## Support for Dragging Targets Into a Data Flow

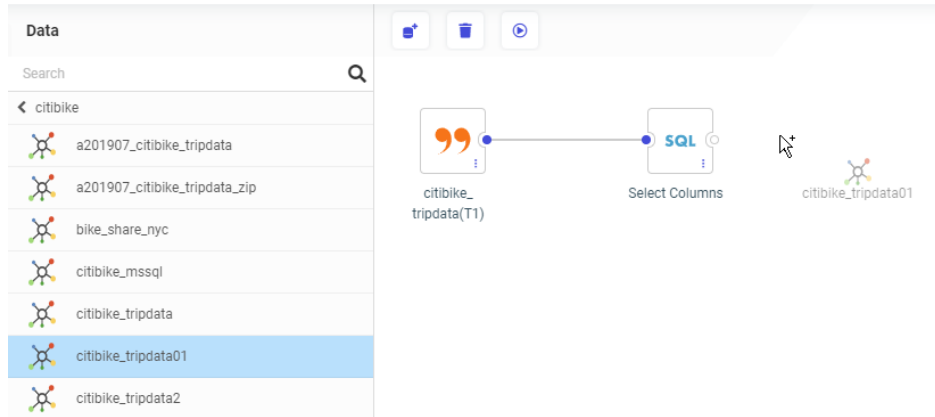
You can now drag new or existing targets onto the data flow canvas.

For a new target, click *Targets* and drag the New Target icon onto the Data Flow canvas, as shown in the following image.



Once you drop the icon onto the data flow canvas, it will be configured as the default target type with the default load options. You can change these attributes by right-clicking the target and clicking *Load Options*.

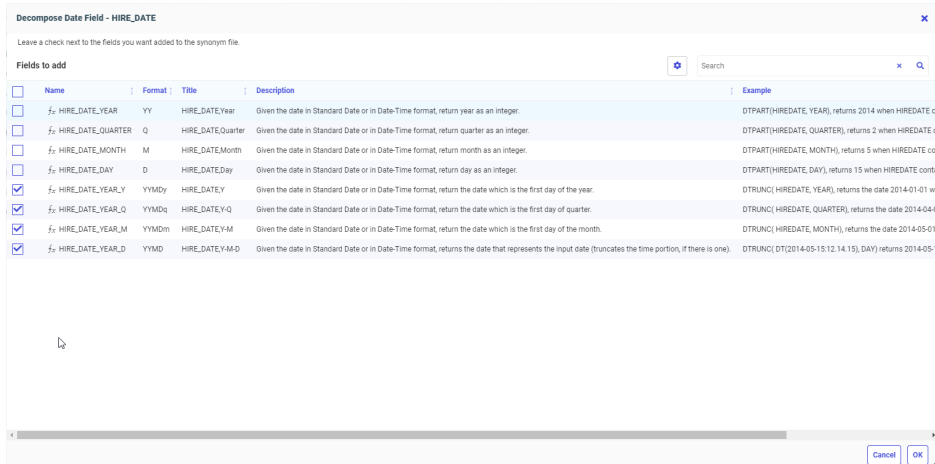
There are now two ways of dragging an existing target. You can drag the *Existing Target* icon from the Targets palette onto the canvas, which then opens a dialog box where you can select the target. You can also drag a synonym from the Resources pane to the right side of the SQL object, as shown in the following image.



Once you drop the existing target onto the data flow canvas, it will be represented by the database-specific icon and will have the load options specified when the target was first created, with the default merge option. You can edit the options for merging the data into the target by right-clicking the target and clicking *Load Options*. You can also edit the merge expressions and conditions by right-clicking the target and clicking *Merge Editor*.

## Descriptions and Examples Now Shown in the Decompose Date Dialog Box

In the Synonym Editor or a Data Flow, the option to add or replace a date or date-time field with "decomposed dates" opens a dialog box that previously showed the names and titles that would be created for the new fields. Now, a description of what will be returned for each option and an example of its value have been added, as shown in the following image.

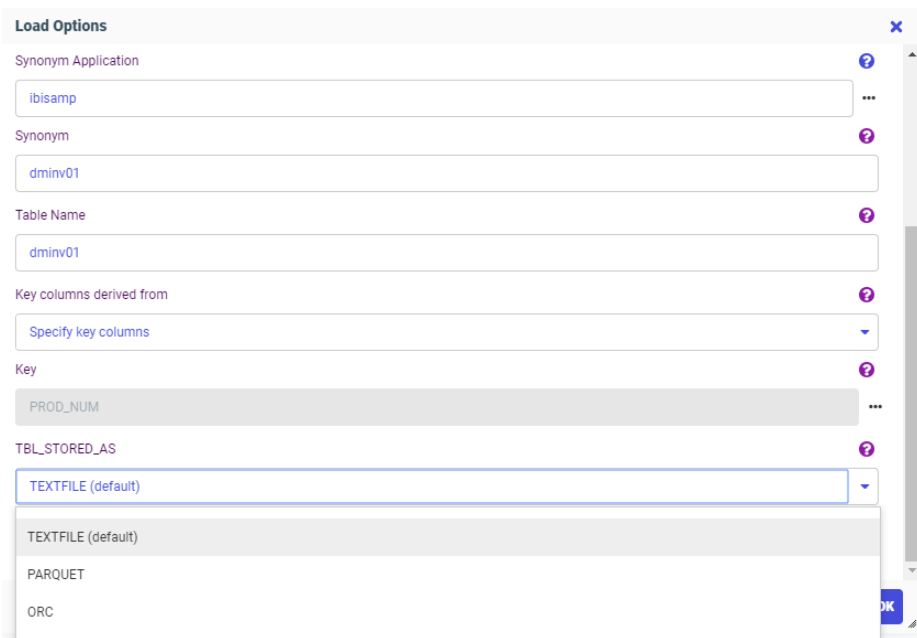


You can choose whether these additional items show in the Decompose Date dialog box by clicking the *Choose Columns* (gear) icon in the dialog box.

## Adapter for Amazon Athena: Creating Files in Parquet or ORC Format

When using Data Migrator or a data flow to load data to S3 using the Adapter for Athena, files can now be created in the ORC or Parquet column store formats, providing better performance when reading from them.

In Target Properties or Load Options, select from the TBL\_STORED\_AS drop-down list, as shown in the following image.



## Fixes

- When saving an Excel template to a folder path containing kana Unicode characters and copying it to baseapp, the agent crashes when trying to use the template in a report. (190805011)
- Flow with a Bulk load fails when the target uses an Apache Hive adapter which is configured with Zookeeper and with SFTP protocol. (200131099)
- When creating a synonym for a delimited file and specifying a value that contained a space for Missing Value, the letters after the space are ignored.
- When a flow loads values into a synonym with a read-only AUTOINCREMENT column, Data Migrator inserts or updates the values in that column which leads to wrong results. (200128053)
- Only the first recipient receives an email notification from the job when a flow sends the emails to multiple recipients. (191114059)

- ❑ When a flow contains corrupted syntax and is not scheduled when the Mail to addresses defined in procedure is used and the application directory name contains a percent sign. (191114059)
- ❑ When creating a Double List Control box, if the Keep selected value is set to Yes, the previously selected value is not saved when the Reset button is clicked or when you click search on the paging or search control box. (190920097)
- ❑ Global Names set with the AS command are not updated across portal tabs. (191203023)
- ❑ The final SQL statement is generated incorrectly by Data Migrator when using a filter with a specific combination of conditions. (200122015)
- ❑ May 2020 has its last weekday on Friday the 29th and should be covered by the blackout period, but the schedule can be saved without an error. (190510023)
- ❑ A geographic role that uses an uploaded .dbf file does not work with App Studio. (191108078)
- ❑ When using toggle visibility or request, setting Effect to None does not work. (191120003)
- ❑ The `_Select All_` option does not run if the `_Required/no validate_` option is enabled. (200528116)
- ❑ A second chained listbox does not automatically scroll up to show `_All_` as checked.

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

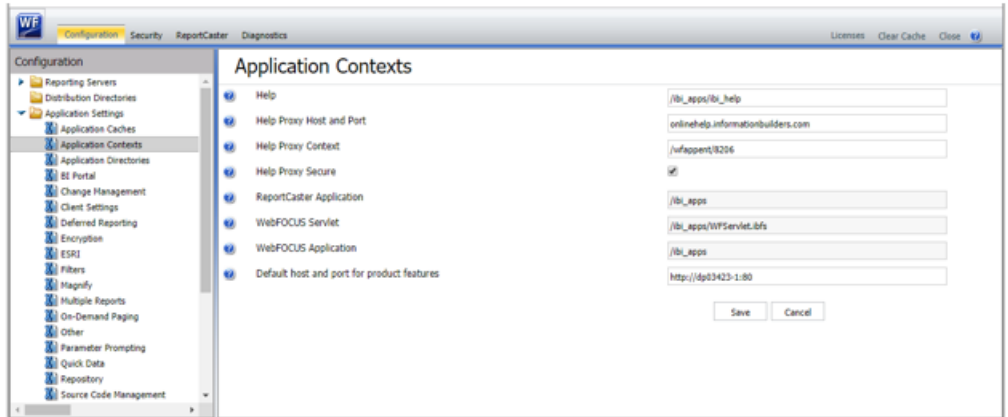
1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to `/ibi_apps/ibi_help`.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for Help should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to `onlinehelp.informationbuilders.com`.

4. Set the *Help Proxy Context* to `/wfappent/8206`. If you are using WebFOCUS Release 8207, set the value to `/wfappent/8207`.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
  - ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
  - ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
  - ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
  - ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.



- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDE NULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 80, Firefox version 73, Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).

# Chapter 28

## 8207.04 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Friday, February 14, 2020	wf021020a Gen 5	8207.04 Gen 1909

### New Features

## Creating and Repositioning the Filter Toolbar

When assembling a visualization from existing content, dynamic parameters in the content added to the visualization are identified and can be added immediately to the page by clicking the Quick Filter button. As an alternative, you can choose which filters are created by opening the Quick Filter menu and clicking *Choose filters to add to page*. You can select the particular filters that you want to create, quickly exclude optional parameters from filter creation, see which filters will be multiselect, and change the type of control that each filter uses. The Add Filter Controls dialog box is shown in the following image.

<input checked="" type="checkbox"/>	Parameter	Optional	Multiple	Control
<input checked="" type="checkbox"/>	PRODUCT_CATEGORY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Dropdown
<input checked="" type="checkbox"/>	MODEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Dropdown
<input checked="" type="checkbox"/>	BUSINESS_REGION	<input checked="" type="checkbox"/>		Dropdown
<input checked="" type="checkbox"/>	STORE_TYPE	<input checked="" type="checkbox"/>		Dropdown
<input checked="" type="checkbox"/>	TIME_DATE	<input checked="" type="checkbox"/>		Calendar
<input checked="" type="checkbox"/>	TIME_DATE_TO	<input checked="" type="checkbox"/>		Calendar

Once you have added filters to the page, a filter toolbar is created. If you select the entire page and then click the *Settings* tab on the *Properties* panel, you can change the position of the filter toolbar. The default location is below the page heading and page toolbar.

Click *Above Header* to place the filter toolbar above the page heading and page toolbar. If you have multiple pages in a portal that use the same filters, you can put the filters above the page content to make it appear as if the filters are consistent for the entire portal, and only the page content changes as you navigate the portal. Alternatively, click *In Modal* to place the filter toolbar in a modal window. To access the modal filter window, click the *Show filters* button on the page toolbar. This saves space on your page by hiding the filter toolbar until you choose to display it.

To remove the filter toolbar, clear the *Include Page Filters* check box on the *Settings* tab. The Quick Filter button and menu return, indicating that the filter controls can be created again. Select the *Include Page Filters* check box before creating filter controls to create an empty filter toolbar that you can style or reposition, even before filters are added.

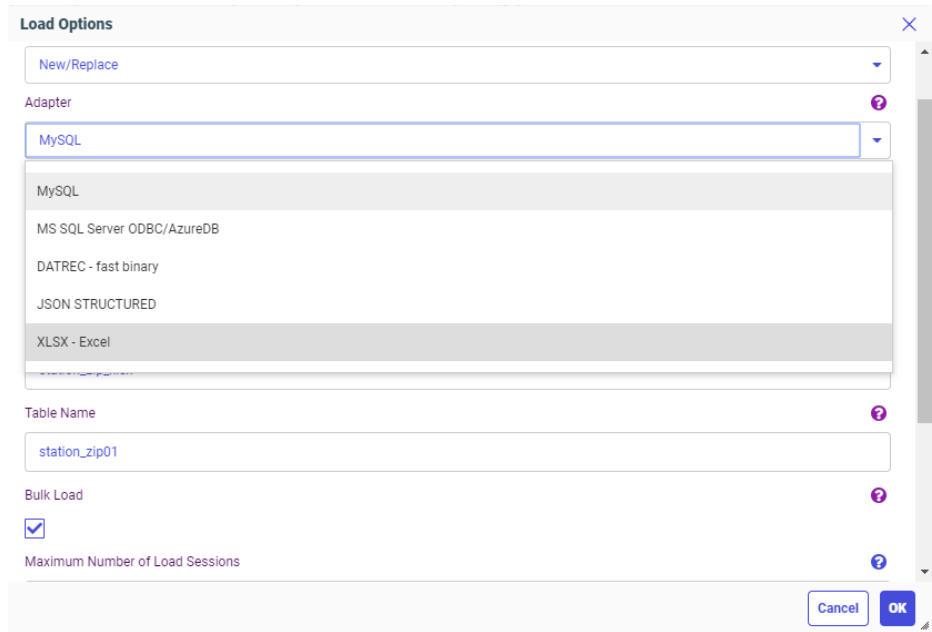
## Supporting Excel Targets for Upload and Data Flow

In prior releases, using Data Migrator to create an Excel worksheet required configuring the Adapter for Fixed format files and, on Target Properties, selecting the Adapter for Formatted Files and the format Excel.

Now, when the Adapter for Excel (via Direct Retrieval) is configured, it can be selected as the target adapter. Files are created with the extension `.xlsx`. Additionally when this option is used, now a synonym is automatically created with the name and location specified, and with the suffix `DIREXCEL`.

Note that the obsolete format `EXL2K` that created files with the extension `.xlht` has been removed as an option.

The following image shows the Load Options dialog box when the Adapter for Excel (via Direct Retrieval) is configured.



The following image shows the flow with the Excel target configured.



The following Master File was generated for this target.

```

FILENAME=STATION_ZIP_XLSX, SUFFIX=DIREXCEL,
DATASET=citibike/station_zip.xlsx.xlsx, $
SEGMENT=STATION_ZIP_XLSX, SEGTYPE=S0, $
  FIELDNAME=STATION_ID, ALIAS=STATION_ID, USAGE=I7, ACTUAL=A11V,
  MISSING=ON,
  TITLE='STATION_ID', $
  FIELDNAME=ZIP_CODE, ALIAS=ZIP_CODE, USAGE=A6V, ACTUAL=A6V,
  MISSING=ON,
  TITLE='ZIP_CODE',
  GEOGRAPHIC_ROLE=POSTAL-CODE, $
  FIELDNAME=COUNTY, ALIAS=COUNTY, USAGE=A18V, ACTUAL=A18V,
  MISSING=ON,
  TITLE='COUNTY',
  GEOGRAPHIC_ROLE=COUNTY, $
  FIELDNAME=CITY, ALIAS=CITY, USAGE=A20V, ACTUAL=A20V,
  MISSING=ON,
  TITLE='CITY',
  GEOGRAPHIC_ROLE=CITY, $
  DEFINE ZIP_CODE__CNTRY__/A50V WITH STATION_ID='United States';
  TITLE='Country for ZIP_CODE',
  GEOGRAPHIC_ROLE=COUNTRY, $

```

The following Access File was generated for this target.

```

SEGNAME=STATION_ZIP_XLSX,
WORKSHEET=Sheet1,
HROWS=1,
NUMDATA=RAW, $

```

## Using Undo and Redo in Join, Union, and Business View Editors


The Union, Join and Business View editors now have Undo and Redo buttons, as shown in the following image.


**Edit Join from CITIBIKE\_TRIPDATA\_MSSQL to STATION\_ZIP\_T**


↶
↷


**Configure Join** ⋮

**Join Type**

  
**Inner**

  
 Left Outer

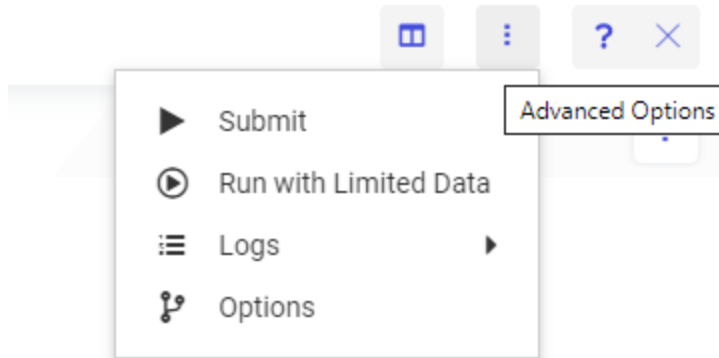
  
 Right Outer

  
 Full Outer

**Join Clauses**

citibike_tripdata_mssql (T1)		station_zip (T2)	
START_STATION_ID	= <span style="font-size: 0.8em;">▼</span>	STATION_ID	<div style="display: flex; gap: 5px;"> <span style="font-size: 0.8em;">✎</span> <span style="font-size: 0.8em;">🗑</span> </div>
<div style="display: flex; gap: 10px;"> <span style="border: 1px solid #ccc; padding: 2px 10px; border-radius: 4px;">+</span> <span style="border: 1px solid #ccc; padding: 2px 10px; border-radius: 4px;">+ Expression</span> <span style="border: 1px solid #ccc; padding: 2px 10px; border-radius: 4px;">💡 Suggestions</span> </div>			<span style="border: 1px solid #ccc; padding: 2px 10px; border-radius: 4px; display: inline-block; text-align: center;"> <span style="font-size: 0.8em;">🗑</span> Clear All         </span>

By default, 50 undo/redo operations are supported. You can change this limit by clicking the *Advanced Options* menu and selecting *Options*, as shown in the following image.

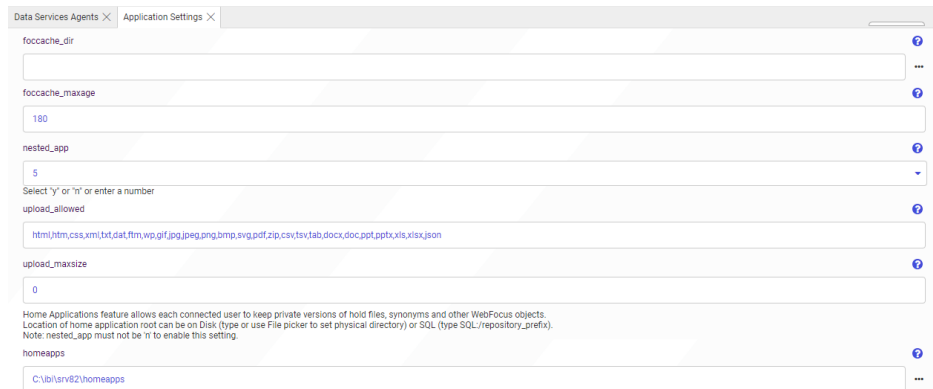


This opens the Advanced Options dialog box. In the Limits section, you can change the number in the Undo/Redo Limit entry field and click *OK*.

### Setting the Maximum Size of Files for Upload

The setting `upload_maxsize` has been added to the Application Settings page to limit the size of files that can be uploaded. By default, file size for upload is not limited.

To change this setting, click *Manage*, then *Settings* on the Server Console Applications page or, on the Workspace page, click *Settings*, then *Workspace SET*, then *Application Settings*. The Application Settings pane opens, as shown in the following image.



By default, `upload_maxsize` is zero (0), which supports unlimited file size for upload.

To limit file size for upload, enter a number of kilobytes to be the maximum supported, and click *Save and Restart Server*.



Once a limit is set, an attempt to upload a file larger than the maximum will generate the following message, and the upload will terminate.

The size of the uploaded file exceeds the limit of *nnnn* kilobytes

## Using Server Variables to Load Third-Party Drivers

Server environment variables can now be used to add third-party API and Driver DLL locations to the server library path. You can declare them as environment variables before server startup (using applicable operating system syntax and then exporting them, if applicable to your environment), or add them to the server environment variable configuration file (`edaenv.cfg`, using `name=value` syntax, with one variable per line).

Normally, only a single directory would need to be assigned to each of these variables. If necessary, you can assign multiple directories. You must separate the directories using the native path directory separator for your platform, with no spaces before or after each separator character. The separator character is a semi-colon (;) for Windows, and a colon (:) for all other platforms.

The following variables are supported:

- ❑ **IBI\_LOAD\_SSL\_FROM** can be set to an alternate SSL and CRYPTO DLL location.
- ❑ **IBI\_LOAD\_MSSQL\_ODBC\_DRIVER\_FROM** can be set to the Microsoft SQL Server and Azure ODBC driver location.
- ❑ **IBI\_LOAD\_ORACLE\_CLIENT\_FROM** can be set to the Oracle Client DLL library location.
- ❑ **IBI\_LOAD\_REDSHIFT\_ODBC\_DRIVER\_FROM** can be set to the Redshift ODBC driver location.
- ❑ **IBI\_LOAD\_EXASOL\_ODBC\_DRIVER\_FROM** can be set to the EXASolution ODBC driver location.
- ❑ **IBI\_LOAD\_DB2\_CLI\_CLIENT\_FROM** can be set to the Db2 CLI Client DLL library location.

**Note:** In prior releases, the use of the `LD_LIBRARY_PATH`, `LIBPATH` or `IBI_LIBPATH` variable was recommended to specify the library path for loading third-party DLLs, depending on whether system security was in use. While these methods continue to work, they are deprecated in favor of using these new variables.

If you are setting any of these variables in the `edaenv.cfg` file, perform the following steps:

1. Go to the Workspace page on the Server Console.
2. Expand *Configuration Files*, then *Miscellaneous*.

3. Right-click *Environment - edaenv.cfg*, and click *Edit*.
4. When you have made the edits, click the *Save* button.
5. Restart the server in order to have these settings take effect.

To restart the server, on the *Workspace* page click *Server Actions*, then *Restart*.

### **Adapter for Hive: Optimize Load With Bulk Load Options**

In prior releases, when you used Data Migrator or Data Preparation with *Optimize Load* enabled, the ability to specify Load Options was not available.

Now, when loading data to Hive, options such as "Escape Character" are available when Optimize Load is enabled, as shown in the following image.

The image shows a configuration window titled "Quick Copy for ibisamp/brokers". At the top, it says "On this page specify the options for where and how you want the target table created. See the onscreen help for the individual parameters". Below this is a section titled "Select Target Parameters" with an upward arrow icon. The parameters are listed as follows:

- Load Option:** A dropdown menu with "New/Replace" selected.
- Adapter:** A dropdown menu with "Apache Hive" selected.
- Connection:** A dropdown menu with "CON01" selected.
- Synonym Application:** A text input field containing "ibisamp" and a menu icon (three dots).
- Synonym:** A text input field containing "brokers".
- Table Name:** A text input field containing "brokers".
- Bulk Load:** A checkbox that is checked.
- Escape Character:** A dropdown menu with "OFF - Default" selected. This entire section is enclosed in a red rectangular box.
- Overwrite data:** A dropdown menu with "OFF - Default" selected.

At the bottom right of the window, there are two buttons: "Run" and "Save".

## Distinguishing Node Status Using Ports and Connectors

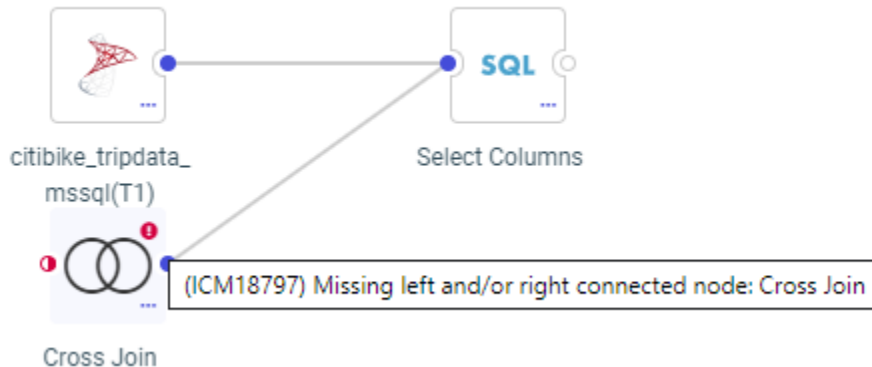
The Data Flow and Join nodes now have ports that indicate if they can have inputs (on the left) or outputs (on the right). The ports also indicate if all required inputs and outputs are configured.

- ❑ An empty node that is not yet considered missing is represented by a hollow circle.
- ❑ A node that is present is represented by a solid blue circle.
- ❑ A required node that is missing is represented by a circle half-filled in red and outlined in red.
- ❑ A node with a menu has an ellipsis (...) at the bottom right. You can click the ellipsis or right-click anywhere in the node to open the menu.
- ❑ The indicator that there are warning messages is now an exclamation point in a red circle, which you can hover over to display the warning messages.

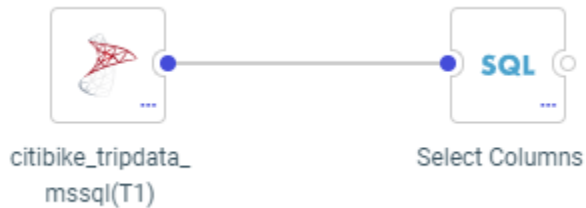
In the following image of a new flow, a source is required, but not present, indicated by the half-filled red circle on the left of the SQL node. No target has been added, so the circle on the right of the SQL node is hollow.



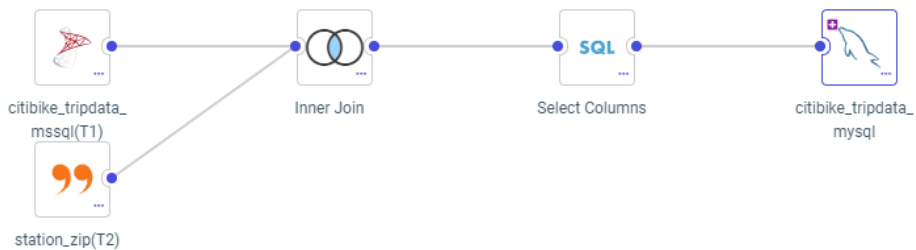
The cross join node has warning messages, identified by an exclamation point in a red circle, which you can hover over to display the warning messages, as shown in the following image.



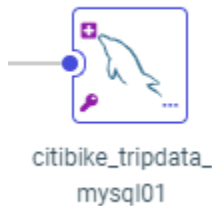
In the following image, a source has been added, so the circles between the source and the SQL node are solid blue. No target has been added, so the circle on the right of the SQL node is hollow.



In addition, targets are now represented by database-specific icons, as shown in the following image, which has a MySQL target.



If a new target is added, a plus sign displays in the target node. If the target has one or more keys, a key icon displays in the target node, as shown in the following image of a new target with a key.



## Fixes

- ❑ The Parent-Response segment does not contain field definitions when a multi-segment JSON Response is returned from the REST adapter Create Synonym process. (200114033)

- ❑ When running an Insight chart with a drill-down inside a page or portal, the Explore with Insight button is visible but not functional. (180807086)
- ❑ When using a logarithmic scale for a chart, custom baselines are always drawn on the bottom of the axis. (190131018)
- ❑ A Reporting Server privilege is not applied to child group if it is applied in the parent group. (191031015)
- ❑ Data Migrator returns an error the during the Bulk Load run when loading with SFTP protocol to Hive on Ubuntu from Windows 2016. (200120068)
- ❑ When a user with the AdvancedUser role that has been denied the *Data Visualization from Metadata (opVisualization)* privilege creates a new InfoAssist report off an existing Reporting Object with the HOLD option and saves it, the Edit option is missing from the shortcut menu for the newly created feX. (190920097)
- ❑ Data Migrator returns an ICM18795 Invalid Connection Parameter error during a Bulk Load when loading with SFTP protocol to Hive on Ubuntu from Windows 2016. (200120068)
- ❑ When using a logarithmic scale for a chart, custom baselines are drawn on the bottom of the axis. (190131018)
- ❑ Redirection to the Client trace page ([http://<host>:<port>/ibi\\_apps/WFClientTrace](http://<host>:<port>/ibi_apps/WFClientTrace)) occurs if there is a JavaScript error when a page reloads. (190815024)
- ❑ Resource Analyzer does not collect some SMRPCNUM values for procedures being executed. (191227007)
- ❑ The Explore with Insight button does not function if the chart contains a drilldown. (191021082)
- ❑ When a Slowly Changing Dimension field Change Flag is set to a Date format, Data Migrator does not assign a value to this field. (190220114)
- ❑ General privileges like NOSYS (disable operating system commands) and NODPT (disable direct pass-thru requests) are not inherited by users of registered groups from Roles registrations. (191031015)
- ❑ You cannot select Get Values, input a value manually or change the Type when using a filter box in InfoAssist with Google Chrome version 80. (200206136, 200205119, 200207011, 200207061, 200207103, 200210009, 200210059, 200211066, 200212069, 200212096, 200211006, 200214010, 200219027, 200220126, 200221064, 200225054, 200226036, 200226015, 200226066, 200303018, 200303024, 200304078, 200309113, 200311042, 200302075, 200326016)

- ❑ Agent crashes when a report is run multiple times in postscript format, with the Lucida Sans Unicode font. (190403174)
- ❑ A report fails when it contains the DB\_INFILE function with a field from a folder and DBA in the Master File. (191031065)
- ❑ The Designer tool's filter returns the following error on a field defined as a string format: FOC32574 HOLD FORMAT BINARY ' IS INCOMPATIBLE WITH STRINGS... (191118093)
- ❑ If split dimensions/measures is disabled, then flat view is selected and show name is used, when split dimensions/measures is re-selected, the field list will be blank. (191216066)
- ❑ FOC003, FOC009 errors occur when running a chart or report with a reporting object containing a JOIN or a DEFINE from within Designer. The errors do not occur when running the saved chart or report outside of Designer. (200107009)
- ❑ The Undo button does not revert the conversion of a Visualization/chart to a Page created by selecting Convert to a page. (191210113)
- ❑ When creating a variable for a text value that starts with comma+tab in a DECODE option, the comma is not shown when you run it when used within an HTMLFORM. (190822086)
- ❑ Using the Adapter for Salesforce.com to retrieve data with a WHERE condition on a date field fails when the TABLE request contained a SUM of a field and a (group) BY on a Date field or other field types where Salesforce does not allow grouping. (200528045)

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

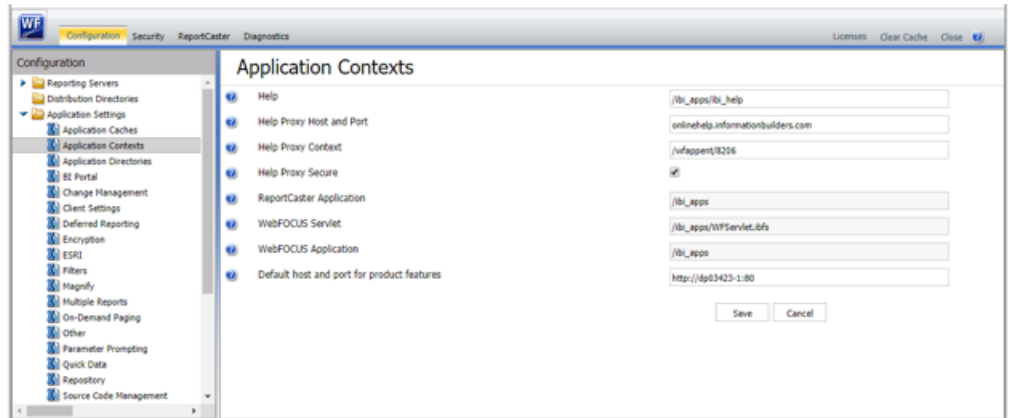
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for Help should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
  - ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
  - ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
  - ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.



- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.

- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 79, Firefox version 73, Microsoft Edge version 44 (WebFOCUS only), and Internet Explorer 11. Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).

# Chapter 29

## 8207.03 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:

- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Monday, February 3, 2020	wf013020a Gen 7	8207.03 Gen 1908

### New Features

#### Duplicating Items on a Page

You can duplicate an item on a page created in WebFOCUS Designer by right-clicking the container or subsection that contains it and clicking *Duplicate*. This makes it easy to develop content by maintaining the styling, fields, and other properties from an existing content item and container so that they do not need to be recreated. If you duplicate the content in a single-item panel container, a new container with the same content is added to the page. If you duplicate a content item in a multi-content container, such as a tab, carousel, or accordion container, a new subsection is added to the container with the selected content item duplicated.

## Direct Bulk Load Support

Using Data Migrator to load data from a file to a database table using Extended Bulk Load always extracted data from the source file to create a file in the expected format of the bulk load program for the database to be loaded. In those cases where the file was already in the required format, this required additional processing time.

Now for certain data sources, when Extended Bulk Load is used and Optimize Load is enabled, data is loaded directly to the target database without the additional extract and transformation steps, provided the following conditions are met:

- The data source is a delimited flat file.
- The file attributes including Header, Enclosure, Delimiter and Record Delimiter are supported by the target database.
- Only insert operations are used (no updates).
- No aggregation is specified.
- No transformations are used.

Under these conditions, direct bulk load is used, reducing processing time, and the following message appears in the Data Migrator log.

```
(ICM18637) Load Operation will use Direct Bulk Load Feature
```

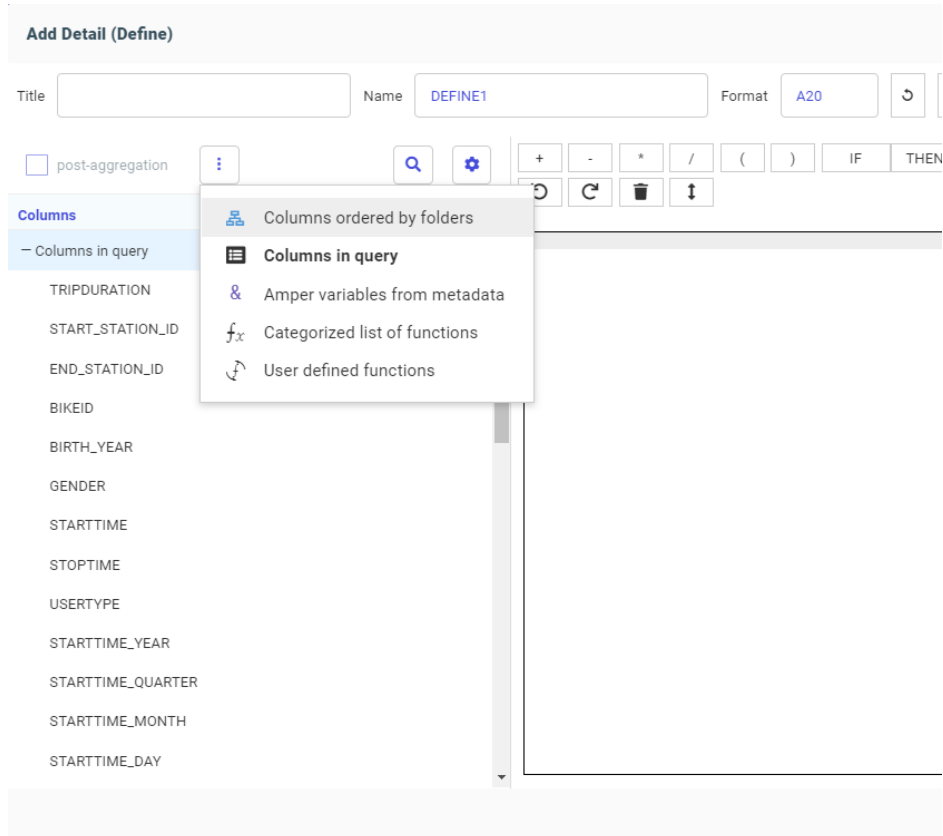
The supported databases and data stores are:

- Apache Hive
- Apache Impala
- Apache Spark
- Amazon RedShift
- ExaSOL
- Jethro
- MariaDB
- MS SQL Server
- MongoDB
- MySQL

- PostgreSQL
- Snowflake
- Salesforce.com
- Sybase ASE
- Vertica

## Expression Editor Shows Object Types

The Expression Editor provides lists of functions, columns, or variables that can be used in editing an expression. You can select which one to use from an options menu, as shown in the following image.



The selected option is highlighted on the options list and is now displayed at the top of the left pane of the Expression Editor.

## Using SQL Analytic Functions

SQL Analytic functions compute an aggregate value based on a group of rows, called a partition. They return multiple rows for each group. For each row, a range of surrounding rows can be defined, called a window. The calculation for the current row is performed using the defined window, as long as the window stays within the partition. The order of rows within each partition is controlled by an optional ORDER BY clause which affects both which rows are included in the window and the result value. The calculations restart when a new partition starts. If a window is not defined, the entire partition is used in the calculation. Analytic functions can appear only in the SELECT list or ORDER BY clause.

The following SQL Analytic functions have been added.

- ❑ **AVG.** Calculates the average over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **COUNT.** Calculates a count over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **DENSE\_RANK.** Calculates a dense rank (each rank number is the next sequential integer, even when the same rank is assigned to multiple data values) over a group of rows defined by a partitioning expression and an ORDER BY clause.
- ❑ **FIRST\_VALUE.** Retrieves the first result from an ordered set of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **LAG.** Retrieves the value from a previous row defined by a partitioning expression, an ORDER BY clause, an offset, and a default.
- ❑ **LAST\_VALUE.** Retrieves the last result from an ordered set of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **LEAD.** Retrieves the value from a following row defined by a partitioning expression, an ORDER BY clause, an offset, and a default.
- ❑ **MAX.** Calculates the maximum over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **MEDIAN.** Calculates the median over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **MIN.** Calculates the minimum over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.

- ❑ **MODE.** Calculates the mode over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **PERCENT\_RANK.** Calculates a percent rank over a group of rows defined by a partitioning expression and an ORDER BY clause,.
- ❑ **RANK.** Calculates a sparse rank (each rank number is the integer value of the prior rank plus the number of values assigned to the prior rank) over a group of rows defined by a partitioning expression and an ORDER BY clause,.
- ❑ **ROW\_NUMBER().** Lists the current row number over a group of rows defined by a partitioning expression and an ORDER BY clause,.
- ❑ **STDDEV\_POP.** Calculates the standard deviation of the population over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **STDDEV\_SAMP.** Calculates the standard deviation of a sample over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.
- ❑ **SUM.** Calculates the sum over a group of rows defined by a partitioning expression, an ORDER BY clause, and a sliding window.

The syntax varies by function, and may vary depending on the SQL supported for the database being used. The basic structure of the syntax follows.

```
analytic_function_name ( [ argument_list ] )
  OVER (
    [ PARTITION BY partition_expression_list ]
    [ ORDER BY expression [{ ASC | DESC }] [, ...] ]
    [ window_frame_clause ]
  )
```

where:

*analytic\_function\_name* ( [ *argument\_list* ] )

Is the name of the function and its calling arguments. Can be one of the following:

```
AVG(expression)
COUNT(expression)
DENSE_RANK()
FIRST_VALUE(expression)
LAG(expression, offset, default)
LAST_VALUE(expression)
LEAD(expression, offset, default)
MAX(expression)
MIN(expression)
MEDIAN(expression)
MODE(expression)
PERCENT_RANK()
RANK()
ROW_NUMBER()
STDDEV_POP(expression)
STDDEV_SAMP(expression)
SUM(expression)
```

PARTITION BY *partition\_expression\_list*

Divides the rows into partitions.

ORDER BY *expression*

Specifies the row order within each partition.

*window\_frame\_clause*

Defines the sliding window within each partition (starting row and ending row for the window). The window frame clause defines a frame around the current row within a partition over which the analytic function is evaluated. Both physical window frames (defined by ROWS) and logical window frames (defined by RANGE) are allowed. It is your responsibility to know the syntax for your environment. The ordering of rows within the partition (ORDER BY clause) affects which rows are included in the sliding window.

The window frame clause is not supported for functions DENSE\_RANK, LAG, LEAD, PERCENT\_RANK, RANK, and ROW\_NUMBER.

Basic syntax for the window frame clause follows:

```
{ROWS|RANGE}
{
  {UNBOUNDED PRECEDING|numeric_expression PRECEDING|CURRENT ROW} |
  {BETWEEN boundary_start AND boundary_end}
}
```

The basic syntax for the start of the boundary is:

```
{UNBOUNDED PRECEDING|numeric_expression PRECEDING|CURRENT ROW}
```



The basic syntax for the end of the boundary is:

```
{UNBOUNDED FOLLOWING|numeric_expression {PRECEDING|FOLLOWING}|
CURRENT ROW}
```

**Example: Returning the Maximum Trip Duration**

The following call to the MAX SQL analytic function partitions the rows by zip code and returns the maximum trip duration within the partition windowed by the preceding 1 row, the current row, and the following 1 row, ordered by the start station name.

```
SQL
SELECT
  T2.STATION_ID ,
  T2.ZIP_CODE ,
  T1.TRIPDURATION ,
  MAX(T1.TRIPDURATION ) OVER (PARTITION BY T2.ZIP_CODE
  ORDER BY T1.START_STATION_NAME
  ROWS BETWEEN 1 PRECEDING AND 1 FOLLOWING) AS MAXDURATION ,
  T1.START_STATION_NAME
FROM
  (station_zip T2
  INNER JOIN
  citibike_tripdata T1
  ON
  T2.STATION_ID = T1.START_STATION_ID )
  WHERE T2.ZIP_CODE IS NOT NULL
  ORDER BY T2.ZIP_CODE DESC
;
TABLE
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The following image shows partial output.

<u>STATION_ID</u>	<u>ZIP_CODE</u>	<u>tripduration</u>	<u>MAXDURATION</u>	<u>start station name</u>
343	11251	1671	1671	Clinton Ave & Flushing Ave
3092	11249	413	413	Berry St & N 8 St
3092	11249	204	1588	Berry St & N 8 St
3092	11249	1588	1588	Berry St & N 8 St
3092	11249	608	1588	Berry St & N 8 St
3092	11249	422	608	Berry St & N 8 St
3092	11249	402	1409	Berry St & N 8 St
3092	11249	1409	1409	Berry St & N 8 St
3092	11249	566	1409	Berry St & N 8 St
3092	11249	687	781	Berry St & N 8 St
3092	11249	781	781	Berry St & N 8 St
389	11249	274	781	Broadway & Berry St
389	11249	397	397	Broadway & Berry St

Row 1 is in its own partition, as the zip code changes in row 2, so MAXDURATION is the same as tripduration.

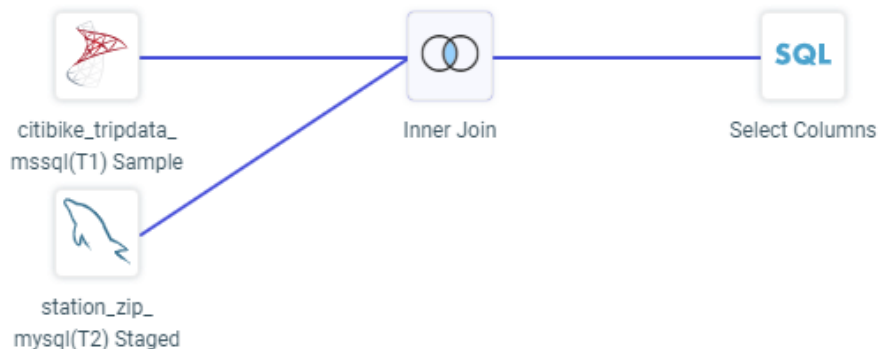
For Row 2, there is no preceding row within the partition, so MAXDURATION is the maximum of tripduration for rows 2 and 3, which is 413.

For Row 3, the preceding and following rows are within the partition, so MAXDURATION is the maximum of tripduration for rows 2, 3, and 4, which is 1588.

## Displaying Database-Specific Icons for Sources in a Data Flow

When you create a data flow, the data sources are represented by database-specific icons, so you can easily identify the types of sources involved in the flow.

For example, the following image shows a flow using a SQL Server source and a MySQL source.



A generic icon is now only used when a source synonym references multiple tables with disparate sources.

## Displaying Database-Specific Icons for Data Sources in the Join Editor

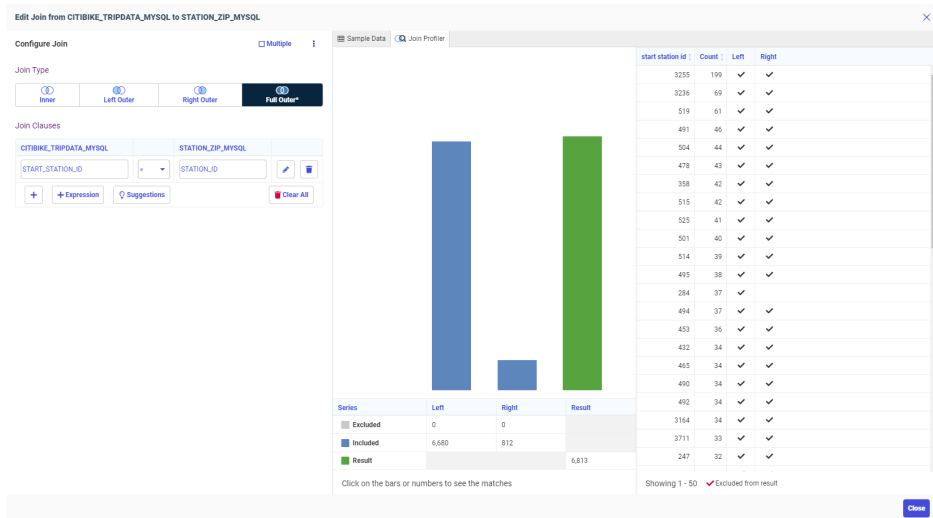
In the Join Editor using the Flow view, data sources are represented by the icons that represent those data sources, as shown in the following image that joins Microsoft SQL Server, MySQL, and delimited data sources.



## Supporting Full Outer Joins When the Data Source Does Not

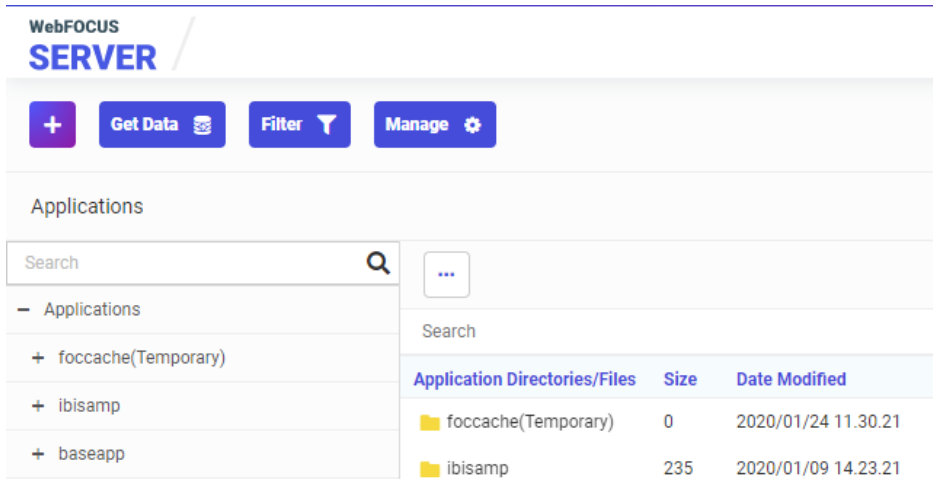
In prior releases, when using the Synonym Editor to create a cluster join, it was only possible to create a full outer join if the underlying relational database supported that capability. Now, the server will generate multiple retrievals and perform the full outer join for those data sources.

For example, MySQL does not support full outer joins. However, you can implement a full outer join between MySQL tables in the Synonym Editor, as shown in the following image.



## Searching for Objects on the Server Application Tree

A search entry area now always displays when viewing the tree of application folders and objects in the WebFOCUS Server Console, as shown in the following image.

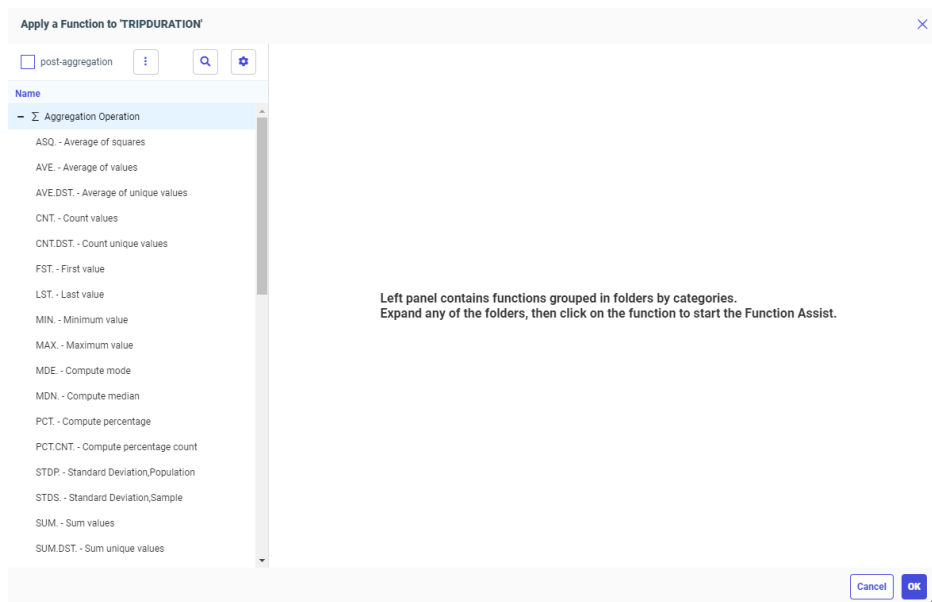


Enter characters in order to search for objects with those characters in their names, and click the search icon (magnifying glass). A close icon for the search (x) appears in the entry field. The application tree pane will show only the items found by the search, with the characters used in the search highlighted in each found object.

To return to the full tree, click the close icon in the search entry field.

## Edit Metadata: Folder for Aggregation Operators

When editing metadata and using Apply Function or Advanced Expression, you can now select an aggregation operator (for example, SUM., CNT., MIN., MAX., AVE.) from a folder to apply to a field, as shown in the following image.



## Adapter for Salesforce.com: Suppressing Aggregation

Using the Adapter for Salesforce.com to retrieve data with a WHERE condition on a Date field would fail when the TABLE request contained:

- ❑ A SUM of a field and a (GROUP) BY on a date field (or other field type where salesforce does not allow grouping). This resulted in a SOQL error. In prior releases the aggregation was not sent to Salesforce. The un-aggregated data was retrieved and FOCUS performed the aggregation.

Now aggregation can be suppressed by Salesforce, when necessary, with the following SET command:

```
ENGINE SFDC SET OPTIMIZATION {RESET|NOAGGR}
```

where:

[RESET](#)

Does not suppress aggregation. This is the default value.

[NOAGGR](#)

Suppresses aggregation by Salesforce.

- A PRINT of a field and an (ORDER) BY on a date field. This resulted in generating a duplicate of the date field and a SOQL error.

Now this duplication does not occur.

## Fixes

- Conditional styling used with multi-drill (drillmenuitem) is not applied correctly in AHTML report output. (190903114, 191209162)
- Running an HTML report that contains OVER, ACROSS, and SET BYDISPLAY=ACROSS commands results in incorrect output. (190918031)
- Added enhance flowing of compound reports across pages to ensure the correct pages are generated and page number information available in more complex reports. (11113001, 82552524)
- The Metadata Synonym editor collapses when a component is added. (191105060)
- In Data Profiling statistics, numeric columns are sorted numerically instead of alphabetically. (191122007)
- The SQL TRUNCATE TABLE command is issued when using Data Migrator to load data to PostgreSQL and selecting the Truncate table option of Prior to Load option. (22803540)
- MySQL has been certified with the latest version of the JDBC Driver (Connector/J). (191111022)
- Running reports with the Salesforce.com adapter results in a memory leak and a server crash. (190729056)
- Running an AHTML table with parameters from a self-service HTML page triggers an agent crash. (191107046)

- ❑ Opening the Text Editor options, making changes and selecting the Cancel button does not discard the changes when editing a Data Flow or using the Data tab in Designer. (190903003)
- ❑ Fields are loaded in the order they appear in the source file when uploading a file.
- ❑ When uploading data with field names that are identified as Geographic Roles (for example Country, City), the default hierarchy is inverted (for example City would appear above Country). Now the hierarchy is created in the correct order.
- ❑ IBM nzjdbc driver version 7.2.19 prevents the use of the Netezza adapter to access IBM Performance Server (IPS). IBM nzjdbc driver version 11.0.0 should be used instead. (191107032)
- ❑ Creating a savediag from the Reporting Server browser interface using a secondary administration ID (iadmin) and security provider OPSYS results in an error: Error: failed to run EXSDIAG Warning: can't find savediag log (190404027)
- ❑ Users with the privilege to CREATE SYNONYM (METAP) do not see a list of adapter connections to create synonyms. (191106026, 191113095, 191015109, 191212164)
- ❑ In a Unix or Linux environment, the max\_connections\_per\_user setting used to limit the number of connections is not working for DFM\_DEFAULT service that is used to execute deferred jobs. (191202003)
- ❑ Tomcat processes associated with the Windows Reporting Server run constantly over 90% CPU utilization resulting in poor performance. (190820088)
- ❑ When creating a report in InfoAssist on a Business View that contains a Master File with a global variable, the following error occurs: FOC295 VALUE MISSING FOR &&GLOBAL\_VAR (191114005)
- ❑ Installation on an older zSeries architecture results in an abend OC1. (190502129)

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

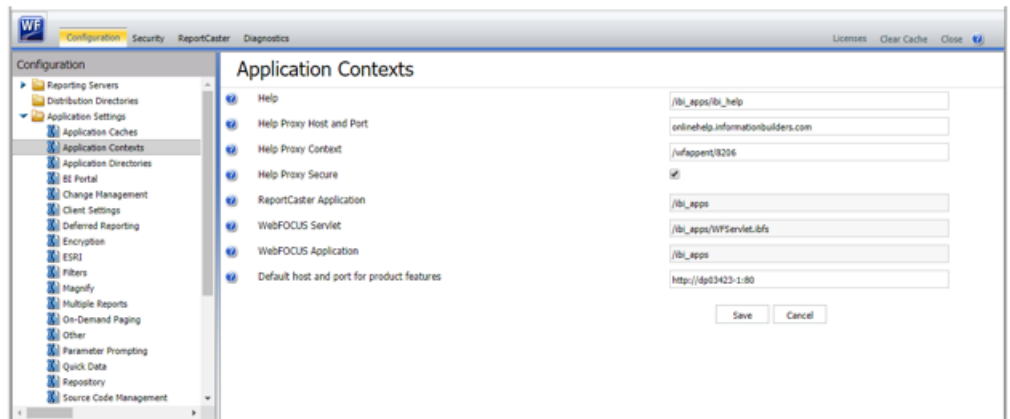
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for Help should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.



- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when the size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.

- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 79, Firefox version 71, and Microsoft Edge version 44 (WebFOCUS only). Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).

# Chapter 30

## 8207.02 Release Notes

The following topic provides all the information that you need to know about this release of WebFOCUS.

### In this chapter:


- [Release and Gen Information](#)
- [New Features](#)
- [Fixes](#)
- [Known Issues](#)
- [System Requirements](#)

### Release and Gen Information

Release Date	Gen Information	Reporting Server
Friday, November 8, 2019	wf110619a Gen 8	8207 Gen 1905

### New Features

#### Navigating WebFOCUS Designer With Keyboard Controls

You can use keyboard controls to navigate through the WebFOCUS Designer interface, allowing you to perform certain content creation tasks without a mouse. You can press the Tab key to navigate between adjacent sections of the user interface, or press Shift+Ctrl+F10 to open a menu listing sections of the user interface, allowing you to quickly jump from one section to another. Once the option that you want to use is in focus, press the Enter key or Spacebar to select it, or press the Menu key  or Shift+F10 to open a context menu. When you select a container on the canvas, you can use the arrow keys to move it and use the Shift key and an arrow key to resize it.

## Changing the Theme of Content in an Assembled Page

When you add external content to a page in WebFOCUS Designer, you can change the theme to any of the themes or stand-alone StyleSheets available in your environment, allowing you to quickly customize an item's appearance without editing the original file.

Once an item is added to a container on the page, select the content item and open the *Format* tab on the properties panel. The theme is set to *Inherit page theme*, by default, so that it is consistent with the rest of your page, but you can also choose to use the theme originally selected for the content item, select a custom theme that has been configured in your global resources, or click *Custom* to select a legacy StyleSheet or a StyleSheet saved to a workspace in your repository.

## Applying Filter Selections to Link Tile Background and Target Content

A link tile is a page container type that allows you to click through from a content item or image to additional, outside content, such as a chart, report, page, or URL. Link tile content now both accepts and passes parameters, so filter selections on the page are applied to the link tile background content and can optionally be passed to a target chart, report, or page by selecting the *Attach all parameters* option. This synchronizes the filtering of the link tile background content with the other items on the page, and allows the user to maintain their filter selections when they navigate to link tile target content.

For more information, see the *Linking to External Content From a Page* topic.

## Passing Parameter Values to a Page

When a page includes content with dynamic parameter filters, you can pass parameter values to it from external content to set the filter values when the page initially loads. These parameter values are specified by adding parameter names and values to the run-time URL for the page. Parameter values can be passed to a page using a drill-down from a chart or report, or from a link tile in another page with dynamic parameter filters. This allows users to navigate between content items and pages, while maintaining their dynamic filter selections, making content exploration more integrated and user-friendly.

For more information, see the *Passing Parameter Values to a Page* topic.

## Faster Column Scrolling When Previewing Uploaded Data Files

When using Get Data to preview an uploaded data file that is hundreds of columns wide, you can now scroll to the right more quickly to see additional columns.

## New Privilege Allows Users to Create WebFOCUS Designer Content from Business Views

The new Add Designer Content from Business View (opDesignerBV) privilege allows the use of enhanced Business Views as a source for content created in WebFOCUS Designer. This new privilege helps administrators replace the use of direct access to metadata sources stored in Metadata Files with controlled access to metadata through Business Views and Reporting Objects when creating content in WebFOCUS Designer.

## The Cc and Bcc ReportCaster Email Distribution Options Can Now Support Distribution Lists

You can now use the Cc (Carbon Copy) and Bcc (Blind Carbon Copy) email options in the Basic Scheduling tool and the Advanced Scheduling tool for schedules that are configured to use distribution lists, distribution files, and dynamic distribution lists, as shown in the following image.

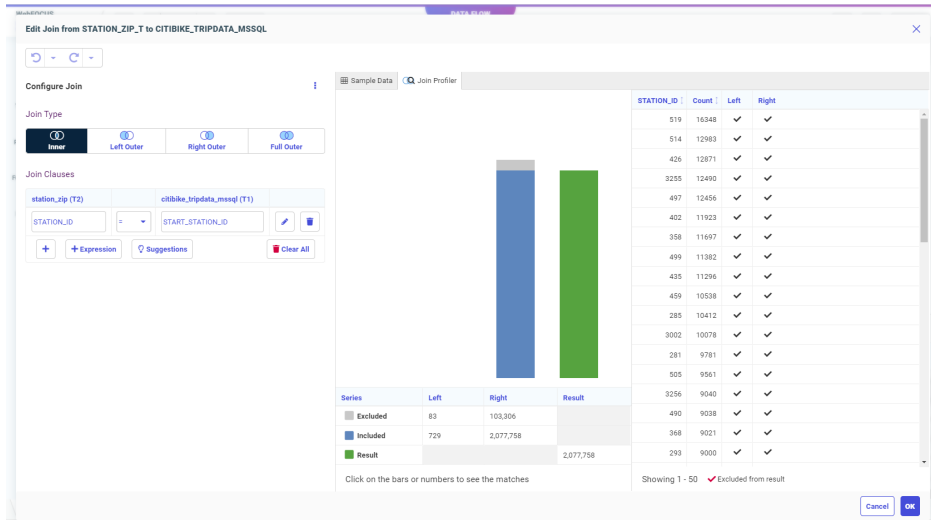
The screenshot shows a 'Distribution Information' dialog box with the following fields:

Type:	Distribution List
To...	IBFS:/WFC/Repository/Sales/Sales1019.adr
Cc...	emailA@ibi.com; emailB@ibi.com
Bcc...	emailC@ibi.com
From...	admin
Reply Address...	"admin"
Subject:	Margin by Product Category

These options allow you to send copies of an email distribution to separate recipients, simplifying the creation of scheduled email distributions. If you use the Bcc option to send email distributions to individual recipients, each recipient will not see the other recipients of the email distribution.

## Editing Joins in Full Screen

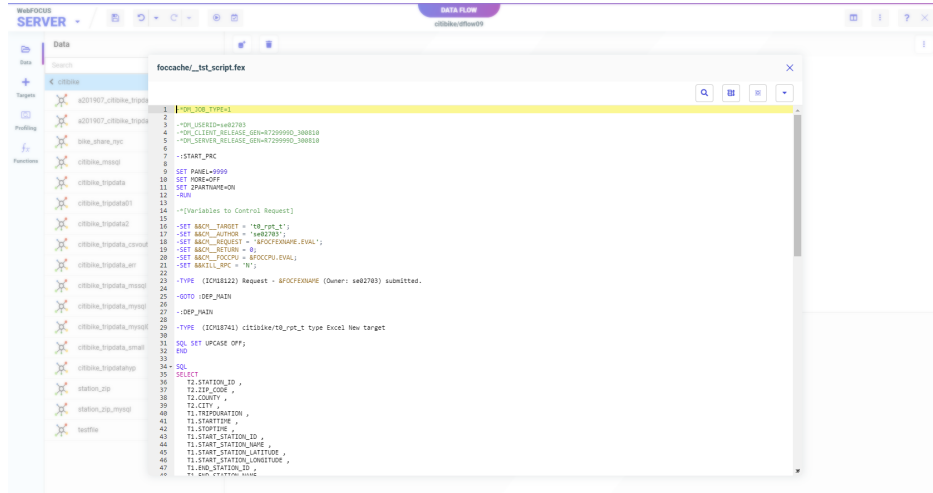
When you edit a join from the Designer Data tab or a Data Flow, the Join Configuration tool now opens in an almost full screen window, as shown in the following image.



This provides more room to see the join fields, profile chart, and values report.

## View Source Opens in Full Screen

When you select View Source from the Data tab in Designer or when editing a Data Flow (by clicking the *Advanced Options* menu, clicking *Diagnostics*, and selecting *View Source*), the viewer now opens in a nearly full screen pop-up instead of a window at the bottom of the screen, as shown in the following image.

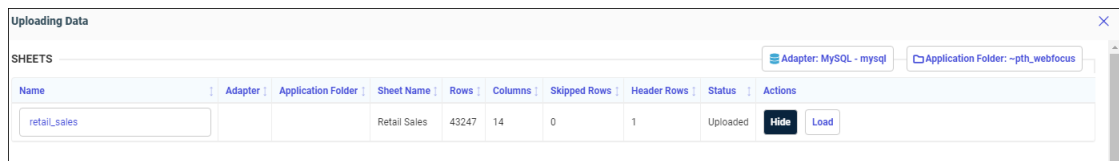


This makes the source easier to read.

## Changing Target Settings When Uploading Files

When using Get Data to upload a file, with appropriate permission, you can override the default Adapter and Connection settings by selecting an alternative configured adapter from your current profile.

When using Get Data to upload a file and create a synonym, with appropriate permission, you can override the default Application setting where the synonym is created by selecting an application folder from your current application path.

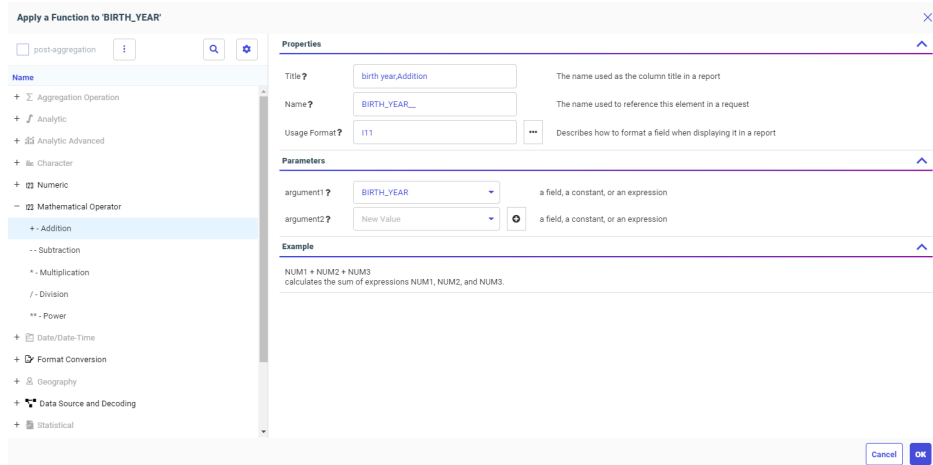


For more information see [Changing a Target Connection When Uploading Files](#).

For more information see [Changing a Target Application When Uploading Files](#).

## Function Assist For Mathematical Operators

Creating a New Expression to perform a mathematical operation (add, subtract, multiply, divide, or raise to a power) on two numbers previously required a creating an Advanced Expression. Now you can select *Apply Function*. There is a new Mathematical Operator folder from which you can select these operators and use Function Assist to supply values, as shown in the following image.



## Adapters for Impala and Crossdata: SET DEFAULTSCHEMA

The adapters for Impala and Crossdata have a new SET DEFAULTSCHEMA setting that can be issued in the server profile. The setting allows specifying the schema, but delays doing so until a connection has been established, in order to improve connection stability and eliminate initialization errors at startup.

The syntax for Impala is:

```
SQL {SQLIMP} SET DEFAULTSCHEMA schemaname
```

The syntax for Crossdata is:

```
SQL {SQLCRD} SET DEFAULTSCHEMA schemaname
```

where:

**SQLIMP**

Identifies the Adapter for Impala. You can omit this if you issued the SET SQLENGINE command for the adapter.



**SQLCRD**

Identifies the Adapter for Crossdata. You can omit this if you issued the SET SQLENGINE command for the adapter.

*schemaname*

Is the schema to use once the connection is established.

**Fixes**

- Conditional styling used with multi-drill (drillmenuitem) is not applied correctly in AHTML report output. (190903114, 191209162)
- Running an HTML report that contains OVER, ACROSS, and SET BYDISPLAY=ACROSS commands results in incorrect output. (190918031)
- Added enhance flowing of compound reports across pages to ensure the correct pages are generated and page number information available in more complex reports. (11113001, 82552524)
- The Metadata Synonym editor collapses when a component is added. (191105060)
- In Data Profiling statistics, numeric columns are sorted numerically instead of alphabetically. (191122007)
- The SQL TRUNCATE TABLE command is issued when using Data Migrator to load data to PostgreSQL and selecting the Truncate table option of Prior to Load option. (22803540)
- MySQL has been certified with the latest version of the JDBC Driver (Connector/J). (191111022)
- Running reports with the Salesforce.com adapter results in a memory leak and a server crash. (190729056)
- Executing a procedure that contains Dialogue Manager commands after an ON TABLE PCHOLD command returns an internal error. (191104062)
- On a Windows machine on which two Servers with different releases are installed, when installing an additional configuration for the newer release, the install dialog box only displays the older release as the EDAHOME value. (190729132)
- The combination of PRINT MAX.fields or another aggregating prefix with FORMAT SAME\_DB results in the skipping of the prefixed fields from the SQL generated. (191128006)
- Umlaut characters are not sent correctly in a drilldown to a URL link. (191125014)

- ❑ When creating nodes or clusters under Cluster Manager in Data Migrator, the node or cluster names are blank and show as blank in the Workspace and in the odin.cfg file. (191122065)
- ❑ When a column referenced in the Order By clause is removed from the Filter on a Flow, Data Migrator corrupts the flow. (191121061)
- ❑ The WebFOCUS Reporting Server crashes when a Direct Passthru request uses `current_date` as a keyword and Resource Management is active. (191030101)
- ❑ The iSeries 8206 Reporting Server downloadable savefiles are missing key files preventing installation. (191203073)
- ❑ Using the default Designer 2018 theme on a bar and pie chart styling editor, the series editor does not pick up after the first 6 colors that are defined in the theme. (191007021, 191010029)
- ❑ When reopening a DEFINE based JOIN, the Join indicator is misaligned and the user is unable to edit the JOIN.
- ❑ When using a predefined COMPUTE in a Master File and turning Path Enforcement on in InfoAssist results in an error: FOC295 A VALUE IS MISSING FOR: &SEGMENT (190521006)
- ❑ Using a test expression that includes ('value') IN (list of values) in an IF clause of an IF..THEN..ELSE expression, the grouping marks are included as part of the string used in the comparison. (191204140)

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

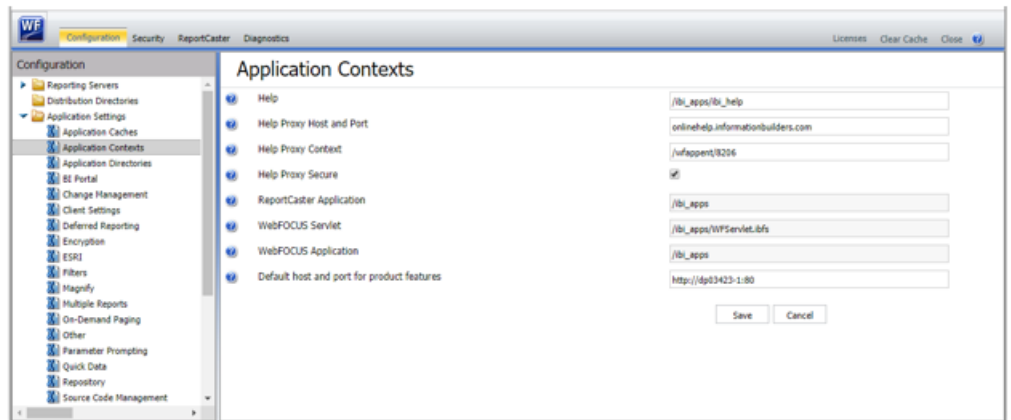
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to `/ibi_apps/ibi_help`.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for Help should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
  - ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
  - ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
  - ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.

- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ The Expression Editor has a an area that displays objects that you can add to an expression, which are columns, variables or functions. The selection and display of these was controlled by buttons above the area, but when then size of the area was compressed, some of the buttons were hidden. Now there is a single button with a pull-down menu that allows selecting what objects are displayed.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.

- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 77, Firefox version 69, and Microsoft Edge version 44 (WebFOCUS only). Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



# Chapter 31

## 8207.01 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

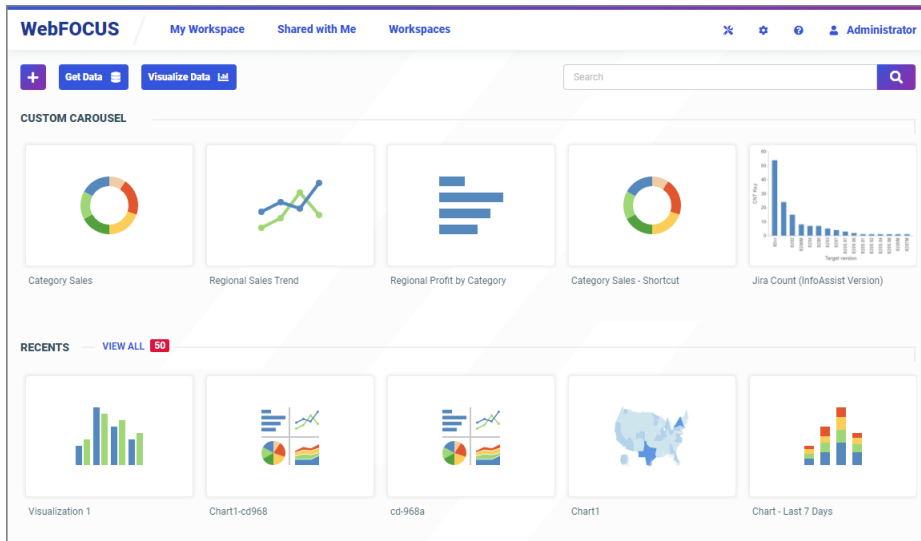
### Release and Gen Information

Release Date	Gen Information	Reporting Server
Friday, November 8, 2019	wf110619a Gen 8	8207 Gen 1905

### New Features

## Customizing Path for the Getting Started Carousel

You can now configure the Getting Started carousel to point to a different workspace in your repository. This can be achieved by customizing the Default List Repository Path setting in the Administration Console. Update the path to reflect the name of your chosen workspace, save your changes, and reload the Home Page. The top carousel changes to display the workspace you selected. The title linked to the name assigned to the workspace becomes the new title of the Carousel. The following image shows an example of a custom carousel in the Home view of the Home Page.

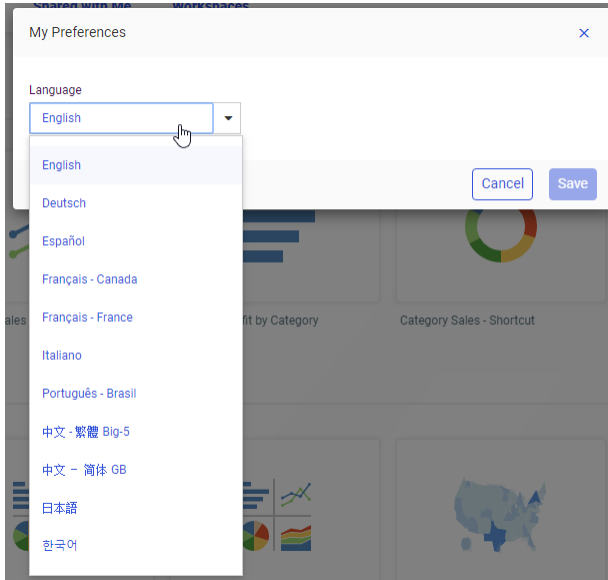


**Note:** If you point to a non-existent workspace or replace the path with a blank space in the Default List Repository Path setting, the Getting Started carousel will not display. You can always restore the default path automatically by clearing the value assigned to this setting, saving the change, signing out and signing back in to reload the Home Page.



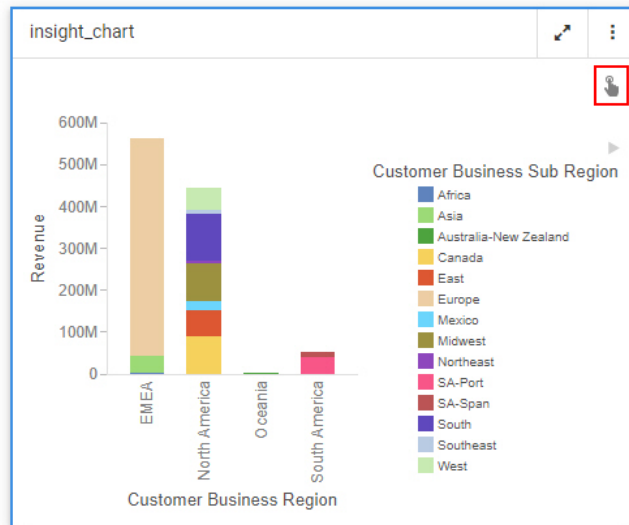
## User Language Preference

Users can now customize their language preference from the User Menu of the Home Page. Click your user icon in the upper-right corner of the Home Page, click Preferences, and then choose a language from the My Preferences dialog box, as shown in the following image.



## Adding Insight-Enabled Charts to a Visualization

When you add an Insight-enabled chart to a visualization assembled from existing content, the Insight icon appears in the upper-right corner of the chart, as shown in the following image.



When you run the visualization and click the Insight icon, the Insight chart opens in a new browser tab and displays the Insight toolbar, allowing you to interact with the chart at runtime with full Insight functionality.

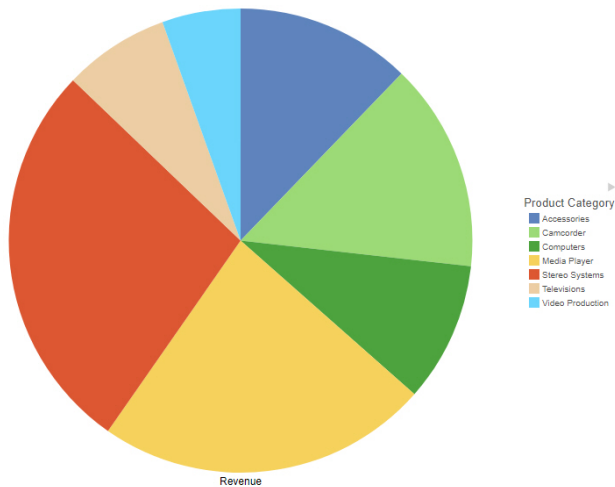
## Dynamic Grouping Enhancements

When creating dynamic groups in WebFOCUS Designer using the Create groups and Edit groups dialog boxes, you can use drag actions to modify groups. You can drag one value onto another to create a group with those two values, drag a value into an existing group to add it to the group, drag a group onto an ungrouped value to add the value to the group, drag a group into another group to combine them, or drag a value from one group into another group to move it to that group. You can also now edit a dynamic group field once it has been added to your content by right-clicking it in a bucket, in addition to the field list. These features make it easy to create and edit your dynamic groups.

For more information, see the *Using Dynamic Grouping for Dimension Field Values* topic.

## Changing the Size of the Hole in a Ring Pie Chart

When creating a ring pie chart in WebFOCUS Designer, you can change the size of the hole in the middle, or remove it entirely, giving you more control over the appearance of your chart. When you create a ring pie chart, select the *Format* tab, and then select *Series* from the area menu. When *All Series* is selected, the *Hole Size* property appears in the *Shape* section. Set a size, as a percent of total diameter, for the ring pie hole. The total value text inside the hole shrinks or expands to fit in the space. If you set the hole size to 0, the ring pie chart becomes a standard pie chart, with no total value text displayed, as shown in the following image.



## Field List Expands to First Field

When creating content in WebFOCUS Designer, the field list in the Resources panel now expands to the first available field by default once a data source is selected. If there are multiple nested folders at the top of the business view, they are expanded, by default, one-by-one, starting from the top, until the first fields are visible. Additional folders within the last expanded folder are not expanded once fields are visible. This makes it easier to access fields in a data source without requiring the user to manually expand multiple folders, while still keeping most folders closed to avoid the need for excessive scrolling.

## WebFOCUS Designer Browser Tab Name

When editing a previously saved visualization in WebFOCUS Designer, the name of the browser tab is taken from the title of the visualization. This makes it easy to identify which visualization is being edited on each tab, particularly when multiple instances of WebFOCUS Designer are open. Prior to saving, a browser tab in which WebFOCUS Designer is running is named *Designer*.

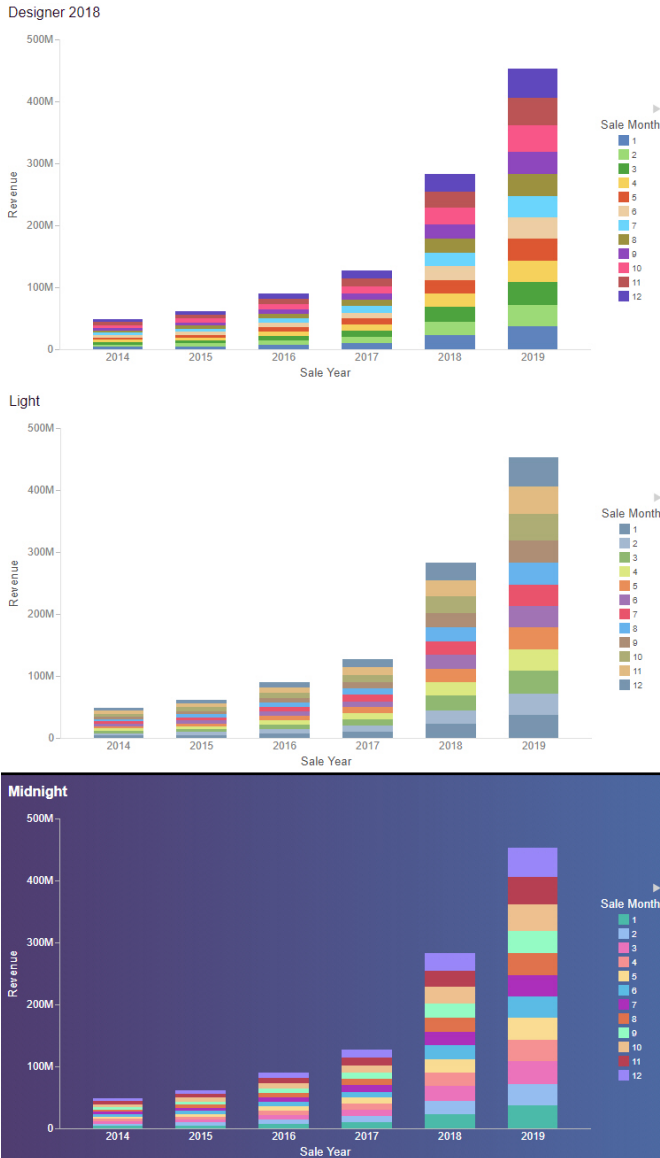
## Using the Outline to Access the Source Syntax of a Single Chart or Report

When creating a new visualization in WebFOCUS Designer, the outline is now available for stand-alone content items. This allows you to view the WebFOCUS Language source syntax of stand-alone content items, which significantly facilitates troubleshooting. Select *Outline* on the sidebar and right-click the chart or report listed in the outline, then click *View source code*. The source syntax displays in a read-only text editor. You can copy the syntax, download the chart or report as a .fex file, and search through the syntax using the options on the toolbar. To return to the canvas, click the X in the upper-right corner of the page.

## Extended Chart Series Colors for Default Themes

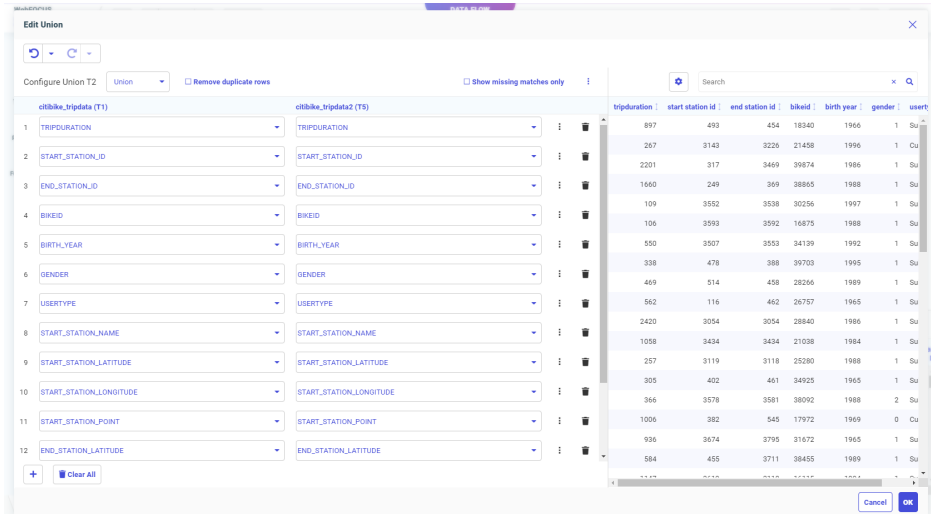
By default, WebFOCUS includes three themes: Designer 2018, Light, and Midnight. These themes specify styling properties for charts, reports, and pages. For charts, one of these properties is a set of series colors. Series colors represent different values of a dimension field added to the Color bucket. When the number of series values in a chart exceeds the number of specified series colors, those colors are repeated in the specified order with increasing lightness applied with each cycle.

To delay the repetition of series colors, additional series color values have been added to each of the default themes, increasing the number of specified series colors from 6 to 12. The following image shows the same chart with 12 series values, using each of the three default themes.



## Union, Join, and Select Editors Open as Nearly Full-Screen Windows

In prior releases, the Join Editor, Union Editor, and Select Editor opened as panes on the Data Flow Workspace. Now, they open as popup windows on top of the Data Flow Workspace and are almost full-screen size, as shown in the following image.



This provides more room to see and edit the on-screen elements than when they were confined to a small pane on the bottom of the screen.

## Limiting the Number of Automatic Join Pairs in Tables Without Keys





When you join files or tables without keys, the join created automatically based on matching field names is now limited to three pairs of join fields, to avoid attempting a join on an excessive number of fields, especially when joining a table to itself. For example, the following image shows the default automatic join pairs for two tables with the same fields.

**Edit Join from CITIBIKE\_TRIPDATA to CITIBIKE\_TRIPDATA2**







↶ ◻ ↷ ◻


**Configure Join** ⋮

Join Type

 <b>Inner</b>	 Left Outer	 Right Outer	 Full Outer
---	---	--	---

Join Clauses

citibike_tripdata (T1)		citibike_tripdata2 (T2)	
TRIPDURATION	= ▾	TRIPDURATION	 
START_STATION_ID	= ▾	START_STATION_ID	 
END_STATION_ID	= ▾	END_STATION_ID	 

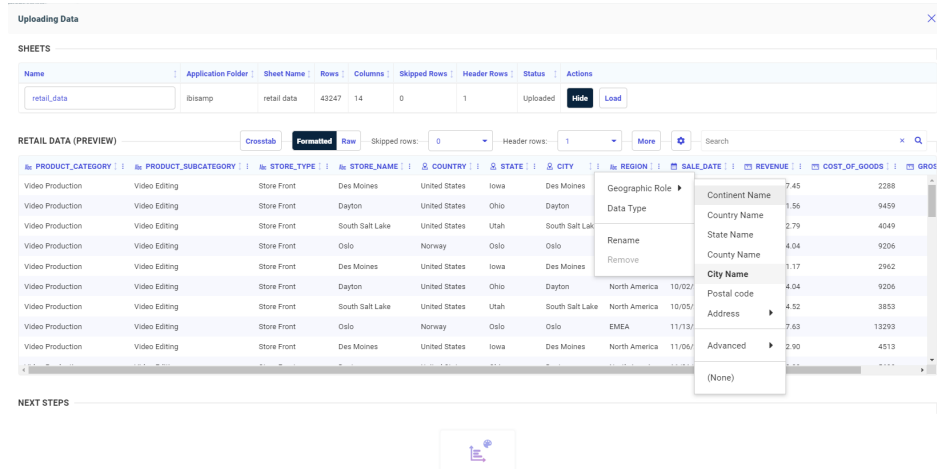
+ Expression
💡 Suggestions
 Clear All

You can always add additional pairs or remove pairs, as needed.

This limit does not affect joins on tables with keys, where all of the key fields are joined.

## Previewing a File When Uploading

When you upload a file, you can preview the file to make sure that you uploaded the one that you wanted. You can also make some adjustments to the data before loading it to a target, as shown in the following image.



When preparing the data:

- The headers and sample content are shown. By default, formatted data is shown, with the generated data types identified. You can click the *Raw* button to see unformatted data.
- The number of header rows is determined by scanning the file, but it can be changed as required.
- For an Excel Worksheet, there is an option to read the file as a cross-tab.
- The derived data type is shown for each field. You can change the basic data type.
- You can, optionally, change or assign a geographic role.
- A field name is shown for each field, either from the header, when available, or generated as the name FIELD with an index (FIELDx). You have the option to rename the field.
- You can also change the name of the metadata object (synonym) that is created and, for workbooks with multiple worksheets, choose which ones to load.
- You can click the *More* button to access additional file options.



After you load the data, the page that opens has a *Preview* button, as shown in the following image.

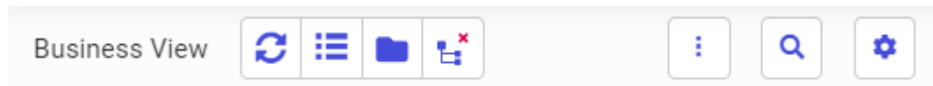
Uploading Data								
SHEETS								
Name	Application Folder	Sheet Name	Rows	Columns	Skipped Rows	Header Rows	Status	Actions
retail_data	lbisamp	retail data	43247	14	0	1	Loaded	<input type="button" value="Preview"/> <input type="button" value="Reload"/>

If you click *Preview*, you open the same preview pane, with the same options that were available in the Prepare step.






You can click *Reload*, to reload the data, if necessary.

## Redesign of Business View Icons




When editing a Business View, the buttons now have icons that are more standard and clear, and are grouped in a more logical configuration, as shown in the following image.



The first group of buttons control the Business View:

- The *Reset Default* button () recreates the default Business View.
- The *Flatten* button () lists all measure fields under a single measure group and all dimension fields under a single dimension, with no children.
- The *Create Template Folders* button () creates empty basic folders when there is no Business View already defined.
- The *Hide All* button () removes the Business View. A *Create Default* button () appears so you can create the default Business View.

The second group of buttons provide options for the window:

- The *Display* button () lets you show Folders and Columns or just Folders, or opens a window with a modeling view of the folders.
- The *Find* button () opens a search box in which you can enter characters. All component names that contain those characters are highlighted.
- The *Choose Columns* button () has two options. *Choose Columns* opens a dialog box for selecting the attributes in the synonym that you want to display. *Reset Columns* returns the display to the default columns.

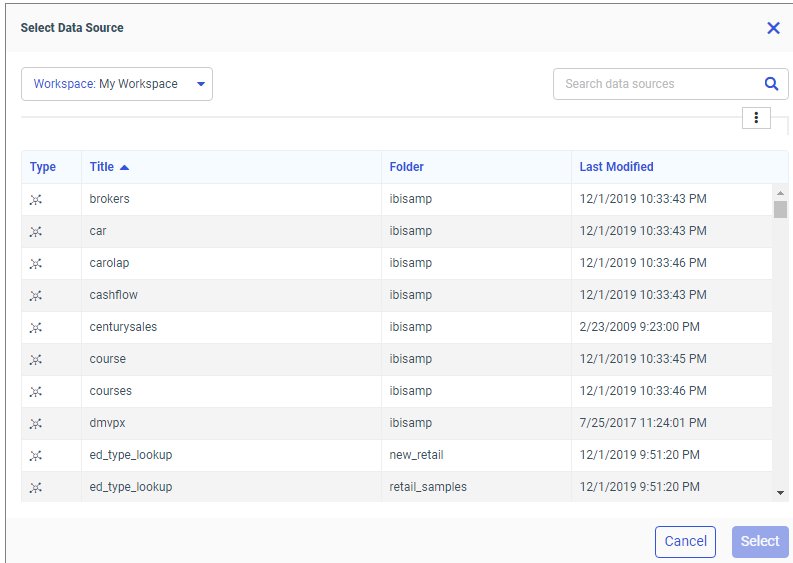
### **Numeric Fields Classified as Dimensions by Default Based on Field Names**

When uploading a data file, or when creating a data flow or default Business View, if the name of a numeric field implies that it is more likely to be a dimension than a measure, it is classified as a dimension by default. For example, fields ending with `_ID` such as `ORDER_ID` are now classified as dimensions by default.

This allows you to create content that more accurately represents your data.

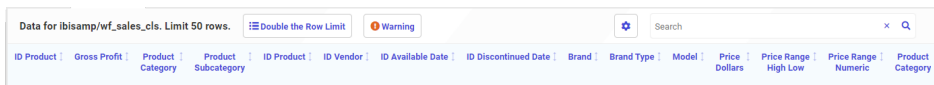
## Using Columns While Selecting a Data Source

The Select Data Source dialog box, which displays when you select data for your visualization in WebFOCUS Designer, now features a column selector. In this dialog box, you can customize the number and type of columns, sort each column by clicking the title, and search for a specific data source. This enhancement is especially useful when you are working with a large number of data sources. An example of the new Select Data Source dialog box is shown in the following image.

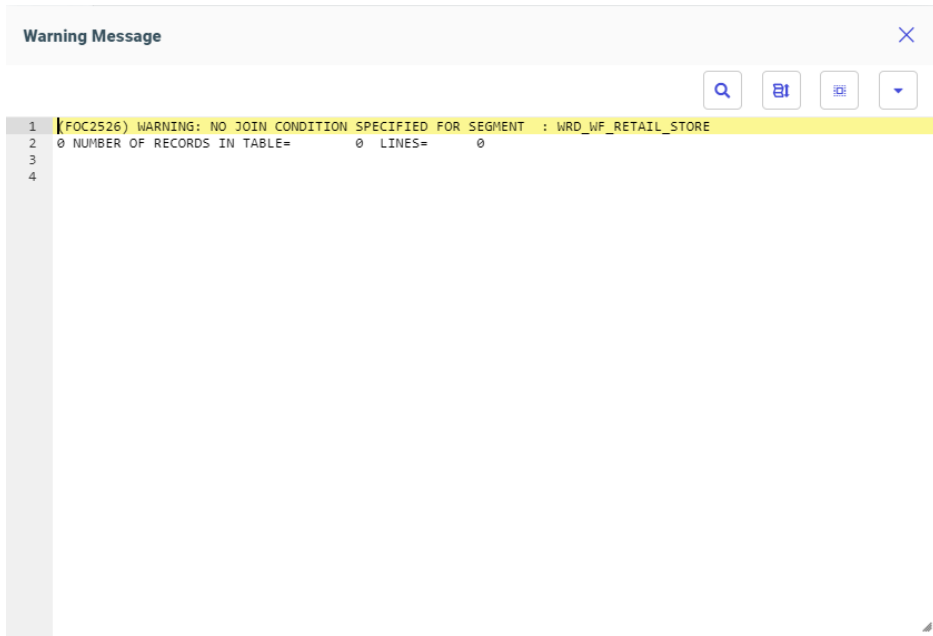


## Sample Data Shows Warning Messages

When generating sample data in the Synonym Editor or a Data Flow, if problems occur reading the data, an indicator that there are messages displays on the screen, as shown in the following image.

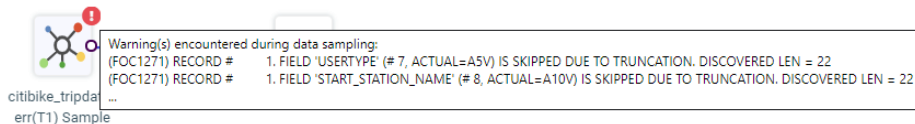


If you click this indicator, you can see the actual messages, as shown in the following image.

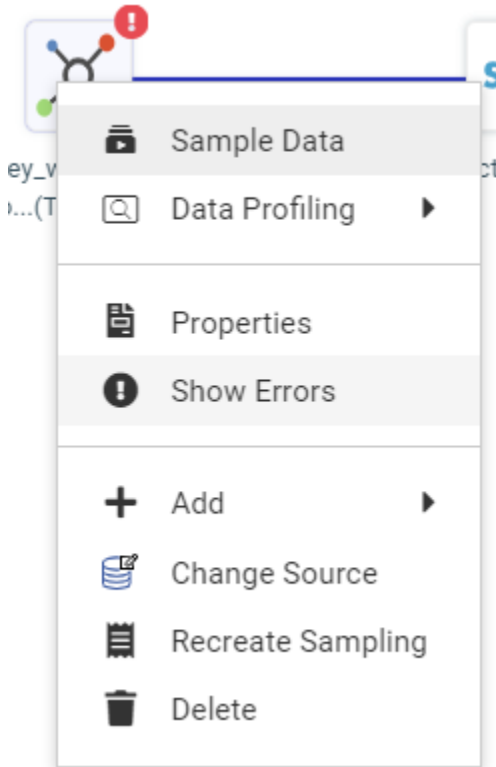


### Sampling Shows Warning Messages

When sampling is enabled in a data flow and any errors occur reading the data, a warning indicator displays on the synonym node that has the sampling errors. Hovering over the indicator shows the messages, or a partial list, depending on the length and number of the messages, as shown in the following image.



To open a window with the complete list of messages, you can right-click the synonym and click *Show Errors*, as shown in the following image.



A window opens showing the complete list of messages.

The Reports pane also shows the indicator.

If you click that indicator, the message window opens.

## Fixes

- A Stacked Line visualization is not sorted properly when using a date field with the Mrt month format. (190117048)
- A configuration option is now available to select between Bulk load or WebFOCUS native load (TABLE) for repository archive. (180813120)
- Implement Hyperstage version 2018.1p1 for Windows to avoid a system reboot when the following error occurs: boost::interprocess::intermodule\_singleton initialization failed (191029015, 191104099)

- ❑ A request that contains a fully qualified DEFINE field resulted in an error: FOC003 THE FIELDNAME IS NOT RECOGNIZED: SEGMENT.FIELDNAME (190723037)
- ❑ JSON array notation is not set when ACCESS\_PROPERTY=(ARRAY\_ITEM) is set in the Metadata and proper statements are sent in the request. Support has been added for handling single quotation marks in the JSON sample within Document Sample for Create Synonym. (191028106)
- ❑ Running a dashboard that submits multiple requests against a Vertica database can result in a JSCOM3 crash due to the number of concurrent requests to the Vertica JDBC driver or JVM. (191004040)
- ❑ Creating the default Business View for an OData synonym removes the REFERENCE= key when the synonym is saved. (191016029)
- ❑ Issues occur when trying to use the adapter for Presto with SSL. (191023162, 200429022)
- ❑ If a filter control on the page requires a default value that begins with leading zeros, the leading zeros are not saved, causing the filter not to work correctly in some situations. For example, if an employee ID is an A10 field, and the control is set with a default value of 00000100, only 100 will be saved. (190917022)
- ❑ The entered titles in a Designer page are not shown if the page is stored in a folder which contains a German Umlaut like ä ö or ü. (191104075, 191209013, 191202174, 191205055, 191129028)
- ❑ A warning message is not thrown when exiting a page after JavaScript or Cascading Styling Sheet is changed. (191118034)
- ❑ When creating a DEFINE field that has a new line that starts with an asterisk (\*), if that character is added using the shift-8 key on the computer keyboard, rather than using the asterisk (multiplication) from the keypad in the Define tool, the second line, beginning with the asterisk, is removed if you save and reopen the procedure. (180427017)
- ❑ When the language is set to T-Chinese, the query panel contains S-Chinese characters in HTML5 chart extensions. (190916008)
- ❑ The Home Page search input now supports Asian languages. (200803011)

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

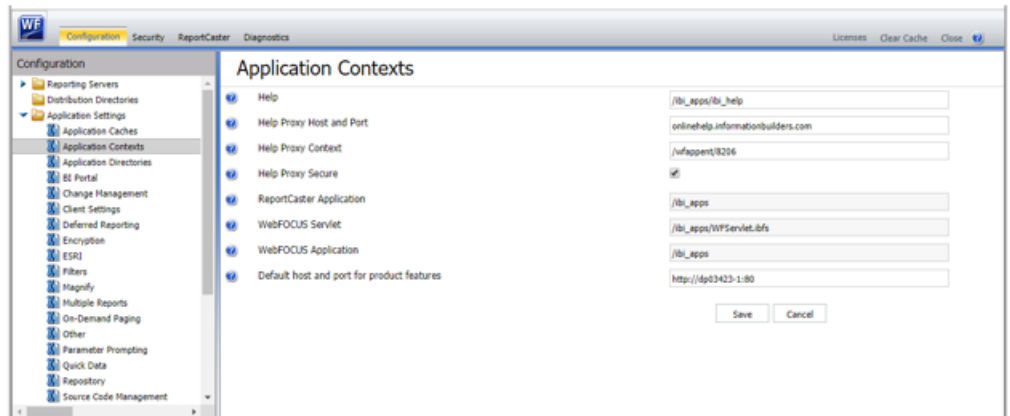
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to */ibi\_apps/ibi\_help*.

**Note:** The *ibi\_apps* value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, *ibi\_apps8206*, then the value for *Help* should be entered as */ibi\_apps8206/ibi\_help*.

3. Set the *Help Proxy Host and Port* value to *onlinehelp.informationbuilders.com*.
4. Set the *Help Proxy Context* to */wfappent/8206*. If you are using WebFOCUS Release 8207, set the value to */wfappent/8207*.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.

- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
- ❑ When an Insight-enabled chart created in the 8207.00 version of WebFOCUS Designer is added to a visualization as external content, the Insight icon does not appear on the chart when the page is run, so Insight features cannot be accessed. Resave the chart in WebFOCUS Designer 8207.01 or later to make Insight available when the chart is added to a visualization.
- ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
- ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
- ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
- ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
- ❑ HIDENULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.
- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ Fully-developed content sharing capabilities are not available in release 8207.



- ❑ In a scatter plot chart or bubble chart, multiple measure fields on the horizontal and vertical axes generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 77, Firefox version 69, and Microsoft Edge version 44 (WebFOCUS only). Internet Explorer Compatibility mode is not supported. For additional browser details, see [Browser Information](#).

For more information on supported clients and more, see [Release Information](#).



# Chapter 32

## 8207 Release Notes

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The following topic provides all the information that you need to know about this release of WebFOCUS.

**In this chapter:**

- [Release and Gen Information](#)
  - [New Features](#)
  - [Fixes](#)
  - [Known Issues](#)
  - [System Requirements](#)
- 

### Release and Gen Information

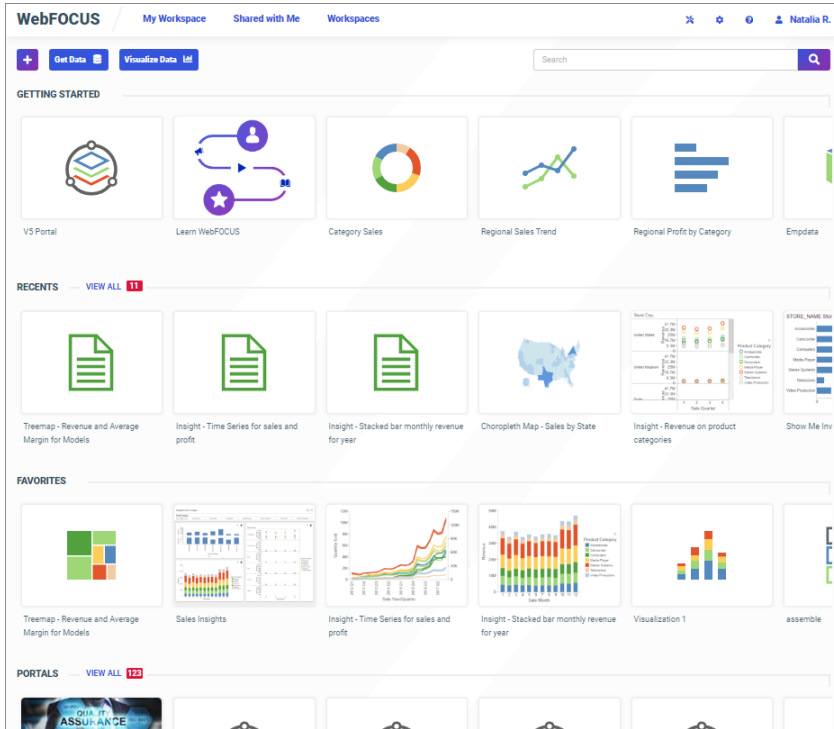
Release Date	Gen Information	Reporting Server
Friday, November 8, 2019	wf110619a Gen 8	8207 Gen 1905

### New Features

#### Interactive Home View

The Home view of the new Home Page consists of three carousels that show you portals, your favorite content, and the most recent items that you ran or created. Trial users also have access to the Getting Started carousel that offers sample content and a link to the Knowledge Base and other educational resources. As you continue interacting with WebFOCUS, the Home view changes to reflect your activity. You can customize this view further by adding items to Favorites. You can also remove items from Favorites and Recents.

An example of the Home view is shown in the following image.



## Enhanced Navigation of the Home Page

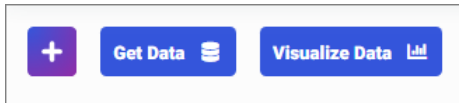
The new Home Page is organized into four functional views:

- Home.** Provides at a glance look at your portals, favorites, and the items that you recently created or ran.
  - Note:** Trial users also see the Getting Started section on their Home view, which provides access to the sample data and educational resources.
- My Workspace.** Serves as a centralized location for all your private content.
- Shared with Me.** Displays all of the content items that were shared with you or your group, by other users, or the items that were shared with all users in your environment.
- Workspaces.** Allows you to organize your repository structure, create and interact with content, create sample content, work with data, and perform other tasks. The Workspaces view is the most comprehensive component of the Home Page.

You can navigate to these views from the banner by clicking one of the tabs. To navigate to the Home view, click the WebFOCUS logo.

## Quick Access to Data and Visualizations

You can now access your data and WebFOCUS Designer, where you can visualize this data, by clicking one of the quick access buttons on the Home Page. The plus, Get Data, and Visualize Data buttons, shown in the following image, are available in every view of the Home Page and provide a smooth workflow for content creation.



The plus button opens a menu with two sections:

- Visualize Data.** Gives you the choice of two visualization modes.
  - Create New Visualization.** Allows you to start creating content for your visualization.
  - Assemble Visualizations.** Opens WebFOCUS Designer in a page more where you can assemble a visualization from existing content.
- Manage Data.** Provides access to the following options.
  - Get Data.** Opens the Get Data dialog box, where you can choose a source for your data.
  - Metadata.** Navigates to the Reporting Server in a new browser window, where you can view and manage your existing data.

Next to the plus button are the two easy-access buttons:

- Get Data.** Opens the Get Data dialog box, where you can choose a source for your data.
- Visualize Data.** Opens WebFOCUS Designer in the content mode, where you can start creating visuals for your visualization.

## Improved Search Functionality

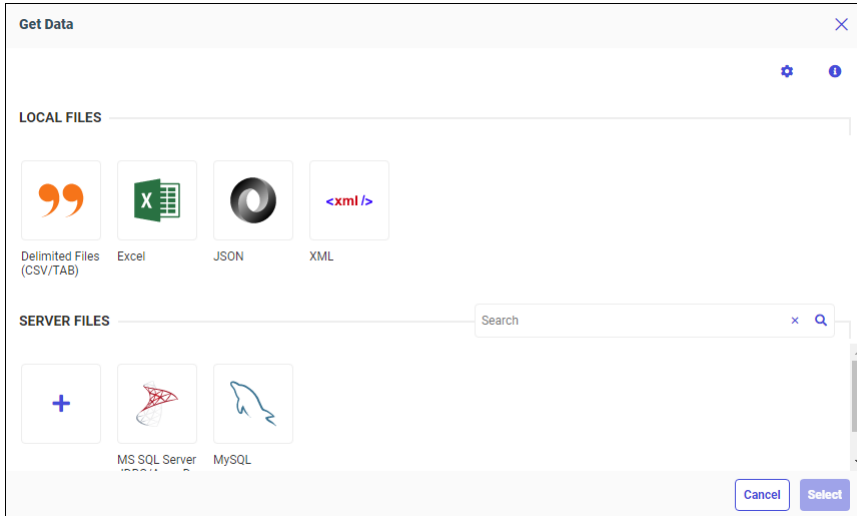
Powered by Apache Solr, the newly redesigned search functionality allows you to quickly access content across your repository. Using a text bar found on the WebFOCUS Home Page, you can enter a search term to quickly display all content items that match that term. The interactive search engine updates the suggestions as you type. You can also see the entire list of items that match a keyword, in a comprehensive list view, as shown in the following image.

The screenshot shows a search interface with a search bar containing the text 'category'. Below the search bar, there are buttons for 'Get Data' and 'Visualize Data'. The search results are displayed in a table with the following columns: Type, Title, Tags, Last Modified, and File Size. The results list 14 items, including 'Category Sales', 'Margin by Product Category', 'Regional Profit by Category', and 'YTD Stats for Product Category'.

Type	Title	Tags	Last Modified	File Size
	Category Sales		11/1/2019 1:14:58 AM	1531
	Margin by Product Category		11/1/2019 1:14:58 AM	1541
	Regional Profit by Category		11/1/2019 1:14:58 AM	1832
	YTD Stats for Product Category		11/1/2019 1:14:58 AM	2809
	Category Sales		11/1/2019 1:15:44 AM	1658
	Category Sales	Sales, Product	11/1/2019 1:15:48 AM	1702
	Stacked Bar - Sales by Month and Product Category		11/1/2019 1:14:56 AM	1455
	Margin by Product Category		11/1/2019 1:15:48 AM	1541
	Product Category Revenue YTD	Product, Revenue	11/1/2019 1:15:49 AM	2276
	Regional Profit by Category		11/1/2019 1:15:45 AM	1937
	Regional Profit by Category	Product	11/1/2019 1:15:48 AM	1980
	YTD Stats for Product Category		11/1/2019 1:15:48 AM	2891
	Insight - Revenue on product categories		11/1/2019 1:15:41 AM	3484
	Stacked Bar - Sales by Month and Product Category		11/1/2019 1:15:42 AM	1473

## New Data Access Workflows

You can now access all your data from a single streamlined environment. Upload and modify data files, or connect to various data sources, configure adapters, and add or change connections. Then easily visualize your data, use it to create content, or prepare it for future analysis.

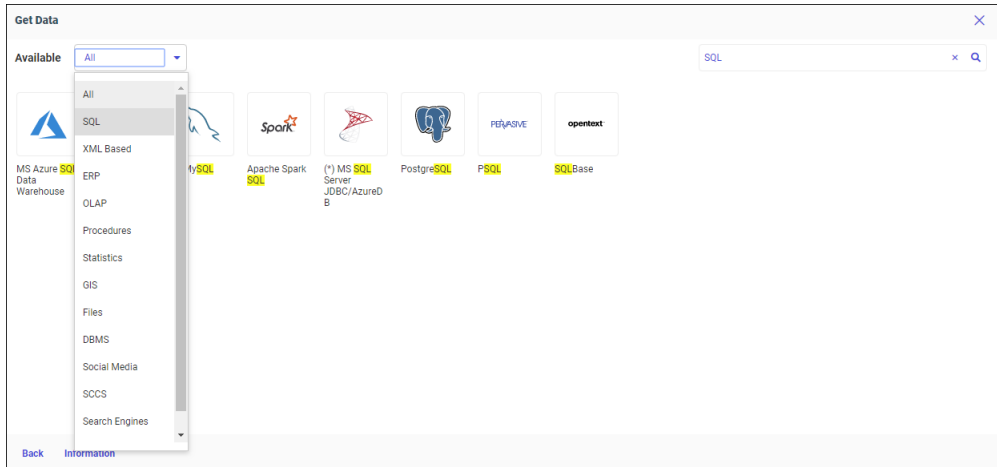


## Search or Filter Available Data Sources

When connecting to data, you can quickly locate the adapter you need.

- Filter by adapter category using the category dropdown menu.

- Search by keyword using the search field.



## Preview and Prepare Data Files

When uploading data, you can preview it before loading. This gives you the option to modify your data as needed. Options include:

- Select individual Excel worksheets to load.
- Hide number of header rows.
- Convert cross-tab columns into rows.
- Remove or rename fields.



- ❑ Change number of skipped rows.

Order ID	Order Date	Sales Rep	Store Code	Store Name	Country	Region	State	City	Product Type	Product Category
28003	10/17/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(D)	Video	DVD
28003	10/17/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Cameras	Digital Cameras
28003	10/17/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Camcorders	Digital Camcorders
28003	10/17/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Office	Organizers
28003	10/17/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Office	Organizers
28004	10/22/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Audio	Amplifiers/PreAmps
28004	10/22/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Audio	Audio Systems
28004	10/22/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Audio	MP3
28004	10/22/2017	Web	9999CE	Century Electronics (Web)	United States	Web(R)	Web(S)	Web(C)	Video	DVD

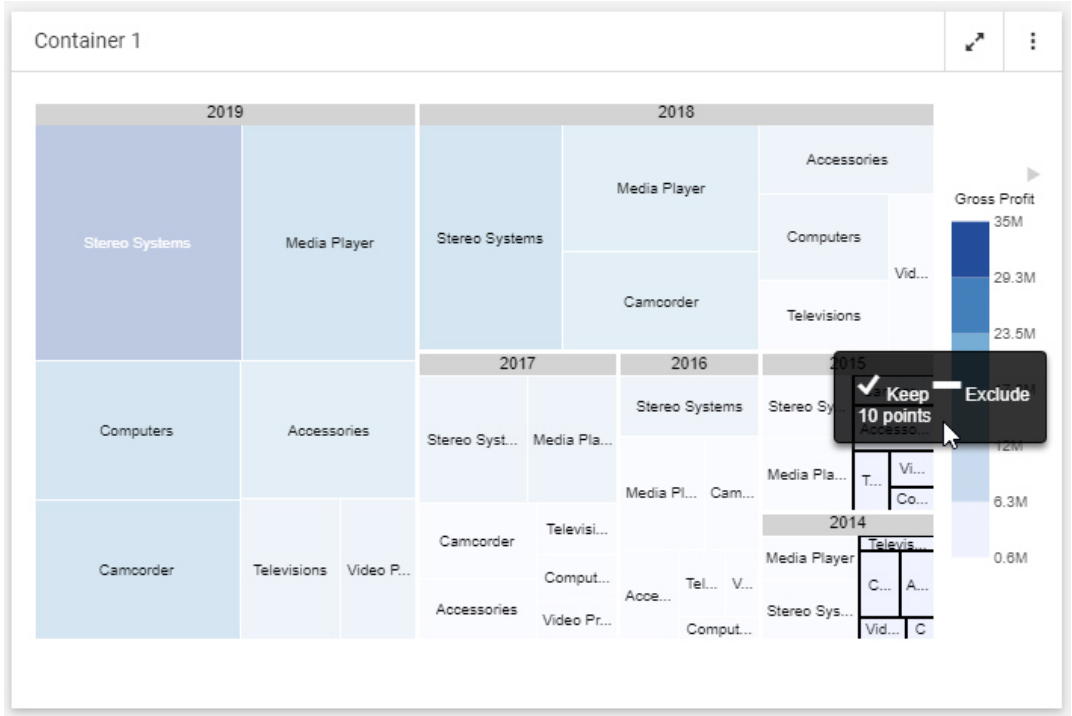
## Enhanced Designer Workflows and UI

WebFOCUS Designer now includes an integrated canvas that allows you to join data, visualize that data, and arrange your new content into an interactive page, all within a single session. You can use a simple, but powerful set of tools to create new content in a variety of standard and custom chart types, and row- and column-based report layouts. You can style and customize these items individually, and transform them instantly into a page, in which you can create even more new content. You can then rearrange and add run-time behaviors to each component, and filter your content based on visual elements.

## Filtering a Chart With Visual Selections

In WebFOCUS Designer, you can visually create prompted filters by selecting areas of a chart directly from the canvas as you create it, as well as at run-time. This is called on-chart filtering. Since on-chart filtering is performed based on visual selections on a chart, they are quick and intuitive to create. On-chart filters created from one item immediately affect all other content created on the page, allowing you to see the impact of your filter immediately. On-chart filtering is available from pages containing one or more new content items, and from stand-alone charts created using the AHTML output format.

To use on-chart filtering, select one or more areas of a chart by clicking a single section or by clicking and dragging, or lassoing, an area of the chart. The selected sections of the chart are highlighted, and a tooltip appears with options to keep or exclude the selected values, as shown in the following image.



### Adding Static Filters to Content

In WebFOCUS Designer, you can create a static filter for a field. Static filters are always applied to your content whenever it is run, as opposed to prompted filters, which involve user selection. While prompted filters allow you to create controls when the content that uses them is added to an assembled page, static filters do not. Additionally, prompted filters affect all new content on the page, or any referenced content that uses the filter. Static filters, on the other hand, affect only the item for which the filter was created.

Static filters are a good choice when you want the same filter values to be applied to your content at all times, or want to create a filter that only affects a single content item.

To create a static filter, when creating a new chart or report, drag a field into the Filters bucket on the Settings tab of the Properties panel. The Add Filter dialog box opens, and presents options relevant to the type of field that you are filtering.

## Viewing the Structure of a Visualization With the Outline

When creating a visualization with multiple components, you can see a hierarchical tree of page components by clicking *Outline* on the sidebar. This allows you to clearly see the structure of your visualization including which items are a sub-component of another component. The outline also provides access to the JavaScript and CSS text editors, where you can type custom code to modify your page based on specified object classes.

You can select an item from the outline in order to see a pertinent set of options on the Settings and Format tabs of the Properties panel, as an alternative to selecting the item on the canvas.

You can also right-click different items on the outline to access options such as changing the title of a container, saving or viewing the source syntax of a content item, or adding a new visualization to a page section.

## Changing Content From a Chart to a Report

You can now convert a chart to a report and a report to a chart in WebFOCUS Designer. When creating content, both chart type and report layout options are available on the Content picker, allowing you to easily switch between a chart and a report, as well as different types of each, providing added flexibility when creating content.

## Using Dynamic Grouping for Dimension Field Values

In WebFOCUS Designer, you can use dynamic grouping to combine multiple dimension field values into a new set of larger values in a new grouped field. For example, you may have a field with US state names, but no field for US regions. Using the dynamic grouping functionality, you can create groups for different regions for use in a content item without editing the data source. You create one group that combines state name values like Maine, New Hampshire, and Massachusetts into a New England group, states such as New York, New Jersey, and Pennsylvania into a Mid-Atlantic group, and so on. You can even add the extraneous, remaining values into an Other group automatically, if you do not think they fit into another defined group.

To create a dynamic group, right-click the data field for which you want to apply dynamic grouping, and click *Group values*.

## Inherited Themes in a Visualization

When creating content in WebFOCUS Designer, you can apply themes to content items, pages, and portals. When you apply a theme to a single content item, and then transform it into a page, the same theme is applied automatically to the entire page, and the theme of the content item is inherited from it. This allows the content themes to update automatically when you change the page theme. You can still specify a theme for each content item once the visualization has transformed into a page by selecting a different theme option. When assembling a page from existing content, the theme for each content item is always inherited from the page.

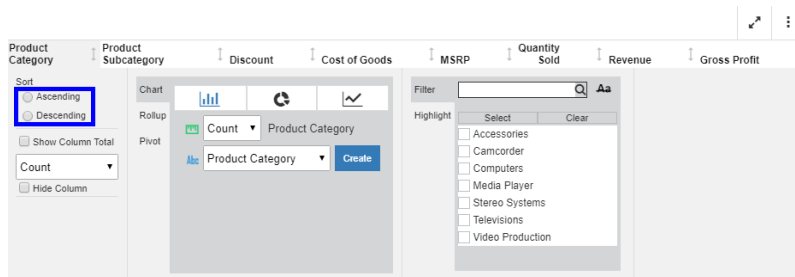
Similarly, when a page is added to a portal, it inherits the portal theme. This theme is then passed on to content in the page, keeping the style of your content synchronized across a portal application.

## Ability to Burst Multigraph Charts With AHTML Format

You now have the ability to burst multigraph charts that use AHTML formats to users in your organization. This added capability enables the sending of unique sections of a multigraph chart to recipients in a distribution list. For example, using WebFOCUS scheduling and distribution tools, you can choose to burst specific sections of a multigraph chart to recipients based on a parameter, such as region, that you configure.

## Sorting Data in an Interactive Report

When working with the Column menu in an interactive report, you can now easily sort data in ascending or descending order, as shown in the following image.



This gives you the flexibility to order your data differently, dynamically.

## Adding Comments to an Interactive Report

You can now add comments to a selected cell in an interactive report, as shown in the following image.

Product Category	Product Subcategory	Cost of Goods	Discount	Gross Profit	MSRP	Revenue
Accessories	Charger	\$2,052,711.00	\$187,485.88	\$1,970,123.91	4,210,324.00	\$4,022,834.91
	Headphones	\$51,663,564.00	\$3,516,913.33	\$24,523,023.33		
	Universal Remote Controls	\$36,037,623.00	\$2,310,446.31	\$13,361,292.00		
Camcorder	Handheld	\$20,576,916.00	\$1,959,624.28	\$21,393,654.00		
	Professional	\$35,218,308.00	\$1,933,997.25	\$8,835,522.00		
	Standard	\$49,071,633.00	\$3,214,786.74	\$19,369,667.00		
Computers	Smartphone	\$44,035,774.00	\$2,790,775.51	\$15,834,702.00		
	Tablet	\$25,771,890.00	\$2,018,134.59	\$17,674,115.00		
Media Player	Blu Ray	\$181,112,921.00	\$10,895,633.29	\$51,771,195.00		
	DVD Players	\$3,756,254.00	\$258,593.13	\$1,859,645.00		
	DVD Players - Portable	\$306,576.00	\$26,356.05	\$265,150.77		
	Streaming	\$5,064,730.00	\$338,559.94	\$1,936,586.65		
Stereo Systems	Boom Box	\$840,373.00	\$62,739.39	\$546,423.99		
	Home Theater Systems	\$56,428,589.00	\$3,943,920.23	\$27,931,096.22		

Most Recent Comment

Compare Gross Profit Values from Q2 to Q3

10/16/2019 3:00:41 PM

Linda, please pull our Q2 values for our Gross Profits for Chargers

[View All](#)

This gives you the ability to collaborate on a particular item with members of your organization, enabling you to call out values that require immediate attention.

## Saving Changes to Interactive Content at Run-Time

When working with interactive content at run-time, you can now save changes as you build charts, reports, and visualizations. This feature saves a copy of your output, in its current state, to the Downloads folder on your machine. The default name of the output file is ARsave.html, and includes a Coordinated Universal Time (UTC) date/time stamp. This allows you to capture snapshots of your content at specific intervals, enabling you to share your output with others in your organization.

## Server Enhancements

The server provides a wide range of capabilities and tools for adapter configuration, metadata creation, application and path management, security control, communications configuration, and for monitoring, tuning, and troubleshooting server performance. Authorized users can perform most server administration tasks from a graphical Web Console. The server supports WebFOCUS Web Query reporting functions, extraction, load and transformation functions, and analysis and data access control functions.

### Comparing or Merging Server Files

Using the server Compare Files and Merge Files options, you can compare or merge two files in the server text editor.

To open the diff tool:

1. Multi-select two files by clicking one file, holding down the Ctrl key (or the Shift key if the files are contiguous) and clicking the second file.
2. Right-click and select:
  - Compare Files* to compare the files.
  - Merge Files* to copy lines between the files.

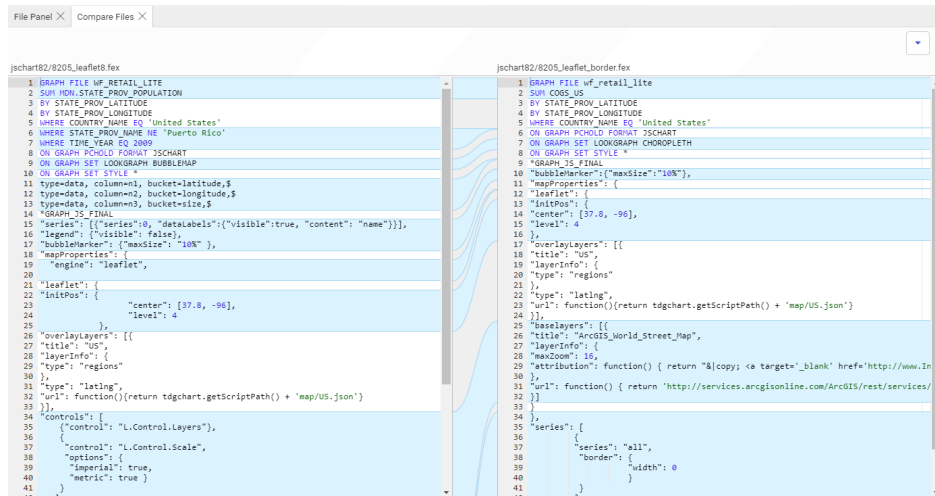
The two files open side-by-side in the text editor.

**Note:** If the two files represent synonyms, selecting:

- Compare Files* compares the Master Files.
- Compare Access Files* compares the Access Files.
- Merge Files* merges the Master Files.
- Merge Access Files* merges the Access Files.

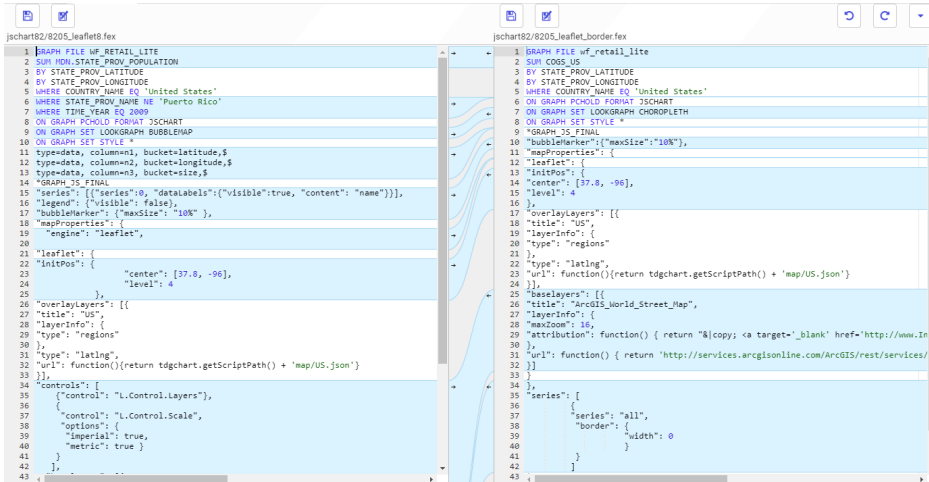
## Comparing Files

When you select Compare Files, the files open in two panes in the text editor. Lines that are different are highlighted in light blue, and curves drawn between the two panes show insertions and deletions, as shown in the following image.



## Merging Files

When you select Merge Files, the files open in two panes in the text editor. Lines that are different are highlighted in light blue, and curves drawn between the two panes show insertions and deletions. In addition, arrows within the curves enable you to copy lines between the files, as shown in the following image.



If you click an arrow to copy a line from one file to the other, the highlighting and curve disappear once the line is copied.

Each pane has a Save As button, so you can save your changes, under the same name or a different name.

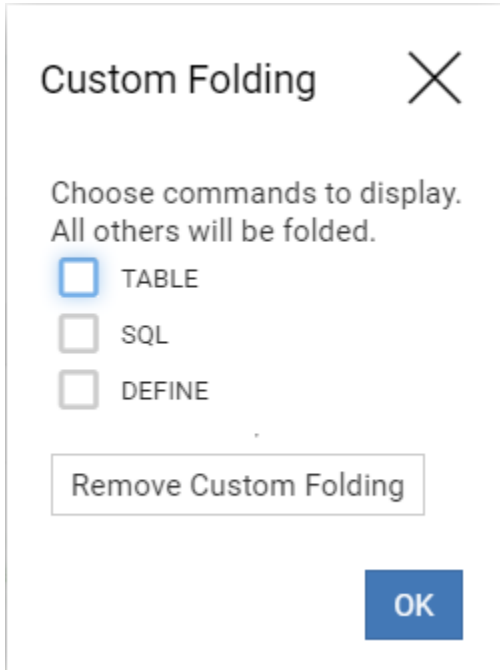
There are undo and redo buttons so you can reverse your changes, if necessary. If you undo a change, the highlighting and curve reappears.

## Using Custom Folding in the Text Editor

Custom folding enables you to choose the type of commands that you want to remain unfolded. This is especially useful when you open the Session Log, which contains all of the commands generated in your session.

To enable custom folding, click the down arrow on the text editor toolbar, and click *Custom Folding...*

The Custom Folding dialog box opens, as shown in the following image.



Check the boxes for the commands that you *do not* want to be folded. For example, DEFINE is checked for the following image that shows a file with comments, SET commands, a DEFINE command, and TABLE request.

```
1  
8 * DEFINE FILE retail18205/bv_namespace_off/wf_retail_lite_off ADD  
9 TIME_YEAR_GROUP/16 TITLE "Year,Group"=IF TIME_YEAR IN (2006, 2009, 2010, 2011) THEN 0 ELSE IF TIME_YEAR IN (2012, 2013, 2014) THEN 1 ELSE TIME_YEAR;  
10 END  
11 *
```

If you previously implemented custom folding and want to remove it, click *Remove Custom Folding*. You can also unfold any folded text by clicking it.

Click *OK*.

### Using Text Editor Tab Key Navigation

The text editor Tab key navigation supports Section 508 Accessibility Compliance by enabling users to navigate through the interface using the Tab key on the keyboard.



To implement Tab key navigation, either press the *Esc* key when in a file open in the text editor, or click the Tab Navigation button on the toolbar that is shown in the following image:



Once you have enabled Tab key navigation, the icon on the button becomes hollow in the center, as shown in the following image.



With Tab key navigation enabled, pressing Tab cycles between the features on the page.

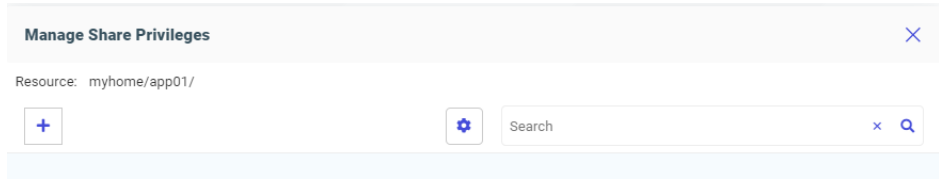
- If you press *Tab* from within a file open in the text editor, the focus moves to the URL bar at the top of the web page, then to the actual URL.
- Continuing to press Tab cycles to the buttons on the ribbon, with a change in color intensity identifying which button has the focus.
- After the ribbon buttons, the focus moves to the data tree, with a cursor or outline showing the position of the focus.
- From there, the focus moves to the text editor toolbar, indicated by a rounding of the edges of the button that has the focus.
- Pressing *Enter* selects the option that has the focus.

## Sharing Application Directories and Files

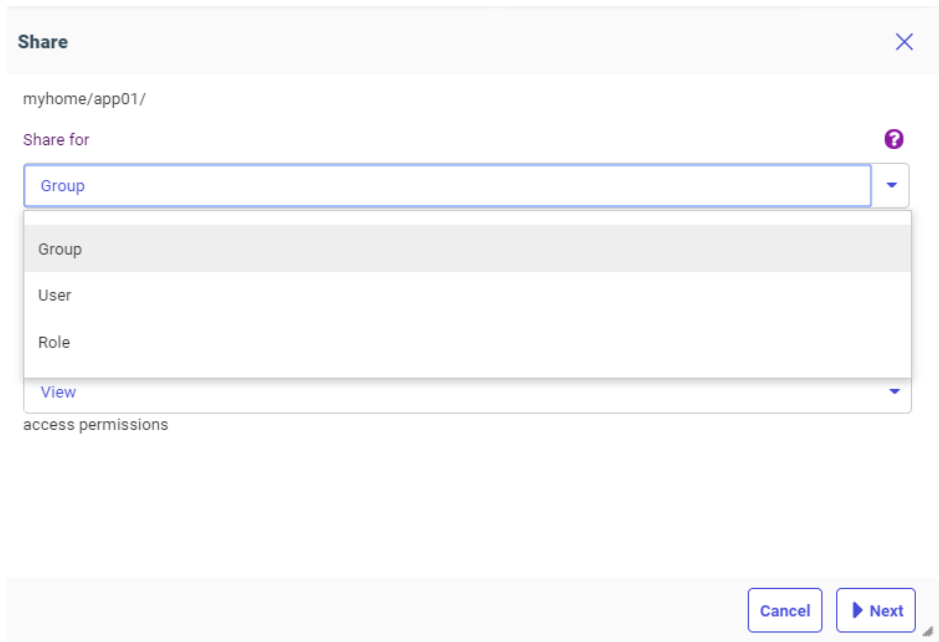
Users can share their personal content under their *myhome* application with other users, groups, or roles.

To share a resource under your myhome application:

1. Right-click the resource you want to share, and click *Share* on the context menu. The *Manage Share Privileges* page opens, as shown in the following image.



2. Click the plus sign (+) and select *User*, *Group*, or *Role* from the *Share for* drop-down list, as shown in the following image.



3. Select the security provider from the *Security Provider* drop-down list.
4. Select the type of access allowed, either *View* or *Edit*, from the *Access* drop-down list.

5. Click *Next*.

The *Share* dialog box opens, as shown in the following image.

6. Check the boxes for the users, groups, or roles that will share this resource, as shown in the following image, and click *Save*.

The screenshot shows a 'Share' dialog box with the following elements:

- Title bar: **Share** with a close button (X).
- Path: myhome/retail1.fex
- Share for: ROLES
- Search bar: A search input field with a search icon and a close button (X).
- Role selection table:
 

<input type="checkbox"/>	Role
<input type="checkbox"/>	Server Administrator
<input type="checkbox"/>	Application Administrator
<input type="checkbox"/>	Server Operator
<input type="checkbox"/>	Basic User
<input type="checkbox"/>	None
<input type="checkbox"/>	custom1
- Buttons: **Cancel** and **Save** buttons at the bottom right.

7. To manage the shared resource, right-click it and click *Share*. The *Manage Share Privileges* page opens, showing the share properties that have been configured.

You can edit or delete existing share properties, add additional share properties, save your updates, or reset the page.

When a user with share privileges signs into the server, an application named *shared with me* (*users home*) is added to the application tree and provides access to the shared resources.

## Using the Git Diff Tool

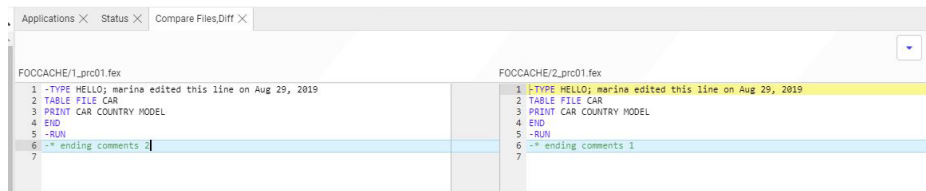
Once you have configured the Adapter for Git, you can use the Git Diff tool to open two versions of the same file in side-by-side panels, or generate a list of changes to a folder.

To open a file in the Git Diff tool, right-click the file, point to *Git* on the context menu, click *Diff*, and select one of the following options:

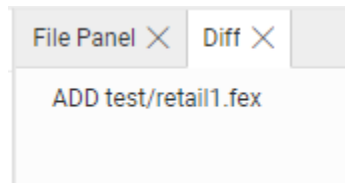
- Not staged.** Opens the staged version and modified (Working Directory) version.
- Staged.** Opens the staged version and last committed version.
- With Last Commit.** Opens the previously committed version and last committed version

The two versions of the file open in side-by-side panels. The differences are identified by a distinctive background color.

The following image shows the staged and modified version of the file `prc01` in the diff tool.



The following image shows changes to the folder named `test`.



If there were no changes to the folder, the following message displays:

`There are no differences`

## SQL Adapters

This section provides descriptions of new features for SQL adapters.

### SQL Adapters: Optimizing OUTPUTLIMIT

An OUTPUTLIMIT filter in a TABLE request is now, by default, passed to some SQL data sources as FETCH FIRST n ROWS. When needed, it can be suppressed using the optimization setting FEATOPT OUTPUTLIMIT OFF.

For example, the following request against a Db2 data source contains an OUTPUTLIMIT filter:

```
SET TRACEUSER = ON
SET TRACEOFF = ALL
SET TRACEON = STMTRACE//CLIENT
TABLE FILE WF_RETAIL_LITE
SUM COGS_US
BY PRODUCT_CATEGORY
IF OUTPUTLIMIT IS 50
END
SET TRACEUSER=OFF
```

The generated SQL request contains the FOR FETCH FIRST 50 ROWS clause:

```
SELECT
T1."ID_PRODUCT",
T1."COGS_US",
T7."ID_PRODUCT",
T7."PRODUCT_CATEGORY"
FROM
( wrd_wf_retail_sales T1
LEFT OUTER JOIN
wrd_wf_retail_product T7
ON T7."ID_PRODUCT" = T1."ID_PRODUCT" )
ORDER BY
T7."PRODUCT_CATEGORY"
FETCH FIRST 50 ROWS ONLY
FOR FETCH ONLY;
```

### Adapter for Hive: Bulk Loading Data With Non-Printable Characters

When using Extended Bulk Load on a flow to load to Hive, a setting SQLHIVE SET ESCAPE ON can be used to correctly process non-printable ASCII characters such as Linefeed or Carriage Return characters. With this setting an intermediate JSON file is created to load into Hive.

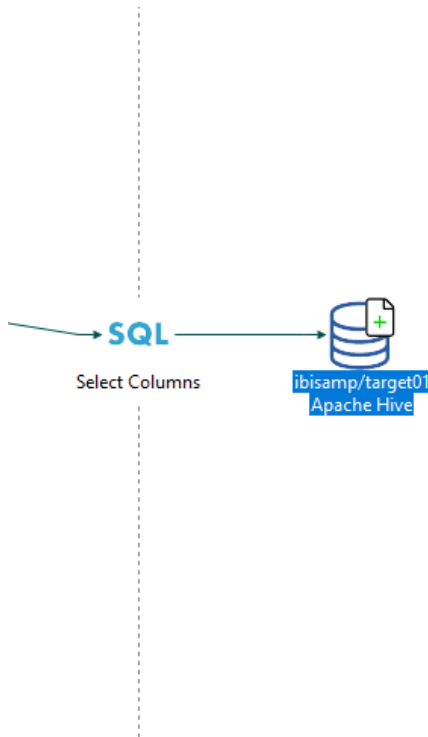
You can set the BLK\_ESCAPE parameter on the Change Settings page for Hive, as shown in the following image.

The screenshot shows the 'Change Settings for Apache Hive' page. At the top, there is a section for 'Save settings in' with a dropdown menu set to 'Profile'. Below that is a 'Select' dropdown menu set to 'edasprof'. The main settings are grouped under 'Bulk Load Service'. The 'BULKLOAD' setting is a dropdown menu set to 'ON - Default'. Below it is the 'Use Extended Bulk Load' checkbox, which is unchecked. The 'BULKCHECK' setting is a text input field containing '1000000', with a note below it: 'Commit every row(s). Default: 1000000'. The 'BLK\_ESCAPE' setting is a dropdown menu set to 'OFF - Default', and its dropdown menu is open, showing 'OFF - Default' and 'ON' options. Below that is the 'BLK\_PERM\_AS\_STAGE' setting, a dropdown menu set to 'ON - Default', with a note below it: 'Use Permanent Table as Stage'. At the bottom of the settings list are several expandable sections: 'Customize data type mappings', 'Diagnostics', 'Metadata', 'Miscellaneous settings', and 'Read/Write Optimization'. At the very bottom of the page are three buttons: 'Reset to defaults', 'Cancel', and 'Save'.

By default, the value is Off.

Select *On* to enable bulk load of non-printable characters.

You can also set this parameter on the Properties panel for a Hive target in a data flow, as shown in the following image.



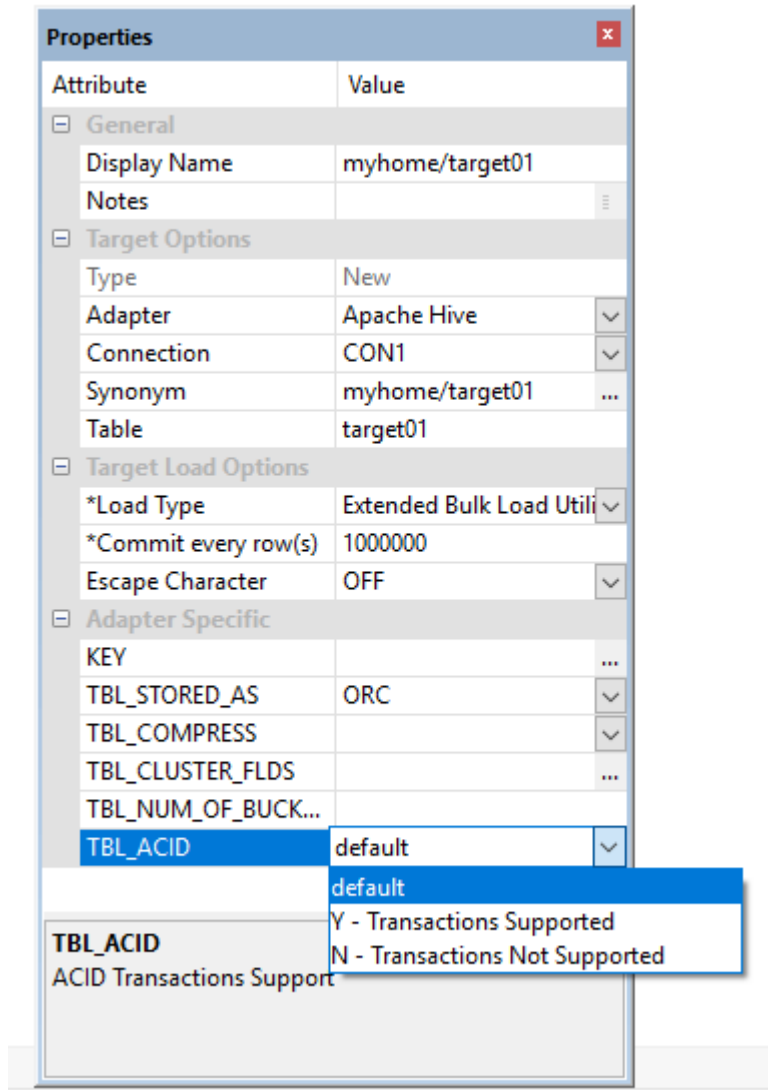
The diagram illustrates a data flow from an SQL source to a Hive target. The SQL source is labeled "Select Columns" and the Hive target is labeled "ibisamp/target01 Apache Hive".

Attribute	Value
<b>General</b>	
Display Name	ibisamp/target01
Notes	
<b>Target Options</b>	
Type	New
Adapter	Apache Hive
Connection	CON1
Synonym	ibisamp/target01
Table	target01
<b>Target Load Options</b>	
*Load Type	Extended Bulk Load
*Commit every row(s)	1000000
Escape Character	OFF
<b>Adapter Specific</b>	
KEY	
TBL_STORED_AS	TEXTFILE (default)

**Escape Character**  
**Escape Character**  
 Specifies the single character that is used for escape sequences such as ,, or @; and for escaping data characters that might otherwise be interpreted as row or column delimiters

### Adapter for Hive: Support for New Transactions With ORC-Formatted Records

When you configure the properties for a Hive target in a data flow, you can specify that new transactions will be allowed for ORC-formatted records, as shown in the following image.



The values for TBL\_ACID are:

- default.** Respects the value set within Hive.



- ❑ **Y.** Transactions are supported.
- ❑ **N.** Transactions are not supported. To modify the target, it must be recreated.

### Adapter for MySQL: Support for Running Under an SSH Tunnel

The Adapter for MySQL can be configured to connect to a Secure Shell (SSH) Tunnel. SSH tunneling transports data over an encrypted SSH connection. Local forwarding is used to forward a port from the client machine to the server machine. The SSH client listens for connections on a configured port, and when it receives a connection, it tunnels the connection to an SSH server. The server connects to a configured destination port, which can be on a different machine than the SSH server.

The following steps configure tunneling:

1. The System Administrator opens a tunnel on the port to MySQL running on a given box.
2. The server user on any box runs port forwarding on session1.
3. A user on session2 (on the same box as in Step 2) starts the server and configures the Adapter for MySQL with a connection to SSH.

### Adapter for Oracle: Support for Version 19c

Read/Write support has been added for Oracle Version 19c.

### Adapter for Oracle: Support for Autonomous Data Warehouse Cloud

The Adapter for Oracle supports Oracle Autonomous Data Warehouse (ADW) in the cloud, running versions 19c, 18c, or 12c.

### Adapter for Oracle: Support for HINT on Segment Level

Hints in Oracle enable the user to affect the execution plan for an SQL statement, using knowledge of the data. The ENGINE SQLORA SET HINT command enables the user to specify hints at the SQL statement level. This feature enables the user to add hints for each segment in the Access File using the following syntax.

```
SQLHINT = 'hint_clause'
```

where:

```
'hint_clause'
```

Is any valid Oracle HINT (see the vendor list of hints for the appropriate release), enclosed in single quotation marks, for example:

```
SEGNAME = EMP_C, SQLHINT = 'INDEX(EMP PK_EMP)', $
SEGNAME = DEPT_C, SQLHINT = 'ALL_ROWS', $
```

The Adapter for Oracle adds the appropriate hint syntax (`/*+ hint_1 hint_2 .. hint_n */`) to the SQL statement generated for the TABLE request. Each `hint_n` will be properly separated by a space and the combination of hints will be enclosed in valid comment tags according to Oracle rules.

The user is responsible for the proper hint clause syntax. Oracle ignores invalid HINT syntax without reporting an error. Therefore, the only way to check whether the Optimizer accepted the HINT is to run the Oracle explain command.

### **Adapter for TIBCO SnappyData**

The Adapter for TIBCO SnappyData is new in this release and can be found in the SQL group of adapters.

SnappyData (TIBCO ComputeDB) is a distributed, in-memory optimized, analytics database that delivers high throughput and concurrency.

### **Adapter for SQL Server: Version 2019 Support**

The Adapter for Microsoft SQL Server now supports SQL Server Version 2019.

## **ERP Adapters**

The following features were added for ERP adapters.

### **Adapter for Salesforce.com: Saving Intermediate and Log Files**

When loading data to Salesforce.com using the Bulk API, you can retain an intermediate file that is created, as well as the log (response) file. You can then use these files in conjunction with the batch results to see which records were loaded successfully (with the internal id for those records), and which were not (with the error message for those records).

The files are saved in the same application directory as the flow. Each is generated with a synonym that you can use for reporting. The file type of the intermediate HTML file is `.ftm` and the response file is `.log`.

This option can be set for the adapter or for an existing target in a data flow.

To implement this option for the adapter, right-click the adapter on the Get Data page, and click *Change Settings*. The *Change Settings for Salesforce.com* page opens, as shown in the following image.

**Bulk Services**

**BULKLOAD** ?  
 OFF - Default  
 Use Extended Bulk Load

**BULKCHECK** ?  
 10000  
 Commit every row(s). Default: 10000

**BULKQUERY** ?  
 OFF - Default  
 Enable Bulk Query for Data Retrieval

**PKCHUNKING** ?  
 OFF - Default  
 Enable Bulk Query PK Chunking for Data Retrieval

**PKCHUNKSIZE** ?  
 0  
 Bulk Query PK Chunk Size for Data Retrieval. Default: 0

**DIRECT\_BULK\_LOAD** ?  
 OFF - Default  
 Allow Direct Bulk Load

**BLK\_SAVE\_DATA\_FILES** ?  
 NO - Default  
 Save REST API Source Data Files

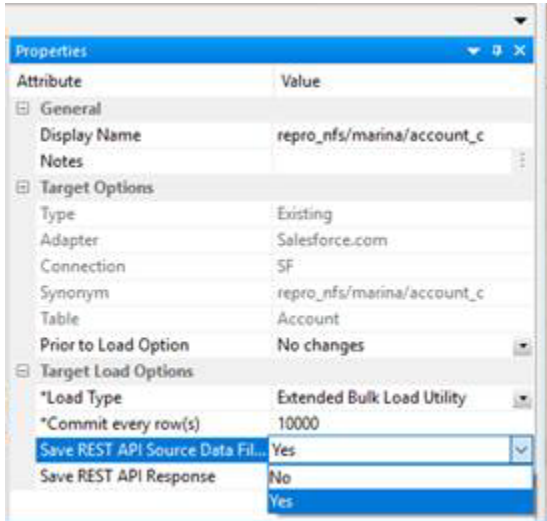
**BLK\_SAVE\_RESPONSE\_LOG** ?  
 NO - Default  
 Save REST API Response

Reset to defaults Cancel Save

The parameter `BLK_SAVE_DATA_FILES` is set to No by default. Change it to Yes to save the intermediate HTML file. The log file will also be saved.

The parameter `BLK_SAVE_RESPONSE_LOG` is set to No by default. Change it to Yes to save the log file when you are not saving the intermediate HTML file.

The following image shows these properties for an existing Salesforce.com target.



You can also issue the following command in a stored procedure to save the data and log files:

```
ENGINE SFDC SET BLK_SAVE_DATA_FILES YES
```

You can issue the following command in a stored procedure to save only the log file:

```
ENGINE SFDC SET BLK_SAVE_RESPONSE_LOG YES
```

## Data Preparation Enhancements

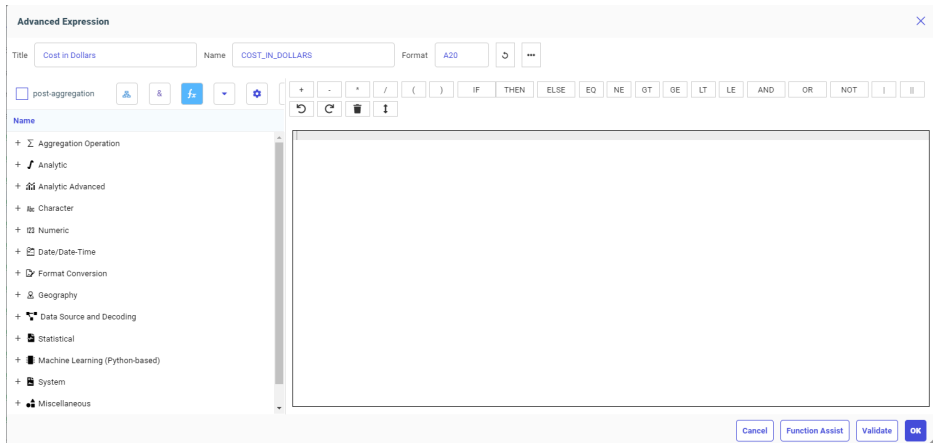
This section describes enhancements for preparing data to be loaded from sources to targets in a data flow.

### Automatically Deriving a Field Name When Creating an Expression

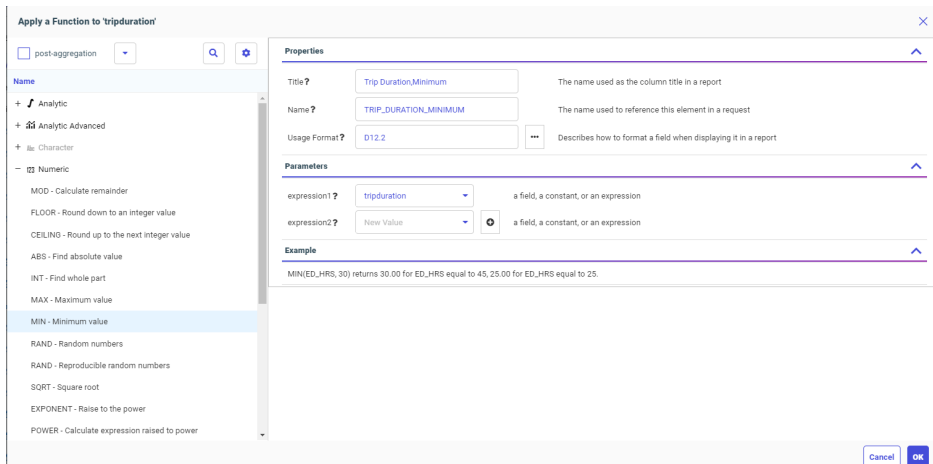
When you add a new field as an Advanced Expression or using Apply Function and enter a Title for the field, a suggested field name is automatically generated when you click outside the field or press the Tab or Enter key on the keyboard.

Titles have fewer restrictions than field names and can include special characters. Suggested field names are created with capital letters and special characters converted to underscores.

For example, if you enter Cost in Dollars as the title, the suggested field name becomes COST\_IN\_DOLLARS, as shown in the following image.

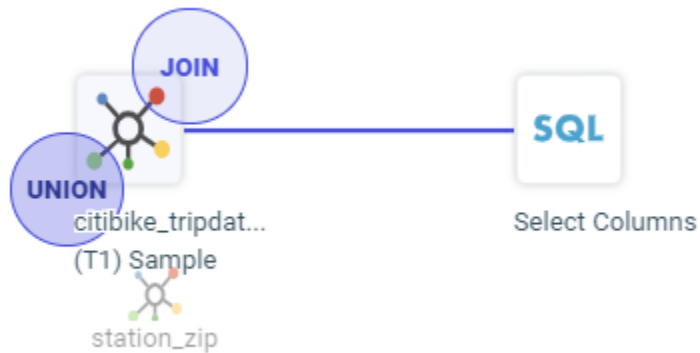


In the Apply Function dialog box, entering the Title Trip Duration,Minutes and clicking outside the field generates the field name TRIP\_DURATION\_MINUTES, as shown in the following image.



### Selecting Join or Union When Dragging a Source Onto a Flow

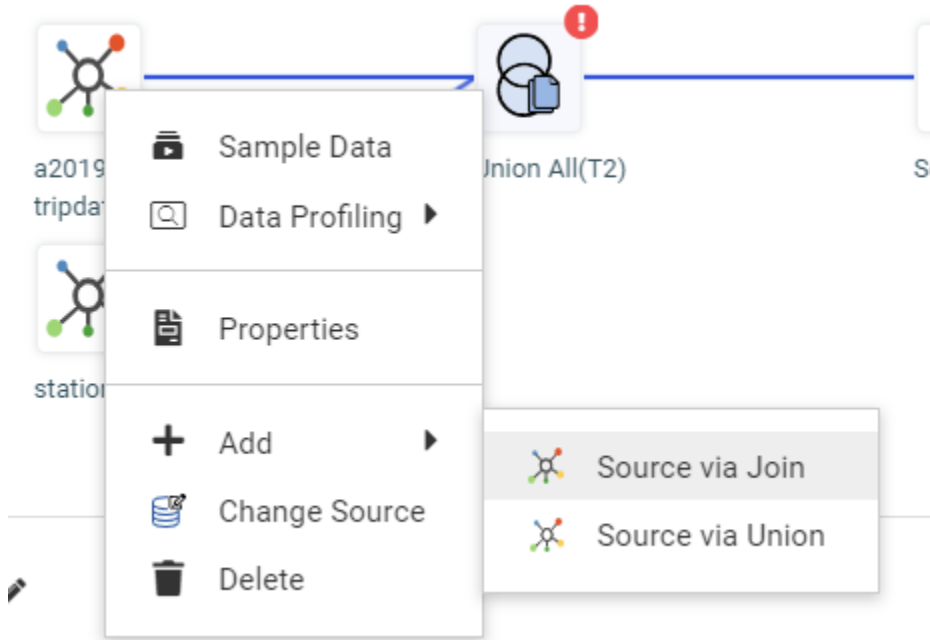
In prior releases, in order to add a source as a union, you had to first add a union to the flow, and then add sources to it. Now, when you add an additional source to a data flow by dragging the new source onto an existing one, you can add the new source as a JOIN or a UNION by dropping it on the appropriate bubble, as shown in the following image.



### Choosing a Join or Union for a Data Flow From a Menu

You can add a data source to a data flow as a JOIN or a UNION to existing data sources.

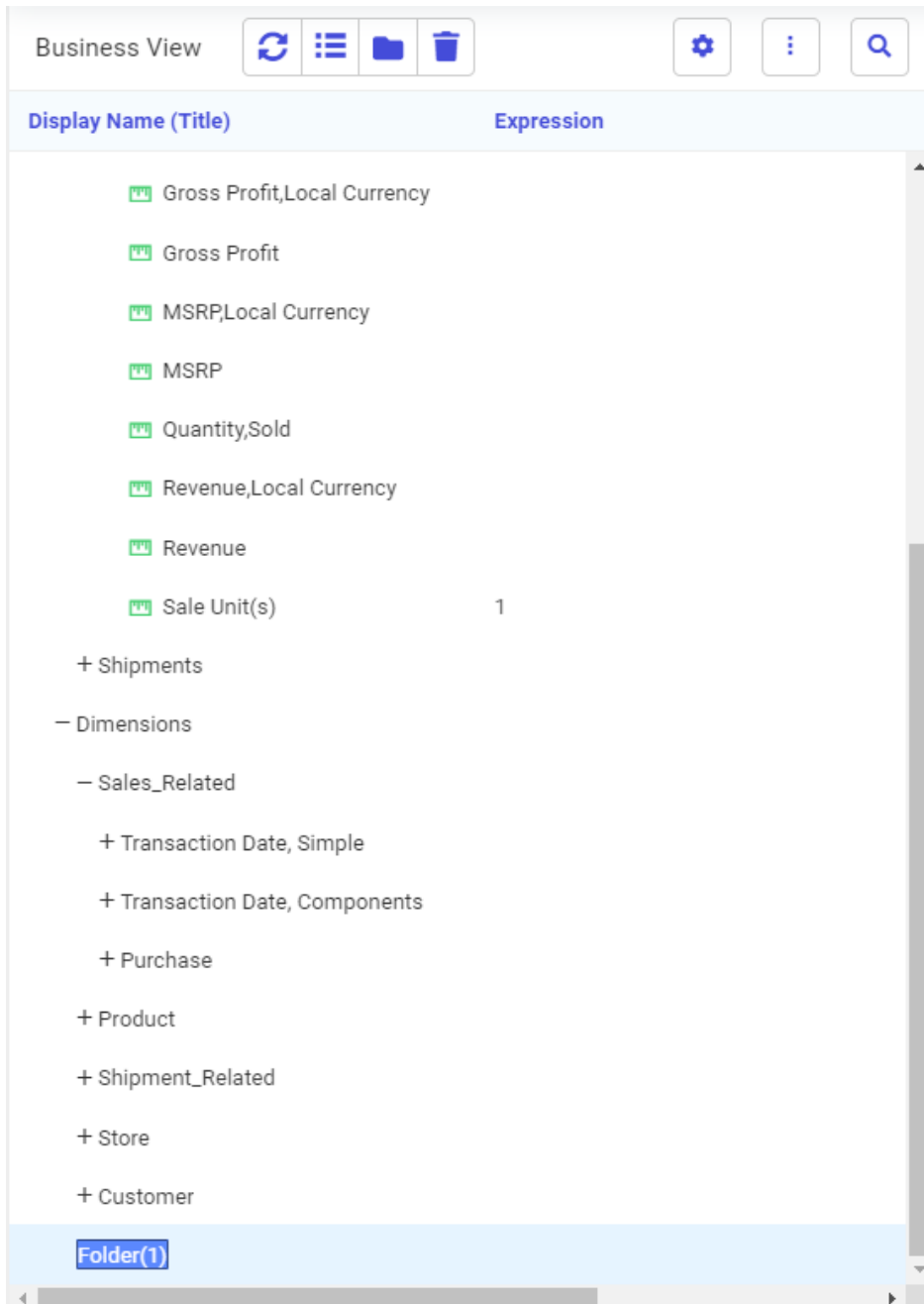
In addition to dragging a new source onto an existing source and selecting Join or Union, you can right-click an existing source, click *Add* from the context menu, then *Source via Join* or *Source via Union*, as shown in the following image.



### Creating and Renaming a New Folder in a Business View

In prior releases, adding a new folder to a Business View in the Synonym editor created the new folder with a default name. To rename this folder, you then had to right-click the folder, click *Rename* from the context menu, and enter a new name.

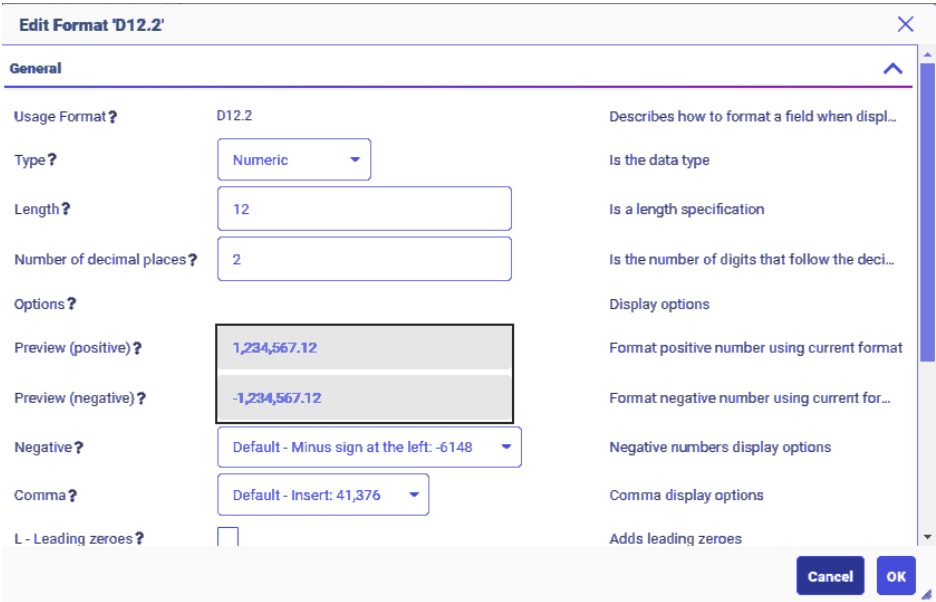
Now, when you add a new folder, it is generated with the default name selected for renaming, and you can type the new name in place, as shown in the following image.





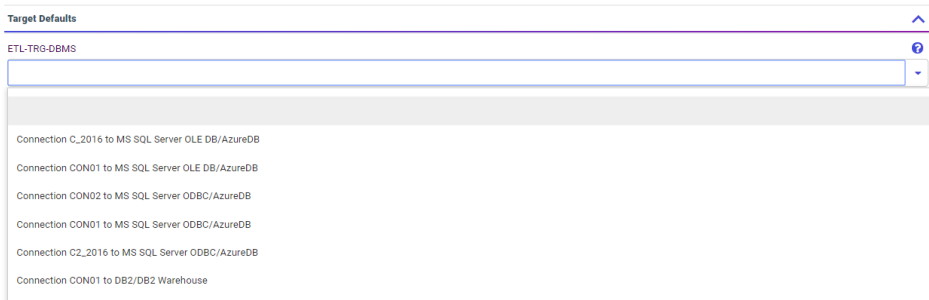
### Previewing the Display Format for a Function

When you create an expression using a function and change the display format of the function, you now see an example of how the field will be displayed in reports, as shown in the following image.

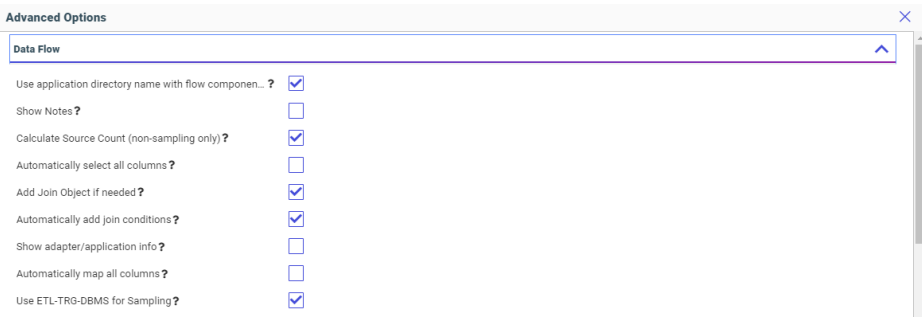


## Specifying a Location for Sampling Data

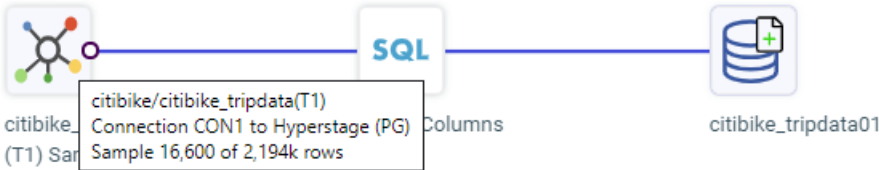
When representative sampling was enabled in prior releases, the samples would be stored in a binary file on disk. Now, the samples can also be stored in relational database tables using an adapter and connection you specify as the default target for flows. You can set a target for data flows on the Workspace page by clicking *Settings*, then *Settings for Web Console Preferences*, then *Target Defaults*. You can then select a connection and target DBMS for the ETL-TRG-DBMS parameter, as shown in the following image.



Then, in the Data Flow parameters of the Advanced Options dialog box, you can check *Use ETL-TRG-DBMS for Sampling*, in order to use the same target for the samples, as shown in the following image.



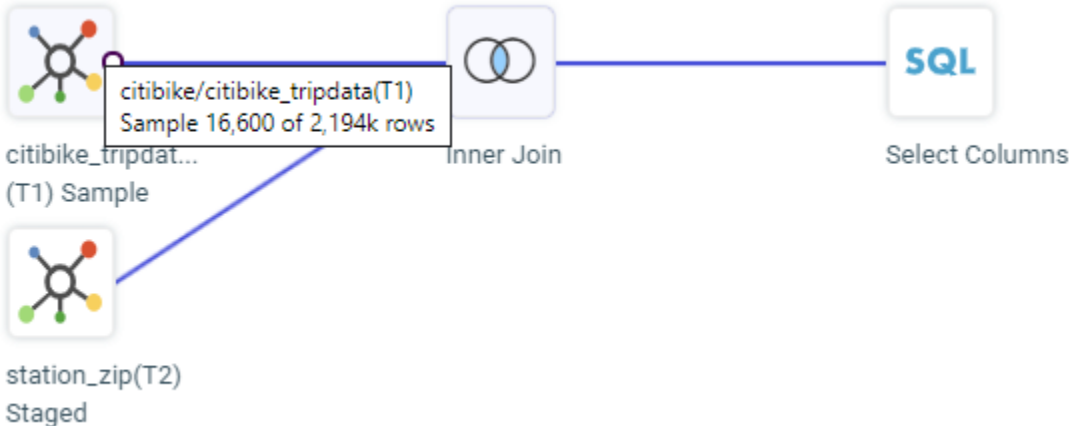
When you hover over the source icons on the canvas, the location of the sample data is displayed, as shown in the following image.



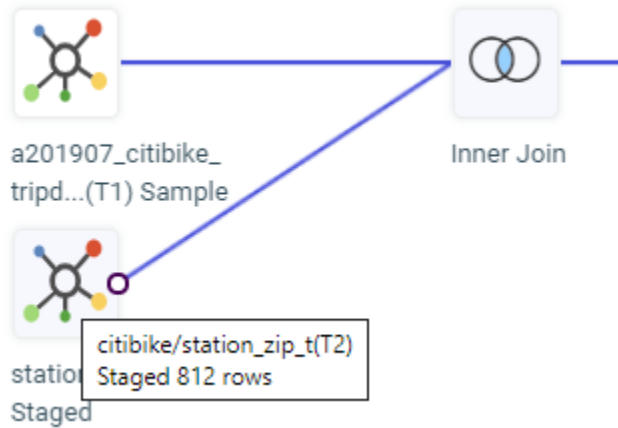
### Staging All Sources When Sampling in a Data Flow

When sampling is enabled for a flow, even sources that are too small to support sampling are staged in the same staging target as the large sources, to eliminate cross joins and, therefore, improve join performance.

In the data flow shown in the following image, a sample of the first data source has been staged, as shown in the following image.



The entire second data source has been staged, as shown in the following image.

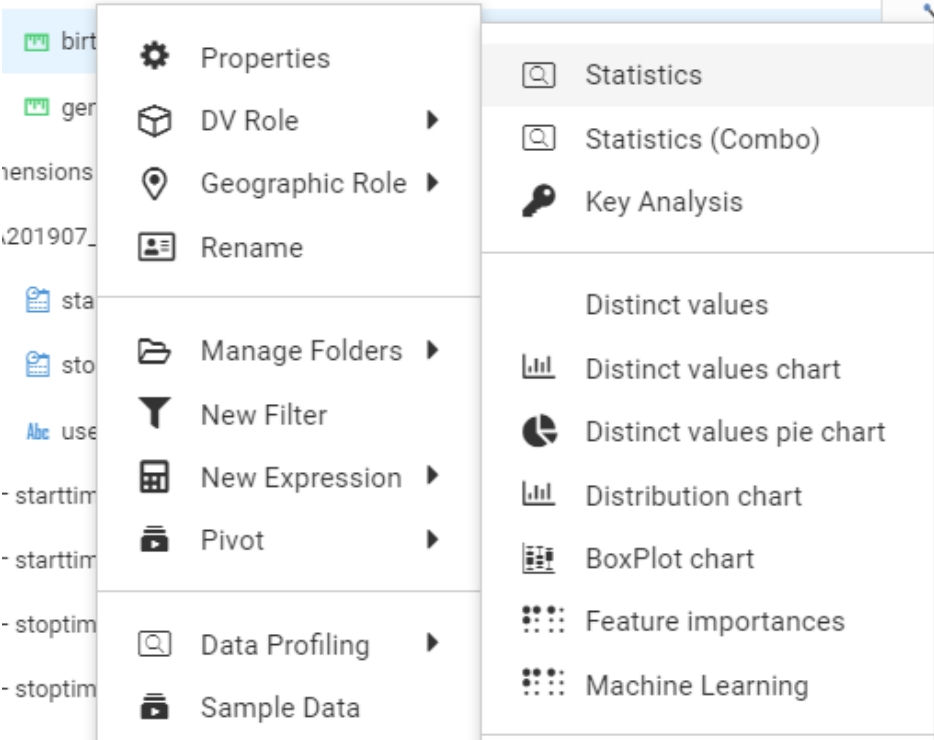


By default, sources are staged as DATREC files. However, you can configure them to be staged in the same relational data source as the target using the `SMPL_ETL_TRG_DBMS` parameter in *Settings for Web Console Preferences* on the Workspace page Settings menu.


### Profiling Numeric Data Using Standard Deviation

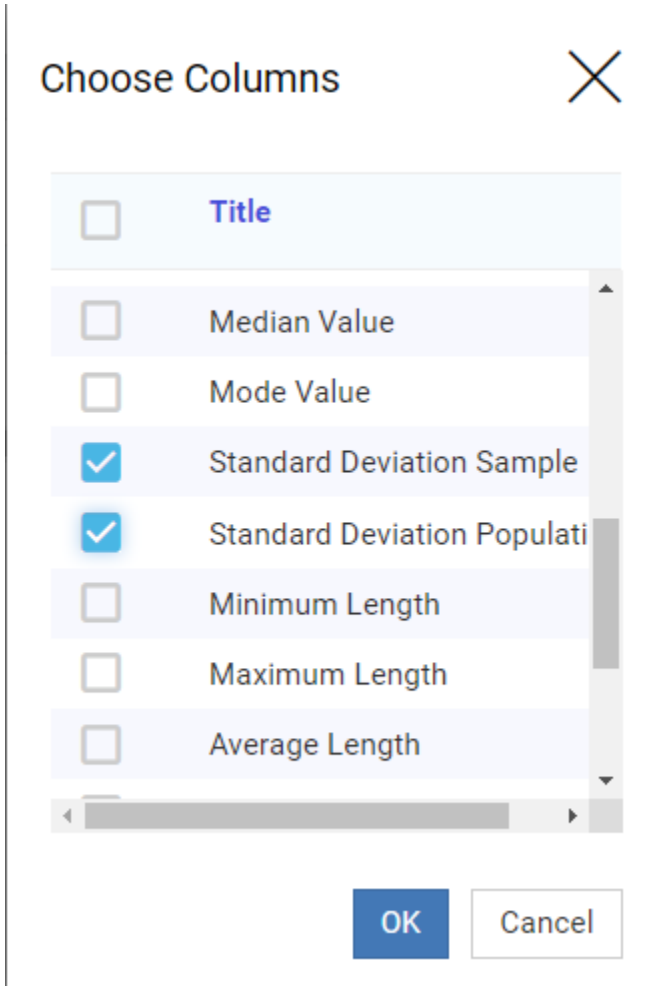
When using the Synonym or Flow editor and selecting a numeric field, two new data profiling statistics are available, Standard Deviation (Population) and Standard Deviation (Sample).

Right-click a numeric field, click *Data Profiling*, then *Statistics*, as shown in the following image.



Each statistic is represented as a column on the resulting data profiling report. Some statistics are selected by default. You can control which statistics to display.

Click the *Choose Columns* gear icon (  ) to select the columns for the report, as shown in the following image.



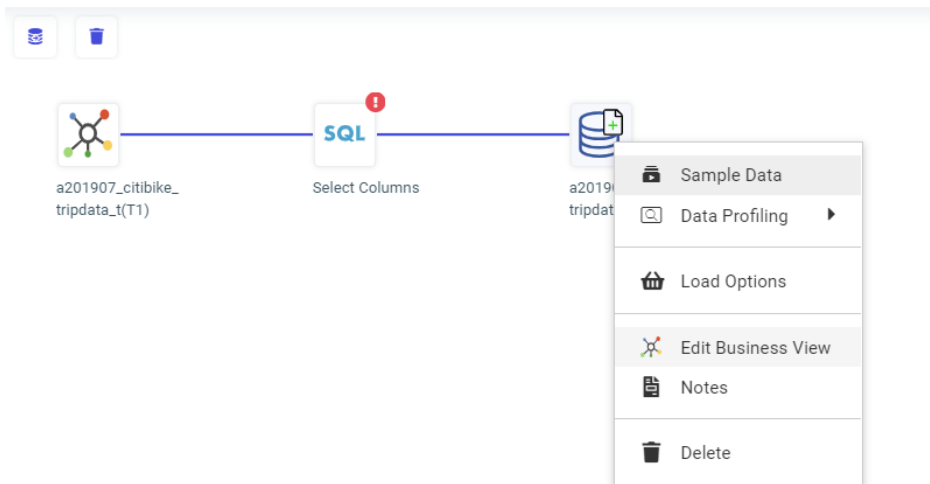
When you have made your selections, click *OK* to display them on the data profiling report, as shown in the following image.

The screenshot shows a data profiling report titled "Data Profiling for 'birth year'". It includes a search bar and a table with the following data:

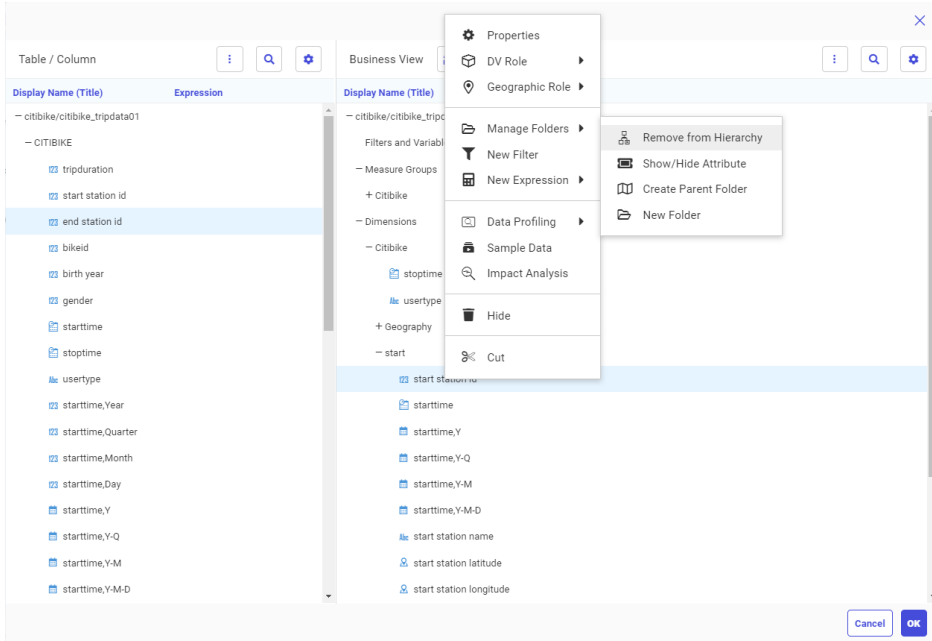
Segment	Standard Deviation Sample	Standard Deviation Population	Nulls Count	Nulls Percent	Duplicate Count
CITIBIKE_TRIPDATA	12.024585433	12.024582677	0	.00	<u>2,180,960</u>

### Creating a Business View for a Target Data Source




When you create and load a target table in a data flow, you can right-click the target after adding it to the flow and click *Edit Business View*, as shown in the following image.





A default Business View is created for the target table with default folders based on the fields in the synonym. A page opens on which you can edit the Business View, as shown in the following image.



The following are the buttons on the Business View toolbar:

Button	Definition	Description
	Reset	Resets to the initial default Business View
	Flatten	Shows the default folders only.
	Create Template Folders	In an empty Business View, creates the Filters and Variables, Measure Groups, and Dimensions folders with nothing in them.



Button	Definition	Description
	Hide All	Removes the Business View
	Create Default	If you removed the Business View, you can use this button to recreate the default Business View.

The following options are available on the Business View menu:

- Folders/Columns.** Shows the folders and columns within the folders.
- Folders.** Shows only folders.
- Modeling View of Folders.** Shows a graphical representation of the folders and the connections between them.
- Autorun.** Has the following options:
  - Data Preview.** Has options *Off* and *On*, where *Off* is the default. When Data Preview is *On* an additional panel is displayed that shows the data values in the order the fields appear in the Business View.
  - Off.** Does not automatically refresh the Data Preview panel when a change is made to the Business View. This is the default value.
  - On.** Refreshes the Data Preview panel for each change in the Business View.
- Diagnostics.** You can view the Master File or Access File, Open the Session Log, Clear the Session Log, and view the layout.
- Options.** Opens the data flow Advanced Options dialog box.

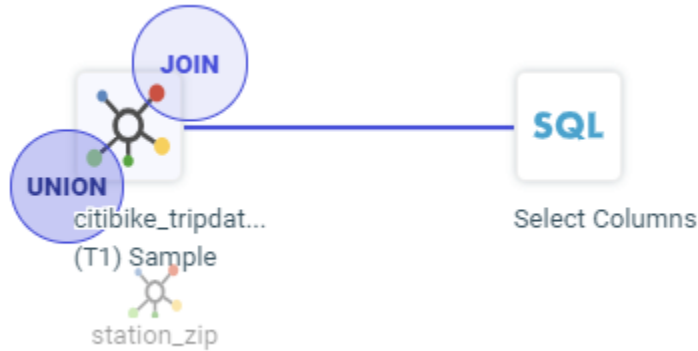
For more information about Business Views, including managing folders and hierarchies and specifying DV roles, see Chapter 5, *Metadata*, in the *Server Administration* manual.

### Improving Performance of UNION and UNION ALL in a Data Flow

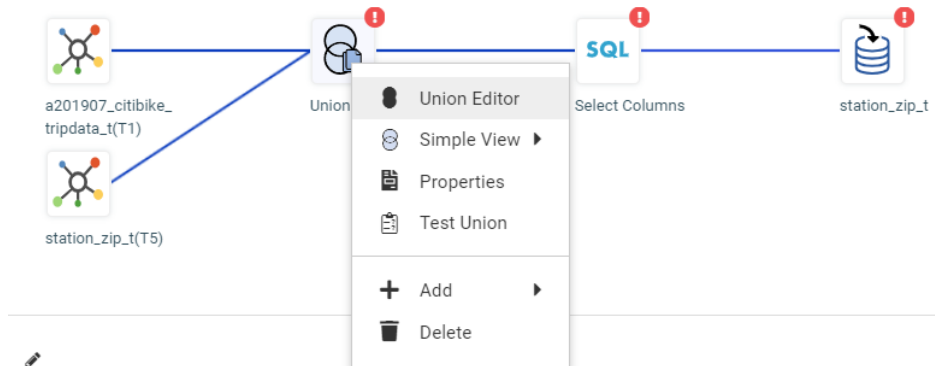
The performance of the UNION and UNION ALL processing in a data flow has been improved by passing more of the union processing to the DBMS in the generated SELECT statements. This reduces the number of intermediate files generated that need to be processed by WebFOCUS after data retrieval.

## Selecting the Type of UNION in a Data Flow

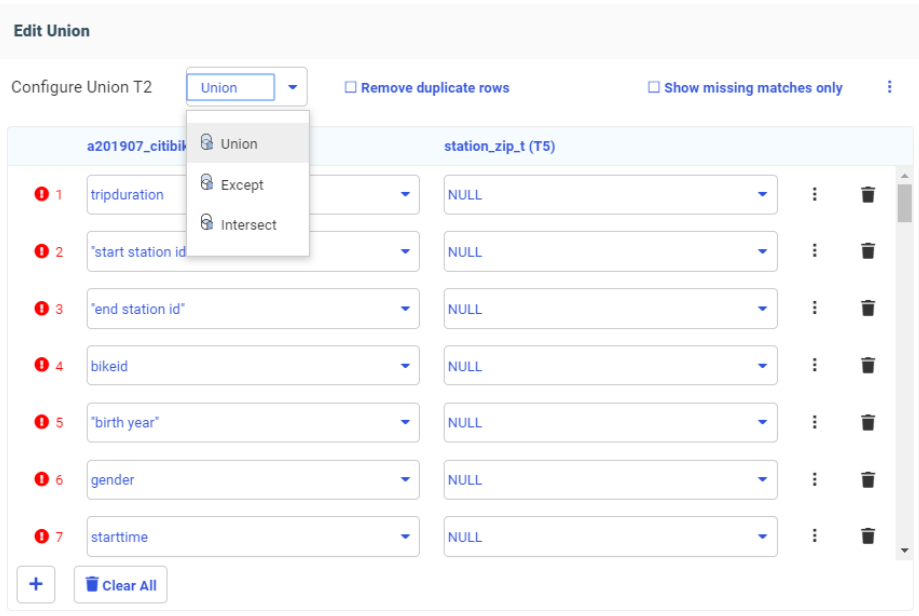
When adding a source to a data flow that already has one or more sources, you can select a union by dragging the source to the UNION bubble, as shown in the following image.



By default, UNION ALL is selected. However, you can open the Union Editor to change the type of union by right-clicking the union and clicking *Union Editor*, as shown in the following image.



The Edit Union panel opens and you can select the type of Union to perform (UNION, INTERSECT, or EXCEPT) from the Configure Union pull-down menu, as shown in the following image.



The following types of unions can be configured.

- Union.** Combines the output of two SELECT statements into one answer set, where the number of columns in each is the same, and the data types are compatible.
- Except.** Returns distinct rows from the left SELECT statement that are not returned by the right SELECT statement.
- Intersect.** Returns matching rows from the left SELECT statement and the right SELECT statement based on matching all columns.

By default UNION ALL is used unless you check *Remove duplicate rows*.

### Pivoting Multiple Columns on Upload

When you upload a spreadsheet or delimited file with columns of repeating values (for example each column contains an amount for a year) you can multi-select columns and click the context menu choice *Pivot to rows* to transpose the columns to rows.

For example, the following Excel file has a column for each year from 1960 to 2012. This file, *pivot\_demo.xlsx*, is generated as part of the WebFOCUS Retail tutorial. If you want to try uploading this file using the *Pivot to rows* option, generate the WebFOCUS Retail tutorial, open the *uploads* folder in the application directory that contains the WebFOCUS Retail sample files, right-click *pivot\_demo*, and click *Download*. This will download the file to your Downloads folder on Windows so you can upload it to the server.

To multi-select all of the individual year columns, click in the data portion of the first column, hold down the shift key, and click in the data portion of the last column. Then click the menu button in one of the columns, and click *Multiple columns to rows*, as shown in the following image.

The screenshot shows a data table with columns for years from 2004 to 2012. A context menu is open over the year columns, with the option "Multiple columns to rows" selected. The table data is as follows:

	2004	2005	2006	2007	2008	2009	2010	2011	2012
06973	35,662.211822			45,181.4675944	49,679.1107045	45,872.2209766	44,723.2039437	49,338.7606551	46,642.2903265
61430	511.2929789	532.6109983	557.2324469	632.3608696	739.2561276	712.6165270	689.6483313	745.9154748	751.9163168
07426	1,490.3800560	1,731.1252346	2,069.3436307	2,651.2601212	3,413.5886614	3,749.2724237	4,433.3612200	5,447.3414216	6,091.0143517
05204	400.4724749	421.1233114	427.2911670	467.1363614	537.6384971	597.7118029	664.0642317	731.8941678	752.1560525
43873	326.1973133	340.9078669	365.4970833	413.4814386	474.3894790	464.5132313	456.5634087	498.7800669	482.6697266
45510	121.8593036	143.7835295	158.3050232	162.8275094	186.8717489	194.8966661	219.5297995	246.9143271	251.0145230
70756	371.2179868	406.9988043	422.8448175	474.5899781	569.6392934	553.0423743	592.6074699	649.9252300	634.3209746

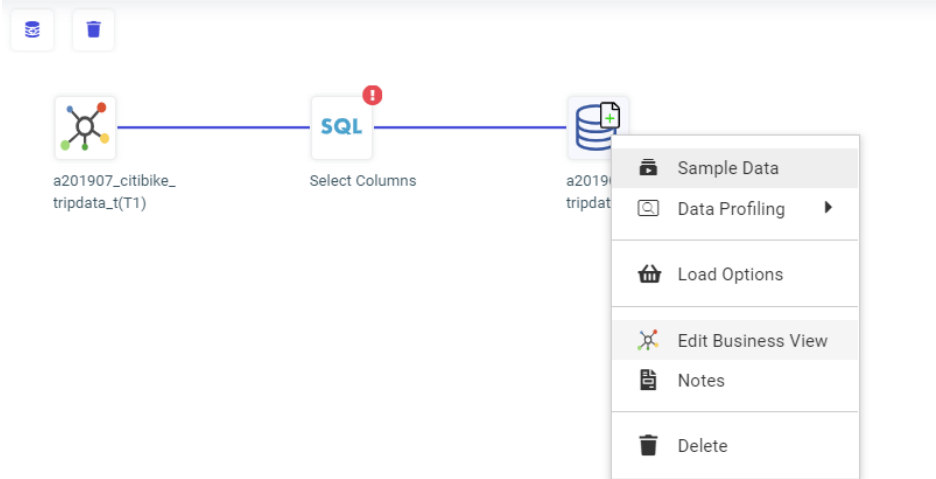
The year columns become rows, as shown in the following image.

The screenshot shows the same data pivoted so that years are rows. The table structure is as follows:

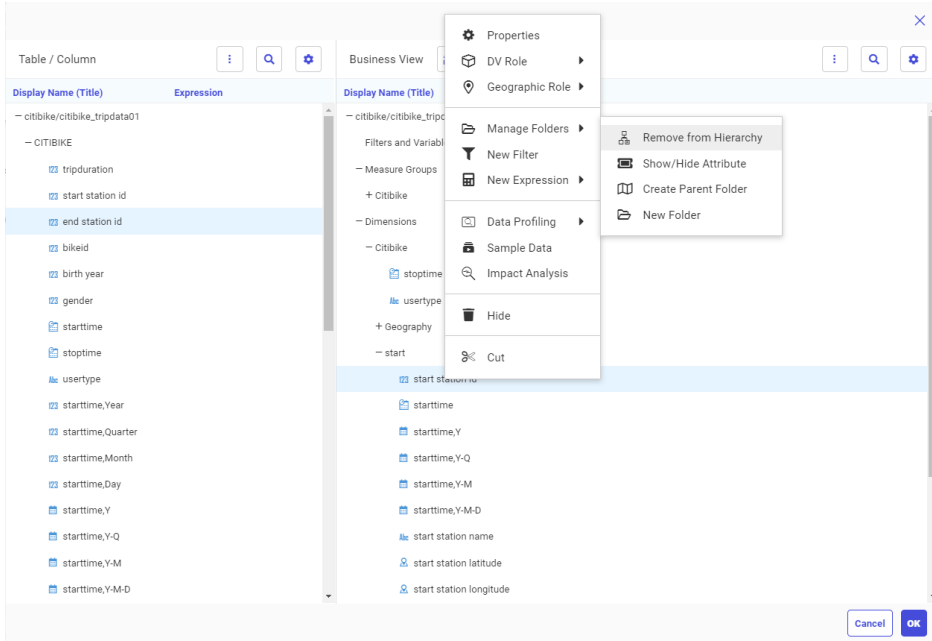
Country Name	Country Code	Indicator Name	Indicator Code	Pivot value	Pivot key
Afghanistan	AFG	GDP per capita (current US\$)	NY.GDPPCAPCD	61.28913206	1960
Afghanistan	AFG	GDP per capita (current US\$)	NY.GDPPCAPCD	61.30409306	1961
Afghanistan	AFG	GDP per capita (current US\$)	NY.GDPPCAPCD	59.79869332	1962
Afghanistan	AFG	GDP per capita (current US\$)	NY.GDPPCAPCD	80.42300207	1963
Afghanistan	AFG	GDP per capita (current US\$)	NY.GDPPCAPCD	83.79481181	1964
Afghanistan	AFG	GDP per capita (current US\$)	NY.GDPPCAPCD	103.08910311	1965
Afghanistan	AFG	GDP per capita (current US\$)	NY.GDPPCAPCD	140.13838324	1966

### Creating a Business View for a Target Data Source




When you create and load a target table in a data flow, you can right-click the target after adding it to the flow and click *Edit Business View*, as shown in the following image.





A default Business View is created for the target table with default folders based on the fields in the synonym. A page opens on which you can edit the Business View, as shown in the following image.



The following are the buttons on the Business View toolbar:

Button	Definition	Description
	Reset	Resets to the initial default Business View
	Flatten	Shows the default folders only.
	Create Template Folders	In an empty Business View, creates the Filters and Variables, Measure Groups, and Dimensions folders with nothing in them.

Button	Definition	Description
	Hide All	Removes the Business View
	Create Default	If you removed the Business View, you can use this button to recreate the default Business View.

The following options are available on the Business View menu:

- Folders/Columns.** Shows the folders and columns within the folders.
- Folders.** Shows only folders.
- Modeling View of Folders.** Shows a graphical representation of the folders and the connections between them.
- Autorun.** Has the following options:
  - Data Preview.** Has options *Off* and *On*, where *Off* is the default. When Data Preview is *On* an additional panel is displayed that shows the data values in the order the fields appear in the Business View.
  - Off.** Does not automatically refresh the Data Preview panel when a change is made to the Business View. This is the default value.
  - On.** Refreshes the Data Preview panel for each change in the Business View.
- Diagnostics.** You can view the Master File or Access File, Open the Session Log, Clear the Session Log, and view the layout.
- Options.** Opens the data flow Advanced Options dialog box.

For more information about Business Views, including managing folders and hierarchies and specifying DV roles, see Chapter 5, *Metadata*, in the *Server Administration* manual.

## Enhancements to DATE\_ORDER

The DATE\_ORDER parameter for date-time formats is now supported when the format specifies month translation, zero suppression or removal, or the comma option. For some formats with the comma option, reordering the date components may require elimination of the comma.

For example, the following request creates date fields with zero removal and suppression (YYMDoe), month translation and zero suppression (YYMte), and month translation with a comma and space between the month and year (HMTkYY). The DATE\_ORDER is set to DMY:

```
-DEFAULT &ORDER=DMY;
SET DATE_ORDER=&ORDER
DEFINE FILE GGSales
ORIGINAL/YYMD=20190704;
YYMDoe/HYYoe=DT(2019/07/04);
YYMte/HYYMte=YYMD;
YYMTDk/HMTkYY=YYMD;
END
TABLE FILE GGSales
SUM ORIGINAL YYMDoe YYMte YYMTDk
BY CATEGORY
ON TABLE SET PAGE NOLEAD
ON TABLE SET STYLE *
GRID=OFF,$
ENDSTYLE
END
```

The output is shown in the following image.

<u>Category</u>	<u>ORIGINAL</u>	<u>YYMDoe</u>	<u>YYMte</u>	<u>YYMTDek</u>
Coffee	04/07/2019	4/7/2019	4 Jul 2019	July, 2019
Food	04/07/2019	4/7/2019	4 Jul 2019	July, 2019
Gifts	04/07/2019	4/7/2019	4 Jul 2019	July, 2019

## Fixes

- When applying SQUEEZE/WRAP=n to a column in an HTML report, the field data is not horizontally aligned.
- When switching to a Report tab in a Workbook, the tab will no longer appear blank with a nonstop wait cursor. (190903001)
- When loading from Oracle to Hive with the Escape setting set to On and using Bulk load, the Data Flow fails when the source contains non-printable control characters such as Vertical Tab (key [Ctrl] K - Decimal 11). Now control characters are escaped so they can be loaded without an error. (191023136)
- When a recursive join is used with a synonym containing a defined field and it is explicitly selecting the field from the first instance of the table, the report uses the selected field instead of the second instance.



- ❑ When sampling is enabled with a Hyperstage target, the load fails due to the uninitialized memory read during the TABLE FILE when the source contains control characters.
- ❑ When editing a multifact Master file in the App Studio Synonym Editor, joins cannot be deleted. (191018008)
- ❑ An agent crash could occur on a server configured for Unicode due to memory corruption in the SQL adapter code when a UTF field is longer than 10,922 characters. (190929001)
- ❑ An invalid JavaScript Object Notation (JSON) is produced for HOLD FORMAT JSON when using the SET CDN=ON command. (191001107)
- ❑ When creating a synonym using the SAP adapter, the list of available function modules is not shown. (190830121)
- ❑ The *clear undo/redo history* option on the Designer Data tab does not work properly. (190905173)
- ❑ An invalid schedule stops the Distribution Server. The Distribution Server should record the error and continue processing schedules. (190209001)
- ❑ When a Resource Analyzer Archive job fails with a database error, the failure is not reported and the user is unaware of the failure. (190808063)
- ❑ The Lotus Notes adapter corrupts special characters when the CODE\_PAGE for the WebFOCUS Reporting Server is different from the Lotus Notes server's CODE\_PAGE. (191004008)
- ❑ During WebFOCUS Client and WebFOCUS Integrated full or update Installation, the repository utilities mask warnings and errors reported by the database and proceed as if everything succeeded. (21353550)
- ❑ When creating a chart in Designer, right-clicking and selecting Style and then Series, lists the Series values but they cannot be selected. (191010038)
- ❑ After setting ARVERSION=2 in the edasprof.prf file, an unrecoverable error displays when creating a visualization. (191010120)
- ❑ Attempts to page a very wide In-Document Analytics cached document may result in a blank page. (190603013)
- ❑ Designer context menus remained displayed when moved outside the sub-menu before selecting an option. (190903033)
- ❑ Cannot create a County layer in an HTML5 ESRI map in App Studio.

- ❑ When launching a new designer page that is built to have the filters default to the global variables, some of the filters respect the global variables values and others do not. (190712109)
- ❑ An HTTP listener running with `ssl_ciphers` returns an error when connecting: invalid/no certificate (190823070)
- ❑ Temporary datasets are used internally by CMRUN to write a HOLD file with a return code in the foccache. (190718090)

## Known Issues

- ❑ The WebFOCUS help system does not work when the Application Server is configured with Java Version 11. As a workaround, you can configure your WebFOCUS instance to use help hosted by IBI. This provides an additional benefit, as users will have access to the latest content.

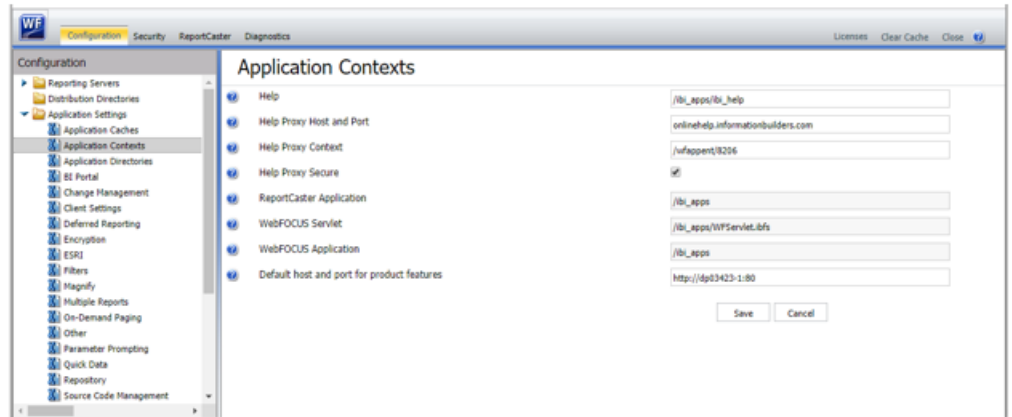
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

1. Select the *Configuration* tab and navigate to *Application Settings* and then *Application Contexts*.
2. Change the *Help* value to `/ibi_apps/ibi_help`.

**Note:** The `ibi_apps` value must be the same as the WebFOCUS web app context created during installation. If you provided an alias, for example, `ibi_apps8206`, then the value for Help should be entered as `/ibi_apps8206/ibi_help`.

3. Set the *Help Proxy Host and Port* value to `onlinehelp.informationbuilders.com`.
4. Set the *Help Proxy Context* to `/wfappent/8206`. If you are using WebFOCUS Release 8207, set the value to `/wfappent/8207`.
5. Select the *Help Proxy Secure* check box.

For example:



6. Click the *Clear Cache* option and continue to sign out and sign in for the settings to take effect.
- ❑ The canvas of WebFOCUS Designer for this release is an interactive canvas based on AHTML. When creating a report, page and row break settings are not supported on this canvas for this release. If you select any other output format, such as HTML, PDF, PPTX, or XLSX, you will see these breaks at runtime. These output format options are available for stand-alone content items only. This will be resolved with the introduction of the non-interactive document canvas in a future release.
  - ❑ When working with the Cell menu in an interactive report, the filtering functionality does not work as expected.
  - ❑ When saving an artifact (from or of and interactive report, chart or dashboard), the output file name is ARsave.html rather than ARhtml.html.
  - ❑ If you create a report or chart in ARVERSION=2 (In-Document Analytics) and you set the output format to PDF Analytic Document, an error occurs when you run it. If you change the option in Procedure Settings to Legacy, the report or chart is produced correctly.
  - ❑ If you are working with an In-Document Analytics chart in landscape mode on an Android mobile device and you switch to portrait mode, your content displays in fullscreen mode. Your chart displays at the bottom. If you run your content in new window mode, your In-Document Analytics chart does not display in fullscreen mode, displaying the chart on the right.
  - ❑ HIDE NULLACRS, which hides across columns that have null or zero values in the entire column, is not supported with interactive content using the new Designer style of In-Document Analytics capabilities.

- ❑ If you add an existing ARVERSION=1 report to an AHTML document set to ARVERSION=2, it fails at run time, displaying JSON text on the screen instead of the expected report output.
- ❑ If you are working with a procedure (.fex) and you change the ARVERSION to ARVERSION=2, global filters do not display when you run the procedure.
- ❑ Fully-developed content sharing capabilities are not available in release 8207.
- ❑ In a scatter plot chart or bubble chart, multiple measure fields in the horizontal and vertical axis buckets generate separate axes, resulting in a grid of scatter plots for each combination of measure fields. In WebFOCUS Designer, if you create a scatter plot chart or bubble chart with multiple measures in the Vertical or Horizontal buckets, only the axis for the first measure in each bucket displays on the canvas. When you run the chart, all measure fields in the Vertical and Horizontal buckets are shown as separate axes, as intended.
- ❑ Users whose ID includes one or more NLS characters receive the "User needs at least one of METAP, METUP; or ADTP privileges" error message when they attempt to upload a file, even when they are working in the Domain Developer group or in another group that maintains at least one of those privileges. In order to resolve this issue, reinstall WebFOCUS using the most recent version of the 8207 Integrated Installation.
- ❑ Both the db\_collation.sh file and the db\_collation.bat file generate the "Main WARN Error while converting string [] to type," error message in the Command Prompt window at the end of their run. This message has no impact on the functionality of this post-installation utility, and it completes the run successfully.
- ❑ The load\_repos.sh file generates the "WARNING: sun.reflect.Reflection.getCaller Class is not supported. This will impact performance," error message in the Command Prompt window at the end of its run. In addition, the db\_inplace\_update.sh, WFRReposUtilCMDLine.sh, and update\_repos.sh files generate the "Main WARN Error while converting string [ ] to type," error message in the Command Prompt window at the end of their run. These messages have no impact on the functionality of these post installation utilities, and each one completes its run successfully.

## System Requirements

This release is now certified and has been tested with Google Chrome version 77, Firefox Quantum version 69, and Microsoft Edge version 44.

As of Release 8207 Apache Solr™ is installed and configured for WebFOCUS Search. For more information about the Apache Solr installation, see the *WebFOCUS Apache Solr™ Cloud Installation and Configuration Guide*. For more information about the configuration of Apache Solr settings within the WebFOCUS Client, see the *WebFOCUS Security and Administration* technical content.



# Chapter 33

## Release Information

Use the topics to navigate between relevant information for TIBCO WebFOCUS® 8207.

### In this chapter:

- [Browser Information](#)
- [TIBCO WebFOCUS Accessibility Compliance](#)
- [TIBCO WebFOCUS Client Supported Operating Systems](#)
- [TIBCO WebFOCUS Support Statement for Java Platform, Standard Edition \(Java SE\)](#)
- [Supported Web and App Servers](#)
- [Supported RDBMS and Drivers](#)
- [Localization \(NLV\) and NLS Support](#)
- [TIBCO WebFOCUS Reporting and Microsoft Office Support](#)

### Browser Information

This topic describes information for the available web browsers for this release of WebFOCUS®.

- We evaluate the browser vendor support policies and certifies new browser versions on an ongoing basis, as new versions are made available.
- We recommend following the usage requirements of the browser vendor to ensure your browser is secure and supports the web standards that power current web-based capabilities.

### Supported Web Browsers

Release	Google Chrome™	Firefox®	Microsoft® Edge® (WebFOCUS only)
8207.27	Version 92	Version 90	Version 92 (WebFOCUS)

<b>Release</b>	<b>Google Chrome™</b>	<b>Firefox®</b>	<b>Microsoft® Edge® (WebFOCUS only)</b>
8207.27	Version 89	Version 86	Version 89 (WebFOCUS)
8207.26	Version 88	Version 85	Version 87 (WebFOCUS)
8207.25	Version 87	Version 84	Version 87 (WebFOCUS)
8207.24	Version 87	Version 83	Version 87 (WebFOCUS)
8207.23	Version 87	Version 83	Version 86 (WebFOCUS)
8207.22	Version 87	Version 82	Version 86 (WebFOCUS)
8207.21, 8207.20 and 8207.19	Version 86	Version 81	Version 85 (WebFOCUS)
8207.18 and 8207.17	Version 85	Version 80	Version 85 (WebFOCUS)
8207.16 and 8207.15	Version 84	Version 79	Version 83 (WebFOCUS)
8207.14, 8207.13, and 8207.12	Version 83	Version 77	Version 83 (WebFOCUS)
8207.11	Version 83	Version 76	Version 81 (WebFOCUS)
8207.10 and 8207.09	Version 81	Version 75	Version 81 (WebFOCUS)
8207.08	Version 81	Version 75	Version 80 (WebFOCUS)



Release	Google Chrome™	Firefox®	Microsoft® Edge® (WebFOCUS only)
8207.07	Version 80	Version 74	Version 80 (WebFOCUS)
8207.06	Version 80	Version 73	Version 80 (WebFOCUS)
8207.05	Version 80	Version 73	Version 44 (WebFOCUS)
8207.02 to 8207.04	Version 79	Version 73	Version 44 (WebFOCUS)
8207.01	Version 78	Version 70	Version 44 (WebFOCUS)
8207	Version 77	Version 69	Version 44 (WebFOCUS)

- Effective April 1, 2021, all new releases of TIBCO WebFOCUS® following Release 8207.27.0 will no longer support Microsoft Internet Explorer 11 as a certified browser.
- Internet Explorer® Compatibility mode is not supported.
- The Microsoft® Edge® browser is not supported with TIBCO WebFOCUS® App Studio.
- See the following information published by Mozilla® for information on Firefox® browser release management: [https://wiki.mozilla.org/Release\\_Management/ESR\\_Landing\\_Process](https://wiki.mozilla.org/Release_Management/ESR_Landing_Process)
- Simple HTML reports created with WebFOCUS can be viewed on any browser.
- Drill-down links do not work when using an embedded PDF viewer available in some browser versions. Refer to the browser's configuration information on how to change the Application Options settings for the relevant content types so that the browser will automatically use Adobe® Reader®.
- Acrobat® Reader® DC is certified, and Adobe® XI and Adobe® X are supported.
- For information on certain conditions that can force Microsoft® Internet Explorer® to display pages in a document mode different from the one specified in the webpage, see [Internet Explorer Browser Document Compatibility](#).

- ❑ For information on the expected behavior of Microsoft® Internet Explorer® (32-bit) on a Windows x64 machine, see the Microsoft® TechNet article [Run IE 32bit on Windows 10 X64](#).
- ❑ Support for presenting images and graphs in HTML, DHTML, and DHTML compound reports is provided using an image embedding facility based on the client browser. Output generated by Microsoft® Internet Explorer® browsers or in scenarios where the browser is unknown (such as when distributed by ReportCaster) supports image inclusion through the creation of a web archive file (.mht). For all other browsers, images are base64 encoded within the generated .htm file.
- ❑ If you are using Microsoft® Internet Explorer® 11 on a Windows® 2012 R2 OS and you attempt to run an object (such as a report or chart in InfoAssist), Microsoft® Internet Explorer 11 opens it in a new window instead of targeting the object to a specific frame. For example, in InfoAssist, the New Window Runtime opens a new browser window that shows the running image, which then replaces that page with the output. Since Microsoft® Internet Explorer 11 does not allow the replacement of that window, it opens a new window instead. This browser limitation can be remedied by an [administrator](#).
- ❑ Because certain browsers impose their own character limits on text in a tooltip, longer tooltips may be truncated. For example, in Microsoft® Internet Explorer, this limit is 512 characters, while in Google Chrome™ the limit is 1024.

## TIBCO WebFOCUS Accessibility Compliance

TIBCO Software Inc is committed to providing high-quality products and services that are both useful and accessible to all users, including individuals with disabilities.

### Measures to Support Accessibility

TIBCO Software Inc takes the following measures to ensure accessibility of WebFOCUS.

Our agile process incorporates accessibility evaluation for the [WCAG 2.1](#) Level AA, [Revised Section 508](#), and [European Standard EN 301 549](#) standard/guidelines in all phases of design, development, and testing. Coding is compliant to W3C standards for HTML, CSS, WAI-ARIA, and JavaScript.

TIBCO Software Inc intends to help organizations meet these objectives by providing software tools that are capable of producing applications that function within the accessibility standard/guidelines. The actual compliance of any given application will be dependent upon the proper use of TIBCO Software Inc' tools as well as the accessibility compliance of the other hardware and software components with which our software interoperates.

For Services, TIBCO Software Inc takes a collaborative approach with the client in addressing the accessibility requirements of a given services engagement. TIBCO Software Inc looks to the client to specify the accessibility requirements in the applicable statement of work that will meet the required accessibility standard/guidelines. TIBCO Software Inc demonstrates its COTS product accessibility functionality specific to the client requirements and obtains client's approval prior to proceeding with development using the demonstrated functionality.

## Conformance Status

WebFOCUS Release 8207.26 is partially conformant for the following accessibility standard/guidelines. Partially conformant means that some parts of the content do not fully conform to the accessibility standard. See [Accessible Functional Scope](#) on page 647, [Limitations](#) on page 649, and the [WebFOCUS 8207 Accessibility Conformance Report \(VPAT 2.4 INT\)](#) for additional information.

Standard/Guideline	Included in Report
<a href="#">Web Content Accessibility Guidelines 2.0</a>	Level A Level AA
<a href="#">Web Content Accessibility Guidelines 2.1</a>	Level A Level AA
<a href="#">Revised Section 508 standards published 01/18/2017 and corrected 01/22/2018</a>	
<a href="#">EN 301 549 Accessibility requirements suitable for publish procurement of ICT products and services in Europe - V3.1.1. (2019-11)</a>	

## Accessible Functional Scope

WebFOCUS Release 8207.26 gives authors the tools and guidance to create and publish an accessible WebFOCUS two-level top navigation V5 Portal with Designer pages and WebFOCUS generated accessible reports to allow end users to perform their own ad hoc query and reporting activities. Accessible functionality does not include content authoring (development) and administrative interfaces.

The WebFOCUS accessible report formats include the following:

- In-document Analytics (Active Technologies) - AHTML
- Excel - XLSX
- PDF - See the WebFOCUS PDF Report Accessibility Support topic in the [Creating Reports with WebFOCUS Language](#) PDF
- PowerPoint - PPTX
- HTML - [Technical Memo 4505](#) : WebFOCUS HTML Report Accessibility Support

WebFOCUS accessible reports may also be distributed or run from a web page or application. The accessibility compliance of the web page or application is the author's responsibility.

WebFOCUS Release 8207.12 and earlier 8207 releases support the following WebFOCUS accessible report formats:

- PDF - See the WebFOCUS PDF Report Accessibility Support topic in the [Creating Reports with WebFOCUS Language](#) PDF
- HTML - [Technical Memo 4505](#) : WebFOCUS HTML Report Accessibility Support

### **Compatibility with Browsers and Assistive Technology**

Testing was conducted using a variety of operating systems, browsers, automated testing tools, and screen readers including Windows® 10 operating system with the Google Chrome™ browser and NVDA or JAWS® 2020 screen readers.

Google Chrome™, Firefox®, Microsoft® Edge®, and Microsoft® Internet Explorer® browsers are supported to varying degrees dependent upon user's customizations and integration with assistive technology and other 3<sup>rd</sup> party extensions

For JAWS® browser requirement information, see the [Freedom Scientific](#) website

For more details on browser support, see WebFOCUS 8207 [Browser Information](#).

### **Technical Specifications**

Accessibility of WebFOCUS relies on the following technologies to work with the particular combination of web browser and any assistive technologies or plugins installed on your computer:

- HTML
- WAI-ARIA

- ❑ CSS
- ❑ JavaScript

These technologies are relied upon for conformance with the accessibility standards used.

## Limitations

Despite our best efforts to ensure accessibility of WebFOCUS accessible features, there may be some limitations. Please contact Customer Support Services if you observe an issue using accessible features, see [Accessible Functional Scope](#) on page 647, or to request accessibility compliance for additional functionality.

Known limitations:

- ❑ **Accessible functionality** scope is as stated in [Conformance Status](#) on page 647.
- ❑ **Non-text Content: Text Alternatives:** WebFOCUS 8207 provides a way for content authors to include text alternatives and that content will be read by a screen reader; however, it is up to content authors to provide descriptive alternative text.
- ❑ **Sensory Characteristics:** Visualizations/Charts: It is up to content authors to follow accessibility best practices; however, WebFOCUS 8207 will provide enhanced alternatives for communicating sensory information in visualization and charts in an upcoming release.
- ❑ **Reflow:** Data tables behave as tables and do not reflow.
- ❑ **Headings and Labels:** WebFOCUS 8207 provides a way for content authors to include proper headings & labels and that content will be read by a screen reader; however, it is up to content authors to maintain accessibility by implementing best practices.
- ❑ **Language of Parts:** Language is applied to the document at the meta level.
- ❑ **Functional Performance Criteria (With Limited Language, Cognitive, and Learning Abilities):** Data tables in WebFOCUS 8207 are complex and offer extended functionality. It is the responsibility of the content authors to identify the functional requirements for the user audience and apply those considerations when creating WebFOCUS report procedures.
- ❑ **General (informative) List of available action:** In V5 Portal, Designer Pages, and In-document Analytics (AHTML), available actions are accessed by entering CTRL+SHIFT+F10.
- ❑ **Change Notification:** Will be improved in an upcoming release for the Online Help.

- Product Documentation: The accessibility of the 'Online Help' section will be improved and available in an upcoming release. In the current release, users may experience the following:
  - Text obstruction on zoom
  - Difficulty navigating from the left pane to the right pane
  - Print menu flyout may not close on ESC or by moving focus.

## TIBCO WebFOCUS Client Supported Operating Systems

The following table describes the WebFOCUS client supported operating systems.

<b>Vendor (Processor/Architecture)</b>	<b>Operating System Version</b>
Microsoft® Windows® 64-bit	Windows® Server 2019 You must have Oracle® Java® 8 installed on the machine. For more information, see the Installation content for your product.
	Windows® Server 2016, 2012 R2, 2012
	Windows® 10 (limited to development environments only)
IBM® i	V7R1
IBM® (pSeries 64)	AIX 7.2 and AIX 7.1
IBM® (zSeries)	Enterprise Linux® Kernel-3.0.101-glibc-2.11 and up
Oracle® (Sparc 64-bit)	Oracle® Solaris 11
	Oracle® Solaris 10
Oracle® (x86)	Oracle® Solaris 11
	Oracle® Solaris 10

Vendor (Processor/Architecture)	Operating System Version
Red Hat® (x86_64)	Enterprise Linux® 6.1 / Kernel 2.6.32 - glibc-2.6 and up
	Enterprise Linux® Kernel-3.10.0-glibc-2.17 and up
Red Hat® (IBM Power Systems)	Enterprise Linux® 6.1 / Kernel 2.6.32 - glibc-2.6 and up
Hewlett Packard® (Itanium IA64)	HP-UX 11i (11.31)

## TIBCO WebFOCUS

### Support Statement for Java Platform, Standard Edition (Java SE)

This topic contains information regarding WebFOCUS release support for the different Java® SE versions that WebFOCUS and ReportCaster web applications are deployed on. It is also important to verify the Java® version requirements of the web application server version before installing or upgrading Java® software.

Please note:

- Maintenance updates of Java® SE within the same version level are supported.
- Using earlier versions of WebFOCUS with later JDK versions is supported. However, the solution to some problems might require an upgrade to a later WebFOCUS or JDK service pack.
- Support for later Java® SE major releases requires certification and is not supported unless specified in the following chart.
- When reference is made to certified, it means that the specified release(s) of Java® have been tested within the specified Release QA (Quality Assurance) certification process.

Please report any problems you experience with a certified or supported version of Java® to Customer Support Services for evaluation.

As of WebFOCUS Release 8207, the minimum JVM version requirement for the application server that WebFOCUS and ReportCaster web applications are deployed on is JVM Version 8.

**Java SE Release Certification Status.** Java 8 and 11 distributions by Oracle® and OpenJDK are certified with this release.

## Supported Web and App Servers

<b>Vendor Web Server &amp; Application Server</b>	<b>Version</b>
Apache Software Foundation (Apache Tomcat®)	9 8.5.x (latest version)
Apache Software Foundation (Apache HTTP®)	2.4 2.2
IBM® HTTP Server	8.5.5
IBM® WebSphere®	9
	8.5.5.9 and higher
Microsoft® (IIS)	7.5 and higher
Oracle® WebLogic	12c (12.2.2.1, 12.1.3.0.0)
Red Hat® (JBoss)	Enterprise Application Platform 7.1.3

## Supported RDBMS and Drivers

<b>Vendor (RDMBS)</b>	<b>Version</b>	<b>JDBC Driver</b>
Apache Software Foundation (Apache Derby®)	10.9.1.0	derbyclient.jar



Vendor (RDMBS)	Version	JDBC Driver
Microsoft® (MS SQL Server®)	2019	<p><b>Microsoft JBDS Driver 8.4 for SQL Server</b></p> <p>mssql-jdbc-8.4.1.jre14.jar mssql-jdbc-8.4.1.jre11.jar mssql-jdbc-8.4.1.jre8.jar</p> <p><b>Microsoft JDBC Drive 8.2 for SQL Server</b></p> <p>mssql-jdbc-8.2.2.jre13.jar mssql-jdbc-8.2.2.jre11.jar mssql-jdbc-8.2.2.jre8.jar</p> <p><b>Microsoft JDBC Drive 7.4 for SQL Server</b></p> <p>mssql-jdbc-7.4.1.jre12.jar mssql-jdbc-7.4.1.jre11.jar mssql-jdbc-7.4.1.jre8.jar</p>
	2017	<p>mssql-jdbc-6.2.2.jre8.jar</p> <p>Download available from <a href="https://www.microsoft.com/en-us/download/details.aspx?id=55539">https://www.microsoft.com/en-us/download/details.aspx?id=55539</a></p>
	2016 2014 2012 2008	<p>mssql-jdbc-6.2.2.jre8.jar</p> <p>Download available from <a href="https://www.microsoft.com/en-us/download/details.aspx?id=55539">https://www.microsoft.com/en-us/download/details.aspx?id=55539</a></p> <p>sqljdbc42.jar</p> <p>Download available from <a href="https://www.microsoft.com/en-us/download/details.aspx?id=54671">https://www.microsoft.com/en-us/download/details.aspx?id=54671</a></p>

<b>Vendor (RDMBS)</b>	<b>Version</b>	<b>JDBC Driver</b>
IBM® (Db2)	11.5	db2jcc4.jar
	10.5	
	9.7 FP4	
Oracle® (Database)	19c	ojdbc8.jar
	18c	
	12c Release 2	ojdbc7.jar
	12c Release 1	
11g Release 2	ojdbc6.jar	
Oracle (MySQL)	8.0.x	mysql-connector- java-8.0.19.jar
	5.7.x	
	5.6.x	
Postgresql	11.1	postgresql-42.2.11.jar
	10.7	
	9.6.x	
	9.5.x	

## Localization (NLV) and NLS Support

TIBCO Software Inc provides National Language Support and Localized Version support for WebFOCUS and App Studio in select languages. Requests for additional languages may be submitted by contacting Customer Support Services and opening a New Feature Request.

### National Language Support (NLS)

National Language Support (NLS) involves reading and interpreting data stored in code pages that represent the character sets of various international languages. TIBCO Software Inc's proprietary NLS application programming interface (API) code-page architecture transcodes data between application client and server components and manages all sorting, case conversion, and formatting for dates, currency, and numbers.

## Localized Version Support (NLV)

A localized version is a software product in which the user interface (for example, menus and utilities) appears in a particular language. TIBCO Software Inc localized versions are positional. Each button or menu choice is always in the same relative position in the product, and only the text of the labels changes. Therefore, it is easy for anyone who is familiar with an TIBCO Software Inc' product in one language to support that product in another language.

Localized versions have complete National Language Support (NLS) capability. You can access data for any supported language, with all national characters processed, displayed, and printed correctly.

## TIBCO WebFOCUS and TIBCO WebFOCUS Reporting Server

TIBCO WebFOCUS Reporting Server Release supports the following code pages for data processing:

### ASCII Platforms

137 - U.S. English/Western Europe (Latin 1)	923 - Latin 9 (ISO 8859-15)
437 - U.S. English	942 - Japanese (shift-JIS)
813 - Greek (ISO 8859-7)	946 - Simplified Chinese
850 - Western Europe	949 - Korean
852 - Central Europe	1089 - Arabic (ISO 8859-6)
857 - Turkish	1250 - Central Europe (Latin 2)
860 - Portuguese	1251 - Cyrillic (Windows)
862 - Hebrew	1252 - Windows (Latin 1)
863 - French Canadian	1253 - Greek (Windows)
865 - Nordic	1254 - Turkish (Windows)
866 - Cyrillic II	1255 - Hebrew (Windows)
869 - Greek	1256 - Arabic (windows)
912 - Central Europe (ISO 8859-2)	1257 - Baltic (Windows)

915 - Cyrillic (ISO 8859-5)	10942 - Japanese (EUC)
916 - Hebrew (ISO 8859-8)	10948 - Traditional Chinese
920 - Turkish (ISO 8859-9)	65001 - Unicode (UTF-8)
921 - Baltic (ISO 8859-13)	

**EBCDIC Platforms (IBM z/OS and IBM i)**

37 - IBM EBCDIC United States	500 - IBM EBCDIC International European
273 - IBM EBCDIC Germany F.R./ Austria	870 - IBM EBCDIC Multilingual (Latin 2, Eastern Europe)
277 - IBM EBCDIC Denmark, Norway	871 - IBM EBCDIC Iceland
278 - IBM EBCDIC Finland, Sweden	875 - IBM EBCDIC Greece
280 - IBM EBCDIC Italy	1025 - IBM EBCDIC Cyrillic, Multilingual
284 - IBM EBCDIC Spain/Latin America	1026 - IBM EBCDIC Turkish
285 - IBM EBCDIC United Kingdom	1047 - IBM EBCDIC Open Systems (Latin 1)
297 - IBM EBCDIC France	1112 - IBM EBCDIC Baltic Multilanguage
424 - IBM EBCDIC Israel (Hebrew)	65002 - Unicode (UTF-EBCDIC)

**Language**

The LANGUAGE parameter specifies the National Language Support (NLS) environment. It sets the language of server error messages and can also be used to set the language of report titles if the Master File contains alternate language TITLE attributes. For more information, see the *Describing Data With TIBCO WebFOCUS® Language* technical content.

The TIBCO WebFOCUS Reporting Server Console, TIBCO® Data Migrator, and the Data Management console support the following languages.

(\* Localized versions)

AMENGLISH

- AUENGLISH\*
- ARABIC
- B-PORTUGUESE
- CAENGLISH\*
- CROATIAN
- CZECH
- DANISH
- DUTCH
- ENGLISH
- ESTONIAN
- FINNISH
- FRENCH\*
- GERMAN\*
- GREEK
- HEBREW
- HUNGARIAN
- ITALIAN
- JAPANESE\*
- KOREAN
- LATVIAN
- LITHUANIAN
- NORWEGIAN
- POLISH
- PORTUGUESE
- ROMANIAN

- RUSSIAN
- S-CHINESE\*
- SLOVAK
- SPANISH\*
- SWEDISH
- T-CHINESE\*
- THAI
- TURKISH
- UKENGLISH

## TIBCO WebFOCUS Client and ReportCaster

The following localized versions are available for the WebFOCUS Client and ReportCaster.

Translation and certification of the following languages is done by TIBCO:

### **GROUP 1 (Full Translation)**

- English (Australian, Canadian, United Kingdom, and United States)
- French (Canadian and Standard)
- German
- Spanish

### **GROUP 2 (Partial Translation)**

Limited areas have been translated and tested by TIBCO Agents and Partners. Strings that translation has not been provided for will display in English.

- Chinese (Simplified)
- Brazilian Portuguese
- Italian
- Japanese

### **GROUP 3 (Evaluating)**

Limited areas have been translated and tested by TIBCO Agents and Partners for demonstration purposes. Strings that translation has not been provided for will display in English. Contact Customer Support for instructions to enable.

Korean

## TIBCO WebFOCUS Reporting and Microsoft Office Support

This topic provides details on the support of WebFOCUS reporting formats that generate output in Microsoft® Office® products. It also provides usage considerations for hyperlinks that execute dynamic drill-down requests to procedures protected by WebFOCUS security.

## TIBCO WebFOCUS Reporting Formats and Microsoft Product Association

The following table shows the WebFOCUS formats that create Microsoft® Excel® and PowerPoint® reports, the Microsoft® Office® application associations, and the Windows operating system version availability.

<b>WebFOCUS Formats</b>	<b>Microsoft Office Products</b>	<b>Windows Operating System</b>
XLSX	Microsoft Office 365, Microsoft Office 2016, 2019	Windows 10
	Microsoft Office 2016, 2013, 2010, 2007	Windows 8
	Microsoft Excel Viewer 2007	Windows 7
PPTX	Microsoft Office 365, Microsoft Office 2016, 2019	Windows 10
	Microsoft Office 2016, 2013, 2010, 2007	Windows 8
	Microsoft PowerPoint Viewer 2010	Windows 7
EXL2K (Functionally stabilized)	Microsoft Office 2003, 2000	Windows XP
		Windows 2000

<b>WebFOCUS Formats</b>	<b>Microsoft Office Products</b>	<b>Windows Operating System</b>
PPT	Microsoft Office 2003, 2000	Windows XP
(Functionally stabilized)		Windows 2000

For additional information on Microsoft Office releases compatible with Windows operating systems, see [Get Windows 10 App](#), which has a customized compatibility report for each PC, and provides a unified compatibility view of a PC, its onboard devices, and applications.

## TIBCO WebFOCUS EXL2K and PPT Formats and Microsoft Office Suite Support

Due to file type and content security policy changes implemented by Microsoft, the WebFOCUS EXL2K and PPT formats are not supported with Microsoft Office 2013 and higher. The WebFOCUS XLSX and PPTX formats fully support the Microsoft Excel® XLSX and Microsoft PowerPoint® PPTX file types and content security policies of Office 2013 and higher.

### Microsoft Office 2003 Support

See [Get Windows 10](#), which has a customized compatibility report for each PC, and provides a unified compatibility view of a PC, its onboard devices, and applications. In WebFOCUS products, although you will still be able to start and work in Microsoft Office 2003 applications, Microsoft recommends that you upgrade to a later version of Office in order to continue to receive support and updates. If your organization uses Office 2003 with the Windows® XP operating system, see [Support for Windows XP ended](#) for information on the end of support for Microsoft Office 2003 and Windows XP SP3.

For information on opening, editing, and saving documents, workbooks, and presentations that were created in the later versions of Microsoft Excel and PowerPoint, see [Microsoft Office Compatibility Pack for Word, Excel, and PowerPoint File Formats](#).

## TIBCO WebFOCUS EXL2K and PPT Formats and Microsoft Office Viewer Products Support

Microsoft Excel Viewer and PowerPoint Viewer are read-only products. They permit only the display and printing of Microsoft Excel and PowerPoint data. The WebFOCUS EXL2K and PPT reports are not supported in any release of the Microsoft Excel Viewer and the Microsoft PowerPoint Viewer. The WebFOCUS XLSX and PPTX formatted reports are supported and can be viewed with the Microsoft Excel Viewer and Microsoft PowerPoint Viewer, respectively.



Microsoft has released statements that older releases of the Microsoft Excel and PowerPoint Viewer are no longer supported. For information on the supported versions of Microsoft Office Viewer products, see [Supported versions of the Office viewers](#). The Microsoft Office Viewer is available from the [Microsoft Download Center](#).

## Microsoft Office 365 Support

Microsoft Office 365™ offers the local installation of Microsoft Excel and PowerPoint 2013. It works with the Office 2010 release and provides limited functionality with Office 2007. Microsoft Office 365 also permits uploading Microsoft Excel and PowerPoint files to the cloud, where they can be accessed on most devices using Office Online. For information on the Microsoft Office 365 plans and features, see [Office 365 for business FAQ](#).

You can use Microsoft Office 365 to access WebFOCUS XLSX and PPTX reports. First, create the XLSX and PPTX reports locally as HOLD files, or display the reports on the screen using the PCHOLD command, and then save the reports to a local directory. The saved files can be uploaded and stored in OneDrive® for Business. Once uploaded to the cloud, the files can be accessed using Office Online.

For information on saving WebFOCUS reports, see the *Creating Reports with WebFOCUS Language* manual listed in *Recommended Reading*.

For information on the differences in features available in Excel Online and PowerPoint Online, and in Microsoft Office 2013, see [Office Online Service Description](#).

For more information on working with Office Online and OneDrive for Business, see [Using Office Online in OneDrive](#).

## Usage Consideration When Using Hyperlinks to Run Reports

Selecting a hyperlink in a WebFOCUS report, to execute a drill-down request to run a procedure on a secured WebFOCUS web environment, requires the security context or any session-related cookies to be inherited. Microsoft Office products do not natively inherit the security context or any session-related cookies created by a web-based application.

The following options are available to configure your web environment so that hyperlinks in WebFOCUS reports will be functional within Microsoft Office products.

- Configure WebFOCUS authentication to allow anonymous access. For more information, see the *WebFOCUS Security and Administration* manual.
- Use SSO with IIS/Tomcat Integrated Windows Authentication. Renegotiation occurs automatically and the Excel and PowerPoint reports display correctly.

- ❑ As of WebFOCUS Release 8, the Remember Me feature can be enabled on the Sign-in page. If the end user uses the Remember Me feature, a persistent cookie is used. For more information on how Microsoft Office products handle session-related information, see [Error message when clicking hyperlink in Office: "Cannot locate the Internet server or proxy server."](#)

## TIBCO WebFOCUS DOC Format

The WebFOCUS standard for styled and printable documents is the Acrobat® PDF format. The WebFOCUS PDF format creates Acrobat PDF documents. The WebFOCUS DOC format produces a character-based file, not a Microsoft Word document.

## Recommended Reading

[WebFOCUS EXL07/XLSX Format Supported Features Release Roadmap](#)

[WebFOCUS PPTX Format Supported Features Release Roadmap](#)

[Microsoft Windows Support Statement for WebFOCUS](#)

[Saving Report Output in Excel XLSX Format](#) topic in the *Creating Reports for TIBCO WebFOCUS® Language* manual, available from the [TIBCO WebFOCUS KnowledgeBase](#).

[Saving and Reusing Your Report Output](#) topic in the *Creating Reports for TIBCO WebFOCUS® Language* manual, available from the [TIBCO WebFOCUS KnowledgeBase](#).

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