

# WebFOCUS

Release 8207.03  
About This Release

May 27, 2020

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## 8207.02 Release Notes

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

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### 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 DataMigrator 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 DataMigrator log.

```
(ICM18637) Load Operation will use Direct Bulk Load Feature
```

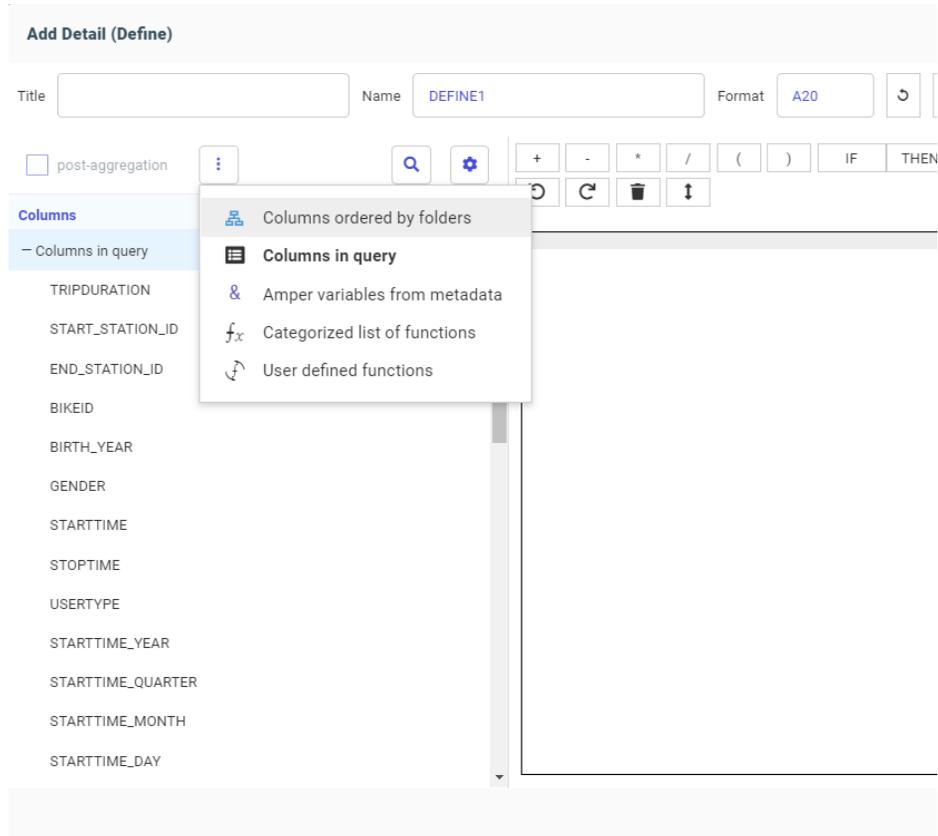
The supported databases and data stores are:

- 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.

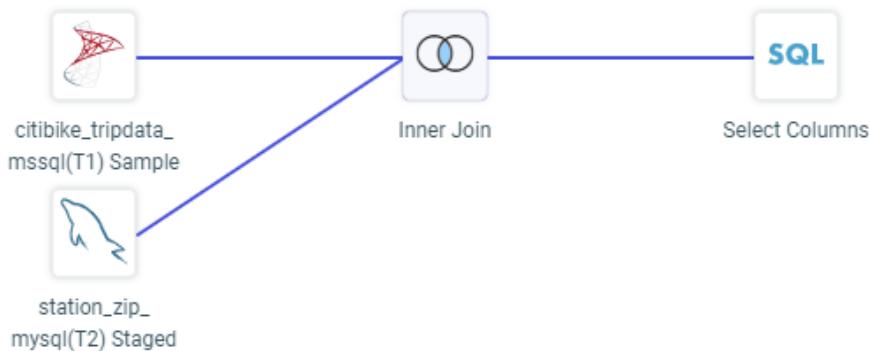
For Row 2, there is no preceding row within the partition, so MAXDURATION is the maximum of tripduration for rows 2 and 3, which is 413.

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

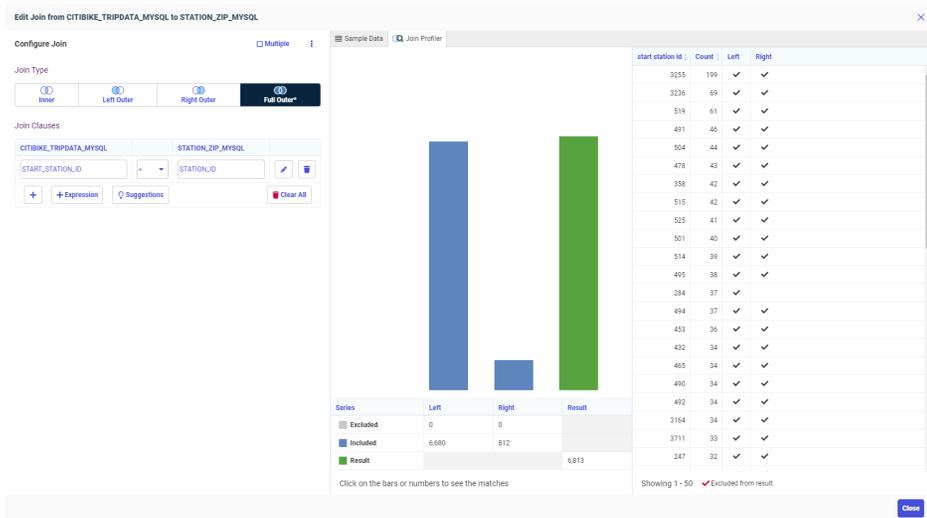
In the Join Editor using the Flow view, data sources are represented by the icons that represent those data sources, as shown in the following image that joins Microsoft SQL Server, MySQL, and delimited data sources.



## Supporting Full Outer Joins When the Data Source Does Not

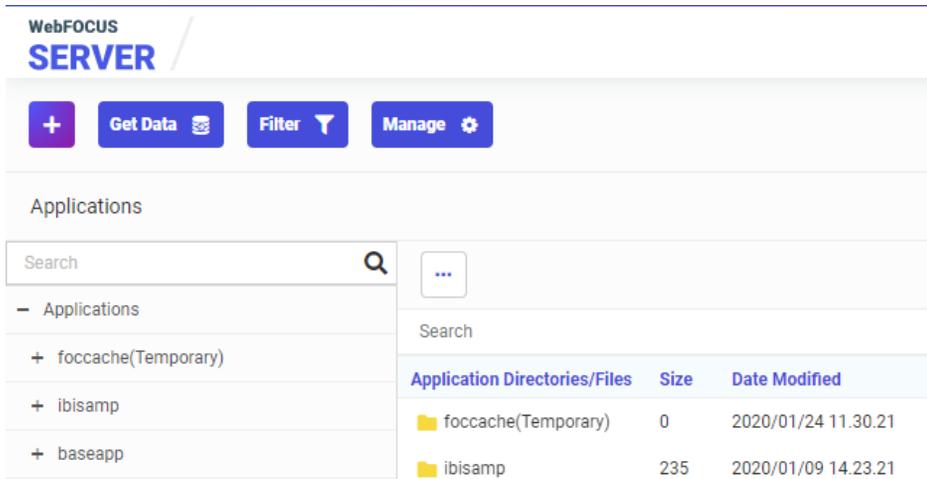
In prior releases, when using the Synonym Editor to create a cluster join, it was only possible to create a full outer join if the underlying relational database supported that capability. Now, the server will generate multiple retrievals and perform the full outer join for those data sources.

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.

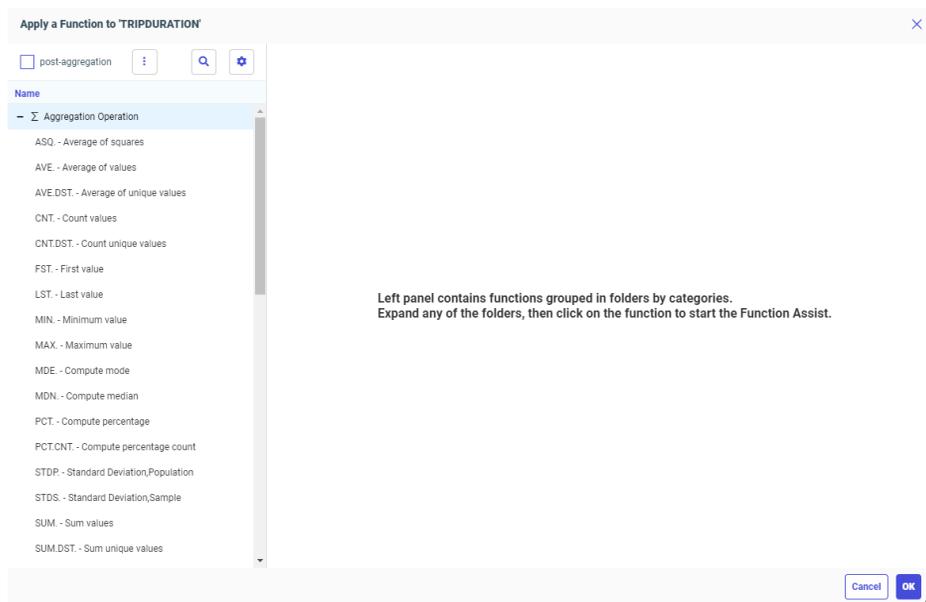


Enter characters in order to search for objects with those characters in their names, and click the search icon (magnifying glass). A close icon for the search (x) appears in the entry field. The application tree pane will show only the items found by the search, with the characters used in the search 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 DataMigrator 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 Web Console 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)

## 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.

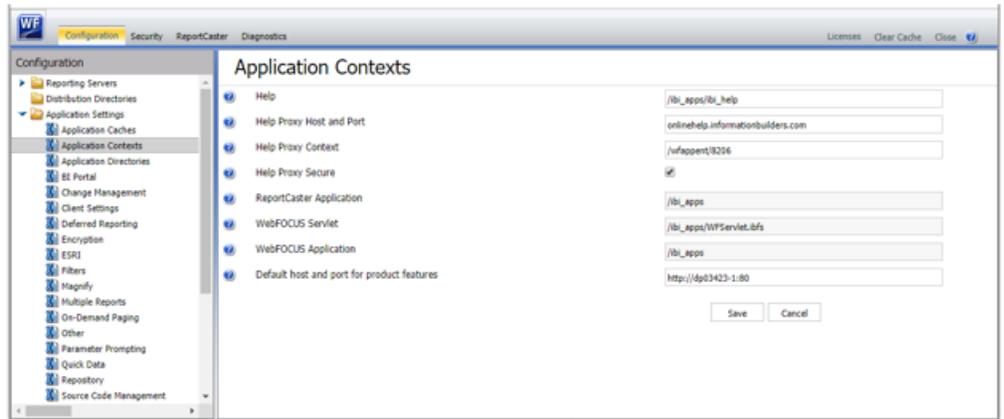
To accomplish this, you need to perform the following configuration using the WebFOCUS Administration Console:

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 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](#).



## Feedback

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**Information  
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Information Builders, Inc.  
Two Penn Plaza  
New York, NY 10121-2898