Information Builders

WebFOCUS

WebFOCUS Social Media Integration Guide

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Contents

Preface

This content describes how to develop and use WebFOCUS Social Media Integration solutions. It is intended for users who are developing a social media solution that can collect data directly from a social media provider (such as Facebook® and Twitter®) and leverage it with WebFOCUS business intelligence functionality for reporting and analysis.

How This Manual Is Organized

This manual includes the following chapters:

	Chapter/Appendix	Contents
1	Introducing WebFOCUS Social Media Integration	Provides an introduction to WebFOCUS Social Media Integration and describes key components and facilities.
2	Using the Adapter for Facebook	Describes how to configure the Facebook Adapter.
3	Using the Adapter for Twitter	Describes how to configure the Twitter Adapter.
4	Using the Adapter for LinkedIn	Describes how to configure the LinkedIn Adapter.
5	Using the Adapter for Google Analytics	Describes how to configure the Google Analytics Adapter.
6	Using the Adapter for Words Analysis	Describes how to configure the Words Analysis Adapter.
7	Using the Adapter for WAND Sentiment Analysis	Describes how to configure the WAND Sentiment Analysis Adapter.
8	Using the Adapter for Alchemy Sentiment Analysis	Describes how to configure the Alchemy Sentiment Analysis Adapter.
A	Social Media Demo	Describes how to install and use the social media demo that is packaged with WebFOCUS.
B	Glossary of Related Terms	Provides definitions of commonly used words relating to WebFOCUS Social Media Integration.

Conventions

The following table describes the conventions that are used in this manual.

Convention	Description

`THIS TYPEFACE`
or
`this typeface`
	Denotes syntax that you must enter exactly as shown.

`this typeface`	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
`underscore`	Indicates a default setting.
this typeface	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.
Key + Key	Indicates keys that you must press simultaneously.
`{ }`	Indicates two or three choices. Type one of them, not the braces.
`[ ]`	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the parameter in the brackets, not the brackets.
`|`	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
`...`	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis (...).
. . .	Indicates that there are (or could be) intervening or additional commands.

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Information You Should Have

To help our consultants answer your questions effectively, be prepared to provide the following information when you call:

- Your six-digit site code (*xxxx.xx*).
- Your WebFOCUS configuration:
  - The front-end software you are using, including vendor and release.
  - The communications protocol (for example, TCP/IP or HLLAPI), including vendor and release.
  - The software release.
  - Your server version and release. You can find this information using the Version option in the Web Console.

- The stored procedure (preferably with line numbers) or SQL statements being used in server access.
- The Master File and Access File.
- The exact nature of the problem:
  - Are the results or the format incorrect? Are the text or calculations missing or misplaced?
  - Provide the error message and return code, if applicable.
  - Is this related to any other problem?
- Has the procedure or query ever worked in its present form? Has it been changed recently? How often does the problem occur?
- What release of the operating system are you using? Has it, your security system, communications protocol, or front-end software changed?
- Is this problem reproducible? If so, how?
- Have you tried to reproduce your problem in the simplest form possible? For example, if you are having problems joining two data sources, have you tried executing a query containing just the code to access the data source?
- Do you have a trace file?
- How is the problem affecting your business? Is it halting development or production? Do you just have questions about functionality or documentation?

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Chapter 1

Introducing WebFOCUS Social Media Integration

This section provides an introduction to WebFOCUS Social Media Integration and describes key components and facilities.

In this chapter:

Integrating With Social Media

Every day, millions of people around the world use social media sites, such as Facebook and Twitter to express themselves. Their communications often include thoughts about good and bad business experiences, and opinions about products and companies they like and dislike. This presents a valuable opportunity to get to know your customers in ways never before possible.

Using a WebFOCUS Social Media Integration solution, you can collect data directly from Facebook®, Twitter®, LinkedIn®, and Google Analytics® and leverage it to positively influence sales and marketing, customer service, product development, and other important operations. Unlike expensive surveys, which deliver outdated intelligence, this solution offers real-time insight into how audiences perceive your company, your products and services, and your competitors.

Social Media Integration

Facebook, Twitter, and LinkedIn contain a wealth of vital information about consumer sentiment. For example, this valuable information can provide answers to key questions, such as:

- What image do you portray to your customers?
- Do they like your products and services?
- Are they satisfied with the support they receive?

The Facebook Adapter can be used to retrieve posts and comments for Company and User Facebook pages.

The Twitter Adapter can be used to search and retrieve Tweets based on a defined search criteria.

The LinkedIn Adapter can be used to retrieve posts and comments for LinkedIn Group Discussions and Company Event Status Updates.

All of this type of information can assist in making key business decisions. WebFOCUS reports can be created to either report directly against this information or a data warehouse created using DataMigrator. Metrics can then be shown graphically through the use of WebFOCUS dashboards with drill-down to specific tabular information.

Sentiment Analytics

A Sentiment Analytics solution allows you to gather and interpret consumer sentiment with the highest degree of accuracy, and helps you determine which comments require your immediate attention. Sophisticated algorithms precisely gauge the emotional intensity within large volumes of written text, including Facebook posts and comments, Twitter Tweets, LinkedIn posts and comments, and other sources such as email and electronic survey information. Each message is then assigned a sentiment score (displayed as a negative to positive range of numeric values) so it can be prioritized and passed to the appropriate stakeholder for follow up.

Word Analytics

Knowledge of the specific words used to describe your company and its offerings is crucial to your ability to effectively assess public opinion. The Words Analysis Adapter employs an advanced algorithm that breaks sentences into component parts, removes common words, and provides visualizations of the most meaningful words and the frequency of their use over time. You can also drill down to individual messages, so words can be understood in full context. Using this adapter, social media professionals, marketing analysts, compliance officers, and others can quickly and easily detect which words are gaining popularity, and which ones are positively or negatively impacting the business.

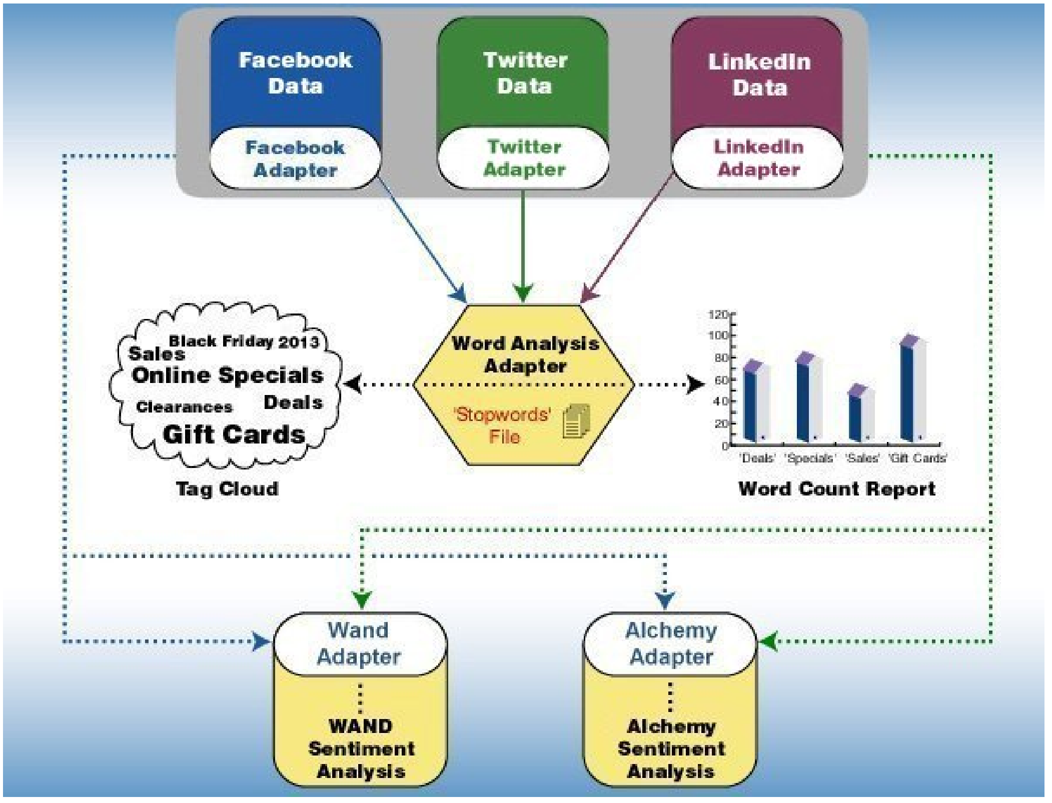
Google Analytics

The Google Analytics Adapter is used to report against the information residing in the Google Analytics environment. Metrics, such as Page Views and Users, can be analyzed by various dimensions (for example, Country and City).

You can configure the Google Analytics Adapter using the WebFOCUS Reporting Server Web Console. The adapter requires a connection, which stores the access token. A valid Google Analytics access token is required to issue Google Analytics API calls. This token is associated with a Google Analytics application and a specific Google Analytics user.

WebFOCUS Social Media Integration at a Glance

The following diagram illustrates the key components that are required in WebFOCUS Social Media Integration.



Note: Depending on the sentiment analysis strategy being used, WAND® or Alchemy integration can be implemented.

Understanding the Architecture of WebFOCUS Social Media Integration

Describes the key components that are used to develop a WebFOCUS Social Media Integration solution.

Facebook Adapter

The Facebook Adapter provides the ability to retrieve information directly from Facebook. The adapter can access any other textual information in accordance with user-granted permissions. Page administrators and application owners have access to Facebook Page metric information, such as Page Likes by Country and Page Likes by City.

The Facebook Adapter provides you with the following capabilities:

- Read Facebook Page posts and comments, including Poster, Commenter, and Likes.
- Read page information, including Description, Company Profile, and Likes.
- Read user information, including Name, Sex, City, Country, and Friends Count.

In addition, the Create Synonym functionality creates metadata, sample reports, and DataMigrator flows.

Twitter Adapter

The Twitter Adapter provides reporting capabilities from Twitter. Twitter is an online social networking and microblogging service that enables users to send and read text-based messages of up to 140 characters, called tweets. The Twitter Adapter provides the ability to read tweets for a specific Screen Name and perform searches on a number of different parameters based on words indexed by Twitter in tweets.

Note: The Twitter API only returns the last 3,200 tweets for a particular Screen Name.

LinkedIn Adapter

The LinkedIn Adapter provides reporting capabilities from LinkedIn. LinkedIn is a social networking website for people in professional occupations. LinkedIn members can store their professional history within the LinkedIn environment as well as perform job searches for available employment. Companies can store their corporate information within the LinkedIn environment as well as perform people searches for open position candidates.

The LinkedIn Adapter provides the following capabilities:

- Read Group Discussion posts, comments, and likes
- Read Company status updates including comments and likes
- Perform Job Search requests
- Perform People Search request
- Retrieve Basic Profile information for a LinkedIn member

- Retrieve Full Profile information for the authenticated user

Note: Job Search, Job Lookup, and People Search functionality require approval from LinkedIn to Vetted API Access where the application form can be accessed from: *https://help.linkedin.com/app/api-dvr*

Words Analysis Adapter

The Words Analysis Adapter counts the occurrences of each word. It also uses a Stopwords file to populate and determine which words to exclude in the adapter. The results are displayed in a Tabular report or graph.

WAND DataFacet Taxonomy Server for Sentiment Analysis

WAND® DataFacet® Taxonomy Server is third-party software provided by WAND Inc. that is resold by Information Builders. The Taxonomy Server evaluates content and returns a sentiment score based on a default Sentiment Taxonomy. The Sentiment Taxonomy can be customized with the use of the WAND Taxonomy Editor.

WAND Sentiment Analysis Adapter

The WAND Sentiment Analysis Adapter creates a connection to the WAND Taxonomy Server. Textual information is passed to WAND from within WebFOCUS procedures for Sentiment Analysis evaluation. The adapter passes the textual information to the WAND Taxonomy Server thereby analyzing the text for negative or positive sentiment with scores ranging from -1 to 1.

Alchemy Sentiment Analysis Adapter

Alchemy provides a service whereby textual information can be passed to its API, which would then return a sentiment score. Using algorithms, the score returned by the Alchemy API determines the sentiment as to a negative or positive feeling about a particular item. Textual information is passed to Alchemy from within WebFOCUS procedures for Sentiment Analysis evaluation. The Alchemy Sentiment Analysis Adapter passes the textual information to the Alchemy API whereby the text is analyzed for negative or positive sentiment with scores ranging from -1 to 1.

Chapter 2

Using the Adapter for Facebook

This section describes how to configure the Facebook Adapter.

In this chapter:

Facebook Adapter Overview

The Facebook Adapter is used to report against information, resident in the Facebook environment. It can also be used by DataMigrator in the creation of datamarts to house Facebook information.

You can configure the Facebook Adapter using the Reporting Server Web Console. The adapter requires a connection, which stores the access token. A valid Facebook access token is needed to issue Facebook API calls. The token is associated with a Facebook application and a specific Facebook user. The access token is valid for 60 days after which a new access token would need to be obtained and configured.

The connection page shows permissions that will be granted to the Facebook application. You can uncheck permissions that should not be granted. The connection process will use only checked permissions. Authentication will take place even if no permissions are granted.

Creating a Facebook Application

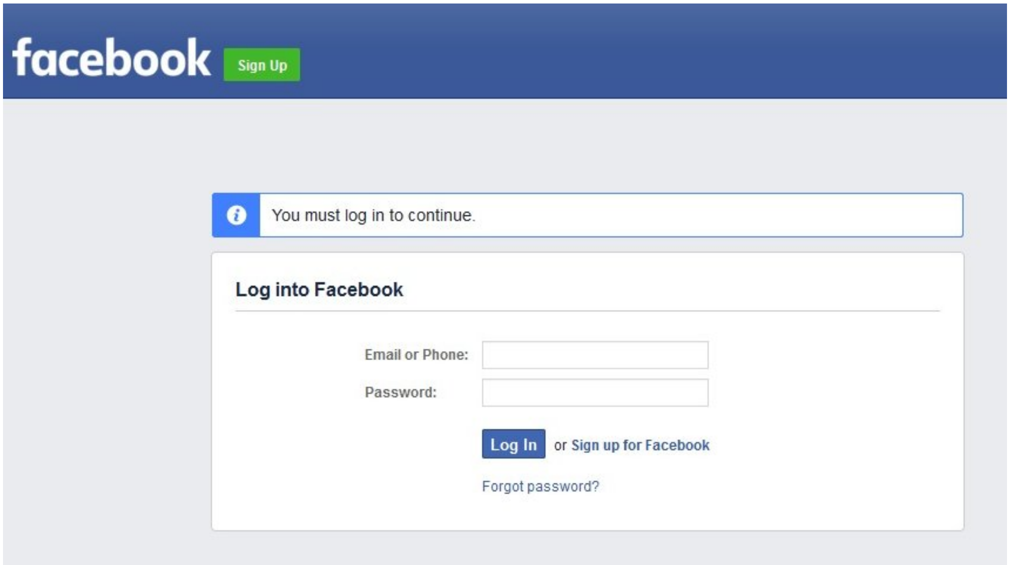
A Facebook application needs to exist before configuring the Facebook Adapter. The Facebook application must be associated with the Domain where the WebFOCUS Reporting Server is installed.

Procedure: How to Create a Facebook Application

1. From a browser, enter the following URL in a web browser:

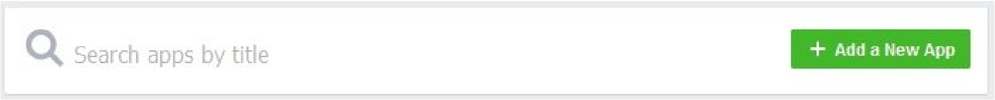
   `https://developers.facebook.com/apps`

A Log into Facebook screen will appear if you are not already logged into Facebook, as shown in the following image.



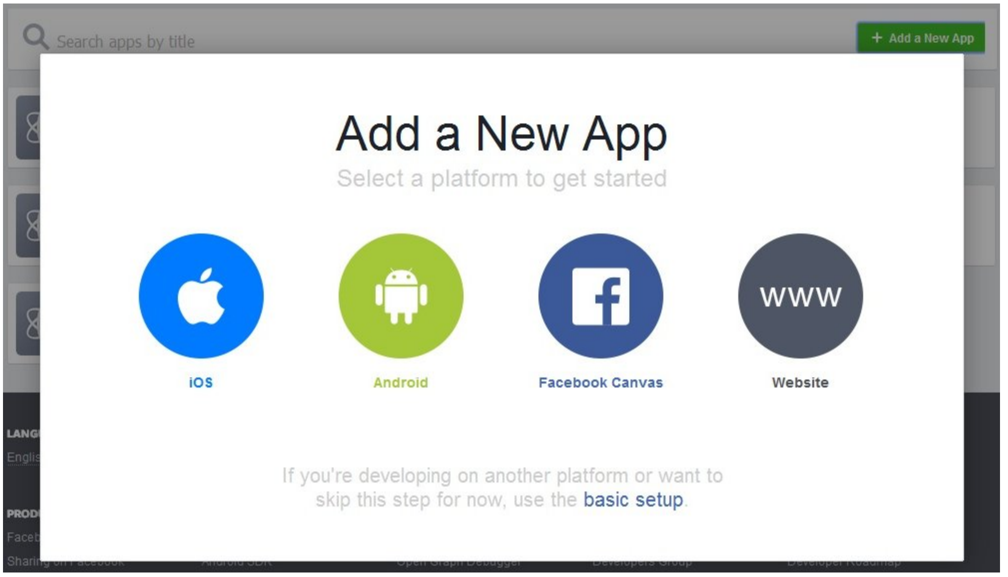
2. Enter your Facebook credentials and click *Log In*.

   The following screen is displayed.



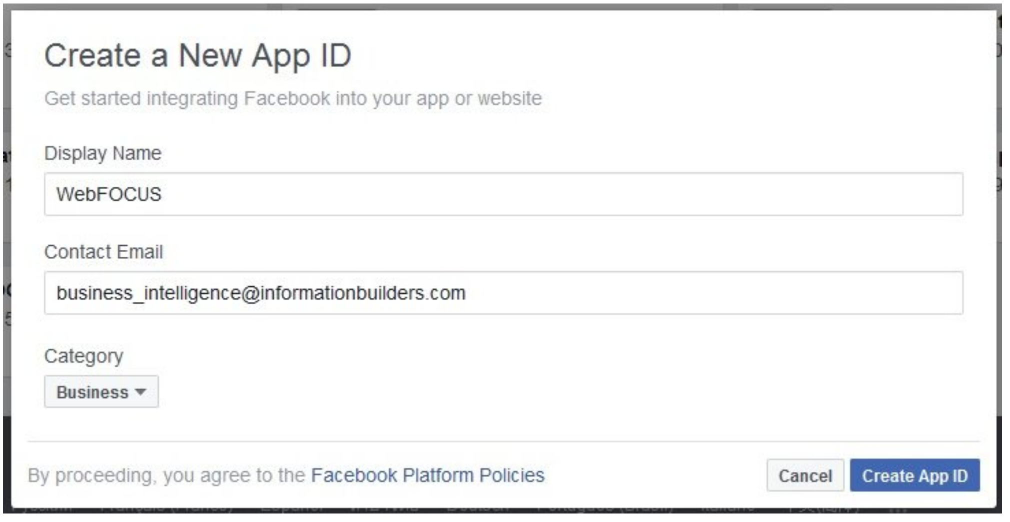
3. Click + *Add a New App*.

The Add a New App screen is displayed, as shown in the following image.



4. Click *basic setup*.

   The Create a New App ID screen is displayed, as shown in the following image



5. Perform the following steps:

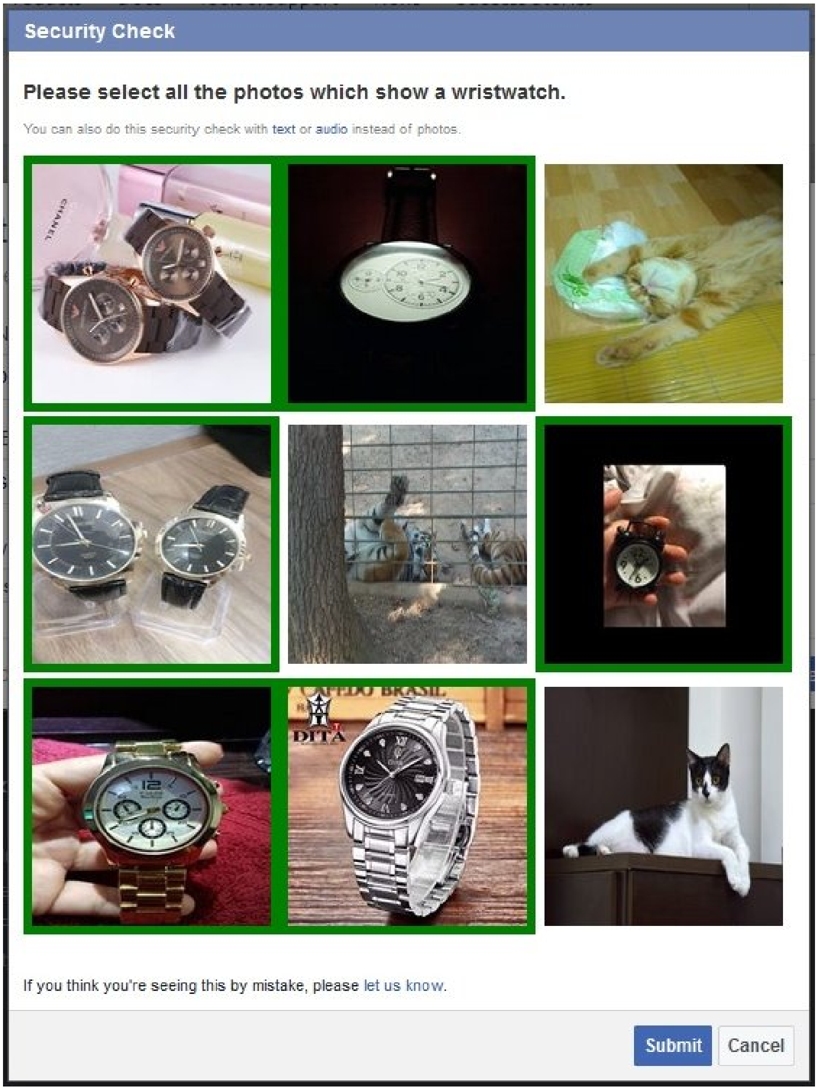
   a. Enter a name for the new Facebook application you are creating in the Display Name field.

b. Enter a valid email address in the Contact Email field.

c. Select a category for your Facebook application from the Category drop-down list.

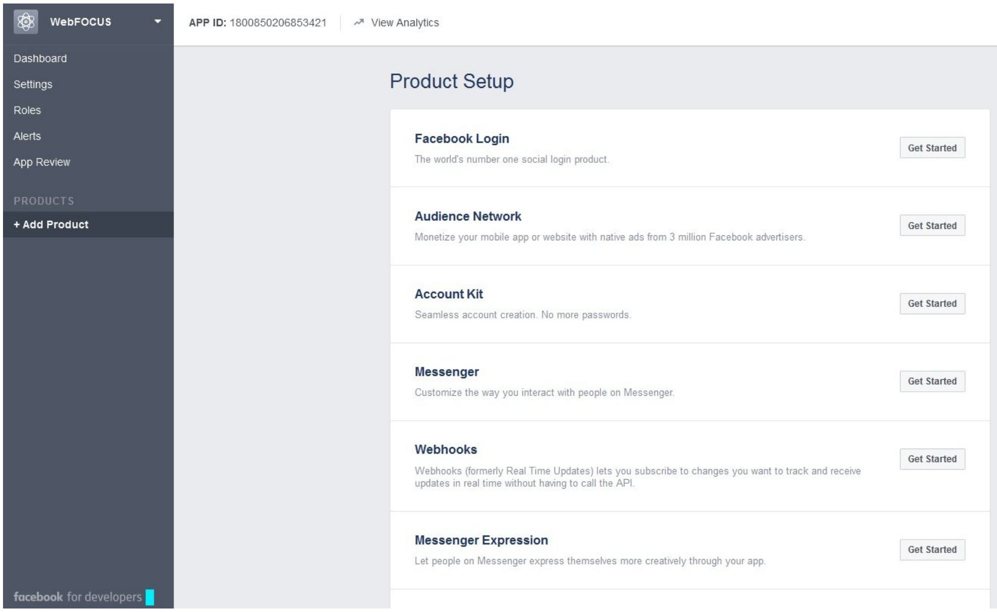
6. Click *Create App ID*.

The Security Check screen is displayed, as shown in the following image.



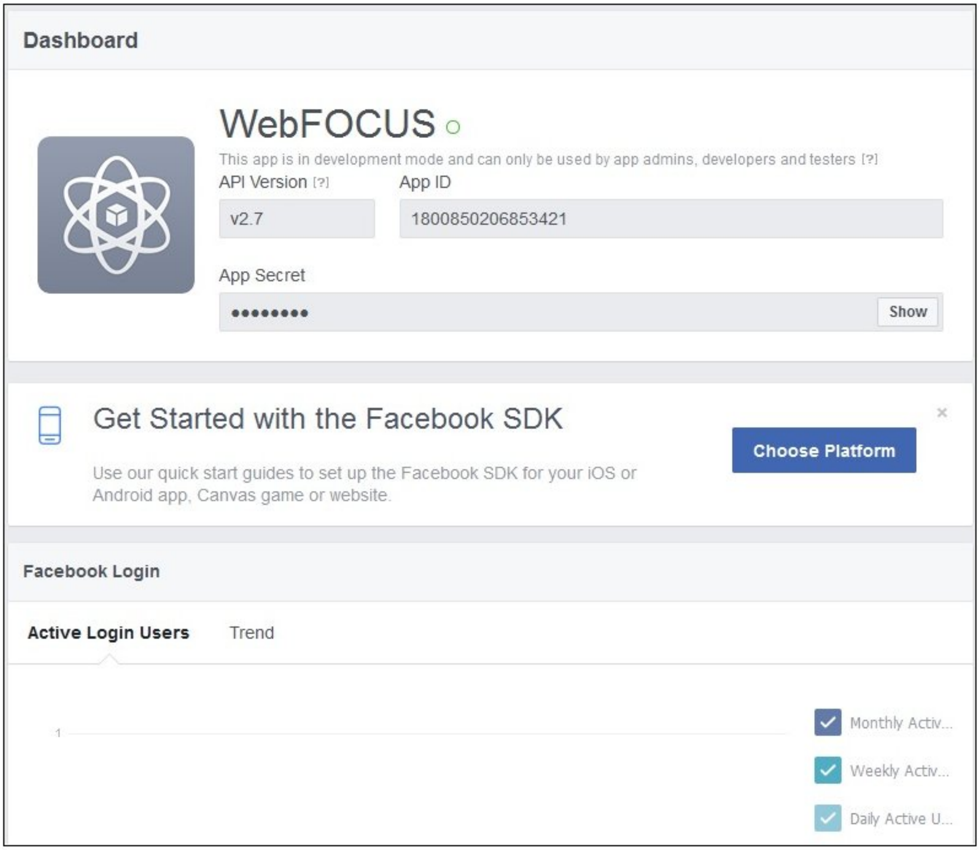
7. Click the required images as specified by the security instructions, and then click *Submit*.

The Product Setup screen is displayed, as shown in the following image.



8. Click *Dashboard* in the left pane.

The Dashboard screen is displayed and is branded based on the display name you specified in Step 5, as shown in the following image.



The Dashboard screen contains the App ID and App Secret values. The App Secret value is hidden by default. These values are required for configuring the Facebook Adapter.

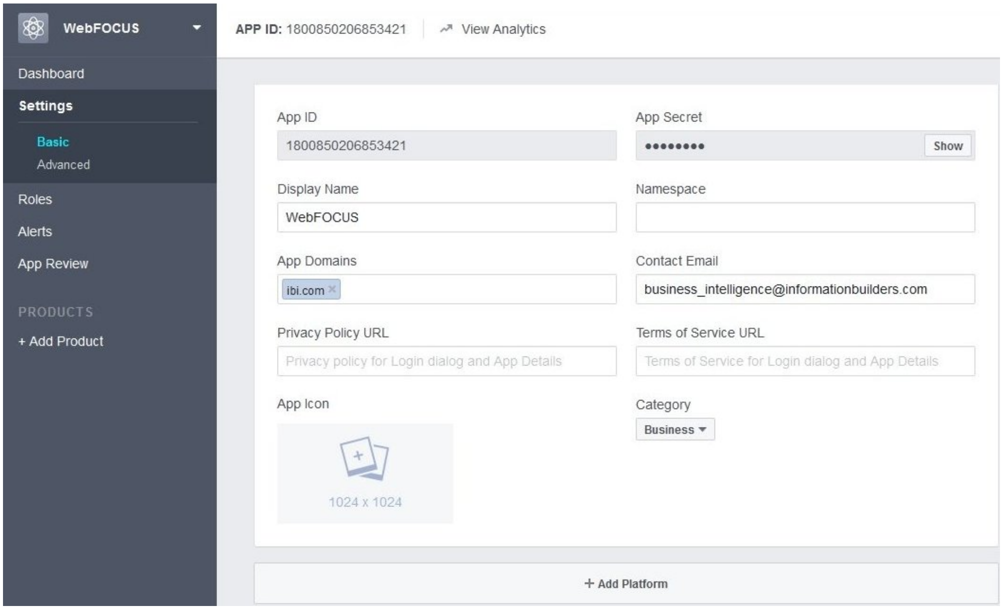
9. To view the App Secret value, click *Show*.

   A prompt for the password of the Facebook user creating the application is displayed.

10. Enter the valid password and then click *Submit*.

11. Click *Settings* in the left pane.

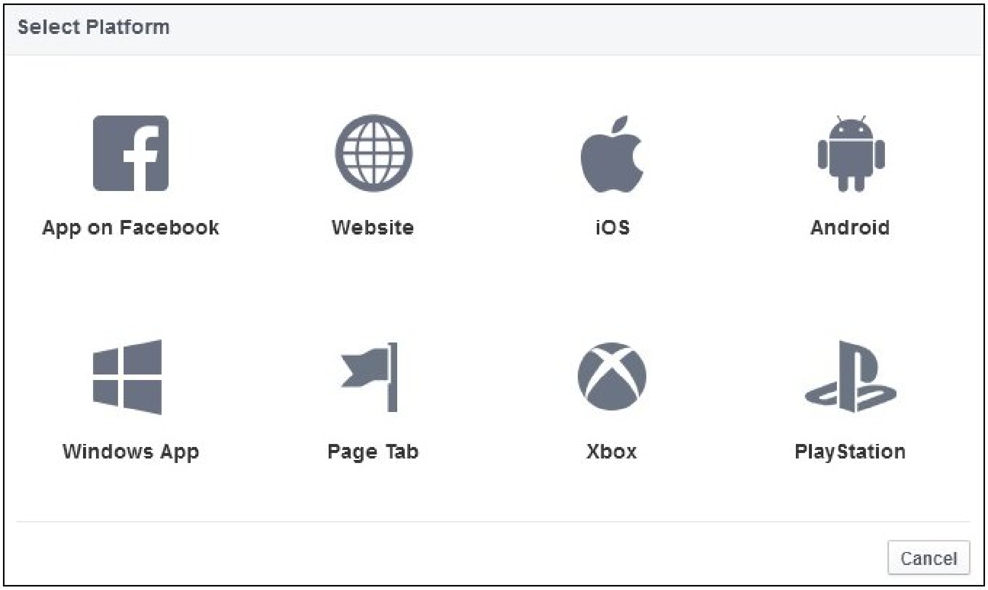
The Settings screen is displayed, as shown in the following image.



12. In the App Domains field, enter the domain where the WebFOCUS Reporting Server is installed.

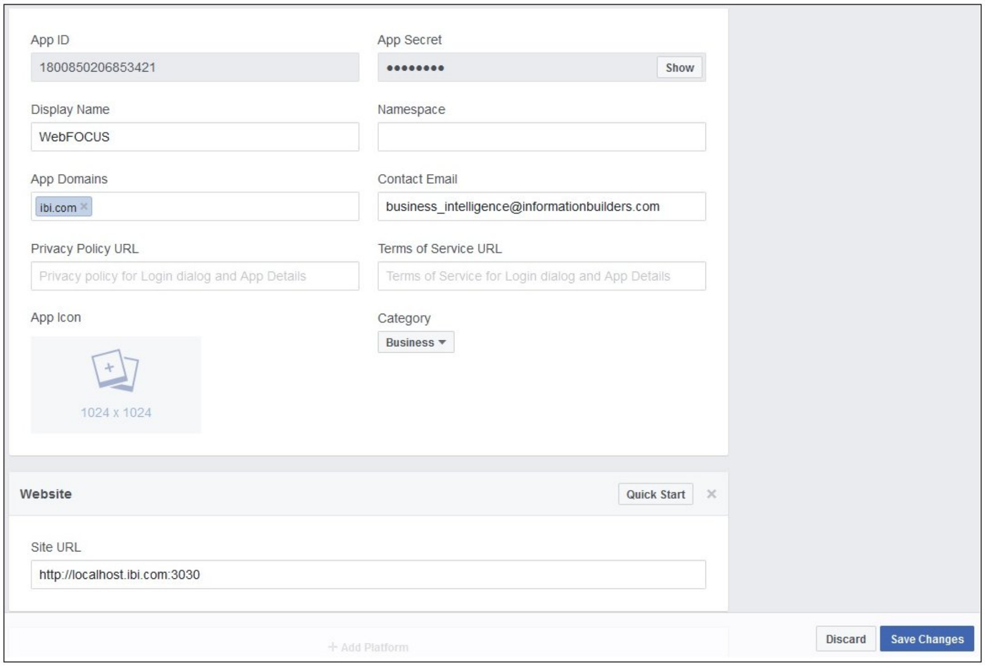
13. Click + *Add Platform*.

The Select Platform screen is displayed, as shown in the following image.



14. Click *Website*.

You are returned to the Settings screen, as shown in the following image.



15. Enter a Site URL with the domain matching where the WebFOCUS Reporting Server is installed.

16. Click *Save Changes*.

    You are now ready to configure the Facebook Adapter.

Configuring the Facebook Adapter

This section describes how to configure the Facebook Adapter.

Procedure: How to Configure the Facebook Adapter

1. Clear the cookies from the web browser that will be used to start the WebFOCUS Reporting Server Web Console.

2. Access the WebFOCUS Reporting Server Web Console with a URL containing the domain where the WebFOCUS Reporting Server is installed. For more information, see *Creating a Facebook Application* on page 19.

   This domain should match the one configured with the Facebook application. For example:

   ```
   http://IBI-Computer.ibi.com:8121
   ```

3. From the Web Console sidebar, click *Connect to Data*.

   or

   From the Data Management Console, expand the *Adapters* folder.

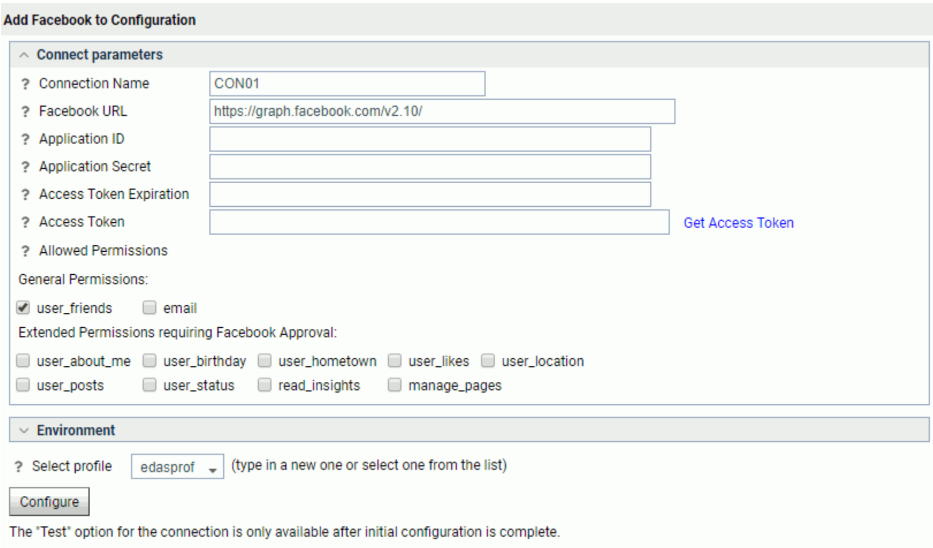
   In the DMC, the Adapters folder opens. In the Web Console, the Adapters page opens with two lists, Configured Adapters and Available Adapters.

4. Find the adapter on the Available list in the Web Console or expand the *Available* folder in the DMC, if it is not already expanded.
   On the Web Console, you can select a category of adapter from the drop-down list or use the search option (magnifying glass) to search for specific characters.

5. In the DMC, expand the appropriate group folder and the specific adapter folder. The group folder is described in the connection attributes reference.

6. Right-click the *Facebook* node and select *Configure*.

   The Add Facebook to Configuration pane opens, as shown in the following image.



7. Enter the values for the Application ID and Application Secret as defined in the Facebook application you created.

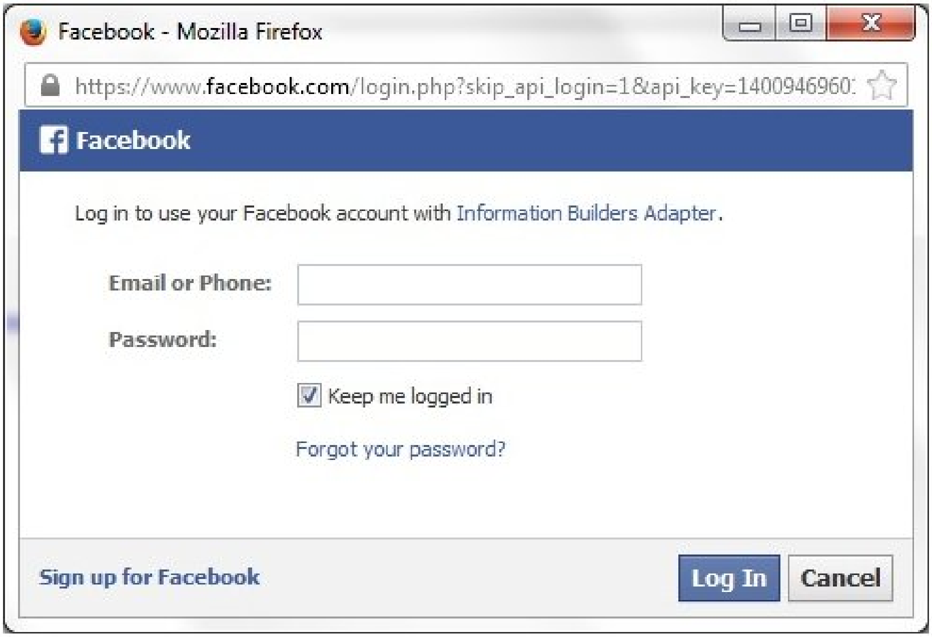
   For more information, see *Creating a Facebook Application* on page 19.

8. Choose the options in the General Permissions area and Extended Permissions that are to be granted to the Facebook Application. Note that the Extended Permissions require Facebook approval.

   Click the *Get Access Token* link.

For more information on the Allowed Permissions, see *Connection Attributes for Facebook* on page 31.

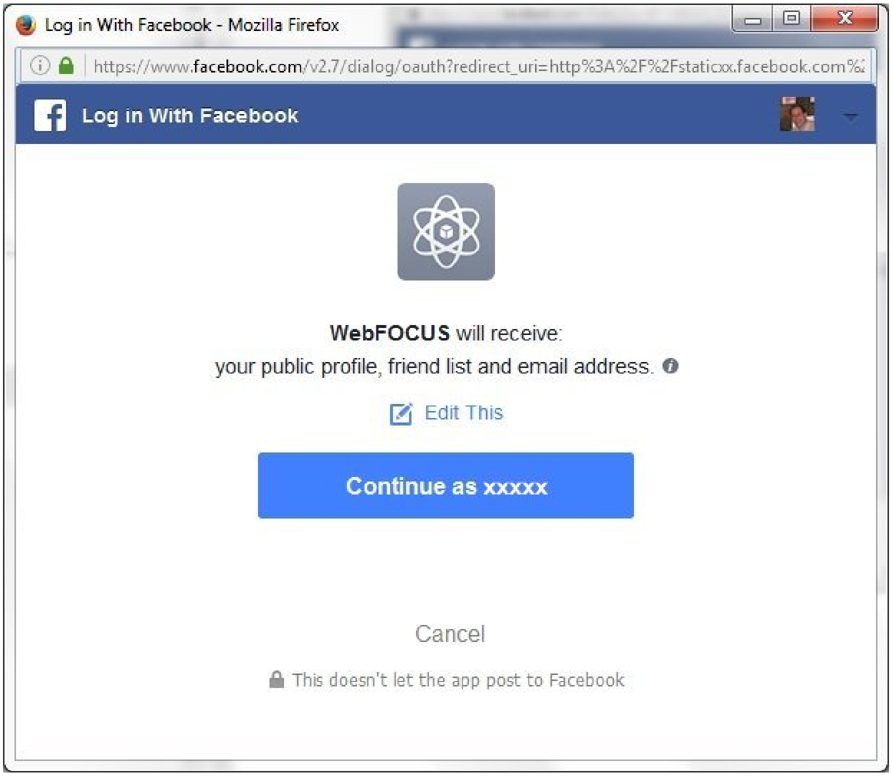
A Facebook login dialog opens, as shown in the following image.



If the Facebook login dialog does not open, ensure that the Pop-up Blocker within the web browser is either disabled or configured to allow pop-up windows from the host where the WebFOCUS Reporting Server is installed.

9. Enter the Facebook login credentials and then click *Log In*.

A pop-up window is displayed asking you to confirm the permissions that are to be granted to the Facebook application, as shown in the following image.



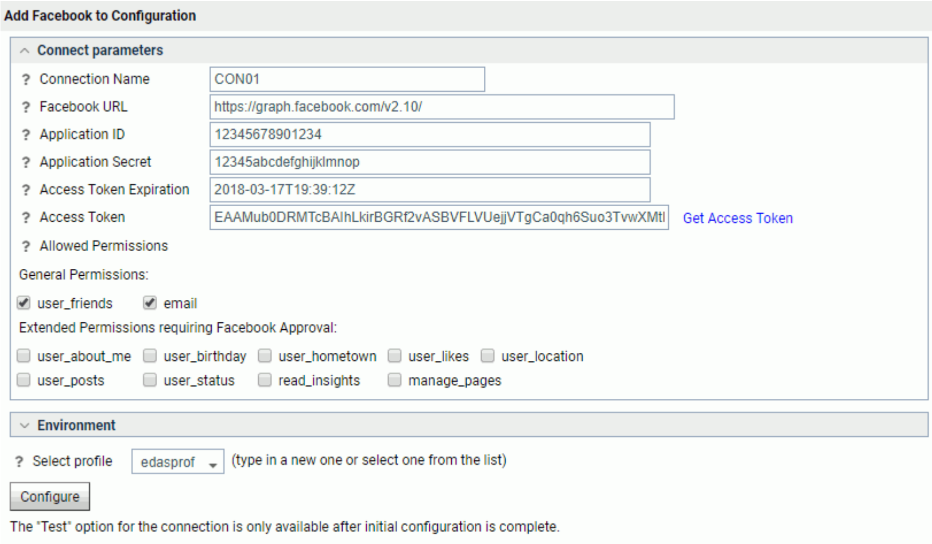
10. Click *Continue as xxxxx*.

    where:

    xxxxx

    Is the name of the Facebook user.

You are returned to the Add Facebook to Configuration pane where the Access Token Expiration and the Access Token fields are now populated, as shown in the following image.



11. Click *Configure*.

    The configured Facebook Adapter is added to the Facebook node in the left pane.

    Note: The Access Token expires after 60 days. To refresh the Access Token, click the *Get Access Token* link and then click *Configure*.

Reference: Connection Attributes for Facebook

The following list describes the connection attributes for the Facebook Adapter.

Connection Name

Logical name used to identify this particular set of connection attributes. The default is CON01.

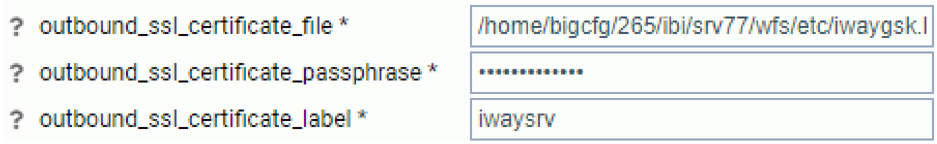
Facebook URL

The URL of the Facebook Graph API request. The default value is:

```
https://graph.facebook.com/
```

For iSeries machines, the WebFOCUS Reporting Server must be configured for SSL as follows:

1. From the Web Console sidebar, click *Workspace*.
2. From the menu bar, click *Workspace Set*, and select *Miscellaneous Settings*
3. Enter values for *outbound_ssl_certificate_file*, *outbound_ssl_certificate_passphrase*, and *outbound_ssl_certificate_label*, and then click *Save*. For example:



Application ID

The Facebook application ID as defined during the creation of the Facebook Application. For more information, see *Creating a Facebook Application* on page 19.

Application Secret

The Facebook application secret as defined in the Facebook application. For more information, see *Creating a Facebook Application* on page 19.

Access Token Expiration

The date and time that the Access Token will expire.

Access Token

Click the *Get Access Token* link to obtain this token. The credentials for a Facebook account are then entered. The value for the Access Token is returned by an authorized login.

General Permissions

Grants the selected permissions to the Facebook application, which include:

- user_friends
- email

Extended Permissions requiring Facebook Approval

Grants the selected permissions to the Facebook application, which include:

- user_about_me
- user_birthday

- user_hometown
- user_likes
- user_location
- user_posts
- user_status
- read_insights
- manage_pages

Select profile

Select a profile from the drop-down list to indicate the level of profile in which to store the connection attributes. The global profile, edasprof.prf, is the default.

If you wish to create a new profile, either a user profile (user.prf) or a group profile if available on your platform (using the appropriate naming convention), select *New Profile* from the drop-down list and enter a name in the Profile Name field (the extension is added automatically).

Store the connection attributes in the server profile (edasprof).

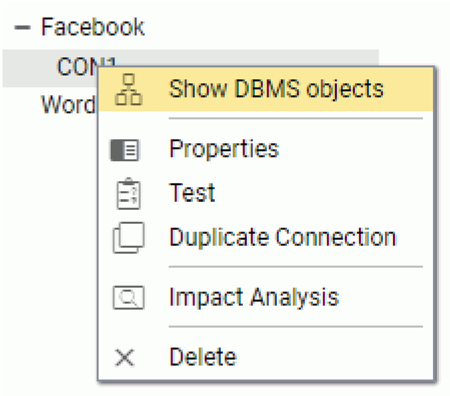
Creating Metadata and Sample Reports for the Facebook Adapter

Create Synonym for the Facebook Adapter creates the metadata used for WebFOCUS reporting and DataMigrator ETL flows. It also creates sample WebFOCUS reports and DataMigrator ETL flows.

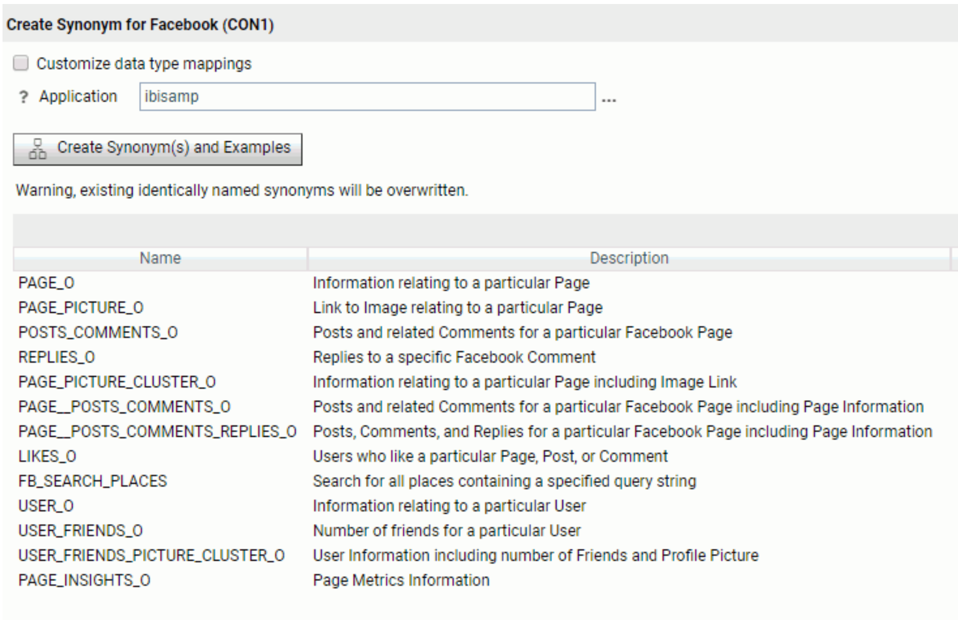
Procedure: How to Create Metadata and Sample Reports

1. From the WebFOCUS Reporting Server Web Console, expand the *Adapters* folder, *Configured* folder, and then the *Facebook* folder.

2. Right-click the configured connection for the Facebook Adapter (for example, FB) and select *Show DBMS objects* from the context menu, as shown in the following image.



The Create Synonym for Facebook pane opens, as shown in the following image.



3. Enter a specific application in the Application field or click the ellipsis button to the right of the field to select an application where the metadata, sample reports, and DataMigrator ETL flows are to be stored.

4. Click *Create Synonym(s) and Examples*.

The Create Synonym for Facebook Status pane opens and indicates that the synonym was created successfully.

Facebook Adapter Examples

This section describes the metadata and sample reports for the Facebook Adapter.

Reference: Facebook Adapter Metadata

The following table lists and describes the available metadata for the Facebook Adapter.

A metadata name with a "_o" suffix is used to retrieve an object of information from Facebook. This type of metadata should only be used as a secondary file in a JOIN.

A metadata name without a "_o" suffix is used to retrieve specific columns of information from Facebook.

Metadata	Description
fb_search	Used to search for a Facebook ID for a page or user.
fb_search_places	Used to search for places containing a specified query string.
likes_o	Used to retrieve the IDs and names of users who like a given video, post, comment, link, photo, or album.
page_insights_o	Used to retrieve specific statistics about a particular Facebook page.
page_o	Used to retrieve information about a Facebook page.
page_picture_o	Used to retrieve a picture for a Facebook page or user.
posts_comments_o	Used to retrieve Posts and Comments for a Facebook page.

Metadata	Description
profile_o	Used to retrieve the name, user name/page alias, and type for a Facebook object. For example, user, group, page, event, application.
replies_o	Used to retrieve replies for comments.
user_friends_o	Used to retrieve friends for a Facebook user.
user_o	Used to retrieve information about a user.
fbsampl/fb_comment_sentiment	Describes a SQL Server table loaded by the fb_datamigrator_sentiment_load DataMigrator flow. The table contains sentiment scores for Facebook comments. Used when the WAND Sentiment Analysis Adapter is configured.
fbsampl/fb_comments	Describes a SQL Server table loaded by the fb_datamigrator_load DataMigrator flow. The table contains Facebook comments.
fbsampl/fb_comments_to_sentiment	Cluster Join from fb_comments to wandscore; wandscore metadata is created from the WAND Sentiment Analysis Adapter. Used by the fb_datamigrator_sentiment_load DataMigrator flow.
fbsampl/ fb_join_datamodel_excluding_sentiment	Cluster Join used for reporting post, posters, comments, commenters, replies, and repliers. Joins: ❏ fb_posts to fb_profile ❏ fb_posts to fb_page_info ❏ fb_posts to fb_comments ❏ fb_comments to fb_profile ❏ fb_comments to fb_replies ❏ fb_replies to fb_profile

Metadata	Description
fbsampl/ fb_join_datamodel_including_sentiment	Cluster Join used for reporting post, posters, comments, commenters, replies, repliers, post sentiment score, comment sentiment score, and reply sentiment score. Joins: ❑ fb_posts to fb_profile ❑ fb_posts to fb_page_info ❑ fb_posts to fb_comments ❑ fb_comments to fb_profile ❑ fb_comments to fb_replies ❑ fb_replies to fb_profile ❑ fb_posts to fb_post_sentiment ❑ fb_comments to fb_comment_sentiment ❑ fb_replies to fb_comment_sentiment Used when the WAND Sentiment Analysis Adapter is configured.
fbsampl/fb_page_info	Describes a SQL Server table loaded by the fb_datamigrator_load DataMigrator flow. The table contains Facebook page information.
fbsampl/fb_post_sentiment	Describes a SQL Server table loaded by the fb_datamigrator_sentiment_load DataMigrator flow. The table contains sentiment scores for Facebook posts. Used when the WAND Sentiment Analysis Adapter is configured.
fbsampl/fb_posts	Describes a SQL Server table loaded by the fb_datamigrator_load DataMigrator flow. The table contains Facebook posts.

Metadata	Description
fbsampl/fb_posts_to_sentiment	Cluster Join from fb_posts to wandscore; wandscore metadata is created from the WAND Sentiment Analysis Adapter. Used by the fb_datamigrator_sentiment_load DataMigrator flow.
fbsampl/fb_profile	Describes a SQL Server table loaded by the fb_datamigrator_load DataMigrator flow. The table contains name, user name/page alias, and type information for a Facebook object. For example, user, group, page, event, application.
fbsampl/fb_replies	Describes a SQL Server table loaded by the fb_datamigrator_load DataMigrator flow. The table contains Facebook replies.
fbsampl/fb_replies_to_sentiment	Cluster Join from fb_replies to wandscore; wandscore metadata is created from the WAND Sentiment Analysis Adapter. Used by the fb_datamigrator_sentiment_load DataMigrator flow.
fbsampl/fb_user	Describes a SQL Server table loaded by the fb_datamigrator_load DataMigrator flow. The table contains user information.
fbsampl/page_insights_cluster	Cluster Join used for reporting page and page statistics. Joins: page_o to page_insights_o
page_picture_cluster_o	Cluster Join used for reporting page and page picture statistics. Joins: page_o to page_picture_o

Metadata	Description
fbsampl/page_posts_comments_o	Cluster Join used for reporting page posts and comments. Joins: page_o to posts_comments_o
fbsampl/posts_comments_replies_o	Cluster Join used for reporting page, posts, comments, and replies. Joins: ❑ page_o to posts_comments_o ❑ posts_comments_o to replies_o
fbsampl/ user_friends_picture_cluster_o	Cluster Join for reporting user information, number of friends, and user picture. Joins: ❑ user_o to user_friends_o ❑ user_o to page_picture_o
fbsampl/ user_picture_cluster_o	Cluster Join for reporting user information and user picture. Joins: user_o to page_picture_o

Reference: Facebook Adapter Sample Reports

The following table lists and describes the sample reports for the Facebook Adapter.

Sample Report	Description
fbsampl/fb_create_datamodel	Creates the SQL Server tables used for the Facebook data model loaded by the fb_datamigrator_load and fb_datamigrator_sentiment_load DataMigrator flows. As a prerequisite, a SQL Server connection called *socialmedia* must be configured as well as the creation of a SQL Server database called *Facebook*.
fbsampl/fb_delete_datamodel	Deletes the SQL Server tables used for the data model.
fbsampl/fb_page_drill	Page information drill report. Uses: fbsampl/fb_page_info
fbsampl/fb_page_posts_ comments_replies_report	Reports Facebook page posts with related comments and replies. Uses: fbsampl/fb_join_datamodel_excluding_sentiment
fbsampl/fb_page_posts_comments_ replies_scored_report	Reports Facebook page posts with related comments and replies including sentiment scoring. Uses: fbsampl/fb_join_datamodel_including_sentiment
fbsampl/fb_search	Search for the ID and name for a page or user. Uses fb_search.

Sample Report	Description
fbsampl/fb_search_places	Search for places containing a specified query string. Uses: fb_search_places
fbsampl/fb_tagcloud_drill_excluding_ sentiment	Drill to posts, comments, and replies from the tag cloud. The Words Analysis adapter must be configured. Uses: fbsampl/fb_join_datamodel_excluding_sentiment
fbsampl/fb_tagcloud_drill_including_ sentiment	Drill to posts, comments, replies, and sentiment from the tag cloud. The Words Analysis adapter must be configured. Uses: fbsampl/fb_join_datamodel_including_sentiment
fbsampl/ fb_tagcloud_drill_post_excluding_ sentiment	Reports on a specific post with related comments and replies. The Words Analysis adapter must be configured. Uses: fbsampl/fb_join_datamodel_excluding_sentiment
fbsampl/ fb_tagcloud_drill_post_including_ sentiment	Reports on a specific post with related comments, replies, and sentiment. The Words Analysis adapter must be configured. Uses: fbsampl/fb_join_datamodel_including_sentiment

Sample Report	Description
fbsampl/fb_tagcloud_posts_comments_replies	Tag cloud graph for posts, comments, and replies. The Words Analysis adapter must be configured. Uses: fbsampl/fb_join_datamodel_excluding_sentiment wan_document (Words Analysis metadata)
fbsampl/fb_user_drill	User information drill report. Uses: fbsampl/fb_user
fbsampl/page_insights_o	Reports metrics for a specific page. Uses: fbsampl/page_insights_cluster_o
page_o	Reports page information for a specific page. Uses: fbsampl/page_picture_cluster_o
fbsampl/page_posts_comments_o	Reports Facebook page posts and related comments. Uses: fbsampl/page_posts_comments_o
fbsampl/page_posts_comments_replies_o	Reports Facebook page posts and related comments including replies. Uses: fbsampl/page_posts_comments_replies_o
fbsampl/page_posts_likes_o	Reports users who liked particular posts. Uses: fbsampl/page_posts_comments_o and likes_o

Sample Report	Description
fbsampl/profile_o	Reports the type for an Object ID (Page or User). Uses: profile_o
fbsampl/user_o	Reports user information for a Facebook user. Uses: fbsampl/user_friends_picture_cluster_o

Reference: Facebook Adapter DataMigrator Flows

The following table lists and describes the DataMigrator flows for the Facebook Adapter. The Facebook Data Model must first be created by running fbsampl/fb_create_datamodel.

Flow	Description
fbsampl/fb_datamigrator_load	Process flow to run the following data flows: ❏ fbsampl/fb_load_page ❏ fbsampl/fb_load_posts ❏ fbsampl/fb_load_comments_replies ❏ fbsampl/fb_load_profile_posters ❏ fbsampl/fb_load_profile_commenters ❏ fbsampl/fb_load_profile_repliers ❏ fbsampl/fb_load_pages ❏ fbsampl/fb_load_users

Flow	Description
fbsampl/ fb_datamigrator_sentiment_load	Process flow to run the following data flows: ❏ fbsampl/fb_load_post_sentiment ❏ fbsampl/fb_load_comment_sentiment ❏ fbsampl/fb_load_reply_sentiment
fbsampl/ fb_load_comment_sentiment	Data flow to load sentiment scores for Facebook comments.
fbsampl/fb_load_comments_replies	Data flow to load Facebook comments and replies.
fbsampl/fb_load_page	Data flow to load Facebook page information for pages identified in the fbsampl/page_ids.ftm file.
fbsampl/fb_load_pages	Data flow to load Facebook page information for people that have either posted, commented, or replied from a Facebook page.
fbsampl/fb_load_post_sentiment	Data flow to load sentiment scores for Facebook posts.
fbsampl/fb_load_posts	Data flow to load Facebook posts.
fbsampl/ fb_load_profile_commenters	Data flow to load Facebook user and page profile information for commenters. For example, ID, name, and commenter type (page/user).
fbsampl/fb_load_profile_posters	Data flow to load Facebook user and page profile information for posters. For example, ID, name, and poster type (page/user).
fbsampl/fb_load_profile_repliers	Data flow to load Facebook user and page profile information for repliers. For example, ID, name, and replier type (page/user).
fbsampl/fb_load_reply_sentiment	Data flow to load sentiment scores for Facebook replies.

Flow	Description
fbsampl/fb_load_users	Data flow to load Facebook user information for people that have either posted, commented, or replied.

Chapter 3

Using the Adapter for Twitter

This section describes how to configure the Twitter Adapter.

In this chapter:

Twitter Adapter Overview

You can configure the Twitter Adapter using the WebFOCUS Reporting Server Web Console. The adapter requires a connection, which stores the access token. A valid Twitter access token is required to issue Twitter API calls. The token is associated with a Twitter application and a Twitter Screen Name.

Creating a Twitter Application

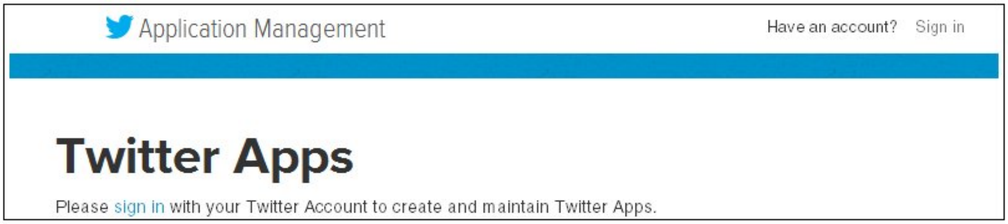
A Twitter application needs to exist before configuring the Twitter adapter

Procedure: How to Create a Twitter Application

1. From a browser, enter the following URL in a web browser:

   `https://apps.twitter.com`

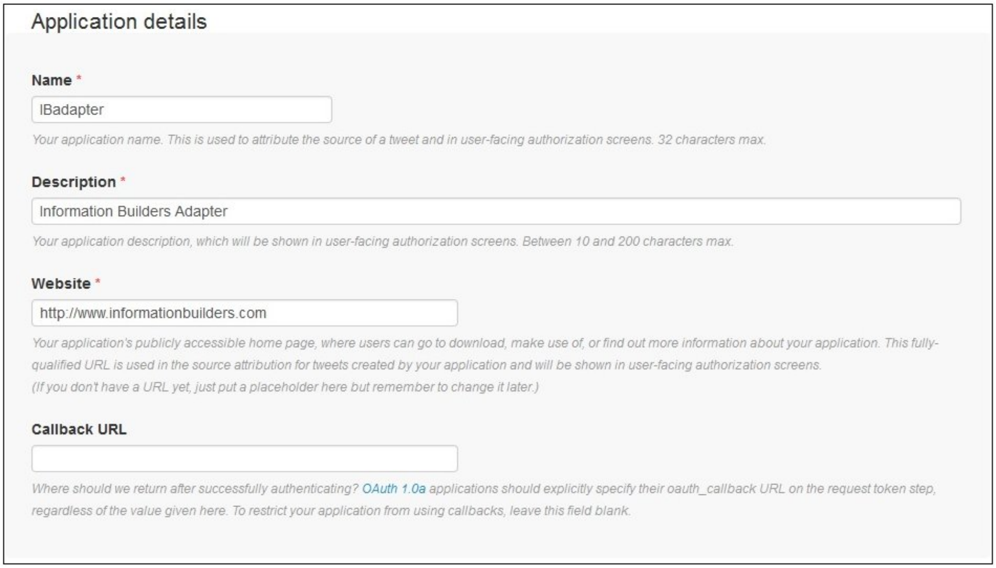
   A Twitter Application Management screen will appear if you are not already logged into Twitter, as shown in the following image.



2. If you are not already signed in to Twitter, click the *Sign in* link located in the upper-right corner of the screen.

3. Click the *Create New App* button in the upper-right corner of the screen.

The Application details screen opens, as shown in the following image.



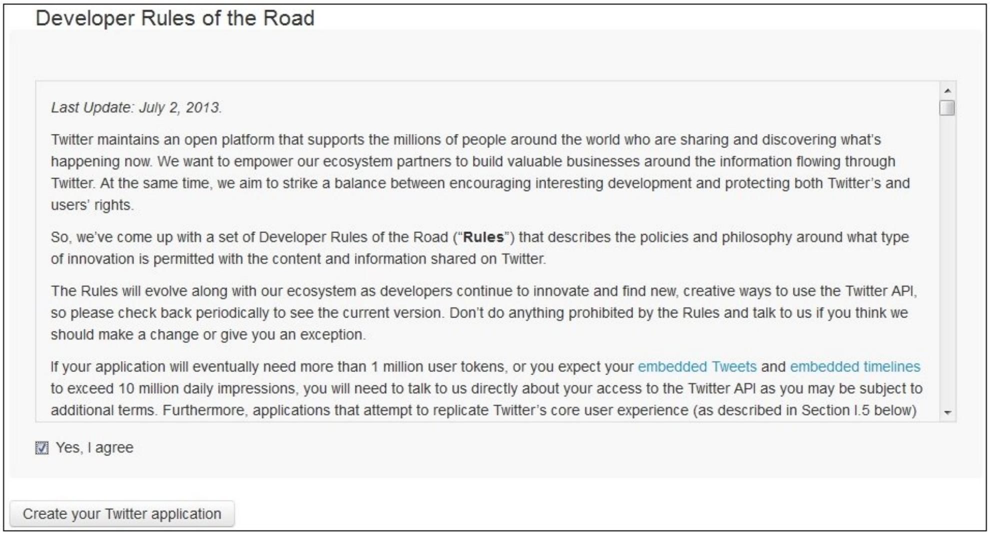
4. Perform the following steps:

   a. Enter a name without spaces for the new Twitter application in the Name field.

   b. Enter a description for the new Twitter application in the Description field.

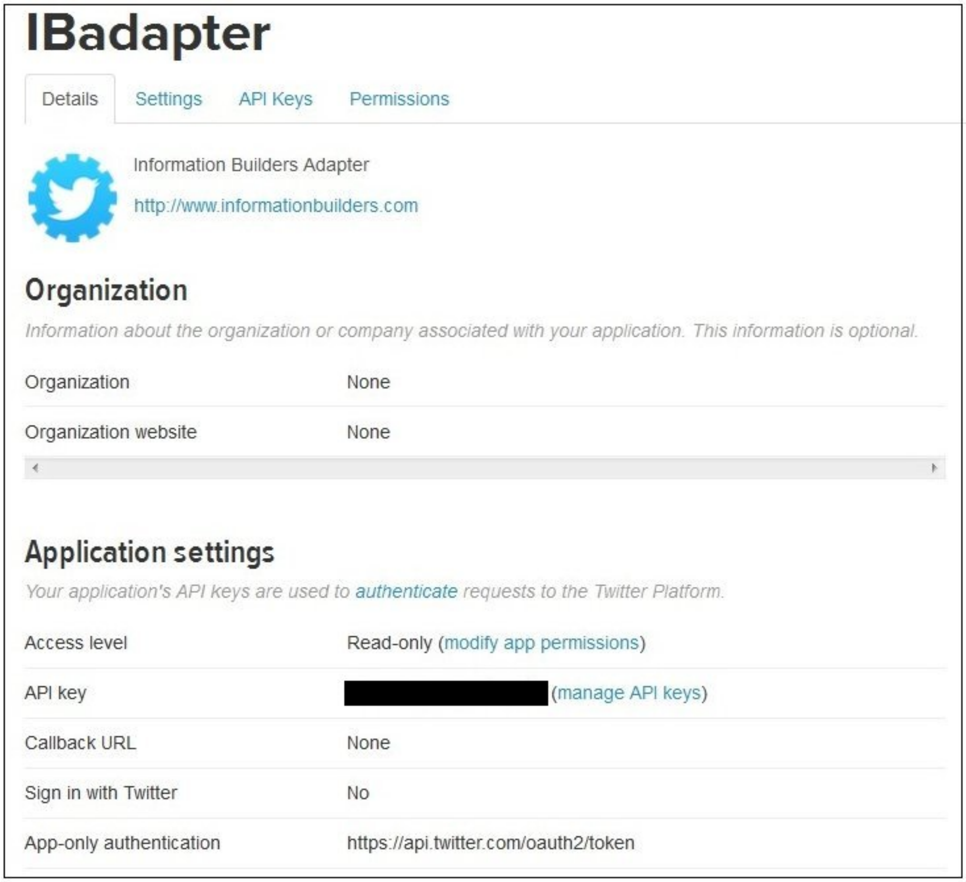
   c. Enter web site URL for the company hosting the new Twitter application in the Website field.

5. Scroll down to the Developer Rules of the Road and read the agreement, as shown in the following image.



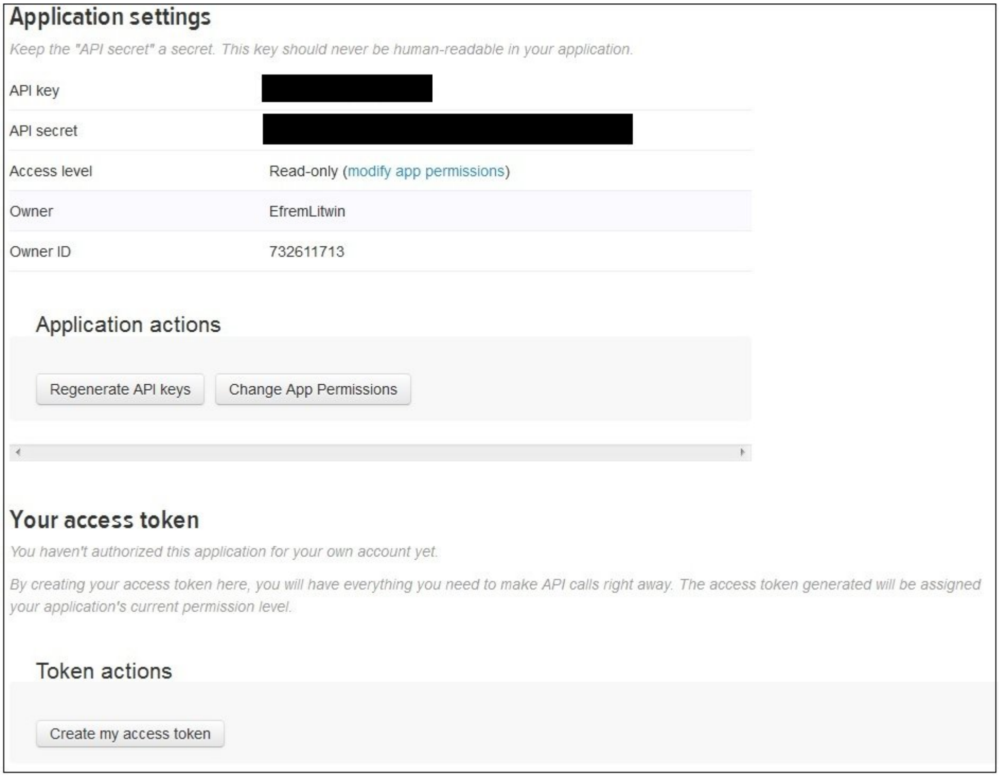
If the agreement is acceptable, select *Yes, I agree* and then click *Create your Twitter application*.

The configuration page for the new Twitter application (for example, IBadapter) opens, as shown in the following image.



6. Click the *manage API keys* link in the API key row.

The Application settings page opens, as shown in the following image.



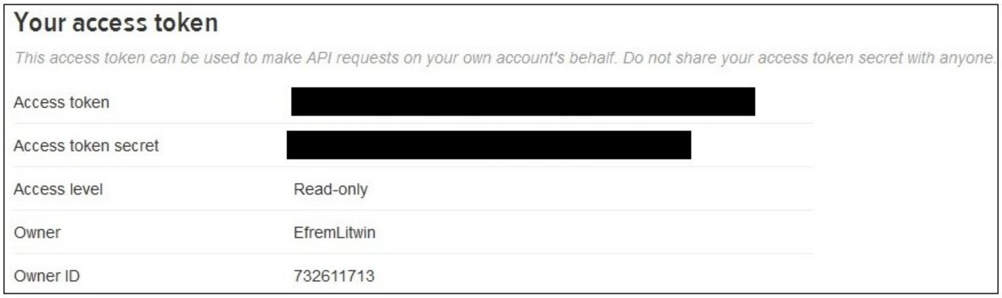
Note: The *API key* and the *API secret* values will be required during the configuration of the Twitter adapter.

7. Click *Create my access token*.

   A Status message may appear at the top of the page, as shown in the following image.

8. Click the *Refresh* link within the status message.

9. Scroll down to the Your access token section of the page, as shown in the following image.



Note: The Access token and Access token secret values will be required during the configuration of the Twitter adapter.

Configuring the Twitter Adapter

This section describes how to configure the Twitter Adapter.

Procedure: How to Configure the Twitter Adapter

1. From the Web Console sidebar, click *Connect to Data*.

   or

   From the Data Management Console, expand the *Adapters* folder.

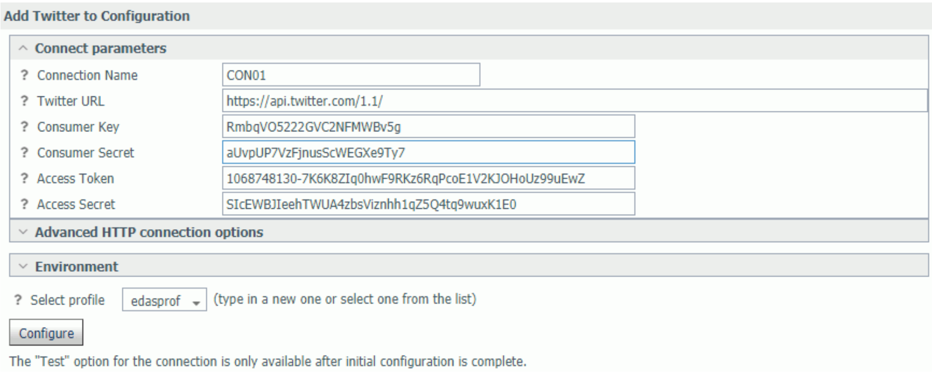
   In the DMC, the Adapters folder opens. In the Web Console, the Adapters page opens with two lists, Configured Adapters and Available Adapters.

2. Find the adapter on the Available list in the Web Console or expand the *Available* folder in the DMC, if it is not already expanded.
   On the Web Console, you can select a category of adapter from the drop-down list or use the search option (magnifying glass) to search for specific characters.

3. In the DMC, expand the appropriate group folder and the specific adapter folder. The group folder is described in the connection attributes reference.

4. Right-click the *Twitter* node and select *Configure*.

The Add Twitter to Configuration pane opens, as shown in the following image.



5. Enter the values for the Consumer Key, Consumer Secret, Access Token, and Access Secret as defined in the Twitter application.

   For more information, see *Creating a Twitter Application* on page 47.

6. Click *Configure*.

   The Twitter adapter is added to the configured Adapters list in the navigation pane.

Reference: Connection Attributes for Twitter

The following list describes the connection attributes for the Twitter adapter.

Connection Name

Logical name used to identify this particular set of connection attributes. The default is CON01.

Twitter URL

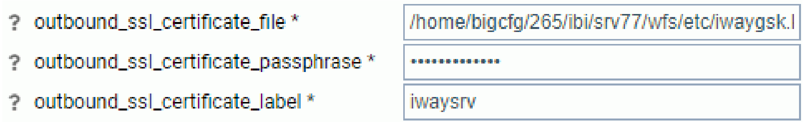
The URL of the Twitter API request. The default value is:

```
https://api.twitter.com/1.1/
```

For iSeries machines, the WebFOCUS Reporting Server must be configured for SSL as follows:

1. From the Web Console sidebar, click *Workspace*.
2. From the menu bar, click *Workspace Set*, and select *Miscellaneous Settings*

3. Enter values for *outbound_ssl_certificate_file*, *outbound_ssl_certificate_passphrase*, and *outbound_ssl_certificate_label*, and then click *Save*. For example:



Consumer Key

Also known as the API key, this application key is generated when creating a Twitter application. For more information, see *Creating a Twitter Application* on page 47.

This key is used along with the Consumer Secret for authentication purposes.

Consumer Secret

Used for authentication purposes, along with the Consumer Key, this value is generated when creating a Twitter application. For more information, see *Creating a Twitter Application* on page 47.

Access Token

Used for authentication purposes, along with the Access Secret, this key is generated when creating an Access Token from the Twitter application. For more information, see *Creating a Twitter Application* on page 47. It defines the user who is authenticating to Twitter.

Access Secret

Used for authentication purposes, along with the Access Token, this value is generated when creating an Access Token from the Twitter application. For more information, see *Creating a Twitter Application* on page 47.

Select profile

Select a profile from the drop-down list to indicate the level of profile in which to store the connection attributes. The global profile, edasprof.prf, is the default.

If you wish to create a new profile, either a user profile (user.prf) or a group profile if available on your platform (using the appropriate naming convention), choose New Profile from the drop-down menu and enter a name in the Profile Name field (the extension is added automatically).

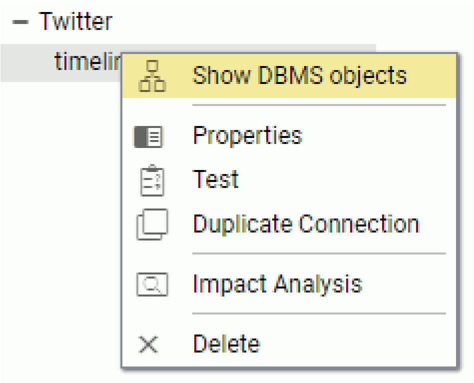
Store the connection attributes in the server profile (edasprof).

Creating Metadata and Sample Reports for the Twitter Adapter

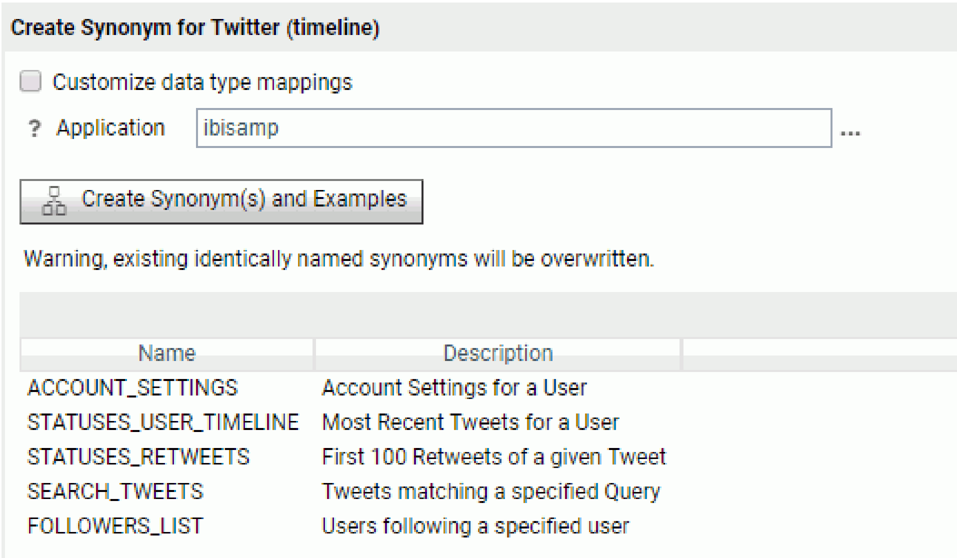
Create Synonym for the Twitter Adapter creates the metadata used for WebFOCUS reporting and DataMigrator ETL flows. It also creates sample WebFOCUS reports and DataMigrator ETL flows.

Procedure: How to Create Metadata and Sample Reports

1. From the WebFOCUS Reporting Server Web Console, expand the *Adapters* folder, *Configured* folder, and then the *Twitter* folder.
2. Right-click the configured connection for the Twitter Adapter (for example, twitter) and select *Show DBMS objects* from the context menu, as shown in the following image.



The Create Synonym for Twitter pane opens, as shown in the following image.



3. Enter a specific application in the Application field or click the ellipsis button to the right of the field to select an application where the metadata, sample reports, and DataMigrator ETL flows are to be stored.

4. Click *Create Synonym(s) and Examples*.

   The Create Synonym for Twitter Status pane opens and indicates that the synonym was created successfully.

Twitter Examples

This section describes the metadata and sample reports for the Twitter Adapter.

Reference: Twitter Adapter Metadata

The following table lists and describes the available metadata for the Twitter Adapter.

Metadata	**Description**
account_settings	Used to retrieve the account settings for a Twitter user.
followers_list	Used to retrieve a list users following a specific user.

Metadata	Description
search_tweets	Used to search for tweets based on a query string.
statuses_retweets	Used to retrieve the first 100 retweets of a specific tweet.
statuses_user_timeline	Used to retrieve the most recent tweets for a Twitter Screen Name.
twtsampl/tw_tweet_sentiment	Describes a SQL Server table loaded by the tw_datamigrator_sentiment_load DataMigrator flow. The table contains Sentiment Scores for Twitter tweets. Used when the WAND Sentiment Analysis Adapter is configured.
twtsampl/tw_tweets	Describes a SQL Server table loaded by the tw_datamigrator_load DataMigrator flow. The table contains Twitter tweets.
twtsampl/tw_tweets_to_sentiment	Cluster Join from tw_tweets to wandscore; wandscore metadata is created from the WAND Sentiment Analysis Adapter. Used by the tw_datamigrator_sentiment_load DataMigrator flow.
twtsampl/tw_user_info	Describes a SQL Server table loaded by the tw_datamigrator_load DataMigrator flow. The table contains user information.

Reference: Twitter Adapter Sample Reports

The following table lists and describes the sample reports for the Twitter Adapter.

Sample Report	Description
twtsampl/account_settings	Retrieves the account settings for a Twitter user. Uses: account_settings

Sample Report	Description
twtsampl/followers_list	Displays a list of users who a follow a specific Twitter user. Uses: followers_list

Sample Report	Description

twtsampl/search_tweets	Search for all public posts containing a specified query string.
	Query operators:
	`word1 word2`
	Containing both words. This is the default operator.
	`"word1 word2"`
	Containing the exact phrase.
	`word1 OR word2`
	Containing either word1 or word2.
	`word1 -word2`
	Containing word1 but not word2.
	`#word1`
	Containing hashtag word1.
	`from:`*`ScreenName`*
	Tweets sent from a specific Screen Name.
	`to:`*`ScreenName`*
	Tweets sent to a specific Screen Name.
	`@ScreenName`
	Referencing a specific Screen Name.
	`word1 since:YYYY-MM-DD`
	Containing word1 and sent starting at a specific date.
	`word1 until:YYYY-MM-DD`
	Containing word1 and sent before a specific date.
	Uses search_tweets.

Sample Report	Description
twtsampl/statuses_retweets	Reports on the first 100 retweets of a specific tweet. Uses: statuses_retweets
twtsampl/statuses_user_timeline	Reports on the tweets for a specific Screen Name. Uses: statuses_user_timeline
twtsampl/tw_create_datamodel	Creates the SQL Server tables used for the Twitter Data Model loaded by the tw_datamigrator_load and tw_datamigrator_sentiment_load DataMigrator flows. As a prerequisite, a SQL Server connection called *socialmedia* must be configured as well as the creation of a SQL Server database called *Twitter*.
twtsampl/tw_delete_datamodel	Deletes the SQL Server tables used for the Data Model.
twtsampl/tw_tagcloud_tweets	Tag cloud graph for tweets. The Words Analysis adapter must be configured. Uses: twtsampl/tw_join_datamodel_excluding_sentiment wan_document (Words Analysis metadata)
twtsampl/tw_tweet_report	Reports on Twitter tweets and user information. Uses: twtsampl/tw_tweets twtsampl/tw_user_info

Sample Report	Description
twtsampl/tw_tweet_scored_report	Reports on Twitter tweets and user information including sentiment. Uses: twtsampl/tw_tweets twtsampl/tw_user_info twtsampl/tw_tweet_sentiment

Reference: **Twitter Adapter DataMigrator Flows**

The following table lists and describes the DataMigrator flows for the Twitter Adapter. The Twitter Data Model must first be created by running twtsampl/tw_create_datamodel.

Flow	Description
twtsampl/tw_datamigrator_load	Data flow to load Twitter tweets and user information.
twtsampl/tw_datamigrator_sentiment_load	Data Flow to load Sentiment Scores for Twitter tweets.

Chapter 4

Using the Adapter for LinkedIn

This section describes how to configure the LinkedIn Adapter.

In this chapter:

LinkedIn Adapter Overview

The LinkedIn Adapter is used to report against information resident in the LinkedIn environment. You can configure the LinkedIn Adapter using the Reporting Server Web Console. The adapter requires a connection, which stores the access token. A valid LinkedIn access token is needed to issue LinkedIn API calls. The token is associated with a LinkedIn application and a specific LinkedIn member. The access token is valid for 60 days after which a new access token would need to be obtained and configured.

The connection page shows permissions that will be granted to the LinkedIn application. You can uncheck permissions that should not be granted. The connection process will use only checked permissions. Authentication will take place even if no permissions are granted.

Creating a LinkedIn Application

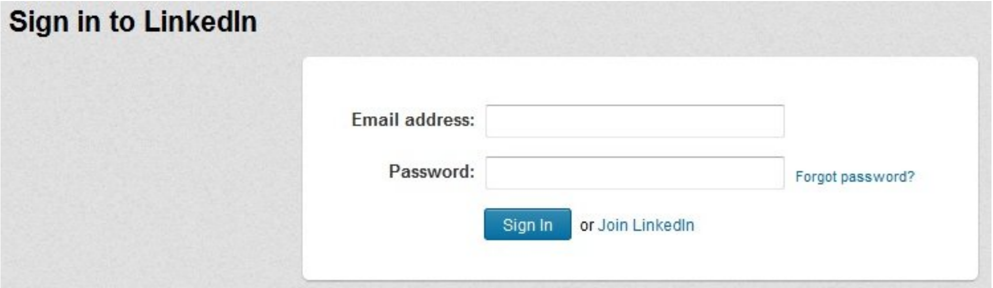
A LinkedIn application needs to exist before configuring the LinkedIn adapter

Procedure: How to Create a LinkedIn Application

1. From a browser, enter the following URL in a web browser:

   `https://www.linkedin.com/secure/developer`

A Sign in to LinkedIn screen opens, as shown in the following image.

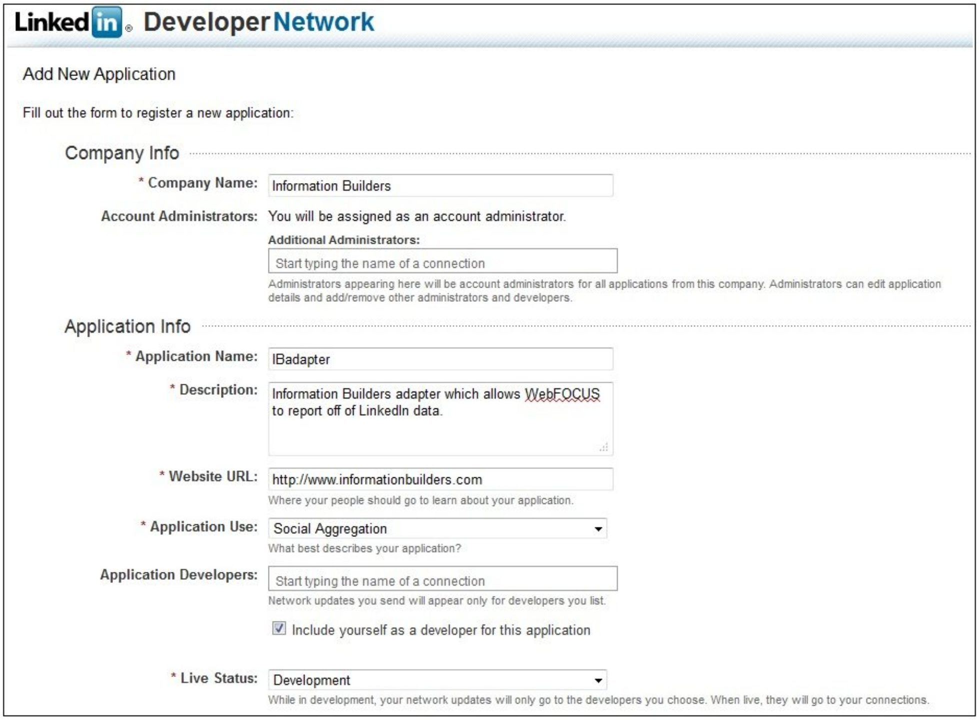


2. Enter the LinkedIn Sign in credentials and click *Sign In*.

   The LinkedIn Developer Network screen opens, as shown in the following image.

3. Click the *Add New Application* link.

The Add New Application screen opens, as shown in the following image.



4. Perform the following steps:

   a. Enter a company name hosting the new LinkedIn application in the Company Name field.

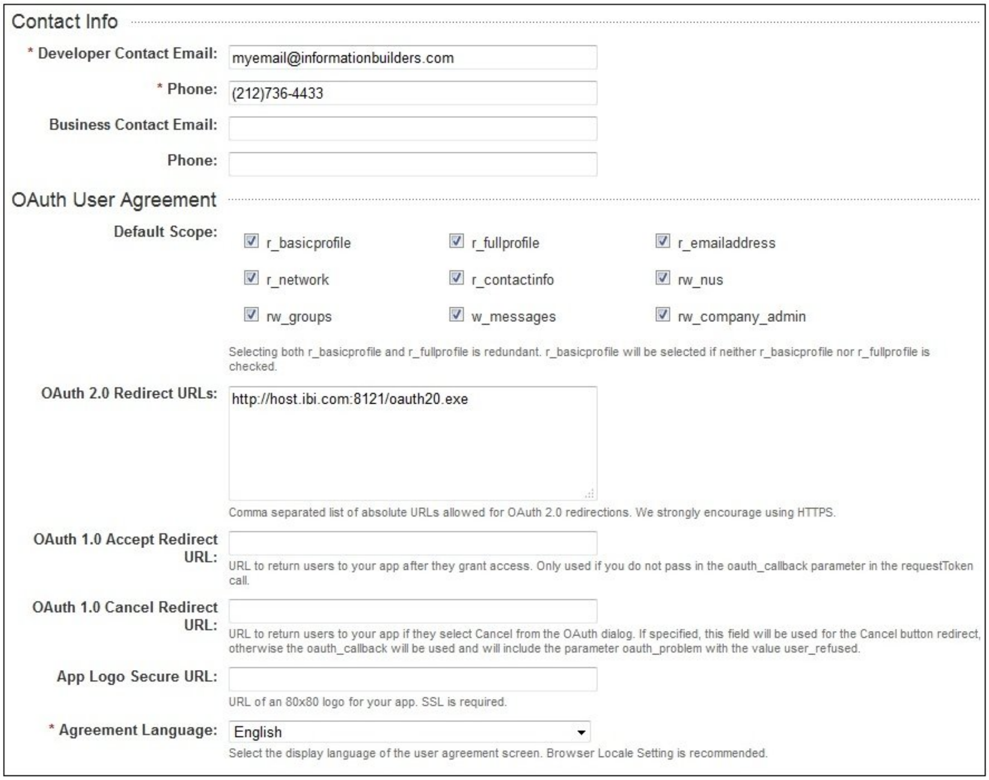
   b. Enter a name without spaces for the new LinkedIn application in the Application Name field.

   c. Enter a description for the new LinkedIn application in the Description field.

   d. Enter a web site URL for the company hosting the new LinkedIn application in the Website URL field.

   e. From the Application Use drop-down list, select a category which describes the use of the LinkedIn application.

5. Scroll down to the Contact Info section of the page, as shown in the following image.



6. Perform the following steps:

   a. Enter an email address for the LinkedIn application administrator in the Developer Contact Email field.

   b. Enter the telephone number for the LinkedIn application administrator in the Phone field.

   c. In the Default Scope section, check the permissions granted to the LinkedIn application.

   d. Enter the host name and port used to access the WebFOCUS Reporting Server Web Console with oauth20.exe in the OAuth 2.0 Redirect URLs field.

      For example:

      ```
      http://host.ibi.com:8121/oauth20.exe
      ```

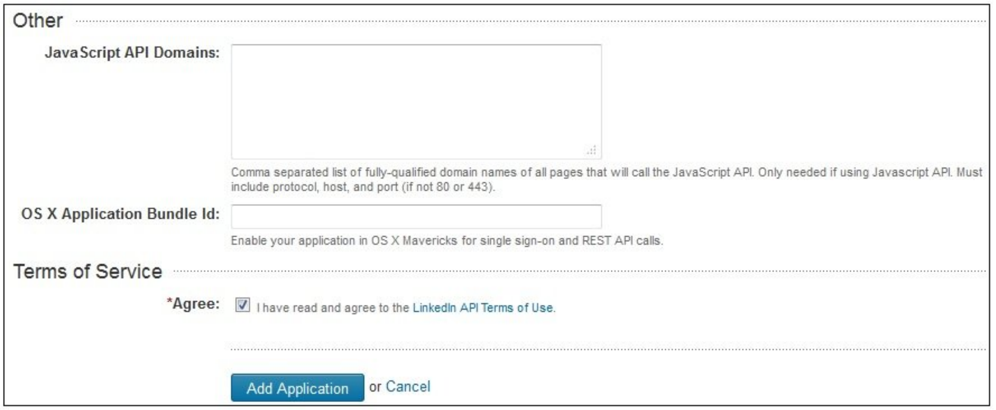
      If there are multiple WebFOCUS Reporting Servers used to access the LinkedIn application, separate each one of the OAuth 2.0 Redirect URLs with using a comma character (,).

For example:

```
http://host.ibi.com:8121/oauth20.exe,http://host2.ibi.com:8121/
oauth20.exe, http://localhost:8121/oauth20.exe
```

e. From the Agreement Language drop-down list, select the language to be used for the User Agreement screen.

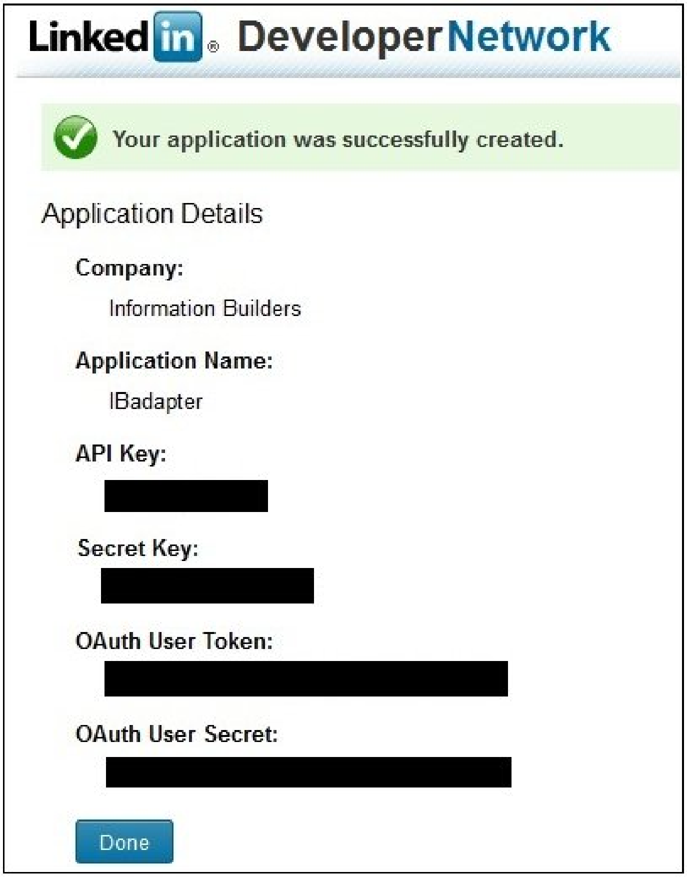
7. Scroll down to the Other section of the page, as shown in the following image.



8. Click the *LinkedIn API Terms of Use* link.

If you accept the agreement, select *Agree* and then click *Add Application*.

The Application Details screen opens, as shown in the following image.



Note: The API Key and the Secret Key values will be required during the configuration of the LinkedIn adapter.

9. Click *Done*.

Configuring the LinkedIn Adapter

This section describes how to configure the LinkedIn Adapter.

Procedure: How to Configure the LinkedIn Adapter

1. Clear the cookies from the browser that will used to start the Reporting Server Web Console.

2. Access the WebFOCUS Reporting Server Web Console using the host name and port that you specified in the OAuth 2.0 Redirect URLs field of the LinkedIn application.

   For example:

   ```
   http://host.ibi.com:8121
   ```

   For more information on specifying values for the OAuth 2.0 Redirect URLs field, see *How to Create a LinkedIn Application* on page 63.

3. From the Web Console sidebar, click *Connect to Data*.

   or

   From the Data Management Console, expand the *Adapters* folder.

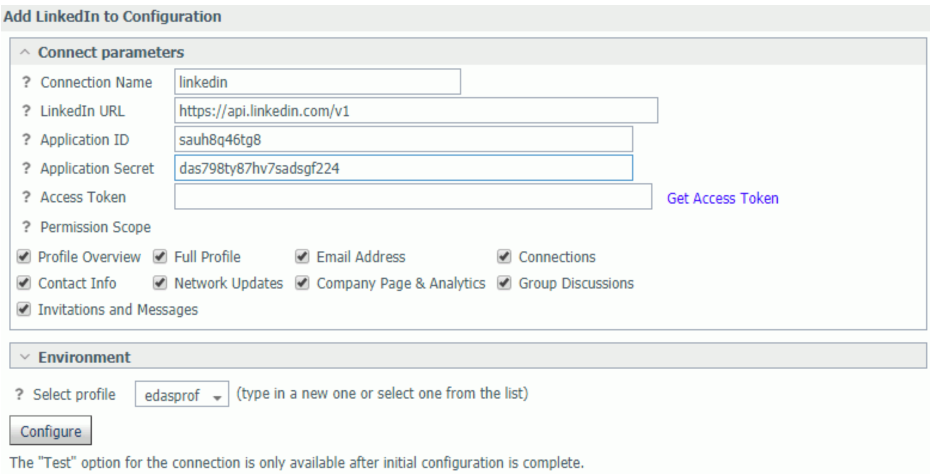
   In the DMC, the Adapters folder opens. In the Web Console, the Adapters page opens with two lists, Configured Adapters and Available Adapters.

4. Find the adapter on the Available list in the Web Console or expand the *Available* folder in the DMC, if it is not already expanded.
   On the Web Console, you can select a category of adapter from the drop-down list or use the search option (magnifying glass) to search for specific characters.

5. In the DMC, expand the appropriate group folder and the specific adapter folder. The group folder is described in the connection attributes reference.

6. Right-click the *LinkedIn* node and select *Configure*.

   The Add LinkedIn to Configuration pane opens, as shown in the following image.

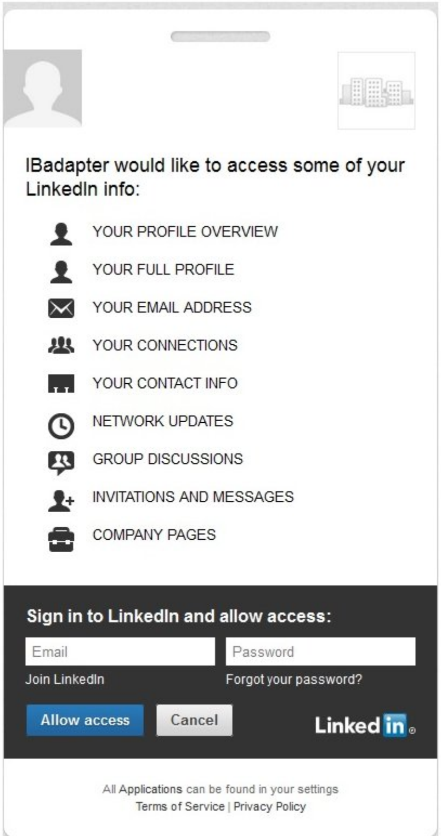


7. Enter the values for the Application ID and Application Secret as defined by the API Key and Secret Key respectively in the LinkedIn application.

   For more information, see *Creating a LinkedIn Application* on page 63.

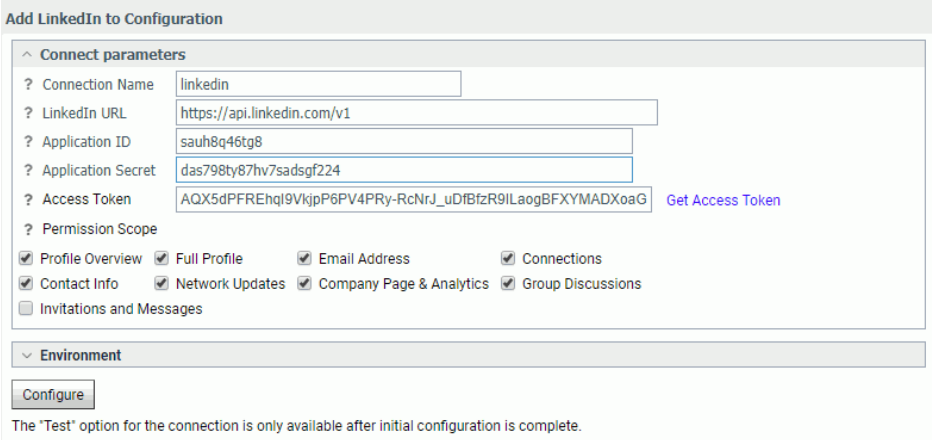
8. Choose the Permission Scope options to be granted to the LinkedIn application and click the *Get Access Token* link. For more information, see *Connection Attributes for LinkedIn* on page 71.

   A LinkedIn Sign In page opens, as shown in the following image.



9. Enter the LinkedIn Sign In credentials and then click *Allow Access*.

You are returned to the Add LinkedIn to Configuration pane, where the Access Token field is now populated, as shown in the following image.



10. Click *Configure*.

    The LinkedIn adapter is added to the configured Adapters list in the navigation pane.

    Note: The Access Token expires after 60 days. To refresh the Access Token, click the *Get Access Token* link and then click *Configure*.

Reference: Connection Attributes for LinkedIn

The following list describes the connection attributes for the LinkedIn adapter.

Connection Name

Logical name used to identify this particular set of connection attributes. The default is CON01.

LinkedIn URL

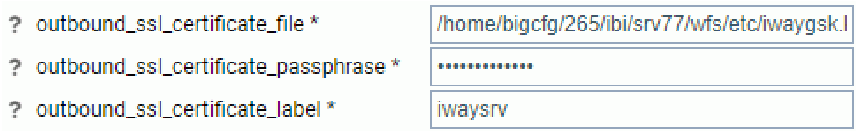
The URL of the LinkedIn API request. The default value is:

```
https://api.linkedin.com/v1
```

For iSeries machines, the WebFOCUS Reporting Server must be configured for SSL as follows:

1. From the Web Console sidebar, click *Workspace*.
2. From the menu bar, click *Workspace Set*, and select *Miscellaneous Settings*

3. Enter values for *outbound_ssl_certificate_file*, *outbound_ssl_certificate_passphrase*, and *outbound_ssl_certificate_label*, and then click *Save*. For example:



Application ID

The LinkedIn Application ID as defined in the LinkedIn application. For more information, see *Creating a LinkedIn Application* on page 63.

Application Secret

The LinkedIn Application Secret as defined in the LinkedIn application. For more information, see *Creating a LinkedIn Application* on page 63.

Access Token

Click the *Get Access Token* link to obtain this token. The credentials for a LinkedIn account are then entered. The value for the Access Token is returned by an authorized login.

Permission Scope

Grants the selected permissions to the LinkedIn application, which include:

- Profile Overview
- Full Profile
- Email Address
- Connections
- Contact Info
- Network Updates
- Company Page & Analytics
- Group Discussions
- Invitations and Messages

Select profile

Select a profile from the drop-down menu to indicate the level of profile in which to store the connection attributes. The global profile, edasprof.prf, is the default.

If you wish to create a new profile, either a user profile (user.prf) or a group profile if available on your platform (using the appropriate naming convention), choose New Profile from the drop-down menu and enter a name in the Profile Name field (the extension is added automatically).

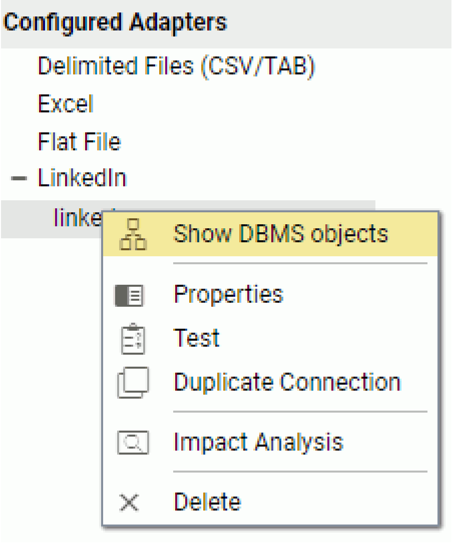
Store the connection attributes in the server profile (edasprof).

Creating Metadata and Sample Reports for the LinkedIn Adapter

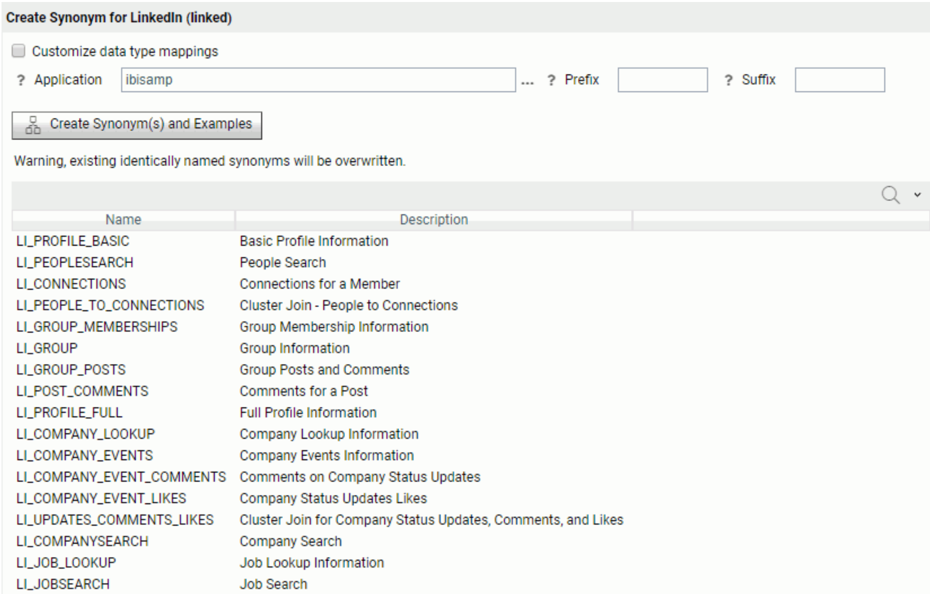
Create Synonym for the LinkedIn Adapter creates the metadata used for WebFOCUS reporting. It also creates sample WebFOCUS reports.

Procedure: How to Create Metadata and Sample Reports

1. From the WebFOCUS Reporting Server Web Console, expand the *Adapters* folder, *Configured* folder, and then the *LinkedIn* folder.
2. Right-click the configured connection for the LinkedIn Adapter (for example, linkedin) and select *Show DBMS objects* from the context menu, as shown in the following image.



The Create Synonym for LinkedIn pane opens, as shown in the following image.



3. Enter a specific application in the Application field or click the ellipsis button to the right of the field to select an application where the metadata and sample reports are to be stored.

4. Click *Create Synonym(s) and Examples*.

   The Create Synonym for LinkedIn Status pane opens and indicates that the synonym was created successfully.

LinkedIn Adapter Examples

This section describes the metadata and sample reports for the LinkedIn Adapter.

Reference: LinkedIn Adapter Metadata

The following table lists and describes the available metadata for the LinkedIn Adapter.

Metadata	Description
li_company_event_comments	Used to retrieve company event status updates and comments.
li_company_event_likes	Used to retrieve company event status update likes.

Metadata	Description
li_company_events	Used to retrieve a company's status updates and job postings.
li_company_lookup	Used to lookup a company profile.
li_companysearch	Used to search for companies based on keywords.
li_connections	Used to retrieve connections for a LinkedIn member.
li_group	Used to retrieve information about a specific group.
li_group_memberships	Used to retrieve a list of groups that a LinkedIn member has joined.
li_group_posts	Used to retrieve posts and comments for a specific group.
li_job_lookup	Used to lookup details for a specific job.
li_jobsearch	Used to search for jobs based on search criteria.
li_peoplesearch	Used to search for people based on search criteria.
li_post_comments	Used to retrieve comments for a specific group post.
li_profile_basic	Used to retrieve basic profile information for a LinkedIn member.
li_profile_full	Used to retrieve full profile information for the authenticated LinkedIn member.
lisampl/li_people_to_connections	Cluster Join from li_profile_basic to li_connections.

Metadata	Description
lisampl/li_updates_comments_likes	Cluster Join to report on company status updates, comments, and likes. Joins: ❑ li_company_events to li_company_event_comments ❑ li_company_events to li_company_event_likes

Reference: **LinkedIn Adapter Sample Reports**

The following table lists and describes the sample reports for the LinkedIn Adapter.

Sample Report	Description
lisampl/ li_company_event_comments	Reports on company events including comments. Uses: li_company_event_comments
lisampl/li_company_event_likes	Reports on the member likes for company status updates. Uses: li_company_event_likes
lisampl/li_company_events	Reports on company status updates and job postings for a specific company. Uses: li_company_events
lisampl/li_company_lookup	Retrieve information about a specific company. Uses: li_company_lookup

Sample Report	Description
lisampl/li_companysearch	Searches for companies based on keywords. Uses: li_companysearch
lisampl/li_connections	Lists the connections for a specific LinkedIn member. Uses: li_connections
lisampl/li_group	Displays the information about a specific group. Uses: li_group
lisampl/li_group_memberships	Lists the groups that a LinkedIn member has joined. Uses: li_group_memberships
lisampl/li_group_posts	Reports on posts including comments for a specific group. Uses: li_group_posts
lisampl/li_job_lookup	Displays information about a specific job. Usage requires approval from LinkedIn to Vetted API Access where the application form can be accessed from: *https://help.linkedin.com/app/api-dvr* Uses: li_job_lookup

Sample Report	Description
lisampl/li_jobsearch	Searches for jobs based on specific search criteria. Usage requires approval from LinkedIn to Vetted API Access where the application form can be accessed from: *https://help.linkedin.com/app/api-dvr* Uses: li_jobsearch
lisampl/li_people_to_connections	Lists the connections for a specific LinkedIn member. Includes name of the specific LinkedIn member. Uses: lisampl/li_people_to_connections
lisampl/li_peoplesearch	Search for people based on specific search criteria. Usage requires approval from LinkedIn to Vetted API Access where the application form can be accessed from: *https://help.linkedin.com/app/api-dvr* Uses: li_peoplesearch
lisampl/li_peoplesearch_facet	Performs a facet search based on specific search criteria. For example, location and industry. Usage requires approval from LinkedIn to Vetted API Access where the application form can be accessed from: *https://help.linkedin.com/app/api-dvr* Uses: li_peoplesearch_facet

Sample Report	Description
lisampl/li_post_comments	Reports on comments for a specific group post. Uses: li_post_comments
lisampl/li_profile_basic	Displays the basic profile information for a specific LinkedIn member. Uses: li_profile_basic
lisampl/li_profile_full	Displays the full profile information for the authenticated LinkedIn member. Uses: li_profile_full
lisampl/li_updates_comments_likes	Displays the status updates, comments and likes for a specific company. Uses: lisampl/li_updates_comments_likes

Chapter 5

Using the Adapter for Google Analytics

This section describes how to configure the Google Analytics Adapter.

In this chapter:

Google Analytics Adapter Overview

The Google Analytics Adapter is used to report against the information residing in the Google Analytics environment. Metrics, such as Page Views and Users, can be analyzed by various dimensions (for example, Country and City).

You can configure the Google Analytics Adapter using the WebFOCUS Reporting Server Web Console. The adapter requires a connection, which stores the access token. A valid Google Analytics access token is required to issue Google Analytics API calls. This token is associated with a Google Analytics application and a specific Google Analytics user.

Creating a Google Project

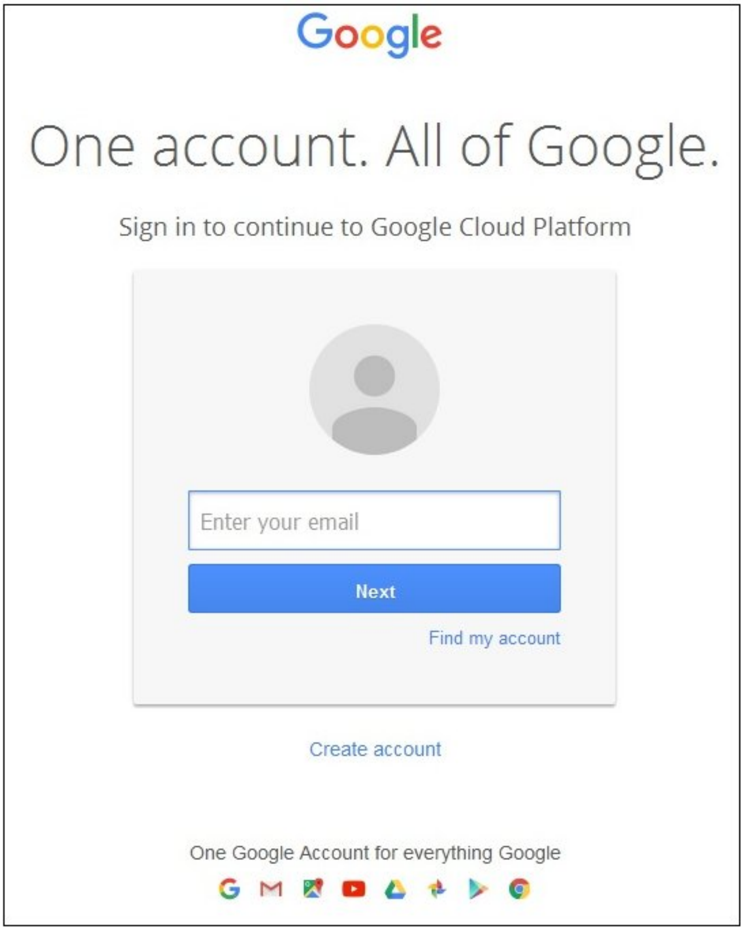
A Google project must be available before you can configure the Google Analytics Adapter.

Procedure: How to Create a Google Project

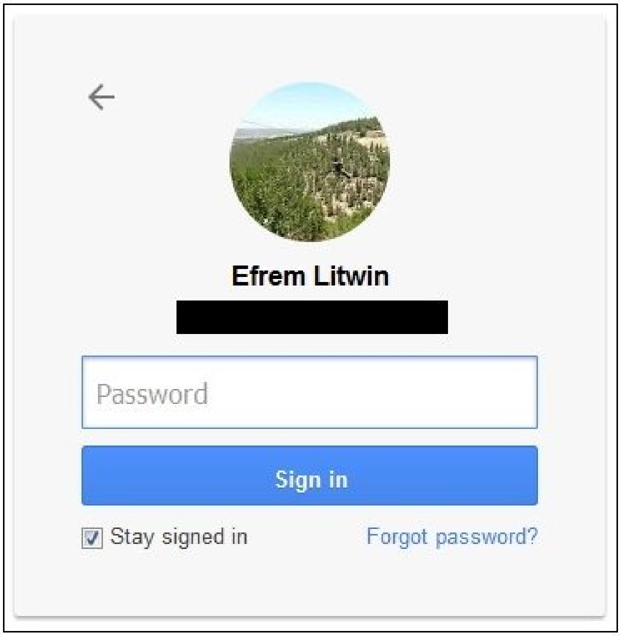
1. Enter the following URL in a web browser:

   `https://console.developers.google.com/project`

If you are not already signed into Google, a Sign in dialog for the Google Cloud Platform opens, as shown in the following image.

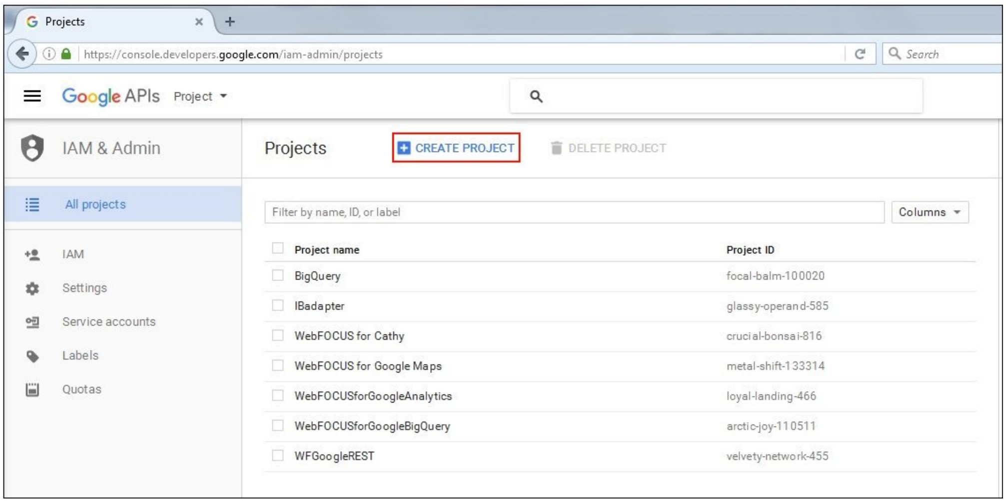


2. Enter an email address for the Google account that has administrative rights to the Google Analytics environment, and then click *Next*.



3. Enter a valid password for the Google account, and then click *Sign In*.

   The Projects screen opens, as shown in the following image.

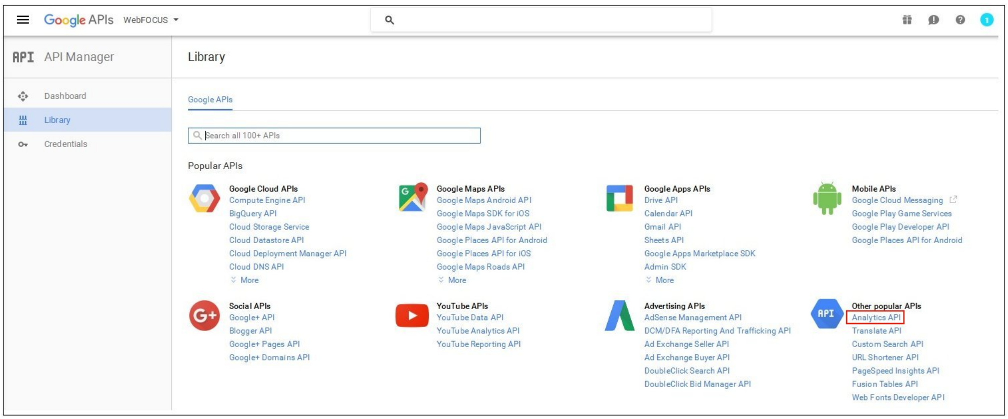


4. Click *CREATE PROJECT*.

The New Project screen opens, as shown in the following image.

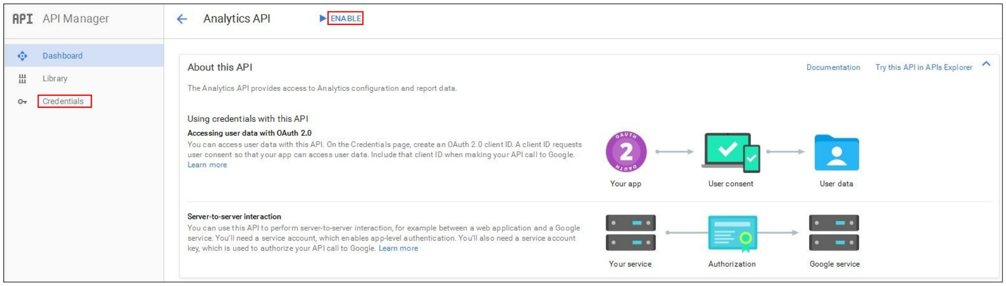
5. Enter a name for your new project and then click *Create*.

   The Library screen opens, as shown in the following image.



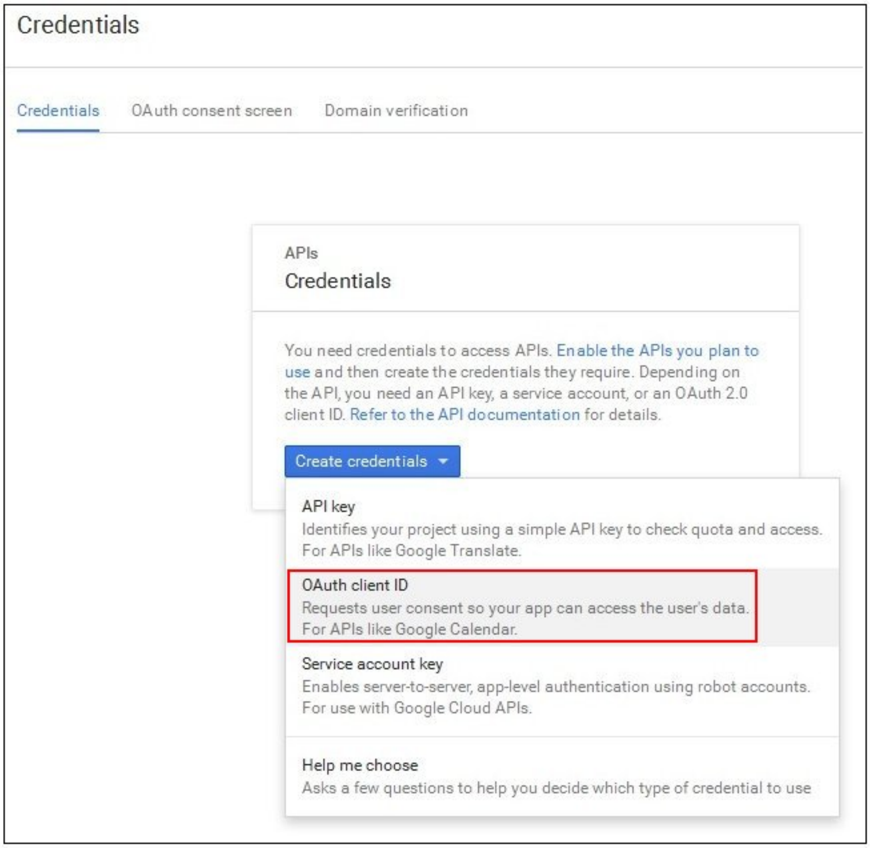
6. Click *Analytics API* under the *Other popular APIs* group.

The Analytics API screen opens, as shown in the following image.



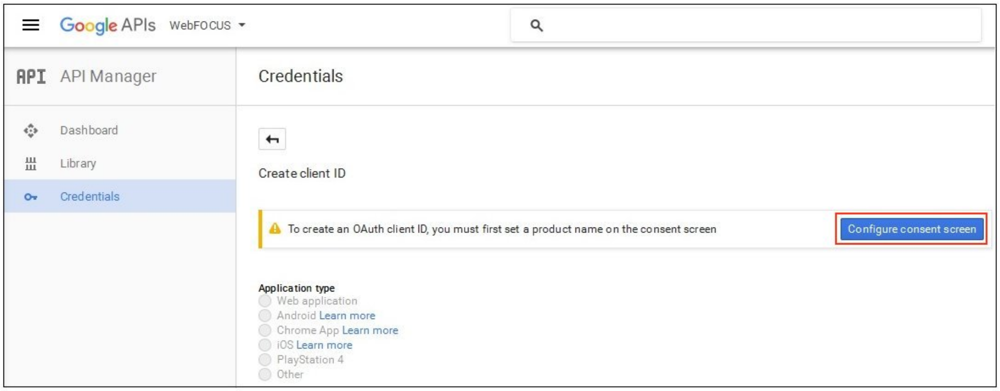
7. Click *ENABLE*.
8. Click *Credentials* in the left pane.

   The Credentials screen opens, as shown in the following image.



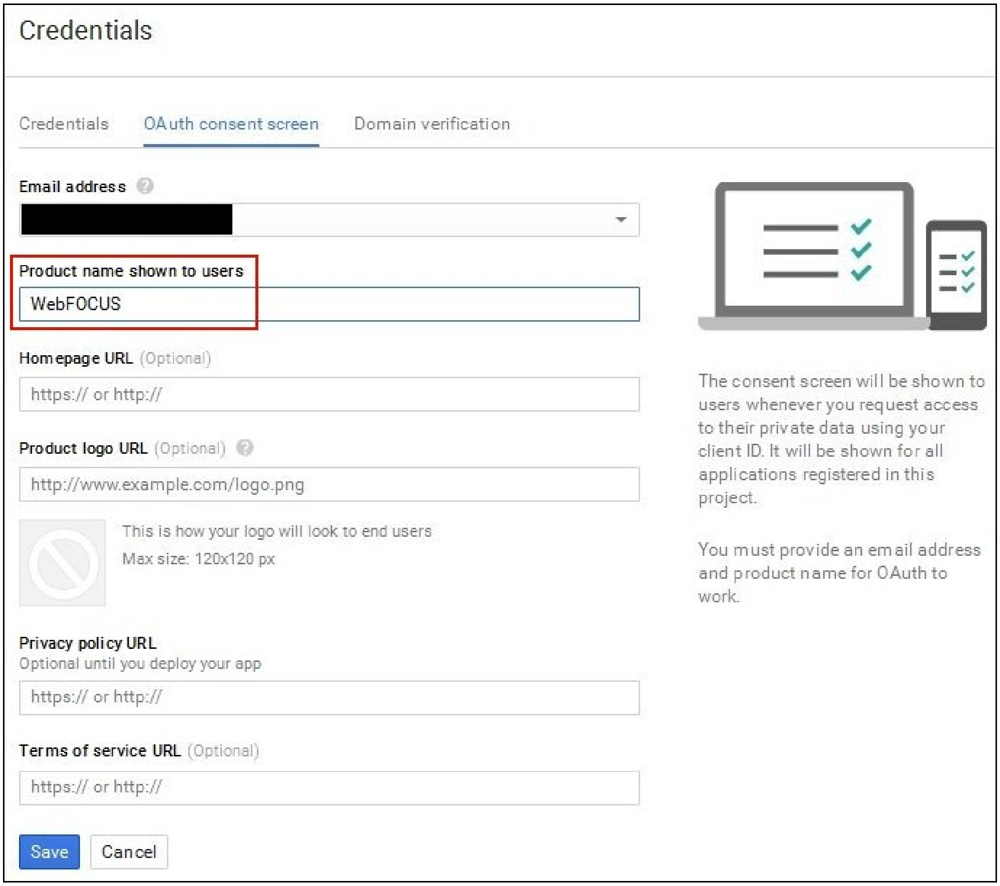
9. Click the *Create credentials* drop-down list and select *OAuth client ID*.

   The Create client ID screen opens, as shown in the following image.



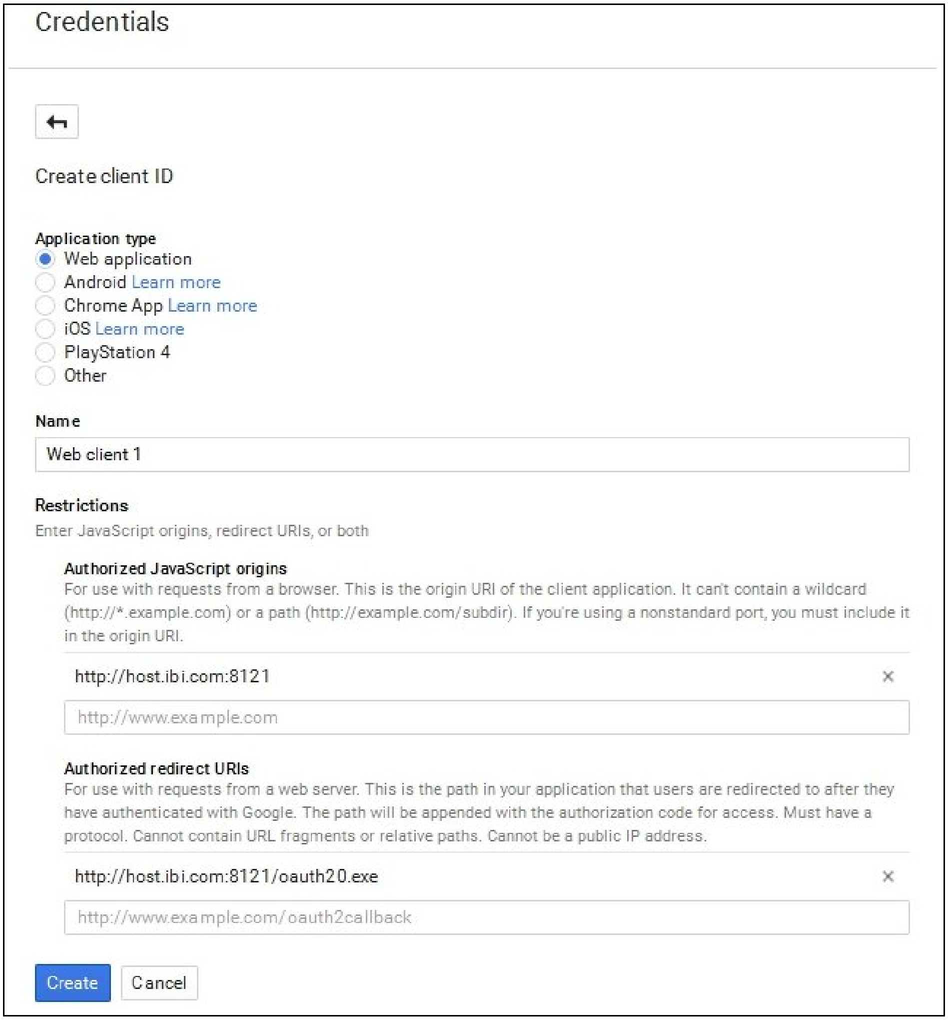
10. Click *Configure consent screen*.

The OAuth consent screen opens, as shown in the following image.



11. Enter a value in the *Product name shown to users* field and click *Save*.

The Application type screen opens, as shown in the following image.



12. Perform the following steps:

    a. Select *Web application* from the list of application types.

    b. Enter the host name and port used to access the WebFOCUS Reporting Server Web Console in the *Authorized JavaScript origins* field.

       For example:

       ```
       http://host.ibi.com:8121
       ```

If the WebFOCUS Reporting Server is installed as a standalone server, then `http://localhost` should be specified as the value in the *Authorized JavaScript origins* field.

c. Enter the host name and port used to access the WebFOCUS Reporting Server Web Console with oauth20.exe in the *Authorized redirect URIs* field.

For example:

```
http://host.ibi.com:8121/oauth20.exe
```

If the WebFOCUS Reporting Server is installed as a standalone server, then `http://localhost/oauth20.exe` should be specified as the value in the *Authorized redirect URIs* field.

13. Click *Create*.

The OAuth client screen opens, which displays your *client ID* and *client secret* values, as shown in the following image.

The *client ID* and *client secret* values are required to configure the Google Analytics Adapter.

14. Click *OK*.

You are now ready to obtain the Web Profile ID for a website within the Google Analytics environment.

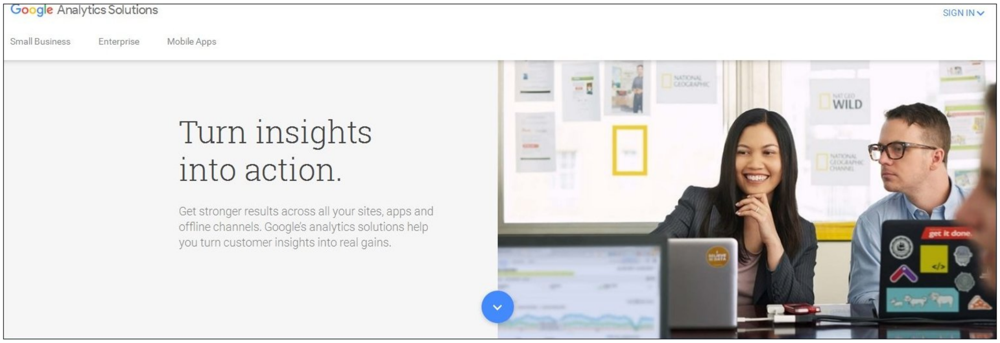
Obtaining the Web Profile ID

This section describes how to obtain the Web Profile ID for a website within the Google Analytics environment. The Web Profile ID is required to configure the Google Analytics Adapter.

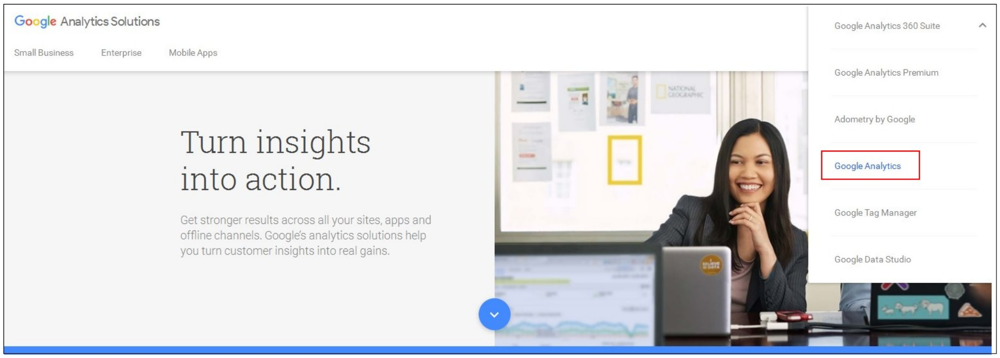
Procedure: How to Obtain the Web Profile ID

1. Enter the following URL in a web browser:

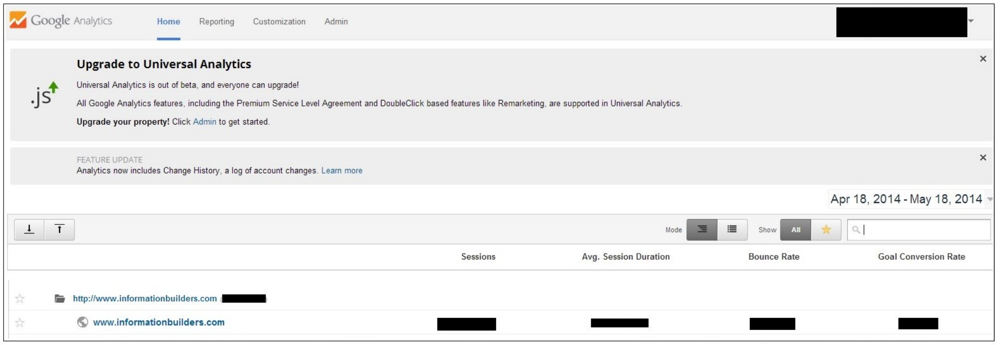
   `https://www.google.com/analytics`



2. Click *SIGN IN* in the upper-right corner of the page.
3. Select *Google Analytics*, as shown in the following image.

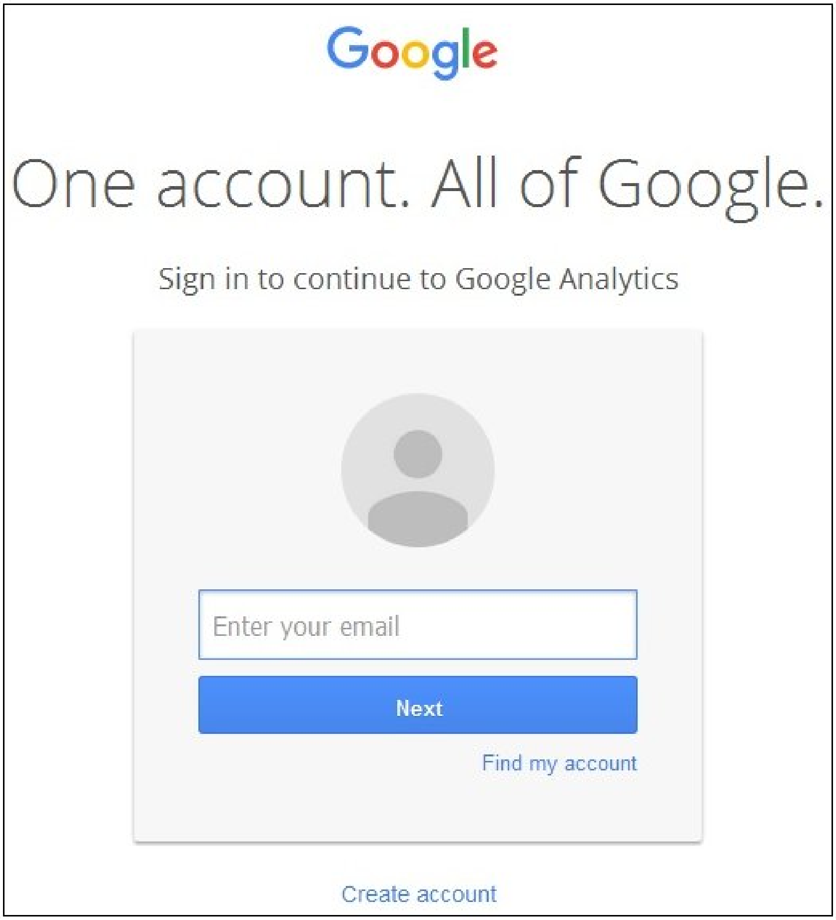


If you are already signed in to Google, then the Google Analytics page which lists the configured websites opens, as shown in the following image.

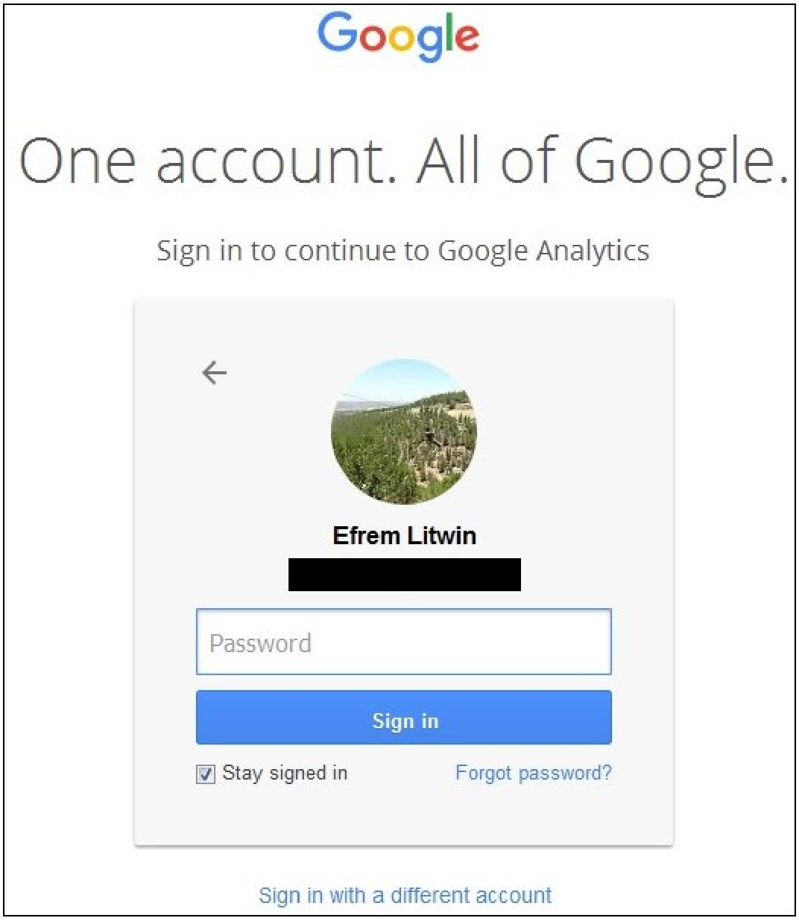


If you are not already signed in to Google Analytics, then click the *SIGN IN* link in the upper-right corner of the page.

A Sign in to Google Analytics page opens, as shown in the following image.



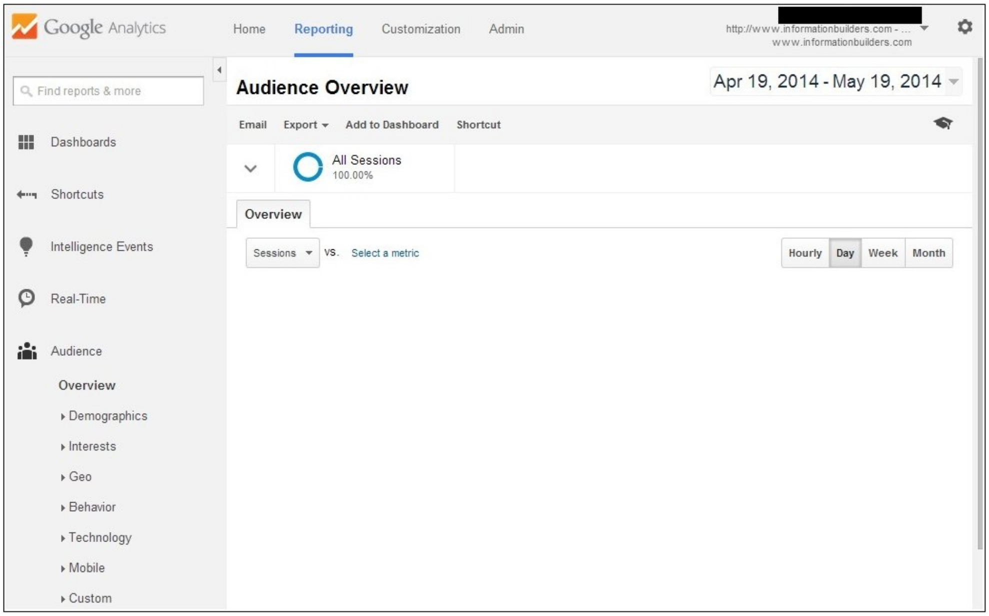
Enter an email address for the Google account that has administrative rights to the Google Analytics environment, and then click *Next*.



Enter a valid password for the Google account, and then click *Sign In*.

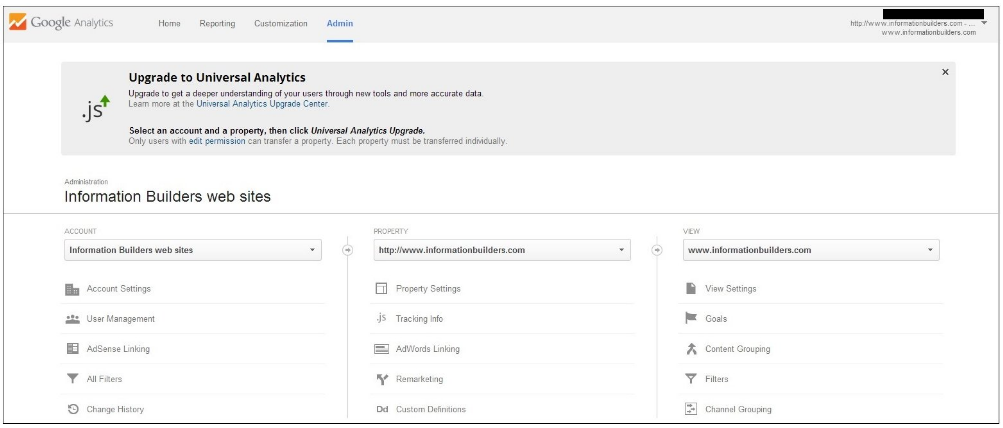
4. Click the link to the website that will be used during the configuration of the Google Analytics Adapter.

The Google Analytics Reporting page for the selected website opens, as shown in the following image.



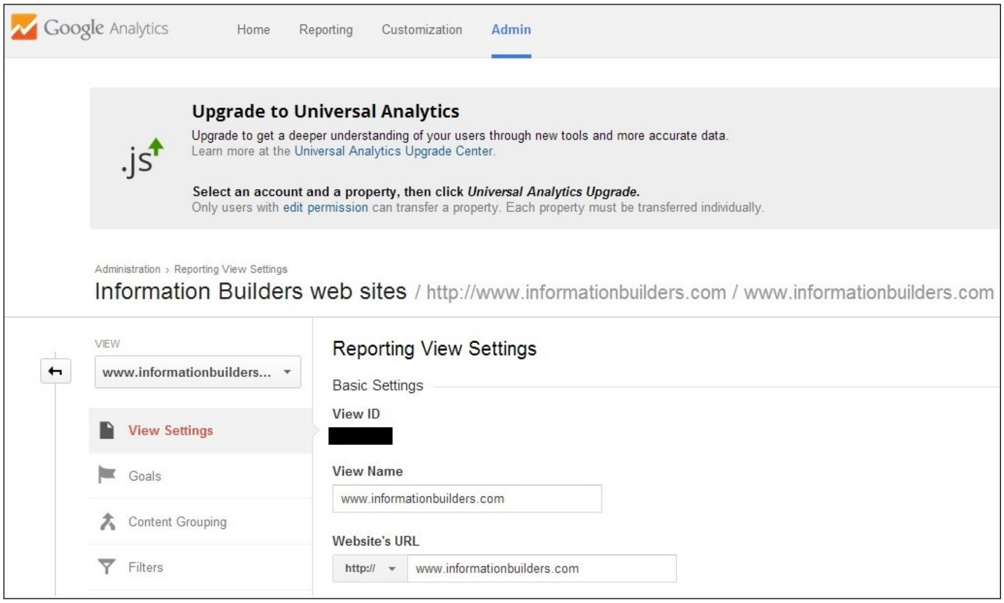
5. Click the *Admin* link at the top of the page.

   The Google Analytics Admin page for the selected website opens, as shown in the following image.



6. Click the *View Settings* link, which is located in the View column.

The Google Analytics Reporting View Settings page for the selected website opens, as shown in the following image.



The View ID value is required to configure the Google Analytics Adapter.

Configuring the Google Analytics Adapter

This section describes how to configure the Google Analytics Adapter.

Procedure: How to Configure the Google Analytics Adapter

1. Clear the cookies from the web browser that will be used to start the WebFOCUS Reporting Server Web Console.
2. Access the WebFOCUS Reporting Server Web Console using the host name and port that you specified in the AUTHORIZED JAVASCRIPT ORIGINS field of the Google project.

   For example:

   ```
   http://host.ibi.com:8121
   ```

   For more information, see *How to Create a Google Project* on page 81.
3.
4. From the Web Console sidebar, click *Connect to Data*.

or

From the Data Management Console, expand the *Adapters* folder.

In the DMC, the Adapters folder opens. In the Web Console, the Adapters page opens with two lists, Configured Adapters and Available Adapters.

5. Find the adapter on the Available list in the Web Console or expand the *Available* folder in the DMC, if it is not already expanded.
   On the Web Console, you can select a category of adapter from the drop-down list or use the search option (magnifying glass) to search for specific characters.

6. Right-click the *Google Analytics* node and select *Configure*.

   The Add Google Analytics to Configuration pane opens, as shown in the following image.

7. Enter the values for the Client ID and Client Secret as defined by the Client ID and Client secret respectively in the Google project.

   For more information, see *How to Create a Google Project* on page 81.

8. Enter the value for the Web Profile ID as defined by the View ID in the Google Analytics Reporting View Settings for the selected website.

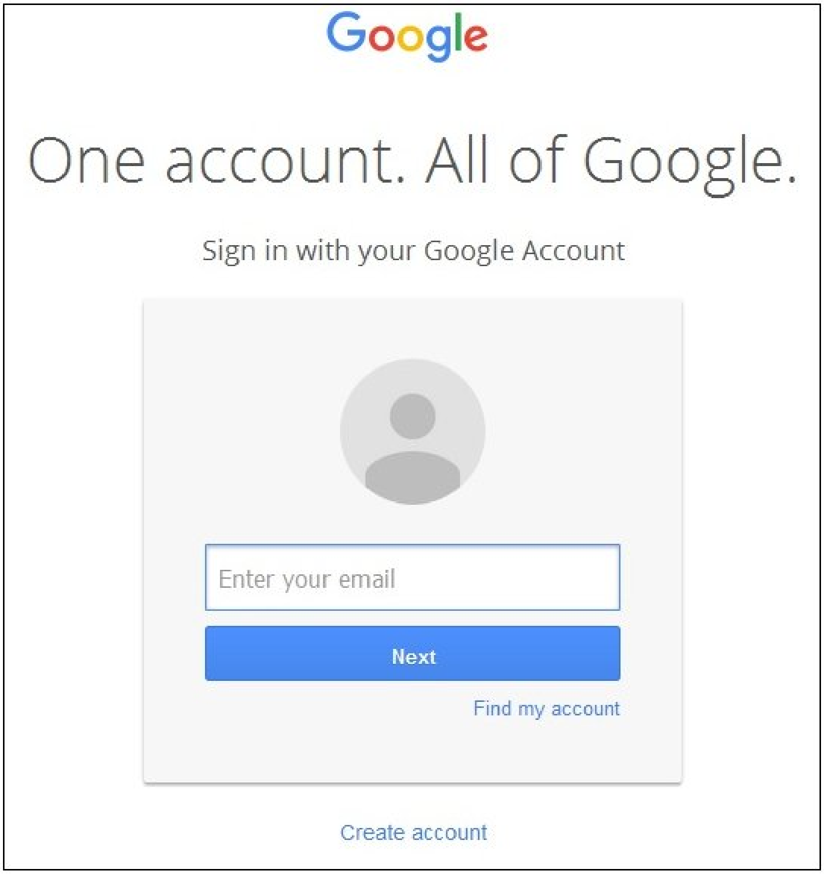
   This value is prefixed by *ga*. For example:

   ```
   ga:87878787
   ```

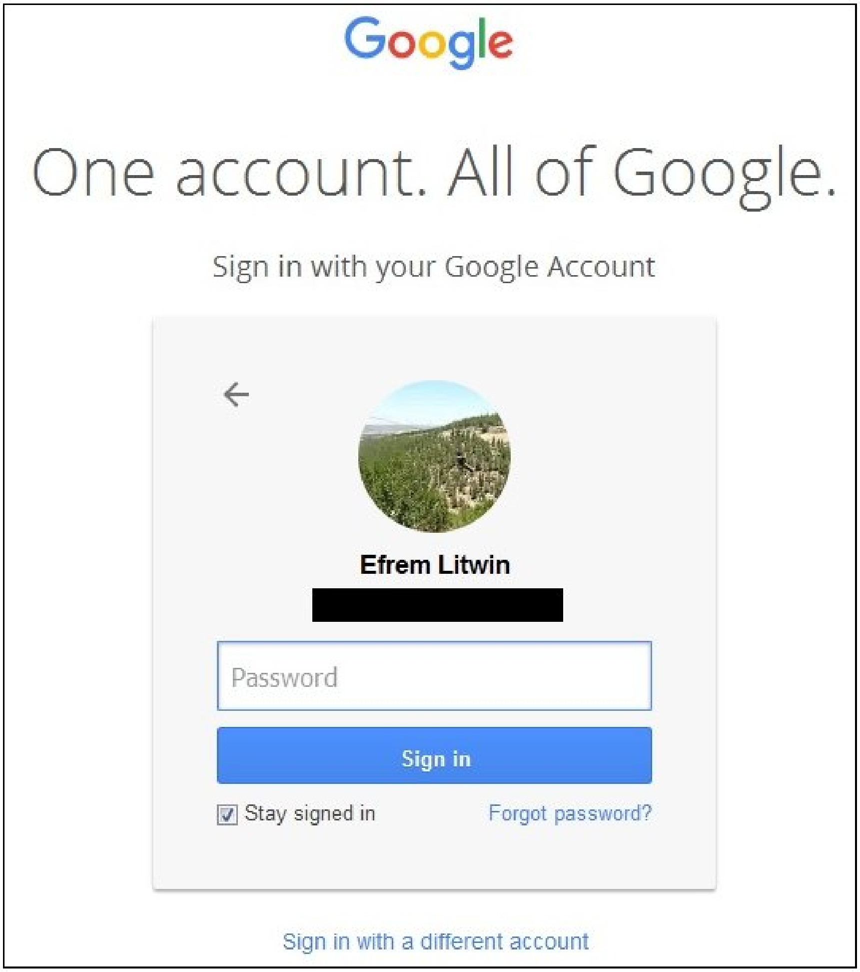
   For more information, see *How to Obtain the Web Profile ID* on page 90.

9. Click the *Get Access Token* link.

A Google Sign In page opens, as shown in the following image.

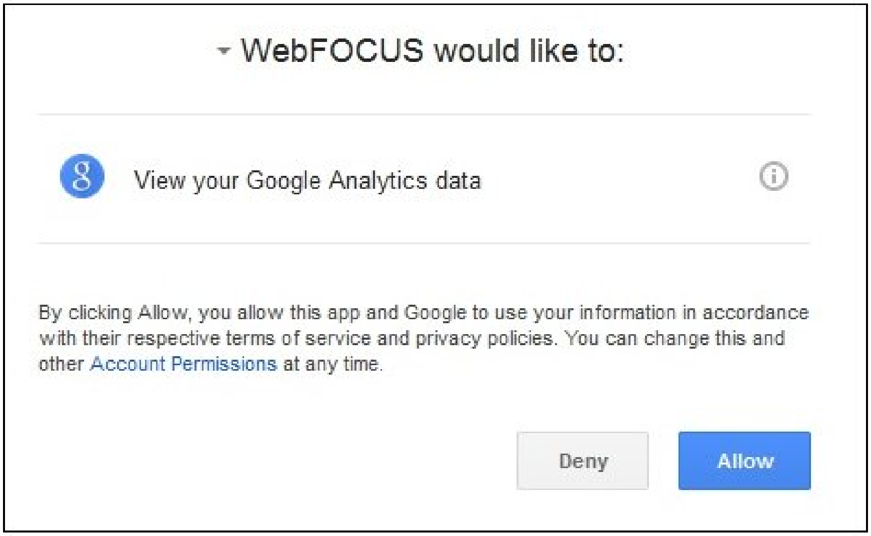


10. Enter an email address for the Google account that has administrative rights to the Google Analytics environment, and then click *Next*.



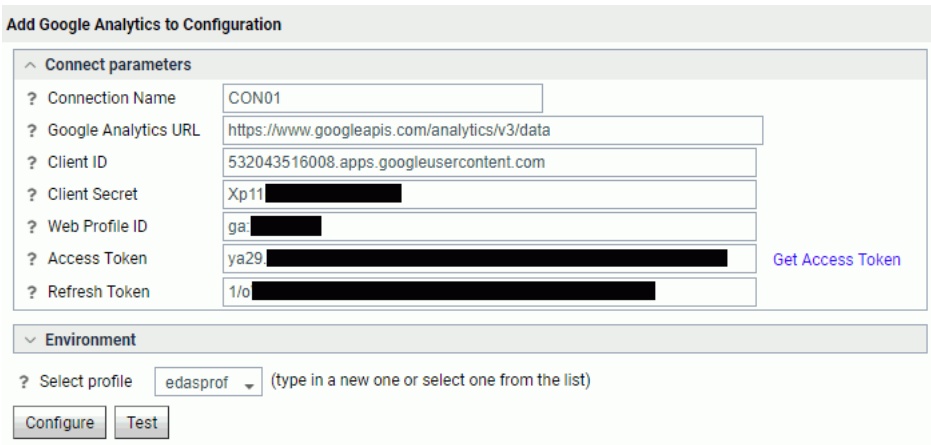
11. Enter a valid password for the Google account, and then click *Sign In*.

The View your Google Analytics data consent screen opens, as shown in the following image.



12. Click *Allow*.

    You are returned to the Add Google Analytics to Configuration pane, where the Access Token field and Refresh Token field are now populated, as shown in the following image.



13. Click *Configure*.

The Google Analytics Adapter is added to the configured Adapters list in the navigation pane.

Reference: Connection Attributes for Google Analytics

The following list describes the connection attributes for the Google Analytics Adapter.

Connection Name

Logical name used to identify this particular set of connection attributes. The default is CON01.

Google Analytics URL

The URL of the Google Analytics API request. The default value is:

`https://www.googleapis.com/analytics/v3/data`

Client ID

The value that identifies your application to Google Analytics.

Obtain this value using the following steps:

1. Go to:

   `https://cloud.google.com/console/project`

2. Click on the Project Name for the Google Analytics Adapter application that was previously created.
3. Click *APIs & auth* in the left pane.
4. Click *Credentials* in the left pane.
5. Use Client ID in the Client ID for web application section.

Client Secret

The value which identifies your application to Google Analytics. This value is used in conjunction with Client ID.

Obtain this value using the following steps:

1. Go to:

   `https://cloud.google.com/console/project`

2. Click on the Project Name for the Google Analytics Adapter application that was previously created.
3. Click *APIs & auth* in the left pane.

4. Click *Credentials* in the left pane.
5. Use Client secret in the Client ID for web application section.

Web Profile ID

The ID that identifies the view (profile) for a Google Analytics account.

Obtain this value using the following steps:

1. Go to:

   `http://www.google.com/analytics`

2. Sign in with Google credentials that have administrative rights to Google Analytics.
3. Click on the website that is to be analyzed (for example, www.informationbuilders).
4. Click *Admin* in the upper-right corner of the screen.
5. Click *View Settings*.
6. Look for View ID under Basic Settings.

   This value is prefixed by *ga*. For example:

   `ga:87878787`

Access Token

The value that identifies the user your application is acting on behalf. Click the *Get Access Token* link to obtain this token and the Refresh Token.

In order for the Get Access Token to complete successfully, the host name used to access the WebFOCUS Reporting Server Web Console must match the host name specified for the Redirect URI in the Google Analytics application.

A Google sign-on screen opens if you are not already logged into a Google account.

A Consent screen opens. Click *Allow Access*.

If an issue arises when obtaining the Access and Refresh Tokens, clear your browser cache, including cookies.

Refresh Token

The Access Token has a very short lifespan. The Refresh Token is used to obtain a new Access Token during run time.

Select profile

Select a profile from the drop-down list to indicate the level of profile in which to store the connection attributes. The global profile, edasprof.prf, is the default.

If you wish to create a new profile, either a user profile (user.prf) or a group profile if available on your platform (using the appropriate naming convention), select *New Profile* from the drop-down list and enter a name in the Profile Name field (the extension is added automatically).

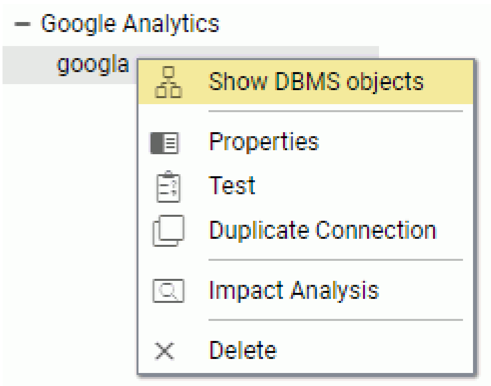
Store the connection attributes in the server profile (edasprof).

Creating Metadata for the Google Analytics Adapter

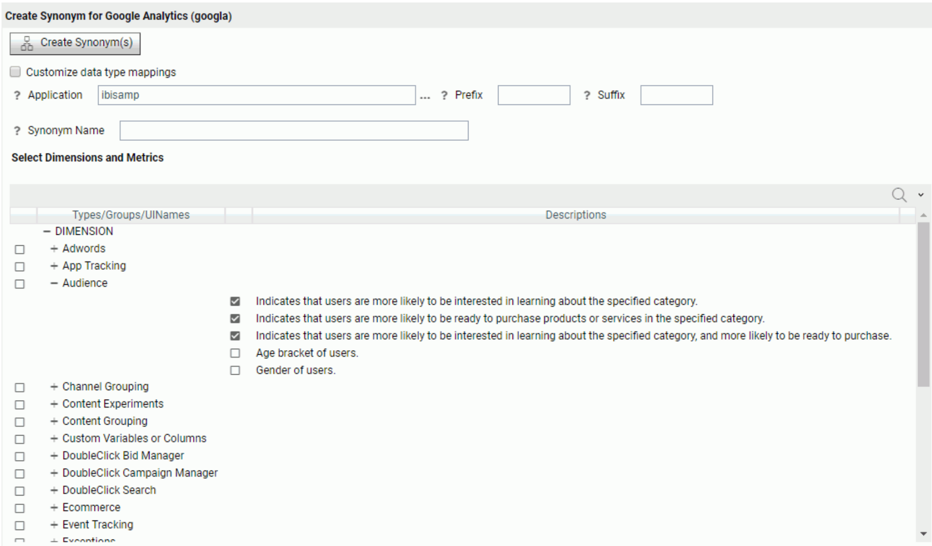
Create Synonym for the Google Analytics Adapter creates the metadata used for WebFOCUS reporting.

Procedure: How to Create Metadata

1. From the WebFOCUS Reporting Server Web Console, expand the *Adapters* folder, *Configured* folder, and then the *Google Analytics* folder.
2. Right-click the configured connection for the Google Analytics Adapter (for example, GoogleAnalytics) and select *Show DBMS objects* from the context menu, as shown in the following image.



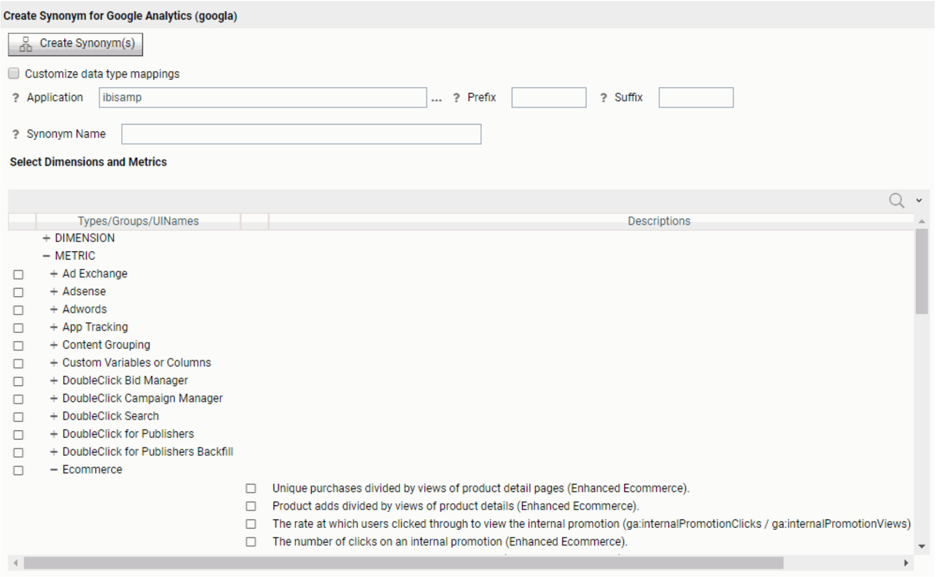
The Create Synonym for Google Analytics pane opens, as shown in the following image.



3. Enter a specific application in the Application field or click the ellipsis button to the right of the field to select an application where the metadata is to be stored.
4. Enter a Synonym Name that will be used to store the metadata.
5. Expand the *Dimensions* tree and select the dimensions that will be used for analysis.

   Note: Currently, Google Analytics only support 7 dimensions for a synonym. Google might increase this number sometime in the future.

Scroll down within the *Select Dimensions and Metrics* matrix and expand the *Metric* tree, as shown in the following image.



6. Select the metrics that will be used for analysis.

   Note: Currently, Google Analytics only support 10 metrics for a synonym. Google might increase this number sometime in the future.

7. Click *Create Synonym(s) and Examples*.

   The Create Synonym for Google Analytics Status pane opens and indicates that the synonym was created successfully.

Chapter 6

Using the Adapter for Words Analysis

This section describes how to configure the Words Analysis Adapter.

In this chapter:

Words Analysis Adapter Overview

The Words Analysis Adapter counts the occurrences of each word within textual data. It includes a Stopwords file, which can be modified, to define the words to exclude from the analysis. The results can be displayed in a Tabular report or graph. A tag cloud graph is a popular choice for analyzing the occurrences of words within textual data.

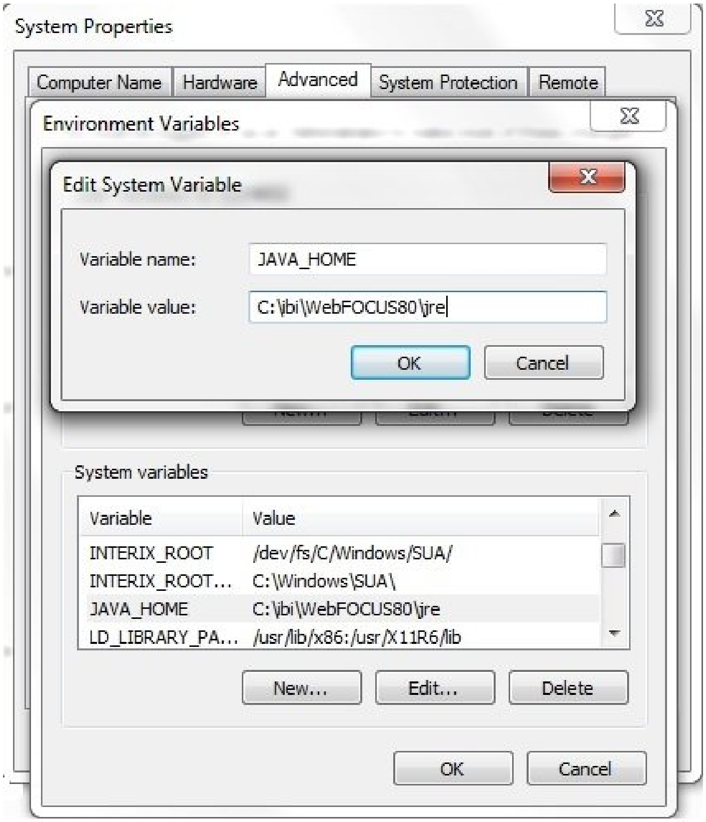
Configuring the Words Analysis Adapter

This section describes how to configure the Words Analysis Adapter.

As a prerequisite for configuring the Words Analysis Adapter, the path for the Java JDK or Java Runtime must be set. The WebFOCUS Reporting Server searches for the following variable names:

- **JDK_HOME.** Used to define the path for the Java JDK.
- **JAVA_HOME.** Used to define the path for the Java Runtime.

The following image shows how to set the JAVA_HOME variable on a Windows platform using the System Properties dialog.



Procedure: How to Configure the Words Analysis Adapter

1. From the Web Console sidebar, click *Connect to Data*.

or

From the Data Management Console, expand the *Adapters* folder.

In the DMC, the Adapters folder opens. In the Web Console, the Adapters page opens with two lists, Configured Adapters and Available Adapters.

2. Find the adapter on the Available list in the Web Console or expand the *Available* folder in the DMC, if it is not already expanded.
   On the Web Console, you can select a category of adapter from the drop-down list or use the search option (magnifying glass) to search for specific characters.

3. In the DMC, expand the appropriate group folder and the specific adapter folder. The group folder is described in the connection attributes reference.

4. Right-click *Words Analysis* and select *Configure*.

   The configured Words Analysis Adapter is added in the left pane.

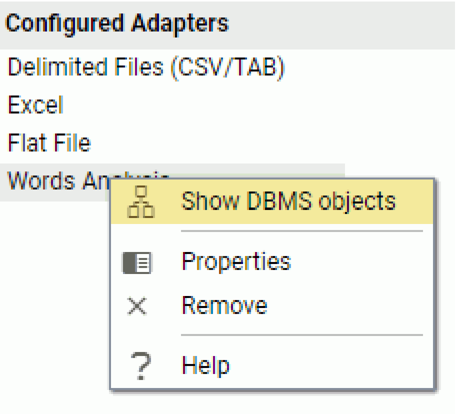
Creating Metadata and Sample Reports for the Words Analysis Adapter

Create Synonym for the Words Analysis Adapter creates the metadata used for WebFOCUS reporting. It also creates sample WebFOCUS reports.

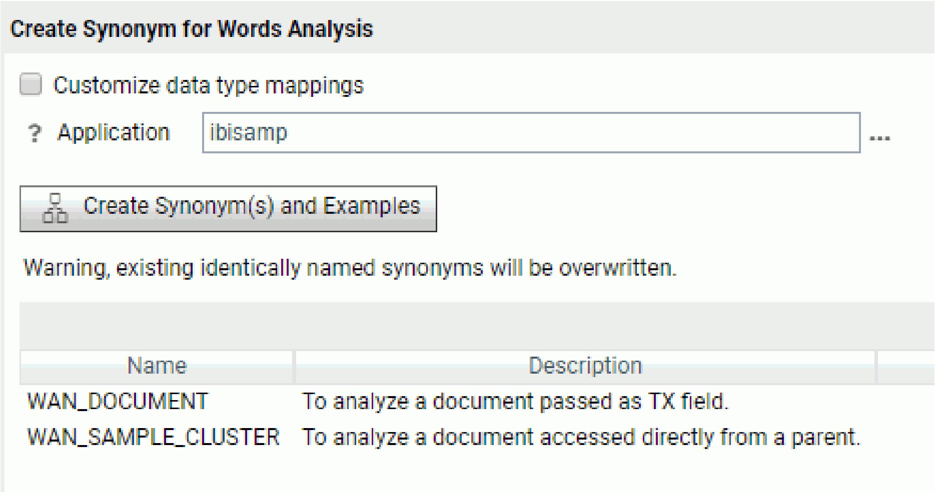
Procedure: How to Create Metadata and Sample Reports

1. From the WebFOCUS Reporting Server Web Console, expand the *Adapters* folder, and then the *Configured* folder.

2. Right-click *Words Analysis* and select *Show DBMS objects* from the context menu, as shown in the following image.



The Create Synonym for Words Analysis pane opens, as shown in the following image.



3. Enter a specific application in the Application field or click the ellipsis button to the right of the field to select an application where the metadata and sample reports are to be stored.

4. Click *Create Synonym(s) and Examples*.

   The Create Synonym for Words Analysis Status pane opens and indicates that the synonym was created successfully.

Words Analysis Adapter Examples

This section describes the metadata and sample reports for the Words Analysis Adapter.

Reference: Words Analysis Adapter Metadata

The following table lists and describes the available metadata for the Words Analysis Adapter.

Metadata	Description

wan_document	Used to pass textual data to the Words Analysis Adapter and return a count of occurrences for each word.
	
	By default, special characters (such as #,%,$,@) are excluded from the analysis. To include individual special characters in the analysis, they must be passed to the SYMBOLS field in the form of a selection. For example:
	
	`WHERE SYMBOLS EQ '#@'`
	
	Words contained in the Stopwords file are excluded from the analysis.
	The Access File (.acx) contains an attribute for the Stopwords file location:
	
	`STOPWORDS_FILENAME='wordsanalysis/`
	`wan_stopwords_ibi.txt'`
	
	The wan_stopwords_ibi.txt file is the default Stopwords file that gets loaded as part of Create Synonym.

wansampl/wan_sample_cluster	Cluster Join between *wansampl/wan_sample_fix* and *wan_document*.
wansampl/wan_sample_fix	Metadata that defines the sample text file (wansampl/wan_sample.txt) used for the *wan_sample_join*, *wan_sample_join_tagcloud*, and *wan_sample_cluster* sample reports.

Reference: Words Analysis Adapter Sample Reports

The following table lists and describes the sample reports for the Words Analysis Adapter.

Sample Report	Description
wansampl/wan_sample_cluster	Performs a count of the occurrences of words from the text passed in the *wansampl/wan_sample.txt* file using the Cluster Join master *wansampl/ wan_sample_cluster*.
wansampl/wan_sample_join	Performs a count of the occurrences of words from the text passed in the *wansampl/wan_sample.txt* file. Joins *wansampl/wan_sample_fix* to *wan_document*.
wansampl/ wan_sample_join_tagcloud	Performs a count of the occurrences of words from the text passed in the *wansampl/wan_sample.txt* file. The results are displayed in a tag cloud graph. Joins *wansampl/wan_sample_fix* to *wan_document*.
wansampl/wan_sample_where	Performs a count of the occurrences of words from the text passed in a WHERE statement. Also includes a WHERE statement defining the Stopword file(s) to be used in the request. It overrides the definition in the wan_document Access File (.acx). Uses: wan_document

Chapter 7

Using the Adapter for WAND Sentiment Analysis

This section describes how to configure the WAND Sentiment Analysis Adapter.

In this chapter:

WAND Sentiment Analysis Adapter Overview

The WAND Sentiment Analysis Adapter is used to score structured and unstructured textual content by identifying positive, neutral, and negative sentiment found within emails, documents, and database records. Textual data from a data source can be passed to the adapter by:

- Joining the column containing the textual data from the data source to the column within the WAND Sentiment Analysis Adapter used to define the textual data to be scored.
- A report which uses Cluster Join metadata. The Cluster Join metadata already contains the join from the column containing the textual data from the data source to the column within the WAND Sentiment Analysis Adapter used to define the textual data to be scored.
- Using a WHERE/IF condition to pass textual data directly to the column within the WAND Sentiment Analysis Adapter used to define the textual data to be scored.

Understanding the Scoring System for WAND Sentiment Analysis

The score returned from the WAND Sentiment Analysis Adapter ranges from -1 to 1.

- A score of -1 identifies the sentiment of the textual data that was passed to the adapter as extremely negative.
- A score of 0 identifies the sentiment of the textual data that was passed to the adapter as neutral.

- A score of 1 identifies the sentiment of the textual data that was passed to the adapter as tremendously positive.

Installing, Configuring, and Updating the WAND Taxonomy Server

This section describes how to install, configure, and update the WAND Taxonomy Server.

Procedure: How to Install the WAND Taxonomy Server

The WAND Taxonomy Server requires a Microsoft Windows 2008 Server environment or higher.

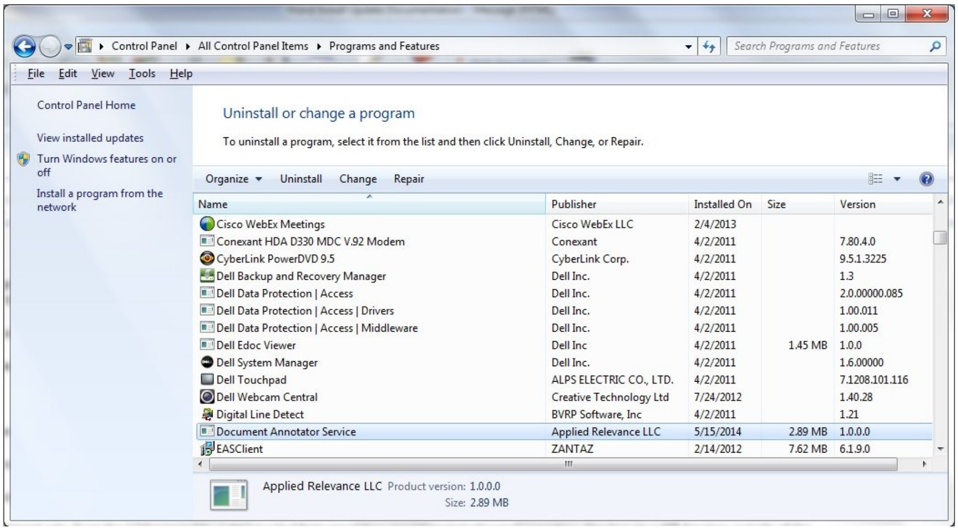
1. If a previous version of the WAND Taxonomy Server exists, then perform the following steps to uninstall the software:

    a. Create a backup of the Sentiment Taxonomy file (Sentiment.artx), which is located in the following directory:

    ```
    C:\Program Files (x86)\Applied Relevance\DocumentAnnotatorService
    \repository
    ```

    Save this backup copy to a different directory outside of the C:\Program Files (x86)\Applied Relevance directory structure (for example, C:\temp).

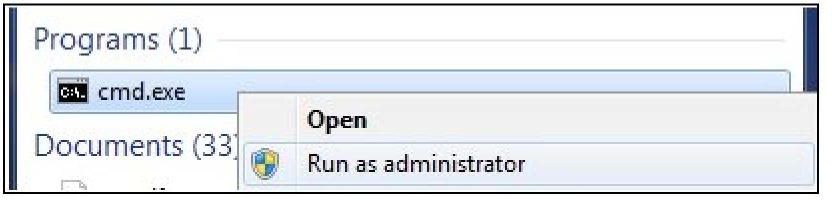
    b. Uninstall *Document Annotator Service* from the Control Panel, as shown in the following image.



    c. Delete the following directory:

    ```
    C:\Program Files (x86)\Applied Relevance\DocumentAnnotatorService
    ```

2. Obtain the WAND Taxonomy Server software.
3. If necessary, unzip the installation software to a temporary directory on your file system (for example, C:\Wand).
4. Search for the cmd.exe file from the Start menu and run it as an Administrator, as shown in the following image.

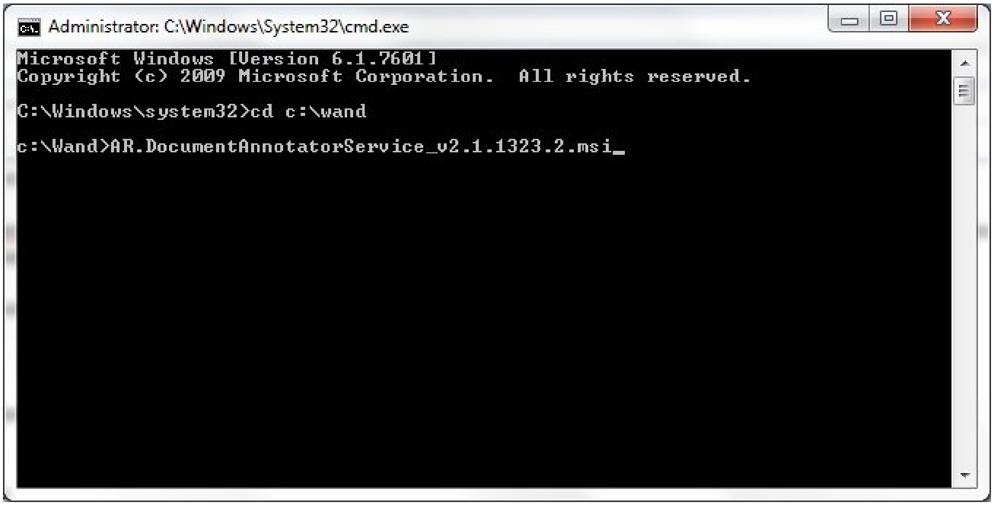


5. Navigate to the directory that contains the Wand Taxonomy Server installation software.

   Type the .msi file name for the Wand Taxonomy Server installation.

   For example:

   ```
   AR.DocumentAnnotatorService_v2.1.1323.2.msi
   ```

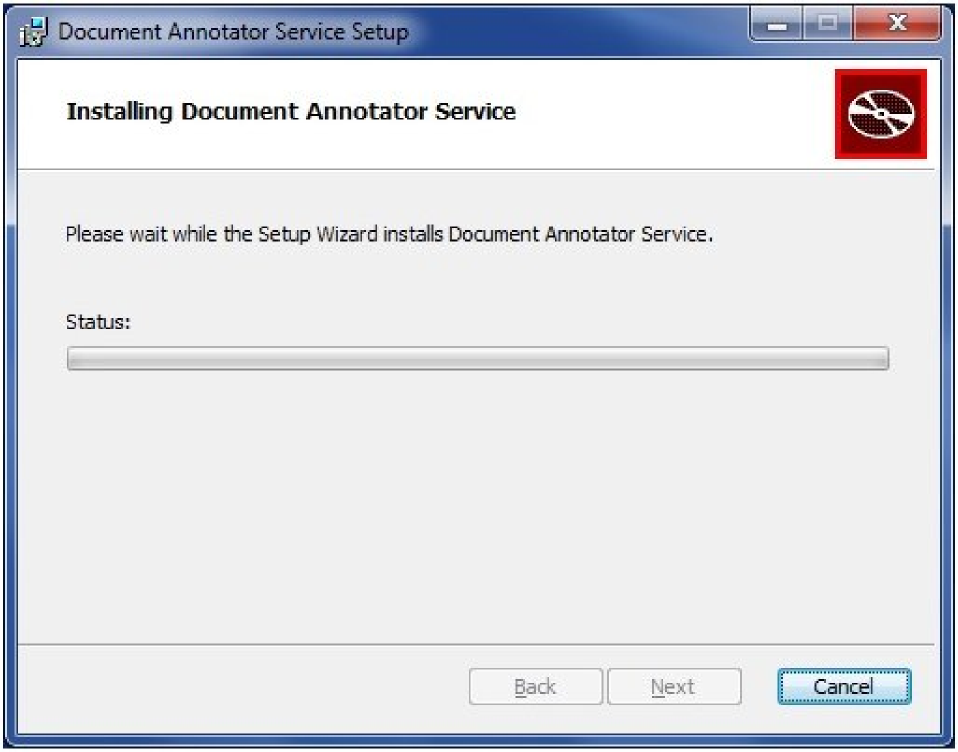


6. Press Enter.

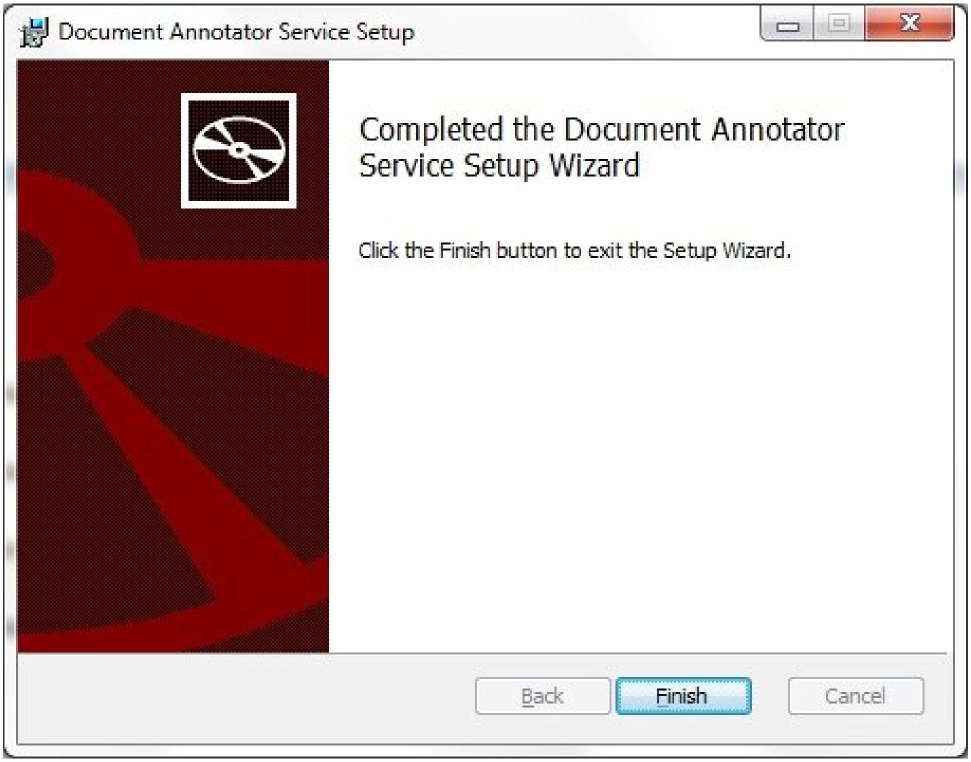
The Document Annotator Service Setup dialog box opens, as shown in the following image.

7. Select *I accept the terms in the License Agreement* and then click *Install*.

The Setup Wizard installs the Document Annotator Service, as shown in the following image.



8. When the installation of the Document Annotator Service is complete, click *Finish*, as shown in the following image.



Note: If the version of the WAND Taxonomy Server software installed is an update to a previous version, then follow the instructions in *How to Update the WAND Sentiment Taxonomy* on page 119. You must update the installed Sentiment taxonomy with the Sentiment taxonomy that was backed up in Step 1.

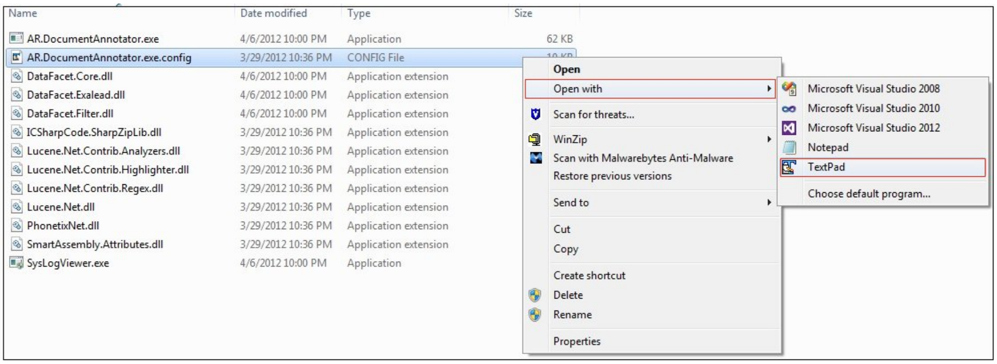
Procedure: How to Configure the WAND Taxonomy Server

The WAND Taxonomy Server must be configured so that the host name for the Taxonomy Server installation is either the machine name or IP address.

1. Navigate to the following directory on your file system:

```
C:\Program Files (x86)\Applied Relevance\DocumentAnnotatorService\bin
```

2. Edit the *AR.DocumentAnnotator.exe.config* file using a text editor.



The following section in this configuration file contains the address for the WAND Taxonomy Server:

```
<host>
  <baseAddresses>
    <add baseAddress="http://localhost:4701" />
  </baseAddresses>
</host>
```

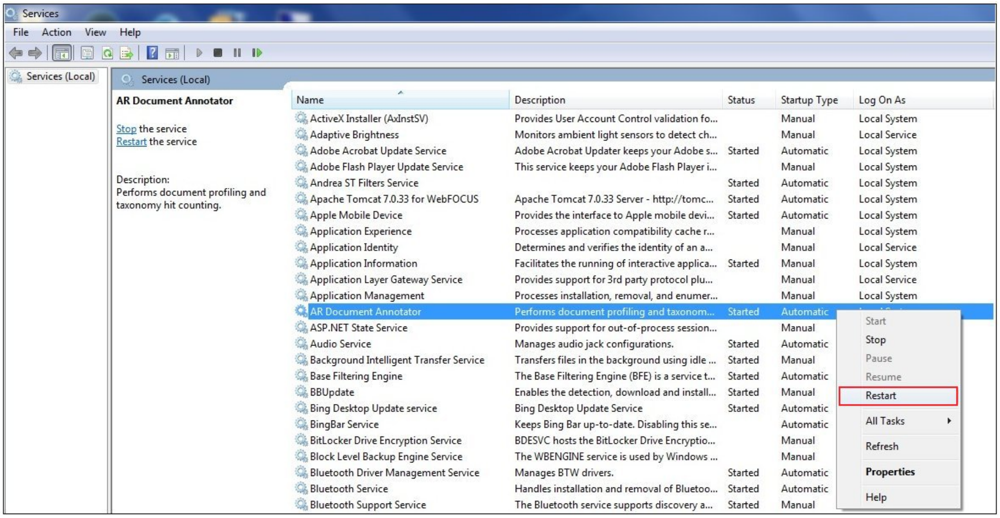
3. If required, modify the value in the <baseAddress> element so that the host name is the machine name or IP address where the WAND Taxonomy Server is installed.

   For example:

```
<host>
  <baseAddresses>
    <add baseAddress="http://wandserver.ibi.com:4701" />
  </baseAddresses>
</host>
```

4. Save the changes made in the *AR.DocumentAnnotator.exe.config* file.

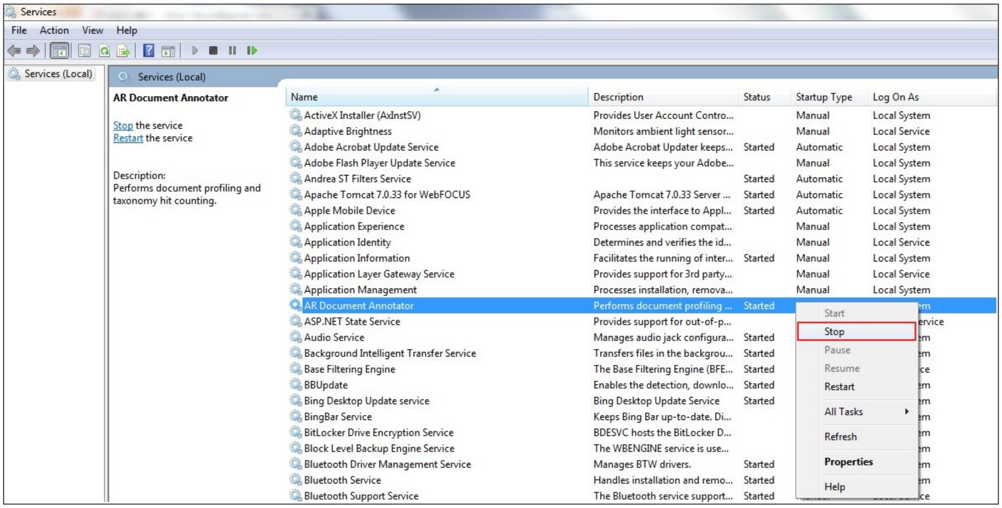
5. Open the Services utility on Windows through the Control Panel and *restart* the AR Document Annotator service, as shown in the following image.



Procedure: How to Update the WAND Sentiment Taxonomy

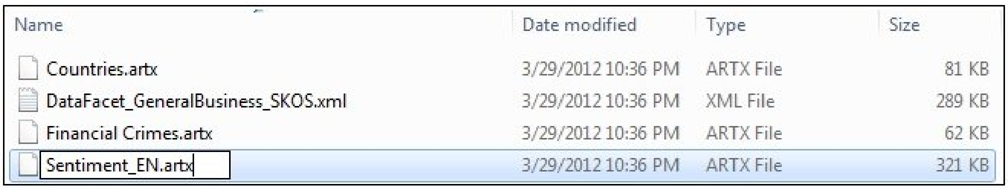
The Sentiment.artx file, which is located in the *C:\Program Files (x86)\Applied Relevance \DocumentAnnotatorService\repository* directory contains the Sentiment Taxonomy used for scoring textual data. As a Sentiment Taxonomy update or a localized Sentiment Taxonomy in a different language is made available, the Sentiment.artx file must be replaced with the updated version.

1. Open the Services utility on Windows through the Control Panel and *stop* the AR Document Annotator service, as shown in the following image.



2. Rename the Sentiment.artx file, which is located in the following directory:

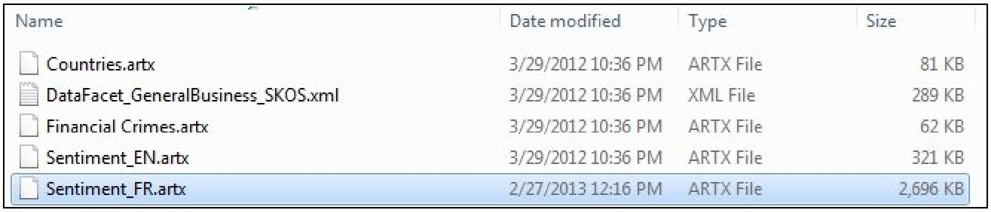
```
C:\Program Files (x86)\Applied Relevance\DocumentAnnotatorService
\repository
```



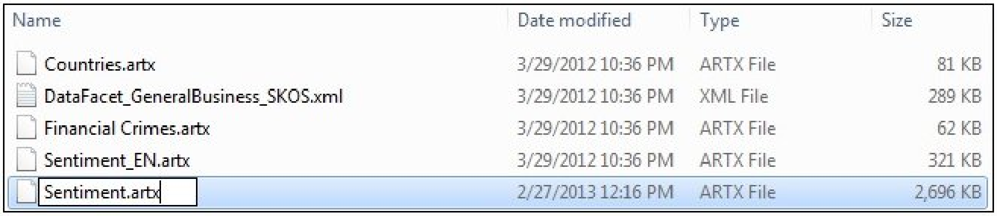
3. Copy the new Sentiment Taxonomy to the following directory:

```
C:\Program Files (x86)\Applied Relevance\DocumentAnnotatorService
\repository
```

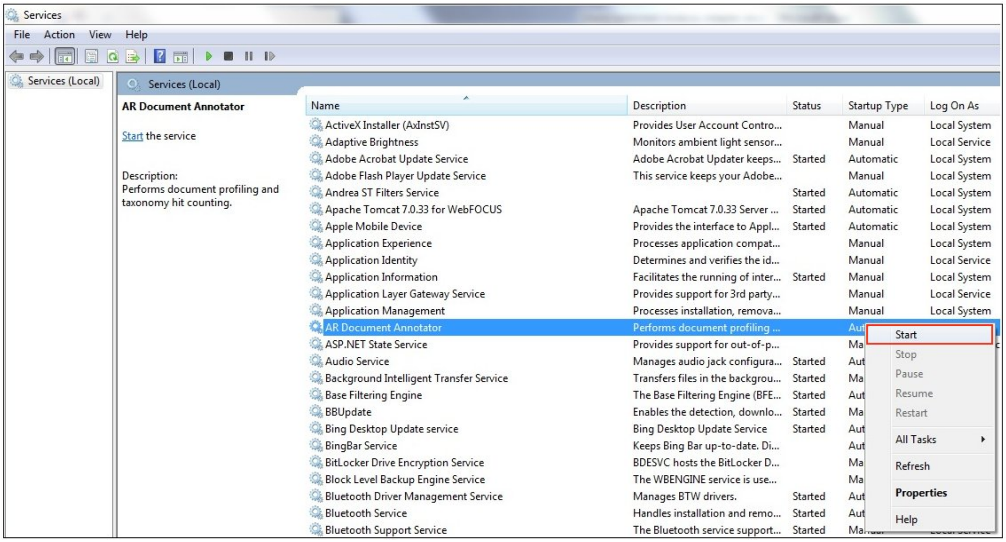
The following example shows the installation of a French Sentiment Taxonomy.



4. Rename the updated Sentiment Taxonomy so that the file name is Sentiment.artx, as shown in the following image.



5. Open the Services utility on Windows through the Control Panel and *start* the AR Document Annotator service, as shown in the following image.



Installing and Using the WAND Taxonomy Editor

After the Taxonomy Server is installed and the Sentiment Taxonomy (Sentiment.artx file) within the *C:\Program Files (x86)\Applied Relevance\DocumentAnnotatorService\repository* directory is updated to the latest version, there might be a need to score words that are not present in the taxonomy. Therefore, these words would have to be added to the Sentiment Taxonomy and assigned to one of the following categories:

- Neutral
- Satisfied
- Very Satisfied
- Very Dissatisfied
- Dissatisfied

The WAND Taxonomy Editor is used to add and categorize words to the Sentiment Taxonomy.

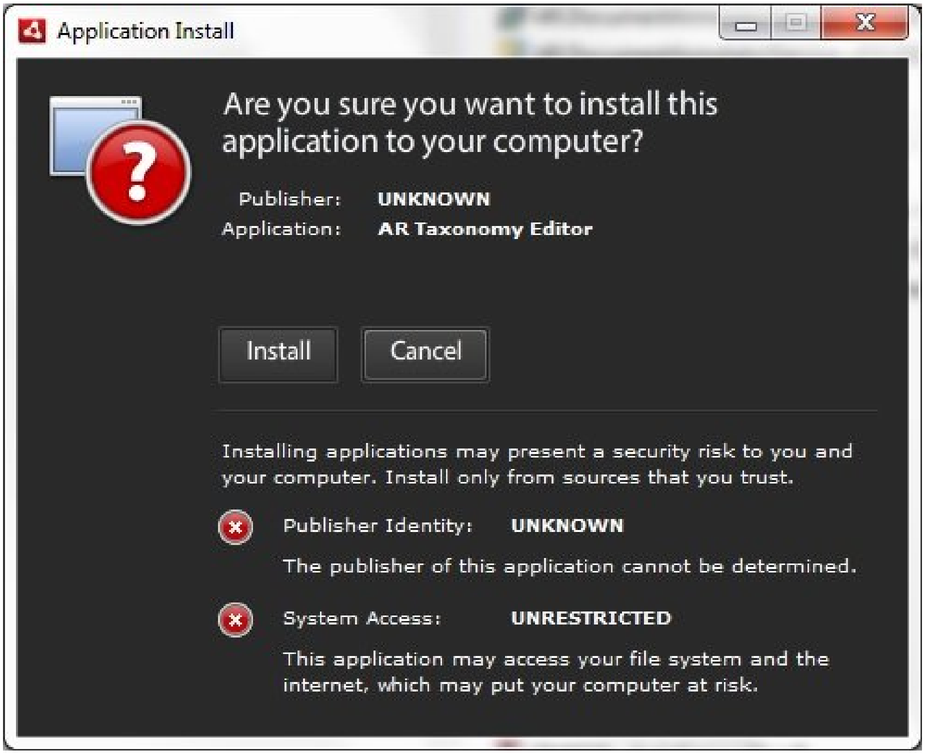
Procedure: How to Install the WAND Taxonomy Editor

1. Obtain the WAND Taxonomy Editor software.
2. Ensure that Adobe Air is installed on your system.

   Adobe Air can be downloaded from:

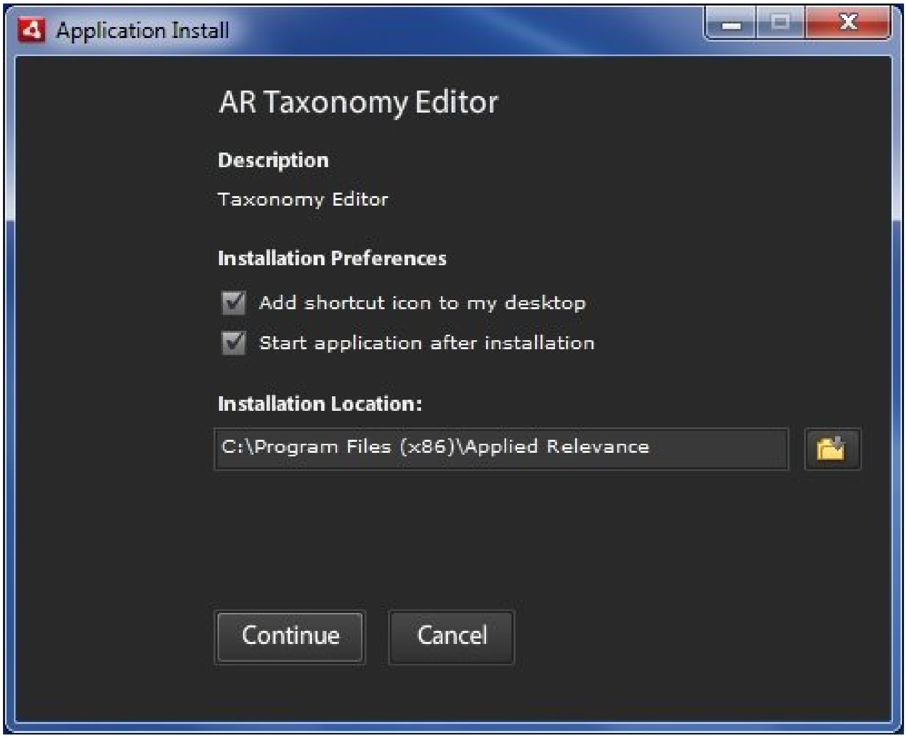
   http://get.adobe.com/air/
3. Double-click the *ARTaxonomyEditor_v2.1.1318.0.air* file.

The Application Install dialog box opens, as shown in the following image.



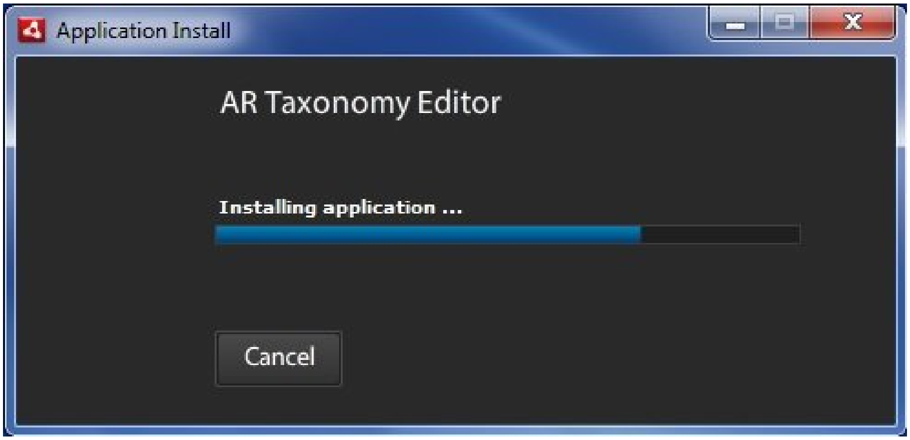
4. Click *Install*.

The AR Taxonomy Editor installation pane is displayed, as shown in the following image.

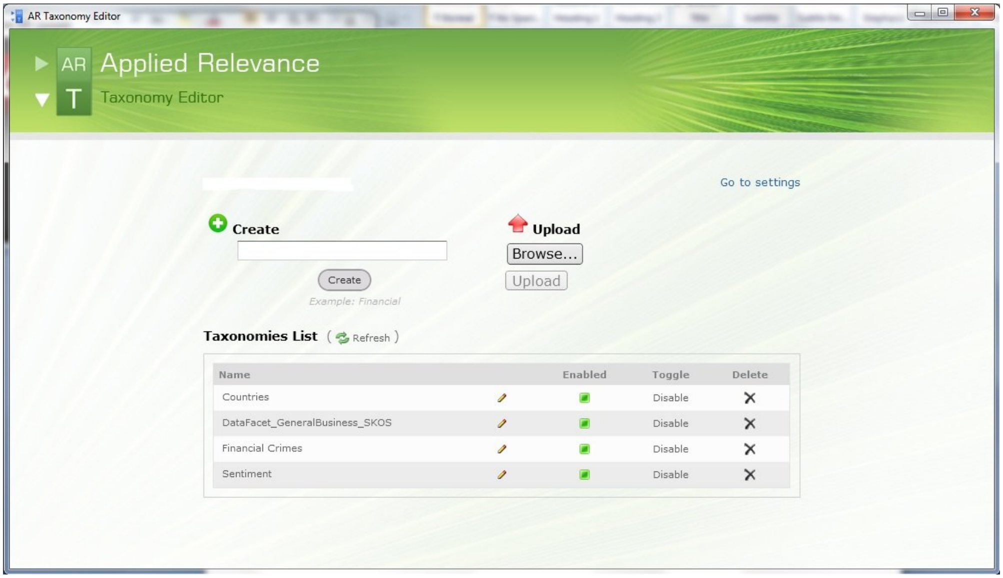


5. Click *Continue*.

   During the installation, a progress bar is displayed, as shown in the following image.

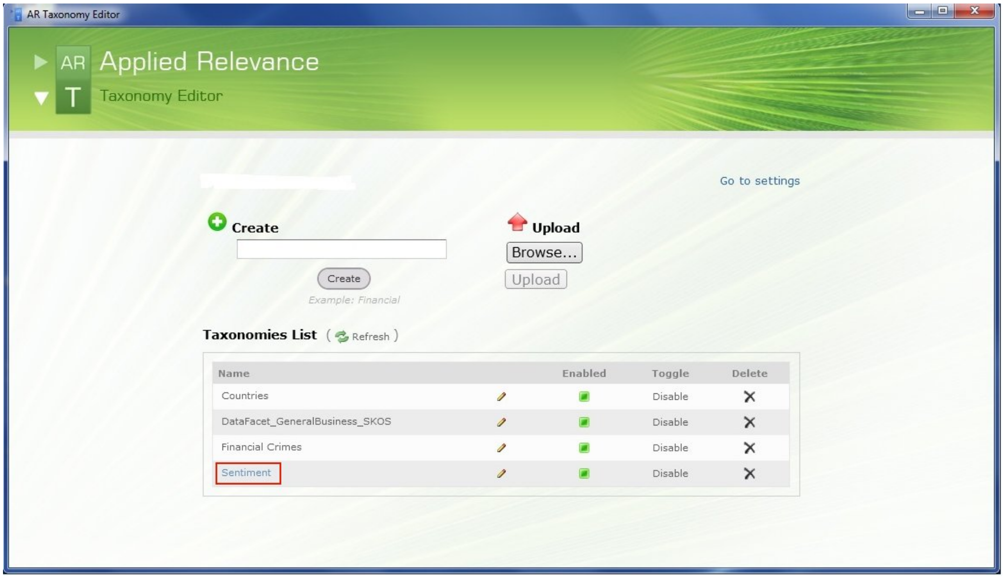


After the installation is complete, the AR Taxonomy Editor is displayed, as shown in the following image.

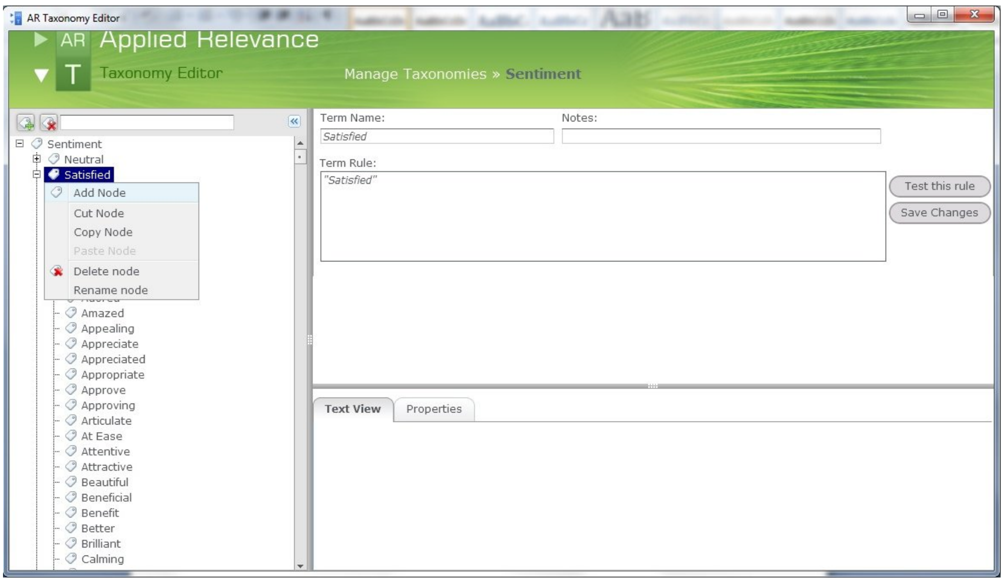


Procedure: How to Use the WAND Taxonomy Editor

1. In the AR Taxonomy Editor, click *Sentiment* from the Taxonomies List, as shown in the following image.



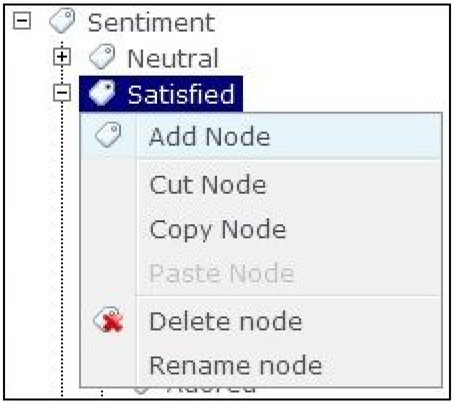
The Sentiment window of the AR Taxonomy Editor is displayed, as shown in the following image.



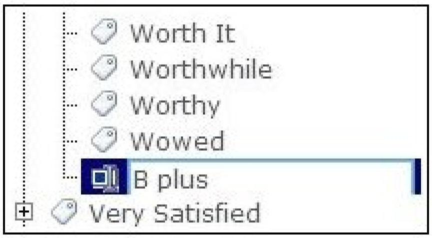
The Sentiment Taxonomy categories include Neutral, Satisfied, Very Satisfied, Very Dissatisfied, and Dissatisfied.

To categorize words, a node must be added under the category that will reflect the appropriate scoring.

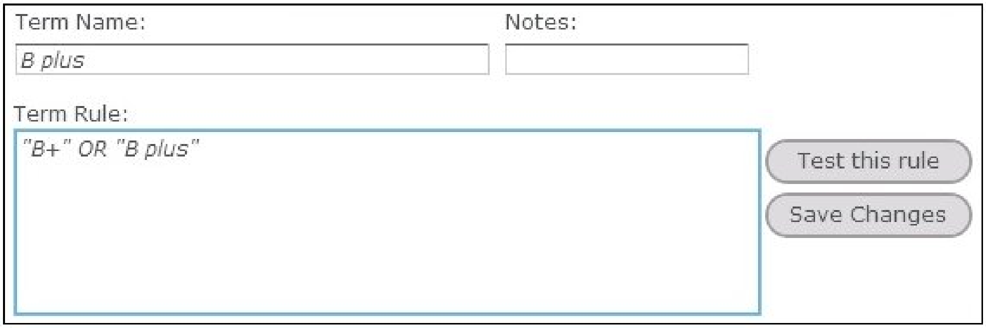
2. Right-click on a category in the left pane (for example, Satisfied) and click *Add Node* from the context menu, as shown in the following image.



3. In the new field that is added in the left pane, enter a name for the new node (for example, B plus), as shown in the following image.



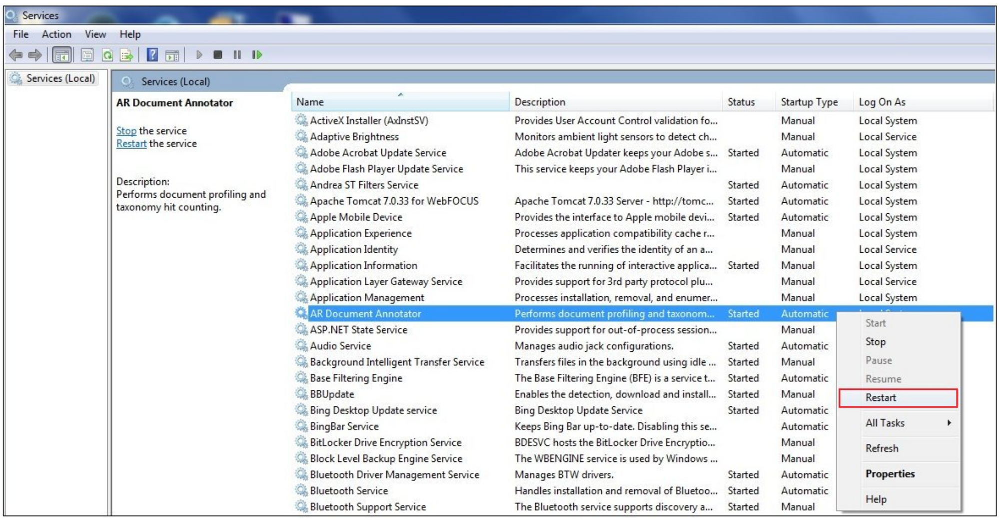
4. In the right pane, enter a new term rule for the node in the Term Rule field, as shown in the following image.



For example, entering *"B+" OR "B plus"* will be scored as Satisfied.

5. Click *Save Changes* to save the new addition to the Sentiment Taxonomy.

6. To apply the changes, open the Services utility on Windows through the Control Panel and *restart* the AR Document Annotator service, as shown in the following image.



Configuring the WAND Sentiment Analysis Adapter

The WAND Sentiment Analysis Adapter is a part of the Social Media group of adapters that are managed by the WebFOCUS Reporting Server.

Procedure: How to Configure the WAND Sentiment Analysis Adapter

1. From the Web Console sidebar, click *Connect to Data*.

   or

   From the Data Management Console, expand the *Adapters* folder.

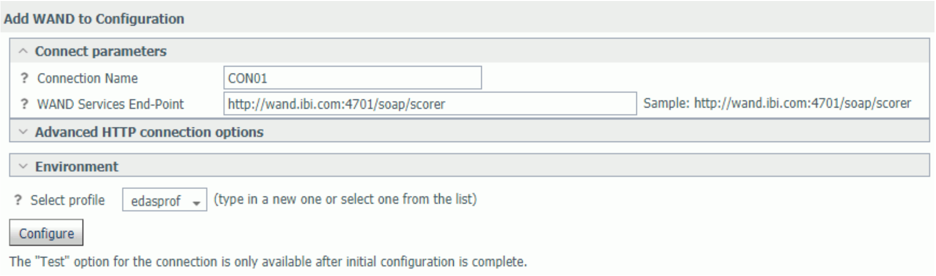
   In the DMC, the Adapters folder opens. In the Web Console, the Adapters page opens with two lists, Configured Adapters and Available Adapters.

2. Find the adapter on the Available list in the Web Console or expand the *Available* folder in the DMC, if it is not already expanded.
   On the Web Console, you can select a category of adapter from the drop-down list or use the search option (magnifying glass) to search for specific characters.

3. In the DMC, expand the appropriate group folder and the specific adapter folder. The group folder is described in the connection attributes reference.

4. Right-click the *WAND* node and select *Configure*.

   The Add WAND to Configuration pane opens, as shown in the following image.



5. Enter a name to identify the connection (for example, WAND) in the Connection Name field.

   The format of the WAND Services End-Point URL is:

   `http://host:4701/soap/scorer`

   where:

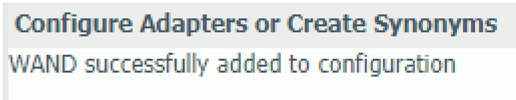
   `host`

   Is the machine name or IP address where the Taxonomy Server is installed. For example:

   `http://wandserver.ibi.com:4701/soap/scorer`

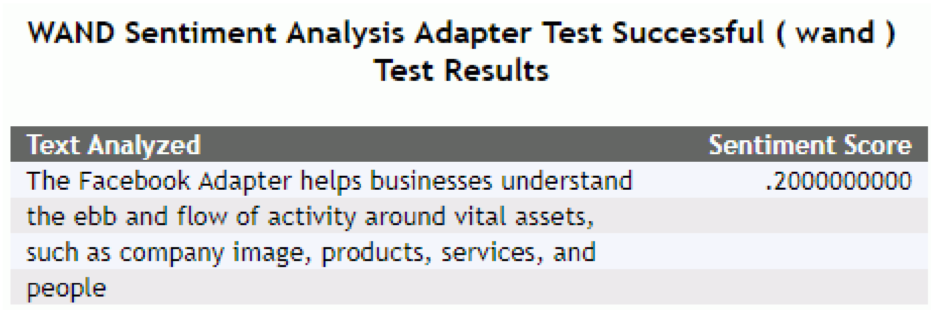
6. Click *Configure*.

The Configure Adapters or Create Synonyms pane opens, as shown in the following image.



7. Click *Test* to ensure that the WAND Sentiment Analysis Adapter is configured properly.

   The Testing Wand connection pane opens and displays the test results, as shown in the following image.



Reference: Connection Attributes for WAND Sentiment Analysis

The following list describes the connection attributes for the WAND Sentiment Analysis Adapter.

Connection Name

Logical name used to identify this particular set of connection attributes. The default is CON01.

WAND Services End-Point

The URL that is used to connect to the WAND Sentiment Analysis environment. For example:

```
http://wand.ibi.com:4701/soap/scorer
```

PROXY Server IP Address

IP address of the proxy server. For example:

```
170.115.249.42
```

PROXY Port

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

Select profile

Select a profile from the drop-down list to indicate the level of profile in which to store the connection attributes. The global profile, edasprof.prf, is the default.

If you wish to create a new profile, either a user profile (user.prf) or a group profile if available on your platform (using the appropriate naming convention), choose New Profile from the drop-down menu and enter a name in the Profile Name field (the extension is added automatically).

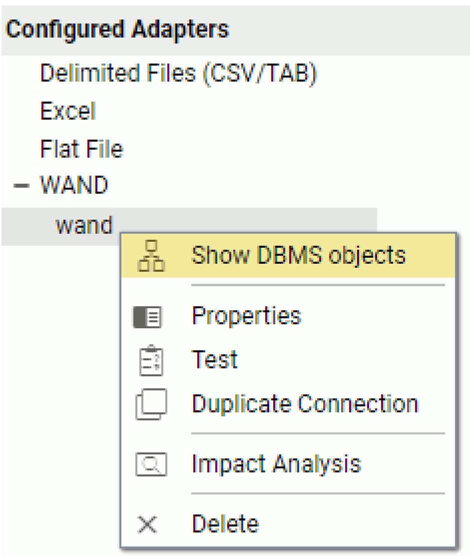
Store the connection attributes in the server profile (edasprof).

Creating Metadata and Sample Reports for the WAND Sentiment Analysis Adapter

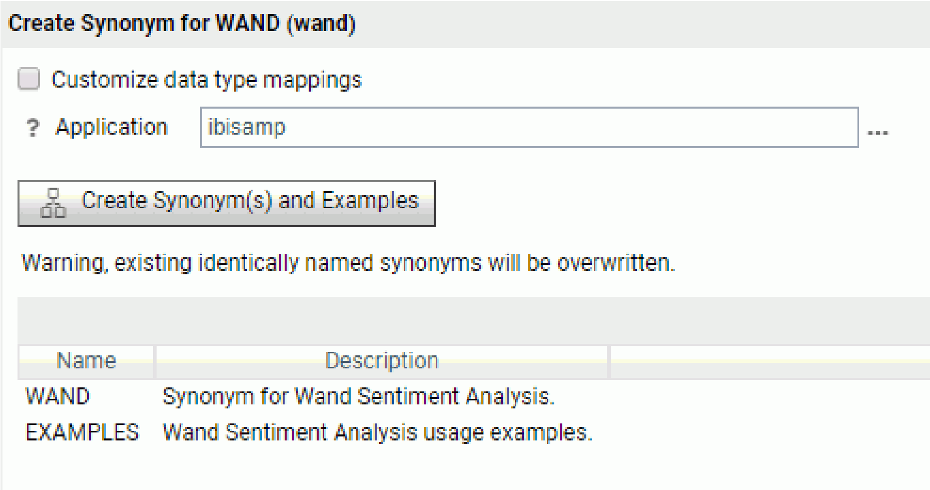
Create Synonym for the WAND Adapter creates the metadata used by reports to perform Sentiment Analysis scoring as well as sample reports which utilize the metadata.

Procedure: How to Create Metadata and Sample Reports

1. From the WebFOCUS Reporting Server Web Console or the Data Management Console, expand the *Adapters* folder, *Configured* folder, and then the *WAND* folder.
2. Right-click the configured connection for the WAND Sentiment Analysis Adapter (for example, wand) and select *Show DBMS objects* from the context menu, as shown in the following image.



The Create Synonym for WAND pane opens, as shown in the following image.

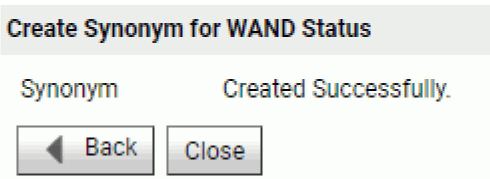


3. Enter a specific application in the Application field or click the ellipsis button to the right of the field to select an application where the metadata is to be stored.

   The sample reports are stored within the *wandsampl* subdirectory of the application.

4. Click *Create Synonym*.

   The Create Synonym for WAND Status pane opens and indicates that the synonym was created successfully, as shown in the following image.



WAND Sentiment Analysis Adapter Examples

This section describes the metadata and sample reports for the WAND Sentiment Analysis Adapter.

Reference: WAND Sentiment Analysis Adapter Metadata

The following table lists and describes the available metadata for the WAND Sentiment Analysis Adapter.

Metadata	Description

wandscore	Metadata is used for interacting with the WAND web service for sentiment analysis scoring.
	
	The TEXT field would contain the textual data that is to be analyzed and scored by the WAND Taxonomy Server. Textual data can be joined from a column within a table to the TEXT field or set within a WHERE/IF condition.
	
	The following example uses a JOIN statement:
	
	`JOIN DOCLINE IN wand/wandsampl/`
	`wand_sample_fix TO TEXT IN wand/wandscore`
	`END`
	
	The following example uses a WHERE/IF condition:
	
	`WHERE (TEXT CONTAINS 'The Facebook`
	`Adapter helps businesses')`
	
	A sentiment score between -1 and 1 is returned within the SCORERESULT field.

wandsampl/wand_sample_fix	Metadata that defines the sample text file (wandsampl/wand_sample.txt) used for the *wand_sample_join* and *wand_sample_cluster* sample reports.
wandsampl/wand_sample_cluster	Cluster join between *wandsampl/wand_sample_fix* and *wandscore*.

Reference: WAND Sentiment Analysis Adapter Sample Reports

The following table lists and describes the sample reports for the WAND Sentiment Analysis Adapter.

Sample Report	Description
wandsampl/wand_sample_join	Scores the text passed from the *wandsampl/wand_sample.txt* file performed through a JOIN statement.
wandsampl/wand_sample_cluster	Scores the text passed from the *wandsampl/wand_sample.txt* file using the Cluster Join master *wandsampl/wand_sample_cluster*.
wandsampl/wand_sample_where	Scores the text passed within a WHERE statement.

Chapter 8

Using the Adapter for Alchemy Sentiment Analysis

This section describes how to configure the Alchemy Sentiment Analysis Adapter.

In this chapter:

Alchemy Sentiment Analysis Adapter Overview

The Alchemy Sentiment Analysis Adapter is used to score structured and unstructured textual content by identifying positive, neutral, and negative sentiment found within emails, documents, and database records. Textual data from a data source is passed to the adapter in one of three ways:

- Joining the column containing the textual data from the data source to the column within the Alchemy Sentiment Analysis Adapter used to define the textual data to be scored.
- A report which uses Cluster Join metadata. The Cluster Join metadata already contains the join from the column containing the textual data from the data source to the column within the Alchemy Sentiment Analysis Adapter used to define the textual data to be scored.
- Using a WHERE/IF condition to pass textual data directly to the column within the Alchemy Sentiment Analysis Adapter used to define the textual data to be scored.

The score returned from the Alchemy Sentiment Analysis Adapter ranges from -1 to 1.

- A score of -1 identifies the sentiment of the textual data that was passed to the adapter as extremely negative.
- A score of 0 identifies the sentiment of the textual data that was passed to the adapter as neutral.
- A score of 1 identifies the sentiment of the textual data that was passed to the adapter as tremendously positive.

Configuring the Alchemy Sentiment Analysis Adapter

The Alchemy Sentiment Analysis Adapter is part of the Social Media group of adapters within the WebFOCUS Reporting Server.

Procedure: How to Configure the Alchemy Sentiment Analysis Adapter

1. From the Web Console sidebar, click *Connect to Data*.

   or

   From the Data Management Console, expand the *Adapters* folder.

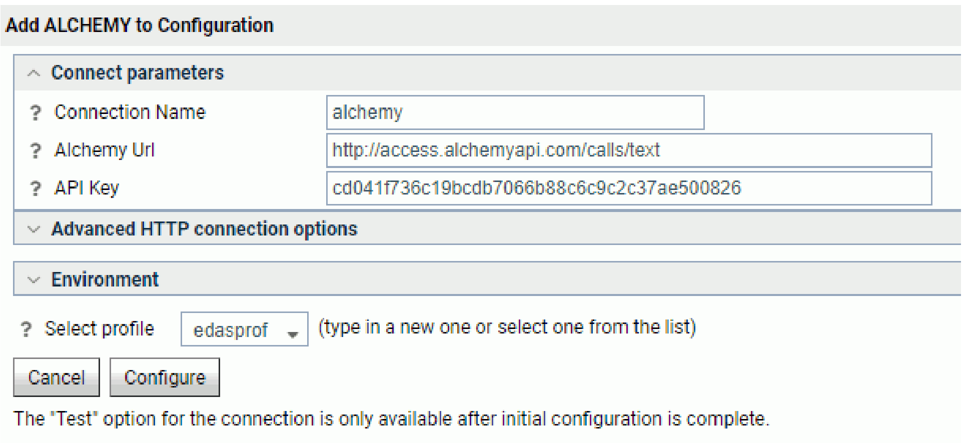
   In the DMC, the Adapters folder opens. In the Web Console, the Adapters page opens with two lists, Configured Adapters and Available Adapters.

2. Find the adapter on the Available list in the Web Console or expand the *Available* folder in the DMC, if it is not already expanded.
   On the Web Console, you can select a category of adapter from the drop-down list or use the search option (magnifying glass) to search for specific characters.

3. In the DMC, expand the appropriate group folder and the specific adapter folder. The group folder is described in the connection attributes reference.

4. Right-click *ALCHEMY* and select *Configure*.

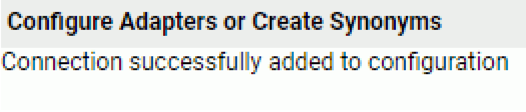
   The Add ALCHEMY to Configuration pane opens, as shown in the following image.



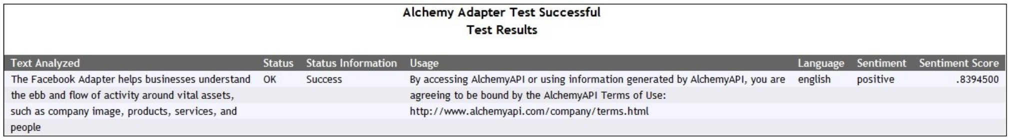
5. Enter the value for API Key supplied by Alchemy.

6. Click *Configure*.

The Configure Adapters or Create Synonyms pane opens, as shown in the following image.



7. Click *Test* to ensure that the Alchemy Sentiment Analysis Adapter is configured properly.



Alchemy Adapter Test Successful
Test Results

Text Analyzed	Status	Status Information	Usage	Language	Sentiment	Sentiment Score
The Facebook Adapter helps businesses understand the ebb and flow of activity around vital assets, such as company image, products, services, and people	OK	Success	By accessing AlchemyAPI or using information generated by AlchemyAPI, you are agreeing to be bound by the AlchemyAPI Terms of Use: http://www.alchemyapi.com/company/terms.html	english	positive	.8394500

Reference: Connection Attributes for Alchemy Sentiment Analysis

The following list describes the connection attributes for the Alchemy Sentiment Analysis Adapter.

Connection Name

Logical name used to identify this particular set of connection attributes. The default is CON01.

Alchemy URL

The URL that is used to connect to the Alchemy Sentiment Analysis service. The default value is:

```
http://access.alchemyapi.com/calls/text
```

API KEY

The API Key that is supplied by Alchemy to allow authorization to the Alchemy Sentiment Analysis scorer.

PROXY Server IP Address

IP address of the proxy server. For example:

```
170.115.249.42
```

PROXY Port

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

Select profile

Select a profile from the drop-down list to indicate the level of profile in which to store the connection attributes. The global profile, edasprof.prf, is the default.

If you wish to create a new profile, either a user profile (user.prf) or a group profile if available on your platform (using the appropriate naming convention), choose New Profile from the drop-down menu and enter a name in the Profile Name field (the extension is added automatically).

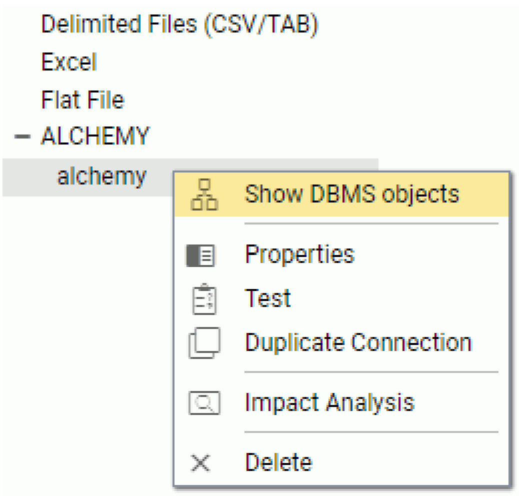
Store the connection attributes in the server profile (edasprof).

Creating Metadata and Sample Reports for the Alchemy Adapter

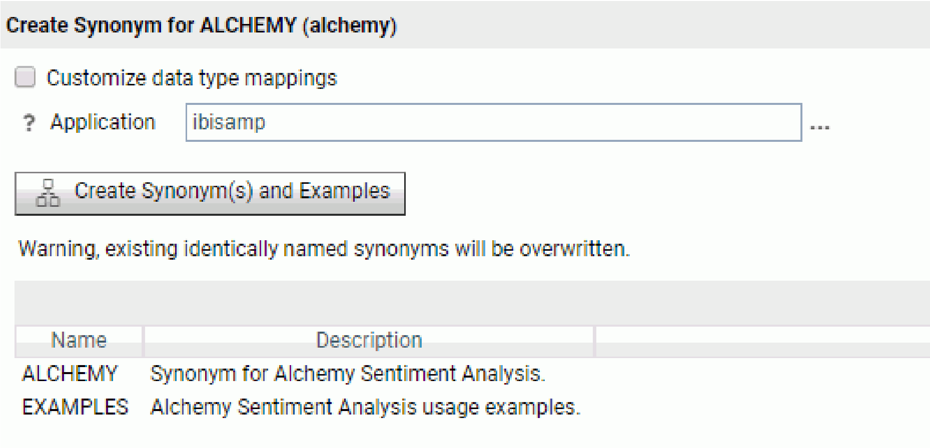
Create Synonym for the Alchemy Sentiment Analysis Adapter creates the metadata used by reports to perform Sentiment Analysis scoring as well as sample reports which utilize the metadata.

Procedure: How to Create Metadata and Sample Reports

1. From the WebFOCUS Reporting Server Web Console or the Data Management Console, expand the *Adapters* folder, *Configured* folder, and then the *ALCHEMY* folder.
2. Right-click the configured connection for the Alchemy Sentiment Analysis Adapter (for example, alchemy) and select *Show DBMS objects* from the context menu, as shown in the following image.



The Create Synonym for ALCHEMY pane opens, as shown in the following image.

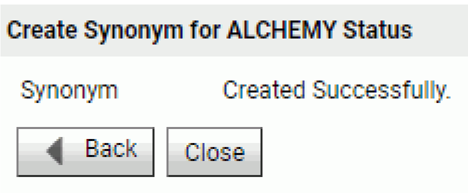


3. Enter a specific application in the Application field or click the ellipsis button to the right of the field to select an application where the metadata and sample reports are to be stored.

   The sample reports are stored within the *alchsampl* subdirectory of the application.

4. Click *Create Synonym(s) and Examples*.

   The Create Synonym for ALCHEMY Status pane opens and indicates that the synonym was created successfully, as shown in the following image.



Alchemy Sentiment Analysis Adapter Examples

This section describes the metadata and sample reports for the Alchemy Sentiment Analysis Adapter.

Reference: Alchemy Sentiment Analysis Adapter Metadata

The following table lists and describes the available metadata for the Alchemy Sentiment Analysis Adapter.

Metadata	Description

alchemy	Metadata is used for interacting with the Alchemy web service for sentiment analysis scoring.
	
	The DOC field would contain the textual data that is to be analyzed and scored by the Alchemy Sentiment scorer. Textual data can be joined from a column within a table to the DOC field or set within a WHERE/IF condition.
	
	The following example uses a JOIN statement:
	
	`JOIN DOCLINE IN alchemy/alchsampl/`
	`alchemy_sample_fix TO DOC IN alchemy/`
	`alchemy`
	`END`
	
	The following example uses a WHERE/IF condition:
	
	`WHERE (DOC CONTAINS 'The Facebook`
	`Adapter helps businesses')`
	
	A sentiment score between -1 and 1 is returned within the SCORE field.

alchsampl/alchemy_sample_fix	Metadata that defines the sample text file (alchsampl/alchemy_sample.txt) used for the *alchemy_sample_join* and *alchemy_sample_cluster* sample reports.
alchsampl/alchemy_sample_cluster	Cluster join between *alchsampl/alchemy_sample_fix* and *alchemy*.

Reference: Alchemy Sentiment Analysis Adapter Sample Reports

The following table lists and describes the sample reports for the Alchemy Sentiment Analysis Adapter.

Sample Report	Description
alchsampl/alchemy_sample_join	Scores the text passed from the *alchsampl/alchemy_sample.txt* file performed through a JOIN statement.
alchsampl/alchemy_sample_cluster	Scores the text passed from the *alchsampl/alchemy_sample.txt* file using the Cluster Join master.
alchsampl/alchemy_sample_where	Scores the text passed within a WHERE statement.

Appendix A

Social Media Demo

This appendix describes how to install and use the social media demo that is packaged with WebFOCUS.

In this appendix:

Analyzing Social Media

Analyzing statistics and data is one of the most popular marketing activities when it comes to social media. Many businesses struggle with calculating the return on investment (ROI) on a given campaign. This is because the finances that are used for a campaign are usually required to perform the actual ROI calculation. The engagement-level data generated by social media platforms helps you analyze if, when, and how much activity occurs on individual platforms. The data usually exists in different systems, but in order to have an effective campaign analysis, data needs to be compounded. WebFOCUS Social Media Integration provides the ability to access and analyze all enterprise social media data and the ability to better understand the impact of social media on business performance.

Overview

The social media demo that is packaged with WebFOCUS highlights the capabilities of WebFOCUS Social Media Integration when performing various levels of social media analysis.

The first level of analysis is known as the engagement level, where you analyze if, when, and how much activity took place. As companies mature, they start to focus on not just the activity but the actual conversations themselves.

WebFOCUS Social Media Integration offers techniques such as sentiment and word frequency analysis to help quantify and visualize this textual data to more effectively see trends and patterns in the data.

The second level of analysis is integrating your social data with enterprise data to better understand social impact on business outcomes. The data analysis that is used in this demo was obtained when Walmart was running a very specific campaign around their meat products. Note that the sales data was fabricated to provide better understanding, especially since there was no conclusive access to their real sales data. However, the social data is real.

Installing the Social Media Demo In Your WebFOCUS Environment

This section describes how to install the social media demo in your WebFOCUS environment.

Prerequisites

The WebFOCUS social media demo is packaged with WebFOCUS Release 8.2 Version 01M. Ensure that this version of WebFOCUS is installed on your system. In addition, ensure that WebFOCUS Reporting Server Release 8.2 is installed and running on your system.

For more information on installing WebFOCUS, see the *WebFOCUS and ReportCaster Installation and Configuration for Windows - Release 8.2 Version 01M* documentation.

The WebFOCUS social media demo files are located in the following folder of your WebFOCUS installation:

```
<drive>:ibi\WebFOCUS82\samples\social_media_demo
```

You will need to use the following files that are located in this folder to import the social media demo to your WebFOCUS environment:

- ❑ Walmart_Social_Media_app.zipx
- ❑ Walmart_Social_Media_Domain_CM_v1.zip

Procedure: How to Import the Social Media Demo Files

To import the WebFOCUS social media demo content into your WebFOCUS environment:

1. Unzip the *Walmart_Social_Media_app.zipx* file to your WebFOCUS \apps folder, for example:

   ```
   <drive>:\ibi\apps
   ```

   This creates a folder in the \apps directory called *uc_walmartsocial*, for example:

   ```
   <drive>:\ibi\apps\uc_walmartsocial
   ```

2. Unzip the *Walmart_Social_Media_Domain_CM_v1.zip* file to your WebFOCUS \import folder, for example:

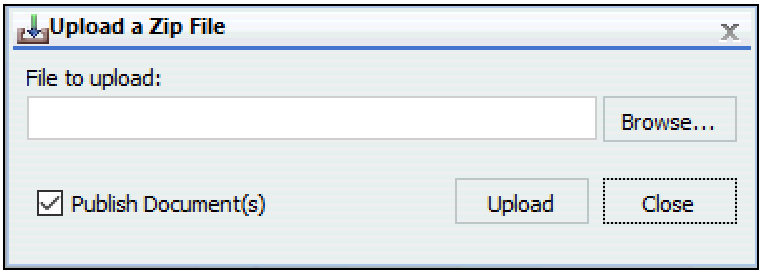
   ```
   <drive>:ibi\WebFOCUS82\cm\import
   ```

This extracts a Change Management import package, which consists of the \root and \root_content folders and the following files:

- repos.xml
- reposTree.xml
- rules.xml
- scenario.xml
- usergroupmap.xml

3. Sign in to WebFOCUS Release 8.2 Version 01M as an administrator.
4. In the Resources tree on the left pane, expand *Change Management*, right-click *Import*, and then select *Upload a Zip File*, as shown in the following image.

The Upload a Zip File dialog opens, as shown in the following image.

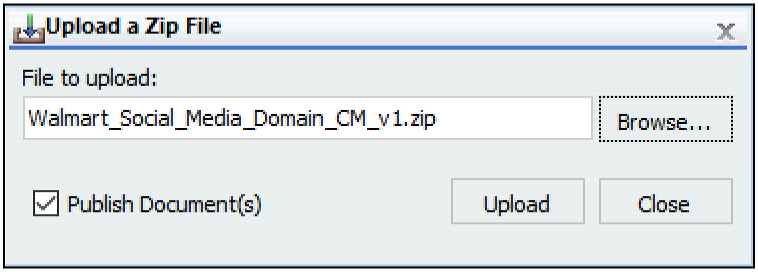


5. Click *Browse* and navigate to the following directory:

   <drive>:ibi\WebFOCUS82\samples\social_media_demo

6. Select the *Walmart_Social_Media_Domain_CM_v1.zip* file, and then click *Open*.

   You are returned to the Upload a Zip file dialog, as shown in the following image.



7. Click *Upload*.

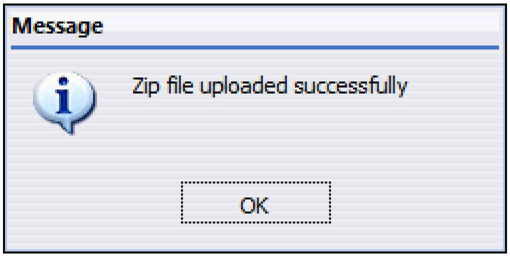
   The Walmart_Social_Media_Domain_CM_v1 node appears in the Import folder under Change Management.

8. Right-click *Walmart_Social_Media_Domain_CM_v1* and click *Import*.

   The Import Package: Walmart_Social_Media_Domain_CM_v1.zip dialog opens, where you can add new resources, or update and replace current resources.

9. Select the parameters you require and then click *OK*.

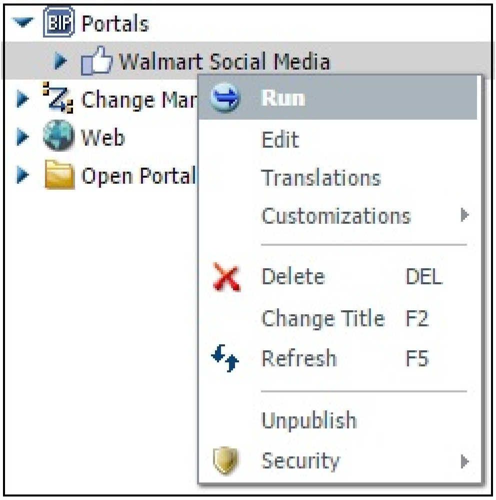
A message displays indicating that the .zip file was uploaded successfully, as shown in the following image.



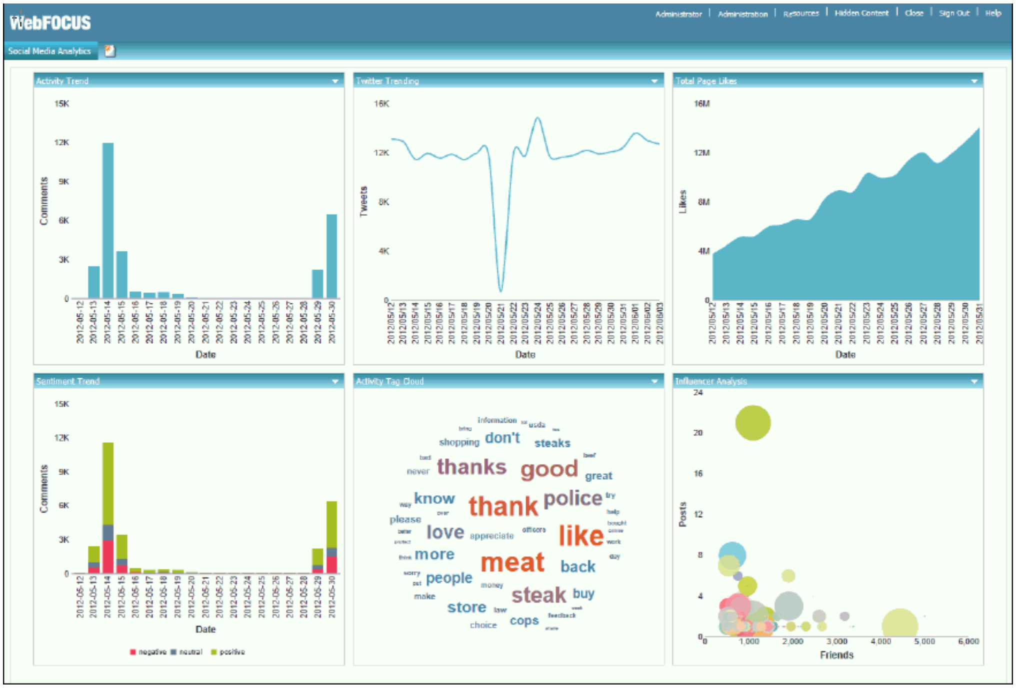
A new domain called *Walmart Social Media Demo* and a new portal called *Walmart Social Media* are now created and available in your WebFOCUS environment, as shown in the following image.

10. Click *OK*.

11. Expand the Portals node in the Resources tree, right-click *Walmart Social Media* and then click *Run* from the context menu, as shown in the following image.

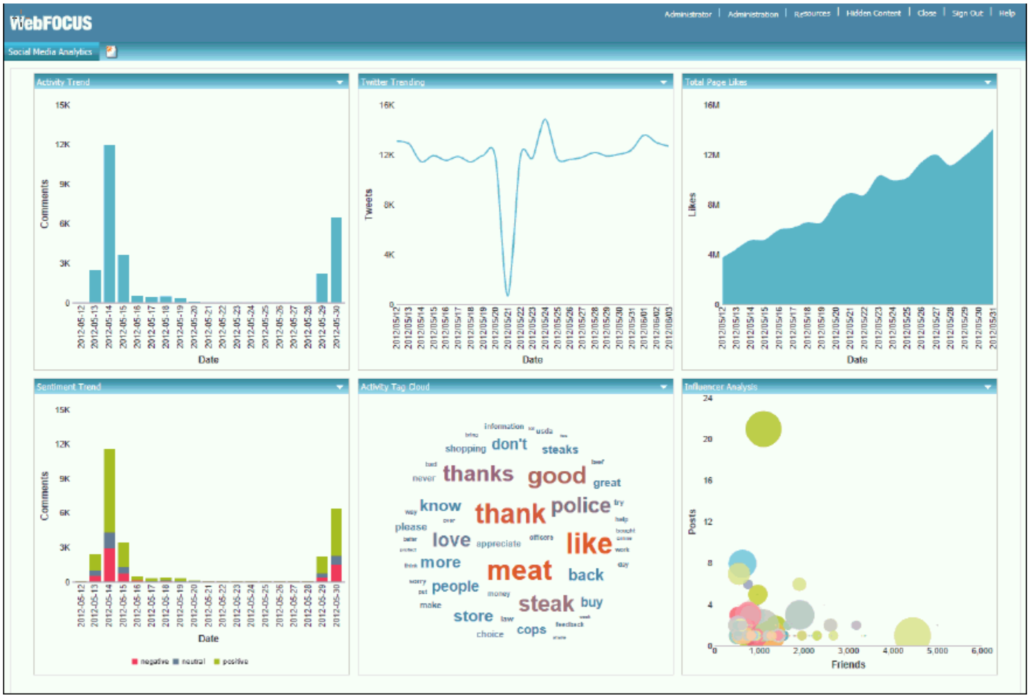


A portal called Walmart Social Media opens as a page in the Social Media Analytics tab, which enables you to analyze various social media activities for this demo, as shown in the following image.



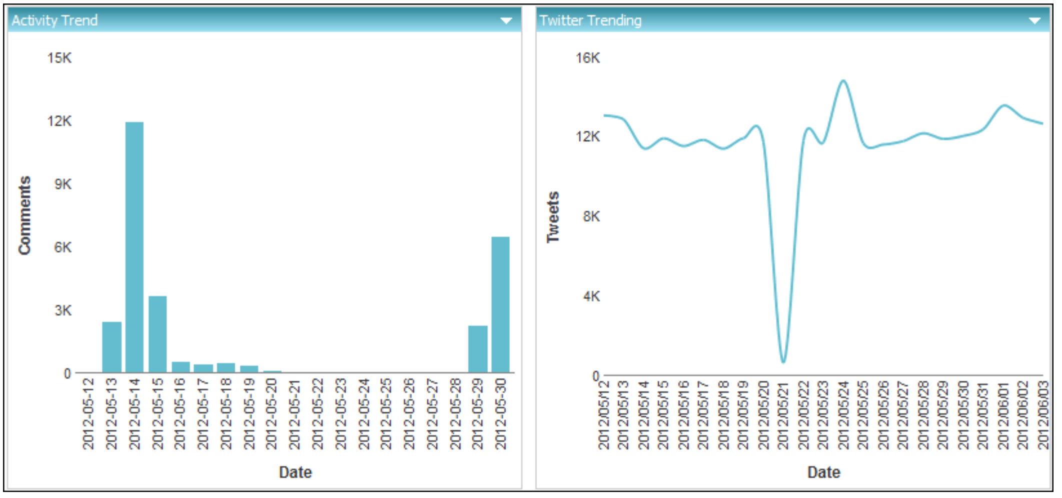
Navigating and Using the Social Media Demo

As a social media or marketing analyst, the sample portal that is provided with this demo allows you to gain insight towards several aspects of the social activity for your business enterprise. After running the Walmart Social Media portal, the Social Media Analytics tab opens, which displays metrics and analytics for the social media demo data in a dashboard layout, as shown in the following image.



Engagement Level and Listening Level Data Analysis

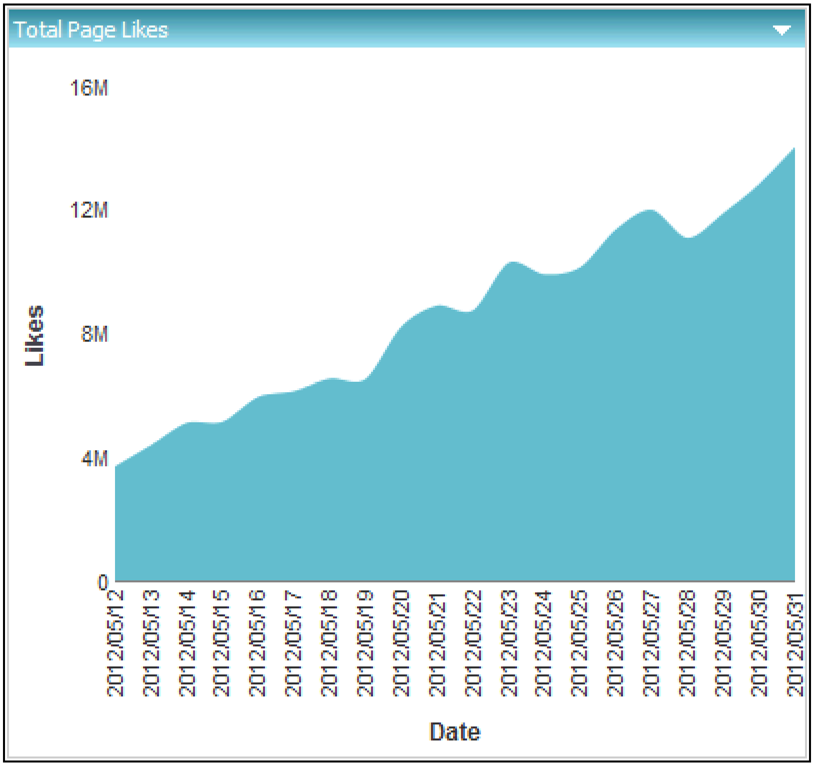
In the upper-left corner of the Social Media Analytics tab you will find the Activity Trend metric, where you can view the activity on the Walmart Facebook page for the specified time period. The total number of *comments* are counted for a given date. To the right you can see the Twitter Trending metric. Here, *tweets* for the Walmart Twitter account are measured for the same time period.



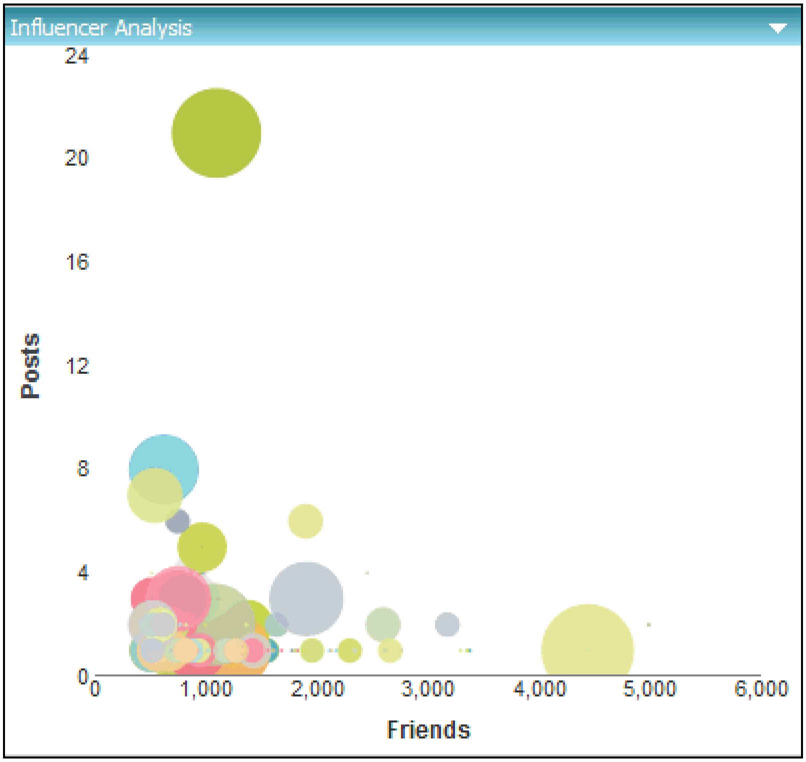
Both of these metrics are examples of what is referred to as *engagement level* data, which informs you *if*, *when*, and *how much* activity is taking place on a specific website or social media account. This information is nice to know, but not overly insightful.

In the upper-right corner of the dashboard is the Total Page Likes metric. Some analysts in the social media industry call this a *vanity* metric, because they struggle to put a dollar value on it. Here, you are looking at the total page *Likes* on the Walmart Facebook page.

For example, on May 31, 2012, Walmart had about 14 million people who liked their page.

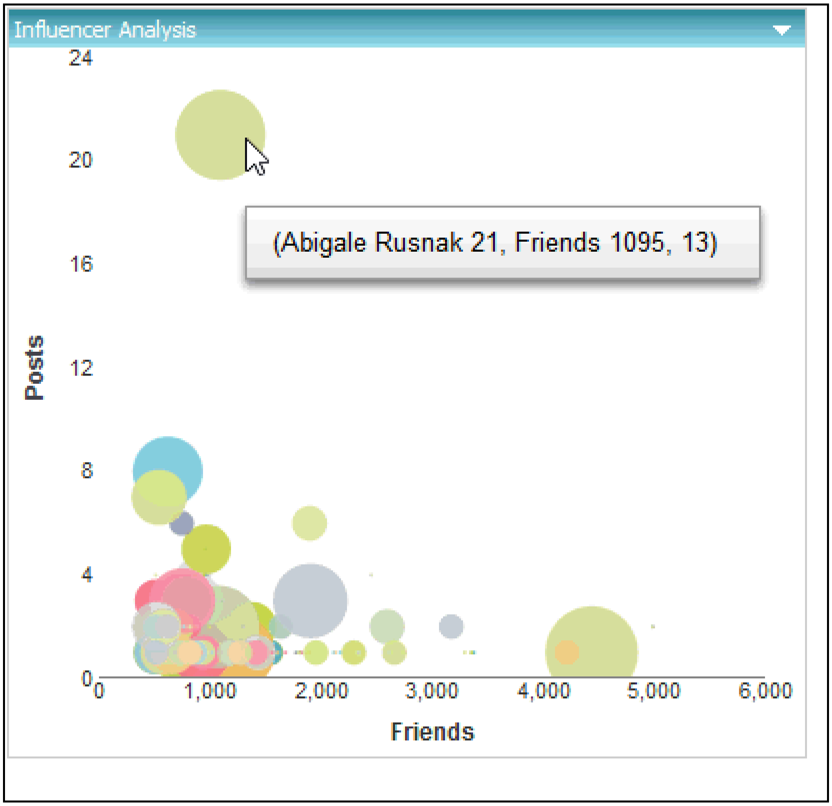


Below the Total Page Likes metric is the Influencer Analysis metric, which shows everyone who has posted on the Walmart Facebook page during a given time period.

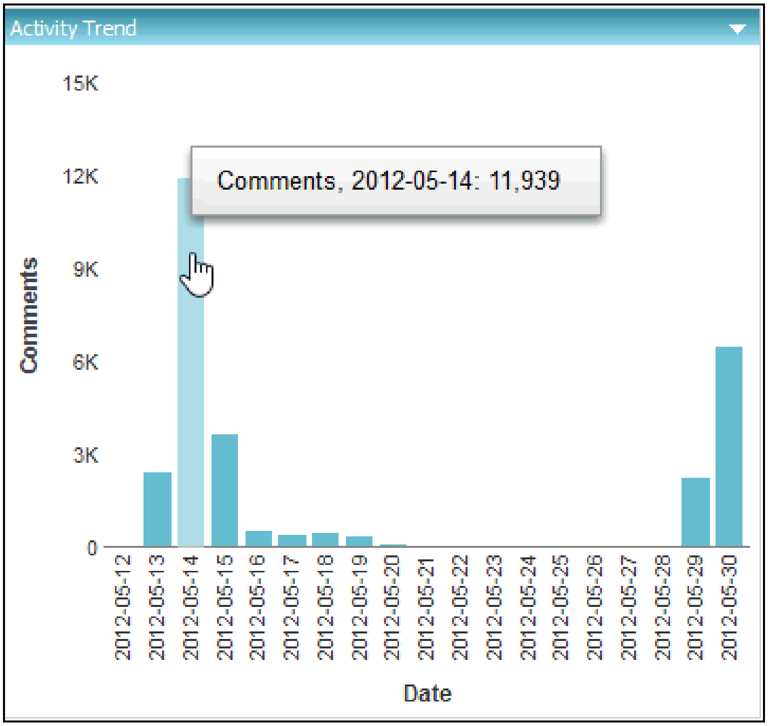


A social media analyst would be looking for individuals who fall into the upper quadrants of the chart because it shows how active they are in terms of posting, as well as how many people see and like their posts. It is those active individuals (known as *Brand Champions*) who may help your business bring in the most revenue. It is that critical information that is enhanced by data above and beyond social media.

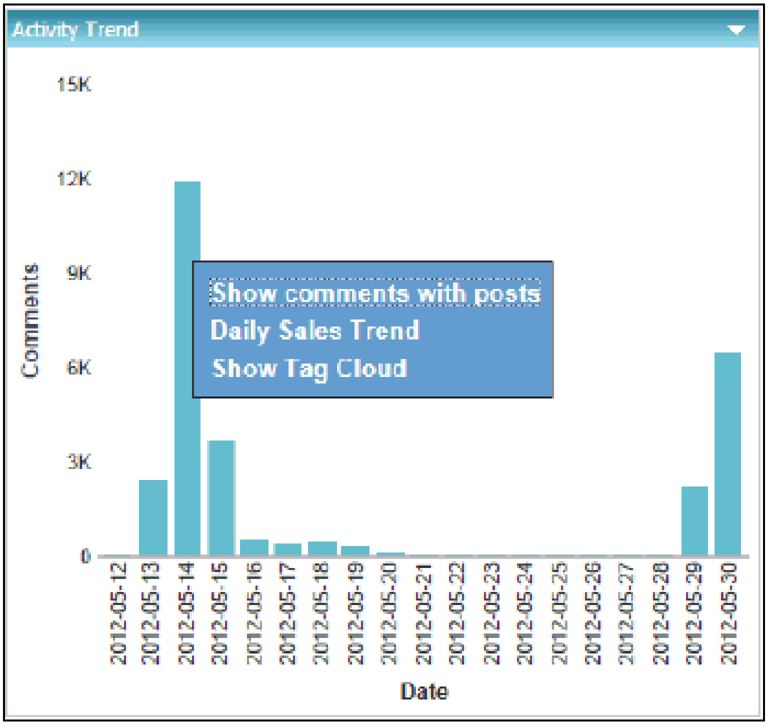
When you hover the cursor over the largest green dot on the upper left quadrant, the information it provides will help you understand the impact customers can bring your business on a social media platform. For example, Abigale Rusnack posted 21 times on Facebook, and each of those posts were potentially seen by over 1000 people, as shown in the following image. This results in Walmart wanting Abigale to post more positive experiences about their stores.



All of the metrics and analytics that you have reviewed so far are at the *engagement level*. The other two visualizations on the dashboard provide more *listening level* data analysis. You can take a closer look. If you focus on the spike in Facebook activity in the Activity Trend metric, you can see that there were almost 12,000 comments on a certain day, as shown in the following image.



In this bar chart, click on the 2012-05-14 bar that shows the spike in activity, as shown in the following image.



In the drill-down list that appears, you can select from the following options:

- **Show comments with posts.** Shows all comments with posts. In this case, a request is run to retrieve all 12,000 post and comments.
- **Daily Sales Trend.** Drills out to the sales system to see if this spike in social activity had any impact on sales for that day.
- **Show Tag Cloud.** Show word frequency for that specific day.

Both options (*Show comments with posts* and *Daily Sales Trend*) are cases that start with social media data, but have access to other data to help add context to the analysis. To proceed with this social media demo, select the last option, which is *Show Tag Cloud*.

Word Frequency and Sentiment Data Analysis

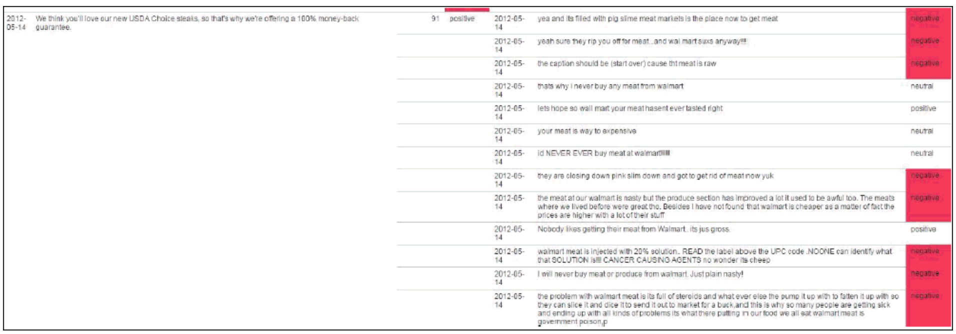
Clicking *Show Tag Cloud* from the drill-down list in the Activity Trend metric updates the Activity Tag Cloud component in the dashboard to show word frequency that is specific to the selected date, as shown in the following image.

This action that you just performed is considered *word frequency analysis*. The engine looks at all 12,000 posts and comments, and then counts the frequency that each term is mentioned in order to provide the general theme of what is being discussed without you having to read each post and comment.

From the sample above, note that from all the common words that could be found in the Walmart Facebook page such as *thanks*, *good*, and *like*, another term called *meat*, also appeared. It is that term that needs to be investigated and will be discussed in detail later on.

Click *meat* to show the drill-down options, and then select *Show comments/posts*, as shown in the following image.

When the report opens, scroll down to where you see the post, *We think you'll love our new USDA Choice steaks, so that's why we're offering a 100% money-back guarantee.*, as shown in the following image.



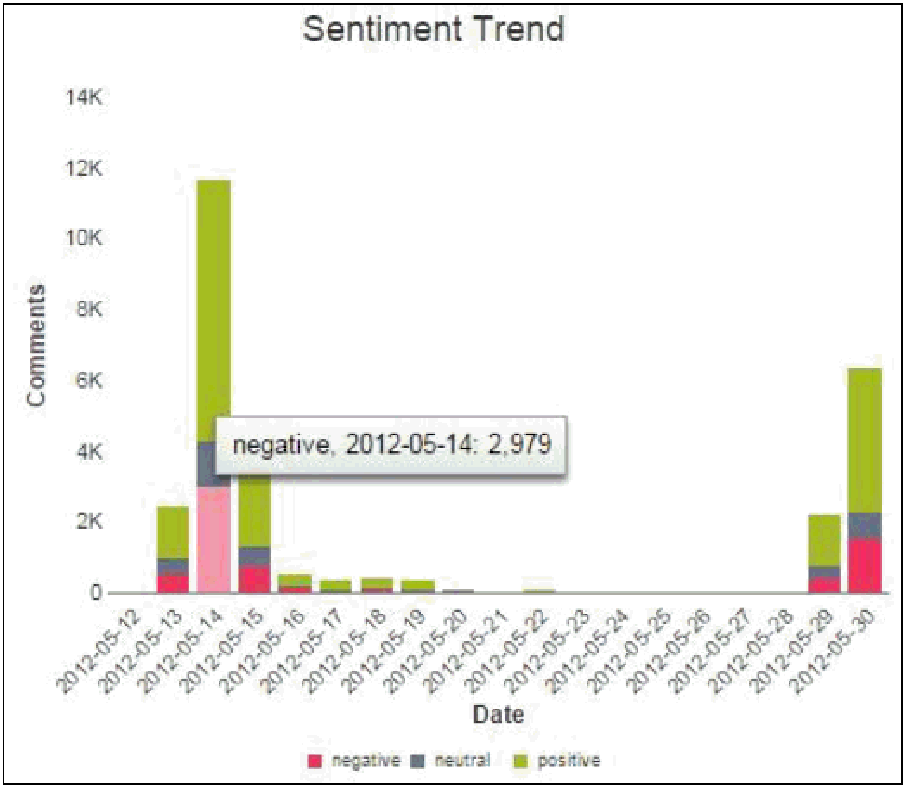
2012-05-14	We think you'll love our new USDA Choice steaks, so that's why we're offering a 100% money-back guarantee.	91	positive	2012-05-14	yea and its filled with pig slime meat markets is the place now to get meat	negative
				2012-05-14	yeah sure they rip you off for meat...and wal mart suxs anyway!!!	negative
				2012-05-14	the caption should be (start over) cause tht meat is raw	negative
				2012-05-14	thats why i never buy any meat from walmart	neutral
				2012-05-14	lets hope so wall mart your meat hasent ever tasted right	positive
				2012-05-14	your meat is way to expensive	neutral
				2012-05-14	id NEVER EVER buy meat at walmart!!!!!	neutral
				2012-05-14	they are closing down pink slim down and got to get rid of meat now yuk	negative
				2012-05-14	the meat at our walmart is nasty but the produce section has improved a lot it used to be awful too. The meats where we lived before were great tho. Besides I have not found that walmart is cheaper as a matter of fact the prices are higher with a lot of their stuff	negative
				2012-05-14	Nobody likes getting their meat from Walmart.. its jus gross.	positive
				2012-05-14	walmart meat is injected with 20% solution.. READ the label above the UPC code .NOONE can identify what that SOLUTION is!!! CANCER CAUSING AGENTS no wonder its cheep	negative
				2012-05-14	I will never buy meat or produce from walmart. Just plain nasty!	negative
				2012-05-14	the problem with walmart meat is its full of steroids and what ever else the pump it up with to fatten it up with so they can slice it and dice it to send it out to market for a buck,and this is why so many people are getting sick and ending up with all kinds of problems its what there putting in our food we all eat walmart meat is government poison,p	negative

As it turns out, Walmart was running a very specific campaign around a money back guarantee for their steaks, which is should be largely positive, but instead, the comments generated a handful of negative response.

How much negativity did it actually generate?

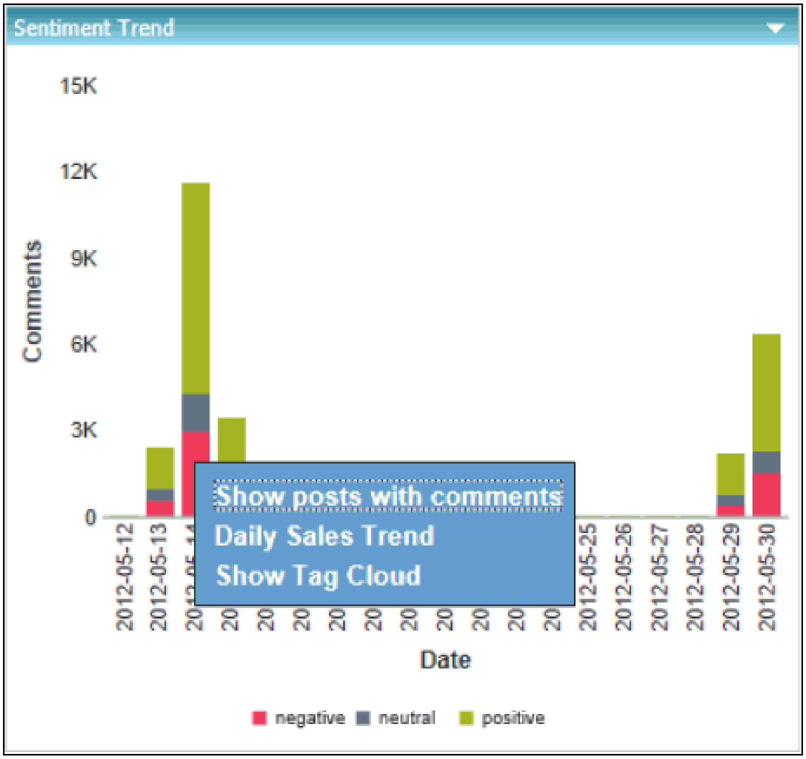
Close the report to proceed and find an answer to this question.

The Sentiment Trend pane in the lower left corner breaks the individual days down by Positive, Negative, and Neutral posts. Being able to blend this data provides you with more context and information. Hover your cursor over the *negative* portion of the tallest bar in the chart, as shown in the following image.



As shown in the sample above, almost 3000 of the 12000 posts and comments (about 25% which is considered high) on that day scored negatively. The average consumer products company has about 6%-12% negativity on their page on any given day.

Confirm that the negativity is centered on that promotion and the meat by clicking on the negative section of the bar for 2013-05-14 and then selecting *Show Tag Cloud*, as shown in the following image.



The Activity Tag Cloud component in the dashboard will update to show you only the word frequency analysis for the negative posts and comments, as shown in the following image.

Sure enough, the majority of the negative posts are centered on the meat.

To see what is said about the most commonly used word (for example, *meat* in this case), click on the word *meat* and then select *Show Tag Cloud for this word* from the menu, as shown in the following image.

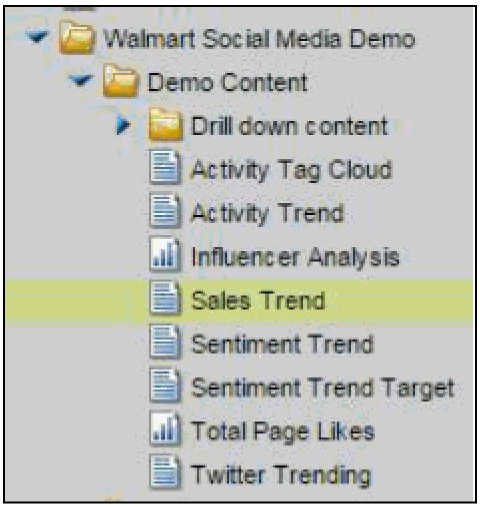
The most commonly used word for the subject (for example, *sucks*) will appear in red in a larger font than that next most commonly used word (for example, *nasty*), as shown in the following image.

Note: The data in this example does not depict the actual data of Walmart products, and is only used for sample purposes only.

Now that word frequency and sentiment data analysis has been performed (in addition to engagement level and listening level analysis earlier), Walmart wants to know if all of this social activity has had any impact on sales. The sales data for this time period is not available in the data taken from Facebook, but it is enterprise data that was accessible with the WebFOCUS platform.

1. In the upper right corner, click the *Resources* link, as shown in the following image.

2. Locate the *Sales Trend* chart by expanding the *Walmart Social Media Demo* folder and then expanding the *Demo Content* sub folder, as shown in the following image.



3. Drag the *Sales Trend* node into the Total Page Likes pane in the portal.

You now have Sales data along with Social Media data on the same dashboard. Putting the sales data on the same screen as the social activity provides a business user at Walmart with a better understanding of how their social activities impacts business results.

Glossary

This glossary provides definitions of commonly used words relating to WebFOCUS Social Media Integration.

Access File

Using a file extension of .acx, an Access File is a metadata file that describes the web services request to the server.

Access Token

A series of characters that is given to a credential on the application page, facilitating single user authentication. This value can be copied across screens for configuration purposes.

Adapter

An adapter is used by a web service to transform message formats. Adapters are needed on social media platforms for this reason,

Alchemy

A sentiment analysis tool that is used to extract and analyze data about people, facts, places, and other topics.

Allowed Permissions

Permissions that provide access to certain information (for example, birthdays and interests in the Facebook adapter). In order to allow these permissions, you must select them when configuring the adapter.

API

Commonly known as an Application Programming Interface, an API is a set of programming instructions and standards for accessing a web-based software application or web tool.

Attributes

The variables used to define a connection.

Certificate

A file that is used to authenticate the server to which the adapter is connecting.

Chained Authentication

In chained authentication, a Microsoft Internet Security and Acceleration (ISA) Server provides authentication when it routes requests to an upstream server. In some configuration scenarios, chained authentication supports the explicit and passthru (with PING capabilities) security models.

Connection Attributes

Attributes, for example Connection Name and Select Profile, that define a connection.

Connection Name

Logical name used to identify a particular set of connection attributes.

Cookies

These contain user credentials, which are in effect for the length of a TSCOM agent session (that is, between user connect and user disconnect).

Data Management Console

Provides a console through which you can configure the Adapter for Facebook.

Data Profiling

Provides the data characteristics for synonym columns (alphanumeric and numeric columns).

Facebook

An Internet-based social networking service.

Identification Token

Values that are returned by an authentication operation and are acceptable to associated execution operations.

JDK

Java Development Kit, which is a programming environment that supports the production of Java applets and applications. Platforms for development include Java SE, Java EE or Java ME.

JSON	JavaScript Object Notation. It is a publicly available, text-based open standard.
Master File	A permanent file that serves as an authoritative source of data. It can be updated as needed. This file is also required and serves as the backbone of the underlying file structure.
Metadata	Metadata is data about other data. Its role is to summarize basic information about data, enabling more accurate searches. Metadata creates a structure within the data which leads to better results in accessing information and conducting a search.
Proxy Port	The port number on which the proxy server listens.
REST	REpresentational State Transfer
Security	Implements authentication protocols when connecting to a server. For example, when connecting to a web services provider, there are two methods by which a user can be authenticated (Explicit and Password Passthru). These are the security methods imposed on the web services provider.
Sentiment Analysis	Measures the attitudes of a consumer towards a brand or the sentiment that is expressed through social media tools. Involves the measurement of engagement with social media tools (for example, Facebook or Twitter).

Synonym

Defines a unique logical name (also known as an alias) for each web services operation. Synonyms are useful because they insulate client applications from changes to the location and identity of a request. You can move or rename a request without modifying the client applications that use it. You need make only one change, redefining the request synonym on the server. They provide support for the extended metadata features of the server, such as virtual fields and security mechanisms. Creating a synonym generates a Master File and an Access File.

Taxonomy

Categories and terms that are hierarchically organized using parent child relationships.

Taxonomy Server

A third-party product created by WAND, Inc., the WAND DataFacet Taxonomy Server evaluates content and returns a sentiment score based on a default Sentiment Taxonomy.

URL

Uniform Resource Locator. It is a string of charters that refer to information that is located on the Internet.

WADL

Web Application Description Language. This is a file format that is specific to XML.

WAND

A Colorado-based company that designs and develops the WAND DataFacet Taxonomy Server.

Web Console

A web-based user interface through which you can access an application.

WSDL	Web Services Description Language. It is a XML-based description language that is used to describe the functionality of a particular web service.

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