

WebFOCUS

WebFOCUS Social Media Integration

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Contents

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

| | 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. |
| В | Glossary of Related Terms | Provides definitions of commonly used words relating to WebFOCUS Social Media Integration. |

This manual includes the following chapters:

Conventions

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

| Convention | Description |
|---------------|---|
| THIS TYPEFACE | Denotes syntax that you must enter exactly as shown. |
| or | |
| this typeface | |
| 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. |

Related Publications

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Customer Support

Do you have questions about this product?

Join the Focal Point community. Focal Point is our online developer center and more than a message board. It is an interactive network of more than 3,000 developers from almost every profession and industry, collaborating on solutions and sharing tips and techniques. Access Focal Point at http://forums.informationbuilders.com/eve/forums.

You can also access support services electronically, 24 hours a day, with InfoResponse Online. InfoResponse Online is accessible through our website, *http:// www.informationbuilders.com*. It connects you to the tracking system and known-problem database at the Information Builders support center. Registered users can open, update, and view the status of cases in the tracking system and read descriptions of reported software issues. New users can register immediately for this service. The technical support section of *www.informationbuilders.com* also provides usage techniques, diagnostic tips, and answers to frequently asked questions.

Call Information Builders Customer Support Services (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address all your questions. Information Builders consultants can also give you general guidance regarding product capabilities. Please be ready to provide your six-digit site code number (*xxxx.xx*) when you call.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

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?

User Feedback

In an effort to produce effective documentation, the Technical Content Management staff welcomes your opinions regarding this document. You can contact us through our website *http://documentation.informationbuilders.com/connections.asp*.

Thank you, in advance, for your comments.

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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
- WebFOCUS Social Media Integration at a Glance
- □ Understanding the Architecture of WebFOCUS Social Media Integration

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, $WAND^{(R)}$ 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:

Q Read Facebook Page posts and comments, including Poster, Commenter, and Likes.

Q Read page information, including Description, Company Profile, and Likes.

Q 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
- Creating a Facebook Application
- Configuring the Facebook Adapter
- Creating Metadata and Sample Reports for the Facebook Adapter
- Facebook Adapter Examples

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.

| icebook | ign Up |
|---------|------------------------------|
| | |
| • | You must log in to continue. |
| | .og into Facebook |
| | Email or Phone: |
| | Password: |
| | Forgot password? |

2. Enter your Facebook credentials and click Log In.

The following screen is displayed.

| Q Search apps by title | + Add a New App |
|-------------------------------|-----------------|
| | |

3. Click + Add a New App.

| Q Search a | pps by title | | | + Add a | a New App |
|---|----------------|---|--|---------|-----------|
| 8 | | Add a N Select a platfo | New App | | |
| 8 B | Ć | | F | www | |
| | 105 | Android | Facebook Canvas | Website | |
| LANG Englis PRODI | | If you're developing on a skip this step for no | another platform or want to w, use the basic setup . | þ | |
| Faceb Sharin g on Laceboo | K Android durk | Open Graph Deb | ugger Developers oroup | | |

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

| Get started integrating Facebook into your app or website | |
|---|--|
| | |
| Display Name | |
| WebFOCUS | |
| Contact Email | |
| business_intelligence@informationbuilders.com | |
| Category | |
| Business • | |
| | |

- 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.

| Dashboard | |
|---|--|
| | WebFOCUS This app is in development mode and can only be used by app admins, developers and testers [?] API Version [?] App ID v2.7 1800850206853421 App Secret Show |
| Get Star Use our quick Android app, C | ted with the Facebook SDK start guides to set up the Facebook SDK for your iOS or canvas game or website. |
| Facebook Login | |
| Active Login Users | Trend |
| 4 | Monthly Activ Weekly Activ Daily Active U |

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.

| 🕸 WebFOCUS 🝷 | APP ID: 1800850206853421 - View Analytics | |
|-------------------|---|---|
| Dashboard | | |
| Settings | App ID | App Secret |
| Basic Advanced | 1800850206853421 | seese Show |
| Roles | Display Name | Namespace |
| Alerts | WebFOCUS | |
| App Review | App Domains | Contact Email |
| | ibi.com × | business_intelligence@informationbuilders.com |
| PRODUCTS | Privacy Policy URL | Terms of Service URL |
| + Add Product | Privacy policy for Login dialog and App Details | Terms of Service for Login dialog and App Details |
| | App Icon | Category |
| | 1024 x 1024 | Business • |
| | 1067 / 1067 | |
| | + | Add Platform |

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.

| Аррто | App Secret | | |
|---|----------------------------------|-------------------|---|
| 1800850206853421 | ••••• | Show | |
| Display Name | Namespace | | |
| WebFOCUS | | | |
| App Domains | Contact Email | | |
| ibi.com × | business_intelligence@informat | tionbuilders.com | |
| Privacy Policy URL | Terms of Service URL | | |
| Privacy policy for Login dialog and App Details | Terms of Service for Login dialo | g and App Details | |
| App Icon | Category | | |
| [+]7 | Duantesa . | | |
| 1024 x 1024 | | | |
| 1024 x 1024 | | Quick Start | × |
| lo24 x 1024 | | Quick Start | × |
| 1024 x 1024 Vebsite Site URL http://localhost.ibi.com:3030 | | Quick Start | × |

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.

| Add Facebook to Configuration | | |
|---|-----------------------------------|------------------|
| Connect parameters | | |
| ? Connection Name | CON01 | |
| ? Facebook URL | https://graph.facebook.com/v2.10/ | |
| ? Application ID | | |
| ? Application Secret | | |
| ? Access Token Expiration | | |
| ? Access Token | | Get Access Token |
| ? Allowed Permissions | | |
| General Permissions: | | |
| 🕑 user_friends 🛛 📄 email | | |
| Extended Permissions requiring Facebook Approval: | | |
| user_about_me user_birthday user_hometown user_likes user_location | | |
| user_posts user_status read_insights manage_pages | | |
| Environment | | |
| ? Select profile edasprof + (type in a new one or select one from the list) | | |
| Configure | | |
| The "Test" option for the connection is only available after initial configuration is complete. | | |

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.

| Facebook - Mozilla Fir | efox | |
|-------------------------|---|--------------------------|
| https://www.faceboo | k.com /login.php?skip_api_login= | =1&api_key=1400946960: 🖞 |
| Facebook | | |
| Log in to use your Face | book account with Information Build | ers Adapter. |
| Pacsword | | _ |
| rassworu. | 🕼 Keep me logged in | |
| | Forgot your password? | |
| ing up for Facebook | | Log In Cancel |

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.

| Add Facebook to Configuration | | | |
|---|--|--|--|
| Connect parameters | | | |
| ? Connection Name | Connection Name CON01 | | |
| ? Facebook URL | ? Facebook URL https://graph.facebook.com/v2.10/ | | |
| ? Application ID | ? Application ID 12345678901234 | | |
| ? Application Secret | ? Application Secret 12345abcdefghijklmnop | | |
| ? Access Token Expiration | 2018-03-17T19:39:12Z | | |
| ? Access Token | EAAMub0DRMTcBAIhLkirBGRf2vASBVFLVUejjVTgCa0qh6Suo3TvwXMtl Get Access Token | | |
| ? Allowed Permissions | | | |
| General Permissions: | | | |
| 🕑 user_friends 🛛 🖉 email | | | |
| Extended Permissions requiring Facebook Approval: | | | |
| user_about_me user_birthday user_hometown user_likes user_location | | | |
| user_posts user_status read_insights manage_pages | | | |
| v Environment | | | |
| ? Select profile edasprof - (type in a new one or select one from the list) | | | |
| Configure | | | |
| The "Test" option for the connection is only available after initial configuration is complete. | | | |

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:

| ? | outbound_ssl_certificate_file * | /home/bigcfg/265/ibi/srv77/wfs/etc/iwaygsk.l |
|---|---------------------------------------|--|
| ? | outbound_ssl_certificate_passphrase * | ••••• |
| ? | outbound_ssl_certificate_label * | iwaysrv |

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.

| Facel | oook | |
|---------------------------|----------|----------------------|
| CO | 0 | Charle DDMO abianta |
| Word | ďà | Show DBMS objects |
| | E | Properties |
| | <u> </u> | Test |
| | | Duplicate Connection |
| | Q | Impact Analysis |
| | \times | Delete |

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

| Create Synonym for Facebook (CON1) | | |
|---|--|--|
| Customize data type mappings | | |
| ? Application ibisamp | | |
| Create Synonym(s) and Examples Warning, existing identically named synonyms will be overwritten. | | |
| | | |
| Name | Description | |
| PAGE_0 | Information relating to a particular Page | |
| PAGE_PICTURE_0 | Link to Image relating to a particular Page | |
| POSTS_COMMENTS_0 | Posts and related Comments for a particular Facebook Page | |
| REPLIES_0 | Replies to a specific Facebook Comment | |
| PAGE_PICTURE_CLUSTER_0 | Information relating to a particular Page including Image Link | |
| PAGEPOSTS_COMMENTS_0 | Posts and related Comments for a particular Facebook Page including Page Information | |
| PAGEPOSTS_COMMENTS_REPLIES_O | Posts, Comments, and Replies for a particular Facebook Page including Page Information | |
| LIKES_0 | Users who like a particular Page, Post, or Comment | |
| FB_SEARCH_PLACES | Search for all places containing a specified query string | |
| USER_0 | Information relating to a particular User | |
| USER_FRIENDS_0 | Number of friends for a particular User | |
| USER_FRIENDS_PICTURE_CLUSTER_0 | User Information including number of Friends and Profile Picture | |
| PAGE_INSIGHTS_0 | Page Metrics Information | |

- 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_sentim ent | 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_sentim ent | 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 <i>Facebook</i> . |
| 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/ | Process flow to run the following data flows: |
| fb_datamigrator_sentiment_load | 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. |



Using the Adapter for Twitter

This section describes how to configure the Twitter Adapter.

In this chapter:

- Twitter Adapter Overview
- Creating a Twitter Application
- Configuring the Twitter Adapter
- Creating Metadata and Sample Reports for the Twitter Adapter
- Twitter Examples

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.

| Application details | |
|---|--|
| Name * | |
| IBadapter | |
| Your application name. This is used to attribute to | he source of a tweet and in user-facing authorization screens. 32 characters max. |
| Description * | |
| Information Builders Adapter | |
| Your application description, which will be shown Website * | in user-facing authonization screens. Between 10 and 200 characters max. |
| http://www.informationbuilders.com | |
| Your application's publicly accessible home pag | e, where users can go to download, make use of, or find out more information about your application. This fully- |
| (If you don't have a URL yet, just put a placehold | er here but remember to change it later.) |
| | |
| Callback URL | |
| Callback URL Where should we return after successfully author | nticating? OAuth 1.0a applications should explicitly specify their oauth_callback URL on the request token step, |

- 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.

| Last Up | date: July 2, 2013. |
|------------|---|
| Twitter n | naintains an open platform that supports the millions of people around the world who are sharing and discovering what's |
| happeni | ing now. We want to empower our ecosystem partners to build valuable businesses around the information flowing through |
| Twitter. / | At the same time, we aim to strike a balance between encouraging interesting development and protecting both Twitter's and |
| users' ri | ights. |
| So, we'v | ve come up with a set of Developer Rules of the Road ("Rules") that describes the policies and philosophy around what type |
| of innov | ration is permitted with the content and information shared on Twitter. |
| The Rul | es will evolve along with our ecosystem as developers continue to innovate and find new, creative ways to use the Twitter API, |
| so pleas | se check back periodically to see the current version. Don't do anything prohibited by the Rules and talk to us if you think we |
| should r | make a change or give you an exception. |
| lf your a | pplication will eventually need more than 1 million user tokens, or you expect your embedded Tweets and embedded timelines |
| to excee | ad 10 million daily impressions, you will need to talk to us directly about your access to the Twitter API as you may be subject to |
| addition | al terms. Furthermore, applications that attempt to replicate Twitter's core user experience (as described in Section I.5 below) |
| Yes, I a | Igree |

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.

| IB adapte | r |
|-----------------------------|--|
| Details Settings Al | PI Keys Permissions |
| Information Bu | lders Adapter |
| http://www.infor | mationbuilders.com |
| Organization | |
| Information about the organ | ization or company associated with your application. This information is optional. |
| Organization | None |
| Organization website | None |
| 4 | 5 |
| Application setting | JS |
| Your application's API keys | are used to authenticate requests to the Twitter Platform. |
| Access level | Read-only (modify app permissions) |
| API key | (manage API keys) |
| Callback URL | None |
| Sign in with Twitter | No |
| App-only authentication | https://api.twitter.com/oauth2/token |

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

| The Application | n settings | page opens. | as shown | in the | following image. |
|-----------------|------------|-------------|----------|--------|------------------|
| | | | | | |

| Application setting | ; |
|--|---|
| Keep the "API secret" a sec | t. This key should never be human-readable in your application. |
| API key | |
| API secret | |
| Access level | Read-only (modify app permissions) |
| Owner | EfremLitwin |
| Owner ID | 732611713 |
| Application action | Change App Permissions |
| Your access toke | |
| You haven't authorized this | oplication for your own account yet. |
| By creating your access to your application's current p | 1 here, you will have everything you need to make API calls right away. The access token generated will be assign mission level. |
| Token actions | |
| Create my access to | 1 |

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.

| Your access toke | n |
|--------------------------|---|
| This access token can be | used to make API requests on your own account's behalf. Do not share your access token secret with anyone |
| Access token | |
| Access token secret | |
| Access level | Read-only |
| Owner | EfremLitwin |
| Owner ID | 732611713 |

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.

- 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.

| Add Twitter to Configuration | n | |
|------------------------------------|--|--|
| ^ Connect parameters | | |
| ? Connection Name | CON01 | |
| ? Twitter URL | https://api.twitter.com/1.1/ | |
| ? Consumer Key | RmbqVO5222GVC2NFMWBv5g | |
| ? Consumer Secret | aUvpUP7VzFjnusScWEGXe9Ty7 | |
| ? Access Token | 1068748130-7K6K8ZIq0hwF9RKz6RqPcoE1V2KJOHoUz99uEwZ | |
| ? Access Secret | SIcEWBJIeehTWUA4zbsViznhh1qZ5Q4tq9wuxK1E0 | |
| ✓ Advanced HTTP connection options | | |
| ✓ Environment | | |
| ? Select profile edasprof | type in a new one or select one from the list) | |
| Configure | | |
| The "Test" option for the conr | nection is only available after initial configuration is complete. | |

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:
 - ? outbound_ssl_certificate_file *
 - ? outbound_ssl_certificate_passphrase *
 - ? outbound_ssl_certificate_label *

| /home/bigcfg/265/ibi/srv77/wfs/etc/iwaygsk.l |
|--|
| ••••• |
| iwaysrv |

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.

| Create Synonym for Twitter (timeline) | | | |
|---|-------------------------------------|--|--|
| Customize data type mappings | | | |
| ? Application ibisamp | pplication ibisamp | | |
| Create Synonym(s) and Examples Warning, existing identically named synonyms will be overwritten. | | | |
| | | | |
| Name | Description | | |
| ACCOUNT_SETTINGS | Account Settings for a User | | |
| STATUSES_USER_TIMELINE | Most Recent Tweets for a User | | |
| STATUSES_RETWEETS | First 100 Retweets of a given Tweet | | |
| SEARCH_TWEETS | Tweets matching a specified Query | | |
| FOLLOWERS_LIST | Users following a specified user | | |
| | | | |

- 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: <i>ScreenName</i> |
| | Tweets sent from a specific Screen Name. |
| | to: <i>ScreenName</i> |
| | 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 <i>Twitter</i> . |
| 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. |



Using the Adapter for LinkedIn

This section describes how to configure the LinkedIn Adapter.

In this chapter:

- LinkedIn Adapter Overview
- Creating a LinkedIn Application
- Configuring the LinkedIn Adapter
- Creating Metadata and Sample Reports for the LinkedIn Adapter
- LinkedIn Adapter Examples

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.

| Email address: | |
|----------------|------------------|
| Password: | Forgot password? |
| Sign In or J | oin LinkedIn |

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.

| Linked in 。 Develope | rNetwork |
|---|---|
| Add New Application | |
| Fill out the form to register a new application | ation: |
| Company Info | |
| * Company Name: | Information Builders |
| Account Administrators: | Vau will be assigned as an account administrator |
| Account Automistrators. | Additional Administrators: |
| | Start typing the name of a connection |
| | Administrators appearing here will be account administrators for all applications from this company. Administrators can edit application details and add/remove other administrators and developers. |
| Application Info | |
| * Application Name: | IBadapter |
| * Description: | Information Builders adapter which allows WebEQCUS to report off of LinkedIn data. |
| * Website URL: | http://www.informationbuilders.com |
| | Where your people should go to learn about your application. |
| * Application Use: | Social Aggregation |
| | What best describes your application? |
| Application Developers: | Start typing the name of a connection |
| | Network updates you send will appear only for developers you list. |
| | Include yourself as a developer for this application |
| * Live Status: | Development - |
| | While in development, your network updates will only go to the developers you choose. When live, they will go to your connections. |

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.

| * Developer Contact Email: | muamail@informationbuild | dara aom | |
|--|---|--|--|
| | myeman@mormationbuild | Jers.com | |
| * Phone: | (212)736-4433 | | |
| Business Contact Email: | | | |
| Phone: | | | |
| OAuth User Agreement | | | |
| Default Scope: | ✓ r_basicprofile | ✓ r_fullprofile | ✓ r_emailaddress |
| | r_network | r_contactinfo | ☑ rw_nus |
| | ✓ rw_groups | w_messages | ✓ rw_company_admin |
| | Selecting both r_basicprofile an checked. | d r_fullprofile is redundant. r_basicpro | file will be selected if neither r_basicprofile nor r_fullprofile is |
| OAuth 2.0 Redirect URLs: | http://baat.ibi.aam.0404/a | | |
| | nttp://nost.ibi.com.o121/o | auth20.exe | |
| | Comma separated list of absolu | auth20.exe | tions. We strongly encourage using HTTPS. |
| OAuth 1.0 Accept Redirect | Comma separated list of absolu | auth20.exe | tions. We strongly encourage using HTTPS. |
| OAuth 1.0 Accept Redirect URL: | Comma separated list of absolu | auth20.exe | tions. We strongly encourage using HTTPS. you do not pass in the oauth_callback parameter in the requestToken |
| OAuth 1.0 Accept Redirect URL: OAuth 1.0 Cancel Redirect | Comma separated list of absolu URL to return users to your app call | auth20.exe | tions. We strongly encourage using HTTPS. you do not pass in the oauth_callback parameter in the requestToken |
| OAuth 1.0 Accept Redirect URL: OAuth 1.0 Cancel Redirect URL: | Comma separated list of absolu URL to return users to your app call. | auth20.exe | tions. We strongly encourage using HTTPS. you do not pass in the oauth_callback parameter in the requestToken dialog. If specified, this field will be used for the Cancel button redirect ter oauth_problem with the value user_refused. |
| OAuth 1.0 Accept Redirect URL: OAuth 1.0 Cancel Redirect URL: App Logo Secure URL: | Comma separated list of absolu URL to return users to your app call URL to return users to your app call URL to return users to your app otherwise the oauth_callback w | auth20.exe te URLs allowed for OAuth 2.0 redirec after they grant access. Only used if if they select Cancel from the OAuth of ill be used and will include the parame | tions. We strongly encourage using HTTPS. you do not pass in the oauth_callback parameter in the requestToken dialog. If specified, this field will be used for the Cancel button redirect ter oauth_problem with the value user_refused. |
| OAuth 1.0 Accept Redirect URL: OAuth 1.0 Cancel Redirect URL: App Logo Secure URL: | Comma separated list of absolu URL to return users to your app call URL to return users to your app call URL to return users to your app otherwise the oauth_callback w URL of an 80x80 logo for your at | auth20.exe | tions. We strongly encourage using HTTPS. you do not pass in the oauth_callback parameter in the requestToken dialog. If specified, this field will be used for the Cancel button redirect ter oauth_problem with the value user_refused. |

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.

| Other | |
|-----------------------------|---|
| JavaScript API Domains: | |
| | |
| | Comma separated list of fully-qualified domain names of all pages that will call the JavaScript API. Only needed if using Javascript API. Must include protocol, host, and port (if not 80 or 443). |
| OS X Application Bundle Id: | |
| | Enable your application in OS X Mavericks for single sign-on and REST API calls. |
| Terms of Service | |
| *Agree: | I have read and agree to the LinkedIn API Terms of Use. |
| | |
| | Add Application or Cancel |

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.

| Linkedin. DeveloperNetwork |
|--|
| Vour application was successfully created. |
| Application Details |
| Company: Information Builders |
| Application Name: |
| API Key: |
| Secret Key: |
| QAuth User Token: |
| |
| OAuth User Secret: |
| Done |

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.

| Add | LinkedIn to Configu | uration | | | | |
|------------------------------|-----------------------|--------------------|------------------------------------|-------------------|------------------|--|
| ^ | Connect parameter | rs | | | | |
| ? | Connection Name | linkedin | | | | |
| ? | LinkedIn URL | https://api.linked | in.com/v1 | | | |
| ? Application ID sauh8q46tg8 | | | | | | |
| ? | Application Secret | das798ty87hv7sa | dsgf224 | | | |
| ? | Access Token | | | | Get Access Token | |
| ? | Permission Scope | | | | | |
| | Profile Overview | Full Profile | 🕑 Email Address | Connections | | |
| | Contact Info 🛛 🖉 | Network Updates | Company Page & Analytics | Group Discussions | | |
| | Invitations and Messa | iges | | | | |
| _ | | | | | | |
| ~ | Environment | | | | | |
| ? | Select profile edas | prof 🚽 (type in | a new one or select one from t | he list) | | |
| C | onfigure | | | | | |
| The | "Test" option for the | connection is only | available after initial configurat | tion is complete. | | |

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.

| 2 | | | | | |
|------------------|---|--|--|--|--|
| lBadap Linked | oter would like to access some of your In info: | | | | |
| 1 | YOUR PROFILE OVERVIEW | | | | |
| 1 | YOUR FULL PROFILE | | | | |
| \succ | YOUR EMAIL ADDRESS | | | | |
| 黑 | YOUR CONNECTIONS | | | | |
| | YOUR CONTACT INFO | | | | |
| G | NETWORK UPDATES | | | | |
| | GROUP DISCUSSIONS | | | | |
| 1 | INVITATIONS AND MESSAGES | | | | |
| | COMPANY PAGES | | | | |
| Sign in | to LinkedIn and allow access: | | | | |
| Email | Password | | | | |
| Allow | access Cancel Linked in . | | | | |
| | All Applications can be found in your settings Terms of Service Privacy Policy | | | | |

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.

| Add Linked | iIn to Cor | nfigu | iration | | | | | |
|------------|--------------|-------|---|-------------------------------|------------|------------------|----|--|
| ^ Conne | ect param | eter | s | | | | | |
| ? Conne | ction Name | е | linkedin | | | | | |
| ? Linked | lIn URL | | https://api.linkedi | n.com/v1 | | | | |
| ? Applic | ation ID | | sauh8q46tg8 | | | | | |
| ? Applic | ation Secre | t | das798ty87hv7sadsgf224 | | | | | |
| ? Acces | s Token | | AQX5dPFREhql9VkjpP6PV4PRy-RcNrJ_uDfBfzR9ILaogBFXYMADXoaG Get Access Token | | | | | |
| ? Permi: | ssion Scop | е | | | | | | |
| Profile | Overview | 1 | Full Profile | Email Address | 4 | Connections | | |
| Contac | ct Info | - | Network Updates | Company Page & Anal | ytics 🕑 | Group Discussion | IS | |
| 🗌 Invitati | ions and M | essa | iges | | | | | |
| ~ Enviro | nment | | | | | | | |
| Linit | | | | | | | | |
| Configure | • | | | | | | | |
| The "Test" | option for t | hoc | opportion is only a | vailable offer initial config | ination is | complete | | |

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:
 - ? outbound_ssl_certificate_file *
 - ? outbound_ssl_certificate_passphrase *
 - ? outbound_ssl_certificate_label *

| /home/bigcfg/265/ibi/srv77/wfs/etc/iwaygsk.l |
|--|
| ••••• |
| iwaysrv |

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.

| Configure | Configured Adapters | | | |
|------------|-------------------------|----------------------|--|--|
| Delimi | ited Fi | les (CSV/TAB) | | |
| Excel | | | | |
| Flat Fi | le | | | |
| - Linked | iln | | | |
| linke | linke Show DBMS objects | | | |
| Properties | | | | |
| | <u>=</u> ; | Test | | |
| | | Duplicate Connection | | |
| | Q | Impact Analysis | | |
| | × | Delete | | |

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

| Create Synonym for LinkedIn (linked) | |
|---------------------------------------|--|
| Customize data type mappings | |
| ? Application ibisamp | ? Prefix ? Suffix |
| Create Synonym(s) and Examp | les |
| Warning, existing identically named s | ynonyms will be overwritten. |
| | Q • |
| Name | Description |
| LI_PROFILE_BASIC | Basic Profile Information |
| LI_PEOPLESEARCH | People Search |
| LI_CONNECTIONS | Connections for a Member |
| LI_PEOPLE_TO_CONNECTIONS | Cluster Join - People to Connections |
| LI_GROUP_MEMBERSHIPS | Group Membership Information |
| LI_GROUP | Group Information |
| LI_GROUP_POSTS | Group Posts and Comments |
| LI_POST_COMMENTS | Comments for a Post |
| LI_PROFILE_FULL | Full Profile Information |
| LI_COMPANY_LOOKUP | Company Lookup Information |
| LI_COMPANY_EVENTS | Company Events Information |
| LI_COMPANY_EVENT_COMMENTS | Comments on Company Status Updates |
| LI_COMPANY_EVENT_LIKES | Company Status Updates Likes |
| LI_UPDATES_COMMENTS_LIKES | Cluster Join for Company Status Updates, Comments, and Likes |
| LI_COMPANYSEARCH | Company Search |
| LI_JOB_LOOKUP | Job Lookup Information |
| LI_JOBSEARCH | Job Search |

- 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: |
| | Ii_company_events to Ii_company_event_comments |
| | Ii_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/ | Reports on company events including comments. | |
| li_company_event_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 |



Using the Adapter for Google Analytics

This section describes how to configure the Google Analytics Adapter.

In this chapter:

- Google Analytics Adapter Overview
- Creating a Google Project
- Obtaining the Web Profile ID
- Configuring the Google Analytics Adapter
- Creating Metadata for the Google Analytics Adapter

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 C | Cloud Platform |
|--|----------------|
| opens, as shown in the following image. | |

| Google | | | |
|---|--|--|--|
| One account. All of Google. Sign in to continue to Google Cloud Platform | | | |
| | | | |
| Enter your email | | | |
| Next | | | |
| Find my account | | | |
| Create account | | | |
| One Google Account for everything Google | | | |
| G M 🗷 🗖 🛆 🎋 🕨 🚳 | | | |

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.

| G P | rojects × + | | | | |
|-------------|---------------------------------------|------------------------------|----------------|---------------------|-----------|
| ()(|) 🔒 https://console.developers.goog | le.com/iam-admin/projects | | G | Q, Search |
| = | Google APIs Project - | c | L. | | |
| 0 | IAM & Admin | Projects EREATE PROJECT | DELETE PROJECT | | |
| ≣ | All projects | Filter by name, ID, or label | | | Columns * |
| +. | IAM | Project name | | Project ID | |
| | Settings | BigQuery | | focal-balm-100020 | |
| | | IBadapter | | glassy-operand-585 | |
| 엘 | Service accounts | WebFOCUS for Cathy | | crucial-bonsai-816 | |
| ۹ | Labels | WebFOCUS for Google Maps | | metal-shift-133314 | |
| | Quotas | WebFOCUSforGoogleAnalytics | | loyal-landing-466 | |
| | | WebF0CUSforGo ogleBigQu ery | | arctic-joy-110511 | |
| | | WFGoogleREST | | velvety-network-455 | |
| | | | | | |

4. Click CREATE PROJECT.

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

| Project name 🔞 | | | |
|----------------|---------------------------|-------------|--|
| WebFOCUS | | | |
| Your proie | ct ID will be webfocus-14 | 4109 🕜 Edit | |
| | | | |
| | | | |

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.

| API API Manager | ← Analytics API ►ENABLE | |
|---|--|--------|
| ◆ Dashboard ☆ Library ◆ Credentials | About this API Decumentation Try this API is | orer ^ |
| | Accessing user data with 0.44M ± 20 You can eccess with with the RP. On the Gredentials page, create an OAuth 2.0 client ID A client ID requests user consent to that your app can access user data. Include that client ID when making your API cal to Boogie. Your app User consent User data | |
| | Serve to any table action You call and the AIR to particine serve to exerve interaction, for example between a web application and a Groupe service. You'll need a service account, which enables applied authentication. You'll also need a service account key, which is used to authoritze your API call to Google. Learn more Your service Authorization Google service | |

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

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

| Credentials | OAuth consent screen Domain verification |
|-------------|--|
| | |
| | APIs |
| | Credentials |
| | You need credentials to access APIs. Enable the APIs you plan to use and then create the credentials they require. Depending on the API, you need an API key, a service account, or an OAuth 2.0 client ID. Refer to the API documentation for details. |
| | API key Identifies your project using a simple API key to check quota and access For APIs like Google Translate. |
| | OAuth client ID Requests user consent so your app can access the user's data. For APIs like Google Calendar. |
| | Service account key Enables server-to-server, app-level authentication using robot accounts. For use with Google Cloud APIs. |
| | |

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. |
|--------------------------------|------------------------------------|
|--------------------------------|------------------------------------|

| Credentials | |
|--|---|
| Credentials OAuth consent screen Domain verification | |
| Email address 🕢 | |
| × | |
| Product name shown to users | |
| WebF0CUS | |
| Hom epage URL (Optional) | |
| https:// or http:// | The consent screen will be shown to users whenever you request access to their private data using your client ID. It will be shown for all |
| Product logo URL (Optional) | |
| http://www.example.com/logo.png | applications registered in this project. |
| This is how your logo will look to end users Max size: 120x120 px | You must provide an email address and product name for OAuth to work. |
| Privacy policy URL Optional until you deploy your app | |
| https:// or http:// | |
| Terms of service URL (Optional) | |
| https:// or http:// | |
| Save Cancel | |

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.

| + | |
|---|--------------------------|
| ← | |
| | |
| Create client ID | |
| Application type | |
| Web application | |
| Android Learn more | |
| Chrome App Learn more | |
|) iOS Learn more | |
| O PlayStation 4 | |
| Joner | |
| √ame | |
| Web client 1 | |
| | |
| lestrictions | |
| inter JavaScript origins, redirect URIs, or both | |
| Authorized JavaScript origins | |
| For use with requests from a browser. This is the origin URI of the client application. It can't co | ontain a wildcard |
| (http://*.example.com) or a path (http://example.com/subdir). If you're using a nonstandard po | ort, you must include it |
| in the origin URI. | |
| http://host.ibi.com:8121 | × |
| http://www.example.com | |
| Authorized redirect URIs | |
| For use with requests from a web server. This is the path in your application that users are red | lirected to after they |
| have authenticated with Google. The path will be appended with the authorization code for acc | ess. Must have a |
| protocol. Cannot contain URL fragments or relative paths. Cannot be a public IP address. | |
| http://host.ibi.com:8121/oauth20.exe | × |
| http://www.example.com/oauth2callback | |
| | |

- 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.

| lere is your client ID | | |
|----------------------------|----------------------------|---|
| 646502557479- | apps.googleusercontent.com | 5 |
| lere is your client secret | | |
| | | Ē |

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.

| 📈 Google | 2 Analytics Home Reporting Customization Admin | | | | Ψ |
|----------|--|--------------------------------|--------------------------------|-------------|-------------------------------|
| .js* | Upgrade to Universal Analytics Universal Analytics is out of beta, and everyone can upgrade! All Google Analytics features, including the Premium Service Level Agreement and DoubleClick based feat Upgrade your property! Click Admin to get started. | ures like Remarketing, are sup | ported in Universal Analytics. | | x |
| | FEATURE UPDATE Analytics now includes Change History, a log of account changes. Learn more | | | | × |
| | | | | | Apr 18, 2014 - May 18, 2014 - |
| 1 T | | | Mode 🔳 | Show All | ☆ 직 |
| | 2 | iessions | Avg. Session Duration | Bounce Rate | Goal Conversion Rate |
| x • | http://www.informationbuilders.com | | | | |
| 2. | Www.informationbuilders.com | | | | |

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.

Google One account. All of Google. Sign in to continue to Google Analytics ← Efrem Litwin Password Sign in Stay signed in Forgot password? Sign in with a different account

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.

following image.

Google Analytics ¢ Home Reporting Customization Admin http://ww w.informationbuilders.com - ... www.informationbuilders.com Apr 19, 2014 - May 19, 2014 -Audience Overview Email Export - Add to Dashboard Shortcut -Dashboards All Sessions 100.00% +--- Shortcuts Overview ę Intelligence Events Sessions - VS. Select a metric Hourly Day Week Month O Real-Time Audience Overview Demographics ▶ Interests ▶ Geo Behavior ▶ Technology ▶ Mobile ▶ Custom

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

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.

| Google Analytics | Home Reporting Customization | Admin | | | | http://www.informationbuilders.com • |
|------------------|---|---|---|---|-----------------------------|--------------------------------------|
| .js ⁺ | Upgrade to Universal Analytics Upgrade to get a desper understanding of your users Learn more aftir bulnersal Analytics Upgrade Cent Select an account and a property, then click Up Only users with edit permission can transfer a proper- | s through ne ier. niversal Ana erty. Each pr | w tools and more accurate data. Lytics Upgrade. openry insuit be itemsferred individually. | | | × |
| Administration | ion Builders web sites | | | | | |
| ACCOUNT | ACCOUNT | | PROPERTY | | VIEW | |
| Information I | Builders web sites * |) 🔿 | http://www.informationbuilders.com | * | www.informationbuilders.com | * |
| Account : | Settings | | Property Settings | | View Settings | |
| 💼 User Mar | agement | | .jS Tracking Info | | F Goals | |
| AdSense | Linking | | AdWords Linking | | A Content Grouping | |
| Y All Filters | | | T Remarketing | | Y Filters | |
| 😏 Change H | listory | | Dd Custom Definitions | | Channel Grouping | |

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.

| ~ | Google Analytics | Home | Reporting | Customization | Admin |
|---|---|------------------------|----------------|-----------------------|--|
| | | | | | |
| | Upgrade to Universal Analytics Upgrade to get a deeper understanding of your users through new tools and more accurate data. Learn more at the Universal Analytics Upgrade Center. Select an account and a property, then click Universal Analytics Upgrade. Only users with edit permission can transfer a property. Each property must be transferred individually. | | | | |
| | Administration | Reporting View Setting | s ers web s | sites / http:// | /www.informationbuilders.com / www.informationbuilders.com |
| | VIEW | mationbuilders | Rep | oorting View S | Settings |
| | View | Settings | View | ID | |
| | 🗮 Goals | | View | Name | |
| | ᄎ Conter | t Grouping | Webs | v.informationbuilders | s.com |
| | T Filters | | http | www.inform | mationbuilders.com |

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.

- 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.

| Add Google Analytics to Con | figuration | | | | | |
|---|--|------------------|--|--|--|--|
| Connect parameters | | | | | | |
| ? Connection Name | CON01 | | | | | |
| ? Google Analytics URL | https://www.googleapis.com/analytics/v3/data | | | | | |
| ? Client ID | 532043516008.apps.googleusercontent.com | | | | | |
| ? Client Secret | Xp11q | | | | | |
| ? Web Profile ID | ga:8767678 | | | | | |
| ? Access Token | | Get Access Token | | | | |
| ? Refresh Token | | | | | | |
| | | | | | | |
| Environment | | | | | | |
| ? Select profile edasprof 🗸 (type in a new one or select one from the list) | | | | | | |
| Configure Test | | | | | | |

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.

| Google |
|---|
| One account. All of Google. Sign in with your Google Account |
| |
| Enter your email |
| Next |
| |
| Create account |

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.

| - WebFOCUS would like to: | | | | | |
|--|--|---|-------------------------------|--|--|
| 8 | View your Google Analytics | s data | i | | |
| By clicking with their other Acc | g Allow, you allow this app and Ge respective terms of service and p ount Permissions at any time. | oogle to use your information rivacy policies. You can cha Denv | in accordance nge this and | | |

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.

| Add Google Analytics to Configuration | | | | | | | |
|---|--|------------------|--|--|--|--|--|
| ∧ Connect parameters | | | | | | | |
| ? Connection Name | CON01 | | | | | | |
| ? Google Analytics URL | https://www.googleapis.com/analytics/v3/data | | | | | | |
| ? Client ID | 532043516008.apps.googleusercontent.com | | | | | | |
| ? Client Secret | Xp11 | | | | | | |
| ? Web Profile ID | ga: | | | | | | |
| ? Access Token | ya29. | Get Access Token | | | | | |
| ? Refresh Token | 1/0 | | | | | | |
| Environment Select profile edasprof (type in a new one or select one from the list) Configure Test | | | | | | | |

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.

| Google Analytics | | | | | |
|--------------------------------------|---|----------------------|--|--|--|
| googla | D AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA | Show DBMS objects | | | |
| | | Properties | | | |
| | Ê; | Test | | | |
| | | Duplicate Connection | | | |
| | Q | Impact Analysis | | | |
| | × | Delete | | | |

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

| Create Sy | nonym for Google Analytics (googl | a) | | |
|-----------|--|--------------|--|-----|
| 용 CI | reate Synonym(s) | | | |
| Cust | omize data type mappings | | | |
| 2 Anni | ication libisamn | | | |
| | in the second se | | | |
| ? Sync | onym Name | | | |
| Select D | imensions and Metrics | | | |
| | | | | |
| | | | C | 2 - |
| | Types/Groups/UINames | | Descriptions | - |
| - | DIMENSION | | | |
| | + Adwords | | | |
| | + App Tracking | | | |
| | - Audience | | | |
| | | \checkmark | Indicates that users are more likely to be interested in learning about the specified category. | |
| | | \checkmark | Indicates that users are more likely to be ready to purchase products or services in the specified category. | |
| | | \checkmark | Indicates that users are more likely to be interested in learning about the specified category, and more likely to be ready to purchase. | |
| | | | Age bracket of users. | |
| | | | Gender of users. | |
| | + Channel Grouping | | | |
| | + Content Experiments | | | |
| | + Content Grouping | | | |
| | + Custom Variables or Columns | | | |
| | + DoubleClick Bid Manager | | | |
| | + DoubleClick Campaign Manager | | | |
| | + DoubleClick Search | | | |
| | + Ecommerce | | | |
| | + Event Tracking | | | |
| - | + Exceptions | | | * |

- 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.

| Create Synonym for Google Analytics (googla) | | | |
|--|---|---|---|
| Create Synonym(s) | | | |
| Customize data type mappings | | | |
| ? Application ibisamp | | ··· ? Prefix ? Suffix | |
| ? Synonym Name | | | |
| Select Dimensions and Metrics | | | |
| | | 0 | ~ |
| Types/Groups/UINames | | Descriptions | |
| + DIMENSION | | | |
| - METRIC | | | |
| Ad Exchange | | | |
| + Adsense | | | |
| + Adwords | | | |
| + App Tracking | | | |
| | | | |
| + Custom Variables or Columns | | | |
| + DoubleClick Bid Manager | | | |
| + DoubleClick Campaign Manager | | | |
| + DoubleClick Search | | | |
| + DoubleClick for Publishers | | | |
| | | | |
| Ecommerce | | | |
| | | Unique purchases divided by views of product detail pages (Enhanced Ecommerce). | |
| | | Product adds divided by views of product details (Enhanced Ecommerce). | |
| | | The rate at which users clicked through to view the internal promotion (ga:internalPromotionClicks / ga:internalPromotionViews) | |
| | | The number of clicks on an internal promotion (Enhanced Ecommerce). | |
| 4 | - | | |

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
- Configuring the Words Analysis Adapter
- Creating Metadata and Sample Reports for the Words Analysis Adapter
- Words Analysis Adapter Examples

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.

analysis ssible accessed buyers market people capabilities correlated comments insight activity companies surveys reporting based vital categories adapters ebook aggregated provide answer intelligence application sentiment posts services customer adapter business collects awareness api businesses data builders analyzed company products analytics analysts tables content counted campaigns bellwether brand analytic

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.

| nputer Name | Hardware | Advanced | System Protect | tion | Remote | |
|---|--|--|---|------|--------|----|
| vironment V | ariables | | | | | 23 |
| Edit System | Variable | | | | × | J |
| Variable nan | ne: | JAVA_HOME | | | | |
| Variable valu | Je: | C:\ibi\WebFO | CUS80\jre | | | |
| | | | | | | |
| | | - | 01 | | | |
| | | C | ОК | Ca | ncel | |
| | | | ок (| Ca | ncel | |
| System varia | ibles | | ОК | Ca | ncel) | |
| System varia Variable | ibles | 'alue | ОК (| Ca | ncel | |
| System varia Variable INTERIX_R | ibles v | lalue dev/fs/C/Win | OK (| Ca | ncel | |
| System varia Variable INTERIX_R INTERIX_R | ibles | alue dev/fs/C/Win :: Windows\S | OK (OK (dows/SUA/ UA) | Ca | ncel | |
| System varia Variable INTERIX_R INTERIX_R JAVA_HOM LD_LIBRAR | ables v coot / coot co 1E co | alue dev/fs/C/Win :: Windows\S :: Windows\S :: Windows\S | OK dows/SUA/ UA\ CUS80\jre sr/X1186/ib | Ca | ncel | |
| System varia Variable INTERIX_R INTERIX_R JAVA_HOM LD_LIBRAR | bles 000T / 000T (1E (1E (| alue dev/fs/C/Win :: Windows\S :: \jbi\WebFOC usr/lib/x86:/u | OK (dows/SUA/ UA\ CUS80\jre sr/X11R6/lib | Ca | | |

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.

- 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.

| Create Synonym for Words Analysis | | | | | | | | |
|--|---------|--|--|--|--|--|--|--|
| Customize data type mappings | | | | | | | | |
| ? Application | ibisamp | | | | | | | |
| Create Synonym(s) and Examples Warning, existing identically named synonyms will be overwritten. | | | | | | | | |
| | | | | | | | | |
| Name | | Description | | | | | | |
| WAN_DOCUMENT | | To analyze a document passed as TX field. | | | | | | |
| WAN_SAMPLE_C | LUSTER | To analyze a document accessed directly from a parent. | | | | | | |

- 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 <i>wansampl/wan_sample.txt</i> file using the Cluster Join master <i>wansampl/</i> <i>wan_sample_cluster</i> . |
| 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 <i>wansampl/wan_sample.txt</i> file. The results are displayed in a tag cloud graph. Joins <i>wansampl/wan_sample_fix</i> to <i>wan_document</i> . |
| 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
- Installing, Configuring, and Updating the WAND Taxonomy Server
- Installing and Using the WAND Taxonomy Editor
- Configuring the WAND Sentiment Analysis Adapter
- Creating Metadata and Sample Reports for the WAND Sentiment Analysis Adapter
- WAND Sentiment Analysis Adapter Examples

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.

| <u>E</u> ile <u>E</u> dit ⊻iew <u>T</u> ools <u>H</u> el | lp | | | | | |
|---|---|-------------------------------------|--------------|---------|----------------|---|
| Control Panel Home View installed updates Turn Windows features on or | Uninstall or change a program To uninstall a program, select it from the list and then | click Uninstall, Change, or Repair. | | | | |
| off | Organize 🕶 Uninstall Change Repair | | | | - | 1 |
| Install a program from the network | Name | Publisher | Installed On | Size | Version | |
| | Cisco WebEx Meetings | Cisco WebEx LLC | 2/4/2013 | | | |
| | Conexant HDA D330 MDC V.92 Modem | Conexant | 4/2/2011 | | 7.80.4.0 | |
| | OcyberLink PowerDVD 9.5 | CyberLink Corp. | 4/2/2011 | | 9.5.1.3225 | |
| | E Dell Backup and Recovery Manager | Dell Inc. | 4/2/2011 | | 1.3 | |
| | Dell Data Protection Access | Dell Inc. | 4/2/2011 | | 2.0.00000.085 | |
| | Dell Data Protection Access Drivers | Dell Inc. | 4/2/2011 | | 1.00.011 | |
| | Dell Data Protection Access Middleware | Dell Inc. | 4/2/2011 | | 1.00.005 | |
| | Dell Edoc Viewer | Dell Inc | 4/2/2011 | 1.45 MB | 1.0.0 | |
| | Dell System Manager | Dell Inc. | 4/2/2011 | | 1.6.00000 | |
| | Dell Touchpad | ALPS ELECTRIC CO., LTD. | 4/2/2011 | | 7.1208.101.116 | |
| | Dell Webcam Central | Creative Technology Ltd | 7/24/2012 | | 1.40.28 | |
| | A Digital Line Detect | BVRP Software, Inc | 4/2/2011 | | 1.21 | |
| | Document Annotator Service | Applied Relevance LLC | 5/15/2014 | 2.89 MB | 1.0.0.0 | |
| | B EASClient | ZANTAZ | 2/14/2012 | 7.62 MB | 6.1.9.0 | |
| | 4 | III | | | | |

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.

| <u>م</u> |
|----------|
| 2 |
| r |
| |
| |
| |
| - |
| |
| ed to |
| |

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.

| 6 | Document Annotator Service Setup | _ _ × | | | | | | | | |
|---|---|--------------|--|--|--|--|--|--|--|--|
| | Installing Document Annotator Service | | | | | | | | | |
| | Please wait while the Setup Wizard installs Document Annotator Service. | | | | | | | | | |
| | Status: | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | <u>B</u> ack Next | Cancel | | | | | | | | |

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.

| Name | Date modified | Туре | Size | | |
|------------------------------------|--------------------|-----------------------|----------------------------------|---|--|
| AR.DocumentAnnotator.exe | 4/6/2012 10:00 PM | Application | 62 KB | | |
| AR.DocumentAnnotator.exe.config | 3/29/2012 10:36 PM | CONFIG File | 10.00 | | |
| DataFacet.Core.dll | 4/6/2012 10:00 PM | Application extension | Open | | |
| DataFacet.Exalead.dll | 4/6/2012 10:00 PM | Application extension | Open with | • | Microsoft Visual Studio 2008 |
| DataFacet.Filter.dll | 4/6/2012 10:00 PM | Application extension | Scan for threats | | Microsoft Visual Studio 2010 |
| ICSharpCode.SharpZipLib.dll | 3/29/2012 10:36 PM | Application extension | Min Zin | | Microsoft Visual Studio 2012 |
| Lucene.Net.Contrib.Analyzers.dll | 3/29/2012 10:36 PM | Application extension | Com with Malumah tan Anti Maluma | | Notepad |
| Lucene.Net.Contrib.Highlighter.dll | 3/29/2012 10:36 PM | Application extension | Bestore previous versions | E | TextPad TextPad |
| Lucene.Net.Contrib.Regex.dll | 3/29/2012 10:36 PM | Application extension | Restore previous versions | | Choose default program |
| S Lucene.Net.dll | 3/29/2012 10:36 PM | Application extension | Send to | • | |
| PhonetixNet.dll | 3/29/2012 10:36 PM | Application extension | Cut | | |
| SmartAssembly.Attributes.dll | 3/29/2012 10:36 PM | Application extension | Copy | | |
| SysLogViewer.exe | 4/6/2012 10:00 PM | Application | copy | | |
| | | | Create shortcut | | |
| | | | 🚱 Delete | | |
| | | | 😵 Rename | | |
| | | | Properties | | |

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.

| Services | | | | | | |
|------------------|--|--|--|---|---|--|
| File Action View | Help | | | | | |
| (+ +) 📰 🖸 | 🔒 🛛 📷 🕨 🗰 H 🕪 👘 | | | | | |
| Services (Local) | Services (Local) | | | | | |
| | AR Document Annotator | Name | Description | Status | Startup Type | Log On As |
| | Stop the service Restart the service Description: Performs document profiling and taxonomy hit counting. | ActiveX Installer (AdnatSV) Addbe Actobub Update Service Adobe Actobub Update Service Adobe Flash Player Update Service Andrea ST Filters Service Apple Mobile Device Apple Mobile Device Apple Instaline Everence Application Information Application Information Application Information | Provides User Account Control validation fo Monitors ambient light sensors to detect ch Adobe Acrobal Updater keeps your Adobe Fi This service keeps your Adobe Filash Player i Apache Tomcat 7.0.33 Server - http://tomc Provides the interface to Apple mobile devi Processer application compatibility cache r Determines and varifies the identity of an a Facilitates the running of interactive applica Provides support for 3 ident protocol olu | Started Started Started Started Started | Manual Manual Automatic Manual Automatic Automatic Manual Manual Manual | Local System Local System |
| | | Application Management | Processes installation, removal, and enumer | | Manual | Local System |
| | | C AR Document Annotator | Performs document profiling and taxonom | Started | Automatic | Start |
| | | ASP.NET State Service Audio Service Background Intelligent Transfer Service Base Filtering Engine | Provides support for out-of-process session Manages audio jack configurations. Transfers files in the background using idle The Base Filtering Engine (BFE) is a service t | Started Started Started | Manual Automatic Manual Automatic | Stop Pause Resume |
| | | 🔍 BBUpdate | Enables the detection, download and install | Started | Manual | Restart |
| | | Bing Desktop Update service BingBar Service BitLocker Drive Encryption Service Block Level Backup Engine Service | Bing Desktop Update Service Keeps Bing Bar up-to-date. Disabling this se BDESVC hosts the BitLocker Drive Encryptio The WRENGINE service is used by Windows | Started | Automatic Automatic Manual Manual | All Tasks |
| | | Bluetooth Driver Management Service | Manages BTW drivers. | Started | Automatic | Properties |
| | | G Bluetooth Service | Handles installation and removal of Bluetoo The Bluetooth service supports discovery a | Started Started | Automatic Manual | Help |

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.

| e Action View | Help | | | | | |
|------------------|---------------------------------|---|----------------------------------|---------|--------------|---------------|
| • 🔿 🗖 📴 🤅 | 2 🔒 🛛 📰 🕨 🗰 H 🕪 👘 | | | | | |
| Services (Local) | O Services (Local) | | | | | |
| | AR Document Annotator | Name | Description | Status | Startup Type | Log On As |
| | | ActiveX Installer (AxInstSV) | Provides User Account Contro | | Manual | Local System |
| | Stop the service | Adaptive Brightness | Monitors ambient light sensor | | Manual | Local Service |
| | Restart the service | Adobe Acrobat Update Service | Adobe Acrobat Updater keeps | Started | Automatic | Local System |
| | | Adobe Flash Player Update Service | This service keeps your Adobe | | Manual | Local System |
| | Description: | Andrea ST Filters Service | | Started | Automatic | Local System |
| | Performs document profiling and | Apache Tomcat 7.0.33 for WebFOCUS | Apache Tomcat 7.0.33 Server | Started | Automatic | Local System |
| | taxonomy nic counting. | Apple Mobile Device | Provides the interface to Appl | Started | Automatic | Local System |
| | | Application Experience | Processes application compat | | Manual | Local System |
| | | Application Identity | Determines and verifies the id | | Manual | Local Service |
| | | Application Information | Facilitates the running of inter | Started | Manual | Local System |
| | | Application Layer Gateway Service | Provides support for 3rd party | | Manual | Local Service |
| | | Application Management | Processes installation, remova | | Manual | Local System |
| | | 🖓 AR Document Annotator | Performs document profiling | Started | Shoet | em |
| | | ASP.NET State Service | Provides support for out-of-p | | Start | ervice |
| | | 🖓 Audio Service | Manages audio jack configura | Started | Stop | em . |
| | | Background Intelligent Transfer Service | Transfers files in the backgrou | Started | Pause | m |
| | | 😪 Base Filtering Engine | The Base Filtering Engine (BFE | Started | Resume | ce |
| | | 🕞 BBUpdate | Enables the detection, downlo | Started | Restart | em |
| | | 🖓 Bing Desktop Update service | Bing Desktop Update Service | Started | | m |
| | | 🖓 BingBar Service | Keeps Bing Bar up-to-date. Di | | All Tasks | s 🏄 🖬 |
| | | BitLocker Drive Encryption Service | BDESVC hosts the BitLocker D | | Refresh | em |
| | | Block Level Backup Engine Service | The WBENGINE service is use | | | m |
| | | Bluetooth Driver Management Service | Manages BTW drivers. | Started | Propert | ies em |
| | | Solution Service | Handles installation and remo | Started | Hele | m |
| | | Bluetooth Support Service | The Bluetooth service support | Started | пер | ce |

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

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

| Name | Date modified | Туре | Size |
|------------------------------------|--------------------|-----------|--------|
| Countries.artx | 3/29/2012 10:36 PM | ARTX File | 81 KB |
| DataFacet_GeneralBusiness_SKOS.xml | 3/29/2012 10:36 PM | XML File | 289 KB |
| Financial Crimes.artx | 3/29/2012 10:36 PM | ARTX File | 62 KB |
| Sentiment_EN.artx | 3/29/2012 10:36 PM | ARTX File | 321 KB |

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.

| Name | Date modified | Туре | Size |
|------------------------------------|--------------------|-----------|----------|
| Countries.artx | 3/29/2012 10:36 PM | ARTX File | 81 KB |
| DataFacet_GeneralBusiness_SKOS.xml | 3/29/2012 10:36 PM | XML File | 289 KB |
| Financial Crimes.artx | 3/29/2012 10:36 PM | ARTX File | 62 KB |
| Sentiment_EN.artx | 3/29/2012 10:36 PM | ARTX File | 321 KB |
| Sentiment_FR.artx | 2/27/2013 12:16 PM | ARTX File | 2,696 KB |

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

| Name | Date modified | Туре | Size |
|------------------------------------|--------------------|-----------|----------|
| Countries.artx | 3/29/2012 10:36 PM | ARTX File | 81 KB |
| DataFacet_GeneralBusiness_SKOS.xml | 3/29/2012 10:36 PM | XML File | 289 KB |
| Financial Crimes.artx | 3/29/2012 10:36 PM | ARTX File | 62 KB |
| Sentiment_EN.artx | 3/29/2012 10:36 PM | ARTX File | 321 KB |
| Sentiment.artx | 2/27/2013 12:16 PM | ARTX File | 2,696 KB |

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

| Services | | | | | | |
|------------------|---|--|---|--|---|--|
| File Action View | Help | | | | | |
| Services (Local) | O. Services (Local) | | | | | |
| | AR Document Annotator | Name | Description | Status | Startup Type | Log On As |
| | Start the service | ActiveX Installer (AxInstSV) Adaptive Brightness Adobe Acrobat Update Service | Provides User Account Contro Monitors ambient light sensor Adobe Acrobat Updater keeps | Started | Manual Manual Automatic | Local System Local Service Local System |
| | Description: Performs document profiling and taxonomy hit counting. | Adobe Flash Player Update Service Andrea ST Filters Service Apache Tomcat 7.0.33 for WebFOCUS | This service keeps your Adobe Apache Tomcat 7.0.33 Server | Started Started | Manual Automatic Automatic | Local System Local System Local System |
| | | Apple Mobile Device Application Experience Application Identity | Provides the interface to Appl Processes application compat Determines and verifies the id | Started | Automatic Manual Manual | Local System Local System Local Service |
| | | Application Information Application Layer Gateway Service Application Management | Facilitates the running of inter Provides support for 3rd party Processes installation, remova | Started | Manual Manual Manual | Local System Local Service Local System |
| | | 🖓 AR Document Annotator | Performs document profiling | | Aut | • |
| | | APA NET State Service Audio Service Background Intelligent Transfer Service Base Filtering Engine Bilg Desktop Update service Bing Bar Service Bildcocker Drive Encryption Service Block Level Backup Engine Service Bluctooth Driver Management Service Bluctooth Service Bluctooth Service | Provides support for out-of-p Manages audio jack configura Transfers files in the backgrou The Base Filtering Engine (BFE Enables the detection, downlo Bing Desktop Update Service Keeps Bing Bar up-to-date. Di BDESV- hosts the Bhatocker D The WBENGINE service is use Manages BTW drivers. Handles installation and remo | Started Started Started Started Started Started | Ma Stop Aut Stop Ma Pau Aut Resi Aut Aut Aut Ma Refr Ma Aut Pro Aut Help | se se taart Fasks → esh perties |

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.

| Application Inst | tall | x |
|------------------|---|---|
| | Are you sure you want to install this application to your computer? Publisher: UNKNOWN Application: AR Taxonomy Editor | |
| | Installing applications may present a security risk to you an your computer. Install only from sources that you trust. Publisher Identity: UNKNOWN The publisher of this application cannot be determined System Access: UNRESTRICTED This application may access your file system and the internet, which may put your computer at risk. | d |

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.

| Application Install | |
|------------------------|--|
| AR Taxonomy Editor | |
| Installing application | |
| Cancel | |

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

| AR Taxonomy Editor | A BULK TO DAT | Charge Chickers | - | | | - | |
|------------------------------------|--------------------------------|----------------------|--------------------|---------|----------------|---|--|
| ► AR Applied I ▼ T Taxonomy Edi | Relevance | | | | | | |
| | Create | er u Brow Uplo | pload rse ad | | Go to settings | | |
| | Name | | Enabled | Toggle | Delete | | |
| | Countries | 1 | | Disable | × | | |
| | DataFacet_GeneralBusiness_SKOS | 1 | | Disable | × | | |
| | Financial Crimes | 1 | | Disable | × | | |
| | Sentiment | 1 | | Disable | × | | |
| | | | | | | | |

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.

| AR Taxonomy Editor | | | | | |
|---|---------------------|--------------------|---------|----------------|---|
| AR Applied Relevance T Taxonomy Editor | | | | | |
| Create | e U Brow Upic | pload rse ad | | Go to settings | 3 |
| Name | | Enabled | Toggle | Delete | |
| Countries | 1 | | Disable | × | |
| DataFacet_GeneralBusiness_SKOS | 1 | | Disable | × | |
| Financial Crimes | 1 | | Disable | × | |
| Sentiment | 1 | | Disable | × | |
| | | | | | |

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

| AR Taxonomy Editor | THE R. LEWIS CO., Name of Street, or other | and suffer summer A35 where | |
|--|--|-----------------------------|--|
| AR Applied He | levance | 11111 | and the second s |
| T Taxonomy Editor | | nomies » Sentiment | |
| G Q □ Ø Sentiment | Satisfied | Notes: | |
| ♥ ◇ Neutral ♥ ◇ Stutified ◇ Add Node Cut Node Copy Node Paste Node ♥ Delete node Rename node - ◇ Amzed - ◇ Appealing - ◇ Appealing - ◇ Appealing - ◇ Appealing | Term Rule: "Satisfied" | | Test this rule Save Changes |
| Approving Approving Approving Articulate At Ease At Ease Attractive Attractive Beneficial Benefit Benefit Better Brillant Coloring | Text View Proper | ties | |

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.

| Term Name: | Notes: | |
|------------------|--------|----------------|
| B plus | | |
| Term Rule: | | |
| "B+" OR "B plus" | | Test this rule |
| | | Save Changes |
| | | |
| | | |

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.

| Services ile Action View | Help | | | | | |
|-----------------------------|--|---|---|---|---|--|
| • 🔿 🔲 🖾 🤇 | à 🗟 🛛 📷 🕨 🔳 💵 🕨 🕨 | | | | | |
| Services (Local) | Services (Local) | 6 | | | | |
| | AR Document Annotator | Name | Description | Status | Startup Type | Log On As |
| | Stop the service Restant the service Description: Performs document profiling and texonomy hit counting. | ActiveX Installer (AdnotSV) ActiveX Installer (AdnotSV) Adobe Actobe Update Service Adobe Flash Player Update Service Andres ST Filters Service Andres ST Filters Service Apache Tomcat 70.33 for WebFOCUS Apple Mobile Device Application Experience Application Isformation | Provides User Account Control validation fo Monitors ambient light sensors to detect (h Adobe Acrobal Ugdater keps your Adobe s This service keps your Adobe Flash Player i Apache Tomcat 7.0.33 Server - http://tomc Provides the interface to Apple mobile devi Processes application compatibility cache r Determines and verifies the identity of an a Pacilitates the nunning of interactive applica | Started Started Started Started Started | Manual Manual Automatic Manual Automatic Automatic Manual Manual | Local System Local Service Local System Local System Local System Local System Local System Local System Local Service Local System |
| | | Application Layer Gateway Service Application Management | Provides support for 3rd party protocol plu Processes installation, removal, and enumer | | Manual Manual | Local Service Local System |
| | | AR Document Annotator | Performs document profiling and taxonom | Started | Automatic | Start |
| | | ASP.NET State Service Audio Service Background Intelligent Transfer Service Base Filtering Engine | Provides support for out-of-process session Manages audio jack configurations. Transfers files in the background using idle The Base Filtering Engine (BFE) is a service t | Started Started Started | Manual Automatic Manual Automatic | Stop Pause Resume |
| | | G BBUpdate | Enables the detection, download and install | Started | Manual | Restart |
| | | G Bing Desktop Update service BingBar Service | Bing Desktop Update Service Keeps Bing Bar up-to-date. Disabling this se | Started | Automatic Automatic | All Tasks 🔹 🕨 |
| | | BitLocker Drive Encryption Service Block Level Backup Engine Service | BDESVC hosts the BitLocker Drive Encryptio The WBENGINE service is used by Windows | | Manual Manual | Refresh |
| | | Bluetooth Driver Management Service | Manages BTW drivers. | Started | Automatic | Properties |
| | | G Bluetooth Service Bluetooth Support Service | Handles installation and removal of Bluetoo The Bluetooth service supports discovery a | Started Started | Automatic Manual | Help |

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.

- 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.

| Add WAND to Configuration | | | | |
|--|--------------------------------------|---|--|--|
| ^ Connect parameters | | | | |
| ? Connection Name | CON01 |] | | |
| ? WAND Services End-Point | http://wand.ibi.com:4701/soap/scorer | | Sample: http://wand.ibi.com:4701/soap/scorer | |
| Advanced HTTP connection o | ptions | | | |
| Environment | | | | |
| ? Select profile edasprof - (type in a new one or select one from the list) | | | | |
| Configure | | | | |
| The "Test" option for the connection is only available after initial configuration is complete | | | | |

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.

Configure Adapters or Create Synonyms WAND successfully added to configuration

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.

WAND Sentiment Analysis Adapter Test Successful (wand) Test Results

| Text Analyzed | Sentiment Score |
|---|-----------------|
| The Facebook Adapter helps businesses understand | .200000000 |
| the ebb and flow of activity around vital assets, | |
| such as company image, products, services, and | |
| people | |

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.

| Configured Adapters | | |
|---------------------|---------|----------------------|
| Delimite | ed File | s (CSV/TAB) |
| Excel | | |
| Flat File | • | |
| - WAND | | |
| wand | - | |
| | ăb | Show DBMS objects |
| | | Properties |
| | Ē; | Test |
| | | Duplicate Connection |
| | Q | Impact Analysis |
| | × | Delete |

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

| Create Synonym for WAND (wand) | | | | |
|---|--------------------------------------|--|--|--|
| Customize data type mappings | | | | |
| ? Application ibisamp . | | | | |
| Create Synonym(s) and Examples Warning, existing identically named synonyms will be overwritten. | | | | |
| | | | | |
| Name | Description | | | |
| WAND | Synonym for Wand Sentiment Analysis. | | | |
| EXAMPLES Wand Sentiment Analysis usage examples. | | | | |

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.

| Create Synonym for WAND Status | | | |
|--------------------------------|-----------------------|--|--|
| Synonym | Created Successfully. | | |
| Back | Close | | |

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

| 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. |

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

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 <i>wandsampl/</i> <i>wand_sample.txt</i> 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. |



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
- Configuring the Alchemy Sentiment Analysis Adapter
- Creating Metadata and Sample Reports for the Alchemy Adapter
- Alchemy Sentiment Analysis Adapter Examples

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.

- 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.

| Add ALCHEMY to Configuration | | | |
|--|--|--|--|
| ~ Connect parameters | | | |
| ? Connection Name | alchemy | | |
| ? Alchemy Url | http://access.alchemyapi.com/calls/text | | |
| ? API Key | cd041f736c19bcdb7066b88c6c9c2c37ae500826 | | |
| ✓ Advanced HTTP connection options | | | |
| Environment | | | |
| ? Select profile edasprof 🚽 (type in a new one or select one from the list) | | | |
| Cancel Configure | | | |
| The ITest entire for the expression is only evoluble often initial and evention is expected. | | | |

The "Test" option for the connection is only available after initial configuration is complete.

- 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.

Configure Adapters or Create Synonyms Connection successfully added to configuration

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 | OK | Success | By accessing AlchemyAPI or using information generated by AlchemyAPI, you are | english | positive | .8394500 |
| the ebb and flow of activity around vital assets, | | | agreeing to be bound by the AlchemyAPI Terms of Use: | | | |
| such as company image, products, services, and | | | http://www.alchemyapi.com/company/terms.html | | | |
| people | | | | | | |

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.

| Delimited Fil | es (CS | SV/TAB) |
|---------------|--------|----------------------|
| Excel | | |
| Flat File | | |
| - ALCHEMY | | |
| alchemy | 0 | Chow DDMC objects |
| | ďò | Show DBIMS objects |
| | | Properties |
| | Ê; | Test |
| | | Duplicate Connection |
| | Q | Impact Analysis |
| | × | Delete |

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

| Create Synonym for ALCHEMY (alchemy) | | | |
|---|---|--|--|
| Customize | data type mappings | | |
| ? Applicatio | ibisamp | | |
| Create Synonym(s) and Examples Warning, existing identically named synonyms will be overwritten. | | | |
| | | | |
| Name | Description | | |
| ALCHEMY EXAMPLES | Synonym for Alchemy Sentiment Analysis. Alchemy Sentiment Analysis usage examples. | | |

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.

| Create Synonym for ALCHEMY Status | | |
|-----------------------------------|-----------------------|--|
| Synonym | Created Successfully. | |
| A Back | Close | |

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

| 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. |

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

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 <i>alchsampl/</i> <i>alchemy_sample.txt</i> file performed through a JOIN statement. |
| alchsampl/alchemy_sample_cluster | Scores the text passed from the <i>alchsampl/ alchemy_sample.txt</i> file using the Cluster Join master. |
| alchsampl/alchemy_sample_where | Scores the text passed within a WHERE statement. |



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
- Overview
- Installing the Social Media Demo In Your WebFOCUS Environment
- Navigating and Using the Social Media Demo

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.

| Upload a Zip File | | х |
|---------------------|--------|--------|
| File to upload: | | |
| | | Browse |
| Publish Document(s) | Upload | Close |

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.

| Upload a Zip File X | | |
|---------------------------------------|--------|--------|
| File to upload: | | |
| Walmart_Social_Media_Domain_CM_v1.zip | | Browse |
| Publish Document(s) | Upload | Close |

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.

| Message | |
|---------|--------------------------------|
| (į) | Zip file uploaded successfully |
| | ОК |

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.

| WebFOCUS |
|---------------------------|
| Resources |
| 🐺 Filter |
| 🕶 刻 Domains |
| Public |
| Walmart Social Media Demo |
| Favorites |
| Mobile Favorites |
| Reporting Servers |
| 🕶 💷 Portals |
| Walmart Social Media |
| Z Change Management |
| 🕨 🍓 Web |
| Open Portal Services |

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 LISDA Choice steaks, so that's wity we're offering a 100% money-back guarantee. | 91 | positive | 2012-05- 14 | yea and its filed with pig slime meat markets is the place now to get meat | regative |
| | | | | 2012-05- 14 | yeah sure they rip you off for meatand wai mart succeanyway# | negative |
| | | | | 2012-05- 14 | the capitan should be (start over) cause tht meat is naw | negative |
| | | | | 2012-05- 14 | thats why I never buy any meet from walmart | neutral |
| | | | | 2012-05- 14 | lets hope so wall mait your meat hasent eventasted right | positive |
| | | | | 2012-05- 14 | your meat is way to expensive | neutral |
| | | | | 2012-05- 14 | Id NEVER EVER buy meat at waimarthill | 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 nastly but the produce section has improved a lot it used to be awful too. The meats where we lived before were great tho. Devices I have not found that waimart is cheaper as a matter of fast the prices are higher with a loc other skuff. | negative |
| | | | | 2012-05- 14 | Nobody likes getting their meat from Walmart, its jus gross. | positive |
| | | | | 2012-05- 14 | waimart 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 waimart. Just plain nastyl | nepative |
| | | | | 2012-05- 14 | The problem with valuest meal is its full of devicits and what some clear the participation with to failer it any with no beyre can site and clear to several to octo market their a back and this with so many poole are getting sick and ending up with all kinds of problems its what there putting in our food we all sat values the and government possing. | 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. |
| ΑΡΙ | 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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