



SOAP Integration - 1

SOAP (Simple Object Access Protocol) can be used to import data (actual values) from Web Services that have been published by companies or organizations that want to provide useful information. A Web service can be an internally or externally provided service.

In the example below, we will be using an 'open' web service provided by Spider Strategies for demonstration purposes. The service publishes monthly Social Media information for a fictitious company including:

- Number of Facebook Views
- Number of Twitter Mentions
- Number of Article Mentions
- Number of Google Searches

First, create the Measures in a scorecard, in the example below we have created two measures under Social Media.

The screenshot displays a scorecard titled "Social Media" with two tabs: "Overview" and "Measures". The "Measures" tab is active. On the left, a sidebar menu shows a tree structure with "Social Media" selected, indicated by a red arrow. The main content area is divided into three sections:

- PERFORMANCE:** A gauge chart showing a score of approximately 5. A message above the gauge reads "Not updated for this period".
- HISTORICAL PERFORMANCE:** A line chart showing performance from May 2017 to May 2018. The y-axis ranges from 0 to 10. The chart is currently empty.
- DATA USED IN CALCULATIONS:** A table listing the measures used in the scorecard's calculations.

	SCORE	WEIGHT
Facebook Likes		50%
Twitter Mentions		50%

Below the table is a "RELATED ITEMS" section with an "Add" button and the text "No related items". At the bottom of the interface, there is a "Show Notes (0)" button.

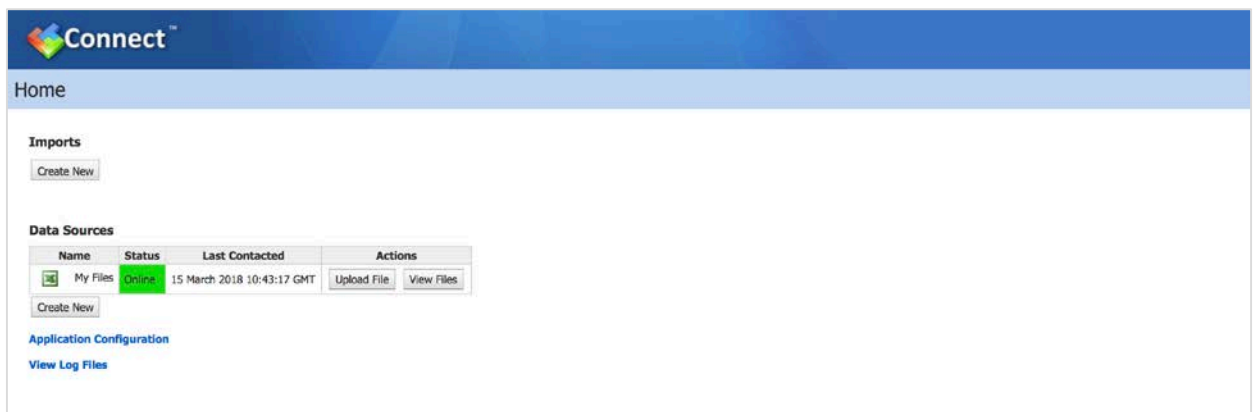


SOAP Integration - 2

Next, open the 'Connect' application in a new browser window. Connect is the free integration module that comes with the product. To reach it type in your usual URL up to and including .com and add '/connect'. It should look something like this:

<https://intrafocus-v3-trial.qz.spiderstrategies.com/connect>

Sign into Connect using your usual Username and Password, you will see a screen like this:



The SOAP service we will use as an example has the following parameters:

SOAP URL: <https://datasource.balancedscorecards.com/socialSentiment>

WSDL URL: <https://datasource.balancedscorecards.com/socialSentiment.wsdl>

SOAP Request (body):

```
<socialSentimentRequest />
```

Data Element XPath: `//socialSentimentItem`

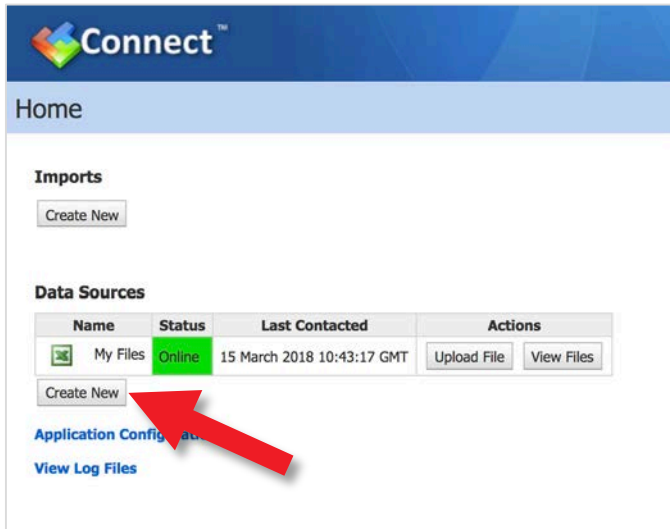
Metric ID/Name XPath: `//itemType`

Value XPath: `//value`

Date XPath: `//date`

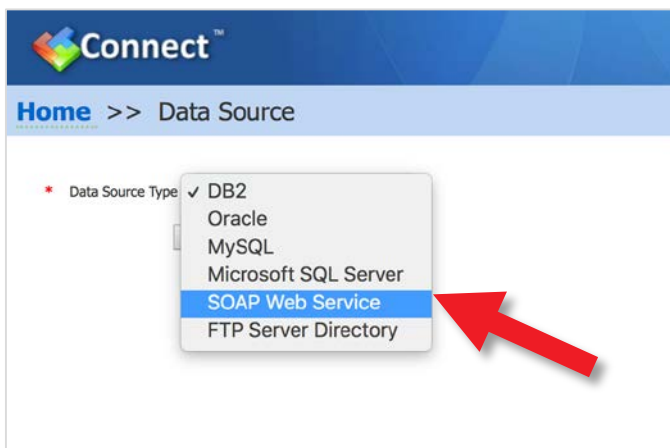


SOAP Integration - 3



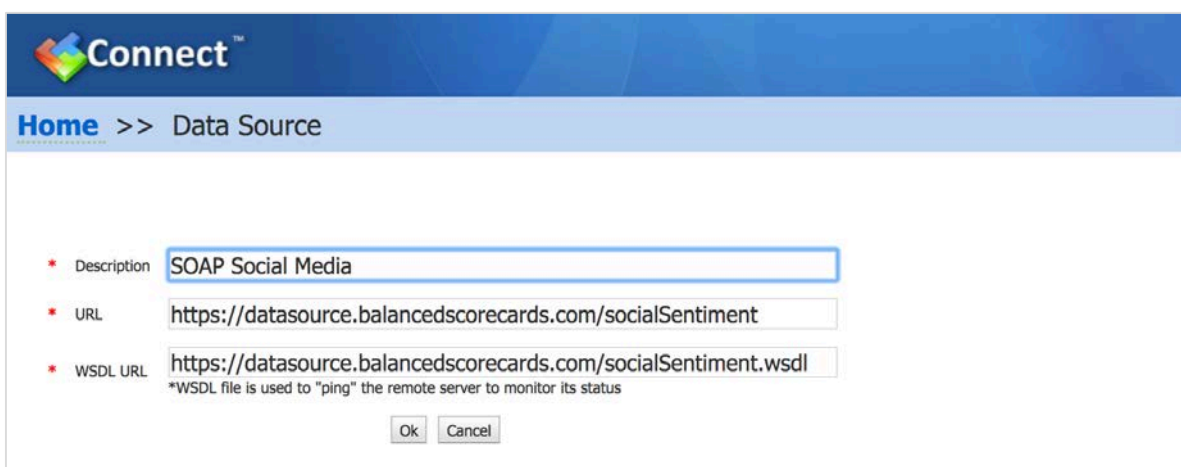
Create the Data Source

The data source needs to be defined. Click on the **Create New** button under the **Data Sources** heading.



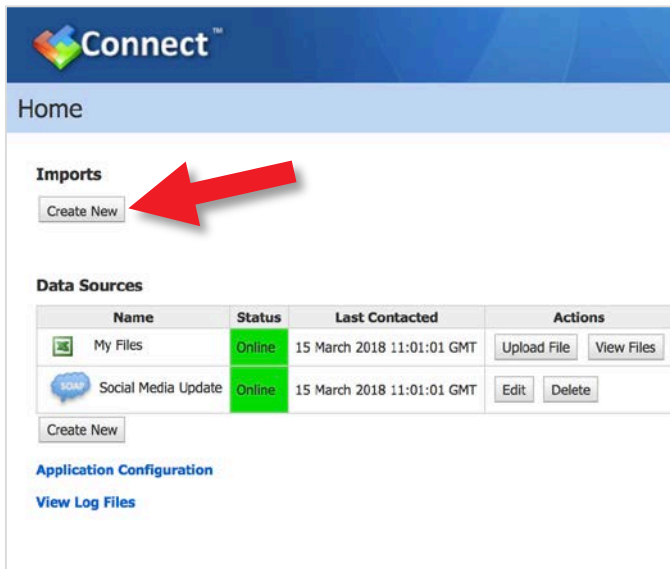
Select **SOAP Web Service** from the drop-down list of data sources and click Next.

Add a description, the SOAP url and the WSDL url as shown below and click **Ok**.





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Map the Data from the Source

The data source has now been linked to the application.

Next a Web service call has to be made to retrieve the data and the data mapped to the Measures previously created.

Click on **Create New** under Imports.

The **Edit Import** screen will appear.

There are five steps required to import and map the data. This is a one-off activity. Once the data is mapped and an update scheduled, the update will automatically take place based on the schedule set.

Click on **Basic Information**.





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Give the update a name, in this case **Social Media Update** and from the Data Source drop-down select the data source you have just created, in this case **SOAP Social Media**:

Home >> Edit Import >> Social Media Update >> Basic Information

Name:

Data Source:

Import Type:

Ok Cancel

Click on **OK** on the top right hand side of the screen.

The following screen will appear indicating that the 'Basic Information' step is complete.

Click on the **Source Data** button.

Connect™

Home >> Edit Import >> Social Media Update

Basic Information

Source Data

Destination Metrics

Mapping

Schedule

Details



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The SOAP request form will appear. Add the SOAP url again into the field **SOAP Action HTTP Header**.

Add the SOAP request: `<socialSentimentRequest />` into the **SOAP Body** section as shown below.

The screenshot shows the 'Connect' interface with the following details:

- URL: `https://datasource.balancedscorecards.com/socialSentiment`
- SOAP Action HTTP Header: `https://datasource.balancedscorecards.com/socialSei`
- SOAP Version: 1.1
- SOAP Header: (empty)
- SOAP Body: `<socialSentimentRequest />`
- XSLT: (empty)
- SOAP Response: (empty)
- Buttons: 'Send SOAP Request to Remote Server'

Click on the grey bar called **SOAP Response**. A SOAP call will be made and the response will appear. This response needs to be filtered to obtain the correct data.

The screenshot shows the 'Connect' interface with the following details:

- URL: `https://datasource.balancedscorecards.com/socialSentiment`
- SOAP Action HTTP Header: `https://datasource.balancedscorecards.com/socialSei`
- SOAP Version: 1.1
- SOAP Header: (empty)
- SOAP Body: (empty)
- XSLT: (empty)
- SOAP Response:

```
<socialSentimentServiceResponse>
  <socialSentimentItem>
    <itemType>facebook</itemType>
    <date>2017-12-11</date>
    <value>425</value>
  </socialSentimentItem>
  <socialSentimentItem>
    <itemType>facebook</itemType>
    <date>2017-11-30</date>
    <value>600</value>
  </socialSentimentItem>
  <socialSentimentItem>
    <itemType>facebook</itemType>
    <date>2017-10-31</date>
    <value>435</value>
  </socialSentimentItem>
</socialSentimentServiceResponse>
```
- Buttons: 'Send SOAP Request to Remote Server', 'Filter Element For Data Set' (highlighted with a red arrow)

Click the **Filter Element For Dataset** button.



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Add //socialSentimentItem to the **Data Element XPath** field.

Connect™
Home >> Edit Import >> Social Media Update >> SOAP Request

SOAP Response

```
<socialSentimentServiceResponse>  
<socialSentimentItem>  
<itemType>facebook</itemType>  
<date>2017-12-31</date>  
<value>425</value>  
</socialSentimentItem>  
<socialSentimentItem>  
<itemType>facebook</itemType>  
<date>2017-11-10</date>  
<value>600</value>  
</socialSentimentItem>  
<socialSentimentItem>  
<itemType>facebook</itemType>  
<date>2017-10-31</date>  
</socialSentimentItem>  
</socialSentimentServiceResponse>
```

* Data Element XPath //socialSentimentItem

Filtered Data Element

Data Set

And click on the grey bar called **Filtered Data Element**. Add the following:

//itemType - to the ID box

//value - to the Value box

//date - to the Date box

Connect™
Home >> Edit Import >> SOAP Social Upadte >> SOAP Request

SOAP Response

Filtered Data Element

Multiple data elements may be retrieved by the above XPath expression, but only one element is shown below.

```
<socialSentimentItem>  
<itemType>facebook</itemType>  
<date>2017-12-31</date>  
<value>425</value>  
</socialSentimentItem>
```

	*ID	Name	*Value	Date	Note
XPath	//itemType		//value	//date	

Data Set

And click on the grey bar called **Data Set**.



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The filtered data set will be returned ready to be mapped to the previously defined scorecard items.

Connect™

Home >> Edit Import >> SOAP Social Update >> SOAP Request

SOAP Response

Filtered Data Element

Data Set

Negative Values: Allow
Missing Values: Ignore
Value/Threshold Format: 1,000.00
Date Format: 12/31/2009
 Overwrite existing values

Metric Id/Name	Value	Date	Note
facebook	425.00	15-Mar-2018	
facebook	600.00	15-Mar-2018	
facebook	435.00	15-Mar-2018	
facebook	600.00	15-Mar-2018	
facebook	500.00	15-Mar-2018	
facebook	425.00	15-Mar-2018	

Click on **OK** on the top right hand side of the screen.

The following screen will appear indicating that the 'Source Data' step is complete.

Click on the **Destination Metrics** button.

Connect™

Home >> Edit Import >> Social Media Update

Basic Information

Source Data

Destination Metrics

Mapping

Schedule

► Details



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The Destination Metrics screen will appear, find the target Measures and click on them, in this case Facebook Likes and Twitter Mentions. The Measures will appear in the lower portion of the screen indicating they have been selected.

ID	Name	Organization
502	Facebook Likes	Samples
503	Twitter Mentions	Samples

Click on OK on the top right hand side of the screen.

The following screen will appear indicating that the 'Destination Metrics' step is complete.

Click on the **Mapping** button.

Home >> Edit Import >> Social Media Update

Save Cancel

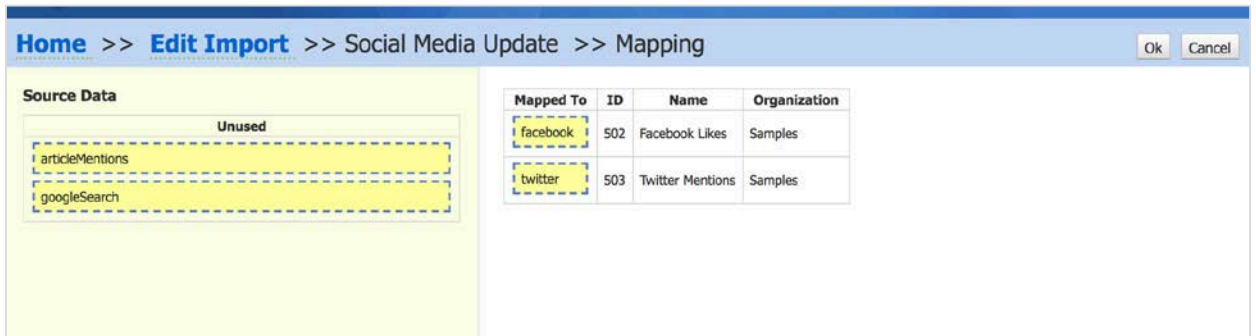
Basic Information Source Data Destination Metrics Mapping Schedule

Details



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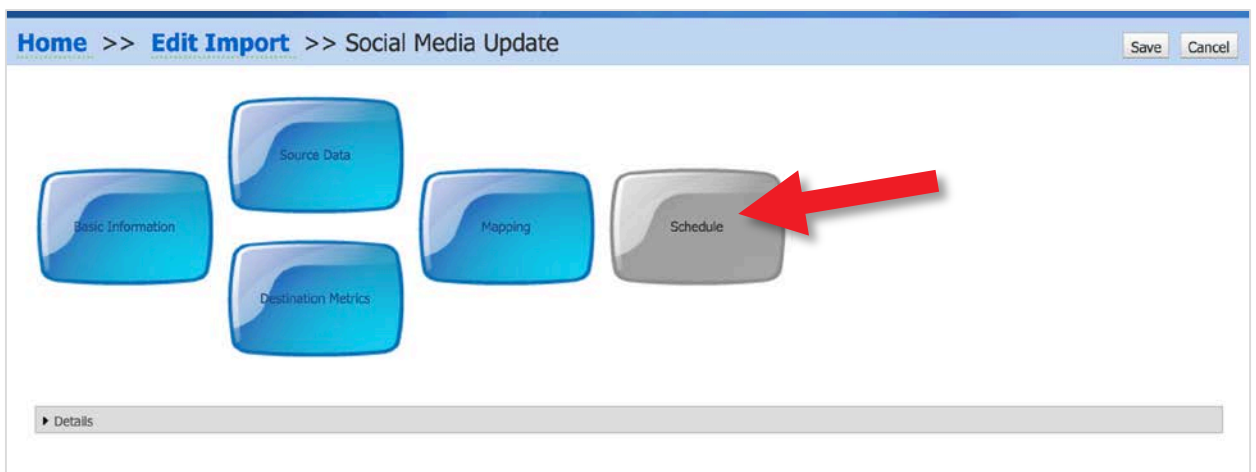
The Mapping screen will appear. Connect will map the fields automatically when the source and destination fields have the same or very similar names. If this does not happen, drag and drop the fields to map them yourself.



Click on OK on the top right hand side of the screen.

The following screen will appear indicating that the 'Mapping' step is complete.

Click on the **Schedule** button.





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The Schedule Import screen will appear. Use the drop-down menus to select the schedule you require. In this case we have selected every month on the first day of the month.

Home >> Edit Import >> Social Media Update >> Schedule Import

Do not schedule

New Schedule

Frequency: Monthly

On the First: Day

Hour: 12 Minute: 00 AM

(UTC +0:00) GMT

Ok Cancel

Click on OK on the top right hand side of the screen.

The following screen will appear indicating that the 'Scheduling' step is complete.

Click on the **Save** button on the top right hand side of the screen.

Home >> Edit Import >> Social Media Update

Save Cancel

Basic Information

Source Data

Destination Metrics

Mapping

Schedule

Details



SOAP Integration - 12

The Home screen will appear. To run the import manually, click on the **Run Now** button. If successful, the Status will show green (if the import fails, the status will show amber or red, click on the box for more information).

The screenshot shows the 'Home' page with two main sections: 'Imports' and 'Data Sources'. In the 'Imports' section, there is a table with columns: Name, Status, Data Source, # of Mappings, Schedule, Last Run, and Actions. A red arrow points to the 'Run Now' button in the Actions column for the 'Social Media' import. The 'Status' column for 'Social Media' is highlighted in green and contains the word 'Success'. Below the 'Imports' section is the 'Data Sources' section, which also has a table with columns: Name, Status, Last Contacted, and Actions. Both 'My Files' and 'SOAP Social Media' are listed with a green 'Online' status.

Name	Status	Data Source	# of Mappings	Schedule	Last Run	Actions
Social Media	Success	SOAP Social Media	2	On the First day of every month at 12:00AM GMT (UTC +0:00)	15 March 2018 15:04:07 GMT	Run Now Edit Delete

Name	Status	Last Contacted	Actions
My Files	Online	15 March 2018 15:00:12 GMT	Upload File View Files
SOAP Social Media	Online	15 March 2018 15:00:12 GMT	Edit Delete

Switch back from Connect to the application and go to the measures, you will see that they have been updated.

The screenshot shows the 'Facebook Likes' measure dashboard. On the left is a navigation menu with categories like 'HQ Scorecard', 'Financial', 'Customer', 'Social Media', and 'Internal Processes'. The main area is titled 'Facebook Likes' and has tabs for 'Overview' and 'Measures'. The 'Measures' tab is active. It displays a 'PERFORMANCE' section with a gauge showing a score of 8.1, a red target of 950, and a green goal of 1,035. A '+4' indicator shows the score has increased. To the right is a 'HISTORICAL PERFORMANCE' line chart showing the score from April 2017 to April 2018. Below the chart is a table for 'ACTUAL AND THRESHOLD VALUES'.

SCORE	ACTUAL	RED	GOAL
8.1	1,071	950	1,035