

Applies to:

Xcelsius 2008

Summary

This document outlines some basic steps with Xcelsius 2008 in combination with a SAP BI landscape. From SAP TechEd 2008 BERLIN: SDN Community Day, BusinessObjects Track, Xcelsius

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Company: Business Objects, an SAP company

Created on: October 2008

Author Bio

Ingo Hilgefert started in 1999 with Seagate Software / Crystal Decisions as a Trainer and Consultant.

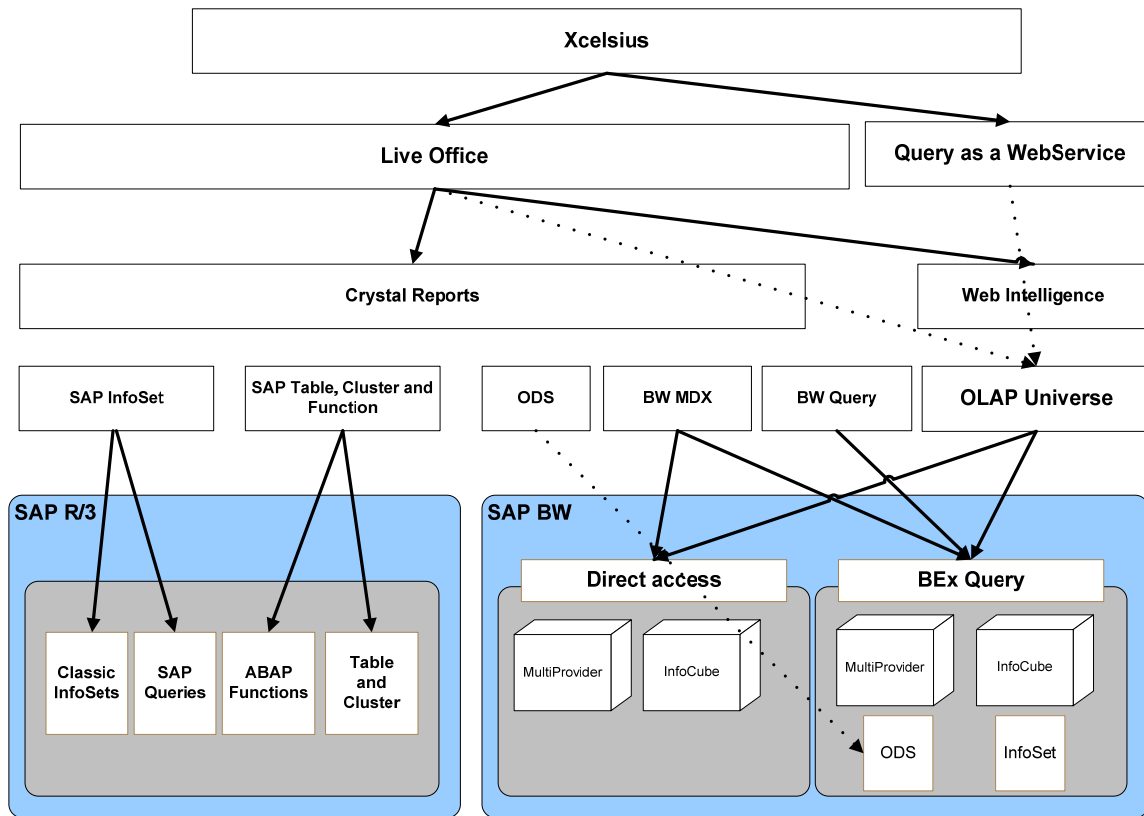
He moved to Walldorf for Crystal Decisions by end of 2000 and worked with the SAP BI Development team on integrating Crystal Reports with SAP BW. He then relocated to Vancouver in the year 2004 and worked as Product Manager / Program Manager (Engineering) on the integration of Business Objects products with SAP products.

He is now focusing on the topic of Embedded Analytics for the SAP Solutions.

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SAP Connectivity for Xcelsius



Xcelsius is able leverage the following sources for connectivity

- Web Services
- Live Office

Based on the list above the available SAP datasources for Xcelsius are:

- SAP R/3
 - Tables and cluster (Open SQL).
 - ABAP functions.
 - Classic InfoSets.
 - SAP queries and InfoSet queries.
- SAP BW
 - Tables and cluster (Open SQL).
 - ABAP Functions.
 - Direct ODS access (without the need for an SAP BW query).
 - BW queries and BW cubes.

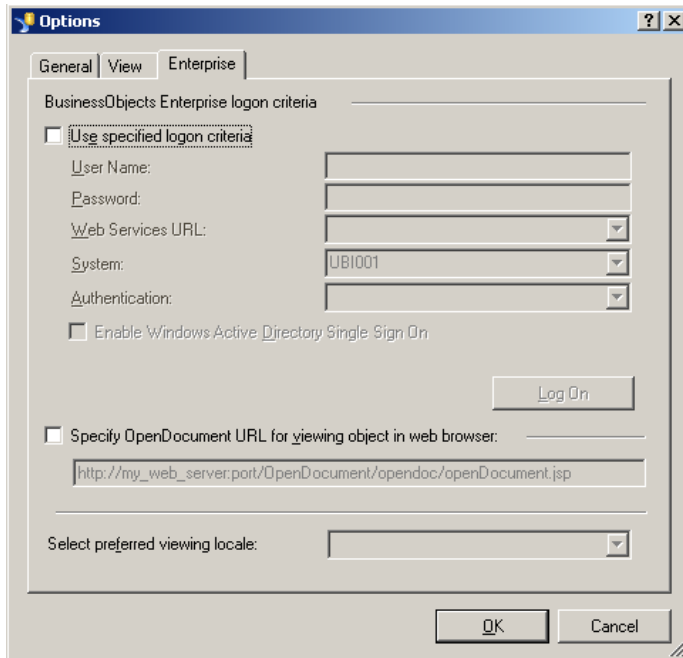
Live Office and SAP Data Sources

Using Crystal Reports Objects in Live Office

For this activity we will leverage existing Crystal Reports that are based on a SAP BI query.

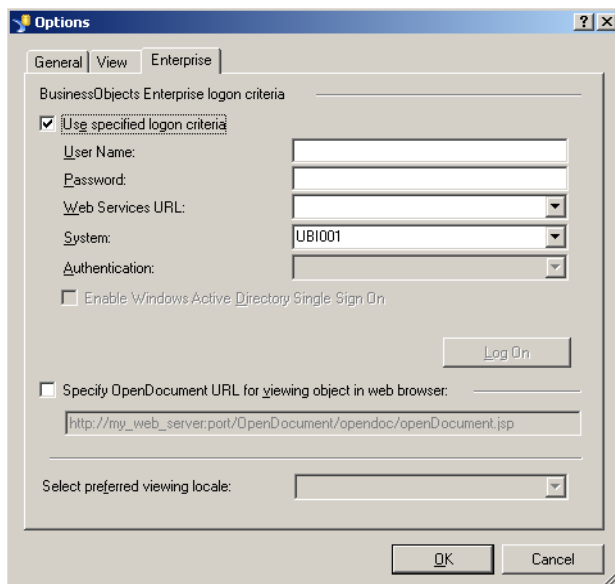
To create a new Live Office document:

1. Start Microsoft Excel.
2. Select the menu **Live Office > Options**.
3. Navigate to the **Enterprise** tab.



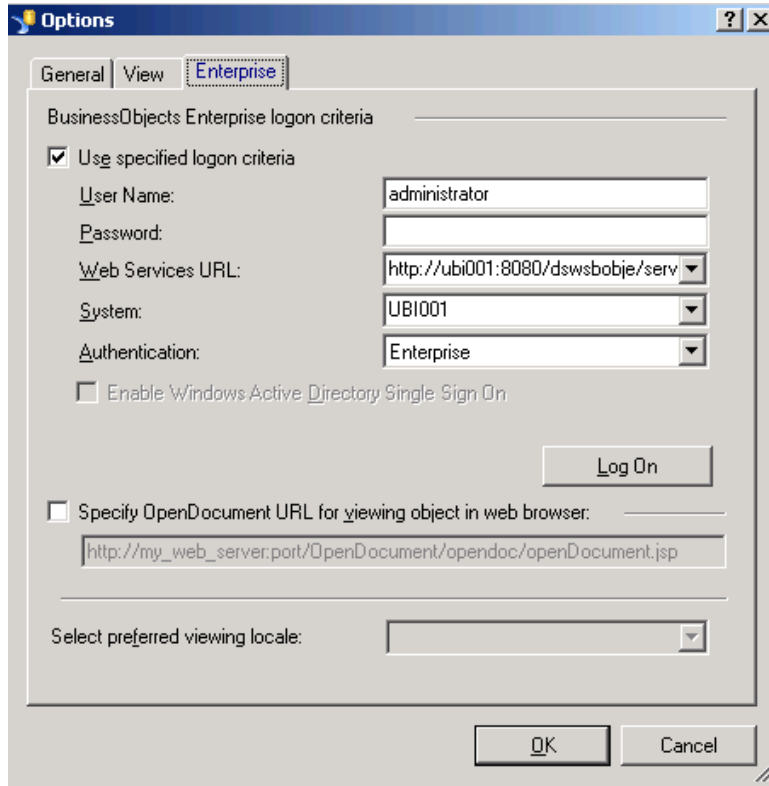
The screenshot shows the 'Options' dialog box with the 'Enterprise' tab selected. Under the 'BusinessObjects Enterprise logon criteria' section, the checkbox 'Use specified logon criteria' is unchecked. Below this, there are input fields for 'User Name', 'Password', 'Web Services URL' (a dropdown menu), 'System' (set to 'UBI001'), and 'Authentication' (a dropdown menu). There is also an unchecked checkbox for 'Enable Windows Active Directory Single Sign On' and a 'Log On' button. Below the logon criteria section, there is an unchecked checkbox for 'Specify OpenDocument URL for viewing object in web browser:' with a text box containing 'http://my_web_server:port/OpenDocument/opendoc/openDocument.jsp'. At the bottom, there is a 'Select preferred viewing locale:' dropdown menu and 'OK' and 'Cancel' buttons.

4. Set the option **Use specified logon criteria**.

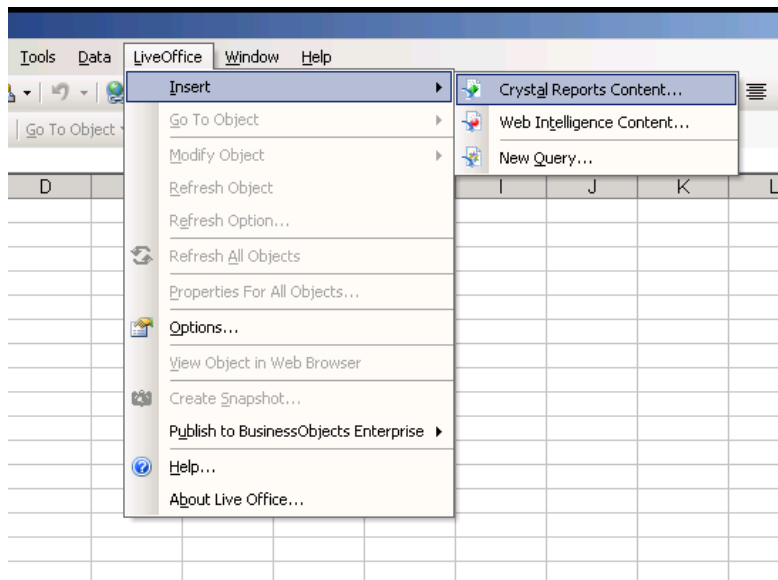


The screenshot shows the 'Options' dialog box with the 'Enterprise' tab selected. Under the 'BusinessObjects Enterprise logon criteria' section, the checkbox 'Use specified logon criteria' is now checked. The rest of the dialog box, including the input fields for 'User Name', 'Password', 'Web Services URL', 'System' (set to 'UBI001'), 'Authentication', 'Enable Windows Active Directory Single Sign On', 'Log On' button, 'Specify OpenDocument URL for viewing object in web browser:' (with the same URL), and 'Select preferred viewing locale:' dropdown menu, remains the same as in the previous screenshot. The 'OK' and 'Cancel' buttons are also present at the bottom.

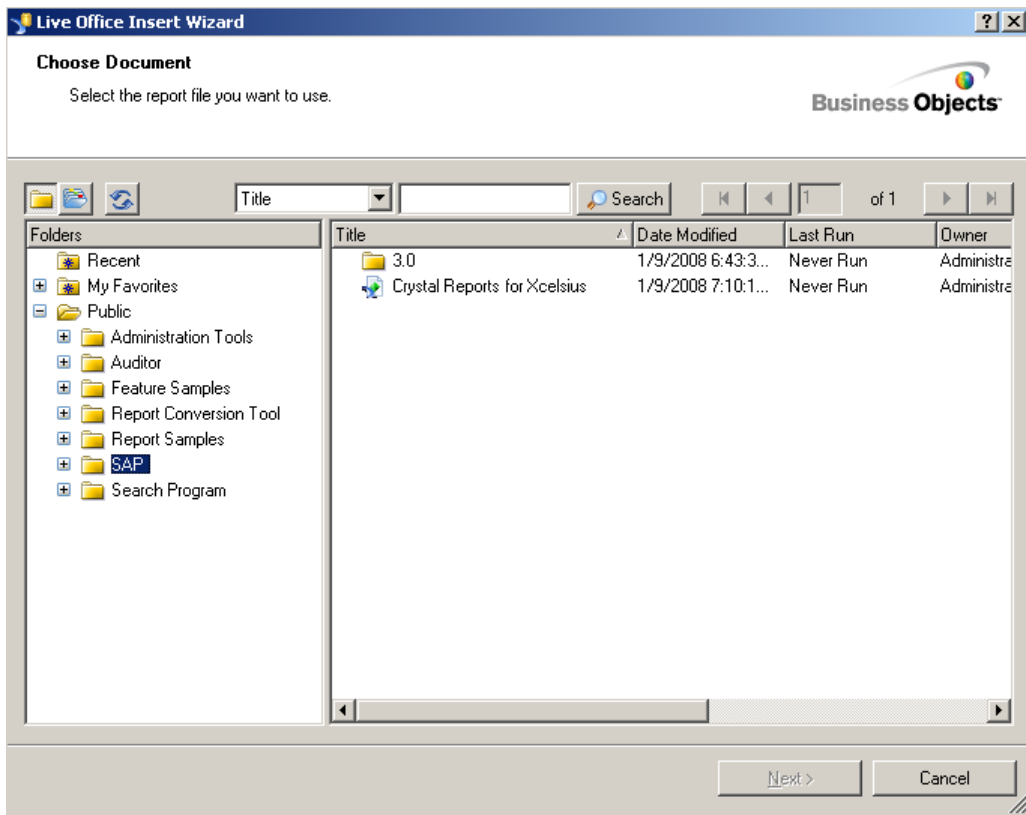
5. Enter the web service URL following the syntax:
<http://APPSERVER:PORT/dswsbobje/services/session>.



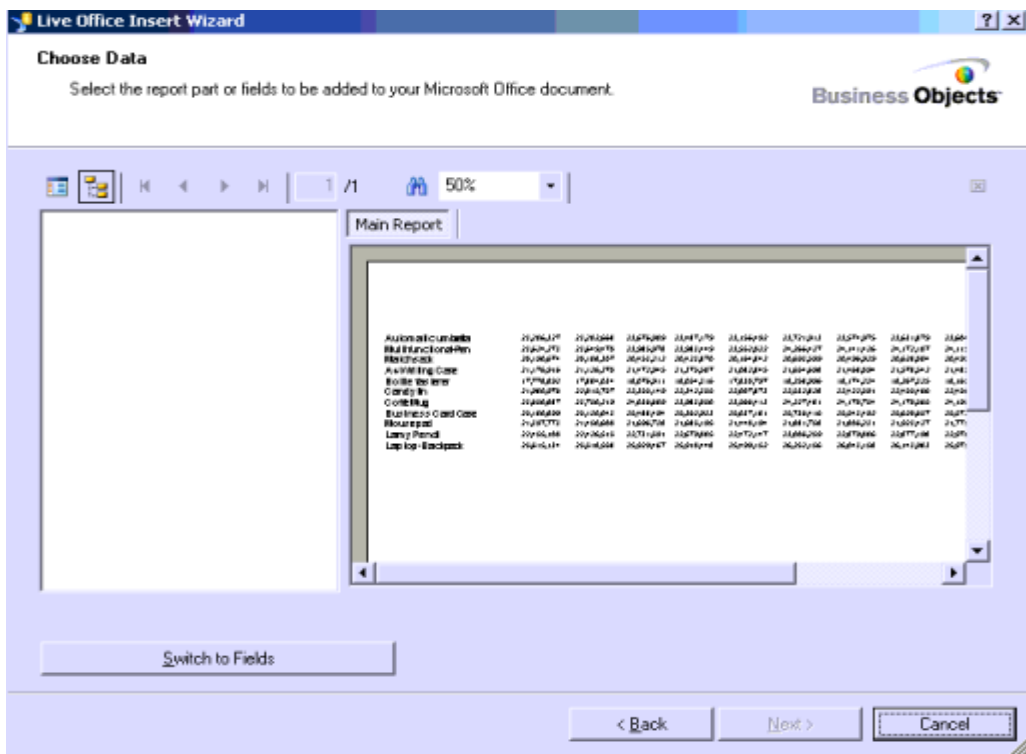
6. Select SAP as Authentication.
 7. Click **OK**.
 8. Select the menu **Live Office > Insert > Crystal Reports** content.



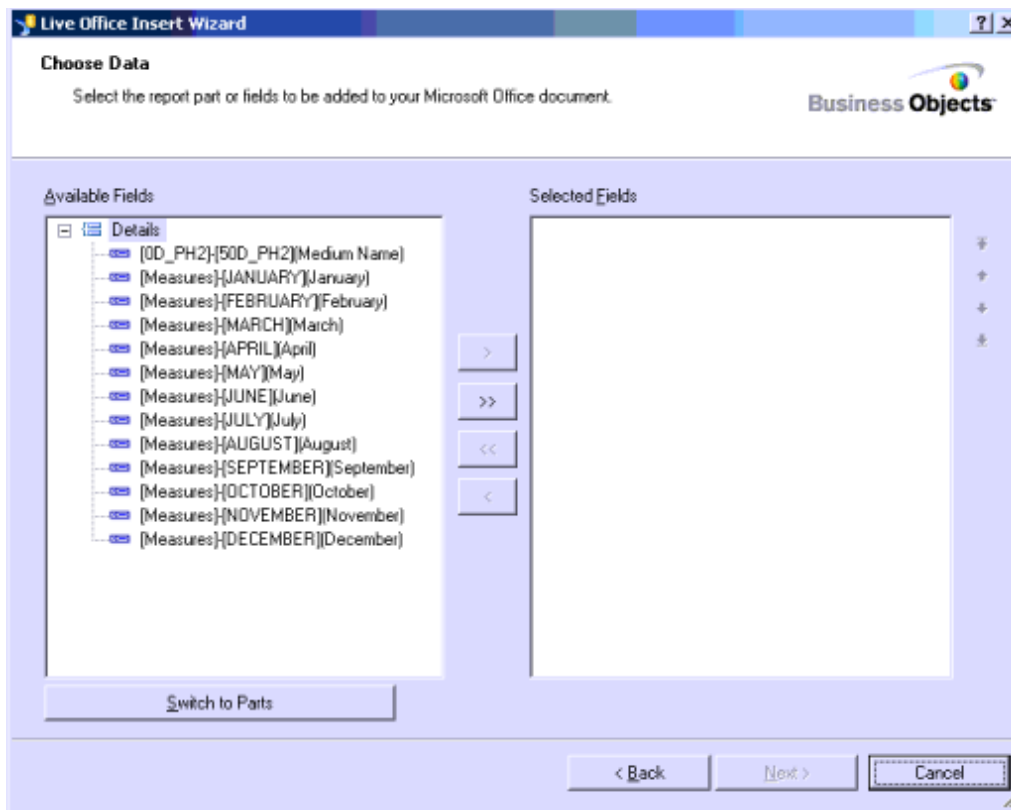
9. Use your SAP Credentials in the format [System ID]~[Client]/[Username] to authenticate (example: CIM~003/i819882)
10. Select the previously created report from BusinessObjects Enterprise.



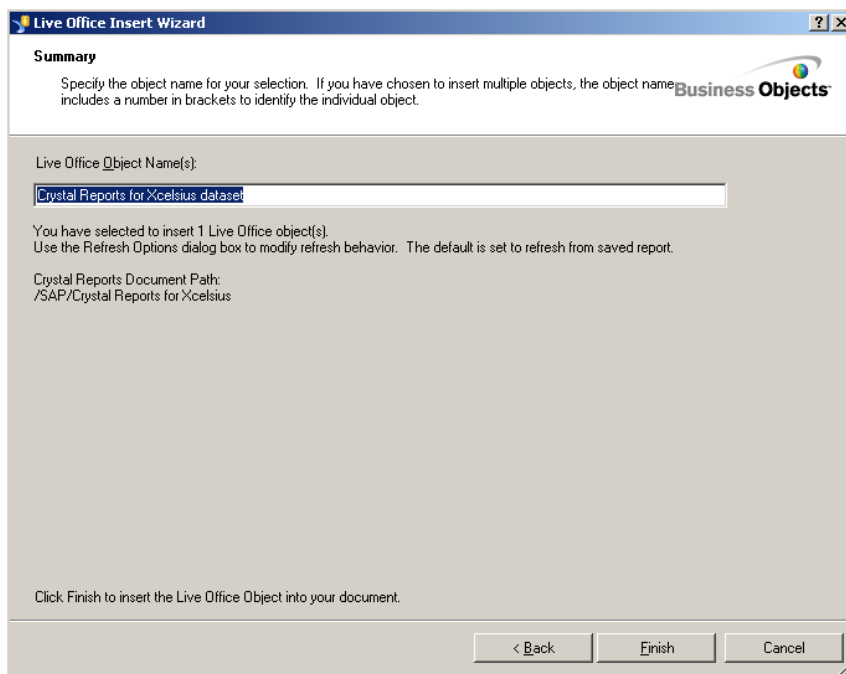
11. Click **Next**.



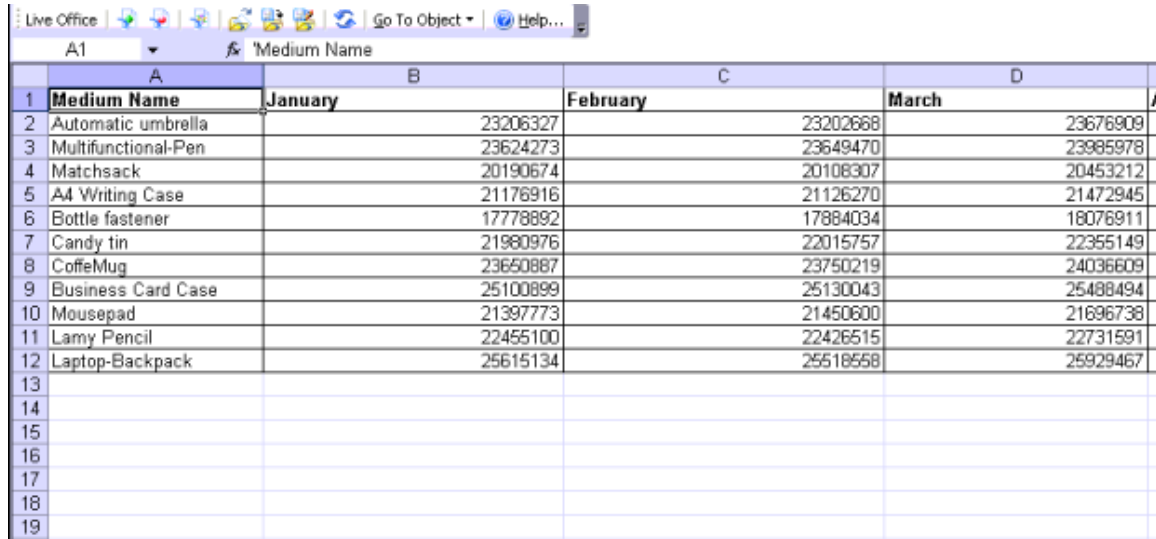
12. Click **Switch to Fields**.



13. Double-click the fields to add them to the list of Selected Fields.
 14. Click **Next**.
 15. Click **Next**.

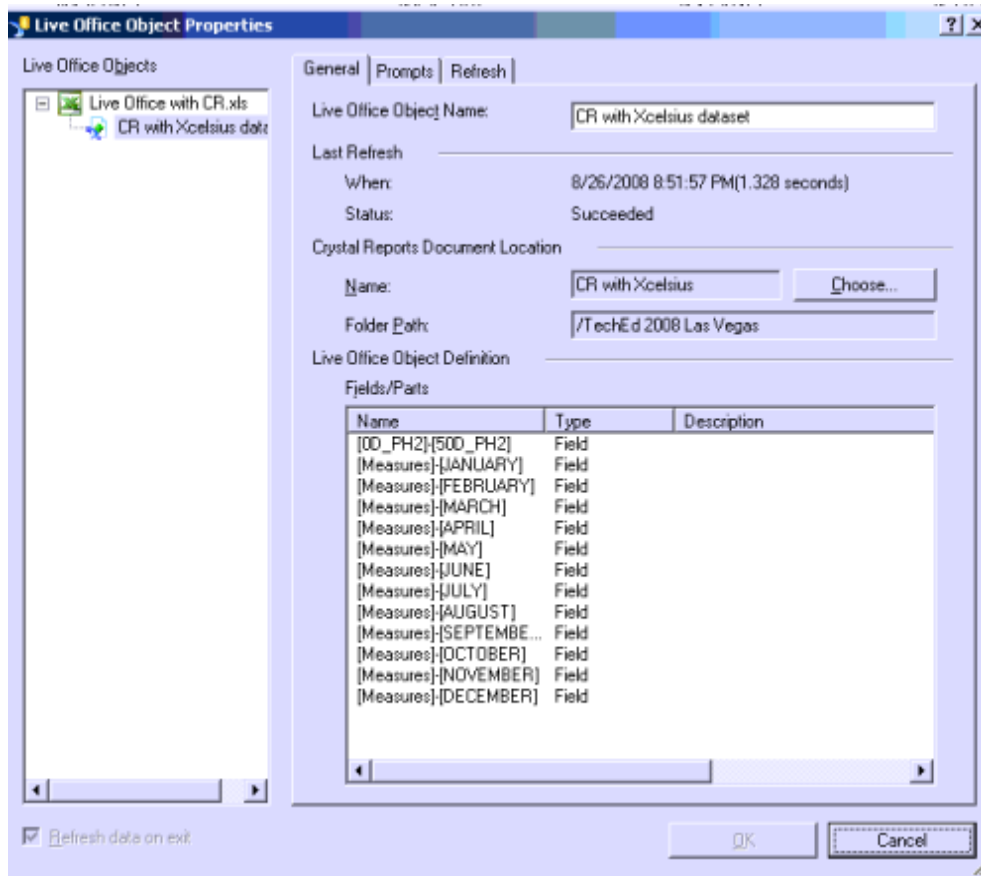


16. Click **Finish**.



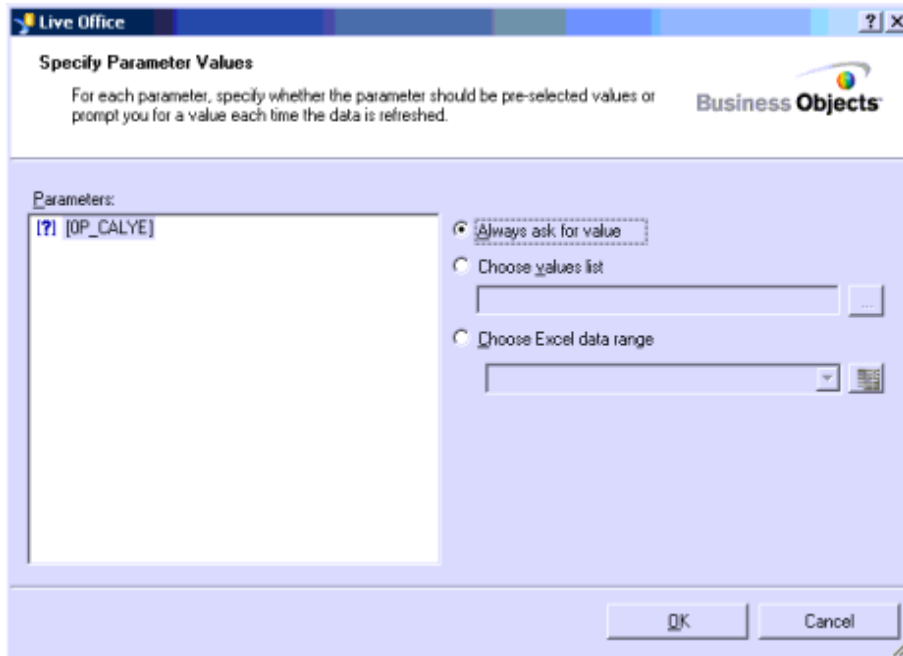
	A	B	C	D
1	Medium Name	January	February	March
2	Automatic umbrella	23206327	23202668	23676909
3	Multifunctional-Pen	23624273	23649470	23985978
4	Matchesack	20190674	20108307	20453212
5	A4 Writing Case	21176916	21126270	21472945
6	Bottle fastener	17778892	17884034	18076911
7	Candy tin	21980976	22015757	22355149
8	CoffeMug	23650887	23750219	24036609
9	Business Card Case	25100899	25130043	25488494
10	Mousepad	21397773	21450600	21696738
11	Lamy Pencil	22455100	22426515	22731591
12	Laptop-Backpack	25615134	25518558	25929467
13				
14				
15				
16				
17				
18				
19				

17. Select the menu **Live Office > Properties** for all objects.

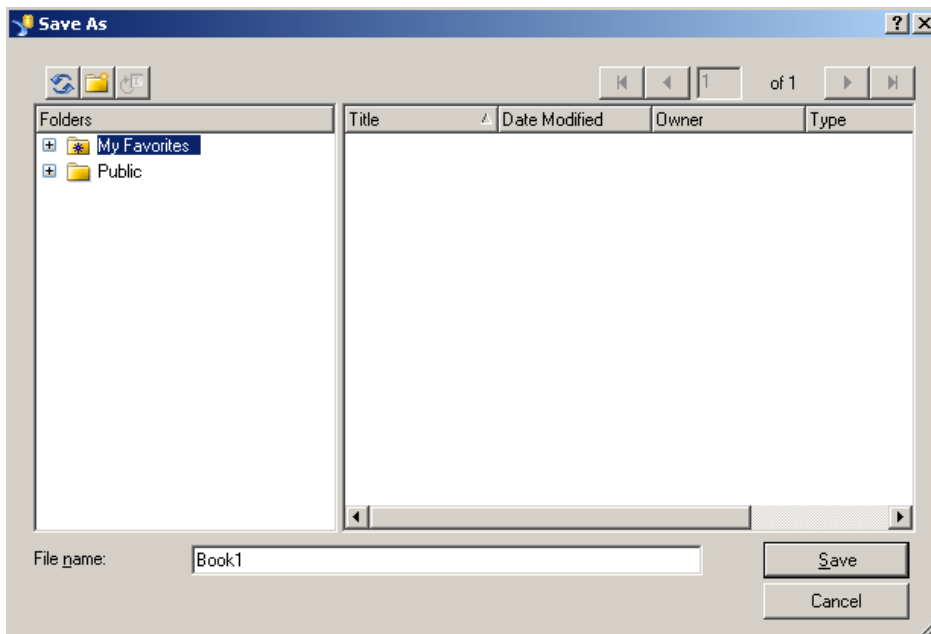


18. Navigate to the tab "Prompts".

19. Select the prompt and click “Parameter Values”.



20. Select the option “**Choose Excel data range**” and select a cell **on a separate sheet** in your document.. This will be used to provide input to the parameter. In our example we will use the cell **A20**.
21. Select the menu **Live Office > Publish to BusinessObjects Enterprise > Save to BusinessObjects Enterprise**.



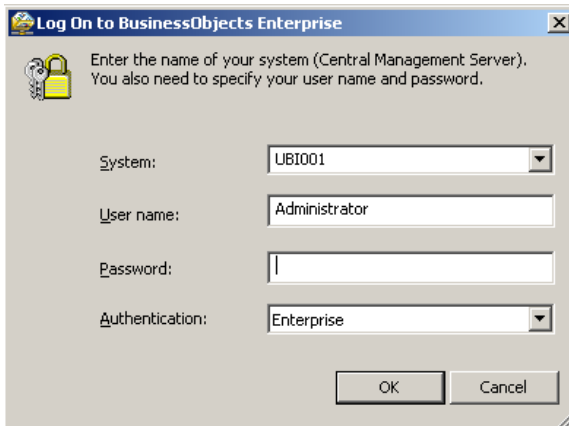
22. Enter the File name.
23. Click **Save**.
24. Close **Microsoft Excel**.

Xcelsius and Live Office

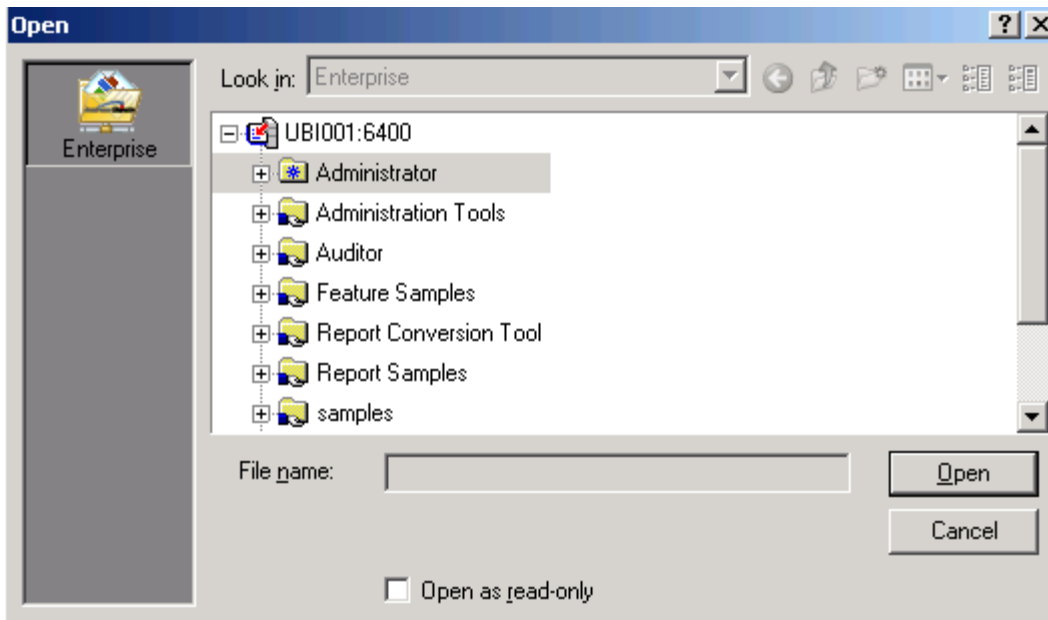
We used Live Office to retrieve the data from NetWeaver BI via Crystal Reports. As a next step, you will use the Live Office document as a source for the Xcelsius dashboard.

To create the Xcelsius dashboard

1. Start Xcelsius Designer (Start > Programs > Xcelsius > Xcelsius Designer).
2. Select the menu **Data > Import from Enterprise**.
3. Authenticate against the BusinessObjects Enterprise system.

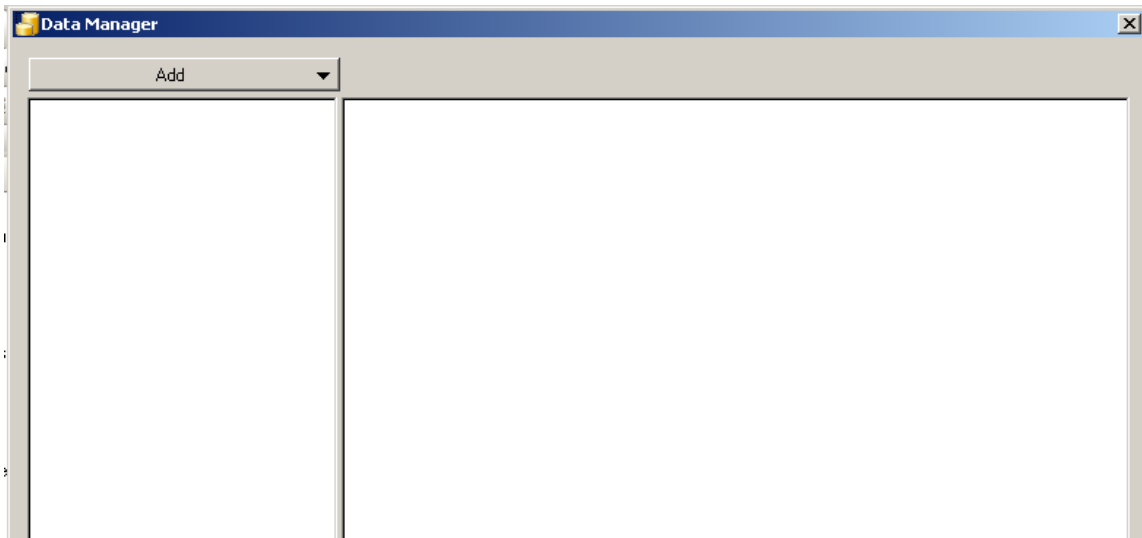


4. Click **OK**.

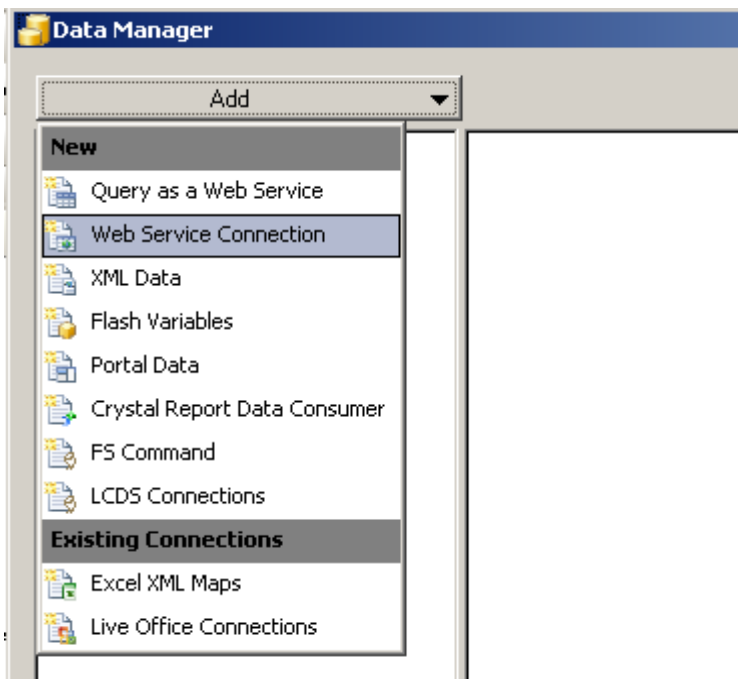


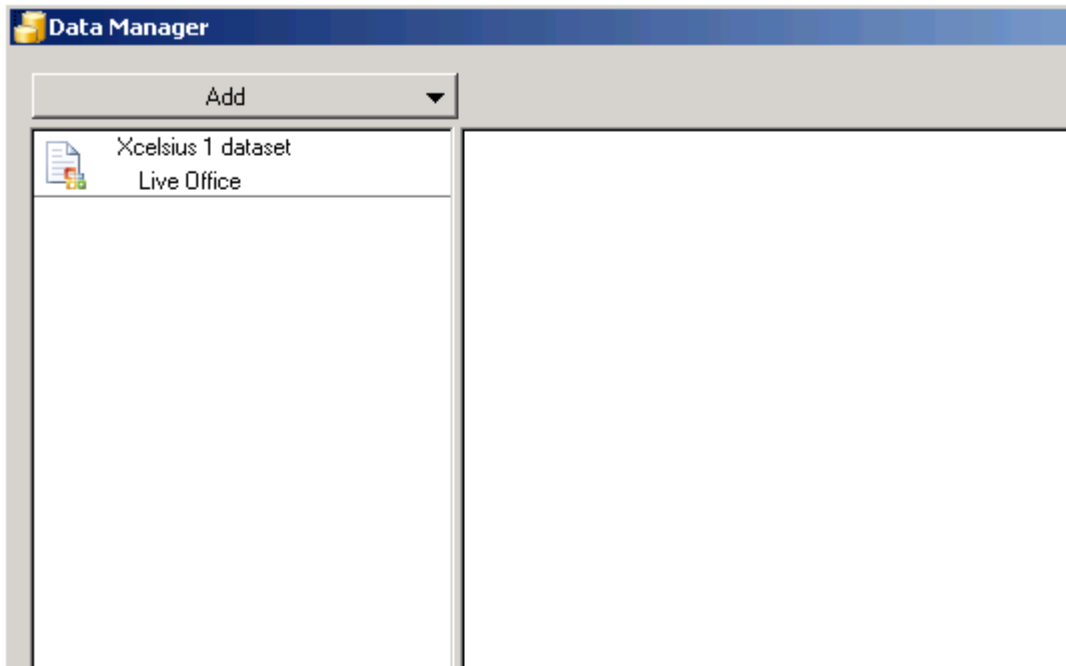
5. Select the Live Office document you created previously.
6. Click Open.

7. Select the menu **Data > Connections**.

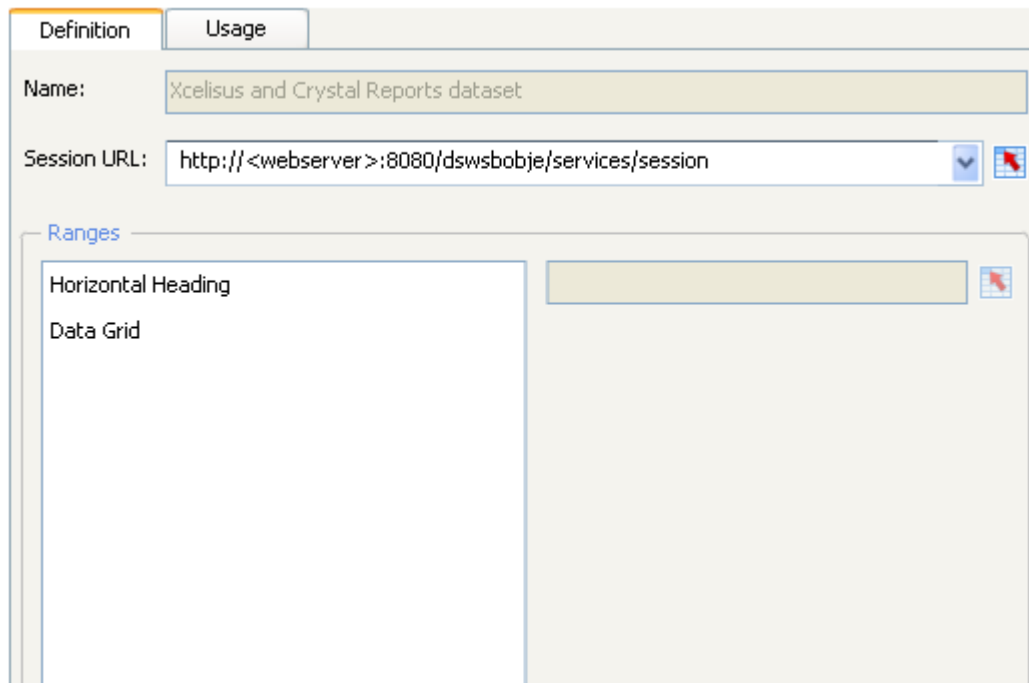


8. Click **Add**.



9. Select **Live Office Connections**.

10. Select the newly created connection.



11. Replace the entry <webserver> with your webserver name.
12. Click the **Usage** tab.

13. Set the **Refresh on Load** property.
14. Close the Data Manager.
15. Drag and drop a Stacked Bar Chart component onto the Xcelsius canvas.
16. Double-click the Stacked Bar Chart to open the properties.
17. Click on the icon next to the Data Values.

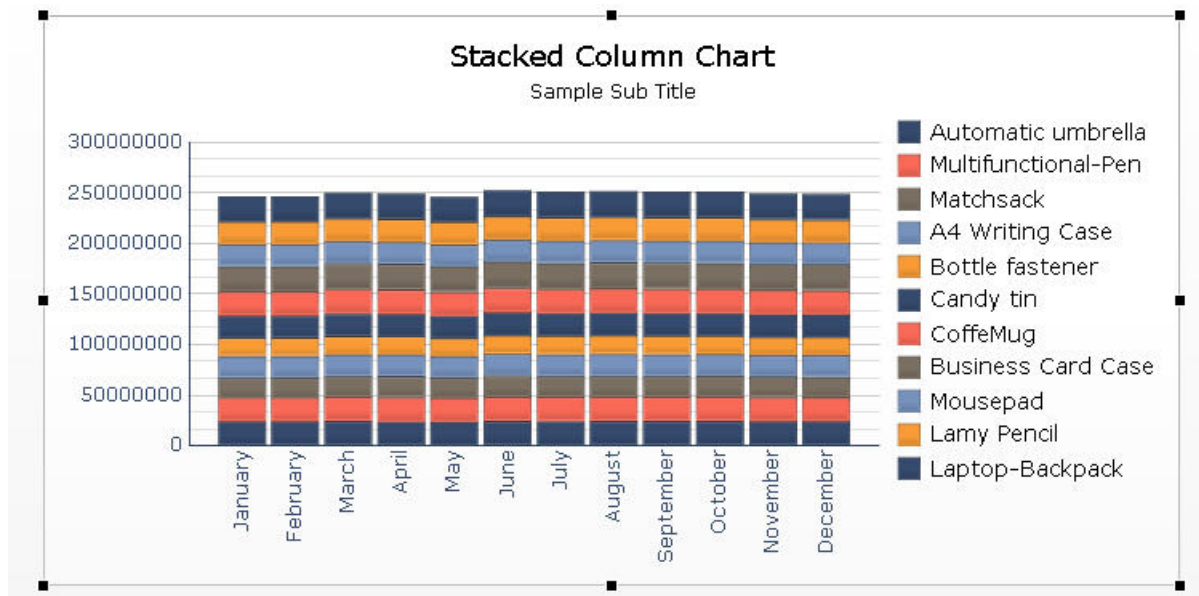
	H	I	J	K	L	M	N
1	July	August	September	October	November	December	
2	23574975	23631879	23604801	23604302	23420681	23395915	
3	24141426	24172107	24119840	24098611	23916036	23853543	
4	20496929	20628004	20495149	20677344	20378063	20355846	
5	21468094	21578542	21489672	21444679	21333574	21315810	
6	18174234	18267325	18169620	18140393	17955658	17997405	
7	22422591	22455466	22450945	22490755	22251517	22231873	
8	24170754	24170565	24199879	24149200	23953461	23900787	
9	25543492	25620657	25572548	25517471	25437423	25346430	
10	21806231	21923427	21779321	21851087	21644605	21618832	
11	22879006	22877198	22970277	22934879	22704019	22647132	
12	26043158	26143983	25979868	26025249	25773125	25812742	
13							
14							
15							
16							
17							
18							

18. Mark the complete range in the spreadsheet for the values and select the option "Data in rows"
19. Click **OK**.
20. Click **Preview**.

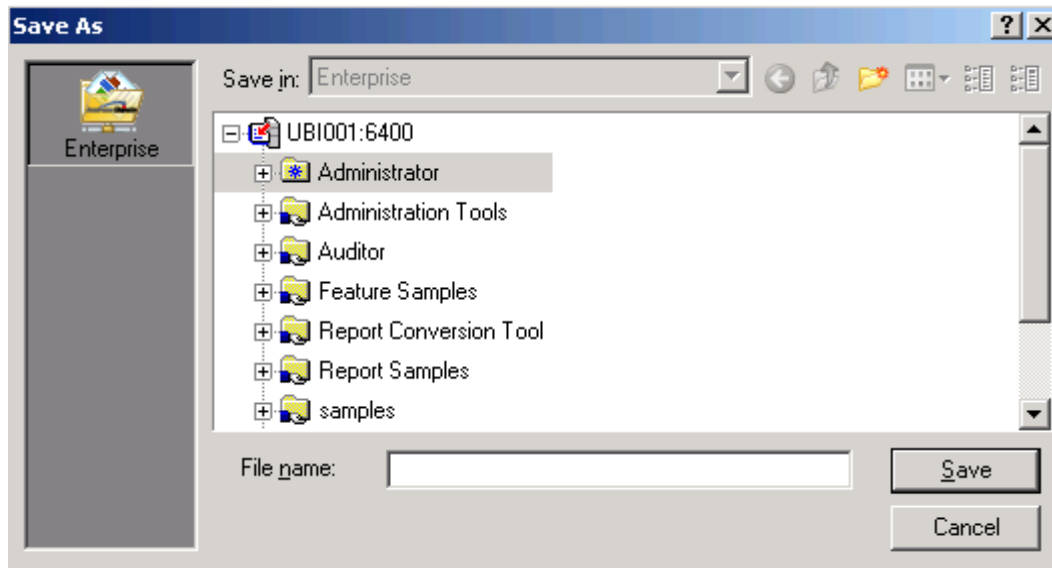
Because you are not authenticated against BusinessObjects Enterprise at this time a logon mask will come up and ask for BusinessObjects Enterprise credentials.

Use the SAP Authentication and the SAP credentials to leverage Single-Sign-On from the Xcelsius Dashboard to Live Office and Crystal Reports.

The image shows a 'User Identification' dialog box with the Business Objects logo. It has four input fields: 'System', 'User Name', 'Password', and 'Authentication'. The 'Authentication' dropdown menu is currently set to 'Enterprise'. At the bottom right, there are 'OK' and 'Cancel' buttons.



21. Select the menu **File > Export > BusinessObjects Platform**.



When exporting to the BusinessObjects Platform the actual Xcelsius document is being stored on the platform. When selecting the menu File > Save as the design of the Xcelsius design document is being stored to BusinessObjects Enterprise.

22. Select a folder on your BusinessObjects Enterprise system.
23. Enter a file name.
24. Click **Save**.
25. View the Xcelsius dashboard in InfoView using the SAP authentication.

Xcelsius and Universe and Query as a WebService (QaaWS)

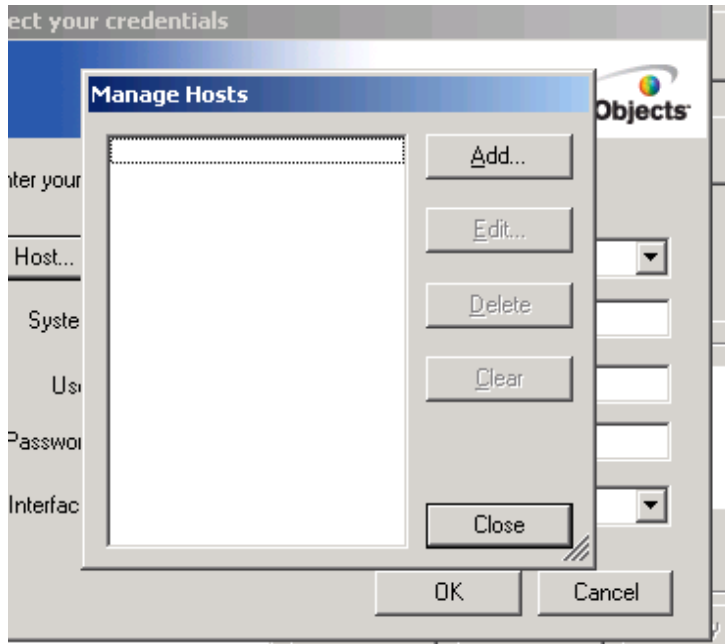
Query-as-a-WebService is a tool that allows you to expose a Universe as a web service and in that way you can also leverage a Universe as a source for Xcelsius.

Creating a Query as a WebService (QaaWS)

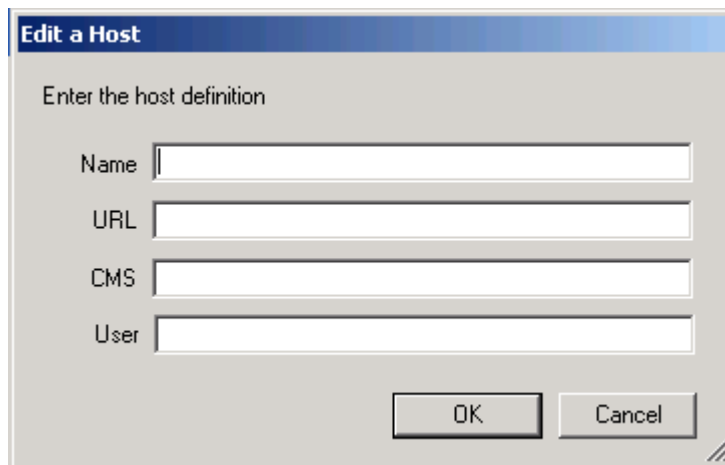
In our example we will leverage an existing OLAP Universe and now create the web service on top.

To create a new QaaWS web service

1. Start **Query as a Web Service** (Program > BusinessObjects XI Release 3 > BusinessObjects Enterprise > Query as a WebService).



2. Click **Add**.



3. Enter the Name and CMS.
4. Click **OK**.

5. Click **Close**.

Select your credentials

Business Objects
an SAP company

Enter your name and password to log in

Host... TECHED08

System TECHED08

User

Password

Authentication SAP

Enable Windows Active Directory Single Sign On

Interface Local English

OK Cancel Options <<

6. Enter the User and Password.
7. Click **OK**.

Query as a Web Service [cim~003/teched - TECHED08]

Query Edit Tools Help

Name

Queries of server "TECHED08"

SAP_LOV

Name:

Universe name:

Description:

URL:

To Clipboard

8. Click **New**.

The screenshot shows the 'Publish Query as a Web Service Wizard' dialog box. The title bar reads 'Publish Query as a Web Service Wizard'. The dialog has four steps: 1. Description, 2. Select a universe, 3. Query, and 4. Preview. Step 1 is selected. The instructions state: 'Define the Web Services properties: Web Service name, service name in the WSDL, and the description.' There are two input fields: 'Web Service Name:' and 'Web Service Description:'. Below these is an 'Advanced parameters...' button. At the bottom are 'Cancel', '< Back', and 'Next >' buttons.

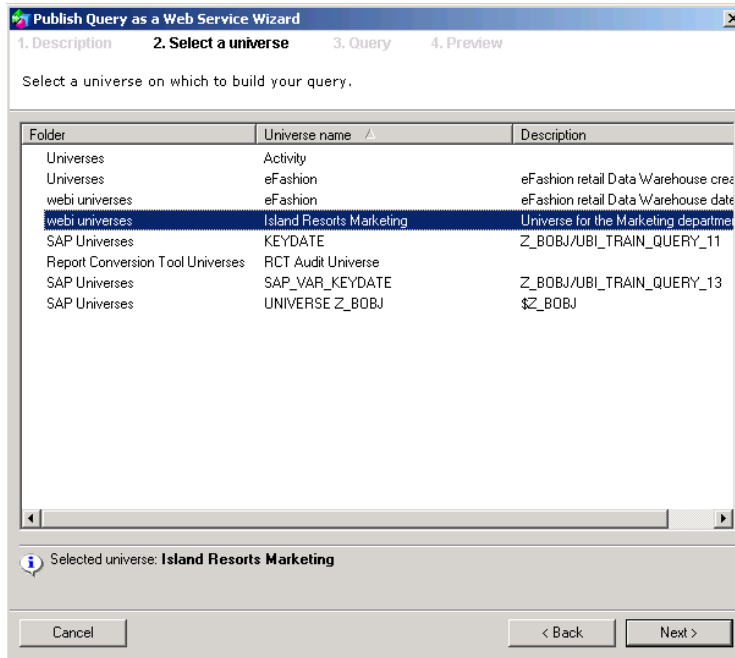
9. Enter a name for the web service.

10. Click **Advanced Parameters**.

The screenshot shows the 'Advanced parameters' dialog box. It has three main fields: 'Web Service base URL:' with the value 'http://ubi001:8080/dswsbobje', 'Session Time-out in seconds:' with a spinner set to '60', and 'Authentication mode:' with a dropdown menu set to 'secEnterprise'. At the bottom are 'OK' and 'Cancel' buttons.

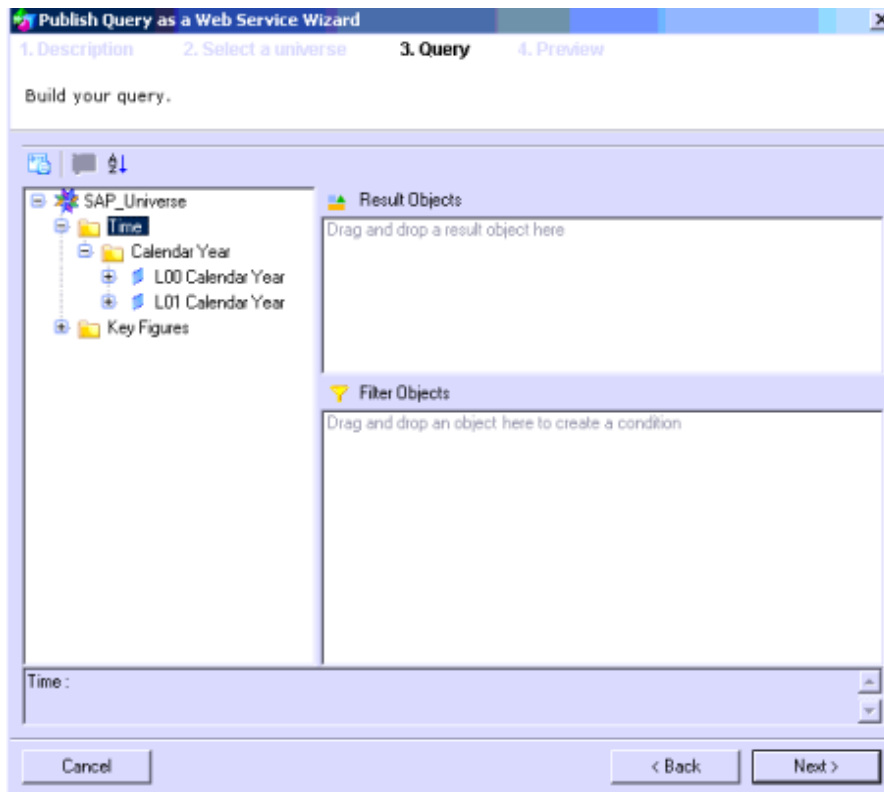
11. Select **secSAPR3** as Authentication mode.12. Click **OK**.

13. Click **Next**.



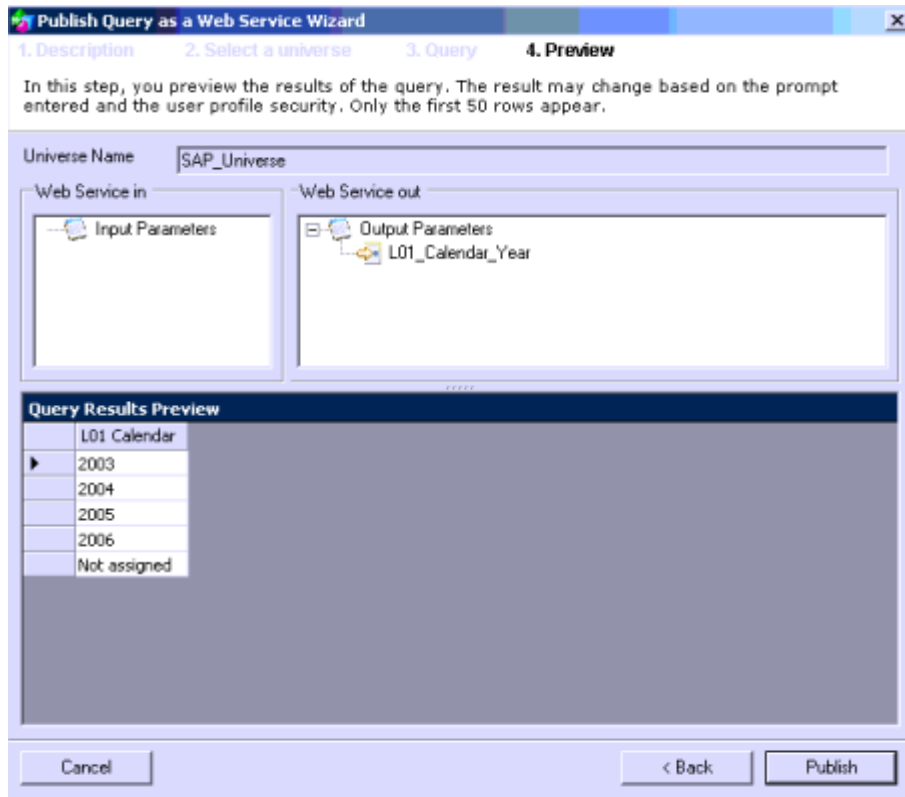
14. Select the Universe which will be used for the web service.

15. Click **Next**.



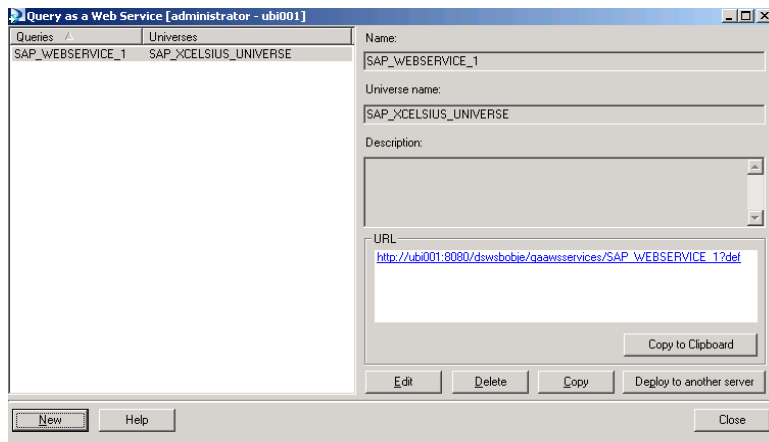
16. Use the query panel to create the query for the web service and add the Calendar Year to the result objects

17. Click **Next**.



A preview of the data is shown.

18. Click **Publish**.



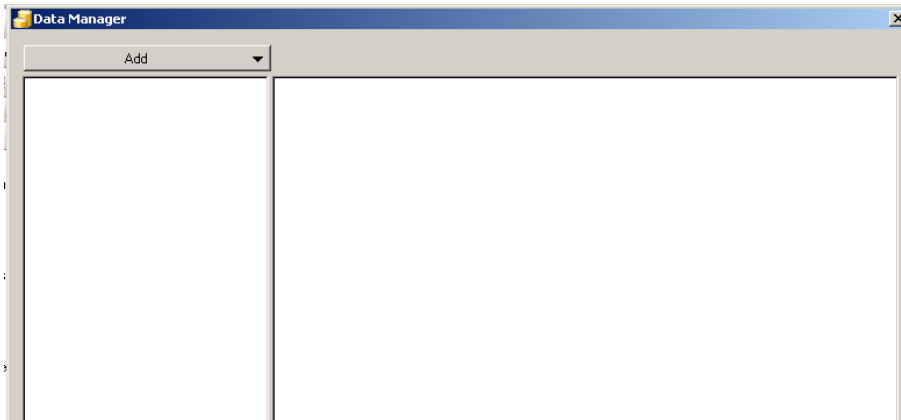
19. Copy the URL to the clipboard so that it can be used later on in the Xcelsius Designer.
20. Click **Close**.

Xcelsius and QaaWS

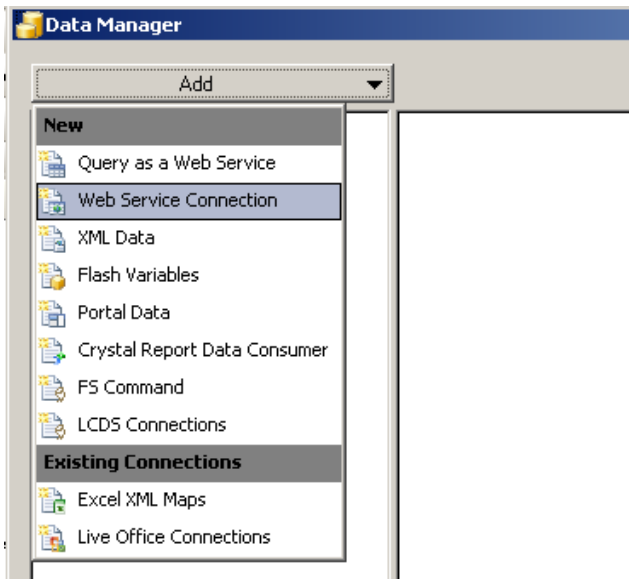
After creating the OLAP Universe and the web service based on top of the OLAP Universe, you can now create the Xcelsius dashboard using the web service.

To create the Xcelsius dashboard

1. Start Xcelsius Designer (Start > Programs > Xcelsius > Xcelsius Designer).
2. Re-open the Xcelsius file from the previous activity
3. Select the menu **Data > Connections**.

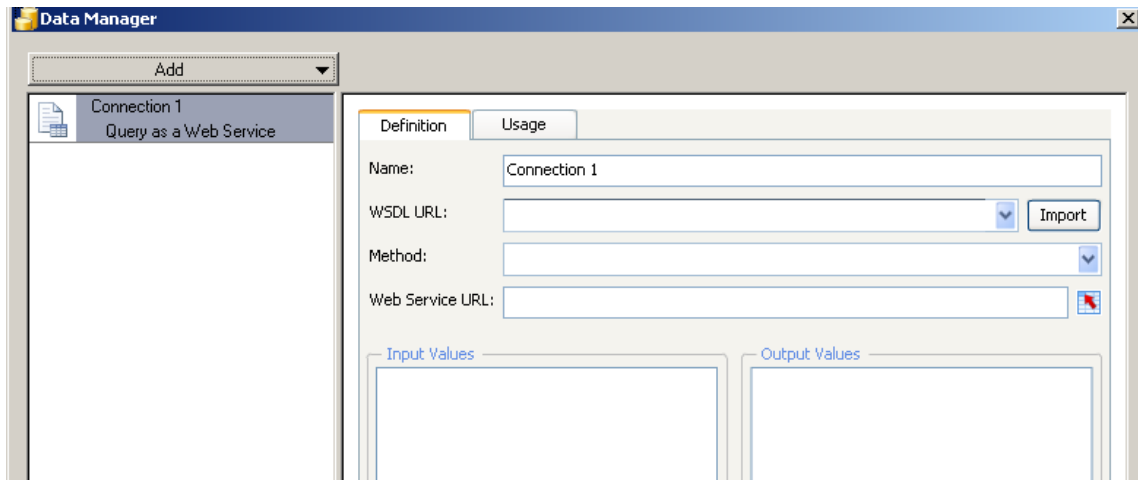


4. Click **Add**.

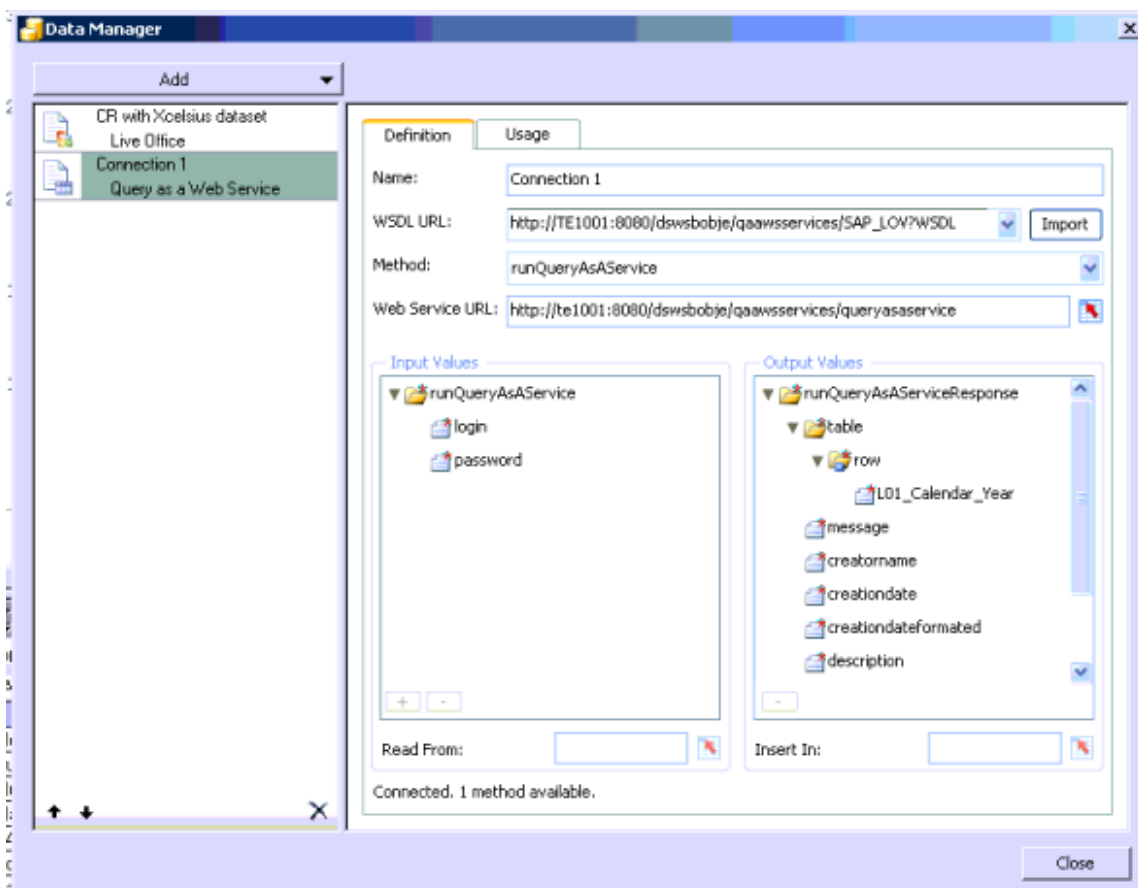


5. Select **Query as a Web Service**.

6. Select the newly created connection.



7. Paste the URL from the created QaaWS web service into the field WSDL URL.
8. Click Import.



9. Click on the row folder of the Return Values.
10. Click the icon next to the range.
11. Mark the required range in the Excel spreadsheet.
12. Click **OK**.

13. Navigate to the **Usage** tab.

Definition Usage

Refresh Options

Refresh On Load

Refresh Every Seconds

Refresh on Trigger

Trigger Cell:

When Cell Updates

When Value Changes

When Value Equals

Load Status

Loading Message:

Idle Message:

Insert In:

Enable Load Cursor Disable Mouse Input on Load

14. Set the **Refresh on Load** property.
15. Click **Close**.
16. Add a list box component to the Xcelsius canvas.
17. Double-click the list box component.

List Box 1

General Behavior Appearance Alerts

Title

Labels

Data Insertion

Insertion Type:

Source Data:

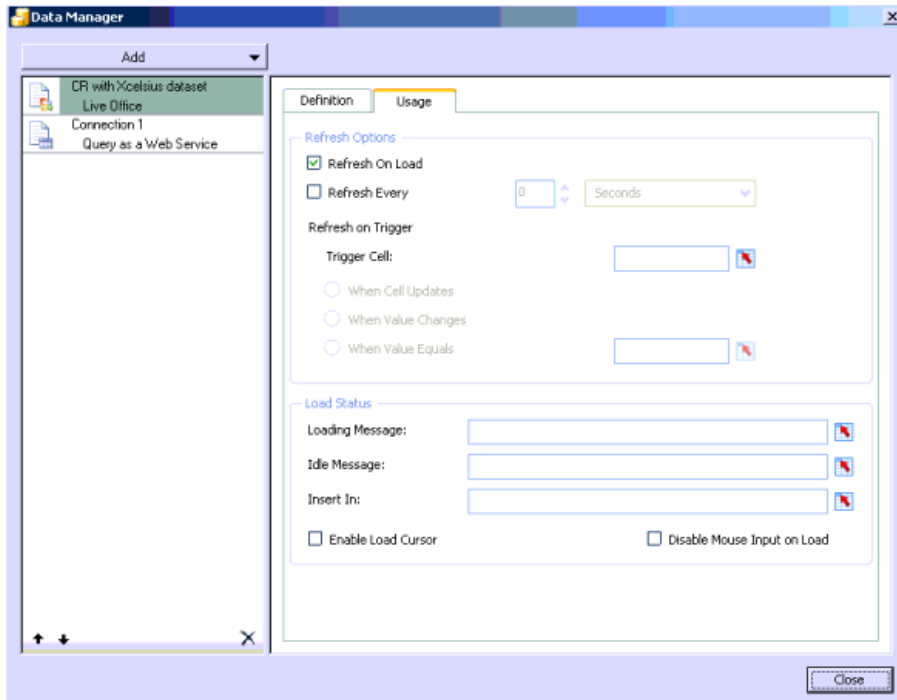
Destination:

18. Set the Insert Type option to **Value**.

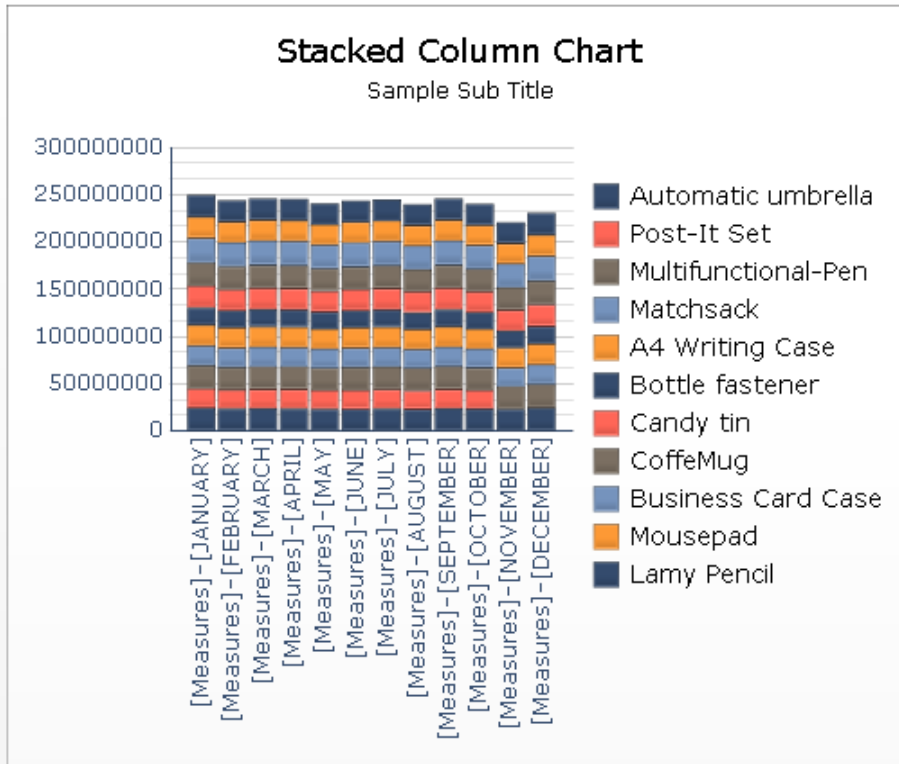
The screenshot shows the 'List Box 1' configuration window. The 'General' tab is active. The 'Data Insertion' section is expanded, showing the 'Insertion Type' dropdown menu set to 'Value'. Below this, there are two fields: 'Source Data' and 'Destination', each with a selection icon to its right.

19. Select the range for the **Source Data** and point it to the previous marked cells for the web service.
20. Select the range for the **Labels** and point it to the previous marked cells for the web service.
21. Set the Destination to the cell in the spreadsheet that was marked previously to be the input for the parameter in Live Office. In our example we will use **A20**
22. Select the menu **Data > Connections**.
23. Select the existing Live Office connection.

24. Navigate to the Usage tab.



25. Click the icon next to Trigger Cell.
26. Mark the cell that will contain the value from the list box. In our example **A20**
27. Select the option **When Value Changes**.
28. Click Close.
29. Click Preview.



2003
2004
2005
2006
Not assigned

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