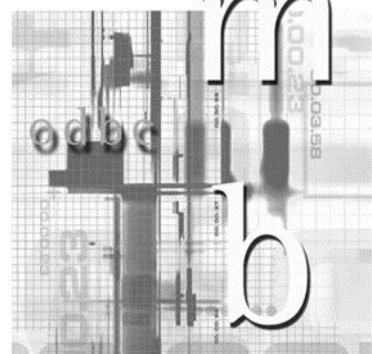
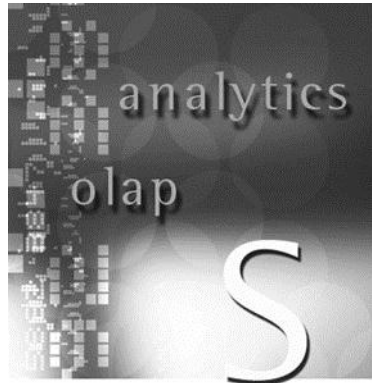




SimbaO₂X User Guide

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Before You Begin

Welcome to SimbaO₂X. SimbaO₂X provides connectivity to XML for Analysis (XMLA) data sources from OLE DB for OLAP-enabled (ODBO) analytic applications, such as Microsoft® Excel. Starting with O2X 4.3, the 64-bit version of ODBO is also supported, enabling users to take advantage of 64-bit Excel 2010.

In the multi-dimensional server space, applications talk ODBO today, while most multi-dimensional servers support web services through XMLA. SimbaO₂X allows you to move to a web services environment and continue to use your familiar ODBO-enabled applications, giving you the ability to access the next generation of data sources from major vendors like Hyperion®, Microsoft, MIS AG, and SAP®. SimbaO₂X breathes life into the most popular ODBO business intelligence applications, enabling fast, powerful and precise analytics from XMLA data stores.

SimbaO₂X is also sold as part of SimbaProvider SDK. If you are looking to implement an XMLA provider, you should consider SimbaProvider SDK. Please see the SimbaProvider Users Guide that evaluators will have also been given access along side the SimbaO₂X download, or contact sales@simba.com.

What's in Your SimbaO₂X Package

SimbaO₂X installs the following components on your computer:

- *SimbaO₂X components*, the various DLLs that comprise SimbaO₂X. *SimbaO₂X User's Guide*, this document.
- *Shortcut to the SimbaO₂X website* – <http://www.simba.com/odbo-to-xmla.htm> – containing product information and updates.
- *Shortcut to the XML for Analysis website* – <http://www.xmlforanalysis.com> – containing news, information and resources on XMLA.

Software and Hardware Requirements

To install and run properly, SimbaO₂X requires:

- IBM® PC or compatible machine
- Windows® 2000 Professional or later. 64-bit variants of Windows are also supported.
- 10 MB of disk space
- Microsoft .NET Framework 2.0

Who Should Read this Guide

This User Guide provides you with general instructions for using the SimbaO₂X components from third party applications such as Microsoft Excel, or from a custom application. It assumes that you are familiar with using OLAP-aware applications, such as Microsoft Excel PivotTables®.



How to Contact Us

If you have difficulty using SimbaO₂X, please contact Simba Customer Support. We welcome your questions, comments, and feature requests.

Please have a detailed summary of the environment (operating system, version, patch-level, bit width, etc.) for your machine ready, before you call or write us. Telling us this information will help us help you more effectively.

By telephone:

Call (604) 633-0008 and press 3

Customer Support is available Monday – Friday, from 9 a.m. until 5 p.m. Pacific Standard Time.

By fax or e-mail:

Fax (604) 633-0004

Send e-mail to support@simba.com

On the Web:

Visit us on the Web at www.simba.com.

You can send e-mail to our customer support staff directly from the Technical Support page. You can also submit technical requests online.



Installing SimbaO2X

If you are running a 64-bit Windows operating system, you should run the O2X 64-bit installer. This will install O2X for both 32-bit ODBO and 64-bit ODBO, thus allowing you to use 64-bit applications such as the 64-bit version of Excel 2010, in addition to 32-bit ODBO applications.

Installing the License Key

Please read this section only if you are installing an ‘evaluation’ version of O2X. If you have already obtained a purchased copy of O2X, you may skip this section of the manual.

If you are considering purchasing O2X, you will likely download and try the customer evaluation version. After downloading it, you will be contacted using email by a Simba staff member to provide you with a product evaluation license key (.lic file). Please follow these directions, and be particularly careful if you are running either a 64-bit Windows OS or Windows 7.

Windows 7, Vista and 2008

If you are running one of the above Windows versions, you must both be an administrator on the computer, and additionally must start Windows Explorer “As Administrator”.

Steps:

- Save the .lic file emailed to you to any handy file directory. (Do *not* right-click>Copy the attachment directly from of MS-Outlook.)
- In preparation for starting Windows Explorer, find it in StartMenu > Programs > Accessories. In the Accessories area, right-click on Windows Explorer and choose “Run as administrator”.
- Find the copy of the .lic file where you stored it from Outlook. Using the Windows Explorer that you are running as administrator, copy and paste it into the appropriate subdirectory of C:\Windows\ that is described below depending on your operating systems 32-bit or 64-bit width.

Where to Install .lic File Depending on Windows OS Bit Width

If you are running a 32-bit version of Windows, please install the .lic file provided into directory C:\Windows\System32\.

If you are running a 64-bit version of Windows, make sure you have, as described earlier, run the 64-bit O2X installer. Then:

- For use with 32-bit applications on 64-bit Windows, put the .lic file in c:\Windows\SysWOW64\ (This stands for Win32-On-Win64).
- For use with 64-bit applications (like the 64-bit version of Excel 2010) additionally put the .lic file in c:\Windows\System32.

The above subdirectory purposes seem reversed but this is how Microsoft uses these directories.



Setup SimbaO₂X Connection with Data Link Properties

This section describes how to connect to an XML for Analysis (XMLA) data source from an OLE DB for OLAP (ODBO) application using Data Link Properties pages. Data Link Properties is the default mechanism to setup a connection in clients such as Excel.

We assume that you are already familiar with the ODBO-enabled application that you wish to use, so the focus will be on SimbaO₂X.

Note that there are two methods to set up connection details.

- The first method described below is perhaps most MS-Office familiar in nature.
- However, you may need elements of the second method described much farther below in the section titled “Setup SimbaO₂X Connection with XMLA Provider Logon Dialog”. Your enterprise security policy may not allow saving of passwords in a Windows connection. And if you don’t, a dialog window of the second method is important to be familiar with since in this situation it pops up when re-opening or refreshing a connection at run time.

Step 1: Selecting the Right ODBO Provider

Your ODBO-enabled application should give you a choice of which ODBO provider to use.

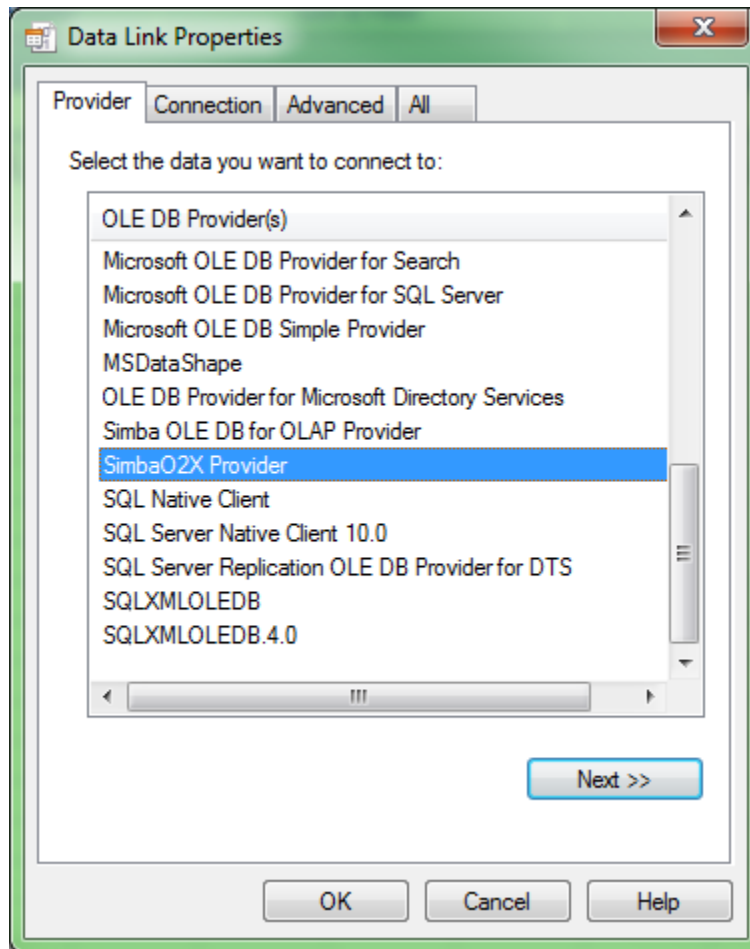
Initial Connection from Excel 2007/2010

To connect to SimbaO₂X via Excel 2007 or 2010:

- Select the Data menu/tab > From Other Sources > From Data Connection Wizard.
- From the list, select “Other/Advanced” and click Next.



- From the Provider tab of the resulting Data Link Properties dialog shown below, select “SimbaO₂X Provider”.



- Click “Next >>”
- Please proceed to Step 2 of this chapter to see and learn how to fill out the connection information.

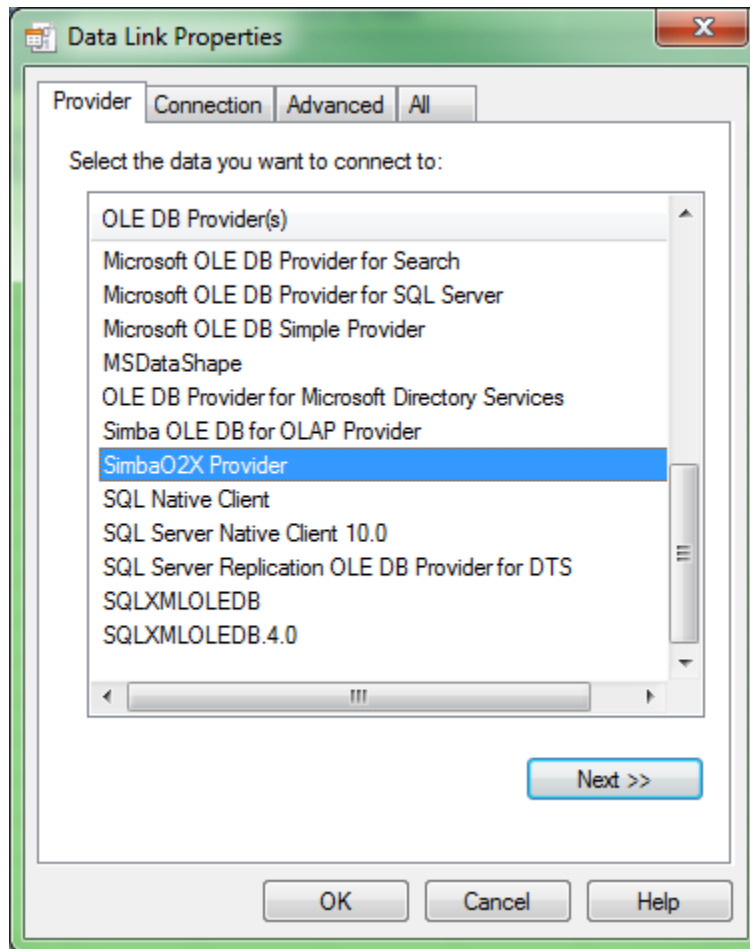
Initial Connection via Excel 2003

To connect from Excel 2003:

- From the Data menu item, select Import External Data > Import Data.
- In the Select Data Source dialog, click the New Source button. You will see the Data Connection Wizard.
- From the list, select “Other/advanced” and click Next.



- From the Provider tab of the resulting Data Link Properties dialog shown below, select “SimbaO₂X Provider”.



- Click “Next >>”
- Please proceed to Step 2 of this chapter to see and learn how to fill out the connection information.



Step 2: Choosing an Initial XMLA Data Source

In order to connect to an XMLA data source, SimbaO₂X must ask you for some information, as shown here:

The screenshot shows the 'Data Link Properties' dialog box with the 'Connection' tab selected. It contains the following fields and controls:

- 1. Specify the XMLA connection URL: A dropdown menu.
- 2. Enter authentication information:
 - Username: A text input field.
 - Password: A text input field.
 - Allow saving password
- 3. Enter the initial catalog to use: A dropdown menu.

A 'Test Connection' button is located below the third step. The Simba logo and version 'v4.3.0.0 (32-bit)' are visible at the bottom left. 'OK', 'Cancel', and 'Help' buttons are at the bottom right.

Type the URL of the XMLA data source into the URL box.

SimbaO₂X provides examples for the most common XMLA connection URL. You can select the most relevant example based on your XMLA Provider configuration, then modify the URL to suit your needs.

You may enter in user information such as the username and password if your connection requires authentication information. Please note that different providers can handle authentication in their own way. Also, how those providers are set up affects the way authentication is used or not used in this dialog. Your IT group may be able to provide assistance.

The “Allow saving password” checkbox is used for persisting the password. If this setting is on, then a connection (e.g. when re-opening and refreshing from Excel) can be re-established with the same password that the user entered previously. If this setting is



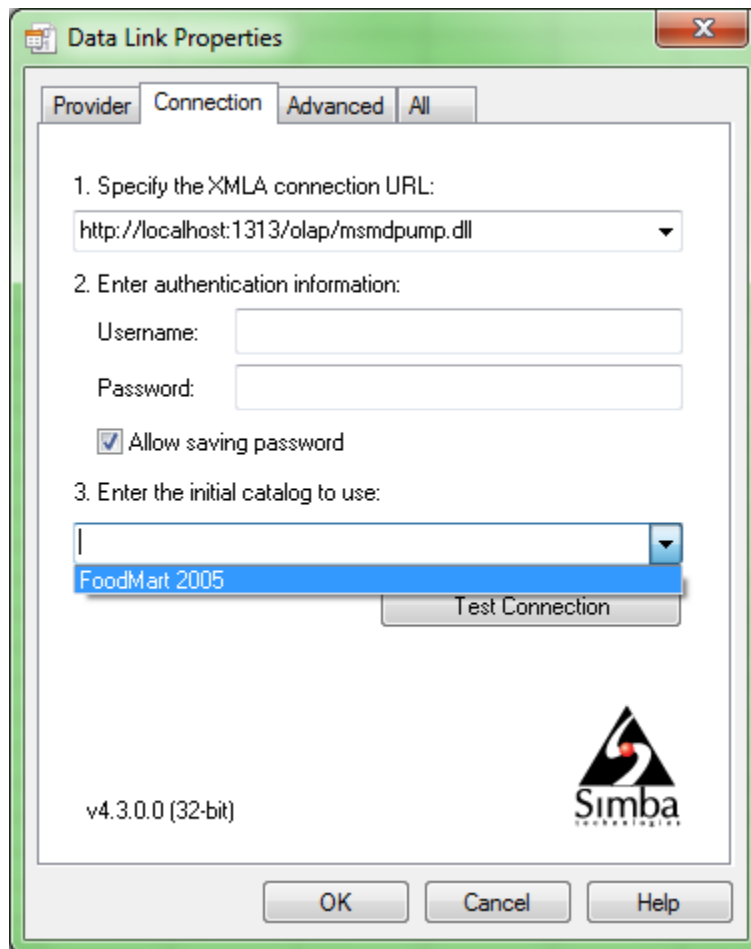
turned off, then the user has to re-enter the password again to establish the connection. If you are using Excel as your client, see the note in Step 4 as you need to take one more action to persist the password.

To show you how this could be used, here are some scenarios connecting to Analysis Services 2005 through IIS. If anonymous access is allowed or if Integrated Windows authentication is turned on in your provider's IIS settings, then leave the User and Password fields blank. If Basic Authentication is turned on in IIS and you have a valid user set up, fill in your username and password information.

The next step, Step 3: Modifying Advanced Connection Properties, is optional. Please refer to the next section for more details.

When you are ready, click on the "Test Connection" button to connect. A message box will appear to inform you the result of your connection attempt.

If the connection succeeds, you will be able to choose a catalog to use for the connection.

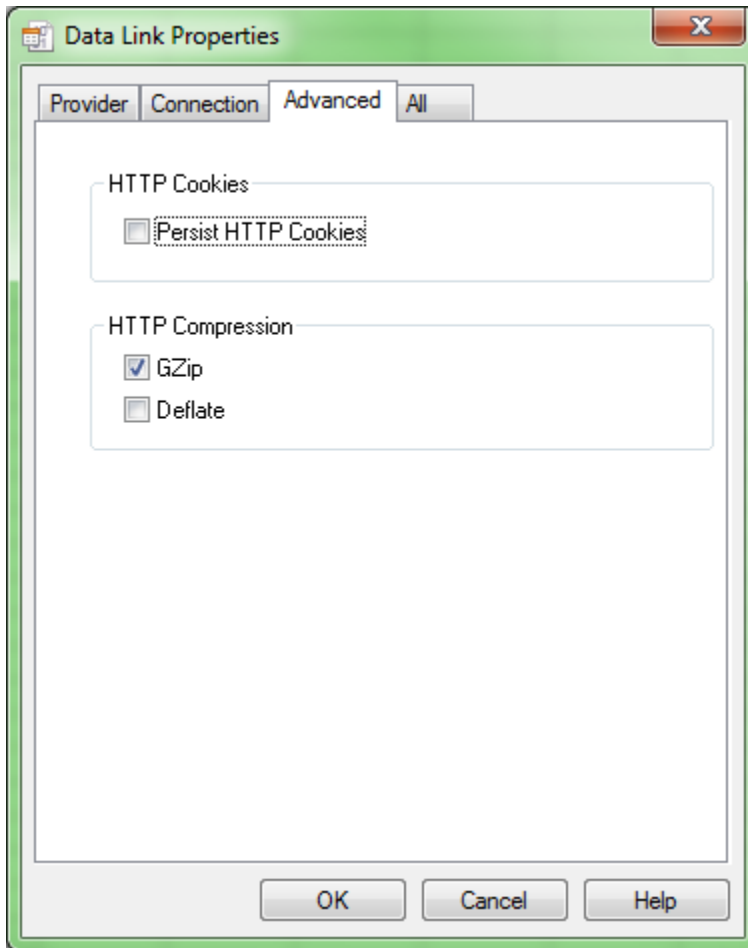


Once you have chosen the catalog you want to use, click "OK" to confirm this connection setup.



Step 3: Modifying Advanced Connection Properties

SimbaO₂X supports HTTP Cookies and HTTP Compression. These options can be enabled through the checkboxes in the Advanced tab.



By selecting HTTP Cookies, SimbaO₂X will persist any cookies sent back from the server, and resend them in subsequent requests.

SimbaO₂X also allows for HTTP Compression. HTTP data can be compressed which will result in more efficient use of bandwidth. You can select gzip or deflate compression. GZip compression is enabled by default. You can also choose to select both types of compression, or turn off compression completely. If you select both gzip and deflate, SimbaO₂X will allow both types of compression and your server will decide which type of compression to use.



Step 4: Choosing a Data Cube

Once the SimbaO₂X connection has been made, you can work as you normally do. Your ODBO-enabled application will probably ask you to choose a cube, and you should refer to your ODBO client application's user documentation for details.

For example in Excel 2007, you will next see the Data Connection Wizard's "Select Database and Table" dialog. Select a cube and click Next. You will then see the wizard's "Save Data Connection File and Finish" dialog. If in Step 2 you checked the "Allow saving password" checkbox, you must now additionally check the "Save password in file" checkbox here to ensure it is actually persisted.

Once you have done this, you can begin to explore your XMLA data source.

That's all there is to it!



Setup SimbaO₂X Connection with XMLA Provider Logon Dialog

This section describes how to connect to an XML for Analysis (XMLA) data source from an OLE DB for OLAP (ODBO) application using the SimbaO₂X XMLA Provider Logon dialog.

In the previous section, we have discussed connection setup using Data Link Properties. The XMLA Provider Logon dialog can be used interchangeably with the Data Link Properties pages for connection setup. However it is useful to be familiar with both methods, because if your enterprise security policy does allow the saving of passwords in Windows connections, you will be prompted using the dialog shown in Step 2 below when re-opening or refreshing data.

We assume that you are already familiar with the ODBO-enabled application that you wish to use, so the focus will be on SimbaO₂X.

Step 1: Selecting the Right ODBO Provider

Your ODBO-enabled application will give you a choice of which ODBO provider to use.

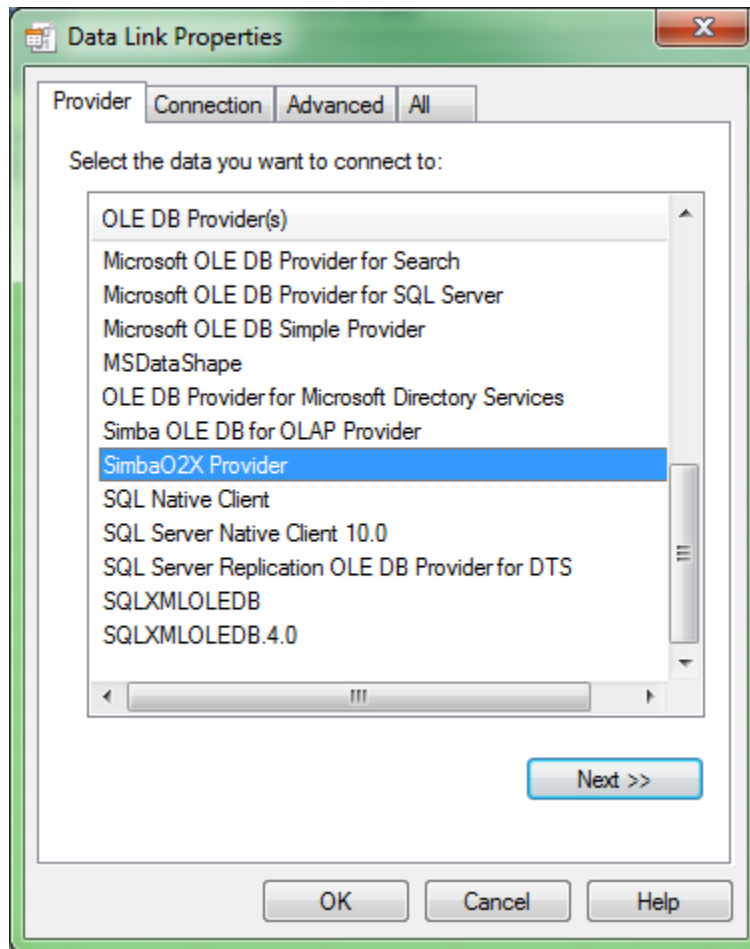
Connection from Excel 2007/2010

To connect to SimbaO₂X via Excel 2007 or 2010:

- Select the Data menu/tab > From Other Sources > From Data Connection Wizard.
- From the list, select “Other/Advanced” and click Next.



- From the Provider tab of the resulting Data Link Properties dialog shown below, select “SimbaO₂X Provider”. Do not click Next.



- Click the OK button.
- Please proceed to Step 2 of this User’s Guide to see and learn how to fill out the XMLA Provider Logon dialog window.

Connection via Excel 2003

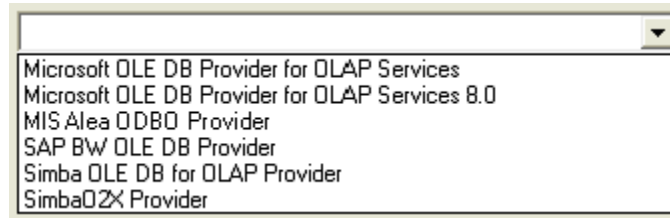
To connect from Excel 2003:

- From the Data menu item, select Import External Data > New Database Query.
- In the Choose Data Source dialog, switch to the OLAP Cubes tab. Highlight <New Data Source> and click OK.
- In the Create New Data Source dialog, enter a name of your choosing for the data source/connection.
- Next, in the Select An OLAP Provider dropdown, select SimbaO₂X Provider.
- Click Connect.
- Go to Step 2 of this User’s Guide to see and learn how to fill out the XMLA Provider Logon dialog window.



Connecting Via a Custom Application

For other applications or a custom OLAP application, you will have to consult the application documentation on how to connect through a particular ODBO provider. This choice is usually presented in the form of a drop-down list, like this one:



To use the SimbaO₂X Provider, simply select “SimbaO₂X Provider” from the drop-down list.

After selecting the SimbaO₂X Provider, you may be prompted to click a button that says “Connect” or “Test Connection” (each ODBO-enabled application may handle this differently). Once the XMLA Provider Logon dialog box (shown below) appears, proceed to the next step.



Step 2: Choosing an XMLA Data Source

In order to connect to an XMLA data source, SimbaO₂X must ask you for some information via the XMLA Provider Logon dialog box, as shown here:

Type the URL of the XMLA data source into the URL box.

Note that SimbaO₂X XMLA Provider Logon dialog has an advanced feature that will remember your choices of URL and catalog, and display them the next time you use the XMLA Provider Logon dialog box. If you ever want to clear one, just select it and click the “Delete URL” button.

You may enter in user information such as the username and password if your connection requires authentication information. Please note that different providers can handle authentication in their own way. Also, how those providers are set up affects the way authentication is used or not used in this dialog.



The Allow Saving Password checkbox is used for persisting the password. If this setting is on, then a connection can be re-established with the same password that the user entered previously. If this setting is turned off, then the user has to re-enter the password again to establish the connection. If you are using Excel as your client, see the note in Step 3 as you need to take one more action to persist the password.

To show you how this could be used, here are some scenarios connecting to Analysis Services 2005 through IIS. If anonymous access is allowed or if Integrated Windows authentication is turned on in your provider's IIS settings, then leave the User and Password fields blank. If Basic Authentication is turned on in IIS and you have a valid user set up, fill in your username and password information.

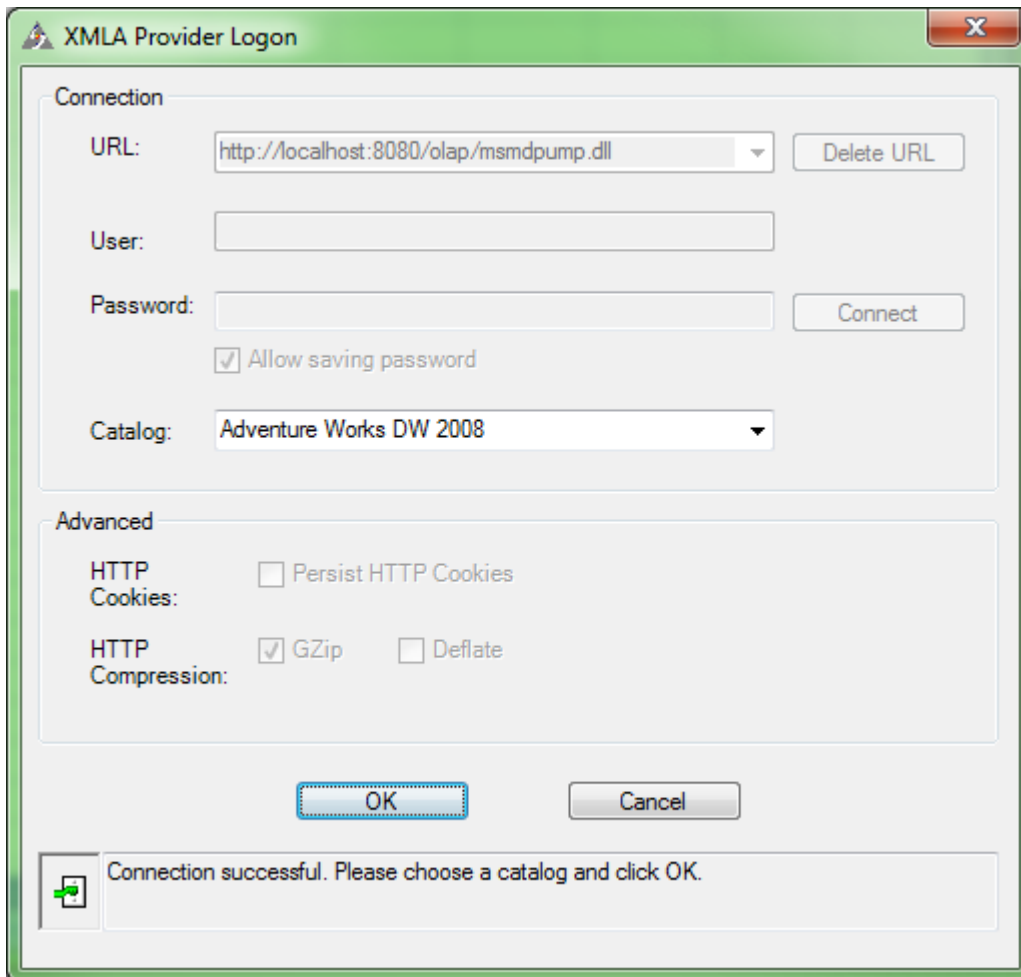
SimbaO₂X supports HTTP Cookies and HTTP Compression. These options can be enabled through the checkboxes in the Advanced tab. By selecting HTTP Cookies, SimbaO₂X will persist any cookies sent back from the server, and resend them in subsequent requests.

SimbaO₂X also allows for HTTP Compression. HTTP data can be compressed which will result in more efficient use of bandwidth. You can select gzip or deflate compression. GZip compression is enabled by default. You can also choose to select both types of compression, or turn off compression completely. If you select both gzip and deflate, SimbaO₂X will allow both types of compression and your server will decide which type of compression to use.

When you are ready, click on the Connect button to connect. Note that there is a connection status message at the bottom of the dialog to help you.



If the connection succeeds, as shown below, you will be able to choose a catalog to use for the connection.



Once you have chosen the catalog you want to use, click OK to confirm this connection setup.

Step 3: Choosing a Data Cube

Once the SimbaO₂X connection has been made, you can work as you normally do. Your ODBO-enabled application will probably ask you to choose a cube, and you should refer to your ODBO-application's user documentation for details.

For example in Excel 2007, you will next see the Data Connection Wizard's "Select Database and Table" dialog. Select a cube and click Next. You will then see the wizard's "Save Data Connection File and Finish" dialog. If in Step 2 you checked the "Allow saving password" checkbox, you must now additionally check the "Save password in file" checkbox here to ensure it is actually persisted.

Once you have done this, you can begin to explore your XMLA data source.



That's all there is to it!



Custom Connection Strings

Writing your own connection string is useful when developing a custom application (using Visual Basic®, for example).

If you need to write a connection string to connect to an XMLA provider using SimbaO₂X, you must include the following items:

- **Provider=[ProviderName]** where *[ProviderName]* is either SimbaO2X.2, or just SimbaO2X. If you omit the version number (i.e. – if you use “Provider=SimbaO2X”), then your connection string will ensure that the latest installed version of SimbaO₂X will be used.
- **Data Source=[URL]** where *[URL]* is the URL of the XMLA data source to which you want to connect.
- **Initial Catalog=[Catalog]** where *[Catalog]* is the name of the catalog you want to use for your connection.

Optionally, you may include authentication information such as:

- **User ID=[username]** where *[username]* is the name of the user you want to use for your connection.
- **password=[password]** where *[password]* is the password for the specified user you want to use for your connection.



Advanced Features

SimbaO₂X also supports server-side SSL. The minimum requirement for this is the XMLA server needs to provide a server-side certificate.

As previously mentioned, SimbaO₂X supports HTTP Cookies and HTTP Compression. These options can be enabled during your connection setup. By selecting HTTP Cookies, SimbaO₂X will persist any cookies sent back from the server, and resend them in subsequent requests.

As previously mentioned, SimbaO₂X also allows for HTTP Compression. HTTP data can be compressed which will result in more efficient use of bandwidth. You can select gzip or deflate compression. GZip compression is enabled by default. You can also choose to select both types of compression, or turn off compression completely. If you select both gzip and deflate, SimbaO₂X will allow both types of compression and your server will decide which type of compression to use.



.NET Framework Dependency

If you have multiple versions of .NET Framework installed, you may need to ensure that the BI client using SimbaO₂X loads the correct version of .NET Framework. SimbaO₂X requires .NET Framework 2.0.

There is a known issue with Microsoft Excel 2003 when multiple versions of .NET Framework are installed. Microsoft Excel 2003 supports only one version of .NET Framework at runtime and may load the incorrect version.

This would cause SimbaO₂X to fail to initialize (SimbaO₂X Logon dialog box does not appear, and an error message will pop up).

The solution to this problem is as follows. Note that you will require administrator privileges to perform this.

- Ensure that Microsoft Excel 2003 is not running.
- Go to the directory where you have installed Excel 2003.
- Create a text file **EXCEL.EXE.config** in the directory. Copy and paste the following contents to the file:

```
<configuration>
  <startup>
    <supportedRuntime version="v2.0.50727"/>
  </startup>
</configuration>
```

- Ensure that the value in quote matches the specific version of .NET 2.0 that you have installed on your machine. You can check **<WINDOWS_DIRECTORY>Microsoft.NET\Framework** for this.
- Save the file.
- Start up Microsoft Excel 2003 and note that SimbaO₂X will now initialize properly.



Finally

SimbaO₂X opens up many more opportunities for you to access data from your familiar ODBO-enabled applications. This means you can stay productive while accessing data from the next generation of data sources.

If you have any comments about SimbaO₂X, we would like to hear them. Please call us on our support line, e-mail us at support@simba.com, or visit us on the web at www.simba.com. We appreciate your comments.