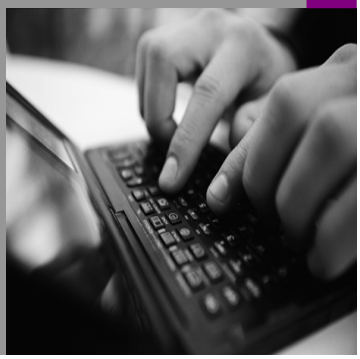


How-to Guide
SAP NetWeaver 2004s
SAP xApps

How To…
Integrate xMII with Visual Composer

Version 1.00 – March 2006

Applicable Releases:
SAP NetWeaver ’04
SAP NetWeaver ‘04s
SAP xMII 11.5 SR1

1 Scenario

Integrating SAP xApp Manufacturing Integration and Intelligence (SAP xMII) with Visual Composer (VC).

2 Introduction

This paper will show the process of integrating SAP xMII and VC. This document outlines the basic usage of the SAP xMII JDBC driver, which provides a bridge between SAP's xMII application and external applications such as SAP Enterprise Portal and SAP Visual Composer.

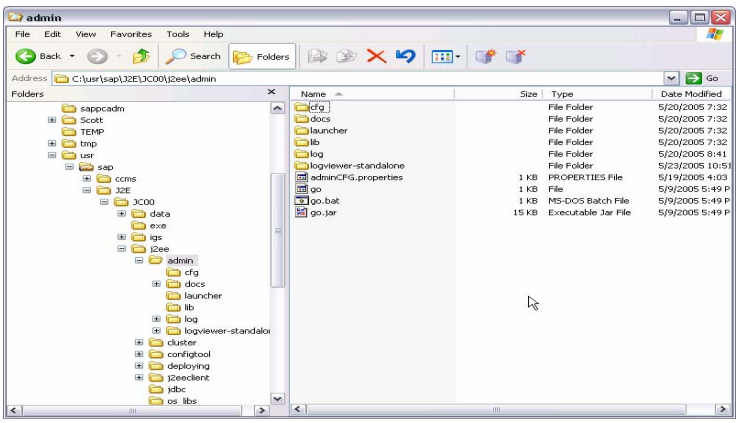
The basic concept is that SAP xMII "query templates" can be exposed as if they were database tables (queries) or stored procedures (commands such as SQL commands).

For each database connection, a specific template folder can be designated as the source for these xMII query templates as part of the connection string.

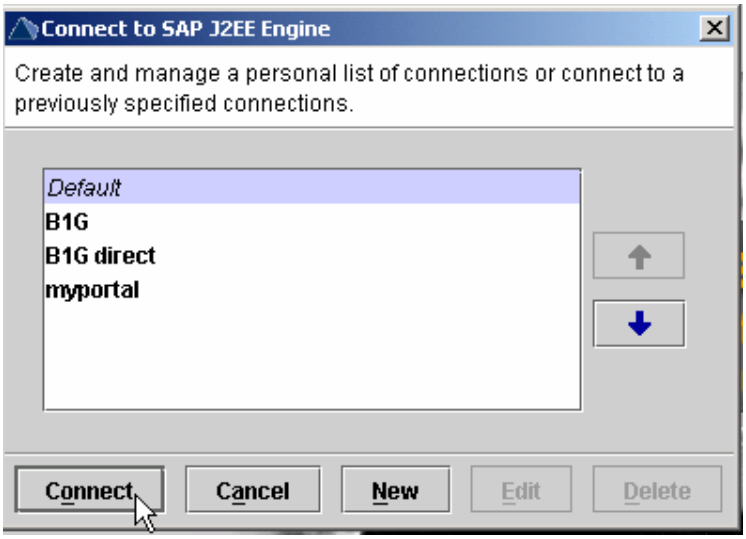
3 Installing and Configuring JDBC Connector to xMII

3.1 JDBC Connector to xMII

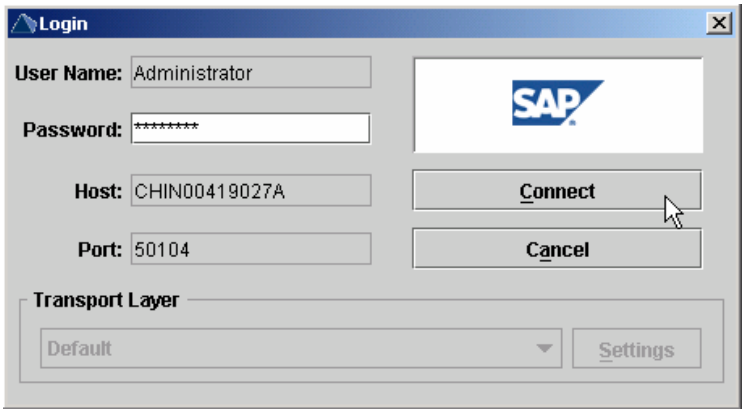
1. Login to the Visual Administrator: go.bat



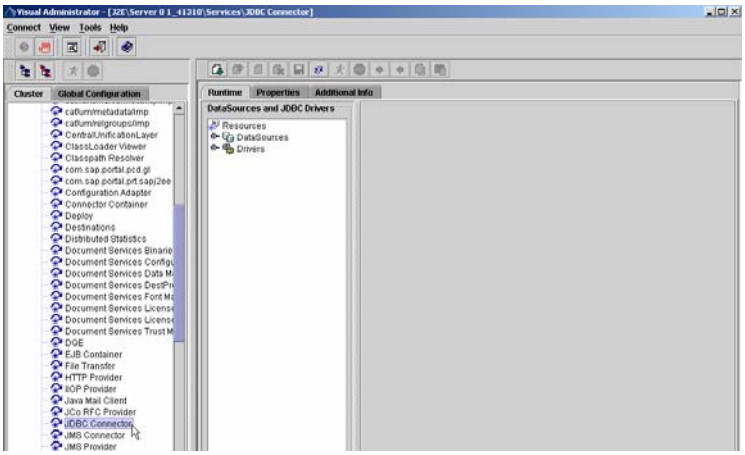
2. Log into the Visual Administrator



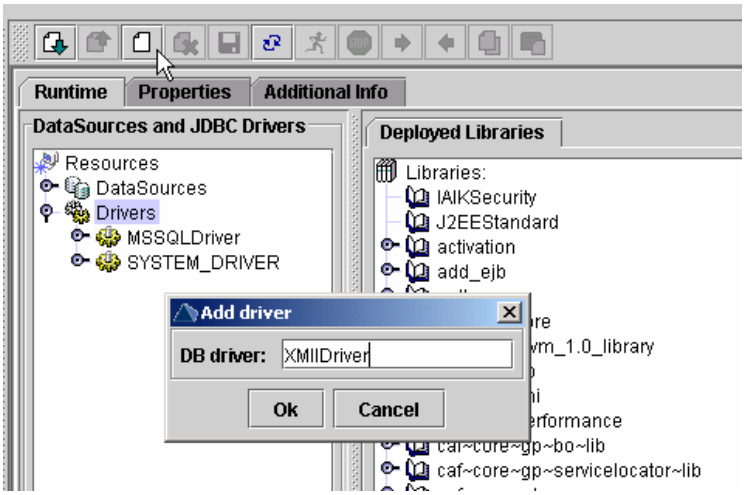
3. Enter your password and hit Connect.



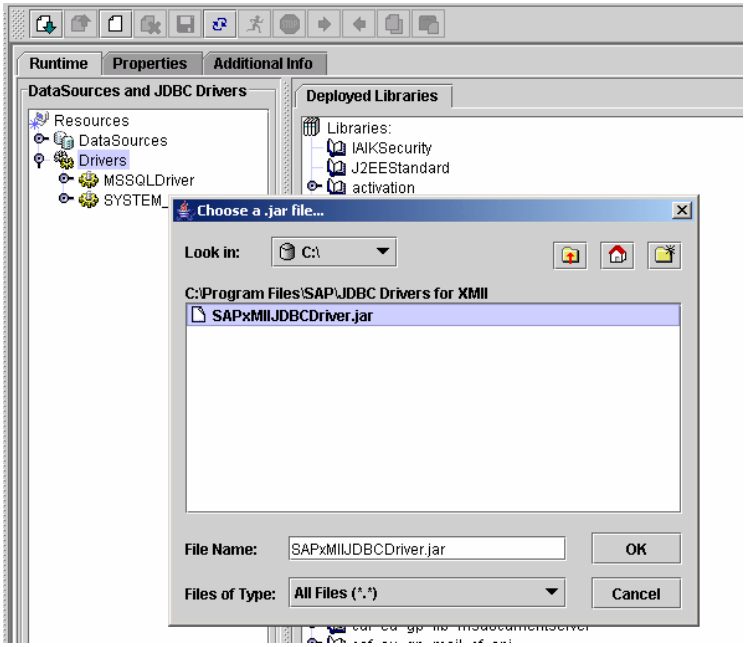
4. Navigate to Server -> Services -> JDBC Connector.



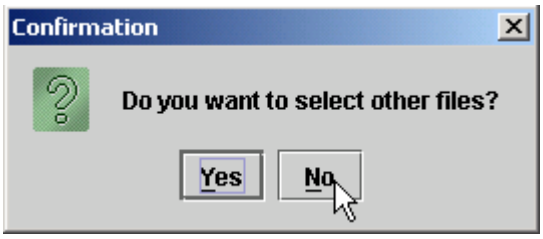
5. Make sure the JDBC drivers have been acquired from the software vendor and installed on the server. If the JDBC driver was not set up, it can be added by clicking on the “Create Driver” button the cursor is over in the diagram to the left and entering a name for the driver.



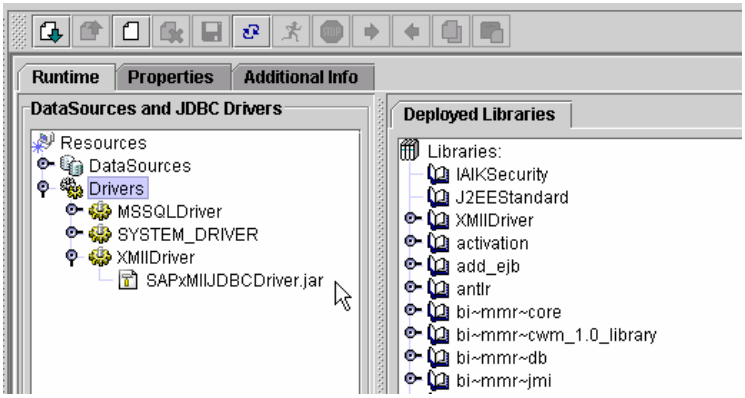
6. Add the jar files to the driver entry and Click OK.



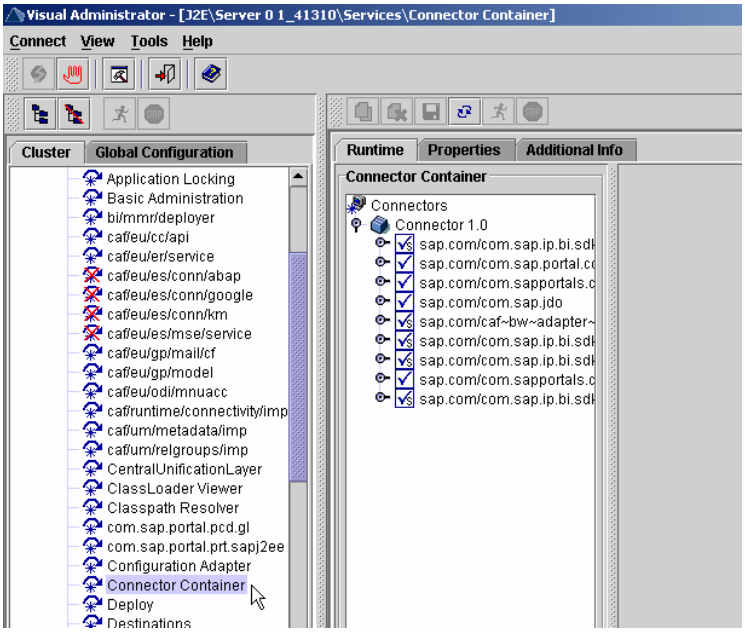
7. If prompted whether you want to select other files, choose “No”.



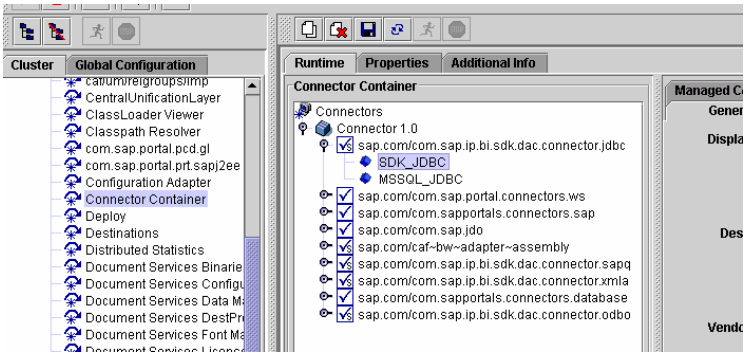
8. The new driver will then appear. We have now added a driver to be used in our BI Connector.



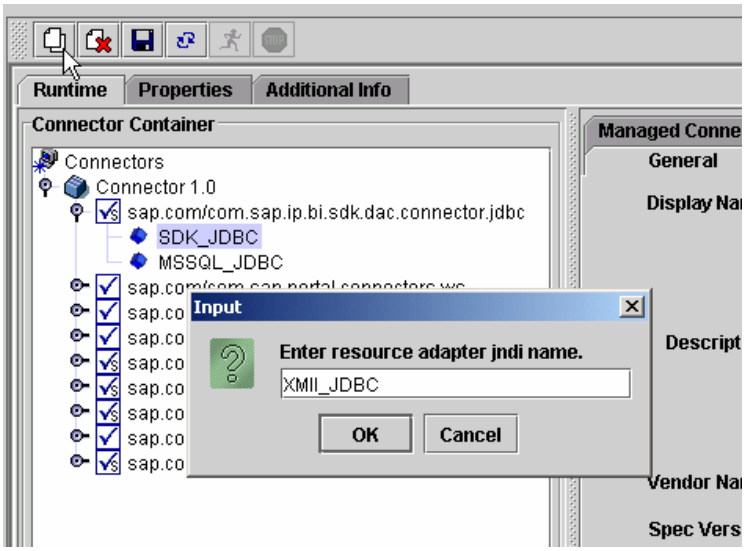
9. Navigate to Server -> Services -> Connector Container.



10. Verify the BI JDBC Connector Resource Adapter exists. We can see that the BI JDBC Connector is active and running with the defaults set.

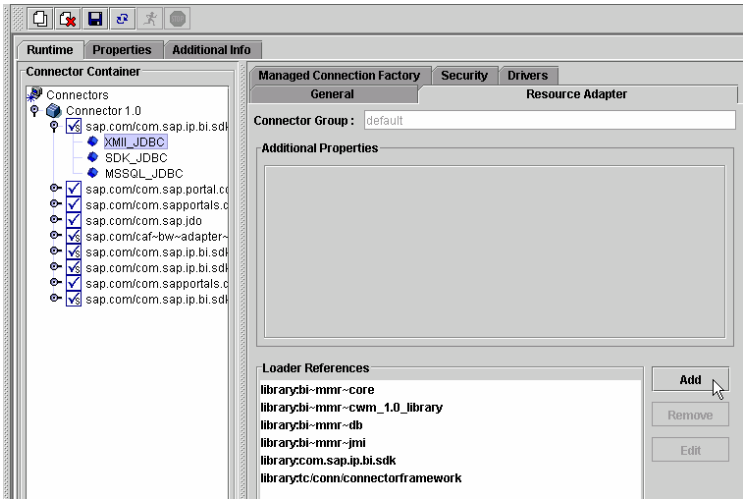


11. To create a new connector, select the Connector SDK_JDBC and click the Clone button to create a new BI JDBC Connector and enter a name for the connector.

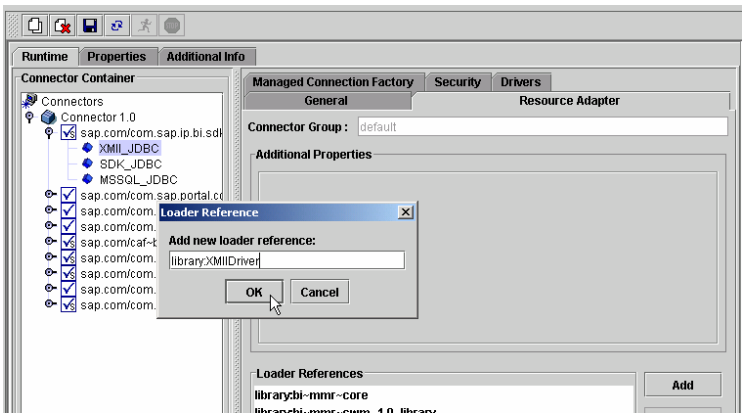


12. If you get a message that says “Clone successful” hit OK.

13. Select the recently created Connector and choose the Resource Adapter tab. Click the Add button to associate additional Resources with the Connector

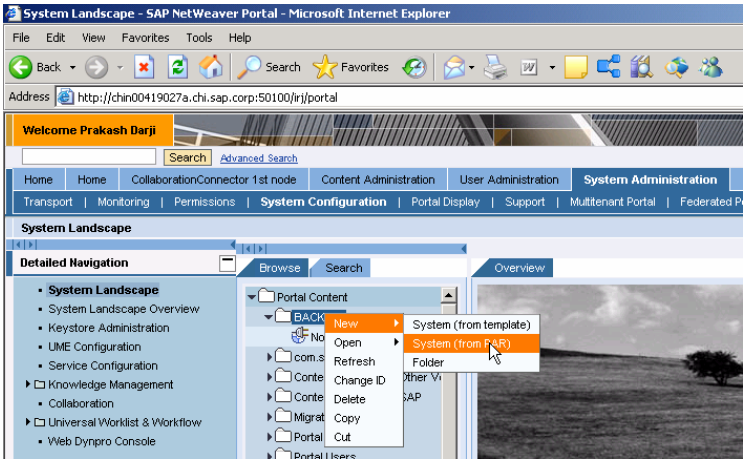


14. To add resources, enter the name of a Resource we wish to associate with the Connector. Make sure you hit Save.



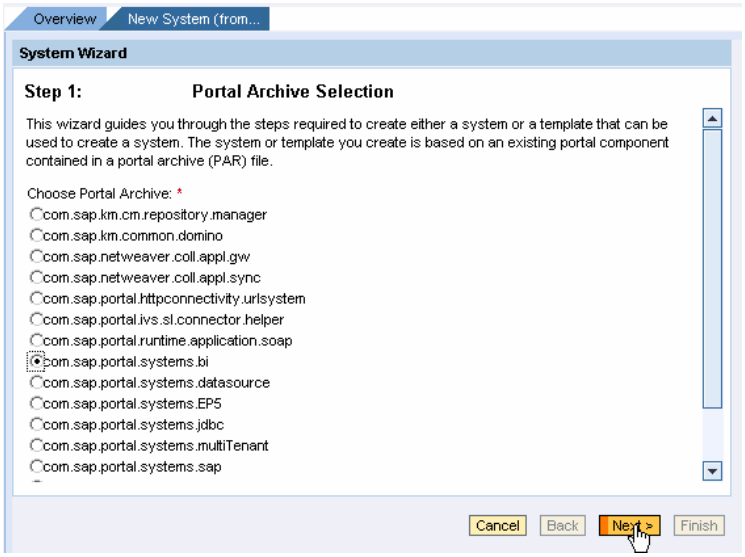
15. Login to the Portal.

16. Create a New System on the Portal. Go to “System Administration -> System Configuration” and click on a folder. Then create a System by choosing “New from Par -> System”.

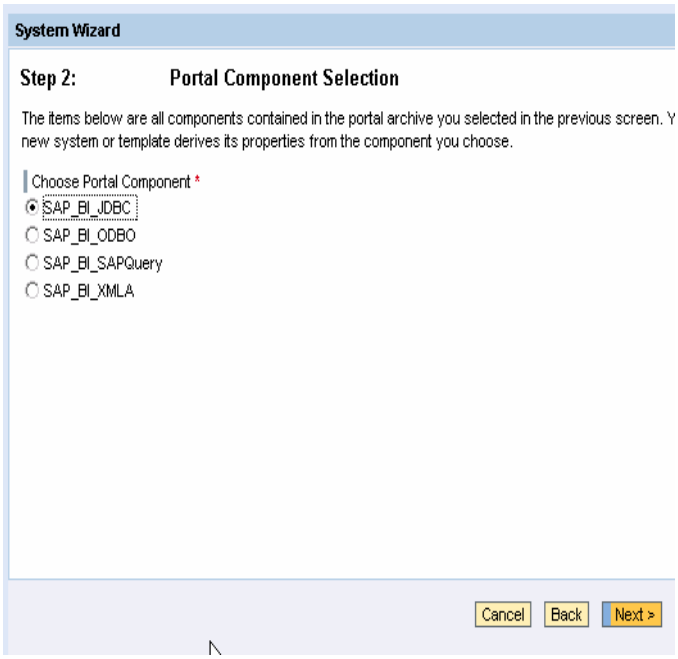


17. To create a BI JDBC System within the SAP NetWeaver 2004s Portal, select the “com.sap.portal.systems.bi” PAR and choose Next.

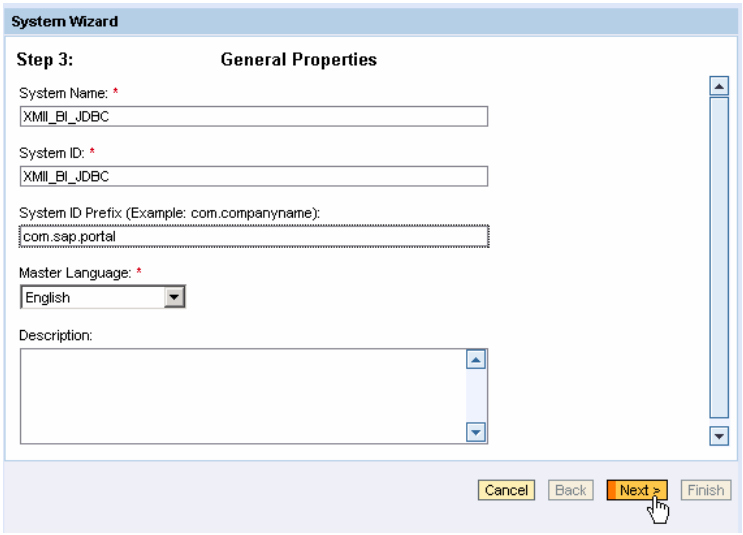
NOTE: Within a SAP NetWeaver ’04 system, the component will be: “com.sap.portal.systems.BIUDI”



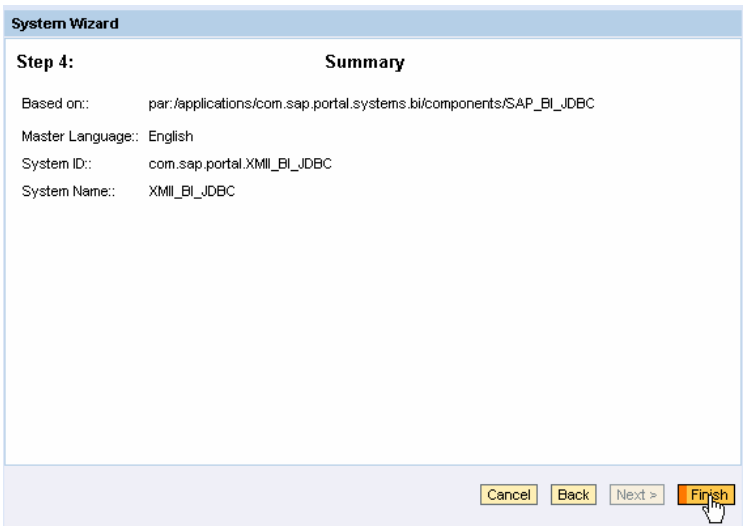
18. Select the “SAP_BI_JDBC” option and choose Next.



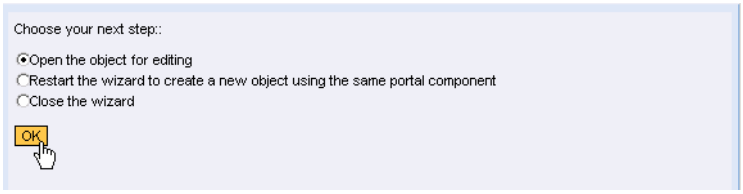
19. Enter a System Name, ID and Prefix and choose Next. Then Choose Finish and Open the Object for Editing.



20. Choose “Finish” in the wizard.

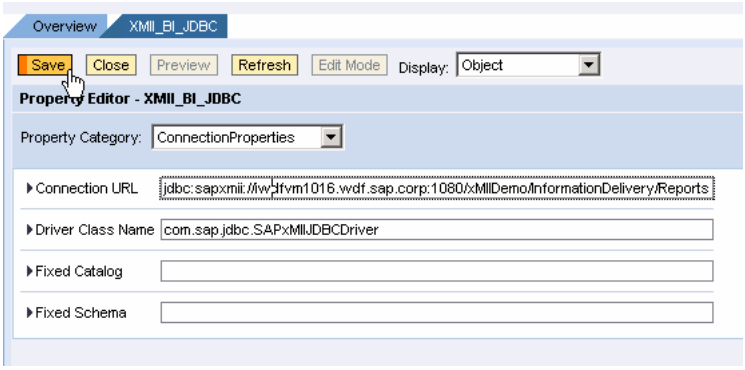


21. Choose “Open the object for editing”.

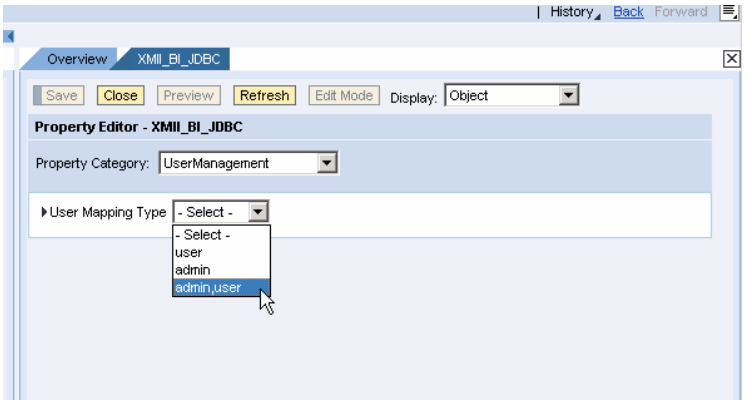


22. Navigate to the Connection properties option in the Property Category dropdown list. Enter in the database connection URL. Enter in the Driver Class name.

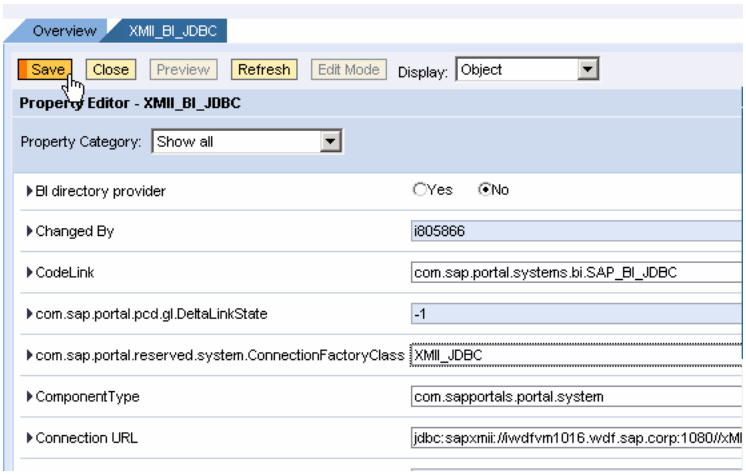
    NOTE: To get the connection URL from xMII, see the Appendix for more details.



23. Navigate to the User Management Property Category and choose the admin,user option.

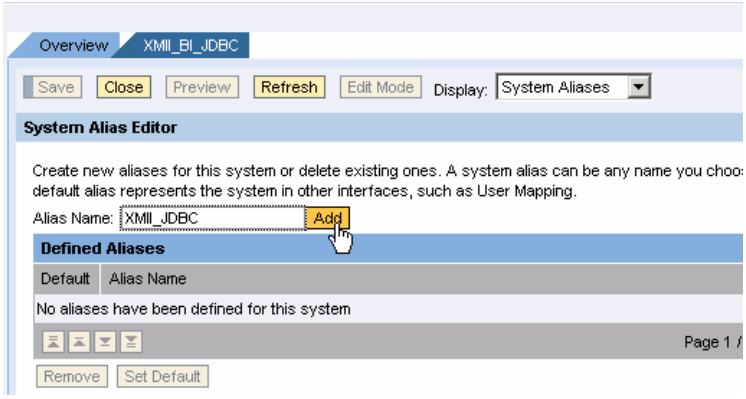


24. Verify the ConnectionFactory created in step 1 “xMII_JDBC” is specified under the “Show All” Property Category.

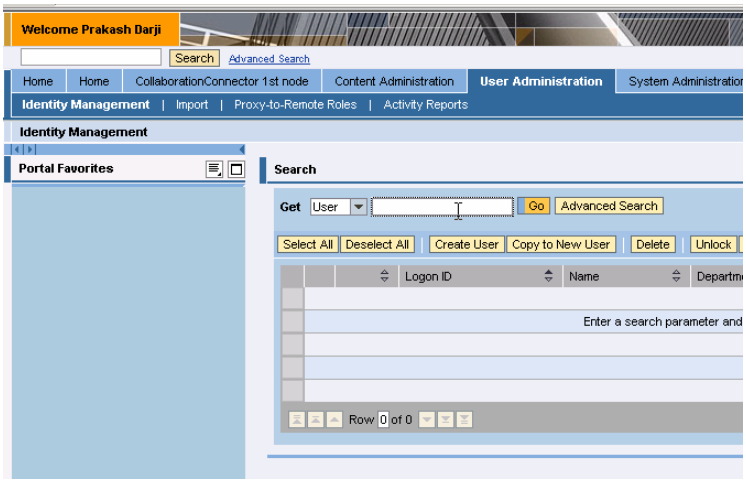


25. From the Display dropdown list choose the System Aliases option. Enter an alias for the system and choose the add button.

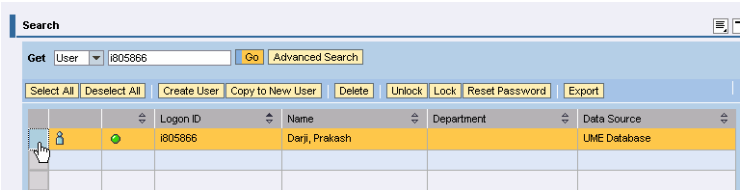
NOTE: Don’t forget to save.



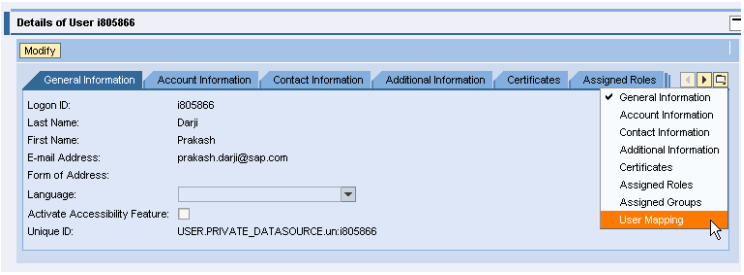
26. To create user mapping, Navigate to the User Administration -> Identity Management.



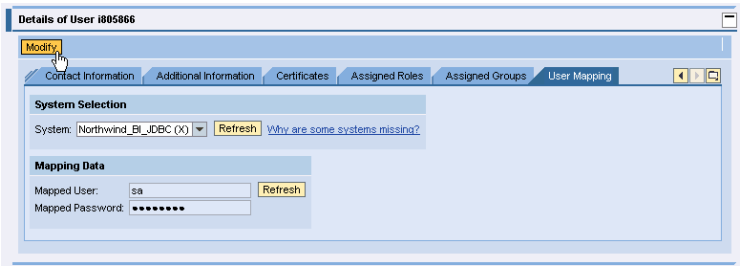
27. Search for a user and select that user.



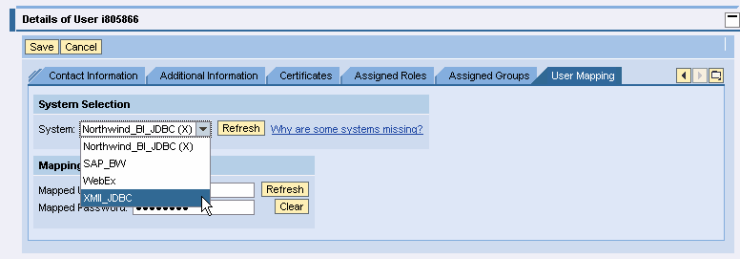
28. In the details section, choose “User Mapping”.



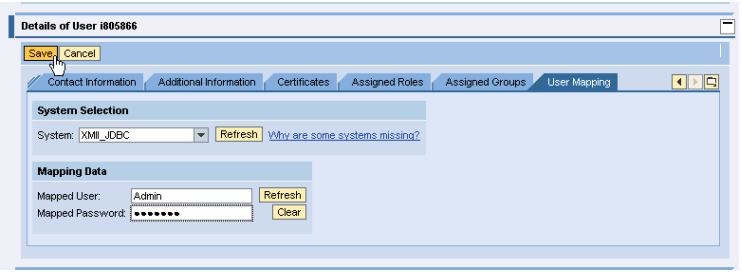
29. Choose the “Modify” button to change from display mode to change mode.



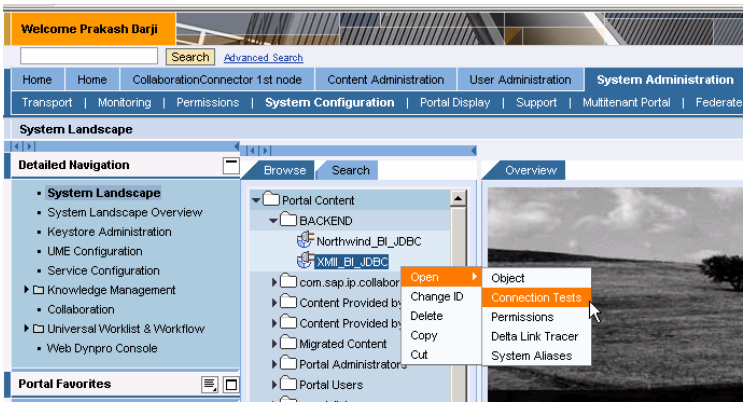
30. Choose your system alias that you created for your xMII system.



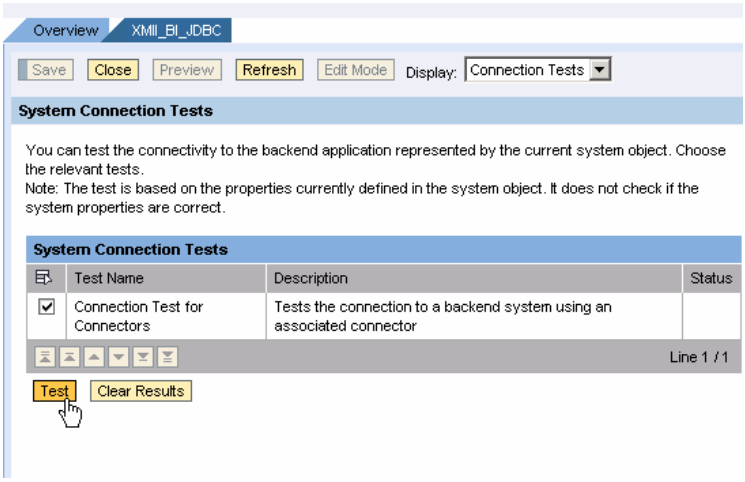
31. Enter your xMII userid and password and hit Save.



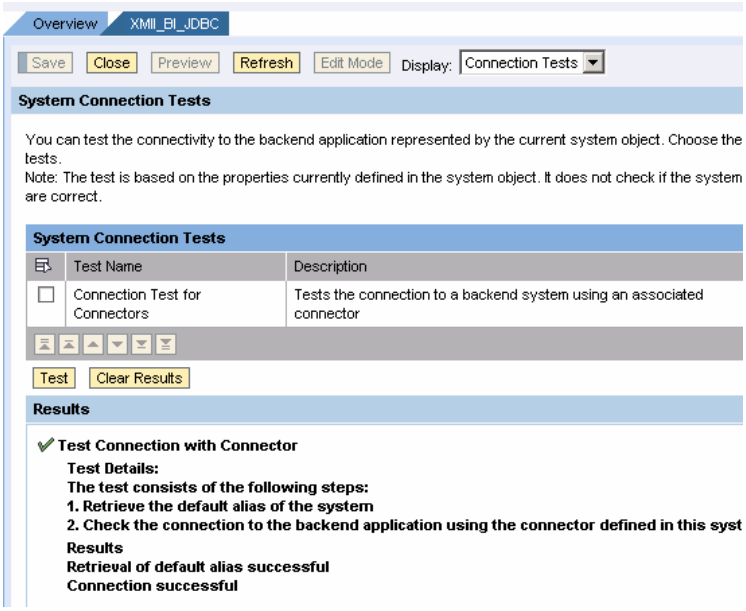
32. To test the connection, navigate back to the System Configuration area. Choose the JDBC System you created and choose “Connection Tests”.



33. Choose the “Connection Test for Connects” and hit Test. The test should be successful.

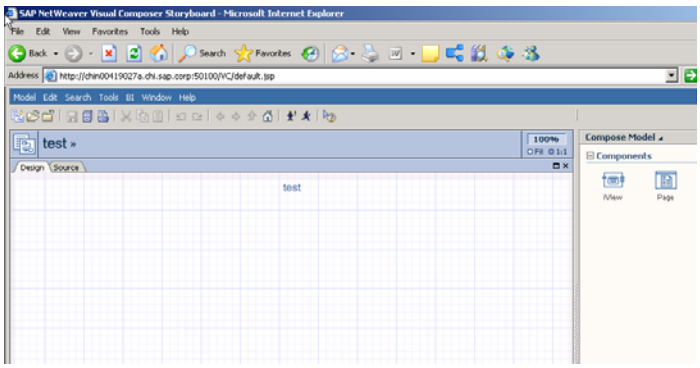


34. You should see the Connection Test as successful.

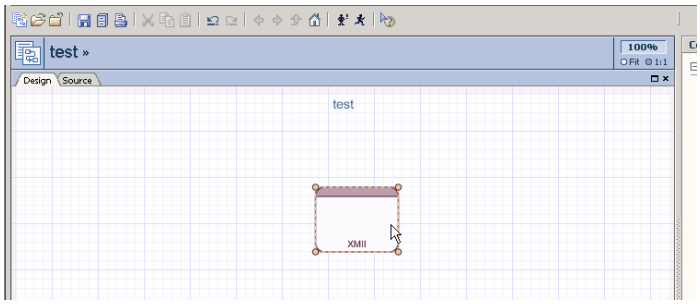


3.2 Using the xMII System within Visual Composer

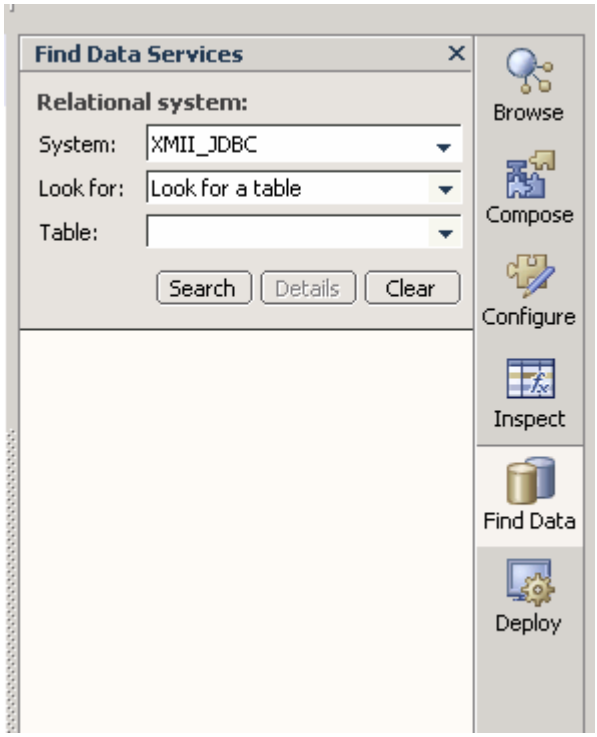
1. Log into Visual Composer and create a new model.



2. Add an iview to your model and enter the iview.

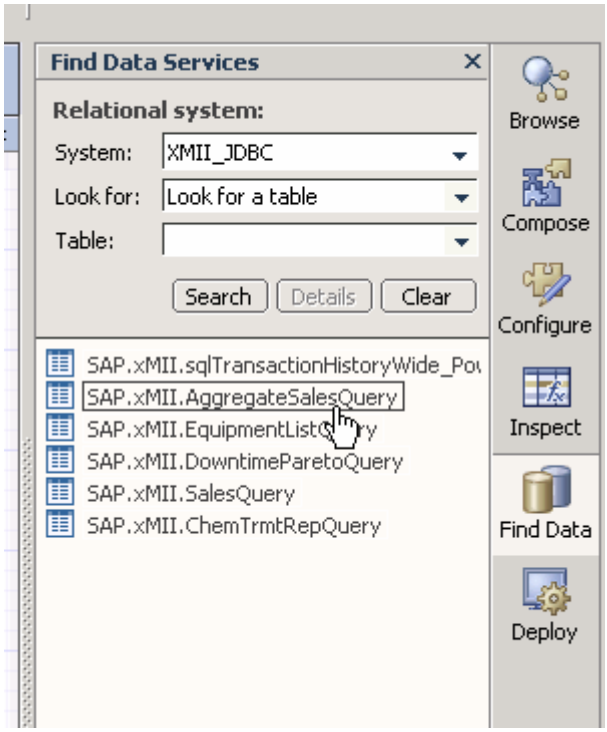


3. Go to the “Find Data” section and choose the system you created and search for your xMII Query.

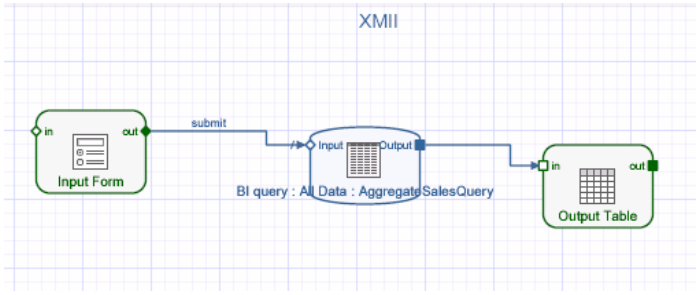


4. You should see all your data (queries) available from xMII.

   Note: xMII Queries exposed are the xMII queries which have already been configured and reside in the file folder specified in the connection string.



5. You can now build a model using the xMII Query.



4 Connection Details

This section describes the technical usage of the JDBC driver and the connection parameters needed when establishing a JDBC connection.

4.1 JDBC Driver Class

```
com.sap.jdbc.SAPxMIIJDBCDriver
```

4.2 Connection URL Format

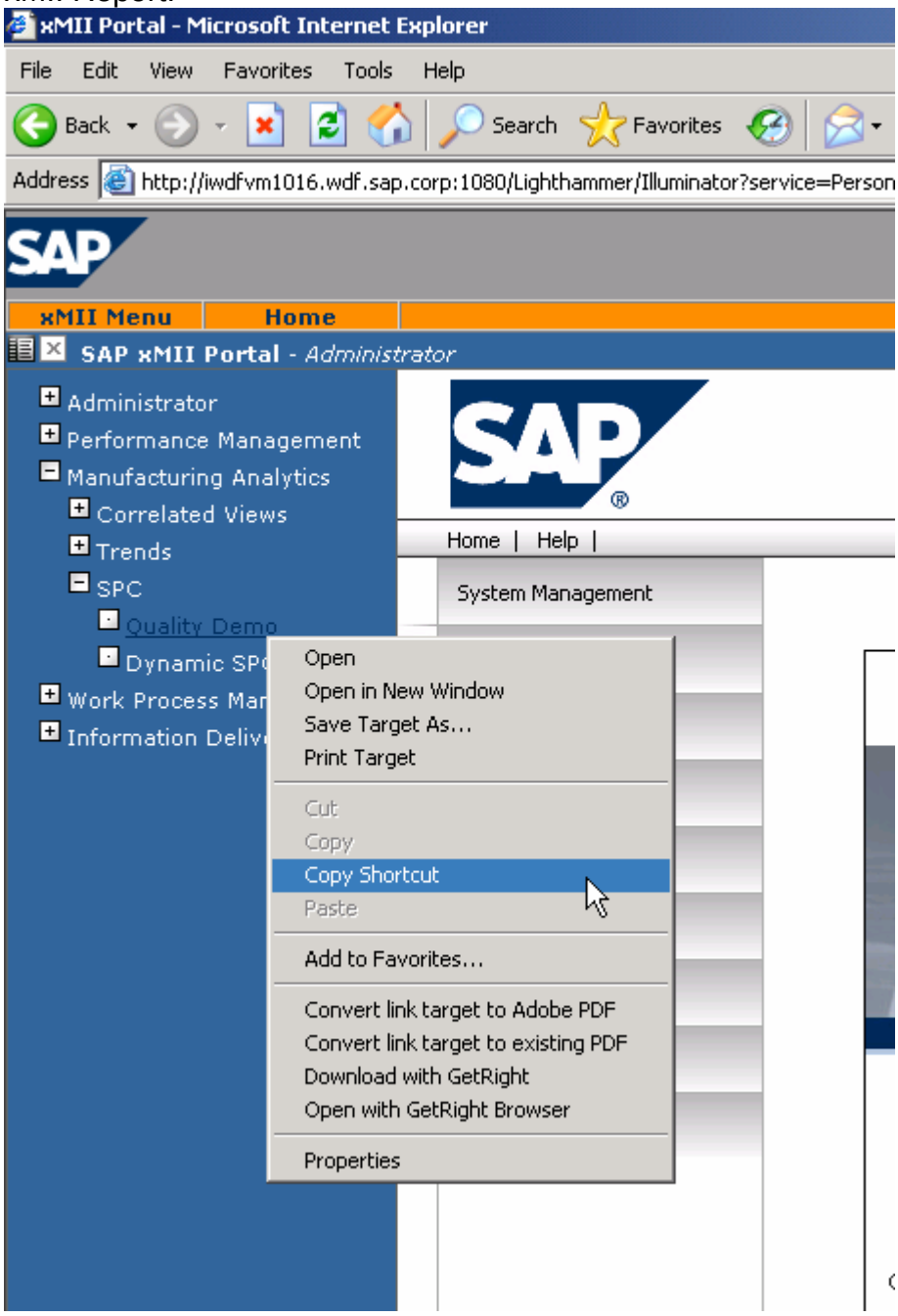
```
jdbc:sapxMII://xMII servername<:port>/PathToTemplateFolder?version=11
```

The port parameter is optional. It will default to port 80 if not provided. The version # is defaulted to “11” (not required if using xMII version 11.5). The user does not need to specify the sub-version for e.g.11.5

The path to the template folder can be multilevel, as in:

`jdbc:sapxMII://xMIIserver.phl.sap.corp:1080/xMIIDemo/MixingArea/Trends`

To get the path for a particular query template in xMII, you can copy the shortcut of the xMII Report.



When you paste the shortcut, the path to the application is specified in blue.
http://iwdfvm1016.wdf.sap.corp:1080/xMIIDemo/ManufacturingAnalytics/SPC/ExampleMenu.htm

4.3 Additional Parameters

There is also an optional connection parameter named “trace” that can be set to a value of “true” or “false” to provide more detailed tracing to System.out and System.err.

```
jdbc:sapxMII://myServer/xMIIDemo/MyFolder?trace=true
```

5 SQL Reference

5.1 SELECT Statements:

SELECT <columns> FROM <table/template name> <WHERE XXX=YYY>

The column wildcard character (*) can be used to specify all columns.

The “WHERE” clause is used to pass parameters to the query, much the same as applets or URL requests pass parameters to an SAP xMII query. In this case, XXX = the name of a query parameter, YYY = the query parameter value. An example of this format is:

```
SELECT L1Speed,L2Speed FROM LineSpeedQuery WHERE RowCount=25 AND Duration=8 AND
DurationUnits='H'
```

Please refer to the SAP xMII documentation in the “Query Reference” section for a list of supported parameters for each type of SAP xMII query.

5.2 EXEC Statements:

EXEC <table/template name> (XXX=YYY,…)

In this case, the parameter name/value pairs are specified in parentheses, with each name/value pair separated by a comma. In this example, XXX = the name of a query parameter, YYY = the query parameter value.

An example could be:

```
EXEC StoreQualityResults(Param.1='Yellow Paint',
Param.2=123.45,Param.3='12/25/2003 15:12:00')
```

Please refer to the SAP xMII documentation in the “Query Reference” section for a list of supported parameters for each type of SAP xMII query.

Author

Bimal Mehta
Sr. Solutions Manager
Applications Solution Management
SAP LABS, LLC
350 Eagleview Blvd. Suite 110
Exton, PA 19341
O: 610-903-8000 x138
F: 610-492-9880
M: 267-307-3730
bimal.mehta@sap.com

www.sap.com/xApps