iWay Software How-to's



Inserting Data Into a RDBMS Using the SQL Object

This topic describes how to configure a process flow that inserts data into a RDBMS using the SQL object in iWay Integration Tools (iIT).

Creating a Driver Definition

Before continuing, you must create a driver definition to connect to a specific database.

- 1. Open iWay Integration Tools (iIT).
- 2. Click *Window* and then select *Preferences* from the menu bar, as shown in the following image.



The Preferences dialog box opens, as shown in the following image.

A Preferences				
type filter text	Driver Definitions			↓ ↓ ↓ ↓
▷ General ▷ Ant	Filter: All			•
 Data Management Connectivity 	Name	System Vendor	System Version	<u>A</u> dd
Database Connectic Driver Definitions				<u>E</u> dit
Open Data Access				Remove
 SQL Development 				<u>C</u> opy
⊳ Help ⊳ Install/Update				
 iWay Integration Tools Java 				
⊳ Maven				
 Plug-in Development 				
⊳ Run/Debug ⊳ Team				
Validation ⊳ XML				
Xtend/Xpand				
(()			ОК	Cancel

3. Expand Data Management, Connectivity, and then click Driver Definitions.

4. Click Add.

The New Driver Definition dialog box opens, as shown in the following image.

Specify a Driver Template and Definition Name Unable to locate JAR/zip in file system as specified by the driver definition: sqljdbc.jar. Name/Type JAR List Properties Vendor Filter: All Available driver templates: Name System Vendor System Version Microsoft SQL Server 2000 Driv SQL Server 2000 Microsoft SQL Server 2005 JDE SQL Server 2005 Microsoft SQL Server 2008 JDE SQL Server 2008 MySQL JDBC Driver MySQL 4.0 MySQL JDBC Driver MySQL 5.0 Matcol IDBC Driver SubJDBC Driver Microsoft SQL Server 2008 JDBC Driver	🔌 New Driver Definition			×
Vnable to locate JAR/zip in file system as specified by the driver definition: sqljdbc.jar. Name/Type JAR List Properties Vendor Filter: All Available driver templates: Name System Vendor System Version Microsoft SQL Server 2000 Driv SQL Server 2000 Microsoft SQL Server 2005 Microsoft SQL Server 2008 JDB SQL Server 2008 MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL Microsoft SQL Server 2008 JDBC Driver Sol Driver mame: Microsoft SQL Server 2008 JDBC Driver Microsoft SQL Server 2008 JDBC Driver	Specify a Driver Template and De	finition Name		
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Name/Type JAR List Properties Vendor Filter: All Available driver templates: Available driver templates: Name System Vendor System Version Microsoft SQL Server 2000 Dri SQL Server 2000 Microsoft SQL Server 2005 JDE SQL Server 2008 MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL Solution Driver name: Microsoft SQL Server 2008 JDBC Driver Driver type: Microsoft SQL Server 2008 JDBC Driver	[
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Microsoft SQL Server 2005 JDE SQL Server 2005 Microsoft SQL Server 2008 JDE SQL Server 2008 MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL SQL JDBC Driver S1	Microsoft SQL Server 2000 Dri	SQL Server	2000	
Microsoft SQL Server 2008 JDE SQL Server 2008 MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL MySQL JDBC Driver MySQL Sol Sol Microsoft SQL Server 2008 JDBC Driver Sol Driver name: Microsoft SQL Server 2008 JDBC Driver Driver type: Microsoft SQL Server 2008 JDBC Driver	Microsoft SQL Server 2005 JDI	SQL Server	2005	
MySQL JDBC Driver MySQL 4.0 MySQL JDBC Driver MySQL 4.1 MySQL JDBC Driver MySQL 5.0 MicCOL IDBC Driver MicSOL 5.1	Microsoft SQL Server 2008 JDI	SQL Server	2008	
MySQL JDBC Driver MySQL 4.1 MySQL JDBC Driver MySQL 5.0 MicCOL IDBC Driver MicSOL 5.1 Driver name: 5.1 Microsoft SQL Server 2008 JDBC Driver Driver type: Microsoft SQL Server 2008 JDBC Driver	MySQL JDBC Driver	MySQL	4.0	
MySQL JDBC Driver MySQL 5.0 MicCOL IDBC Driver MicCOL 5.1 Driver name: Image: Colored Colore	MySQL JDBC Driver	MySQL	4.1	
Microsoft SQL Server 2008 JDBC Driver Driver type: Microsoft SQL Server 2008 JDBC Driver	MySQL JDBC Driver	MySQL	5.0	
Driver <u>n</u> ame: Microsoft SQL Server 2008 JDBC Driver Driver <u>type</u> : Microsoft SQL Server 2008 JDBC Driver	Misol IDBC Driver	MUCOL	51	
Microsoft SQL Server 2008 JDBC Driver Driver type: Microsoft SQL Server 2008 JDBC Driver	Driver <u>n</u> ame:			
Driver type: Microsoft SQL Server 2008 JDBC Driver	Microsoft SQL Server 2008 JDBC Drive	er		
Microsoft SQL Server 2008 JDBC Driver	Driver <u>t</u> ype:			
	Microsoft SQL Server 2008 JDBC Drive	er		
	٢			
OK Cancel			OK Canc	el

- 5. In the Name/Type tab, select a driver template.
 - a. (Optional) Select a Vendor Filter to display databases for a specific vendor.
 - b. Select a driver template.
 - c. (Optional) Modify the Driver Name if a driver definition with this name already exists.
- 6. In the JAR List tab, indicate the path to the JAR or ZIP file associated with the driver.

🔬 New Driver	Definition							×
Specify a Dri	ver Tem	plate and	Definition	Name				
🔕 Unable to I	ocate JAR	/zip in file s	ystem as sp	ecified by t	he driver de	efinition:	sqljdbc.	jar.
Name/Type	JAR List	Properties						
Driver files:		riopenies						
sqljdbc.jar								Add JAR/Zip <u>E</u> dit JAR/Zip <u>R</u> emove JAR/Zip Clear All
?							ОК	Cancel

a. Click Add JAR/Zip.

The Select the file dialog box opens.

- b. Browse to the location of the JAR or ZIP file.
- c. Click Open.
- 7. (Optional) In the Properties tab, modify the default properties for the driver definition template.

A New Driver Definition	×
Specify a Driver Template and De	finition Name
🔕 Unable to locate JAR/zip in file syste	m as specified by the driver definition: sqljdbc.jar.
Name/Type JAR List Properties	
Properties:	
Property	Value
General	
Connection URL	jdbc:sqlserver://localhost:1433;databaseName=pubs
Database Name	pubs
Driver Class	com.microsoft.sqlserver.jdbc.SQLServerDriver
Password	
User ID	
· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·	
L	
?	OK Cancel

Note: Options in the Properties tab vary based on the database server type. You can edit or enter a property in the Value column.

8. Click OK.

Creating a Connection Profile

A connection profile contains the connection property information that is required to connect to a data source in your enterprise.

1. Click *File* from the menu bar, select *New* and then click *Other*, as shown in the following image.

🧳 Ir	tegration - iWay Integration Tools	-			
<u>F</u> ile	<u>E</u> dit <u>N</u> avigate Se <u>a</u> rch <u>P</u> roject <u>R</u> un <u>W</u> indow <u>H</u> elp				
	New Alt+Shift+N	•	Integ	ration Project	- 1
	Open File		🖞 Proje	ct	-
	Close Ctrl+W	3	Appli	cation	
	Close All Ctrl+Shift+W	6	Deplo	yment Template	
	Save Ctrl+S	1	Chan	nel	
	Save As	្លឹ	h Proce	ss Flow	
R)	Save All Ctrl+Shift+S	10	Trans	form	
NULL	Revert		Regis	ter Set	
		6	Scher	ma Set	
	Move	fî	.) IFL Ex	pression	
	Rename F2		e Evam	nlo	
8	Refresh F5			pie	
	Convert Line Delimiters To	•	🖞 Other		Ctrl+N
Ð	Print Ctrl+P				

The New dialog box opens, as shown in the following image.

🔏 New	
Select a wizard Create a connection profile	
<u>W</u> izards:	
type filter text	
 # Java Project from Existing Ant Buildfile Plug-in Project General Connection Profile Connection Profile Connection Profile Repository CVS CVS Eclipse Modeling Framework Emf Parsley Find Parsley Find Parsley Find Parsley Java Java Java Emitter Templates 	E
(?) < <u>Back</u> <u>Next</u> > <u>Finish</u>	Cancel

2. Expand *Connection Profiles*, select *Connection Profile*, and then click *Next*.

The New Connection Profile dialog box opens, as shown in the following image.

🔏 New Connection Profile	
Connection Profile	
Create a SQL Server connection profile.	
Connection Profile Types:	
type filter text	
 Flat File Data Source Generic JDBC HSQLDB Informix Ingres MaxDB MySQL Oracle PostgreSQL SQL Server SQLite Sybase ASA Sybase ASE When Services Data Source 	
Na <u>m</u> e:	
New SQL Server	
Description (optional):	
(?) < <u>Back</u> <u>Next</u> > <u>Finish</u>	Cancel

- 3. Select the connection profile type.
- 4. Enter a unique name for the connection profile.
- 5. (Optional) Enter a description and then click *Next*.
- 6. Complete the required information in the wizard for your connection profile type.
- 7. Click *Test Connection* to ping the server and to verify that the connection profile is valid.
- 8. Click *Finish* to create the connection profile.

Configuring the SQL Object

The SQL object allows you to use a JDBC driver (Data Provider) to connect to your RDBMS and execute a SQL statement.

1. Within your new process flow (for example, SQL_Insert), select the *SQL* object from the Execution Objects group on the lower-left of the screen and drag it onto your process flow, as shown in the following image.



The New SQL Object dialog box opens, as shown in the following image.

ne and Description	
ovide object name and description	
QL object uses an iWay request to drive a named JDBC adapter.	
me	
2L	
cription	
2L Object	*
-	Ŧ
lap	
Sack Next > Finish	Cancel

- 2. Provide a name for the SQL object and then click *Next*.
- 3. Select the connection profile you created earlier and then click *Next*.

Note: You can edit the connection URL as required.

4. Select the database you want to use and then click *SQL Builder*, as shown in the following image.

Connection Profile:	Csswxz2k3 SQL Server]
Database:	CenturySales •	•
	SQL Builder	

5. Right-click *SELECT Statement* in the right pane of the SQL Builder and then select *Change Statement Type* from the context menu, as shown in the following image.



The Change SQL Statement Type dialog box opens, as shown in the following image.

6. From the Statement type drop-down list, select *INSERT*, as shown in the following image.

🔏 Change SQL Statement Type
Changing the SQL Statement Type will cause the current statement to be replaced by a new empty statement.
Statement type
INSERT 🗸
SELECT
INSERT
UPDATE
DELETE

- 7. Click *OK*.
- 8. Right-click in the "To add a table..." area and select Add Table..., as shown in the following image.

Т	o add a table, right-click in this pane and use the pop-up menu.	
	Add Table	Þ

The Add Table dialog box opens, as shown in the following image.



9. Select the *owner(schema).table* from the list and click OK.

10. Select all of the columns you want to use in your INSERT statement, as shown in the following image.



11. Edit the column Values by changing them to a column name with a question mark (?) prefix, as shown in the following image.

Column	Value
iser_name	?user_name
user_password	?user_password
user_description	?user_description

Note: The Value minus the question mark must match a register in *User Properties*, which you have not yet created.

- 12. Click OK.
- 13. Verify that your SQL statement resembles the version that is shown in the following image.

🔏 New SQL Object						
SQL Statement						
Enter the body of the SQL statement. The body can be actual text, a XPATH, or a Special Register						
INSERT INTO "dbo"."IBS_User" ("user_name", "user_password", "user_description") VALUES (?user_name, ?user_password, ?user_description)						
	•					
Connection Profile:	Csswxz2k3 SQL Server 👻					
Database:	CenturySales 🔹					
	SQL Builder					
?	< Back Next > Finish Cancel					

14. Click Next.

The Object Properties pane opens, as shown in the following image.

🔏 New SQL Object 🗖						
Object Properties						
Provide object p	roperties					
	row					
Use JNDI	If true, get a connection from a data source accessed via JNDI. Otherwise, connect directly using JDBC Driver Manager. When true the <i>Pool Connections</i> configuration parameter should not be used, and pooling is handled in the JNDI data source manager.					
	true 🔻]				
JNDI Name	JNDI name for the requested data source. To use an iWay JDBC provider, specify as jdbc/provider. Required if using JNDI.					
	jdbc/CentSales 👻					
JNDI Factory	JNDI initial context factory class. Leave blank for default.					
	com.ibi.jndi.XDInitialContextFactory					
Transaction Isolation Level	Transaction isolation level to be set if possible	-				
?	< Back Next > Finish Cancel					

- 15. If you want to use an iSM Data Provider (suggested) set the Use JNDI parameter to *true* and add a valid JNDI Name using the *jdbc/Data_Provider_Name* format.
- 16. Click Finish.
- 17. Double-click your new SQL object in your process flow and select *User Properties* in the Properties tab, as shown in the following image.

Start	o	SQL	End				
Design Test Results Trace							
🔲 Properties 🔀 🥺 Error Log 📮 Console 😡 Problems							
SQL Object							
General	Name	Туре	Value				
Connection	user_name	string	_XPATH(\\name)				
SQL Statement	user_password	string	_XPATH(\\password)				
Properties	user_description	string	_XPATH(\\description)				
User Properties							
Pre-Execution							
Post-Execution							
Debug							

18. Create a new Name (register) by clicking the green plus sign to the left.

The name must match the *Value* added to the INSERT statement (for example, *user_name* matches *?user_name*).

Note: The XPATH value will originate from the inbound document.