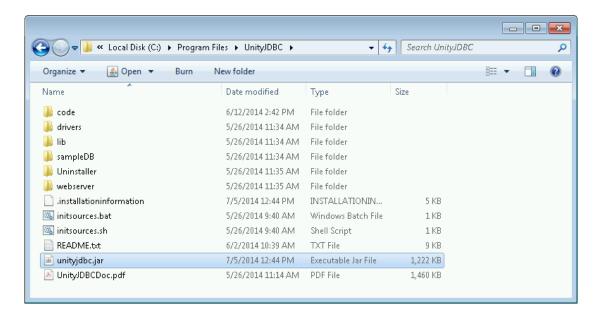
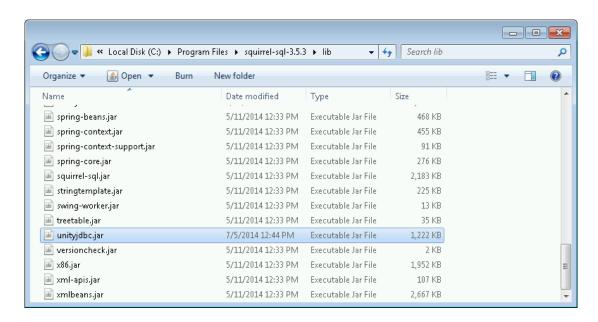
ServiceNow JDBC and UnityJDBC Driver Setup for SQuirreL SQL

- 1. Download and install UnityJDBC at http://www.unityjdbc.com/download.php.
- 2. After installation, there is a unityjdbc.jar file in the installation directory. On Windows, the default install path is: C:\Program Files\UnityJDBC

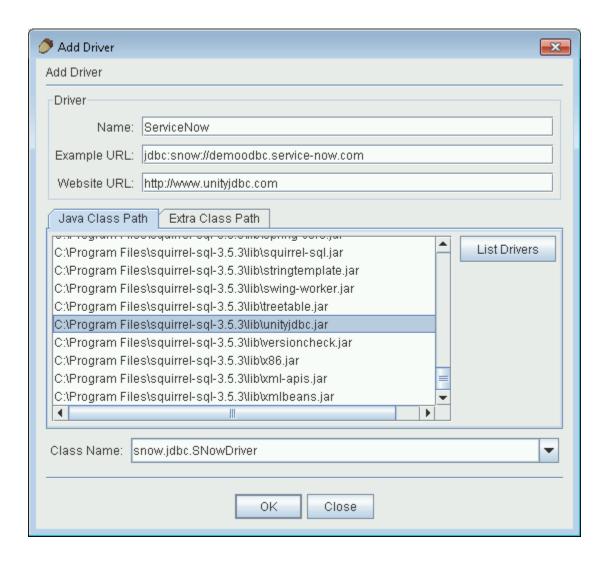


3. Copy the unityjdbc.jar file into the lib folder for your SQuirreL SQL installation. For example: C:\Program Files\squirrel-sql-3.5.3\lib

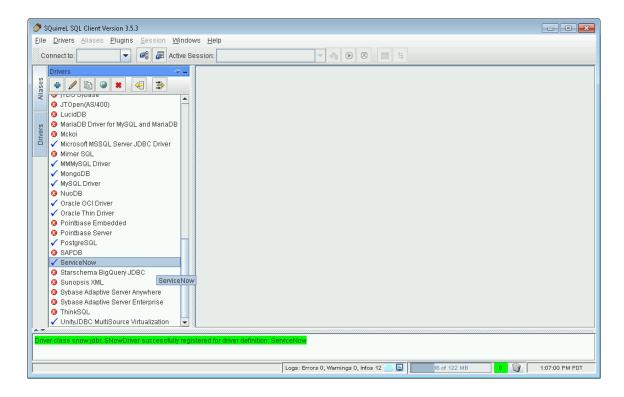


4. Start SQuirreL SQL. Under the **Drivers** tab, click Add to add a new driver. Click **OK**. Settings:

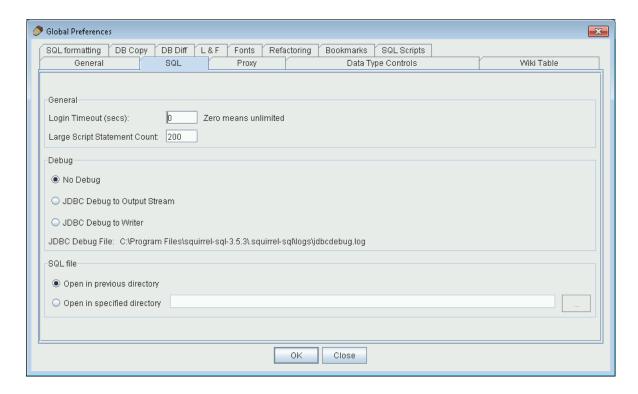
Name	ServiceNow					
Example URL	jdbc:snow://demoodbc.service-now.com					
Website	http://www.unityjdbc.com					
(Optional)						
Class Name:	snow.jdbc.SNowDriver					



5. After installation, the **ServiceNow** driver should be checked indicating it is ready for use. If not, make sure the **unityjdbc.jar** was installed correctly.



6. The ServiceNow JDBC driver builds a schema on the first connection and caches it in a local file. This schema building may take some time. You can set SQuirreL not to timeout connections. Under the File menu select Global Preferences then in the SQL tab set Login Timeout to 0 (unlimited).



7. Click on the **Aliases** tab. Then click the plus symbol to add a new alias. Here is alias information for a sample ServiceNow database:

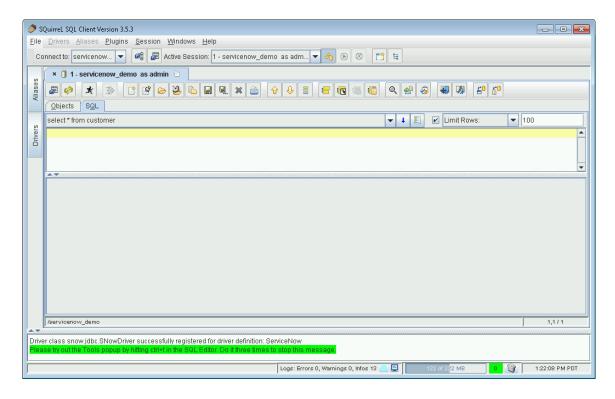
Alias	servicenow_demo				
User Name	admin				
Password	admin				
JDBC URL	jdbc:snow://demoodbc.service-now.com				



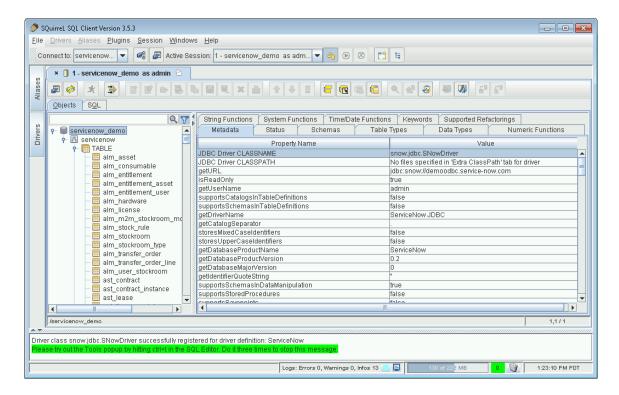
8. Click **OK**. You can then connect by clicking on the Connection icon by clicking on the **Connect** button.



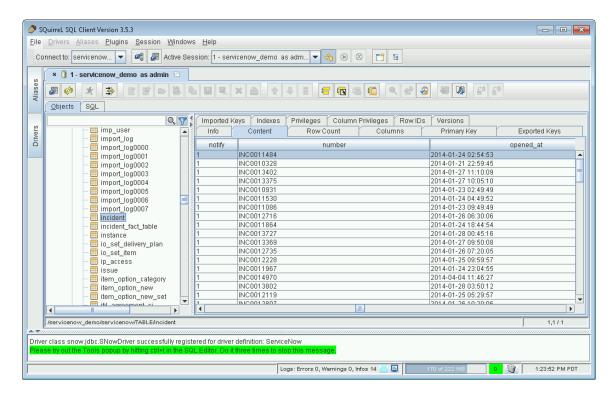
9. After connection you will see a window that allows you to enter SQL queries.



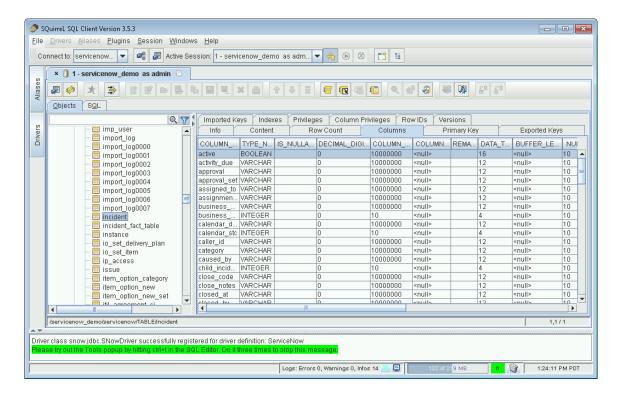
10. To browse the schema, click on the Objects tab.



11. View table contents by clicking on a table and selecting the Content tab.

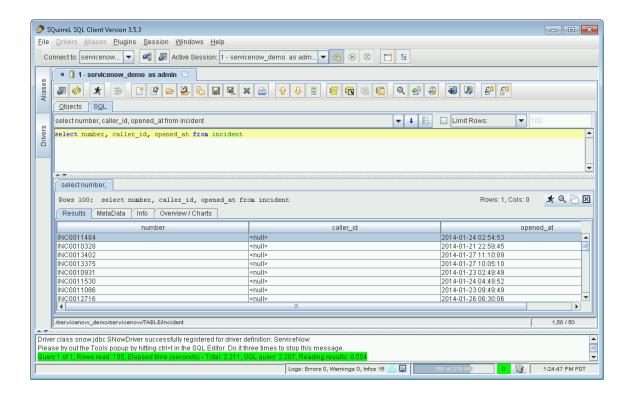


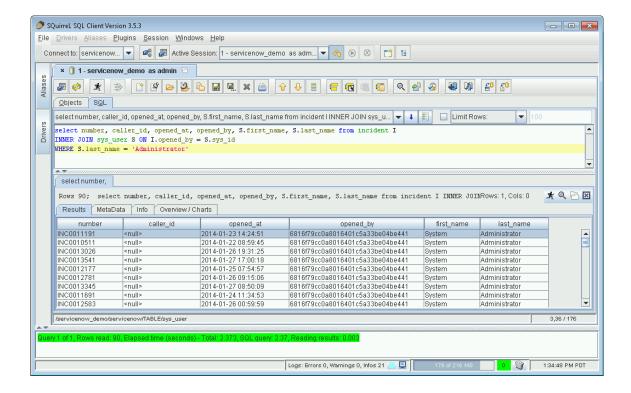
12. View table fields by clicking on a table and selecting the Columns tab.



13. Click the **SQL** tab to enter queries. Click **Run** to run a query. Here are two example queries. The first query queries a single table and runs completely on ServiceNow. The number of results on all queries is limited to 100 rows. The second query uses a join that requires UnityJDBC. The trial version is limited to returning 100 rows. Upgrade to a full version at www.unityjdbc.com for an unlimited number of rows. More details on querying is at: http://www.unityjdbc.com/servicenow/servicenow jdbc.php

Query #1	SELECT number, caller_id, opened_at FROM incident								
Query #2	SELECT number, caller_id, opened_at, opened_by,								
	S.first name, S.last name								
	FROM incident I INNER JOIN sys user S								
	ON I.opened by = S.sys id								
	WHERE S.last name = 'Administrator'								





Notes:

- 1) The user account used for connecting to your ServiceNow instance must have SOAP query privileges. See for more details:
 - http://wiki.servicenow.com/index.php?title=Web Services Security#Web Service User Roles
- 2) The first connection will build a schema and store it in the default location of the current directory with the name snow_schema.xml. This first connection may take some time so changing the connection timeout may be needed. A schema is not rebuilt unless the URL contains the option rebuildschema=true. See for more details on URL parameters: http://www.unityjdbc.com/servicenow/servicenow jdbc.php#connectionParam
- 3) Adding the URL parameter **debug=true** will produce more information on query execution. This information can be seen in the SQuirreL log by selecting **View SQuirreL Logs** from the **Windows** menu.
- 4) Long-running ServiceNow SOAP API requests may timeout (See: http://wiki.servicenow.com/index.php?title=Long-Running SOAP Request Support). It is possible to use LIMIT and OFFSET to retrieve "chunks" of a large table. Use OFFSET to indicate the index of the next record to retrieve. For example, to retrieve records in chunks of 50000 here are the first 3 queries:

Query #1	SELECT	*	FROM	incident	LIMIT	50000	OFFSET	0
Query #2	SELECT	*	FROM	incident	LIMIT	50000	OFFSET	50000
Query #3	SELECT	*	FROM	incident	LIMIT	50000	OFFSET	100000