# HOWTO: Setup SQL Server Linked Server to MySQL

(Then add as a data source for Laserfiche Forms)

### 1. Configure a MySQL DSN

The first step is to configure a MySQL data source by running the ODBC Data Source Administrator. This step is technically entirely optional, but allows a simpler configuration in the SQL Server Linked Server settings. Instead of composing a complicated MySQL connection string, we can use a simple GUI application.

### Run odbcad32



Either bring up a Run dialog box with Start $\rightarrow$ Run or WinKey+R.

If you're using Windows Server 2008, use the Start Menu search box directly. In either OS, type in "odbcad32" and hit Enter.

Select the System DSN tab to configure a data source for the entire system. If you only want to create the DSN for a specific user (such as your service account), use the User DSN tab. In either scenario, select the "Add..." button.

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User DSN	System DSN File DSN Drivers Tracing Connection Pooling About
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Name	Driver Add
	Remove
	Configure
	An ODBC System data source stores information about how to connect to the indicated data provider. A System data source is visible to all users on this machine, including NT services.
	OK Cancel Apply Help

Scroll down in the Create New Data Source window and select "MySQL ODBC 3.53 Unicode Driver" and click "Finish".



#### Add and Configure the Connection

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	Description:	test gk			
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#### **MySQL Connector Login Settings**

Once added, clicking the "Configure..." button will bring up the Connector/ODBC 3.53 Configure Data Source application. This is where you can specify all the connection settings for connecting SQL Server to MySQL. Select a Data Source Name – I typically name it after the application or database I'm connecting to. The Server, User, Password, and Database should all be obvious.

#### **Test ODBC Connection**

After you've entered all the required parameters, click the "Test" button to ensure a connection can be made to the MySQL server.

These settings are the bare minimum required to connect MySQL and SQL Server via a linked server, but I like to specify additional options to optimize the connection between the servers.

Connection Parameters         Data Source Name:         Data Source Name:         MySQL         Description:         test gk         Data Source Name:         MySQL         Description:         test gk         Description:         User:         Joadgase:         test_gk         Datagase:         test_gk         Connection Metadata         Cursors/Results         Debug SSL         Misc         Datagase:         test_gk         Test         Connection Metadata         Cursors/Results         Debug SSL         Misc         Datagase:         Test_gk         Connection Metadata         Cursors/Results         Debug SSL         Misc         Datagase:         Test         Datagase:         Test         Datagase:         Test         Datagase:         Test         Datagase:         Test         Datagase:         Test         Datagase:	MySQL Connector/ODBC	Data Source Configuration	MySQL Connector/ODBC Data Source Configuration
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**MySQL Connector Advanced Settings** 

Select the Advanced Button and you'll be placed on the "Connection" sub-tab. Check the boxes labelled "Allow Big Set" and "Use Compression".

Next, switch to the "Cursors/Results" tab and select "Don't Cache Result of forward-only cursors)". This can actually be a performance penalty if you perform the same query multiple times to the same linked server. However my reason to connect to a SQL Server to MySQL, is to pull data into a single server, in which case, this option was perfectly suited.

Also "Force Use Of Forward Only Cursors". When you're done setting all these options, select the "Ok" button.

## 2. Configure Linked Server Provider

Adjusting the Linked Server Provider is simple, but it comes with a caveat: When adjusting a provider, you are adjusting it for all connections using that provider. I am not aware of any way to change these settings on a per-connection basis.

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#### **Provider Properties**

Drill down to Server Object  $\rightarrow$  Linked Servers  $\rightarrow$  Providers, right-click MSDASQL, and select "Properties".

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Connection Server: Icoshota Vasefiche Connection RAPhytiebatk I dev connection propeties				All other options should be unchecked. When done, click "OK".
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			OK Cancel	

#### Set Provider Options

The Provider Options for Microsoft OLE DB Provider for ODBC Drivers dialog box will open allowing you to configure several options. Ensure the above four options are checked:

### 3. Create Linked Server to MySQL

The next step in our process is to create the actual MySQL Linked Server. Open Microsot SQL Server Management Studio.

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Create a New Linked Server

You should already have Linked Servers expanded in the Object Explorer tree. If not, find it in Server Objects → Linked Server. Once there, right-click Linked Servers and select "New Linked Server..."

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	Provider:	Microsoft OLE DB Provider for ODBC Drivers								
	Product name:	MySQL								
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#### New linked Server Settings – Security Settings

Lastly, specify the Product name and Data source. The Product name doesn't matter so much as the Data source must match what you provided in the MySQL Connector/ODBC configuration. Use the authentication details for the MySQL connection. Press "OK" when complete.

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General	Script 👻 🚺 Help		
Security			
Server Options	Collation Compatible	False	1
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	RPC	False	
	RPC Out	False	
	Use Remote Collation	True	
	Collation Name		
	Connection Timeout	0	
	Query Timeout	0	
	Distributor	False	
	Publisher	False	
	Subscriber	False	
	Lazy Schema Validation	False	
	Enable Promotion of Distributed Transaction	s True	

**Optional Settings for the Linked Server** 

Ricoh click on the newly created Linked Server and Select Test Connection

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The connection test should succeed.



Click OK

## 4. Create view in MSSQL

Now, Select the database in MSSQL that you plan on using as a database source in Laserfiche Forms. Ricoh Click and select 'New View' then click close to the add table dialog. We will use SQL query to add what we need.



**Examples of query of MYSQL tables** 

# SELECT \* FROM MYSQL\_LINK...vendorprice , MYSQL\_LINK...vendorlookup

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#### Example of query of MySQL and Join

#### SELECT vendorprice\_1.ABN, vendorprice\_1.[Supplier Total], vendorlookup\_1.Supplier\_Name

FROM MYSQL\_LINK...vendorprice AS vendorprice\_1 INNER JOIN

MYSQL\_LINK...vendorlookup AS vendorlookup\_1 ON vendorprice\_1.ABN = vendorlookup\_1.ABN

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### Example of query of MySQL and MSSQL and Join

 SELECT
 vendorprice\_1.ABN, vendorprice\_1.[Supplier Total], vendorlookup\_1.Supplier\_Name, AP\_Workflow.dbo.VendorEmail.[Email]

 FROM
 MYSQL\_LINK...vendorprice AS vendorprice\_1 INNER JOIN

 MYSQL\_LINK...vendorlookup AS vendorlookup\_1 ON vendorprice\_1.ABN = vendorlookup\_1.ABN INNER JOIN

AP\_Workflow.dbo.VendorEmail ON vendorprice\_1.ABN = AP\_Workflow.dbo.VendorEmail.ABN

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5. Add view as a data source in Laserfiche Forms

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## 6. Configure Form with Data Source



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### 7. Examples of databases queried



#### MySQL VendorLookup Table



#### MySQL VendorPrice Table

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MSSQL AP\_Workflow - Vendor Email Table