J Street LIMS

Laboratory Information Management System

"Unable to open database" Troubleshooting Guide

J Street TECHNOLOGY

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Connecting to the LIMS Database

The first time you open the J Street LIMS application—or when switching to a new database or server—you will need to connect it to the appropriate ODBC Driver, Server location, and SQL Server Database. Per the system requirements, we recommend ODBC Driver 17 for SQL Server.

1. Choose your appropriate driver from the dropdown list.
2. Type the name of your SQL Server instance in the Server box by typing the name of the computer running SQL Server, then a backslash, then the name of the SQL Server instance (in this example, called "MyServerName\LIMSEXPRESS").
3. Type in the name of your SQL Server database (in this example, we use the example database that ships with J Street LIMS).
4. Click "Connect."
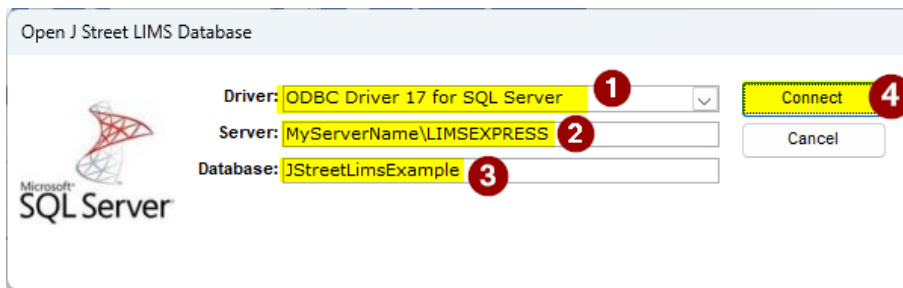
NOTE: The first time you launch J Street LIMS, you must be running under a Windows account with admin access to the database server to allow initial setup of the users.

Troubleshooting "Unable to open database" Error

After clicking "Connect", you may receive an error message that states, "Unable to open database...":
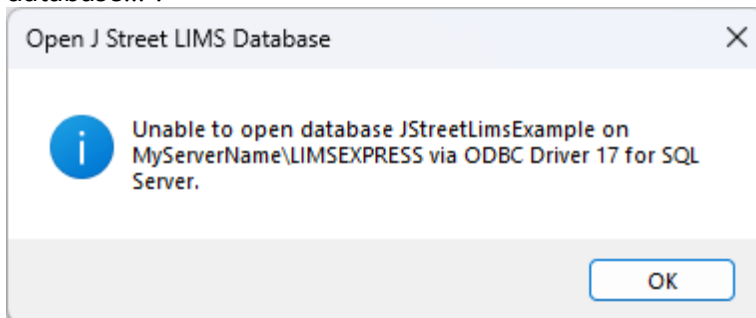
This is a generic error message that can have many causes. Here are some of the most common issues:

a. You used a forward slash ("/") instead of a backslash ("\") in the Server name.
b. You misspelled the name of the computer hosting SQL Server; double check the first part of the "Server" box.

c. You entered the wrong named instance in the "Server" box. Try the following common
    alternatives (replacing "MyServerName" with the name of your SQL Server machine):
       i.   `MyServerName\LIMSEXPRESS`
       ii. `MyServerName\SQLEXPRESS`
       iii. `MyServerName`
    - This option assumes SQL Server was installed with the default (unnamed)
      instance
       iv. `MyServerName,14330`
    - This option uses the static port syntax instead of the named instance syntax
      which avoids potential issues with the SQL Server Browser service
    - Note the comma in place of the backslash
    - There is no space before or after the comma

d. You misspelled the name of the database. Try copying and pasting the database name
    directly from SSMS.
e. You do not have permission to access the database. Try running LIMS using an account
    with admin access to the SQL Server instance (this is different than running LIMS as a
    local administrator; that is never necessary). Once connected, go to Admin > Users and
    add user accounts as needed.
f. The firewall on the database server is not configured to allow connections. Confirm
    firewall rules have been created as per the "Firewall Configuration" section above.
g. TCP/IP is disabled on the SQL Server instance. Confirm proper settings have been
    applied in the "Port Configuration" section above. Be sure to restart the service after
    applying any changes.
h. The machine running SQL Server is not accessible over the network from the computer
    running LIMS. Open a cmd window and type **`ping MyServerName`** to confirm the
    computer is reachable (where "MyServerName" is the name of the computer running
    SQL Server).
i. There is a DNS issue on your network. Try using the IP address of your SQL Server
    computer rather than its name in the Server box. For example, instead of
    "`MyServerName\LIMSEXPRESS`" use "`10.0.0.1\LIMSEXPRESS`" where "10.0.0.1" is the IP
    address of your SQL Server computer.
j. The SQL Server service is not running. Open "SQL Server Configuration Manager" on the
    SQL Server computer. Double-click on "SQL Server Services." If necessary, right-click on
    the relevant SQL Server service and choose "Start" from the context menu. (Refer to
    related screenshot in the "Port Configuration" section above).

For additional troubleshooting tips, refer to [Troubleshooting SQL Server Connection Errors](#)
or email support at support@jstreetlims.com.

Granting Permission to the Database via J Street LIMS v6

The preferred way to manage permissions is via the J Street LIMS v6 application.

1. Run J Street LIMS as a user with SQL Server admin permissions
2. From the Main Menu, click on the [Admin] tab
3. Double-click on the "Users" option under the "Data Entry/Inquiry" list
4. **To edit an existing user:**
    i. Find and select the row with the existing user
    ii. Change the radio button to a different "Security Role" option
    iii. Click the pencil icon on the far left of the record to save the changes you made
    iv. Repeat steps i - iii to edit additional users
5. **To add a user:**
    i. Enter their Windows login name using the format "{DomainName}\{UserName}" in the Login Name text box of the empty row at the bottom of the list
    ii. Choose the appropriate Security Role for that user
    iii. Click the pencil icon on the far left of the record to save the changes you made
    iv. Repeat steps i - iii to add additional users
6. Close the form to automatically save any changes you made

Manually Granting Permission to the Database

WARNING: *This section includes technical instructions intended for users who are already comfortable working with SQL Server Management Studio (SSMS). If you are not comfortable following these instructions, please contact support@jstreetlims.com for assistance.*

Occasionally, it's either not possible to manage users via the Users form (e.g., if the SQL Server admin does not have access to the J Street LIMS application) or you run into problems while adding or editing users in the Users form.

In either case, you may use SSMS to manage security directly at the database server. Please note that the actual security of the application is the same whether you manage it through the LIMS v6 application or SSMS. The Users form in LIMS v6 simply automates the manual steps we describe below.

1. Launch SSMS and connect to the instance of SQL Server that is hosting the LIMS data
2. Expand **Security > Logins**
3. If necessary, **create a login** for the user who needs access to LIMS
    i. Right-click the Logins folder and choose "New Login…"

  ii. Enter the user's Windows login name in the "Login name" text box following the format: {domain}\{user} (e.g., **mydomain\jdoe**)

  iii. Verify **(o) Windows authentication** is selected

  iv. Click [OK] to create the SQL Server Login

4. **Edit a login** to create and assign LIMS roles to individual databases

  i. Double-click an existing login under the Security > Logins folder

  ii. Click on the "User Mapping" page on the left side of the Login screen

  iii. Check the box under "Map" heading for the first LIMS database listed

  iv. Under "Database role membership", verify the **[√] public** box is checked

  v. Under "Database role membership", check **ONLY ONE** of the following boxes:

- ☐ db_owner ("Owner")
- ☐ lims_admin ("Admin")
- ☐ lims_readonly ("Read Only")
- ☐ lims_sampler ("Sampler")
- ☐ lims_technician ("Technician")

  vi. Repeat steps v. through vii. for any additional LIMS databases

  vii. Click [OK] to apply the changes to the SQL Server login

One of the most common sources of problems is assigning multiple database roles to a user. Please be sure that only one of the five check boxes listed above is checked for any given user.

Another common problem is that a SQL Server login has been granted permission to one LIMS database (such as a "sandbox" testing environment) but not a different LIMS database (such as the main production environment). This is especially common following a migration from MSC-LIMS v4 to J Street LIMS v6.

Still Need Help?

If you have followed the above instructions and are still having trouble, please contact us via email at support@jstreetlims.com.

Contact Us

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