J Street LIMS

Laboratory Information Management System

J Street LIMS Installation Guide

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System Requirements

- **Computer:** 1 GHz or faster processor.
- **O/S:** Windows 10 or 11.
- **Hard Drive:** 3.0 GB free for typical installation.
- **Monitor:** 1024 x 768 or higher resolution.
- **RAM:** 1 GB RAM (for 32-bit Office); 2 GB RAM (for 64-bit Office).
- **Database:** An existing Microsoft SQL Server instance (2014 or newer version) using Windows Authentication mode (See SQL Server Requirements below). ***Please note that SQL Server should ONLY be installed on the server or HOST computer and is not needed on any additional computers.***
- **ODBC Driver:** Either 'ODBC Driver 13 for SQL Server' or 'SQL Server Native Client 10.0' or newer ODBC driver. We recommend ODBC Driver 17 for SQL Server.
    - Each workstation that will be running LIMS will need the proper ODBC driver.
    - Note for users with multiple licenses that it is best practice that all LIMS workstations use the same ODBC driver.
- **Miscellaneous:**
    - ***Please note that each workstation that needs access to the Excel templates, Messaging component, or PDF viewing/creating will need the appropriate additional software applications.***
    - Microsoft Office (32-bit or 64-bit) for Excel interface.
    - Outlook 2016 or newer (for Messaging component. Email delivery for reports).
    - PDF viewing software (for User's Guide and other documentation).
    - PDFCreator version 3.x or newer (for Messaging created PDF files). Not required if you don't intend to use the optional Messaging component.

SQL Server Requirements

J Street LIMS v6 requires an existing Microsoft SQL Server instance (2014 or newer version) using Windows Authentication mode. The J Street LIMS database can be added to any existing SQL Server instance. If your organization does not already have a SQL Server instance, you can download and install the free SQL Server Express version.

SQL Server Express can be installed on any LIMS or non-LIMS workstation in a peer-to-peer network or on a dedicated Windows server and ***ONLY INSTALLATION IN THE ONE LOCATION IS NEEDED***. If you have a single-user J Street LIMS license and no network, install SQL Server Express on the dedicated LIMS workstation.

For existing Annual Subscribers who use an older version of the software (MSC-LIMS version 4), it is necessary to migrate the LIMS' Microsoft Access .accdb database to the new SQL Server database. This step is not necessary for customers using MSC-LIMS version 5, which already uses a SQL Server database. We offer self-service instructions for this process, but we recommend our Support team's white-glove migration service for a fee of $600. This service includes an initial database conversion for testing version 6 and a second conversion when you feel comfortable migrating production from version 4 to version 6. MSC-LIMS version 4 Full System License customers must contact Support for a database review, as any customized databases may require additional work to migrate, billed hourly

at J Street's current shop rate.

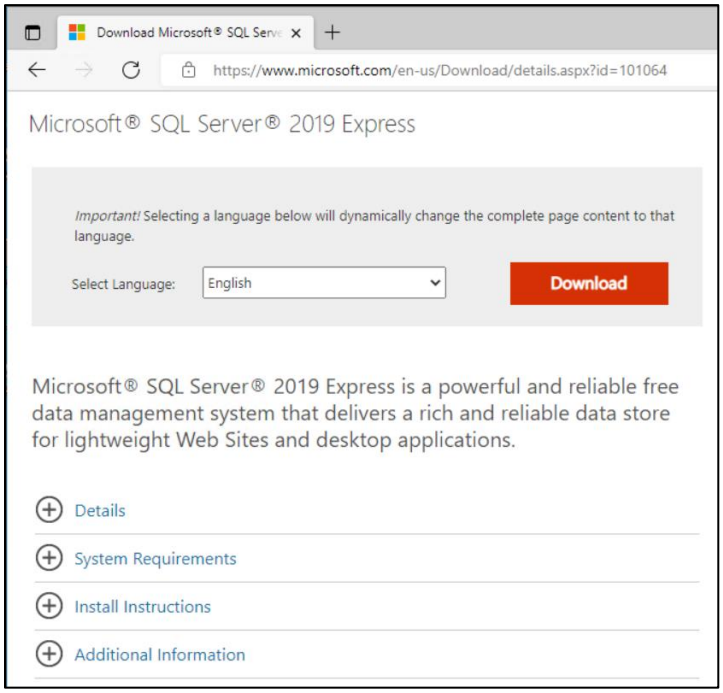
IMPORTANT: In order to set up the LIMS Database, ensure that you have also installed **SQL Server Management Studio (SSMS)**. SSMS is a Microsoft tool for viewing and configuring SQL Server database structures. SSMS is an included download component of most modern versions of SQL Server 2019 and newer. If your SQL Server version does not include SSMS, you can download it for free from Microsoft.

Installing SQL Server Express

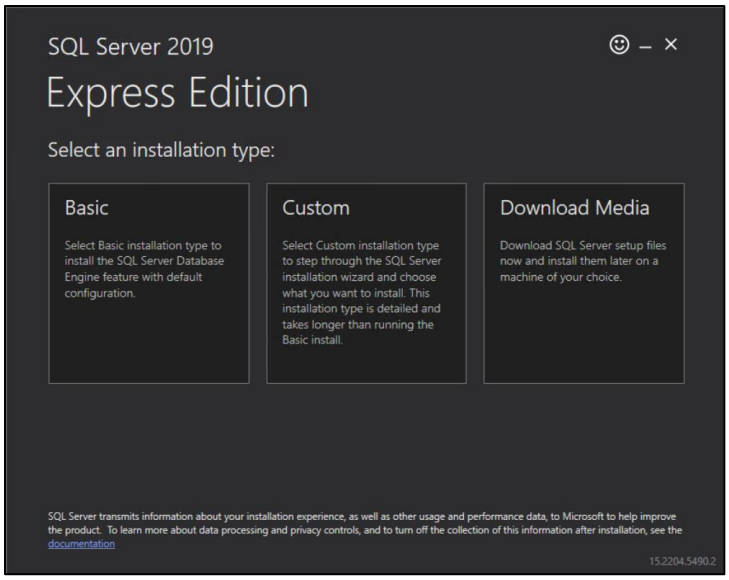
If your organization does not already have a SQL Server instance, you can download and install the free SQL Server Express. Note that you will need to install a SQL Server Express version with tools that includes **SQL Server Management Studio (SSMS).** While any SQL Server version 2014 or newer will work with J Street LIMS, the 2016 and 2017 versions of SQL Server Express do not include a single download that includes SSMS. For that reason, we recommend installing SQL Server Express 2019 or newer for simplicity. Follow the steps below to install.

1. Close any other applications that are running. Log on to Windows as a user with administrative privileges.

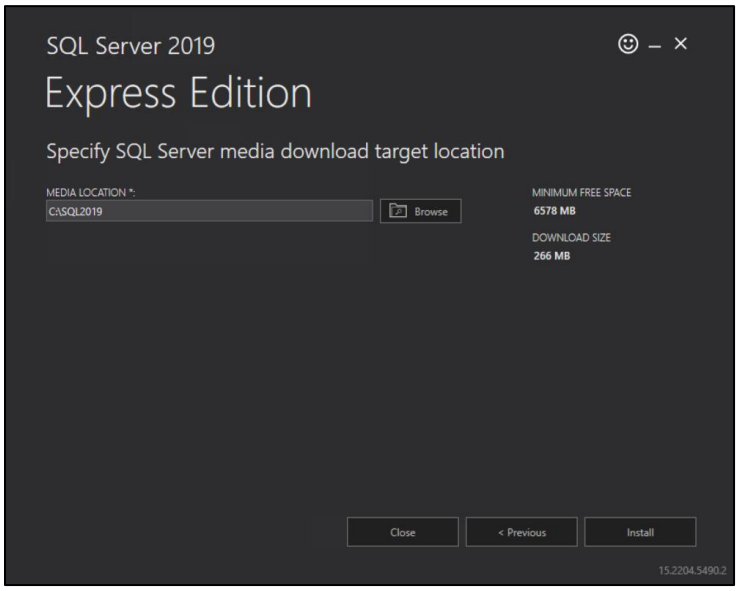
2. Visit the Microsoft SQL Server Express download page and click the Download button. Once the .exe executable file has downloaded, open the file to begin installation.



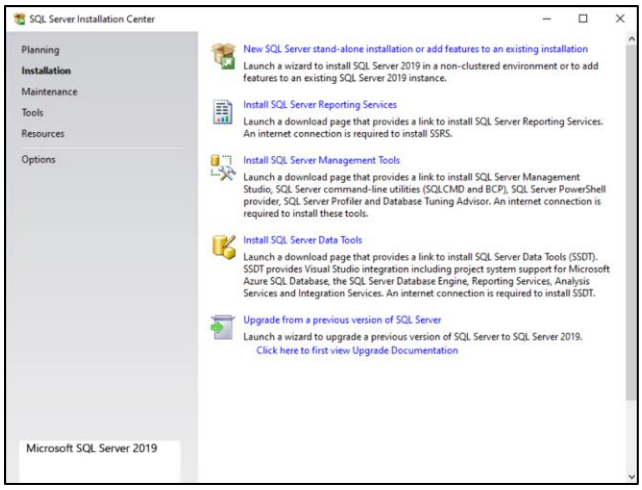
3. Choose the “Custom” edition to configure specific installation instructions.

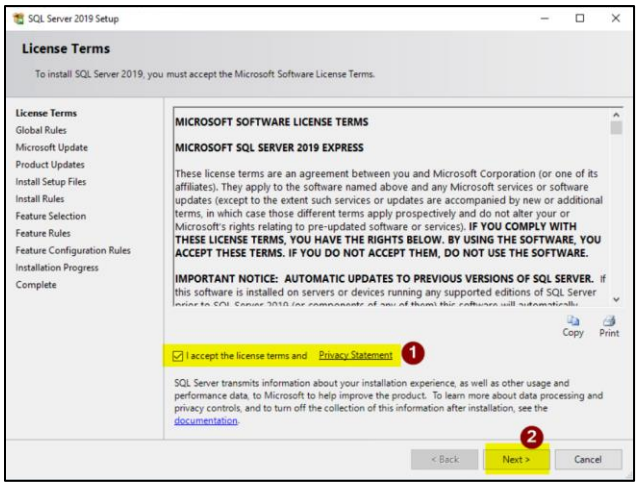


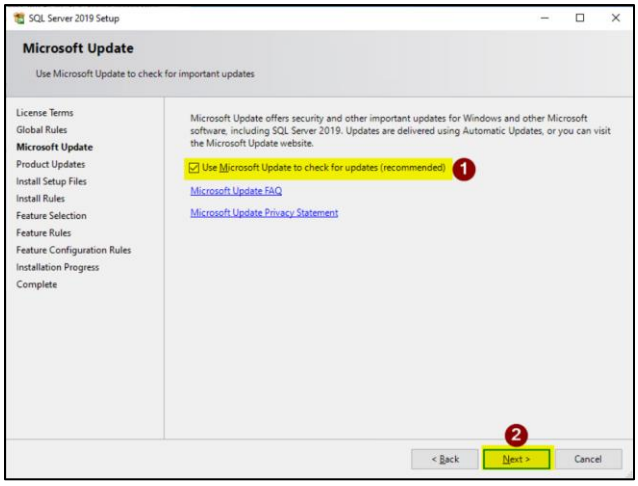
4. Specify your C-Drive in the Media Location field and click “Install”. After clicking “Install,” you will be taken to a Progress screen. With a high-speed internet connection, the download and extraction will take a few minutes.



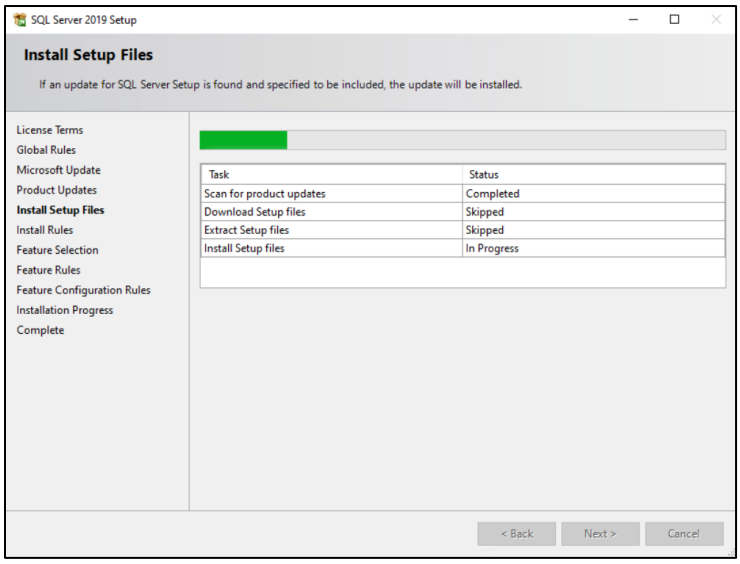
5. When the download and extraction is complete, the **SQL Server Installation Center** will open. Click on “New SQL Server stand-alone installation…” and the SQL Server 2019 Setup application will launch in a separate window. Check the box to accept the license terms and Privacy Statement and click Next. The **Microsoft Update** screen will appear next. Check the box to use Microsoft Update to check for updates.

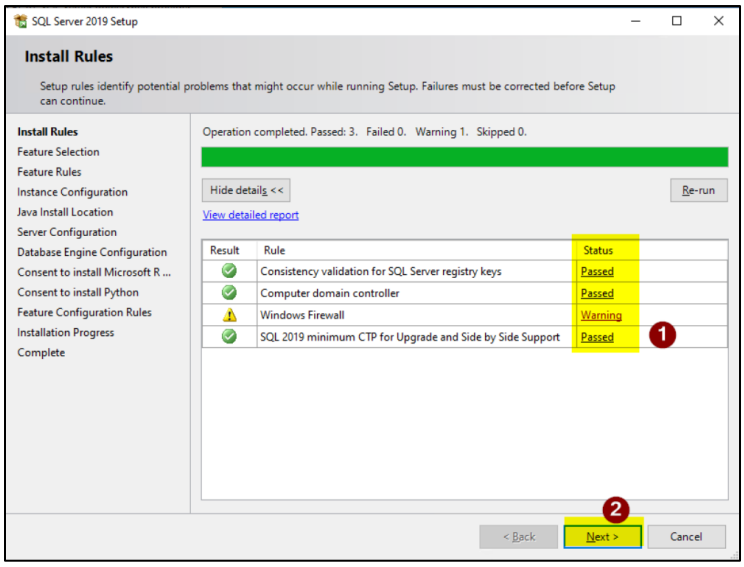






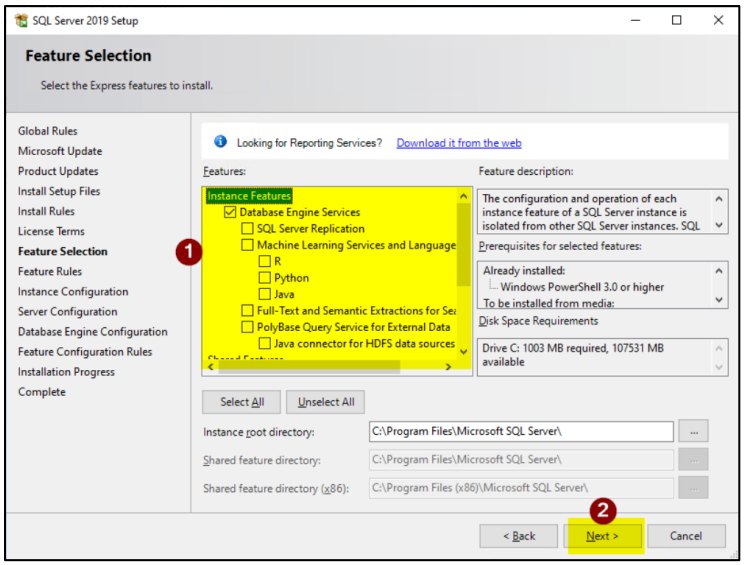
6. The **Install Setup Files** screen will appear next and will show a progress bar. After a short time, this page will close, and the **Install Rules** page will appear.



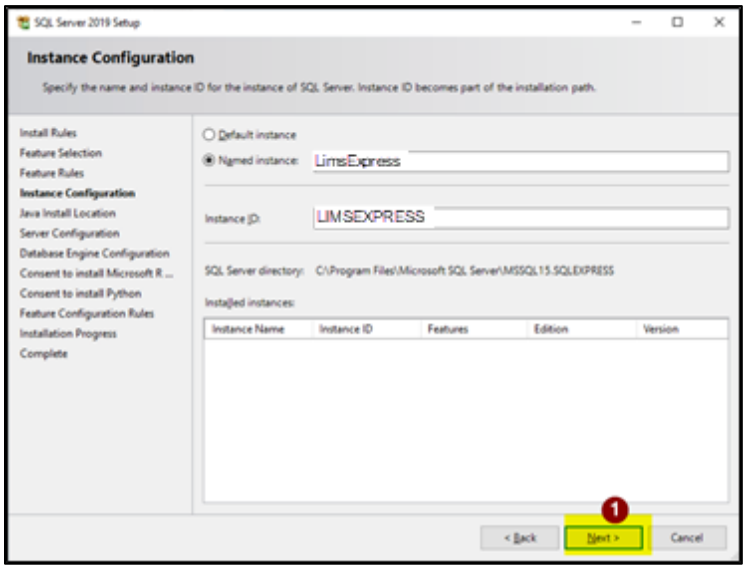


It is recommended that if any Rules display Warnings in the Status column, click on the warning and a Rule Check Result box will display with a description. Click “OK”, and then “Next” to proceed.

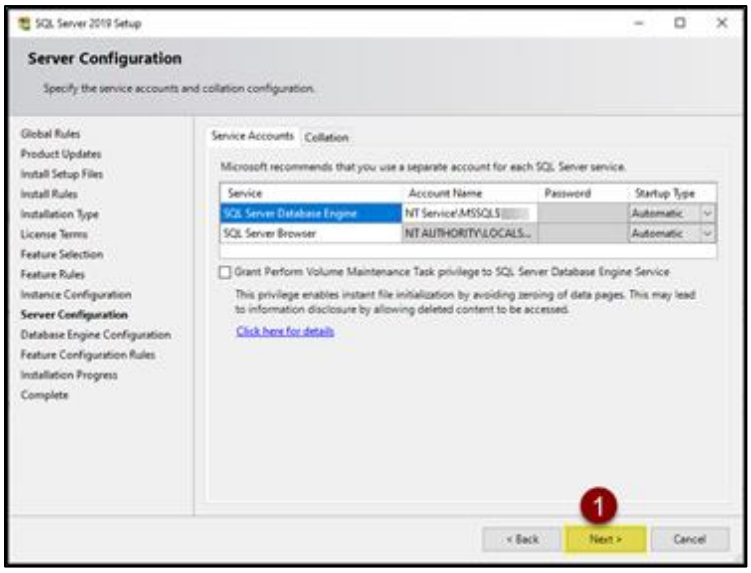
7. The **Feature Selection** screen will appear next. In the "Features:" box, uncheck all Features except for "Database Engine Services" and click "Next."



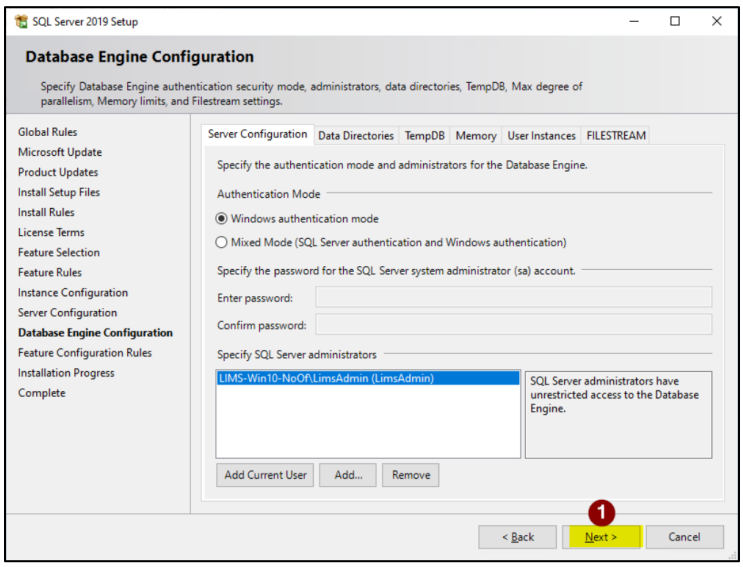
8. The **Instance Configuration** screen will appear next. Here, specify the Named instance as "LimsExpress" and designate the Instance ID: "LIMSEXPRESS". Then click "Next."



9. The **Server Configuration** screen will appear next. Ensure the Startup Type is set to Automatic for both services then click "Next."

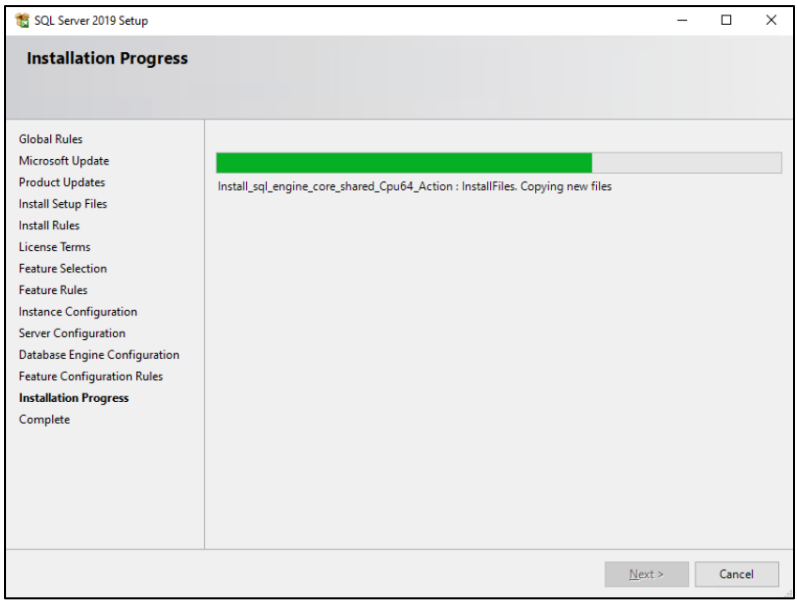


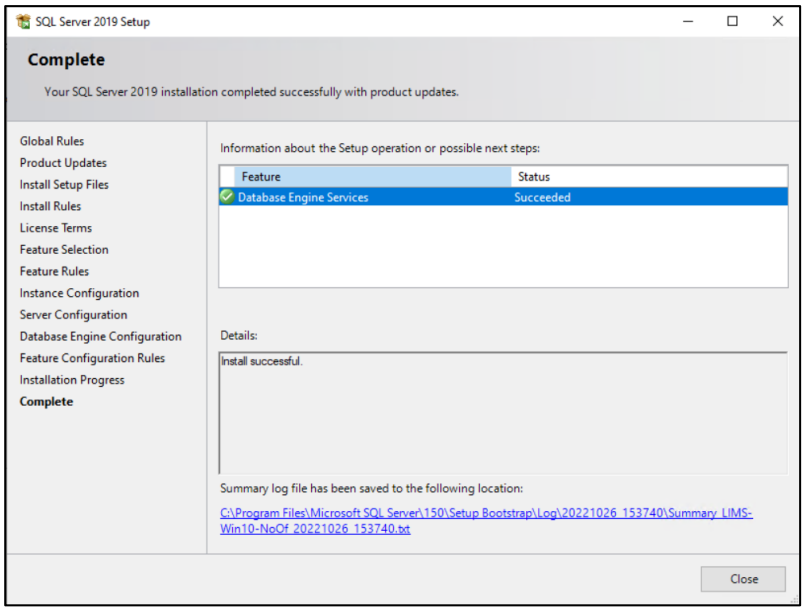
10. The **Database Engine Configuration** screen will appear next. Here, select "Windows authentication mode" in the Authentication Mode bullet list. Next, specify your SQL Server administrators. If you have IT or networking staff, it is recommended to add their Windows account as a SQL Server administrator. We also recommend adding the J Street LIMS "super-user" account (whoever will be responsible for managing permissions) via the [Add…] button. Please note that SQL Server administrators have unrestricted access to the Database Engine. Once you have selected or added the appropriate SQL Server administrators, click "Next."



IMPORTANT: If you have installed SQL Server Express on a workstation in a peer-to-peer network, you must add the identical Windows login names and passwords to the SQL Server Express workstation for all LIMS workstation logins that will be accessing SQL Server.

11. The **Installation Progress** screen will appear next. An installation progress bar will load as SQL Server is installed according to your configurations. When installation has completed successfully, click "Next" and the **Complete** screen will appear confirming your installation. Click "Close" and proceed to install your J Street LIMS application.

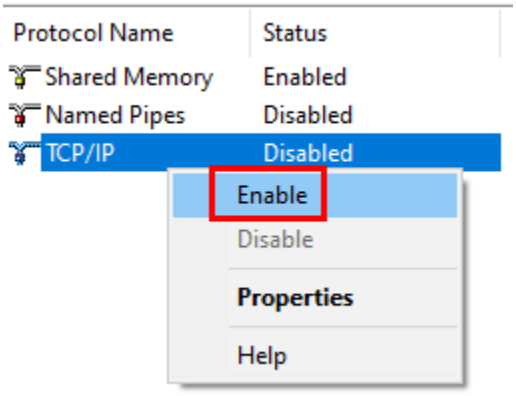




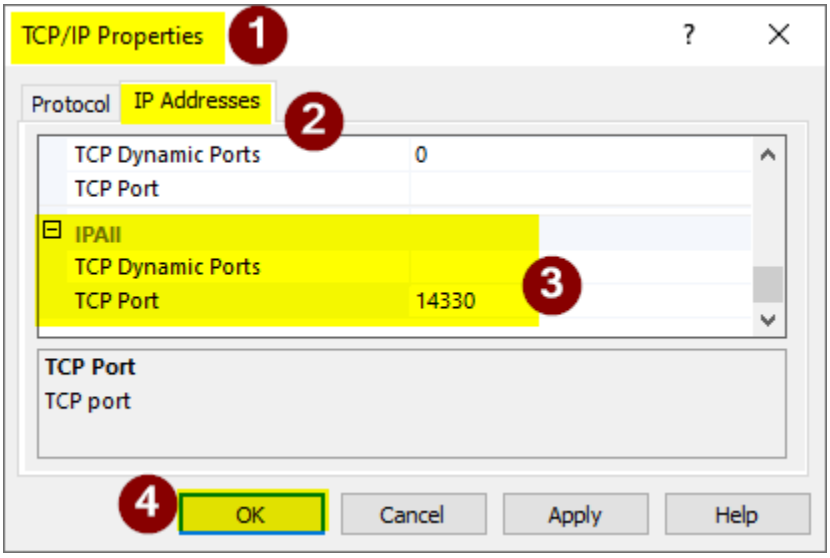
Port Configuration

On the computer/server where you just installed SQL Server, you now need to set a static port for the SQL Server instance. We will use a non-standard port to avoid conflicts with other SQL Server instances which may already be installed.

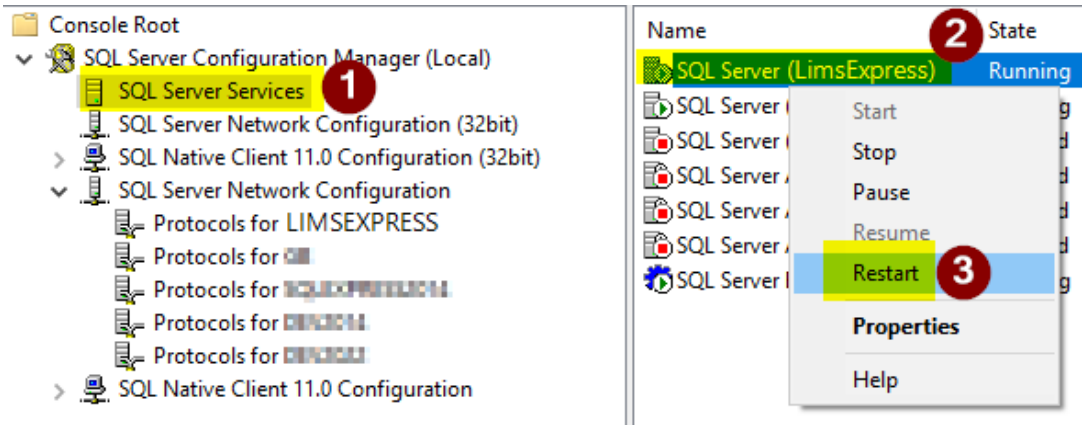
1. Launch SQL Server Configuration Manager from the Start Menu.
2. Go to 'SQL Server Network Configuration' > 'Protocols for LimsExpress'.
3. Right-click 'TCP/IP' and choose "**Enable**."



4. Right-click 'TCP/IP', select 'Properties', and switch to the 'IP Addresses' tab. Scroll to the bottom of the tab. Clear the 'TCP Dynamic Ports' field in the 'IPAll' section, and then input 14330 into the 'TCP Port' field. Click [OK] to save settings and close the Properties dialog.



5. Confirm with 'OK' and restart the SQL Server service for 'LimsExpress'.



Firewall Configuration

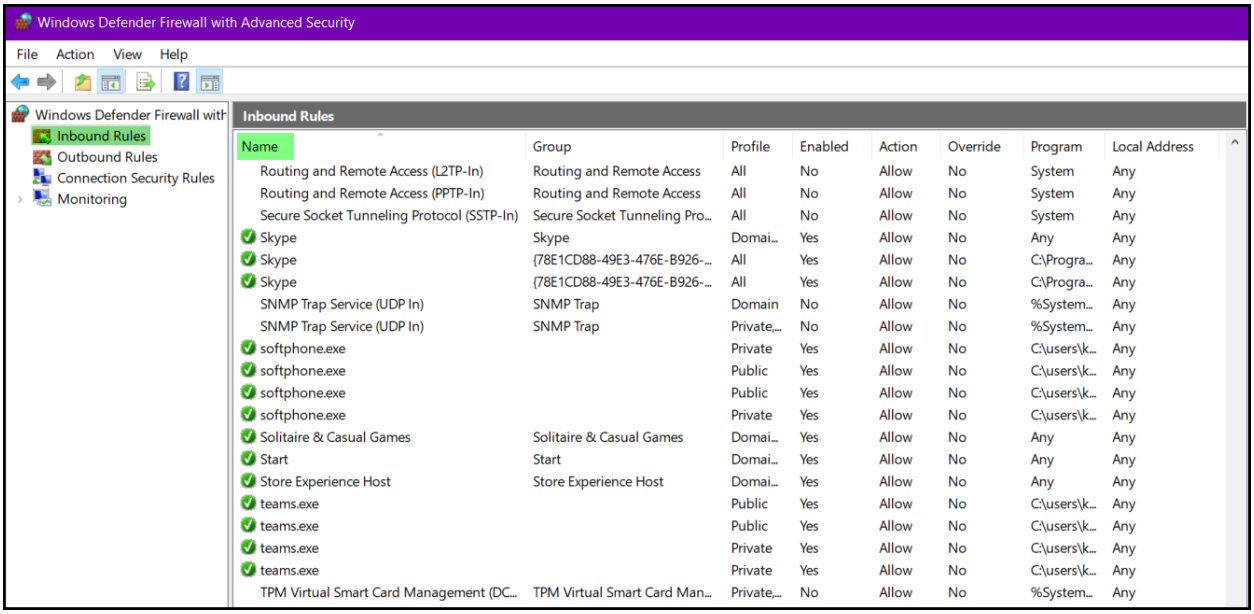
On the computer/server that you just installed SQL Server on you now need to open your SQL Server's Configuration Manager. You can find this by searching the apps installed on the computer/server or by typing "Configuration Manager" in your computer/server's search.

We need to ensure that the connection is allowed from the computer/server (so you can connect to the database from other computers):

Go to Windows Defender Firewall> Advanced Settings> Inbound Rules. Use the instructions below to complete the setup.

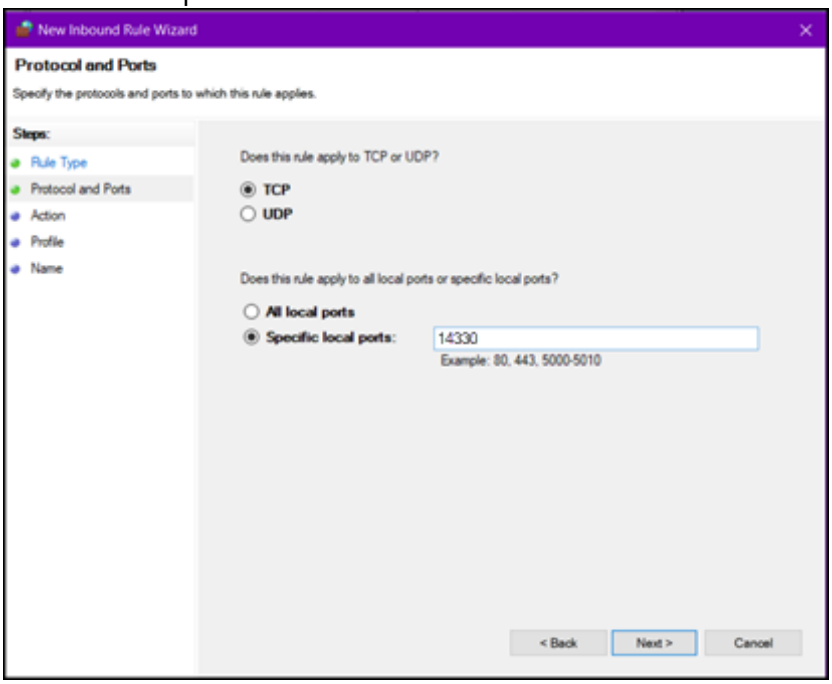
We will be creating two new rules named:

- **SQL Server (LimsExpress)**
- **SQL Server Browser Service**

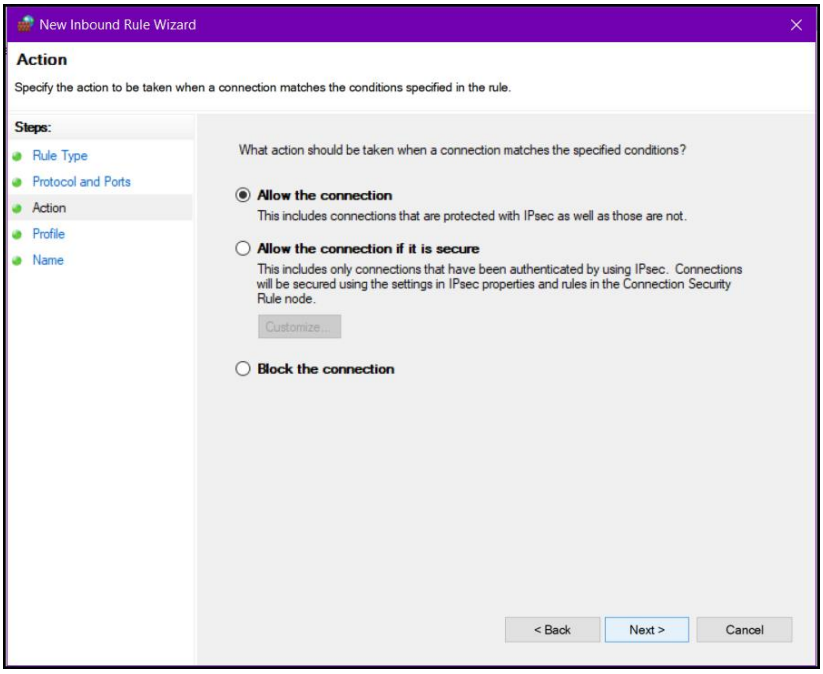


CREATE "SQL Server (LimsExpress) RULE

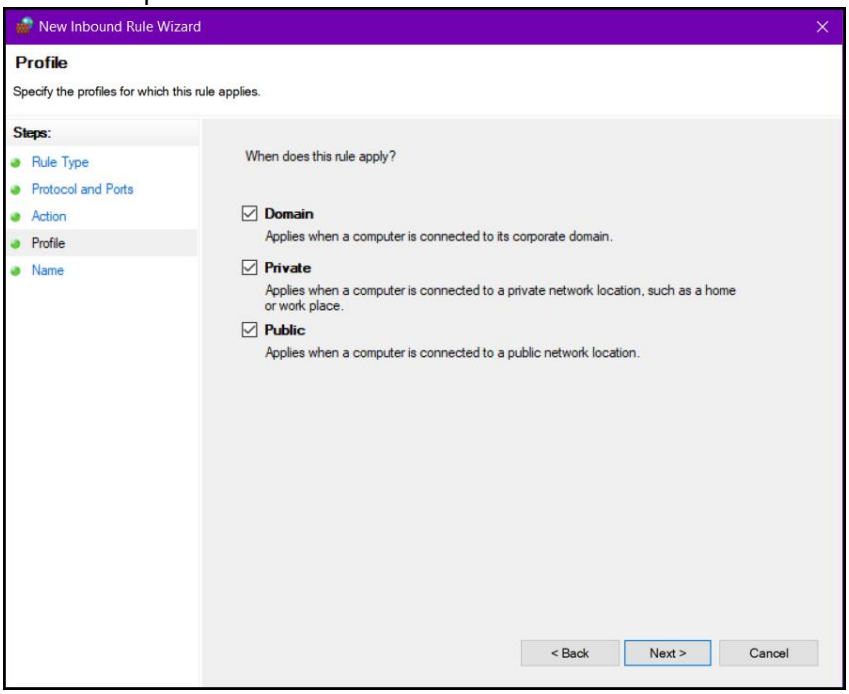
1. Click NEW RULE in the right panel
2. Select Port>Next
3. Select TCP> Specific Port: 14330



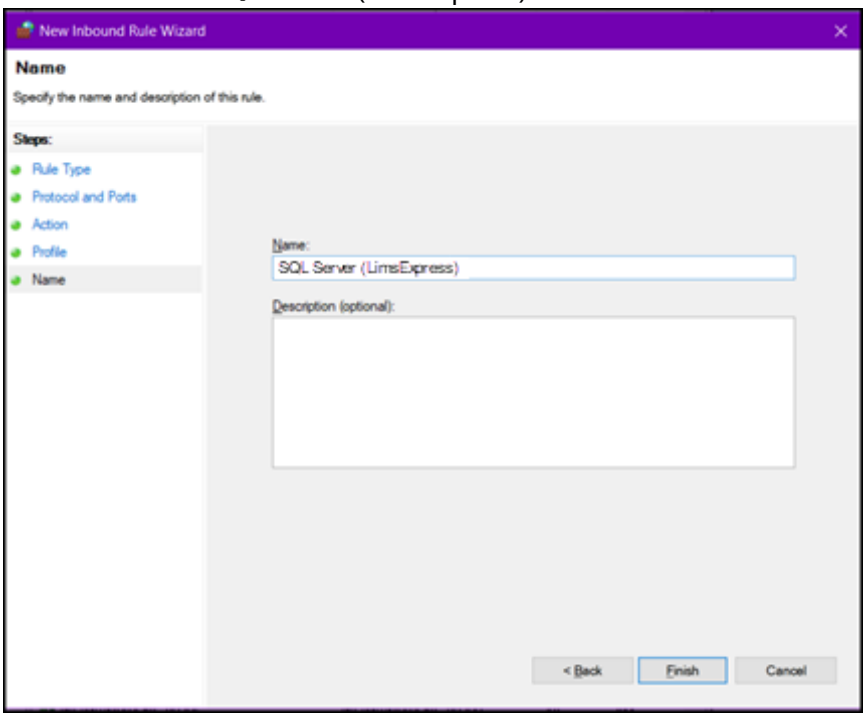
4. Select “Allow the Connection”> Next



5. Select all options> Next:



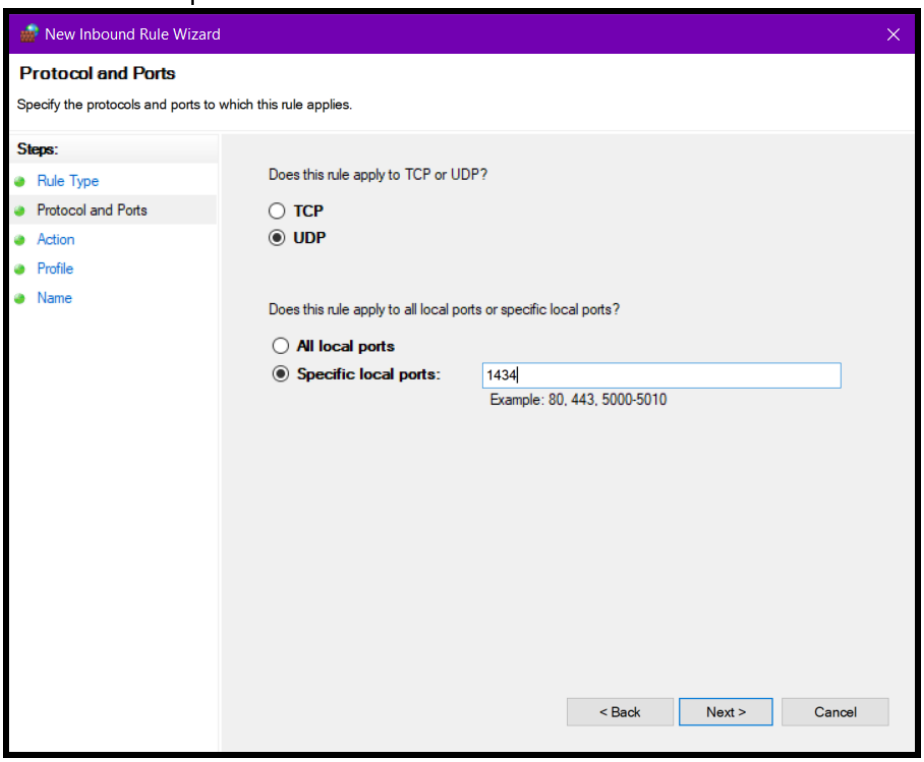
6. Name the rule “SQL Server (LimsExpress)”. Click Finish.



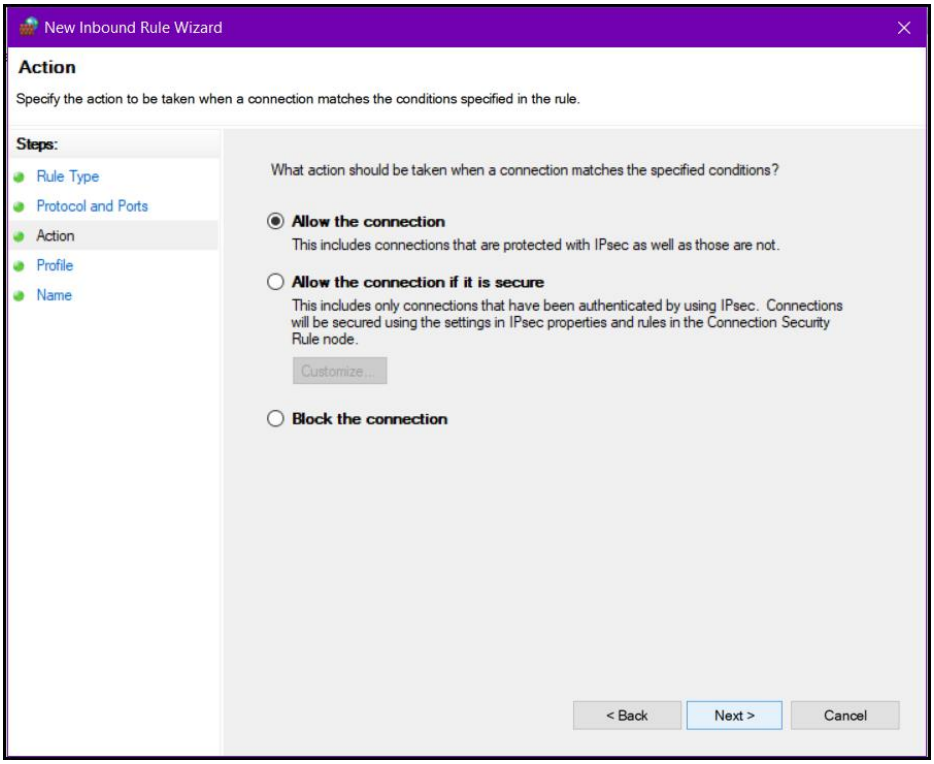
CREATE “SQL Server Browser Service” RULE

1. Click NEW RULE in the right panel
2. Select Port>Next

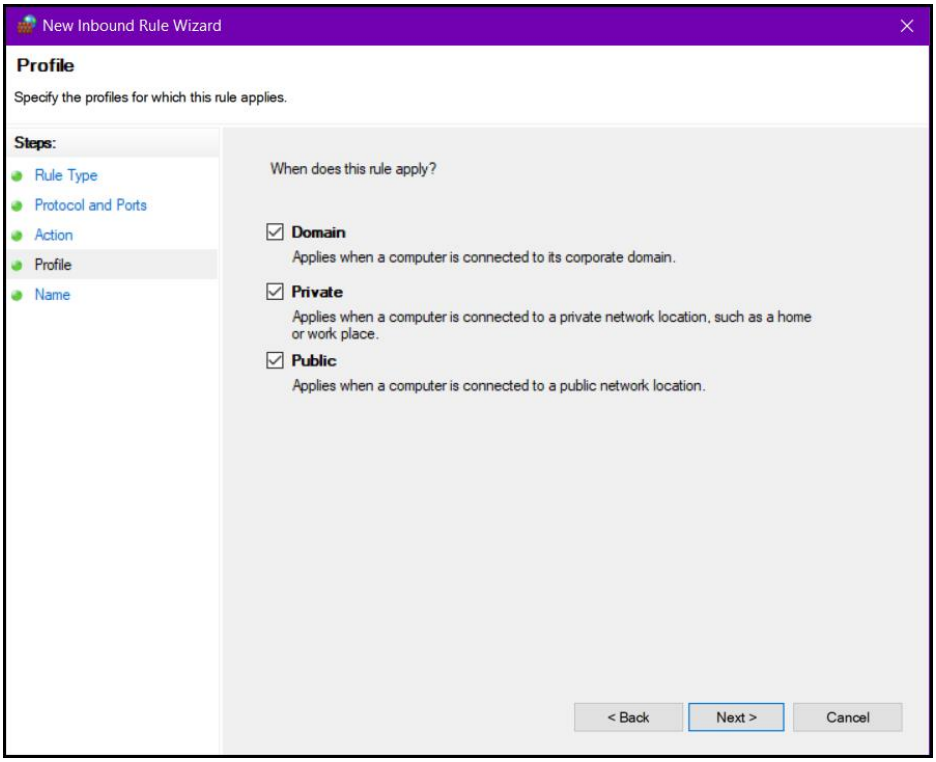
3. Select UDP> Specific Port: 1434



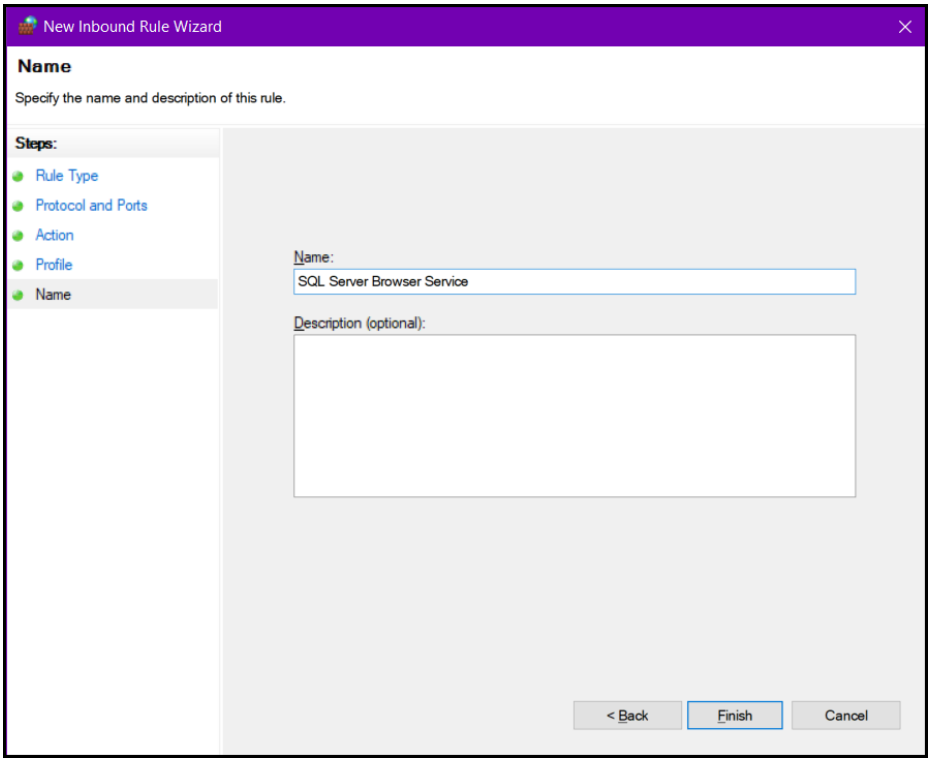
4. Select "Allow the Connection"> Next



5. Select all options> Next:



6. Name the new rule “SQL Server Browser Service” then click Finish.



Installing J Street LIMS

Before installing J Street LIMS, ensure your workstation(s) meets the System Requirements Addendum, which can be found on https://jstreetlims.com/terms-conditions/. Upon successful payment for your software, a member of the J Street LIMS Support team will provide you with an ***.exe** executable file to initiate installation, and a **License Key** which will be copy/pasted into a dialogue box to initiate your software after installation.

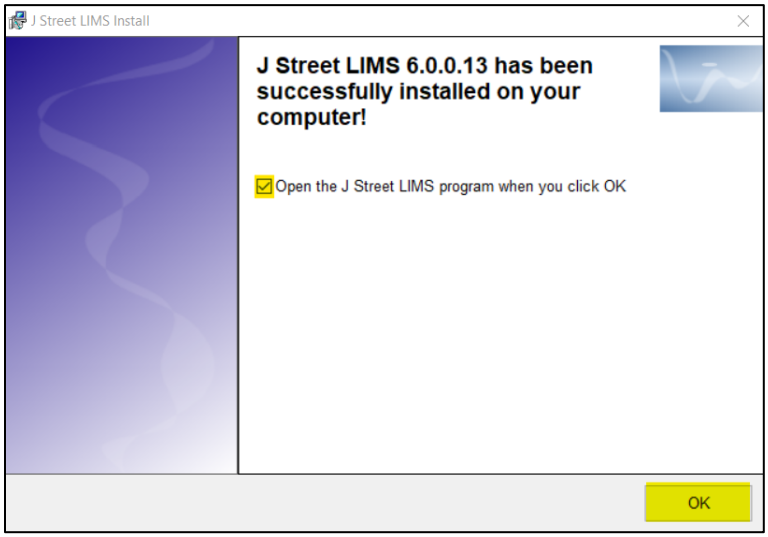
IMPORTANT: If you have employees or on-hand experts for IT or network support, it is recommended that you involve them in the LIMS installation process so they can assist with any server/database pathways or address any error messages, should you receive them.

1. If you do not have an existing SQL Server instance, install SQL Server Express with SQL Server Management Studio. See the previous section Installing SQL Server Express for instructions.
2. Close any other applications that are running. Ensure you are logged onto Windows as a user with Administrative privileges.
3. Download the executable file (for this example, **JStreetLIMS60013.exe**) provided by the LIMS Support team. Note that future iterations may have a different number sequence at the end. Once downloaded, double click on the file to launch the installation wizard.
4. The J Street LIMS install wizard will open. Take note of the location on your C-Drive where the application will be installed. For easier access after installation, check the box to create a desktop shortcut. Click "Next".

5. The J Street LIMS License Agreement dialogue box will appear next. Here you will find a link to the Terms & Conditions page of the J Street LIMS website. Choose and review the

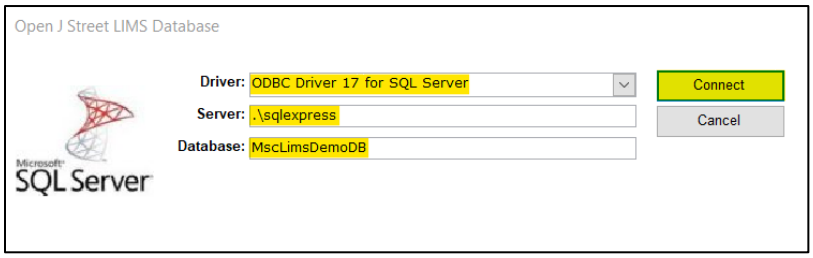
appropriate license agreement depending on your license type (Annual Subscription vs. Full System). After reading and reviewing the license agreement, click "Next".

6. A progress bar will display as the J Street LIMS front-end application installs. After a few seconds, the installation will complete and the following confirmation screen will appear. Checkmark the box to open the application upon clicking OK in order to connect the ODBC Driver, Server location, and SQL Server Database. Then click "OK".



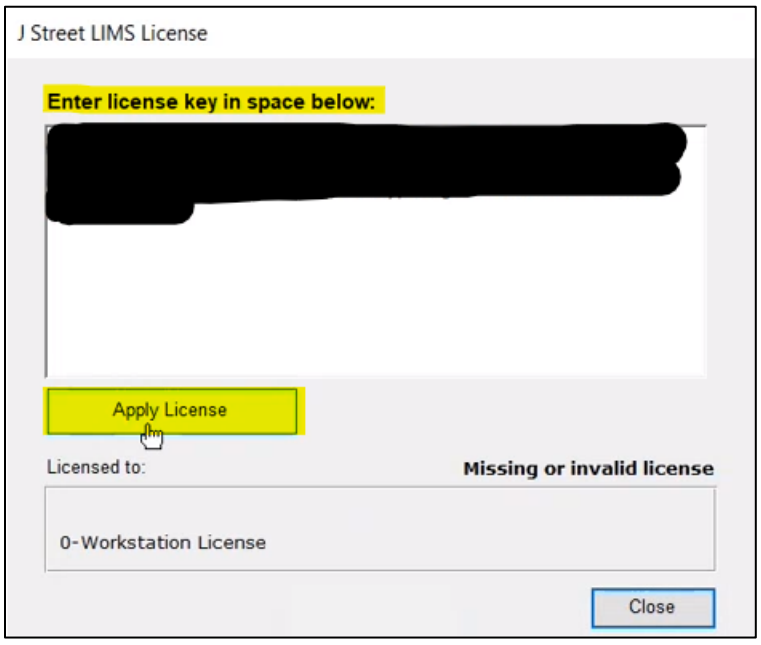
7. The first time you open the J Street LIMS application, you will need to connect it to the appropriate ODBC Driver, Server location, and SQL Server Database. Per the system requirements, we recommend ODBC Driver 17 for SQL Server. Choose your appropriate driver from the dropdown list. Next, type the name of your SQL Server instance (in this example, called ".\sqlexpress"). Next, type in the name of your SQL Server database (in this example, we use an old demo database with example data that resides on the .\sqlexpress

server). Lastly, click "Connect."



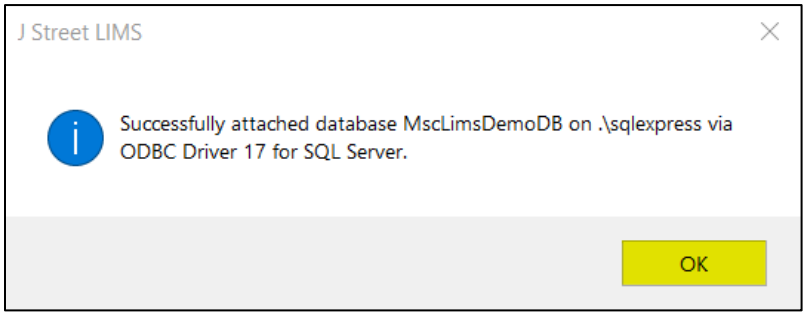
NOTE: You may receive error messages if you choose the incorrect ODBC driver, incorrect server or database locations, or if there are typos in any of the text fields. Please consult with your IT or network resources if this is the case.

8. The J Street LIMS License Code application screen will appear next. Here, you will copy & paste the license code provided by the J Street LIMS Support team. This process confirms the number of licenses you've purchased and stores that information in the database. For Annual Subscribers, we will email you a new license code every year to renew your subscription. After pasting the license code in the text field, click "Apply License".
**** Note: Do not include the "Begin License" or "End License" in the license key you copy and paste.***



9. After applying your license code, your company name and quantity of licenses purchased will populate below the "Licensed to:" field. Confirm this is correct based on your purchase order or agreement, and then click "Close".

   After a successful connection of the ODBC driver, server, SQL Server database, and license key, a message will appear confirming attachment of the SQL Server Database. Next, click "OK".



10. You are now ready to begin using and configuring J Street LIMS. Begin with **Chapter 2: Quick Start** of the J Street LIMS User's Guide, which will give step-by-step instructions for familiarizing yourself with the system, adding users, configuring Menu options and sample/project parameters, and much more. The core functions and of the LIMS are thoroughly explained in additional chapters. We also recommend reviewing **Chapter 7: System Setup** for additional instructions on configuring J Street LIMS. If you have any questions or issues, browse through Support content on our online Knowledge Base, or email Support@JStreetLIMS.com.

Contact Us

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