

Please confirm that you have SQL server express installed correctly and can connect to a property database *before* the workshop. We will not have time to troubleshoot installation issues.

SQL Server Express 2019: Download available at <https://www.microsoft.com/en-us/download/details.aspx?id=101064> If you already have SQL server express, please confirm that it is the 2019 version. I believe the State Library database files will not be compatible with earlier server versions. A quick way to check is to look at the version number when you connect to SQL Express. It should be at 15.x. `883\SQLEXPRESS (SQL Server 15.0.4102 - STATE\CR)`

SQL Server Management Studio (SSMS): We will be using this program to access and query a property database. You should have been prompted to install it as part of the SQL Server Express installation.

Once you have that installed, let's make sure you are able to connect to a state library database file. You will need to have the proper permissions. This normally will happen automatically during installation, but if your user credentials are different from those used in the installation (i.e. you don't have admin rights to install on your pc), extra steps may need to be taken.

- 1) **Launch SSMS and connect to your SQL Express Server.**
 - a. **Server Name:** *Your Computer Name*\SQLEXPRESS You can search for your computer name in settings. Try LocalHost/SQLExpress or LocalHost if that doesn't work.
 - b. **Authentication:** Windows Authentication
- 2) **Attach the Lewis and Clark property database from the State Library**
 - a. Download from ftp://ftp.geoinfo.msl.mt.gov/Data/Spatial/MSDI/Cadastral/ORION_SQLDatabases/ (Also accessible through the "Data" button on the Cadastral site) The ftp site was behaving strangely on my computer – Chrome and Edge were not working. IE did, as well as pasting the link into the address bar of the File Explorer.
 - b. You will need *County5.zip* & *Begin Here.zip*. County5.zip contains the Lewis and Clark county database file. Begin Here.zip contains helpful information about the property databases – There is help for loading a Database, but it is bit dated.
 - c. Unzip County5.zip to a "LC" folder on your computer. The database file is "output.mdf"
 - d. Right click the Output.mdf file, Choose properties then go to the security tab. If "Full control" is not checked, click edit and choose Allow. Click Ok to close the windows.
 - e. Now we're ready! In SSMS, Right click the database folder and choose Attach to open the Attach window.
 - i. Click the Add... button and navigate to the Output.mdf file
 - ii. The file path should appear in the top (Databases to Attach) section of the window. Select it and type LCDB in the "Attach As" field – you may need to enlarge the window or scroll over to see it.
 - iii. Click on the "Output.ldf" file row in the bottom ("Output" database details) section and hit the remove button. The "Output.mdf" row should be the only one in the bottom section.
 - iv. Click ok. You should see a database called LCDB appear in the Databases folder. Expand that database and then expand the Tables folder. You should a long list of tables, beginning with dbo.AgForest.

If you get an error when you try to attach the output.mdf file:

- Confirm check that “Full Control” is checked in the output.mdf file properties.
- Confirm that you have the necessary privileges on the Express server. You will want to be able to: Attach, Create and Delete databases.
 - Expand the Security folder, then expand Logins. Right click your login name, choose properties and go to server roles. Sysadmin should be checked. There are other ways to be granted those privileges, this is one of the simplest.
 - Right Click Databases and choose New Databases. Name it whatever – default settings ok. Did it work? Right-click your new database and delete it (or keep it – up to you)