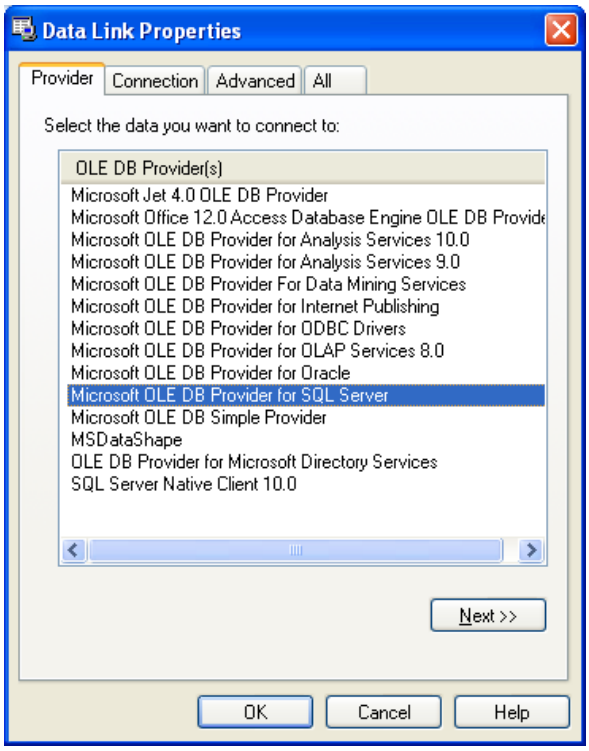
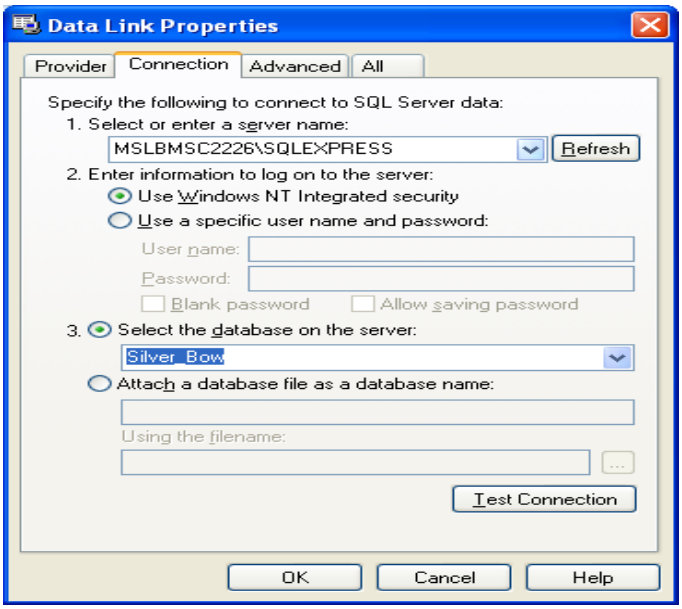
Connecting and Viewing SQL Views in Arc GIS
Version 3 – 2014/08/05

1. Connect to the database in Arc Catalogue
    - Open Arc Catalogue and expand Database Connections
    - Double click "Add OLE DB Connection (NOTE – some users have not been able to do this and have had to add a tool as described in the "Adding OLE DB Connections.pdf found in the same directory you downloaded this document from)
    - Select "Microsoft OLE DB Provider for SQL Server" and click "Next"



    - Fill in the "Data Link Properties" pop-up in a similar manner to the one below



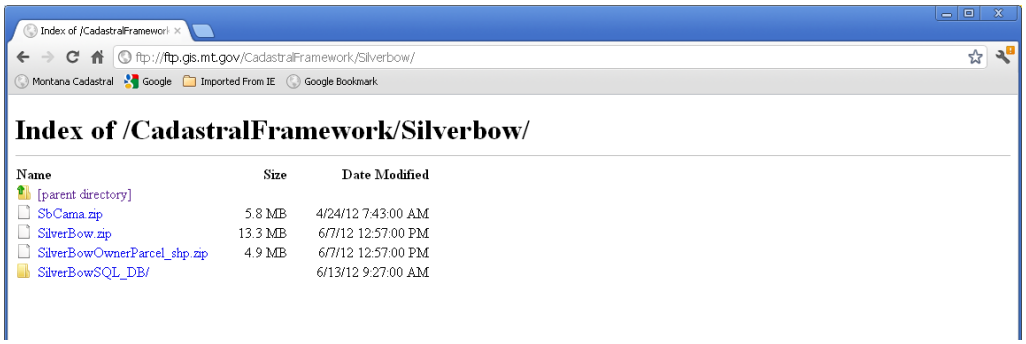
To find out your server name in the first box you can open SQL Management Studio and copy the entry for Server name.

Click the "Use Windows NT Integrated security" radio button. Test the connection by clicking the "Test Connection" button. Assuming the connection was successful you should be able to see and select your database. In the example above I selected the Silver Bow database we have been working with.

- Close Arc Catalogue

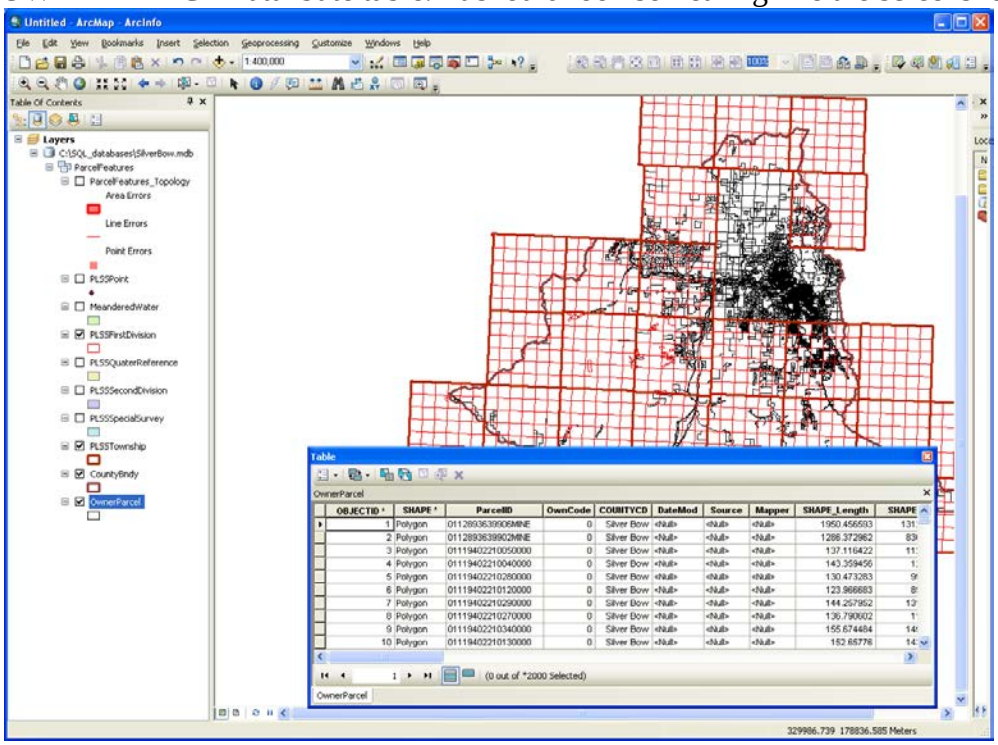
2. Download the corresponding county geodatabase (or shapefile if you wish) from ftp://ftp.geoinfo.msl.mt.gov/data/spatial/MSDI/cadastral/parcels . Because we have been

working with the Silver Bow database we will download the SilverBow.zip file which is the SilverBow.mdb geodatabase.



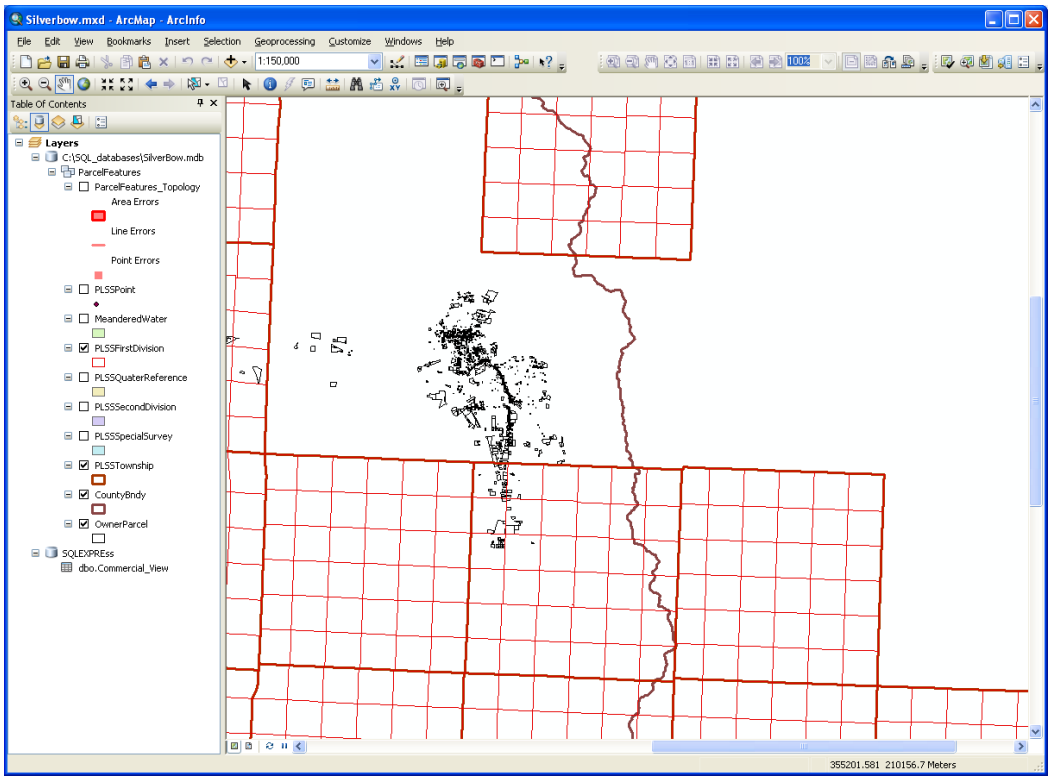
Unzip the file.

3. Open ArcMap (this assumes the user has fundamental knowledge of ArcGIS). Add the ParcelFeatures/ownerparcel feature class and symbolize as you wish. Open the OWNERPARCEL attribute table. It should look something like the screenshot below.



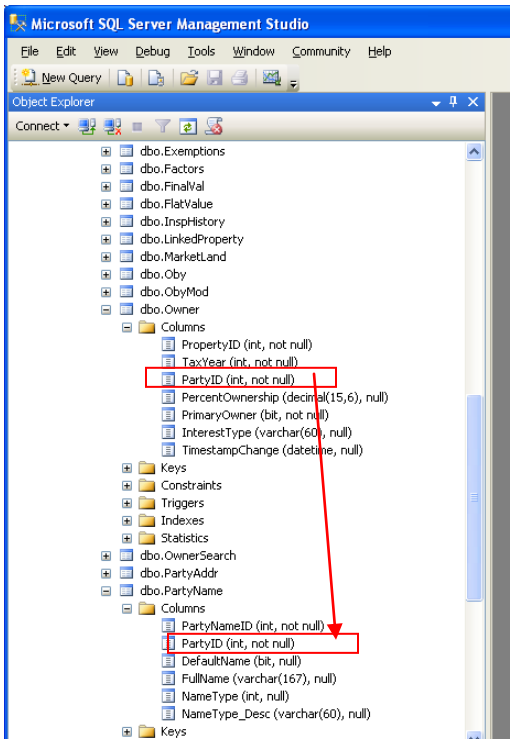
4. Join a SQL Server Express view in ArcMap. In the document Loading and Viewing a County SQL Database we showed how to create a database view based on a pre-defined SQL query. This assumes that you have one or more views built from the pre-defined SQL queries available at ftp://ftp.geoinfo.msl.mt.gov/data/spatial/MSDI/cadastral/Documentation/SQL_QueryScripts . In ArcMap right click on OwnerParcel , expand “joins and relates” and click “join”.

In the dialogue box choose “ParcelID” for the field in “OwnerParcel”. In arc catalogue yo u previously established the connection to the SQL Express database. You will need to browse to that database and choose a view as the table to join. In the example below we chose the “dbo.Commercial_View” table. For the field in that table to join on choose “Geocode”. In the Join all records change it to “Keep only matching records” (all property in Silver Bow County is not commercial. You can choose whether to validate the join or not but it just takes time and you will find out if it is successful by the results.



You will see that the parcels in the commercial view are concentrated in and around the Butte area.

5. The County SQL EXPRESS 2008 databases from the Department of Revenue are complex with minimum documentation. They have provided a data dictionary which is available at ftp://ftp.geoinfo.msl.mt.gov/data/spatial/MSDI/cadastral/Documentation/SQLExpressDocumentation . Some tables will join directly to “OwnerParcel” by ParcelID. Others however have more complex relationships. Not every table will join to “OwnerParcel” by parcel ID. For example, to actually get to the owner name for a parcel you would have to join “OwnerParcel” to “dbo.Owner” by “PropertyID” and then join that table to “dbo.PartyName” by “PartyID”.



These complexities require that our documentation stop here. Users can certainly peruse the multiple tables and with practice figure out the multi-table joins. A much better way is to build your own views however that will require knowledge of building SQL queries that goes beyond what we can provide here.