



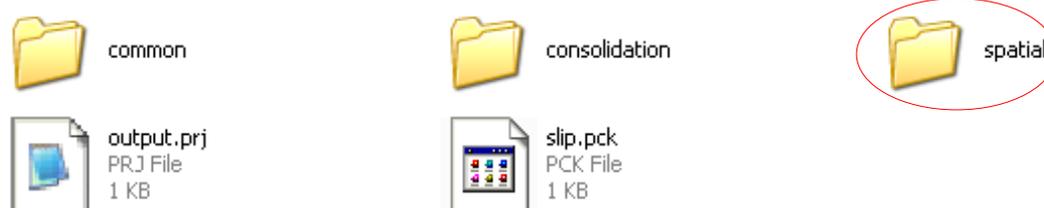
Converting SNIF Files for use in ArcMap

The Ontario Ministry of Natural Resources is the proprietor of the Natural Resource Values Information System (NRVIS), a system that is used to produce fundamental data sets for the province of Ontario. These files are disseminated in a format known as **SNIF - Standard NRVIS Interchange Format**. What this means for the end user is that some processing must be completed prior to making use of the full data set and its attributes in a GIS.

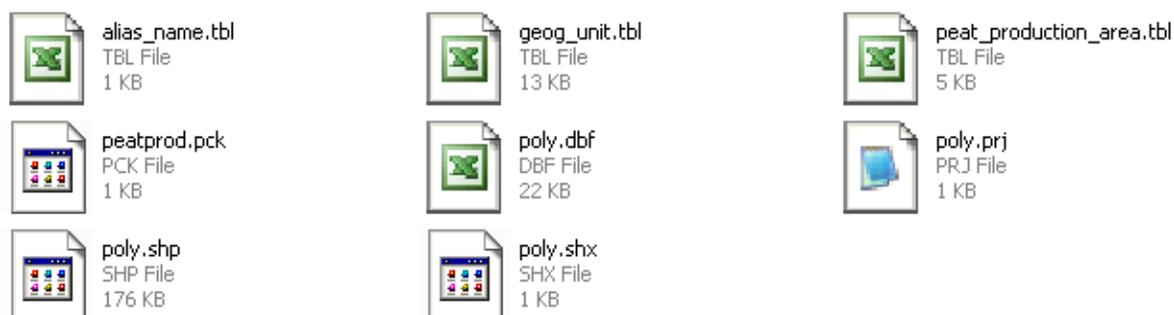
Step 1 Extract and view the data

Extract the data to your workspace. You will see a folder with a name that looks something like *sc20-lio-2006-11-27-142400-1*. This follows the SNIF naming conventions, the details of which are not necessary for this particular exercise.

Browse into the main folder; you will likely see three directories entitled *common*, *consolidation*, and *spatial* (the consolidation directory is not always present). The *common* and *consolidation* directories contain information about database relationships, and are most often used by internal MNR employees.



Access the *Spatial* folder and view its contents. You will see a number of files with the *.tbl extension as well as the shapefile and its auxiliary files.

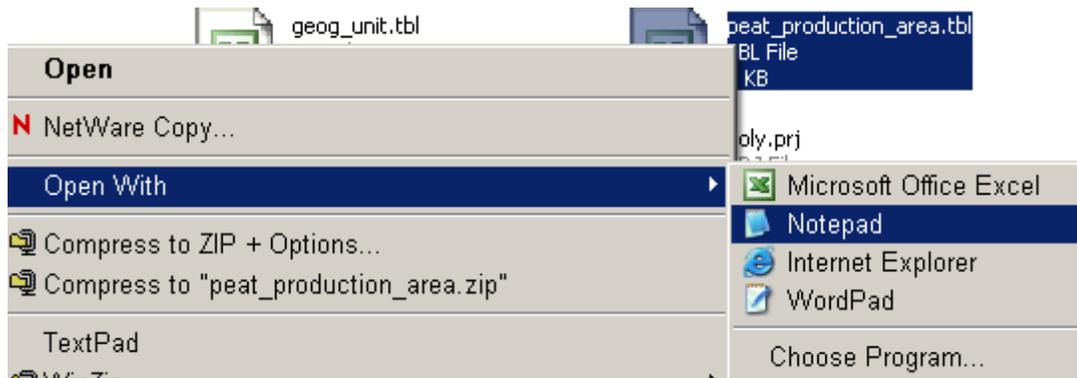


The shapefiles within the *spatial* directory may be named according to its geometry type; point, arc, poly/region. That is, point features will be called *point.shp*, line features will be called *arc.shp*, and polygon or area features will be called *poly.shp* or *region.shp*.

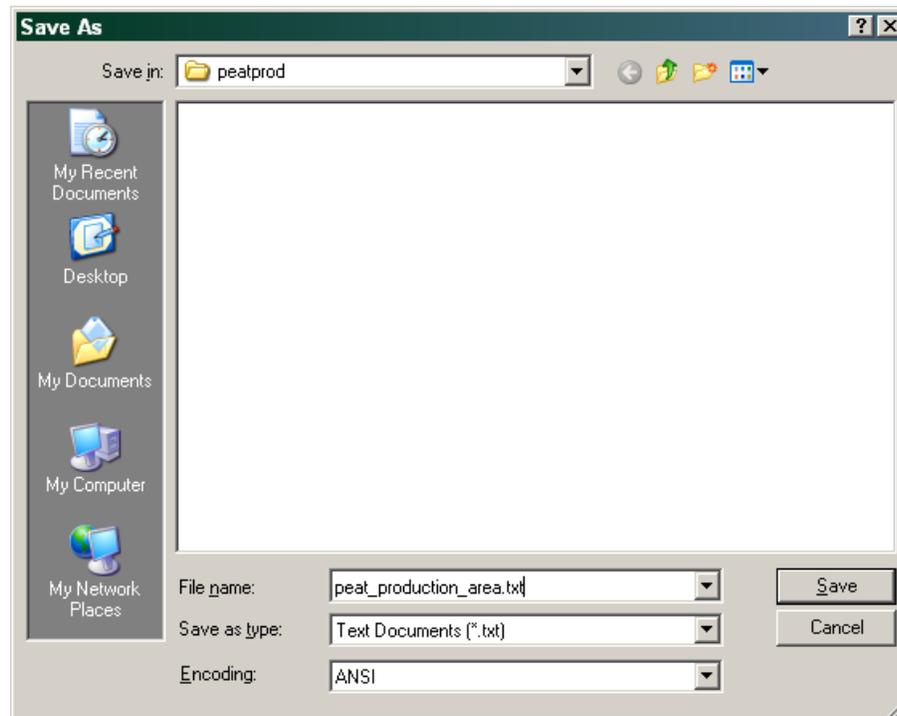
The *.tbl files contain additional attribute information for the shapefile. The procedure below outlines the steps involved in converting the TBL files and joining them to the shapefile for mapping and analysis in ArcGIS 10.

Step 2 Convert TBL files

The first processing step involves converting the *.tbl file to a text file. Generally you will be looking for a file that has a name similar to the data set. In the example above, the data set is called *Peat Production Area* and you can see that there is a file called *peat_production_area.tbl*. Right-click on the name of this file and choose *Open With*. If *Notepad* is not present on the list then select *Choose Program > Notepad*. The file will open as a comma-delimited text file in Notepad. Note that some of the larger files may take some time to open.



In Notepad, select *File > Save As*. Browse to the spatial directory, and change the file extension from *.tbl* to *.txt*. Click OK.

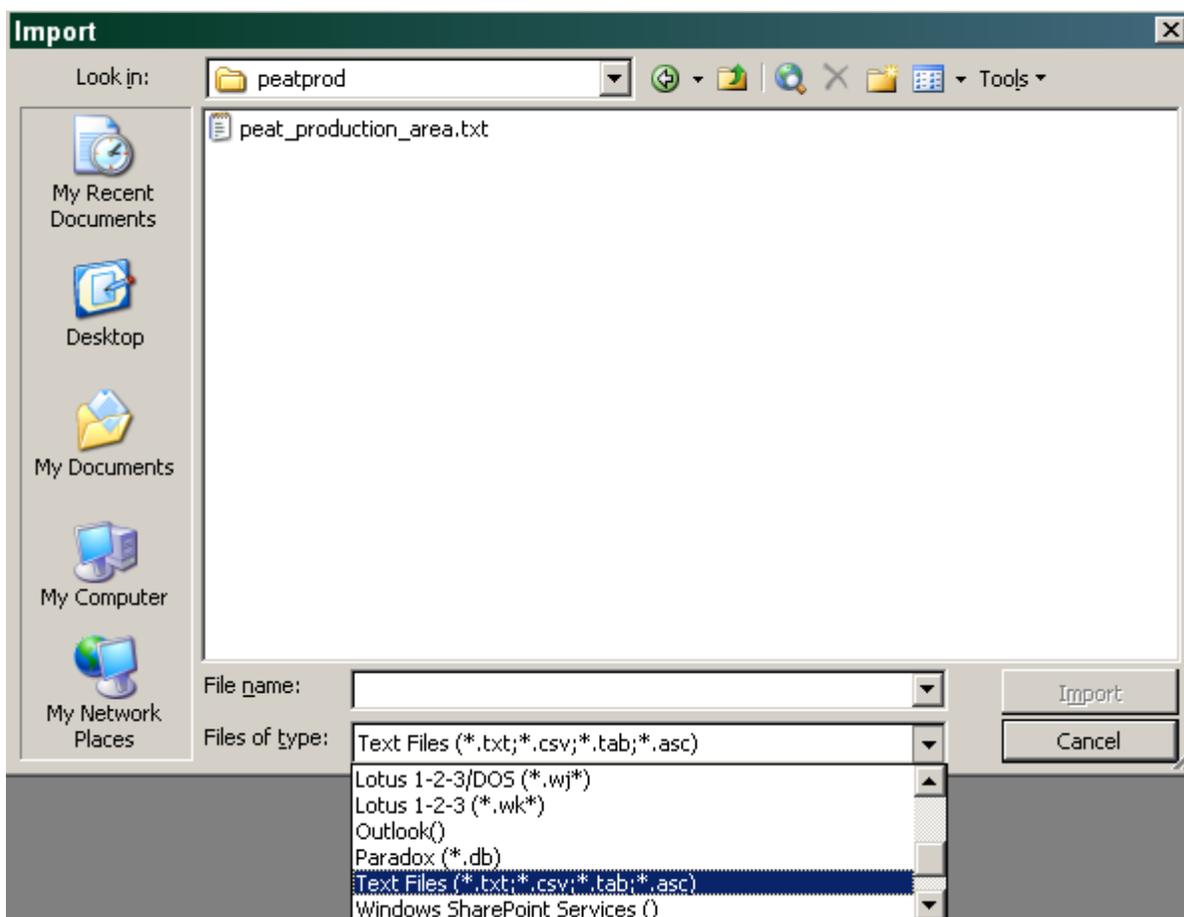


Step 3 Import the text file to Microsoft Access

Open MS Access (*Program menu > Microsoft Office Access*). Create a new, blank database (*File > New > Blank Database*) and browse to the location you wish to save. Give the database a name and click OK.

The software will open to display the toolbar and *Objects* window defaulted to *Table* view. The Objects window is where you view any of the tables, reports or other database objects you will create within the database.

Click *File > Get External Data > Import*. In the dialog box, browse to the location of the text file you created in the previous step. You will have to change the *Files of Type* to text files by using the drop down arrow and scrolling through the list.

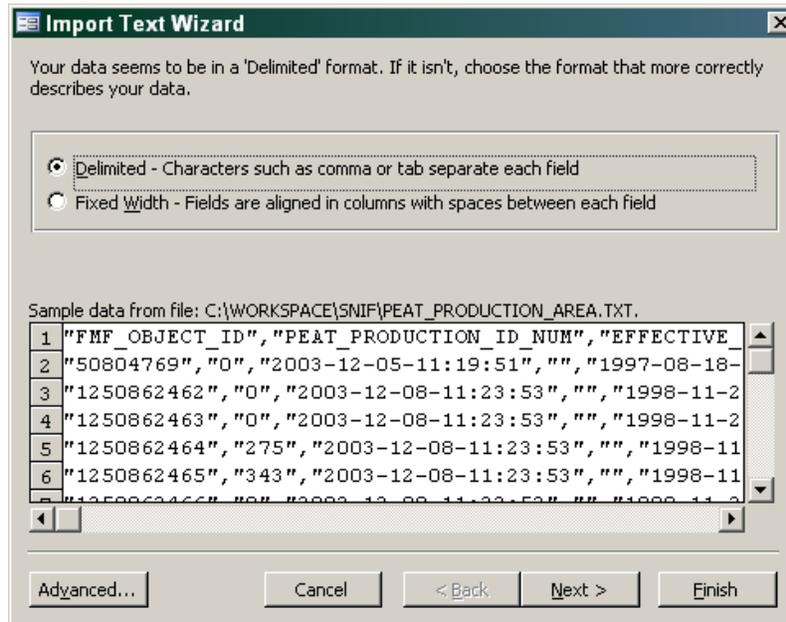


Highlight the text file in the window – the Import button should now become active; choose to import the file.

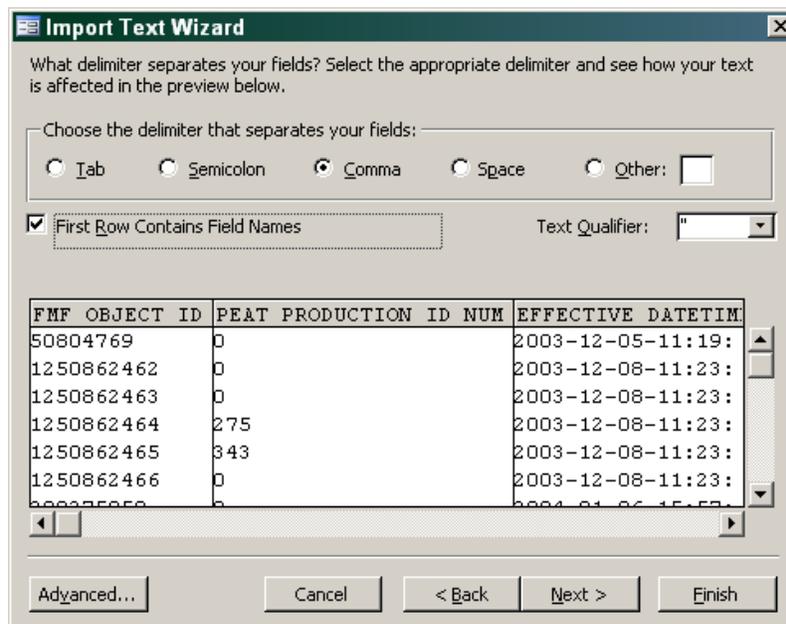
Step 4 Import Text Wizard

The following steps describe how to import a SNIF text file so that it may be exported for use in ArcGIS 10.

In the first *Import Text Wizard* you will see that the software is attempting to determine the format of the data to be imported. Recall from previous steps that the file was saved as a comma-delimited text file. Ensure that the *Delimited* option is checked and click Next.



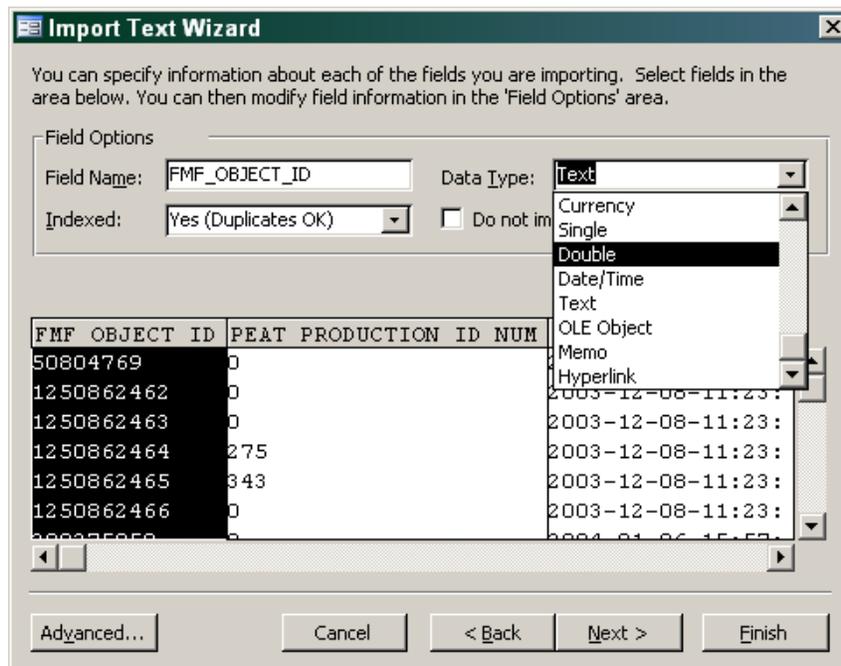
The next dialog asks you to specify the delimiter used in the file. Ensure that *Comma* is checked and also check the box next to the option *First Row Contains Field Names*. Click Next.



Choose to store your data in a new table and click Next.

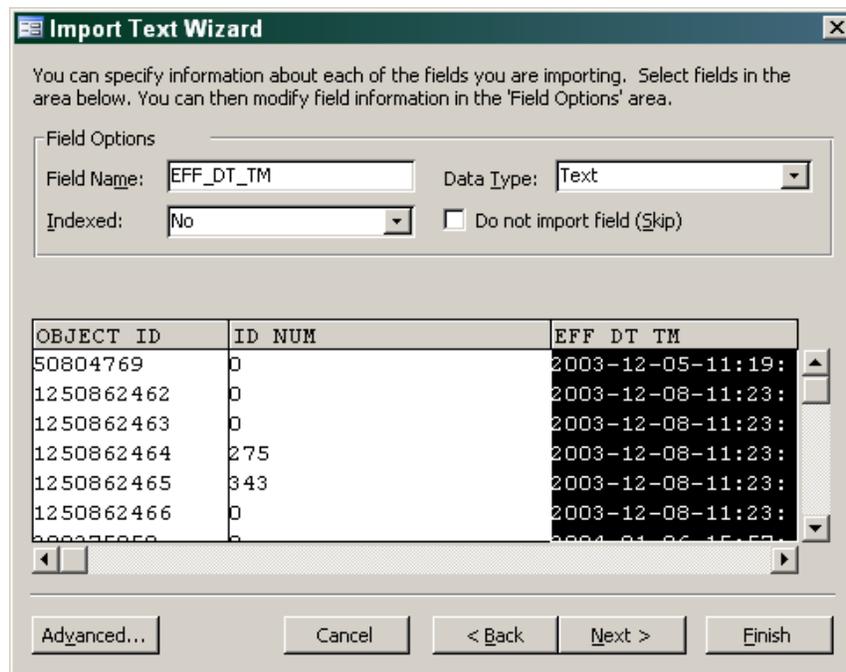


The next dialog allows you to modify field names and data types. This is a very important step in SNIF conversion because it is where we format the *FMF_OBJECT_ID* field so that it may be joined to the *OBJECT_ID* field of the shapefile. As you can see, the *FMF_OBJECT_ID* field is currently interpreted as a text field by MS Access; however, a shapefile's *OBJECT_ID* field has a data type of *Double*. Since it is not possible to join two fields of different data types, it is necessary to change the *FMF_OBJECT_ID* field data type to *Double* as well. To do so, access the *Data Type* dropdown list and select *Double*.



This is generally the only data type that is absolutely necessary to change; however it is often a good idea to view the other fields in the table and determine if any of them might possibly be used in future calculations (for example, an area or population field should be changed to number format. If these fields are interpreted as text then it will not be possible to perform any mathematical calculations on the values in ArcMap).

Scroll through the fields and change field names to short, descriptive titles – we will be exporting the file to DBF format, which does not support field names with more than 10 characters. If there are any fields you do not wish to import, simply place a check mark in the box beside *Do not import field (Skip)*.



The next dialog asks if you wish to define a primary key for the table. Primary keys are very important components in a database, but in this case we are strictly using the Access software for conversion purposes. Click the option for *No Primary Key* and then click *Next*.

Choose to keep the default name and click *Finish*. You will receive a message when the file has been imported successfully, or an error message if any mistakes were made in the process. Read the error messages carefully as they often provide valuable information as to the source of the error. If the import is successful, you will see a new table in the *Objects* window with the default name. Double-click the table name to open it in *Datasheet* view.

With the table still open, click *File > Export*. Choose to save the table to the *Spatial* directory. Change the *Files of Type* list box so that it reads *dBASE IV* and click *Export All*. If the file is relatively small, it will export immediately. Larger files may take a few minutes. You will not receive a message unless something has gone wrong.

Browse to the spatial directory and ensure that a new file with the *.DBF extension is present. This DBF file may now be added to ArcMap and joined with the spatial file on the OBJECT_ID field.