

Ontario Land Information Warehouse (OLIW)

Converting File Formats:

SNIF .tbl Files to dBASE .dbf
dBASE to INFO

Issued: March 9, 2004 Revised: June 23, 2004

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1. Introduction

The purpose of this document is to provide basic instructions to assist users in converting tabular data files in *.tbl* format (Standard NRVIS Interchange Format – SNIF) to the standard dBase *.dbf* format utilized by ArcGIS products.

The examples and procedures shown in this document have been created using Microsoft ® Access 97, Windows XP, and Land Information Distribution Service (LIDS, version 2.1) data.

2. Related Documents

Detailed SNIF Subscription Specifications SNIF Package Conversion, Base Inventory & Forest Cover

3. General Process: .tbl to .dbf

Data packages obtained from the Land Information Distribution Service (LIDS) contain tabular data in comma separated values format in files named with a *.tbl* file extension. These files can be utilized by any software application that can handle files in comma separated values format simply by converting the *.tbl* files so that they have a *.csv* extension. The *.tbl* files can be opened using Notepad or Wordpad and saved as a *.csv* file. This approach allows you to ensure that wordwrap is not occurring within the *.tbl* file.

3.1. Locate and Rename .tbl Files

Extracting the LIDS zip file will create a file and folder structure similar to the one shown below for the Airport data class:



The .tbl files containing tabular data are found in the spatial/dataclassname and common folders.

sc20-lio-2004-03-04-113413-27256\spatial\airport						
Name 🔺		Size	Туре	Date Modified		
📝 airport.pck		1 KB	PCK File	04/03/2004 11:34 AM		
📓 airport_airstrip.tbl		74 KB	TBL File	04/03/2004 11:34 AM		
🔳 alias_name.tbl		27 KB	TBL File	04/03/2004 11:34 AM		
🔳 geog_unit.tbl		121 KB	TBL File	04/03/2004 11:34 AM		
🔟 poly.dbf		213 KB	DBF File	04/03/2004 11:34 AM		
💌 poly.prj		1 KB	PRJ File	04/03/2004 11:34 AM		
🖬 poly.shp		347 KB	SHP File	04/03/2004 11:34 AM		
🔤 poly.shx		5 KB	SHX File	04/03/2004 11:34 AM		

3.1.1. Use Windows Explorer to locate *.tbl* files. Right-clicking on a file will allow you to select **Open With > WordPad** from the context menu.

Name 🔺			Size	Туре
🕑 airport.pck			1 KB	PCK File
🔳 airport_airstri	p.tbl		74 KB	TBL File
🔳 alias name.tb	<u>.</u>		27 KB	TBL File
📓 geog_unit.tbl			121 KB	TBL File
🗖 poly.dbf	di Open		213 KB	DBE File
💌 poly.prj	Open With	•	🔣 Micr	osoft Excel
🚾 poly.shp	🗐 Add to Zip		📝 Wor	dPad 🛌
🖻 poly.shx	🗐 Add to geog_u	nit.zip	🗾 Note	epad 🤻
	Encrypt and Sig	jn	Choos	e Program
	Secure for List		1	orrogramm
	Entrust Advanc	ed 🕨		
	Send To	•		

- 3.1.2. **Optional:** All data values in the *.tbl* file are enclosed in quotation marks which, by default, will be imported into Microsoft® Access as text fields. At this point you can use the **Edit > Replace** feature of WordPad to find and replace the quotation marks (find " and replace with nothing). Upon import, Access with examine each field and try to assign an appropriate field type based on the field contents. Regardless, proper data field types can be assigned and/or changed during the import process within Microsoft® Access.
- 3.1.3. Save the file by selecting **File > Save As** and then specifying a filename with a *.csv* extension, as shown in the example below:

Save As						? ×
Savein	i 🗁 airport		•	G 🦻 🛛	• 📰 🏷	
Recent						
Desktop						
My Documents						
My Computer						
My Network	File name:	geog_unit.csv			-	Save
Flaces	Save as type:	Text Document			-	Cancel 🔪
	🔲 Save in this fo	ormat by default				1.

3.1.4. Once saved, close WordPad.

3.2. Import .csv files to Microsoft® Access

Microsoft® Access provides tools to easily allow for the conversion of *.csv* files into *.dbf* format. The examples shown in the procedure below illustrate the conversion of the **geog_unit.tbl** file. Other *.tbl* files can be converted in the same way.

- 3.2.1. Start Microsoft® Access and select the option to create a blank database.
- 3.2.2. From the Access menu, select File > Get External Data > Import:

4	🔧 Microsoft Access							
	File	<u>E</u> dit	<u>V</u> iew	Insert	<u>T</u> ools	<u>W</u> ir	idow <u>H</u> elp	
Π	D	<u>N</u> ew D	atabas	se	Ctrl+N		a 🖻 🚿 🗠 🔣 •	
<u> </u>	È	<u>O</u> pen	Databa	ase	Ctrl+O			
		Get E>	ternal	<u>D</u> ata		•	🛃 Import	
		⊆lose					♦⊞ Link Tables	
		c			culic			

3.2.3. On the Import dialogue window, change the **Files of type** option to **Text Files** and then browse to locate the **geog_unit.csv** file and click the **Import** button:

Import	<u>?</u> ×
Look in: 🛅 airport	
airport_airstrip.csv	Import
alias_pame.csv	Cancel
	<u>A</u> dvanced
Find files that match these search criteria:	
File name: ▼ Text or property: ▼	Eind Now
Files of type: Text Files Image: Contract of type: Image: Contract of type: Image: Contract of type: Image: Contract of type: <td>Ne<u>w</u> Search</td>	Ne <u>w</u> Search
Not all file types are installed by sefault. To add other file types, run the Setup program, click Add/Remov Change Option. Additional file to a are also available in the Office 97 ValuPack.	re, Data Access,
3 file(s) found.	

3.2.4. Ensure that the **Delimited** option is specified and then click the **Next** button:

📾 Import Text Wizard	×
The wizard has decided that your data is in a 'Delimited' format. If it isn't, choose the format that more correctly describes your data.	
Choose the format that best describes your data:	ī
Delimited - Characters such as comma or tab separate each field	
C Fixed Width - Fields are aligned in columns with spaces between each field	
Sample data from file: E:\TEST DATA\SNIF FROM LIDS\AIRPORT\SC20-LIO-2004-03-04-1 1 "FMF_OBJECT_ID", "GEOG_UNIT_TYPE_NUM", "GEOG_UNIT_DESC 2 "50328764", "1220", "", "1997-07-04-00:00:00", "Verified 3 "50846836", "1220", "", "1997-05-13-00:00:00", "Verified 4 "50846837", "1220", "", "1997-05-28-00:00:00", "Verified 5 "50846839", "1223", "", "1997-05-13-00:00:00", "Verified 6 "50846840", "1220", "", "1997-05-13-00:00:00", "Verified 7 "50846841", "1223", "", "1997-04-30-00:00:00", "Verified 8 "50846842", "1220", "", "1997-05-29-00:00:00", "Verified	
Advanced Cancel < <u>Back</u> <u>N</u> ext > <u>F</u> inish	

3.2.5. Ensure that **Comma** is selected as the delimiter, and click to check on the **First Row Contains Field Names** option. Click the **Next** button:

📰 Import Tex	t Wizard					×
What delimiter affected in the	separates your fie preview below.	Ids? Select the	appropriate d	elimiter and	d see how	your text is
Choose the d	elimiter that separ	rates your fields:				
C Tab	C Semicolon	🖲 Comma	O Spa	ice (O Other:	
First <u>R</u> ow Co	ontains Field Nam	ies		Text <u>Q</u>	ualifier:	"
FMF OBJEC	T ID GEOG	UNIT TYPE	NUM GEO	G UNIT	DESCR	VERIF
50328764	1220					1997-0
50846836	1220					1997-0
50846839	1220					1997-0
50846840	1220					1997-0
50846841	1223					1997-0
50846842	1220					1997-0
50846843	μ220					1997-4
						<u> </u>
Ad <u>v</u> anced		Cancel	< <u>B</u> ack	<u>N</u> ext	>	<u>F</u> inish

3.2.6. Ensure that the In a New Table option is specified and then click the Next button:

📰 Import Text Wizar	rd				×
Where you would like to I would like to store my In a Ne <u>w</u> Table In an E <u>v</u> isting Table	o store your d data x	ata? You can	store it in a n	ew table or in a	n existing table.
FMF OBJECT ID 50328764 50846836 50846837 50846837 50846840 50846840 50846840 50846841 50846841 50846842 50846843 4	GEOG UN 1220 1220 1223 1223 1220 1223 1220 1220	IT TYPE N	UM GEOG	UNIT DESC	R VERIF 1997-0 1997-0 1997-0 1997-0 1997-0 1997-0 1997-0 ▼
Ad <u>v</u> anced	Ca	incel	< <u>B</u> ack	Next >	<u>F</u> inish

- 3.2.7. Specify the appropriate field types for the various fields to be imported. By default all fields are assigned as text (unless the quotation marks have previously been removed using WordPad).
 - Select FMF_OBJECT_ID and select a data type of **double** (or long integer)
 - Select each of the description fields and specify a data type of **memo** (otherwise long descriptions will be truncated at 255 characters)
 - Click the **Next** button when finished

8	🛿 Import Tex	t Wizard						×
	You can specify below. You car	y information about ea 1 then modify field info	ich of the f imation in t	ields you he 'Field	ı are im I Option	porting. Selec s'area.	ct field	s in the area
	Field Options							
	Field Na <u>m</u> e:	FMF_OBJECT_ID		Data	Type:	Text		•
	Indexed:	Yes (Duplicates OK)	•	🗖 Do	o not im	Currency Single		
						Double Date/Time	R.	
	ENE ODIEC	T ID CROC UNI	T TUDE	. NITM		Text OLE Object		
	50328764	1220	<u>. I IIFE</u>	, NUM	GEUG	Memo		
	50846836	1220				Hyperlink		Ī
	50846837	1220						1997-0
	50846839	1223						1997-Q
	50846840	1220						1997-Q
	50846841	1223						1997-0
	50846842	1220						1997-4
	50046045	1220						<u>- 1-227</u>
							_	
	Ad <u>v</u> anced	Ca	ncel	< <u>B</u>	ack	<u>N</u> ext >		<u>F</u> inish

📰 Import Text	t Wizard				×
You can specify below. You can	y information about each of the then modify field information in	fields you are im the 'Field Option	porting. Selec ıs'area.	t fields in the area	1
Field Options					
Field Na <u>m</u> e:	GEOG_UNIT_DESCR	Data <u>T</u> ype:	Text	•	
Indexed:	No 🔻	🗖 Do not im	Currency Single		
-			Double Date/Time		_
			Text		
GEOG UNIT	GEOG UNIT DESCR V	ERIF STATU	OLE Object		
	L1	997-07-04-	Memo 💊		•
	1	997-05-13-	Hyperlink 🧧	<u> </u>	
	1	997-05-28-	00:00:00	Verified	_
	1	997-05-13-	00:00:00	Verified	
	1	997-05-13-	00:00:00	Verified	
	1	997-04-30-	00:00:00	Verified	
	1	997-05-29-	00:00:00	Verified	
	1	997-05-29-	<u>00:00:00</u>	Verified	-
•				►	
					_
Ad <u>v</u> anced	Cancel	< <u>B</u> ack	<u>N</u> ext >	<u> </u>	

3.2.8. Specify No Primary Key and click the Next button:

🔡 Import Text Wizard	1 <u>×</u>
1 XXX XXX XXX 2 XXX XXX XXX 3 XXX XXX XXX 3 XXX XXX XXX 4 XXX XXX XXX	Microsoft Access recommends that you define a primary key for your new table. A primary key is used to uniquely identify each record in your table. It allows you to retrieve data more quickly. C Let Access add Primary Key. C Choose my own Primary Key. No Primary Key.
FMF OBJECT ID 0 50328764 1 1 1 50846836 1 1 1 50846837 1 1 1 50846839 1 1 1 50846840 1 1 1 50846841 1 1 1 50846842 1 1 1 50846843 1 1 1	GEOG UNIT TYPE NUM GEOG UNIT DESCR VERIF 1220 1997-0 1997-0 1997-0 1997-0 1220 1997-0 1997-0 1997-0 1220 1997-0 1997-0 1997-0 1220 1997-0 1997-0 1997-0 1220 1997-0 1997-0 1997-0 1220 1997-0 1997-0 1997-0 1220 1997-0 1997-0 1997-0
Ad <u>v</u> anced	Cancel < <u>B</u> ack <u>N</u> ext > <u>F</u> inish

3.2.9. Click the **Finish** button:

🔀 Import Text Wizard	<u>></u>	:
	That's all the information the wizard needs to import your data.	
	Import to Table: <mark>Geog_unit</mark>	
	I would like a wizard to analyze my table after importing the data.	
	Display Help after the wizard is finished	
Ad <u>v</u> anced	Cancel < <u>B</u> ack <u>N</u> ext > <u>Finish</u>	

3.2.10. You will be notified that the import to the Access table is complete. Click the **OK** button:

Import Text Wizard				
i)	Finished importing file 'E:\Test Data\SNIF from LIDS\airport\sc20-lio-2004-03-04-113413-27256\spatial\airport\geog_unit.csv' to table 'Geog_unit'.			
	ок			

3.3. Modify Table Field Names

After the *.csv* file is imported into Access, the field names must be shortened to the maximum 10 characters allowed in a *.dbf* file before creation of the *.dbf* file. The export utility will automatically truncate to shorten the field names. However, the truncation will cause for duplicate field names and prevent creation of the *.dbf* file.

- airport : Database

 Image: Tables
 Image: Queries

 Image: Tables
 Image: Queries

 Image: Geog_unit
 Image: Queries

 Image: Description
 Image: Queries

 Imag
- 3.3.1. Highlight the table name on the Tables tab and click the **Design** button.

3.3.2. Change each of the field names so that they are no longer than 10 characters. Close the design window and save your changes when finished.

Note: A standard list of recommended shortened field names is provided in the document *SNIF Package Conversion, Base Inventory & Forest Cover.*

⊞ Geog_unit : Table					
Field Name	Data Type				
OBJ_ID	Number				
GUT_NUM	Text				
GEOG_UNIT	Memo				
VERIF_STATUS_DATE	Text				
VERIFICATION_STATUS_FLG	Text				
LOCATION_DESCR	Memo				
LOCATION_ACCURACY_CODE	Text				
GENERAL_COMMENTS	Memo				
BUSINESS_EFFECTIVE_DATE	Text				
BUSINESS_EXPIRY_DATE	Text				
BUSINESS_EFF_DATE_FLG	Text				
PRESUMED_REAL_IND	Text				
DATA_SENSITIVITY_IND	Text				
NATIVE_IND	Text				
SYSTEM_CALC_METRIC	Text				
USER_CALC_AREA	Text				
EFFECTIVE_DATETIME	Text				
EXPIRY_DATETIME	Text				
EXT_EFFECTIVE_DATETIME	Text				
EXT_EXPIRY_DATETIME	Text				

3.4. Export Access Table to .dbf Format

3.4.1. From the Access menu, select File > Save As/Export. Make sure that the option to save To an External File or Database is selected and click the OK button.



3.4.2. Change the **Save as type** to **dBASE 5** and click the **Export** button.

Save Table 'Geog_unit' As	<u>? ×</u>			
Save in: 🛅 Test Data 💌 🗈 📧 📰 📰 🎩	1			
anesting	Export			
SNIF from LIDS	Cancel			
	☐ Save			
	Formatted			
	🗖 Autostart			
	Save			
	• All			
	C Selection			
File <u>n</u> ame: Geog_unit				
Save as type: CBASE S				
Not all file types are installed by default. To add other file types, run the Setup program, click Add/Remove, Data Access, Change Option. Additional file types are also available in the Office 97 ValuPack.				

A copy of the file has now been saved as a .*dbf* file.

4. Converting a dBASE .dbf File to an Info Table

If ArcINFO tables are required, they can easily be created from a dBASE *.dbf* file using the ArcGIS ArcToolbox conversion tools. It is recommended that the ArcToolbox help be consulted for more specific information concerning issues such as data type mapping and conversion, and conversion limitations between the two file types.

4.1. General Process: dBASE to INFO

4.1.1. Start ArcToolbox and double-click to start the **dBASE to INFO** conversion tool (found under **Conversion Tools > Import to Table**):

💐 ArcToolbox - ArcInfo	
Tools Help	
🚊 🍲 Conversion Tools	
About Conversion Tools	
🗄 💿 Export from CAD	
🗄 💿 Export from Coverage	
😟 😳 Export from Geodatabase	
🗄 💿 Export from Raster	
🗄 💿 Export from Shapefile	
😟 🤨 Export from Table	
🗄 💿 Export from Tin	
💿 💿 Import to Coverage	
🕀 😳 Import to Geodatabase	
🕀 😳 Import to Raster	
🕀 😳 Import to Shapefile	
📄 🍲 Import to Table	
About Import to Table	
dBASE to INFO	
DBMS to INFO	_
Converts a dBASE (*.dbf) table to an INF	0 table. 🔺
	T

4.1.2. Browse to specify the location of the input dBASE table and the resulting output INFO table (specific requirements for field mapping can optionally be specified here). Note that the location of the output INFO table must be in an existing INFO folder. Click **OK** when finished.

→ dBASE to INFO				? ×
Input dBASE table: E:\Te	est_Data\GEOG_UNI.	dbf	2I	OK
Data type <u>m</u> apping: O D	efault mapping C D	efine mapping		Cancel Help
dBASE field:	OBJ_ID 🕢			
Field name: OBJ_ID	Item <u>n</u> ame:	OBJ_ID		
Field width: 19	Item <u>w</u> idth:	4		
Output width: 19	Output width:	19		
Field type: Double	Item <u>t</u> ype:	Floating point	1	
Decimal places: 5	Decimal places:	5		
		,		
Qutput INFO table: E:\Te	est_Data\geog_uni	Ĺ	2	Batch 🔻