



## **2006 Census DataPacks**

### **Importing CSV data and digital boundary files in MapInfo**

The following step by step method is employed to how a user will obtain the correct data and geographical labels integrated into the CSV data file and importing this file into MapInfo with the corresponding digital boundaries and finalizing with a thematic map: See Help document: GIS Users 'Walk Through'

Notes:

1. The CSV data and digital boundary file requires to be unzipped from the DataPack folder structure prior to importing the .MID/.MIF boundary files into MapInfo.

See Help document: How to unzip the CSV and digital boundary files

2. Prior to opening a CSV data table into MapInfo the user may wish to integrate the geography labels and cell descriptions to the CSV data file. These may be saved as .xls files and opening in MapInfo (version 7.0 and above). See Help document: Adding the Geographic Labels and Cell Descriptors to CSV data files in Excel

#### **Open the CSV data table into MapInfo**

Once the data has had the geographic labels and cell descriptors added to the file in excel and has been opened in MapInfo and saved as a .tab file.

Prior to opening a CSV data table into MapInfo, the user must go through a variety of steps and save it to a MapInfo .tab file before it can be used in the MapInfo software. Please see Help document: How to open the CSV data in MapInfo.

## Step 1

Open MapInfo

## Step 2

File > Open:

Locate the csv data files where they are stored on your directory, e.g.;

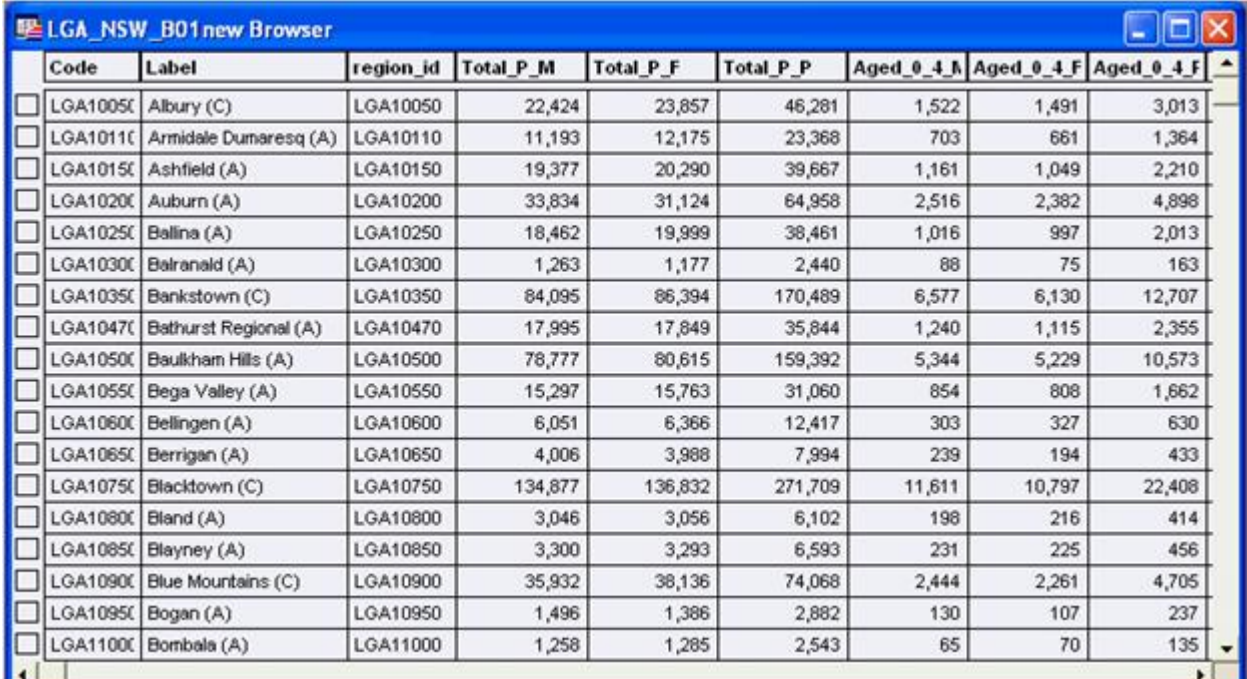
[<drive>:\BCP\\_ASGC\\_06\\_R2\LGANSW\LGA\\_NSW\\_B01new.csv](#).

Select the data file for the geographic level. In this case **select the LGA folder**.

Select the State/Territory. In this case **select the NSW folder**.

Select the table. In this case, **select the LGA\_NSW\_B01new.csv file**.

This opens the CSV data as a browser table. You may save it also as a .tab MapInfo file, so then you can work and edit the data file accordingly in MapInfo, also. You must save the CSV data as a MapInfo .tab file if you want to join the data to digital boundaries to create a thematic map.



	Code	Label	region_id	Total_P_M	Total_P_F	Total_P_P	Aged_0_4_M	Aged_0_4_F	Aged_0_4_T
<input type="checkbox"/>	LGA1005	Albury (C)	LGA10050	22,424	23,857	46,281	1,522	1,491	3,013
<input type="checkbox"/>	LGA1011	Armidale Dumaresq (A)	LGA10110	11,193	12,175	23,368	703	661	1,364
<input type="checkbox"/>	LGA1015	Ashfield (A)	LGA10150	19,377	20,290	39,667	1,161	1,049	2,210
<input type="checkbox"/>	LGA1020	Auburn (A)	LGA10200	33,834	31,124	64,958	2,516	2,382	4,898
<input type="checkbox"/>	LGA1025	Ballina (A)	LGA10250	18,462	19,999	38,461	1,016	997	2,013
<input type="checkbox"/>	LGA1030	Balranald (A)	LGA10300	1,263	1,177	2,440	88	75	163
<input type="checkbox"/>	LGA1035	Bankstown (C)	LGA10350	84,095	86,394	170,489	6,577	6,130	12,707
<input type="checkbox"/>	LGA1047	Bathurst Regional (A)	LGA10470	17,995	17,849	35,844	1,240	1,115	2,355
<input type="checkbox"/>	LGA1050	Baulkham Hills (A)	LGA10500	78,777	80,615	159,392	5,344	5,229	10,573
<input type="checkbox"/>	LGA1055	Bega Valley (A)	LGA10550	15,297	15,763	31,060	854	808	1,662
<input type="checkbox"/>	LGA1060	Bellingen (A)	LGA10600	6,051	6,366	12,417	303	327	630
<input type="checkbox"/>	LGA1065	Berrigan (A)	LGA10650	4,006	3,988	7,994	239	194	433
<input type="checkbox"/>	LGA1075	Blacktown (C)	LGA10750	134,877	136,832	271,709	11,611	10,797	22,408
<input type="checkbox"/>	LGA1080	Bland (A)	LGA10800	3,046	3,056	6,102	198	216	414
<input type="checkbox"/>	LGA1085	Blayney (A)	LGA10850	3,300	3,293	6,593	231	225	456
<input type="checkbox"/>	LGA1090	Blue Mountains (C)	LGA10900	35,932	38,136	74,068	2,444	2,261	4,705
<input type="checkbox"/>	LGA1095	Bogan (A)	LGA10950	1,496	1,386	2,882	130	107	237
<input type="checkbox"/>	LGA1100	Bombala (A)	LGA11000	1,258	1,285	2,543	65	70	135

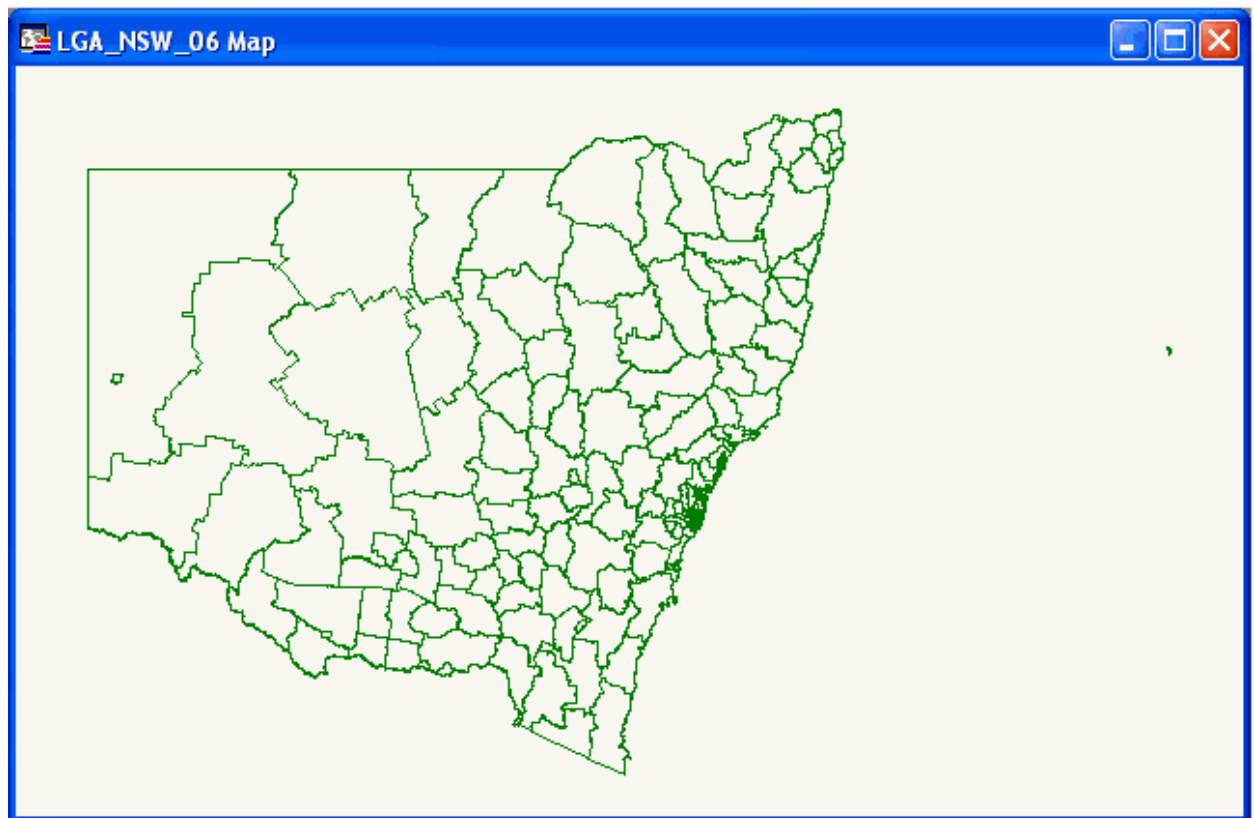
## Import the digital boundary file

The corresponding digital boundary file requires to be imported as .MID/.MIF into MapInfo and then saved as MapInfo .tab file prior to joining the datasets and creating a thematic map. See Help document: How to open the digital boundaries in MapInfo

### Step 1

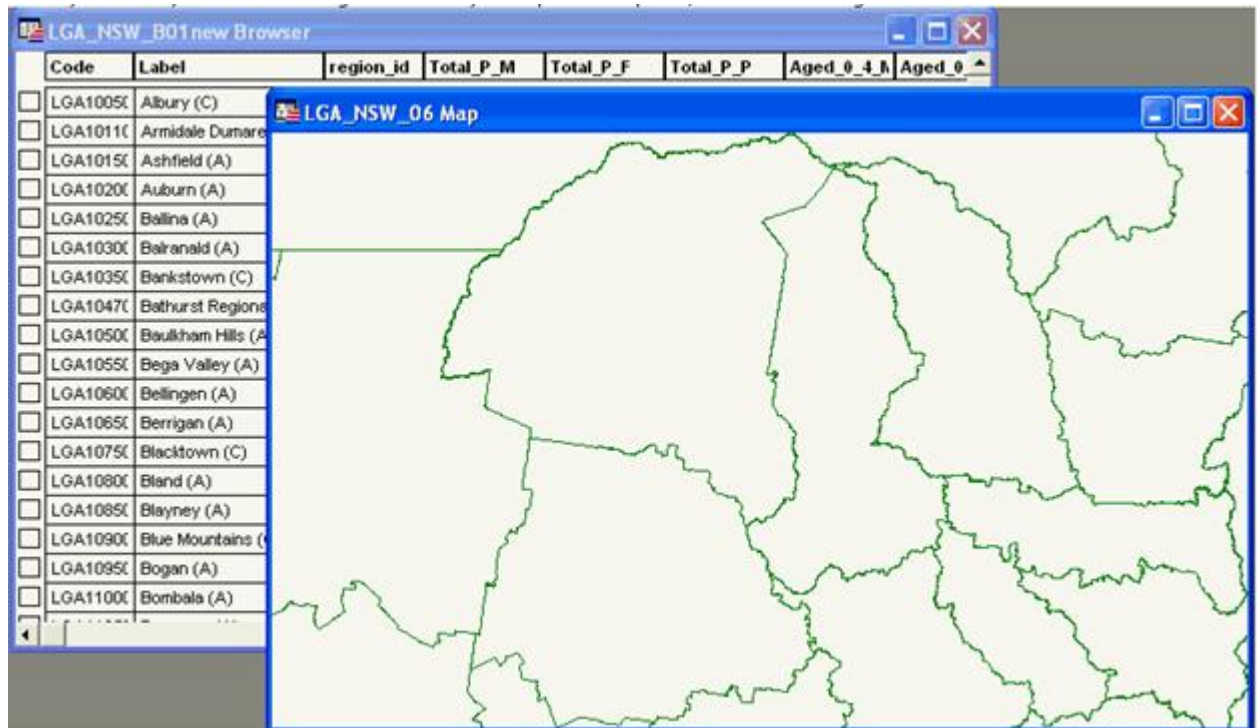
Select **File > Open Table >** locate and select the .MID/.MIF files saved as MapInfo .tab files, in this case `<drive>:\GEO_ASGC_06_R2\LG\NSW\LGA_NSW_06.tab` > **Open**.

To view all of the NSW select **Map > View Entire Layer > All layers, OK** - a map is displayed showing the NSW Local Government Areas.



## Joining the data file and map file using SQL Select

Once you have your data and digital boundary file open in MapInfo, do the following.



### Step 1

Select **Query > SQL Select** - a similar dialogue box is displayed.

The screenshot shows the 'SQL Select' dialog box. It has a title bar with a close button. The main area contains several fields and buttons:

- Select Columns:** A text box containing an asterisk (\*).
- from Tables:** A text box containing 'LGA\_NSW\_06, LGA\_NSW\_B01new'.
- where Condition:** A text box containing 'LGA\_NSW\_06.LGA\_CODE = LGA\_NSW\_B01new.Code'.
- Group by Columns:** An empty text box.
- Order by Columns:** An empty text box.
- into Table Named:** A text box containing 'Selection'.
- Buttons on the right:** Tables, Columns, Operators, Aggregates, and Functions, each with a dropdown arrow.
- Buttons at the bottom right:** Save Template and Load Template.
- Checkboxes:** A checked checkbox labeled 'Browse Results'.
- Buttons at the bottom:** OK, Cancel, Clear, Verify, and Help.

## Step 2

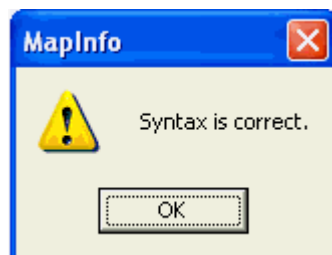
Select the **Clear** button to remove any previous dialogue.

From the 'Tables' drop down menu select both tables, i.e. **LGA\_NSW\_06** and **NSW\_NSW\_B01new**

Note: ensure you select the Map table first.

The following dialogue appears in the 'where Condition' area, 'LGA\_NSW\_06.LGA\_Code = LGA\_NSW\_B01new.code'

Select **Verify** - the following dialogue box is displayed.



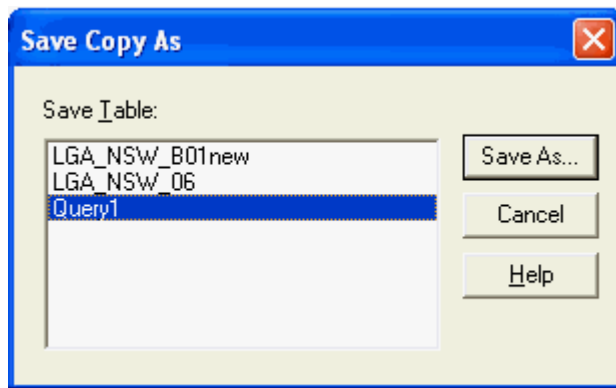
Select **OK**.

Select **OK** - a Query 1 Browser is displayed, which has joined the data and map files together.

A screenshot of the 'Query1 Browser' window. It displays a table with 10 columns: LGA\_CODE, LGA\_NAME, AREA\_SQ\_KM, STE\_CODE, STE\_NAME, Code, Label, region\_id, Total\_P\_M, and Total\_P\_F. The table contains 20 rows of data for various Local Government Areas (LGAs) in New South Wales, Australia. Each row lists the LGA code, name, area, state code, state name, internal code, label, region ID, and two population metrics. The data is sorted by LGA\_CODE in ascending order.

LGA_CODE	LGA_NAME	AREA_SQ_KM	STE_CODE	STE_NAME	Code	Label	region_id	Total_P_M	Total_P_F
LGA1005C	Albury (C)	313.20	1	New South Wales	LGA1005C	Albury (C)	LGA10050	22,424	23,857
LGA1011C	Armidale Dumaresq (A)	4,234.95	1	New South Wales	LGA1011C	Armidale Dumaresq (A)	LGA10110	11,193	12,175
LGA1015C	Ashfield (A)	8.29	1	New South Wales	LGA1015C	Ashfield (A)	LGA10150	19,377	20,290
LGA1020C	Auburn (A)	32.47	1	New South Wales	LGA1020C	Auburn (A)	LGA10200	33,834	31,124
LGA1025C	Ballina (A)	484.88	1	New South Wales	LGA1025C	Ballina (A)	LGA10250	18,462	19,999
LGA1030C	Baternald (A)	21,899.93	1	New South Wales	LGA1030C	Baternald (A)	LGA10300	1,263	1,177
LGA1035C	Bankstown (C)	76.84	1	New South Wales	LGA1035C	Bankstown (C)	LGA10350	84,095	86,394
LGA1047C	Bathurst Regional (A)	3,819.61	1	New South Wales	LGA1047C	Bathurst Regional (A)	LGA10470	17,995	17,849
LGA1050C	Baulkham Hills (A)	400.59	1	New South Wales	LGA1050C	Baulkham Hills (A)	LGA10500	78,777	80,615
LGA1055C	Bega Valley (A)	6,277.60	1	New South Wales	LGA1055C	Bega Valley (A)	LGA10550	15,297	15,763
LGA1060C	Bellingen (A)	1,602.04	1	New South Wales	LGA1060C	Bellingen (A)	LGA10600	6,051	6,366
LGA1065C	Berrigan (A)	2,066.55	1	New South Wales	LGA1065C	Berrigan (A)	LGA10650	4,006	3,988
LGA1075C	Blacktown (C)	240.06	1	New South Wales	LGA1075C	Blacktown (C)	LGA10750	134,877	136,832
LGA1080C	Bland (A)	8,559.81	1	New South Wales	LGA1080C	Bland (A)	LGA10800	3,046	3,056
LGA1085C	Blayney (A)	1,524.70	1	New South Wales	LGA1085C	Blayney (A)	LGA10850	3,300	3,293
LGA1090C	Blue Mountains (C)	1,431.68	1	New South Wales	LGA1090C	Blue Mountains (C)	LGA10900	35,932	38,136
LGA1095C	Bogan (A)	14,808.64	1	New South Wales	LGA1095C	Bogan (A)	LGA10950	1,496	1,386
LGA1100C	Bombala (A)	3,944.44	1	New South Wales	LGA1100C	Bombala (A)	LGA11000	1,258	1,285

Note: Query browsers and maps are temporary tables. Therefore you should save the Query1 Browser to make it a permanent table by selecting **File > Save Copy As** - a similar dialogue box is displayed.



### Step 3

Select the **Query1** Browser.

Select **Save As** - a similar dialogue box is displayed.

### Step 4

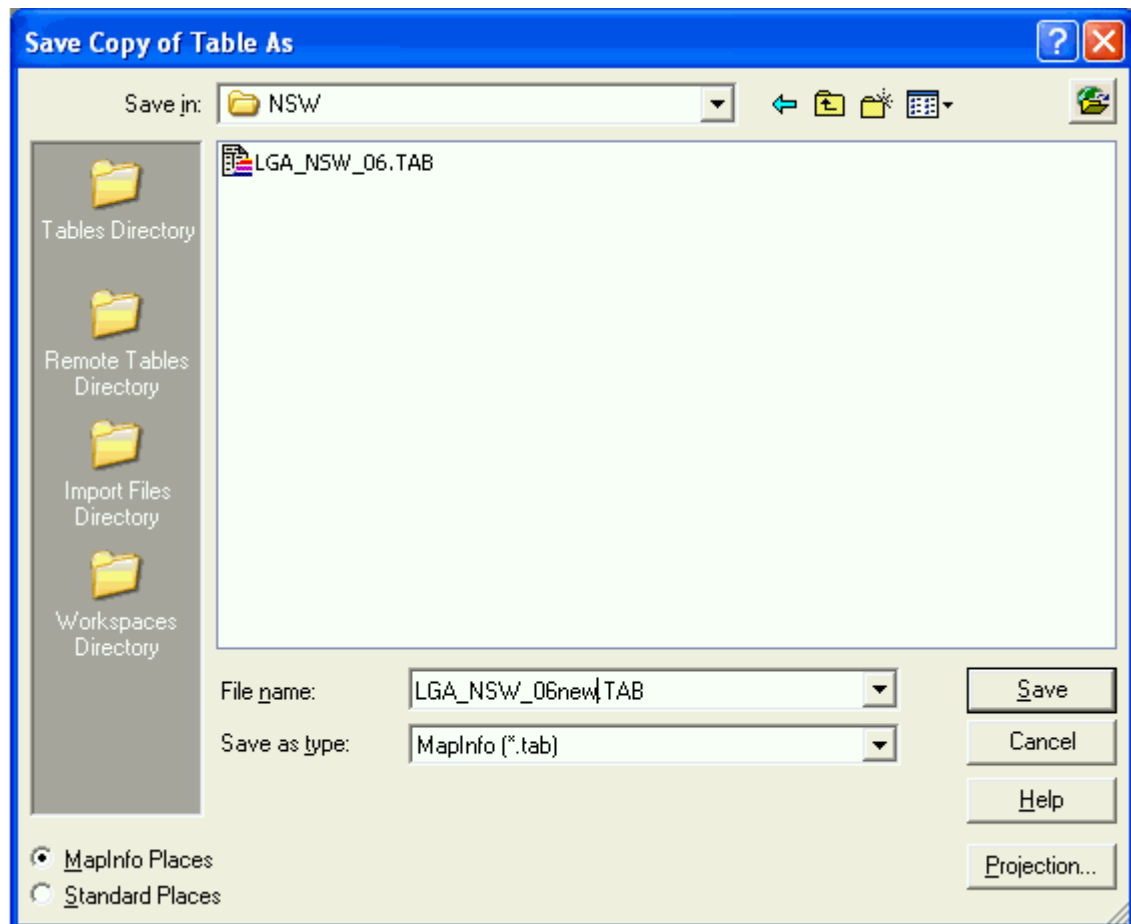
Locate and **select the location** in which to save the Query1 table. In this case **C:\Data\Census 2006\GEO\_ASGC\_06\_R2\LGAMap\_midmif\NSW**

### Step 5

In the 'File name' area, type a name for the file. In this case **LGA\_NSW\_06new.tab**

In the 'Save as type' area leave as the default **MapInfo (\*.tab)**.

Select **Save** - the Query1 browser is saved.



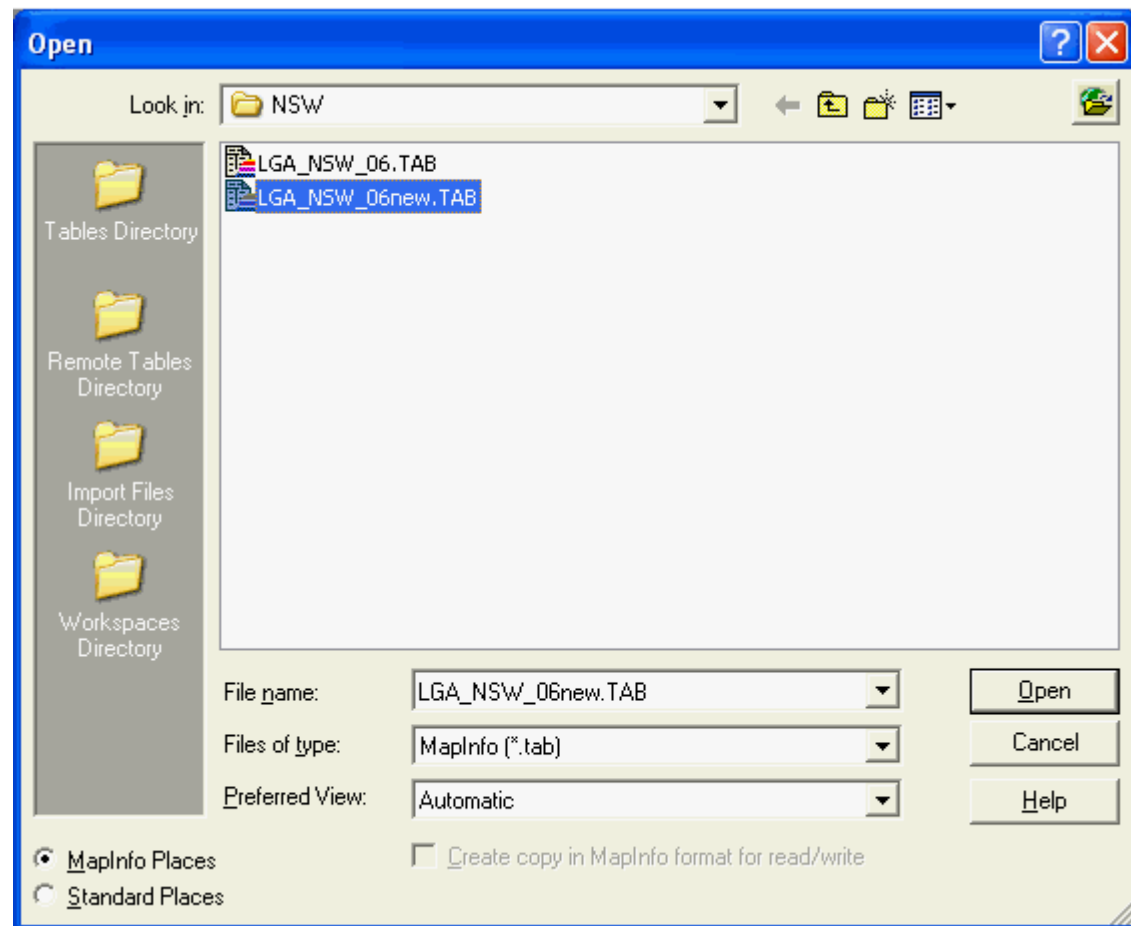
### Step 6

Select **File > Close All**.

## Step 7

Select **File > Open Table** - a similar dialogue box is displayed.

Note: Alternatively depending on which version of MapInfo you have, you may be able to select File > Recent Files > **LGA\_NSW\_06new.tab**

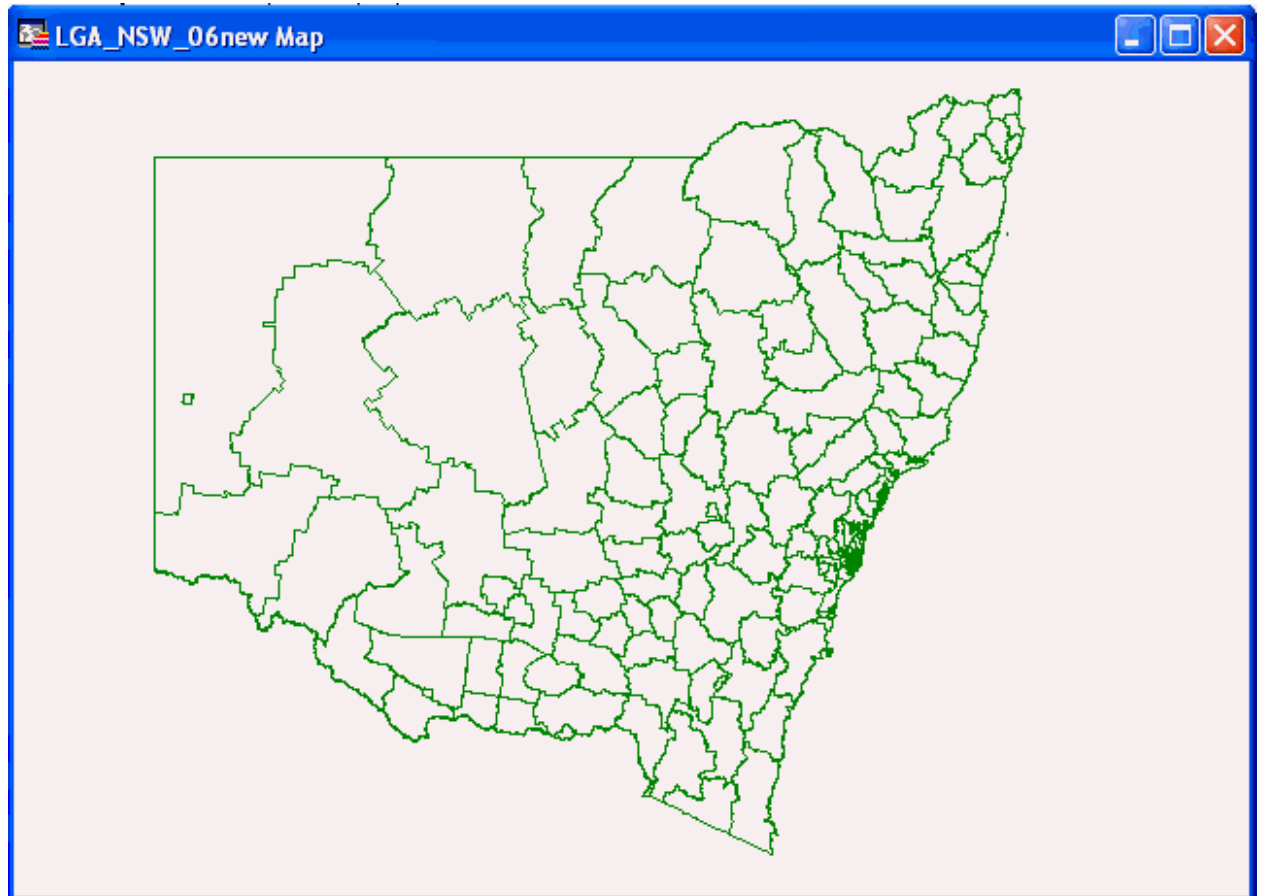




### Step 8

Locate and **select the file** previously saved in this case **LGA\_NSW\_06new.tab**

Select **Open** - a map is displayed.

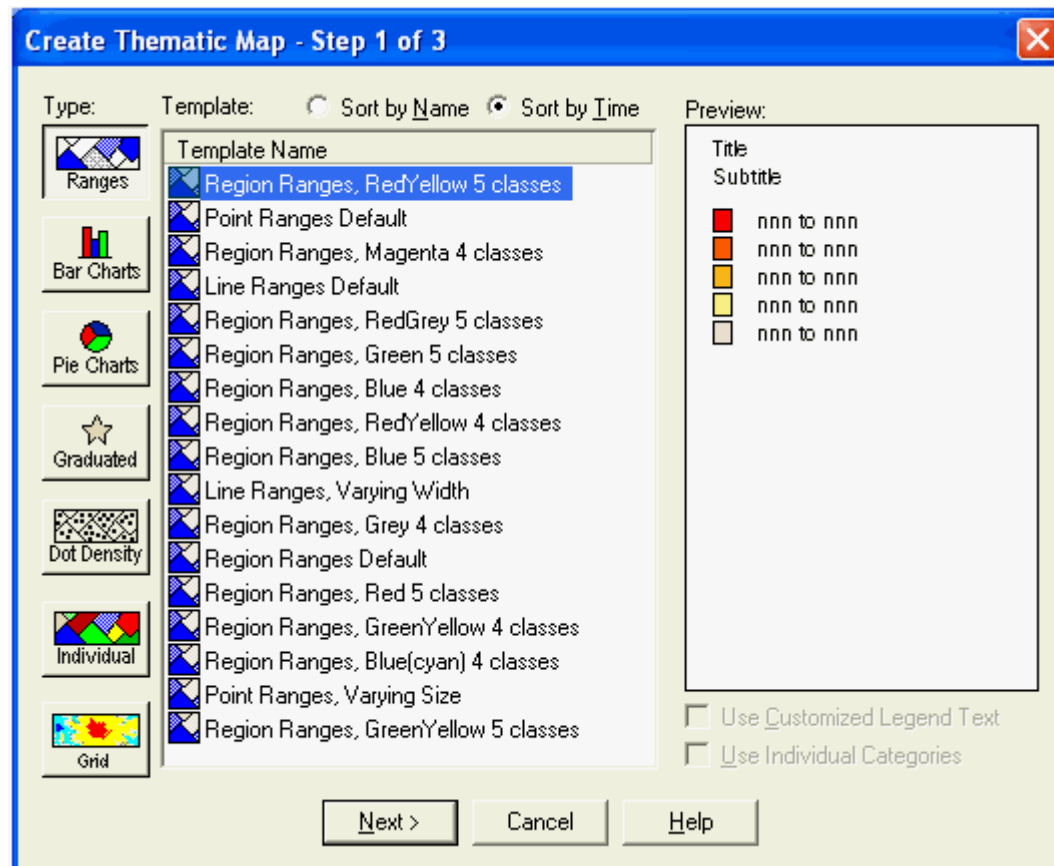


## Creating a Thematic Map

To create a Thematic Map of the Total Persons (C3) for the NSW Local Government Areas:

### Step 1

Select **Map > Create Thematic Map** - the 1st step dialogue box is displayed.

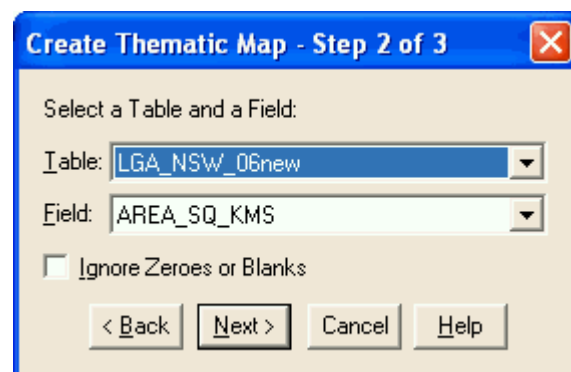


### Step 2

Select the 'Type' as **Ranges**.

Select the 'Template Name'. In this case **Region Ranges, RedYellow 5 classes**.

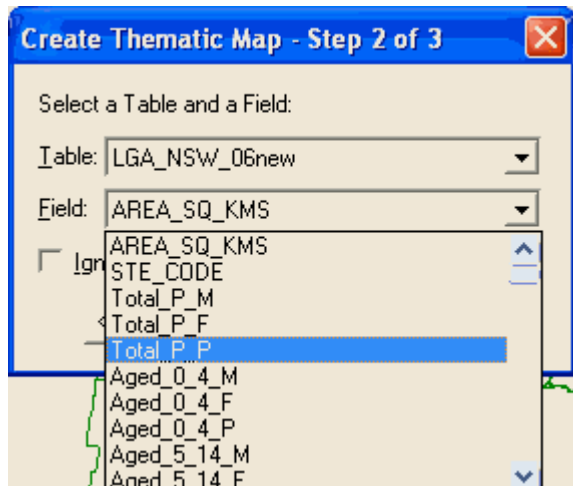
Select **Next** - the 2nd step dialogue box is displayed.



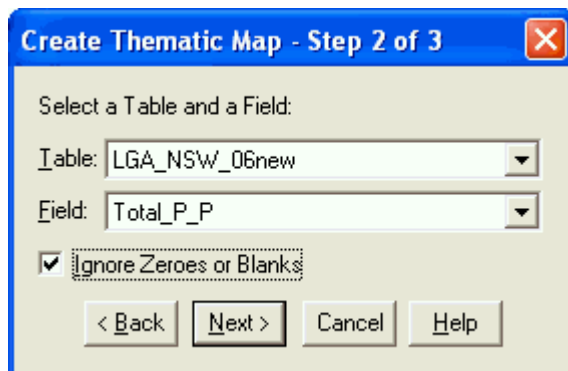
### Step 3

In the 'Table' area, from the drop down menu **select the table**. In this case **LGA\_NSW\_06new**.

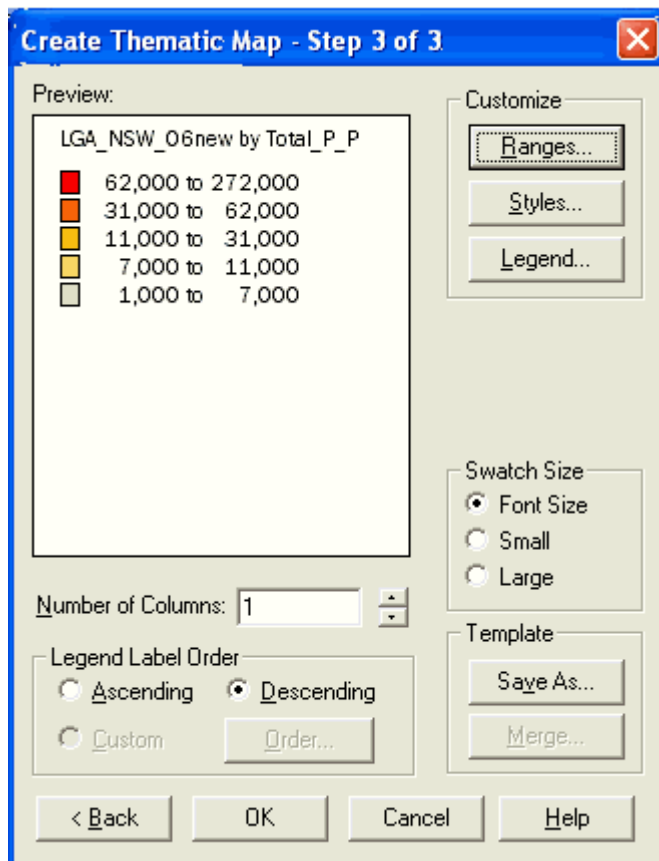
In the 'Field' area, from the drop down menu **select the data item** you wish to create a thematic map of. In this case Total P\_P (Total Persons).



Place a **tick in the box** 'Ignore Zeroes or Blanks'.



Select **Next** - the 3rd step dialogue box is displayed.



#### Step 4

Customize the Ranges if you would like to produce a more visually effective Thematic Map. To achieve this select the **Ranges** or **Styles** buttons and change the variables/colours within.

### Step 5

Now amend the Title of the Legend.

Select the **Legend** button.

Amend the **Fonts**, if required.

Change the Legend title to something more suitable, i.e., in the 'Title' area type **Total Persons by LGA NSW** and then Click on **OK**.

**Create Thematic Map - Step 3 of 3**

Preview:

Total Persons by LGA NSW

62,000 to 272,000
31,000 to 62,000
11,000 to 31,000
7,000 to 11,000
1,000 to 7,000

Customize

Ranges...

Styles...

Legend...

Swatch Size

☒ Font Size

☐ Small

☐ Large

Template

Save As...

Merge...

Number of Columns: 1

Legend Label Order

☐ Ascending ☒ Descending

☐ Custom

< Back OK Cancel Help

## Step 6

Select **OK** - the Thematic Map is displayed.

