



GeoLytics®

User Guide for Business Demographics & Historical Business Demographics

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A. Installation

1. Insert the **Disk** into your CD-ROM drive.
2. Click the **Start** button on the taskbar and choose **Run** from the Start menu.
3. Type **D:/setup.exe** (assuming D is the letter of your CD-ROM drive).

OR

2. Click on the “My Computer” Icon; choose the CD Drive (often D:\)
3. Click on the “Set Up” Icon (it looks like a blue computer)
4. Click **OK**.
5. Follow the instructions on the screen. **Preferably, use the default settings. All path directories and folders must contain 8 characters or less, and with NO SPACES.** If you don’t have enough free space on the default drive then choose another subdirectory with space and create a subdirectory BUSCD.
6. When prompted, enter you Name, Organization, and Serial Number.
7. Your serial number can be found on your invoice. Type the serial number **with all of the dashes and punctuation**. Pay careful attention to upper and lower case letters. It is very important to enter it exactly as it is written.
8. After the installation is complete, you can start Business Demographics at any time by double clicking the Business Demographics icon or by choosing Programs on the Start menu and selecting Business Demographics.

Note: To operate the program, the CD must be in the same drive from which the program was installed. Otherwise, the program will function, but you will not be able to run a report.

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You must agree to the End User License Agreement (EULA) for Business Demographics during Setup or the product will not install and you will have no right to use the product or resulting data. A copy of the EULA can be found under the Help menu. You can also view a copy of the EULA at <http://www.geolytics.com/Licensing.asp>.

B. Introduction

This guide is intended to give an orientation and explanation about the software and variables. The on-line help section has more detailed definitions of data terminology and technical documentation. A specific help section to explain the map viewer is available from both the main help contents and the Map Viewer itself.

C. Five Steps to Producing Files and Maps

<u>Request</u>
consexp.req
<u>Area</u>
States, 3
<u>SubArea</u>
ZIP
<u>Counts</u>
13 selected
<u>Run</u>
DBF + Map
<u>View</u>
<u>Config</u>
<u>Help</u>

1. Name your **Request** (file) – where to save the report (data files and maps) you are about to generate
2. Select the **Area** (If you think of a map this will be the entire area covered)
3. Select the **SubArea** (If you think of a spreadsheet this is the individual lines of data) – how is the area broken up
4. Select the **Counts** (variables) that you want to see for these areas (in a spreadsheet the columns of data)
5. **Run** the Report. Report formats are Summary, Dbase File, ASCII, or Maps.

1. Name your File (using a REQUEST file)

The interface creates request files to describe to the report engine what kind of a report should be generated. A request file stores all the information about the report format, areas to be covered by the report, subarea to break it out into, and counts to be included with the report. If you do not change it, the default name is Noname.req. Before the report is generated, the current request is automatically saved to a hard disk directory reserved for this purpose. If you use the default request Noname.req, its previous content is overwritten.

Click on the “Request” on the left and a window will open. It includes the directory box on the left, the file box on the right, and the request file content box below. The current request name is displayed below the Request screen button. Use the directory box to navigate through the hard disk directory structure. Use the file box to select a request file. Use the content box to view the request file content. Double-

clicking a file name is the same as clicking the Ok command. Clicking a selected file name opens it for renaming.

Directories	File	EPCECD 1.01																
<ul style="list-style-type: none"> ☐ .. ☐ Requests 	<table border="1"> <thead> <tr> <th>Name</th> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>conexp.req</td> <td>12/8/2004</td> <td>4:51:52 PM</td> </tr> <tr> <td>Noname.req</td> <td>12/8/2004</td> <td>3:31:20 PM</td> </tr> <tr> <td>Noname1.req</td> <td>12/9/2004</td> <td>3:31:03 PM</td> </tr> <tr> <td>Sam.req</td> <td>12/8/2004</td> <td>4:52:48 PM</td> </tr> </tbody> </table>	Name	Date	Time	conexp.req	12/8/2004	4:51:52 PM	Noname.req	12/8/2004	3:31:20 PM	Noname1.req	12/9/2004	3:31:03 PM	Sam.req	12/8/2004	4:52:48 PM		
Name	Date	Time																
conexp.req	12/8/2004	4:51:52 PM																
Noname.req	12/8/2004	3:31:20 PM																
Noname1.req	12/9/2004	3:31:03 PM																
Sam.req	12/8/2004	4:52:48 PM																

C:\EPCECD\Requests\conexp.req

Key	Value
ReportFormat	DBF + Map
AreaType	State
SubAreaType	Zip5
States	04_AZ,06_CA,08_CO.
Areas	2,4,5.
Counts	0,12,13,15,17,18,19,20,21,30,31,32,38.
DocFile	Yes
Product	EPCECD
Version	1.01
Lon	0
Lat	0
Radius	0

Creating a new request.

In order to create a new request, click the **New** button. A new file name in New_0.req format will be created. The next one will be New_1.req etc so that the new name will be unique for the request directory.

Saving a request.

Click the Save button to save the current request under the current name.

Opening an existing request.

Click a name in the file box. It will become selected. Click the **Open** command. The file content is displayed in the content box and it becomes your current request.

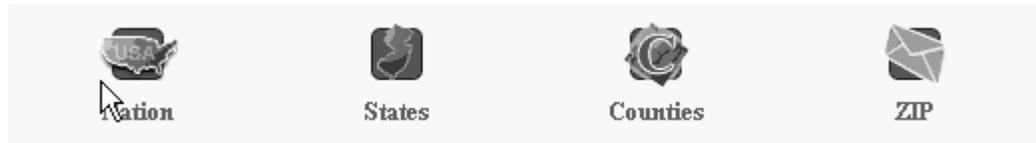
Re-naming and deleting requests.

Select a file name in the file box and click it again. It opens for renaming. Type a new name preserving the .req extension and press Enter key. Press Esc key to abandon the change. Select a file name and press the **Delete** command to delete a file.

2. Select the Area

Geographic areas available include:

Nation, States, Counties, Zip Codes



When you select a geographical area the window appears so you can select which areas you want to use. For example if you select Counties then the pull down window will show you the states, when you select the state(s) the counties in those states will appear in the Counties drop down box. Then select the county(ies) you want.

You can **select up to 240 areas** of the same type in one pass. If you need more than 240 areas you should probably select a larger “area” to begin with. For example, to select all of the zip codes in a state – the area is the State – not ZIP. Then select ZIP as the subarea.

To find a specific area you can select the type of area, for example Counties, and then select “SEARCH” on the far right side. Then you can key in the name of the county that you are looking for and it will give you back all of the counties with that name.

3. Select the Subarea – you MUST select a subarea

The subarea is the geography that you want the area to be sub-divided. There are four choices Nation, States, Counties, and Zip Codes. So for example, you can run all of the counties in a state, or all the zip codes in a state. In these examples the area is STATE, and the subarea is county or zip code.

4. Select the Counts (Variables)

Specify the counts, or variables, that you want to include in your file. In other words, what demographics or variables are you interested in? There are four sets of variables:



The four data sets are as follows:

Census 2000 – this is a subset of over 360 variables from the 2000 Long Form (SF3) that includes such topics as population, race, age, marital status, income, rent, employment, educational attainment, etc.

Business – this is the full data set with NAICS codes from the US Department of Commerce. Industries include: forestry, fishing, hunting, & agriculture; mining; utilities; construction; manufacturing; wholesale trade; retail trade; transportation & warehousing; information; finance & insurance; real estate, rental, & leasing; professional, scientific, & technical services; management of companies & enterprises; administrative, support, waste management & remediation services; educational services; health care & social assistance; arts, entertainment, & recreation; accommodation & food services; and much more.

Estimates / Projections – are estimated datasets derived from the US Census Bureau's 2000 Census data, as well as its annual county and state population estimates. It includes variables such as age, race, sex, household type and size, income, and more. The projections are the same as the estimates but rolled out 5 more years.

Expenditures – gives you household spending patterns based on the Consumer Expenditure Survey.

For a complete list of variables please go to our website at:

<http://www.geolytics.com/USCensus,BusinessDemographics,Data,Variables,Products.asp>

For the complete list of all NAICS codes for all of the industries covered go to:

<http://www.geolytics.com/USCensus,BusinessDemographics,Data,Industries,Products.asp>

To Select Counts:

Click on the Icon to select the category of data (i.e. 2000 Census, Business, Estimates/ Projections, Consumer Expenditures)

Selecting Counts from the BUSINESS Database

IMPORTANT, Please Note:

Business variables only appear IF they exist in the area that you selected. So for example, if you select Fossil Fuel Electric Power Generation and there is no industry in your area that fits in that classification the selection will NOT appear in the list of Industries.

Industries

Key	Value	
▼ 22----	Utilities	
221///	Utilities	A
2211//	Electric power generation, transmission, & distribution	
22111/	Electric power generation	
221111	Hydroelectric power generation	
221112	Fossil fuel electric power generation	
221119	Other electric power generation	
22112/	Electric power transmission, control, & distribution	

Counts For Selected Industries 21 items, 0 selected

Key	Value	
3_22111/SC	NAICS Code	
3_22111/FD	Data Suppression Flag	
3_22111/ED	Total Mid-March Employees	B
3_22111/Q0	Total First Quarter Payroll (\$1,000)	
3_22111/A0	Total Annual Payroll (\$1,000)	
3_22111/N0	Total Number of Establishments	
3_22111/N1	Number of Establishments: Employment Size Class: 1-4 Emp	

Selection 4

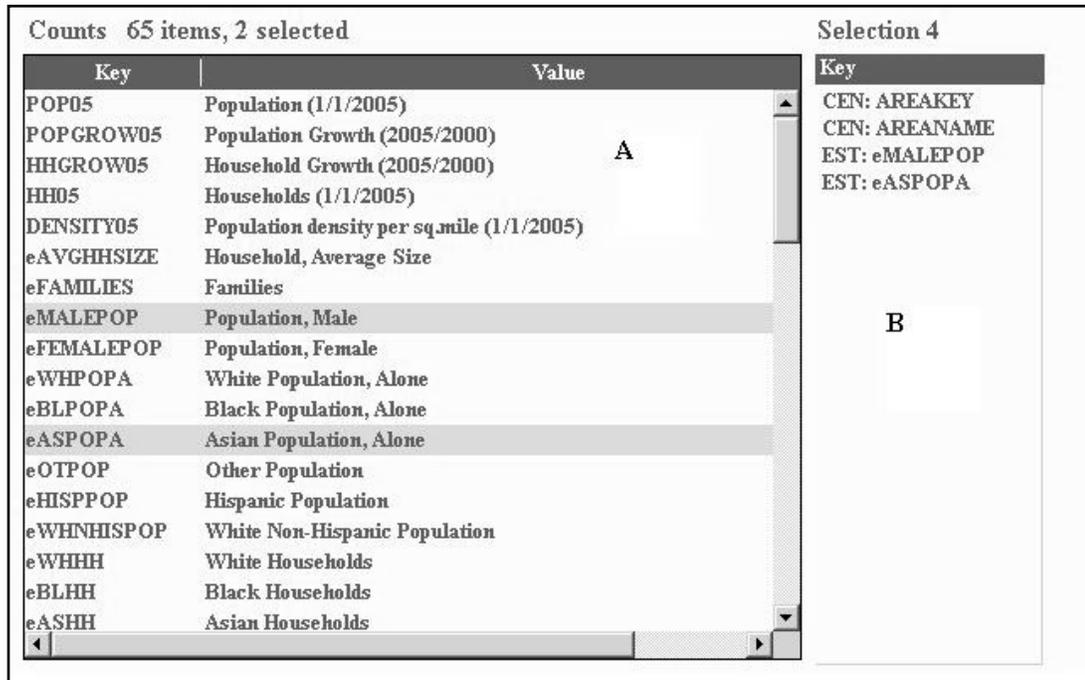
Key
CEN: AREAKEY
CEN: AREANAME
BC3: 3_22----Q0
BC3: 3_22----N0
C

Because there are so many categories in the Business listing when you select Business you will be given a “tree” of options.

1. Select the 2-digit “Key” (Section A) and it will open all of the subordinate Industries for that category (Section A). If an industry does not occur in the area that you have selected it will not appear on this pull-down tree menu.
2. Once you have selected the 2 digit Key the tree will open and show you the 3, 4, 5 or 6 digit “Value” under that Key (Section A). You can select the entire category (2-digit code) or any of the subordinate selections.
3. This will then show up in the Counts Screen (Section B). You then need to select the counts that you want and they will appear in the “Selection” section (Section C).

Selecting Counts from the CENSUS, ESTIMATES, PROJECTIONS, and EXPENDITURES Databases

These are simpler variable selections so you only need to do the third step. In the Variables list (Section A) click on a variable and it will show up in Section B of the selected counts.



1. From the Counts screen, select the Counts that you want to appear in your report. When you select a Count you will see it appear in the “counts selected” screen.
2. Select **OK** from the far right when you are done.

5. Run your Report

From “Run”, select Summary, CSV (comma separated), DBF or DBF + Map.

Summary – a sum for the area (without listing subarea numbers) for the counts selected.

CSV (comma separated) files are ASCII files and are available with or without headers. Files will have a .csv extension and can be imported into statistical or spreadsheet packages.

DBF – a dBase-compatible data file with a .dbf extension that easily imports into statistical and spreadsheet packages.

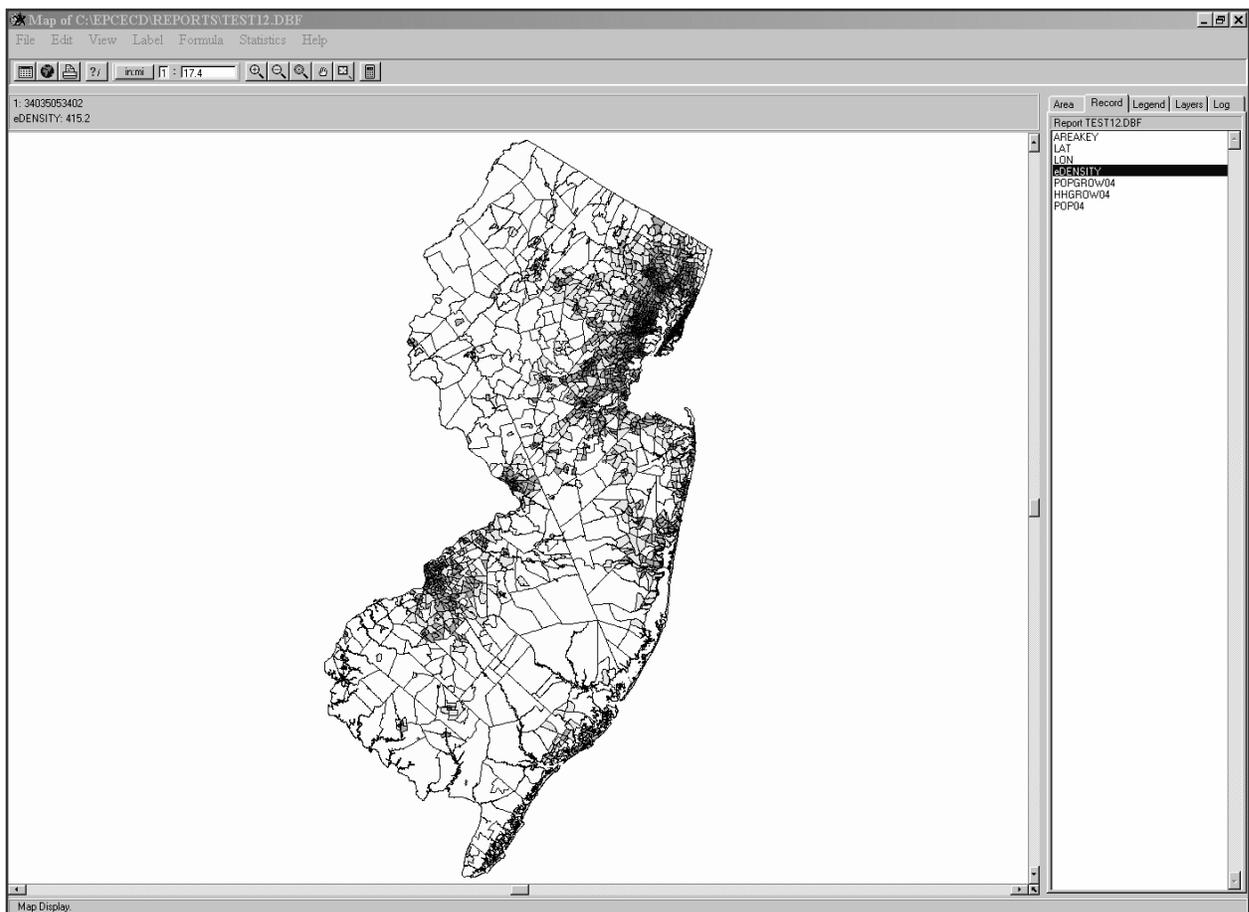
DBF + Map – this produces a map that you can see and manipulate with our map viewer. Additionally, the polygons can be exported as either shape or mid/mif files and will have an accompanying .dbf file with the data. You can import these files into ArcView, MapInfo, and other mapping software packages.

Your output file is in the **REPORT** subdirectory that you installed the product under. With the file name that you selected when you named the request file. If you didn't save the request file then the default is "noname". It can be reassigned when you save the report.

Recommendation: when running a dbf or ASCII report, first run and print a summary report so that you can view the full variable name and code as a reference when looking at the data.

When the map has run you will have an image like the one below. The tabs at the side of the map allow you to manipulate it. See Section D – Using the Map Viewer.

HINT: You can even use the Map Viewer to display your own .DBF data files if you have a key column which lets the program match boundaries to your data records. You can also add on your own ArcView boundary files (like neighborhood boundaries or a nonprofit location). See the Map Guide under the Help menu for more information on how to display your own files.



	AREAKY	NONALBEV	HOUSEOPER	SMAPPL
▶	13001	1728.6	4621.6	157.5
	13003	685.2	1761.2	60.1
	13005	952.4	2452.2	85.0
	13007	367.1	979.3	33.3
	13009	4826.4	12928.0	442.8
	13011	1488.5	4098.3	138.8
	13013	5189.2	14810.0	494.6
	13015	8424.9	24221.0	808.4
	13017	1681.8	4388.7	151.1
	13019	1590.3	4187.3	142.7
	13021	16167.5	44590.1	1505.5
	13023	1231.7	3366.1	113.6
	13025	1465.7	3961.6	134.5
	13027	1560.1	4066.1	139.4
	13029	2532.6	7583.0	246.6
	13031	5716.8	14861.7	519.2
	13033	2109.5	5662.5	191.1
	13035	2223.8	6156.5	209.1
	13037	657.1	1644.0	56.5
	13039	4212.3	11662.5	393.7
	13043	914.8	2370.8	81.6

Record: 1 of 159

The Report Viewer lets you viewer your spreadsheets. When you run a .dbf or .csv file, the report viewer will open so you can view your data. See the image above.

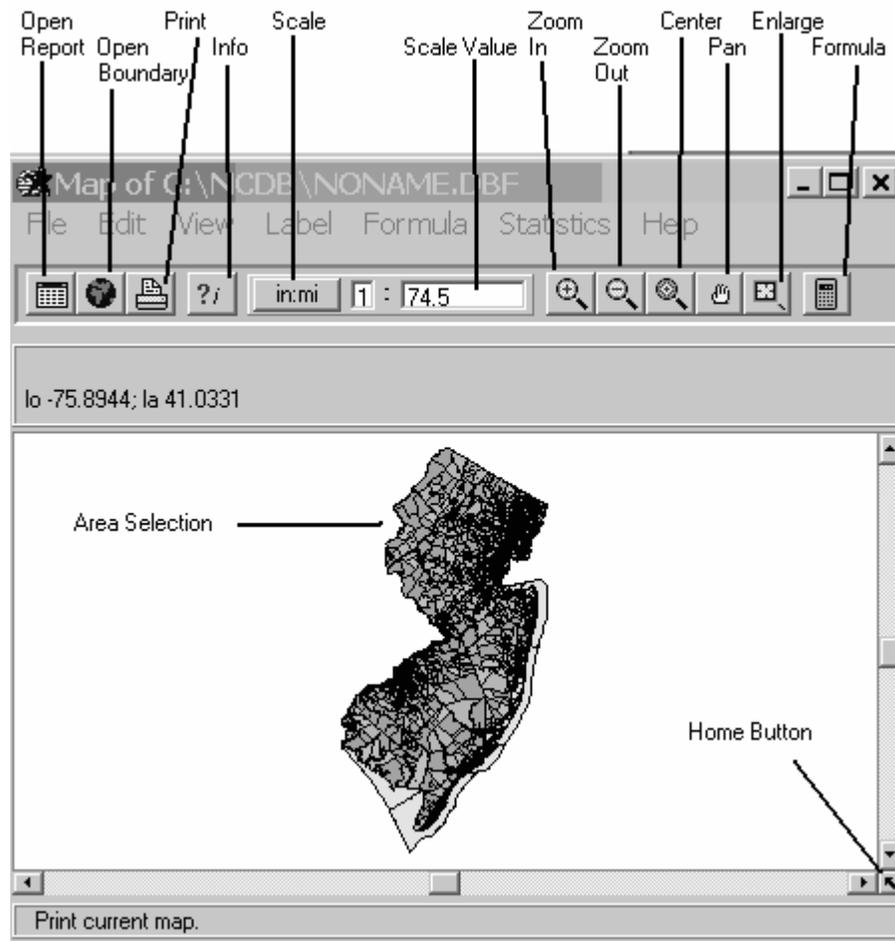
You do not need to save the data, as the data is already saved in the subfolder “reports” under the directory that you installed the software in (the default is BUSCD). You can use the file data as in input to other systems like statistical (e.g. SAS, SPSS), database (e.g. Access, Oracle), spreadsheet (e.g. Excel, 1-2-3), or mapping (e.g. Arc View, MapInfo) packages.

6. Saving your data

SAVING your report – this is **automatically done**. Your output file can be found under the subdirectory and file name that you selected when you named the request file. If you didn’t save the request file then your output file will be found under the subdirectory you installed the product on with the name “noname”.

D. Using the Map Viewer

When you create a map with the Business Demographics product, you can use the map viewer to view and change data themes, ranges, and color schemes. The map viewer allows you to print your map as well as export boundaries and data in desktop mapping formats (ArcGIS or MapInfo).



To print, use the icon of the printer at the top of the page or pull down the “File” menu and select print. To export ArcGIS / ArcView shape files or MapInfo mid/mif files, go to “File” at the top left-hand of the menu and select “Export”, then select “ArcView’s Shape” or “MapInfo’s MIF”. Your exported shape file or mid/mif file will be located in the subdirectory where you installed the Business Demographics product, along with the associated dbf file.

To save the map as a bitmap (.bmp) file, which can be imported or pasted into most word processing, spreadsheet, and graphics software packages, go to the “File” and select “Save as Bitmap”.

The map viewer also provides a variable calculator  for creating and displaying virtual variables based on the data in your file. So you can do mapping analysis with a product if you do not already have a mapping software package. These calculated fields are held in a temp file but cannot be exported. Recommendation: take a bitmap image of the map so that you can capture the image.

Creating a map automatically generates a dBase file, which can be exported to use with other software including statistical (SAS, SPASS), database (Access, Oracle), and spreadsheet (Excel, 1-2-3). A specific help section for the map viewer is available from the main help contents and in the map viewer itself.

To change the scale of the map you can either use the icons at the top, which are magnifying glasses with the “+” and “-” in them to make it bigger or smaller. There is also a scale that shows the ratio of inches:miles. You can change this ratio to enlarge or decrease the size of the map.

There are lots of ways to manipulate the map that you are looking at. On the side of the map is a series of tabs (Area, Record, Legend, Layers, Log).



1. Area – Lists each area that is mapped. If you click on an area listed here it will hash out the appropriate location on the map.
2. Record – Lists the counts in a file, change the count being mapped by clicking on a different count. If you left click on a variable in this list you can select it to use as a label.

3. Legend – Choose the ranges and colors for your map. It also shows the mean, median, and standard deviation (see above). With this tab you can make the following changes:
 - a. Ranges – instead of having your data broken into 5 ranges you can pull down the arrow at 5 Ranges and increase or decrease the number.
 - b. Equal Counts – each range will have the same number of occurrences in the range. You can change this to Equal Range. The vales of each range will be the same from 0 to the top number, above this would be 2,465,326 so instead of getting 12 tracts in each range the ranges would be divided into 5 groups 0-493,065, then 493,066-986,130 etc. You can also customize the ranges. For example if you wanted to see 0-15, 16-22, 23-54 you could change them. Select Custom from the pull-down arrow. Then click on the number after to lowest “to <” in the example above it is 49708. Instead type in the 15. Then go up to the next number above it and type in 22, etc.
 - c. Change the colors of the ranges. If you click on the colored circle to the left of the bar a window will open with a palette of colors to choose from.

4. Layers – Control the border thickness and color, add labels, and add internal or external boundary map:
 - a. Add a layer – click on the blue “+” at the top of the tab. A window will open over the map with the geographies that are available to be layered over your map. Select the appropriate one and click ok. A status bar will spin and then you will have the new layer over your existing map.
 - b. Change the thickness of the new layer – sometimes when you add a layer it is hard to see the boundaries, so you can increase the thickness for better viewing. At the bottom of this tab is a section titled “Properties of Layer 1”. There is a box labeled “Thick” with a default 1. Change it to a 2 or 3 for a thicker line. You can also change the color from the default black to another color for the boundary lines of this new layer (though black is usually the easiest to see).
 - c. Add labels to the map – in the “Properties” section. Click on the “open book” icon that is labeled “More”. This will open a window with the options for the labels. You can select the “Style”, “Frequency (always, never, when it fits)” and “Font”

5. Log – Records what has been mapped and how long it took to run.

E. Frequently Asked Questions

Why are there holes in my Zip map?

There are areas that do not have zip code coverage – usually these are bodies of water but they can also be national parks or areas that would have no mail delivery.

Why isn't my program working?!???

First, take a deep breath. Read the bottom left-hand line on the screen in blue, it will often prompt you for the steps that are missing from your report request. If it says you can now run a report then check: did you install the software with the correct serial number? Is the correct disk in the computer when you try to run a report?

How do I save a report that I just ran?

When you run a report it is automatically saved to your computer. When you save your request you name the file and set the path. If you don't save your request, it is given the default name of "Noname" and it's path defaults to the directory and subdirectory where you installed your Business Demographics product.

How do I find a report that I just ran?

When you save your request you name the file and set the path. If you don't save your request, it is given the default name of "noname" and it's path defaults to the path that you installed the program under. When you look at the folder for BusCD you will find a folder marked "Reports" that is where you will find the file that you just ran.

How do I select a gray scale for my map?

When you are looking at a map on the screen and you want to change it to a gray scale, simply go to "View" (one of the choices along the top bar) and using the drop down menu select gray scale. To have the image revert back to multi-color, go to View and un-select gray scale.

How do I change the colors of the map?

When looking at the map, to the right is a column heading with 5 tabs (area, record, legend, layers, log). Select the Legend tab. You will then see the ranges and the color bars. If you select the colored circle next to each range and click on it a palette with lots of color choices will appear, make your selection and click OK. To save the map with these colors go to Statistics and select Save Colors.

How do I change the number of ranges of my data shown on the map?

When looking at the map, to the right is a column heading with 5 tabs (area, record, legend, layers, log). Select the Legend tab. You will then see 3 fields: 5 ranges, equal ranges, and no rounding. Select 5 ranges. This will have a pull down menu where you can select the number of ranges that you want to see your data broken into. Your map will be updated instantly.

How do I find the mean, median and standard deviation of my data?

When looking at the map, to the right is a column heading with 5 tabs (area, record, legend, layers, log). Select the Legend tab. You will then see ranges in colored bars, under that are the mean, median and standard deviation.

How do I label the different areas on my map?

When looking at the map, to the right is a column heading with 5 tabs (area, record, legend, layers, log). Select the Layers tab. The bottom line has 2 colored squares (color and borderclr) between them is an icon that looks like a book and is labeled "More". Select More. A new window will pop up and you can then select the second field. It defaults to Never (show labels). If you select "When Possible" it will label only those areas that are not too close to each other so that you can see the label easily. If you select "Every Object" it will label all areas regardless of whether the labels are superimposed upon each other.

How do I add layers on the map viewer?

When looking at the map, to the right is a column heading with 5 tabs (area, record, legend, layers, log). Select the Layers tab. Click on the "+" sign under the tabs. This will bring up the "Add a new Layer..." box. Here you can click on the layer you wish to add. For example, you have tract level data selected as the subarea and want to overlay the counties as a layer. After you add a layer, you can highlight the layer and change the thickness from "1" to a "2" or "3". This will add more contrast and definition to your new layer, making it easier for viewing.

Looking at the map, how do I tell which variable is which?

There are two ways to do this.

1. Either you can open Word and go to the document that is affiliated with the map that you just produced and print it out. This will indicate which variables are included in the correct order.
2. Alternatively, the name of the variables is listed to the right of the map (under the 5 tabs) under "Record". If you can't see the whole name you can move the map viewer screen. If you place your cursor on the column between the map and the column with the counts names you will get the parallel lines sign and you can then drag the column bar over. This will give more screen space to the counts names. However, it will also make your map smaller.

F. Help

Business Demographics and Historical Business Demographics contain extensive help sections. Simply select “Help”, and then scroll through the categories. Also, on the bottom bar of your screen (in white on the blue bar) you will receive “automatic advice” for “next step” prompting. A specific help section to explain the map viewer is available from both the main help contents and the Map Viewer itself.

G. Contacting Customer and Technical Support

To contact GeoLytics about technical support/sales regarding the product functioning

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Phone:	732-651-2000
Web Site:	www.Geolytics.com
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