



dun & bradstreet

Market Insight

Base Standard Module

Training Manual v5.1

D&B Market Insight

Base Standard Module

Manual Version: 5.1

Software Version: 2016 Q4

System: Training (USA)



D&B Market Insight is powered by
FastStats Technology from Apteco Ltd

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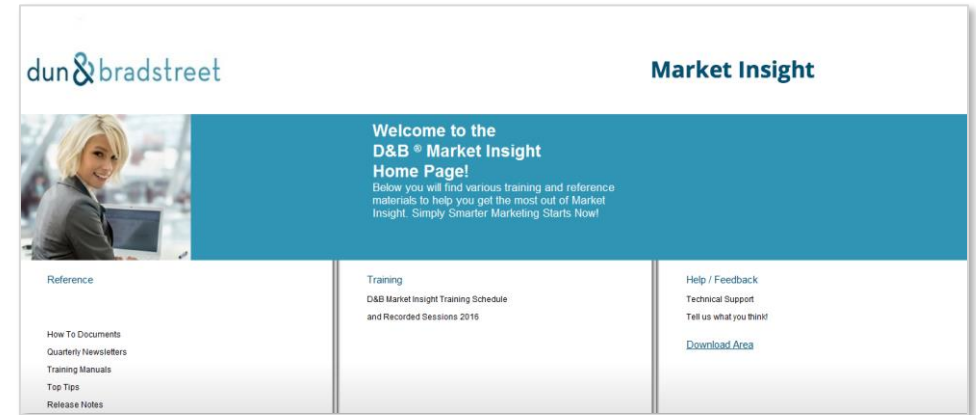
Introduction

Market Insight provides powerful and interactive marketing analysis of customer data overlaid on a D&B data universe. The system is web based with a truly easy to use Windows interface. Using a consistent and intuitive “drag and drop” approach throughout, every action automatically results in a query that can be saved and reused with ease. With a wide range of descriptive and predictive analytical tools, Market Insight’s analysis options are virtually unlimited as any technique can be applied to any results in any order. Market Insight provides a unique combination of speed, power and accessibility for data exploration and understanding.


Market Insight holds your data overlaid on a D&B universe. This enables you to accurately measure your customer data in proportion to the opportunities in the market place. Hence the product’s name: it enables insight of your activities in comparison to the market place rather than just within your business.

The D&B data universe in your Market Insight system will be adjusted to suit your licensing and measurement requirements. Your customer data is loaded from extract file(s) you provide and although this process allows for some cleaning and manipulation of the data, what you see within Market Insight is a reflection of the data you provide.

The Market Insight view of the data is a snapshot at the time that the data was loaded. Market Insight is an analytical system able to provide insight and understanding but it can also provide data feeds to your operational marketing systems to implement your targeting decisions.



Market Insight Homepage

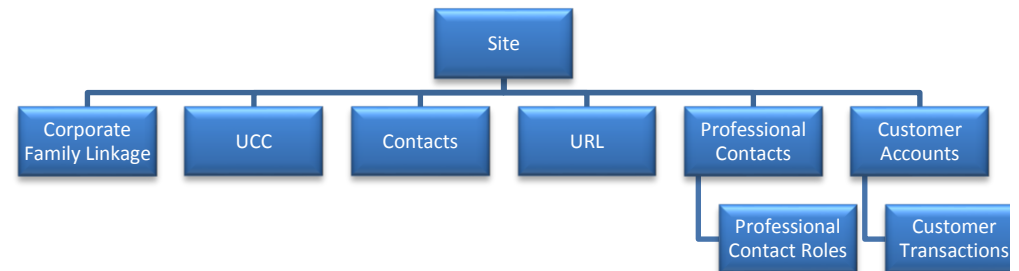
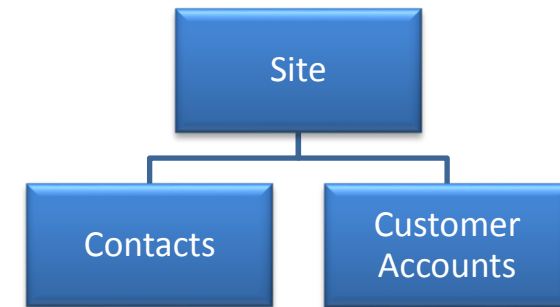
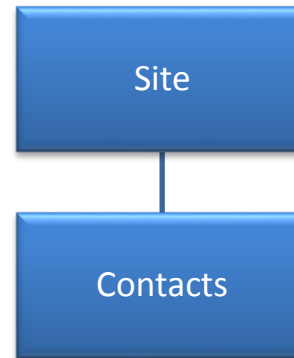
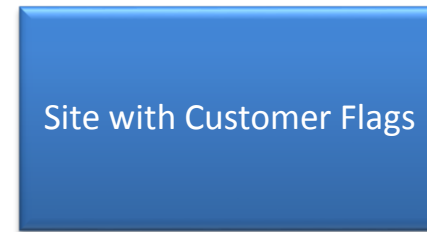
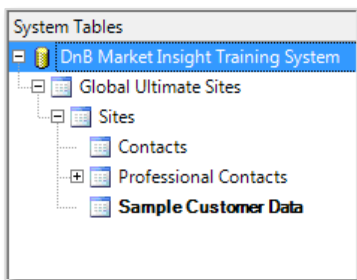
 **N.B.** The counts and figures in this manual may differ to those seen when you use this system as the data changes over time. Not all the functionality shown in this manual may be available in the system you are using.

Data Structure

The structure of your Market Insight system can vary. The elements shown here are typical – each Site may be simply flagged with Customer data or can have many related Contacts. A Site may also have many matched Customer Accounts, and / or many other types of related data (such as one or more URLs, UCC Filings and Corporate Family Linkage Plus entries, etc.) The data loaded for each matched Customer Account is configurable – for example you may have multiple Transactions or Divisional Summaries or Product Summaries etc.

The detail present on each table of data depends on the Market Insight administrator. The data is arranged into folders to assist the user to navigate and find data items.

The structure used in the Training System, illustrated in this manual, uses a simple structure that has sample customer data and contact tables that are linked to a Sites table and these sites are in turn linked to the Global Ultimate Sites table (e.g. worldwide headquarters).



Accessing Market Insight


The Market Insight software is downloaded automatically to your PC when you click a link to launch the system. Once the software has been downloaded, it will automatically update from the server whenever necessary.

To access Market Insight you need:

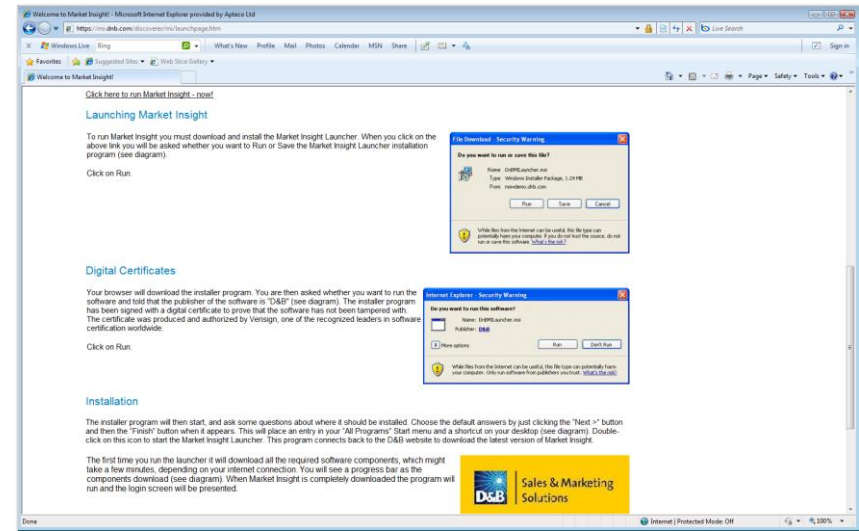
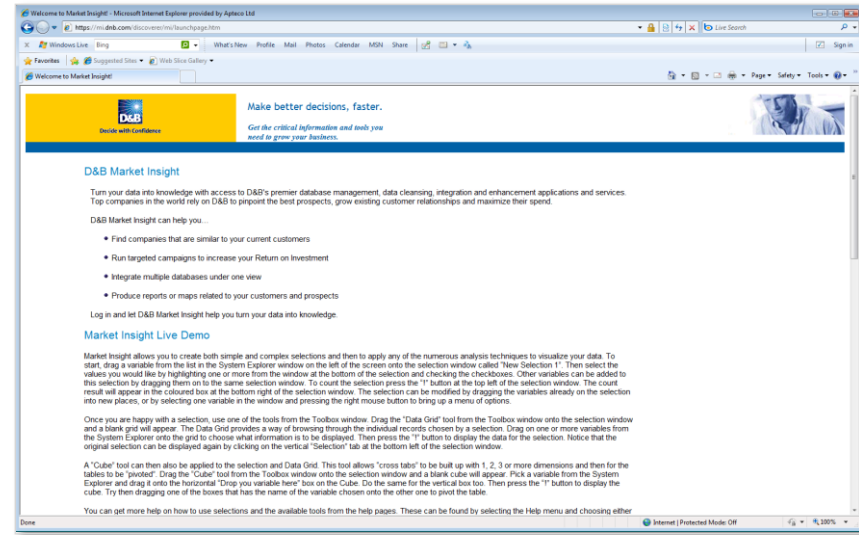
- Windows PC – Market Insight is a Windows.NET application that combines the best of the Windows interface with web based systems. Market Insight is not available on Mac or UNIX computers
- The latest Windows.NET framework version installed. This can be obtained by visiting www.windowsupdate.com or from your IT team

To launch your Market Insight system, use a browser to view:

<https://mi.dnb.com/discoverer/mi/launchpage.htm>

 **N.B.** The “https” prefix, which establishes a secure connection between your browser and the D&B Server.

- Click on the “**Click here to run Market Insight**” link to launch the software installer



Instructions to Download Launcher

You can elect to save the file or run it directly from the web site.

- If you elected to save the file, navigate to where you saved and double click it. Agree to run when prompted, and then follow the on screen instructions

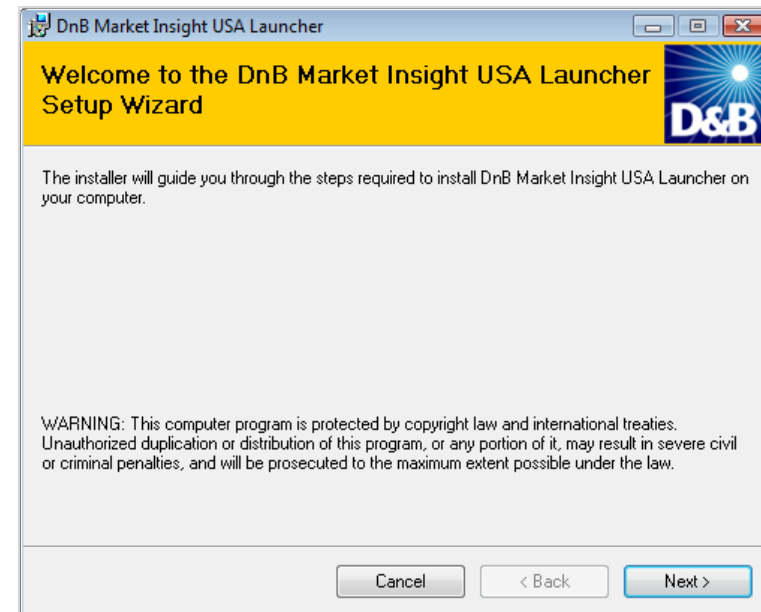


Security Warning Prompt

- The installation process will result in an icon on your desktop and in a D&B Start Menu folder



- On subsequent uses of Market Insight, you can simply double click this icon. The software will automatically update from the D&B server whenever new releases are made available
- You can install Market Insight on as many computers as you wish – it is your user id that controls your access. This means, for example, you can use Market Insight when working from home



Launcher Setup Wizard

How to Login

To use Market Insight, you need to have an Internet connection.

Start Market Insight by:

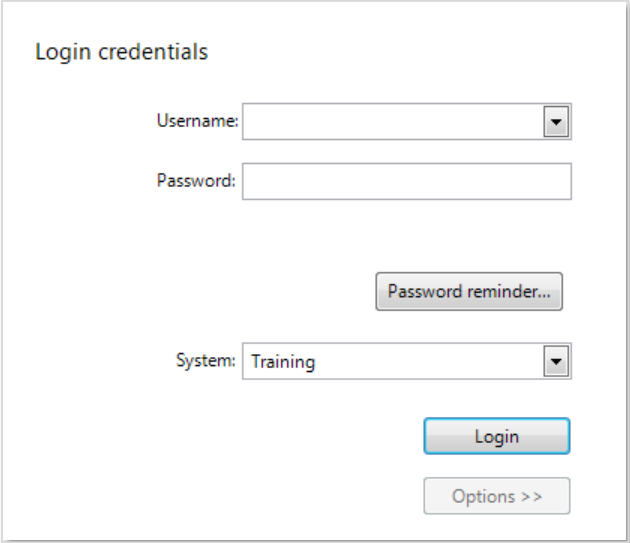
- Clicking on the **Market Insight** icon  on your desktop, or
- Navigating via:

Start → All Programs → DnB → Market Insight

In the upper left hand corner of the screen you will see a Login window that gives you the opportunity to connect to a Market Insight system containing data available to you for analysis.

Enterprise Tab

Your Market Insight system operates on a secure and resilient web connected server enabling you to access the system from any location with an Internet connection. A number of users may access the system at the same time, each of whom is authorized by a user account and password. Your Market Insight Administrator will provide you with a Username and Password.



The screenshot shows a 'Login credentials' dialog box. It contains the following elements:

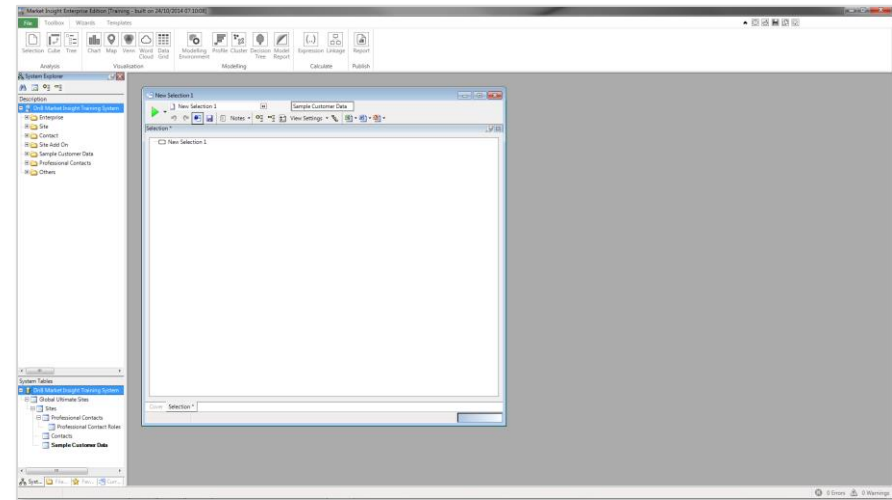
- Username:** A text input field with a dropdown arrow on the right.
- Password:** A text input field.
- Password reminder...:** A button located below the password field.
- System:** A dropdown menu currently showing 'Training'.
- Login:** A blue button located below the system dropdown.
- Options >>:** A button located at the bottom right of the dialog.

Login Window

Navigating Market Insight

Once you have logged into Market Insight the main screen will load as shown opposite. This can be arranged to your own preferences.

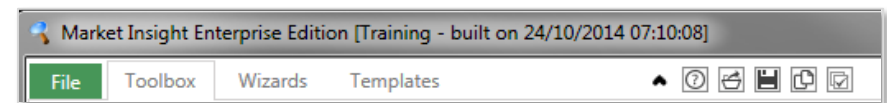
This window consists of a main menu bar and a workspace that contains a number of other adjustable windows including a blank Selection window/page.



Market Insight Main Screen

Main Menu Bar

A number of functions can be performed from the menus shown here, including creating new selections and reports as well as changing options and accessing the Help system.



Main Screen Menu & Icon Bar

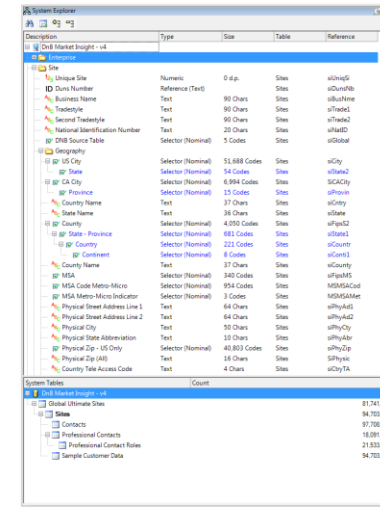
System Explorer

This is where all the elements of the system are displayed. You can see here the variables that can be used and how they have been grouped into appropriate folders.

The bottom part of the screen displays the tables that are used to hold the different elements of data in the database.

Both the variables and tables can be dragged from here onto other parts of the application to use or apply that setting.

At the bottom of the window are three further tabs that display File Explorer, Favorites and Current Windows.



System Explorer & System Tables Window

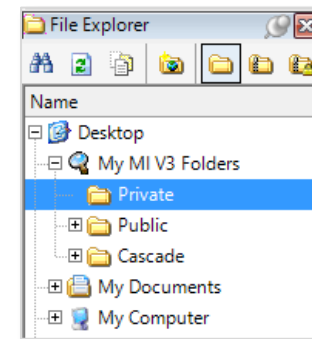
File Explorer

The File Explorer provides access to private and shared public folders on the server where you may save your work. It also provides access to the local resources on your Windows PC. We will return to this area later in the course.

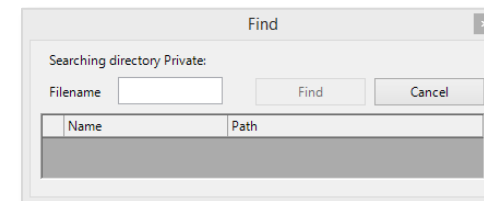
The File Explorer can be searched. To use this function ensure you have the folder you wish to search highlighted and then click on the binocular icon.

Favorites

This is the area where you can store any frequently used items.



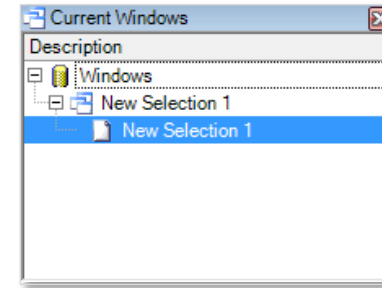
File Explorer Window



File Explorer Search Window

Current Windows

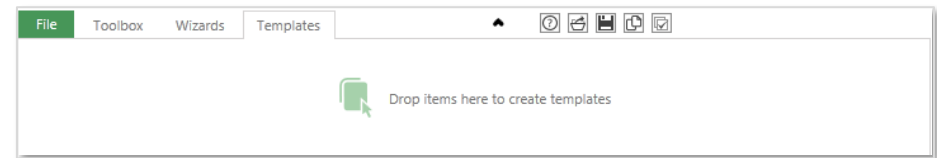
The Current Windows panel gives you an easy way of seeing which windows are open and what they contain without needing to “unlayer” them on the workspace. Double clicking on the relevant icon in this window will bring it to the front of the workspace. You can also drag from this area as an equivalent of dragging from the relevant window.



Current Windows Window

Templates

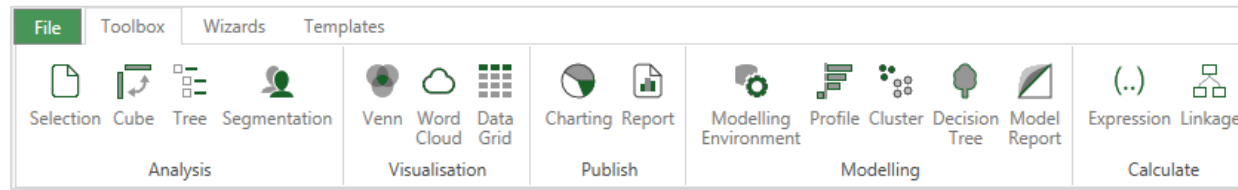
This ribbon bar makes an area available for you to drag items from your Toolbox (see below) so that templates of the settings made can be saved.



Template Ribbon Bar

Toolbox

The Toolbox is where the prime functions of Market Insight are made available. Templates of tools with specific settings applied can be created in the lower area of the toolbox. The precise set of tools available depends on the configuration of the Market Insight User. A number of these areas will be covered in more detail later in the course.



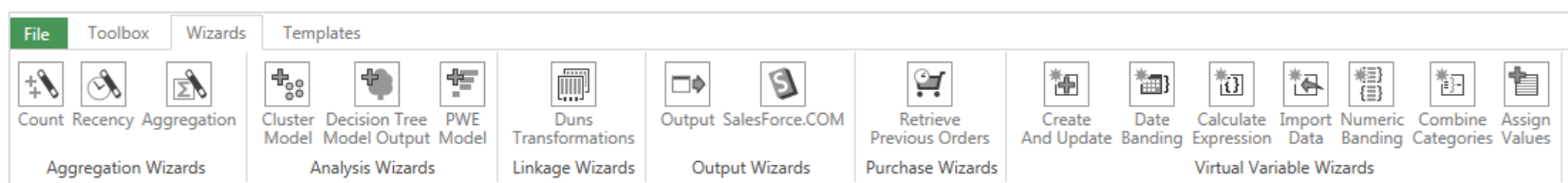
Toolbox Ribbon Bar

Wizards

The Wizards provide easy to use and powerful multi-step processes to create analysis results or further variables based upon existing or manipulated data.

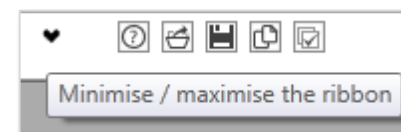
The precise set of Wizards available depends on your Market Insight User configuration.

This area is covered in more detail in the Market Insight Base Advanced manual.



Ribbon Bar Display

By clicking on the small black arrow next to the icon bar, you can either minimize or maximize the ribbon bars.



Ribbon Display & Icon Bar

Restoring the Default Display

If you have closed or moved some of the above windows you can restore them to their original position by going to the main menu and:

- Click on **File** → **View** → **Reset windows positions**

Selection


Selection is at the core of all the work within Market Insight, enabling you to identify, count and later analyze a segment of your data.

The window/page opposite will appear in the center of your screen when you first open your system. As this has been closed you can access a New Selection page by:


- Clicking on the **Toolbox** and then the **Selection** button

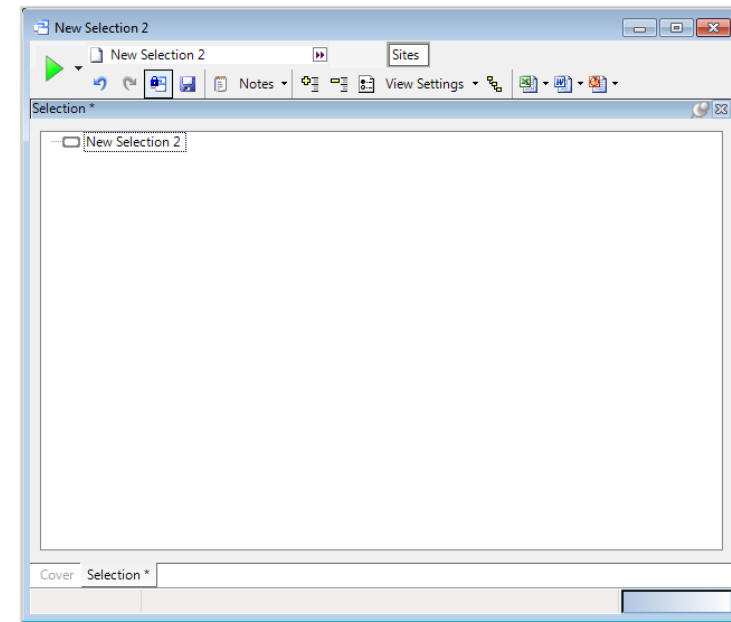
There are other ways of opening a selection window and you will come across these as you work through this manual.

You will notice this window has a default name of “New Selection N” (the number “N” is dependent upon how many windows you have previously opened) and is set to resolve on the Sites table in the Market Insight data structure. This means if we count this empty selection Market Insight will return the entire Sites’ records.

- Click the  **Build** button (Build Changed Pages) to count the number of records

If you look at the bottom right hand corner of the window you will see the result in terms of Sites.

 **N.B.** All Market Insight systems will have a default table level. The Training database is set to the Sites table level. However this can be changed by right clicking on the desired table in the System Tables panel and selecting Set as Default Table.










Selection Window

93,813,680 Sites

Variable Types

As you have already seen, the System Explorer holds the various variables that are available for your use. The table below describes the variable type denoted by the colored icon at their side.

<p>Reference</p> <p>ID</p>	<p>This is the unique row identifier for a table. A table may only have one ID variable.</p>	<p>Text</p> 	<p>This option allows you to search by text and wildcard criteria.</p>
<p>Selector</p> 	<p>This is displayed as a pick list for all coded or categorical data.</p>	<p>Multi Response</p> 	<p>This option will display as the Selector but allows for a multi-response on/off indicator.</p>
<p>Numeric</p> 	<p>This option allows you to search by numeric threshold and range criteria.</p>	<p>Currency</p> 	<p>This option operates in the same manner as a Numeric variable but can have the number of decimal places predefined.</p>
<p>Date</p> 	<p>This option allows you to select dates by days or months and years and optionally by a date rule.</p>	<p>Date/Time</p> 	<p>This option operates in a similar manner as a Date variable but also allows for a time frame to be included. The Date selection and the Time selection are Anded together to obtain the final result.</p>


Using a Selector Variable


To specify a selection you need to define criteria you wish to search on using the variables within the System Explorer window.


- Navigate **Site** → **Business** → **Company Size** → **Emp Total Range**. Drag and drop the **Emp Total Range** variable onto your open selection window


You can now select which Ranges you want to include in your count.

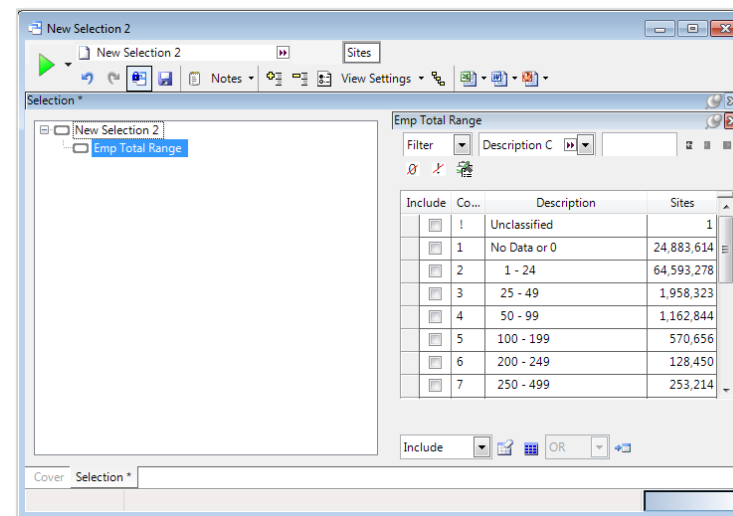
- Click on the **250 - 499** band and drag down to select all the bands up to and including **1,000 – 2,499**.
- Click anywhere within the **Include** column of the selected bands to mark the ranges as selected.

 **N.B.** It is the presence of the check mark, not the highlight color that determines a value is selected.

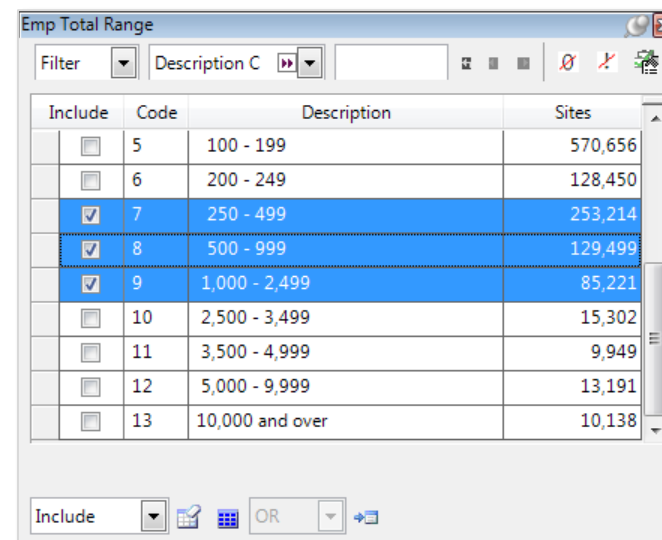
- Click the  **Build** button to count the number of Sites

A progress bar moves across the bottom of the window and the result is displayed in the bottom right hand corner. Use the Reset  button at the bottom of the screen and spend a few moments experimenting with selecting and counting various selections on the Emp Total Range variable. Return to the selection shown in the screen shot opposite.

 **N.B.** You may have noticed that the Build button will change from blue to green when a change has been made to the selection. Also the result display will be greyed slightly to indicate the figure there does not necessarily correspond to the selection now showing.



Selection Window with a Selector Variable




Selected Categories

Adding more Variables from the same Table

By adding further variables you can narrow the selection. In this example you will add the 8 Digit SIC Codes variable.

- Navigate to **Site** → **Business** → **Industry** → **SIC** → **Primary SIC 8 Digit**. Drag and drop the **Primary SIC 8 Digit** variable underneath the **Emp Total Range** variable in the selection window


To display only the SIC codes that refer to Communications we can use the Search facility in the middle of the window.


- Type **Communications** in the box adjacent to the **Filter:** box
- Use the **Select All**  button to select all the categories that have been returned

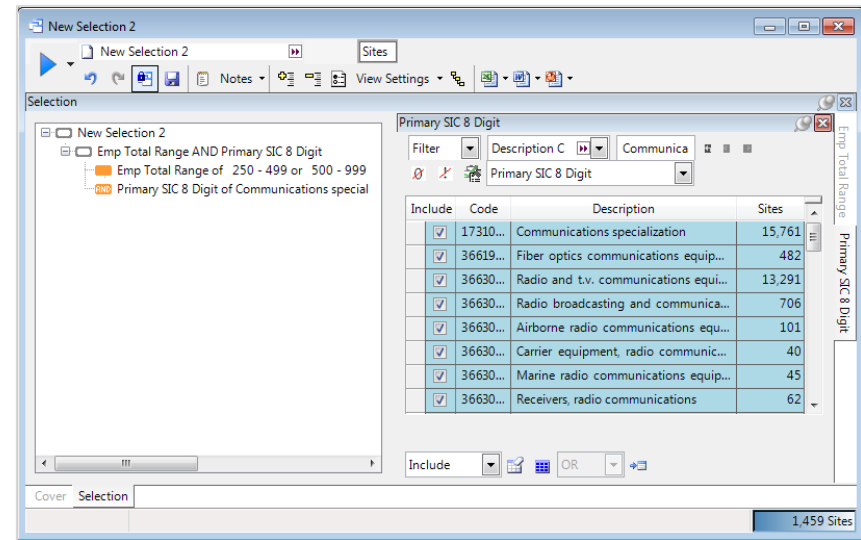
You will have noticed that as the variable was added to the selection the default logic operator AND was used to join them together.

- Click on the  **Build** button to count the number of Sites

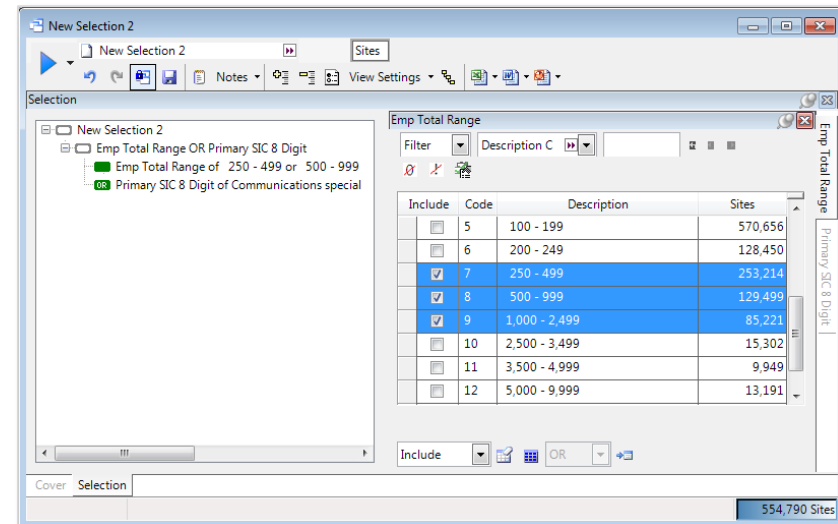
To widen the search you could specify that records are returned for Sites where either of the specified criteria is met. This can be achieved by replacing the AND logic operator with an OR.

- Right click on the **AND** node and select the option **Change Logic to OR**
- Click on the  **Build** button to count the number of Sites

 **N.B.** Notice that the result has increased significantly as Sites may meet either one of the criteria rather than both.




Variables using AND logic



Variables using OR logic

Using a Multi-Level Variable



We will now use a multi-level geographical variable to narrow down the selection even further. First reset the logic between the existing variables to an AND:


- Right click on the **OR** node and select **Change Logic to AND**
- Navigate to **Site** → **Geography** → **Continent** (option at bottom of County tree) and drag the variable into the existing selection window. Select **North America**
- Click on the  **Build** button to count the number of Sites


To narrow the selection further to specific countries we can zoom in on the category of North America.

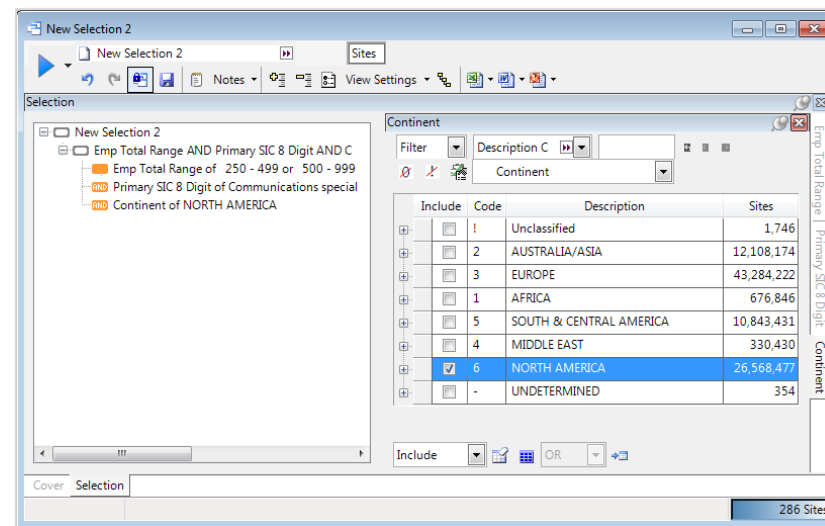
- Expand the display by clicking on the + to the left of the row for **North America**

This feature allows you to zoom down to the Countries within North America. These countries are currently all selected as they are part of the continent we selected.

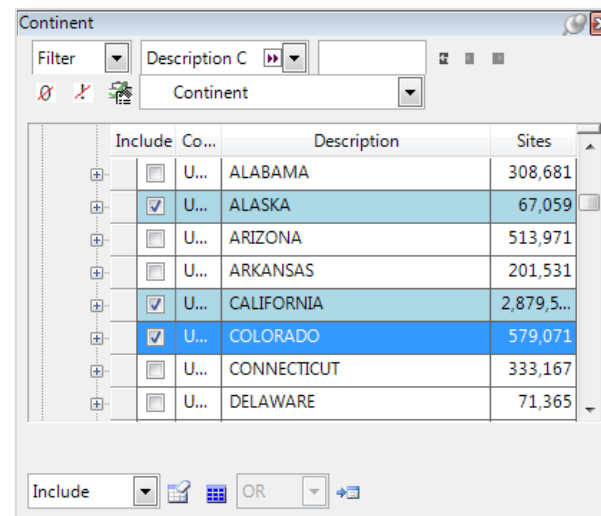
- Deselect **Canada** and expand the **United States** row
- Use the  button to deselect all the states and then select just **Alaska, California, and Colorado**
- Click on the  **Build** button to count the number of Sites

 **N.B.** You can change which of these associated variables are displayed by selecting from the Filter box.

 **N.B.** Remember the counts and figures shown here may differ to those when you use this system, as the data changes over time.



Continent Variable




Drilldown to US State

Saving & Reopening your Selection

Before saving your selection for re-use at a later date, it makes sense to give it a logical name.

- Highlight **New Selection 2** in the top left hand corner of the window and type – **Communications Industry ACC** – and then click away

You can now save your newly named selection in two ways:


- Click on the  **Save** icon and navigate to the **Private** folder
- Click the **Save** button once you have chosen the Type of file to save

From the **Type** drop down you can choose:

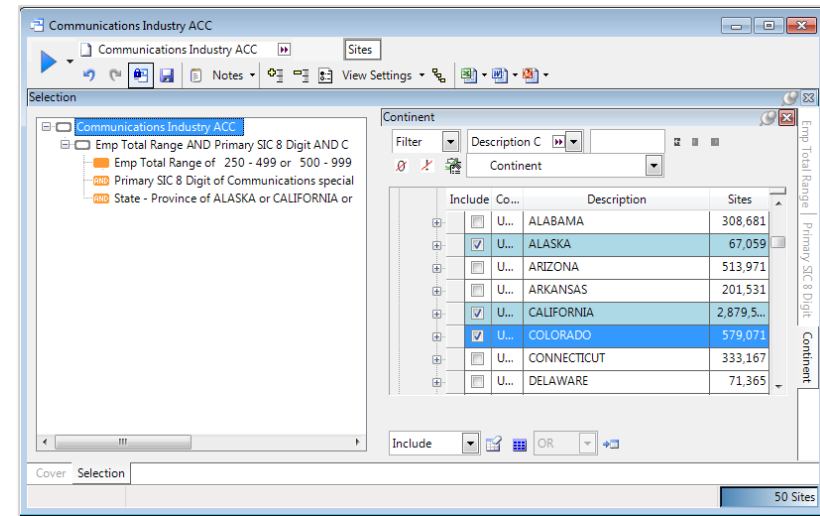
Save Selection Settings – This will remember the variables and settings made on the Selection and will be run and give results based upon whatever is in the current database.

Export To Reference File – This will remember the URN's of the records found when the Selection was first run. This will always return the same records unless deleted from the database.

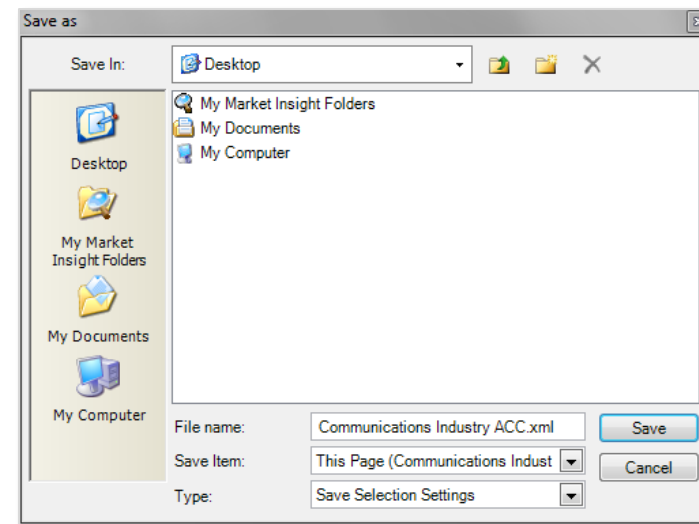
or

- Clicking on the  icon next to the selection name and drag and drop onto the **Private** folder in the **File Explorer** window

This will save as Save Selection Settings whereas a right click drag and drop will give you the option of also saving as Export to Reference File.



Renaming a Selection Window



Save Window

- Close the currently open **Communications Industry ACC** selection window and drag and drop the saved selection back onto the workspace

You will note that the display defaults to a Selection book cover. This is a summary of the work undertaken and would list all the pages within the book which would be the Selection page and any other Tools that may have been used.

- To view the details of the selection criteria, click on the **Selection** tab and then on the relevant line in the logic tree

Saving a Book of Work

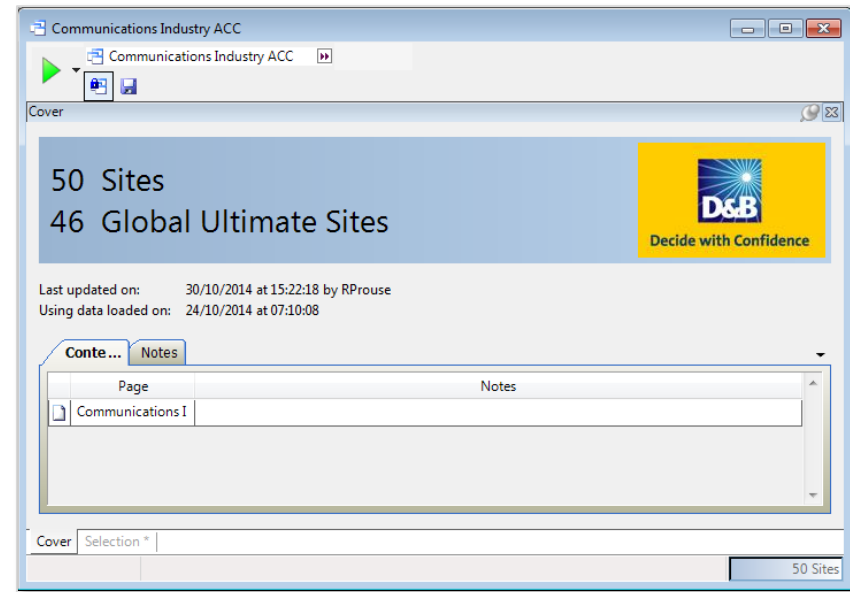
The previous example explained how to save a Selection page and retrieve it. When you use the tools (explained further in this manual) to analyse or visualize your work you may wish to save all the pages as a work book.

You can do this by:

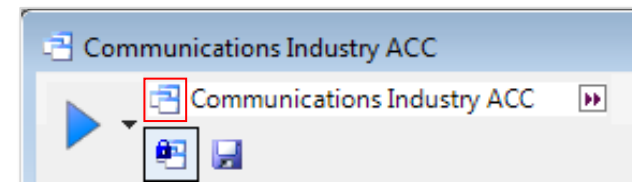
- Select **Whole Book** from the **Save Item** section of the **Save as** window

or

- Drag the icon on the **Selection Book** cover (see opposite) onto the appropriate folder of the **File Explorer** to save all the work pages






Cover Page of a Selection Window/Book




The Selection Book Icon

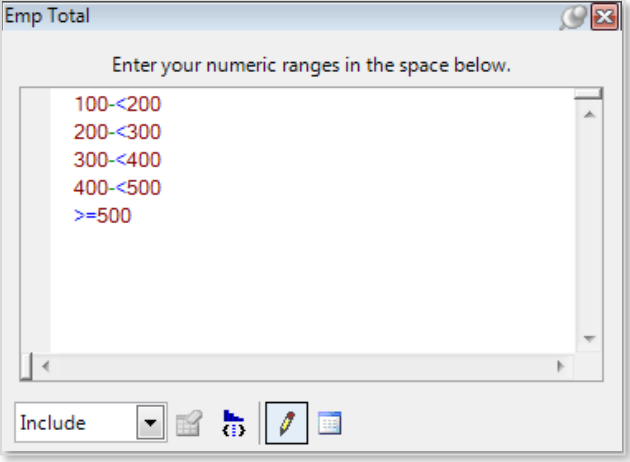
Using Numeric Variables

Although many numeric variables ¹²³ are pre-banded for ease of use in Market Insight, it is also easy to analyze and select directly on numeric variables. For example, if your business uses different categorizations for size of business, you can specify these directly on numeric variables.

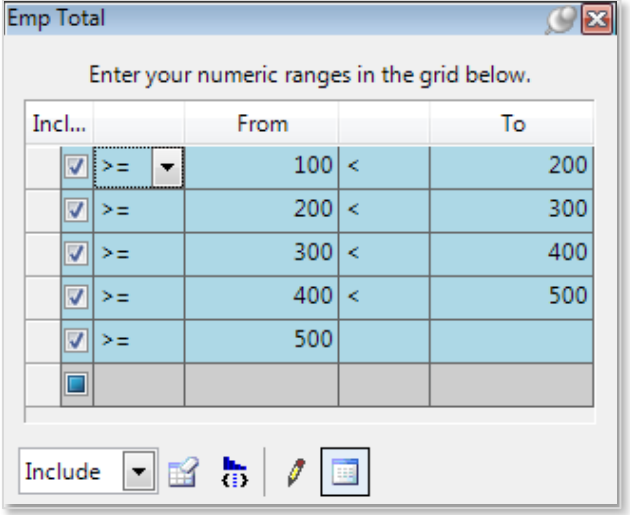
- Navigate **Site** → **Business** → **Company Size**. Double click on the **Emp Total** variable. This will create a new selection based on the **Emp Total** variable
- There are two methods to enter and review numeric selections. The default is **FreeForm** shown by the  button. Enter the ranges shown opposite
- Review the same criteria in **Grid** mode by pressing the  button. Extend the criteria by using the popup menus in the bottom row
- Note the different threshold options, including “><” which selects records with missing values (i.e. no number specified) in the **Emp Total**
- Click the  **Build** button

This count returns the number of Site records where the Emp Total values fall within one of the ranges.

- Click the  **Reset** button. Note that this removes the ticks from the ranges you entered. To remove the ranges from the definition, highlight the rows at the left edge and press the Delete key



Numeric Variable Using a Free Form Display




Incl..	From	To
<input checked="" type="checkbox"/> >=	100 <	200
<input checked="" type="checkbox"/> >=	200 <	300
<input checked="" type="checkbox"/> >=	300 <	400
<input checked="" type="checkbox"/> >=	400 <	500
<input checked="" type="checkbox"/> >=	500	
<input type="checkbox"/>		

Numeric Variable Using a Grid Display

Numeric Distribution and Ranges

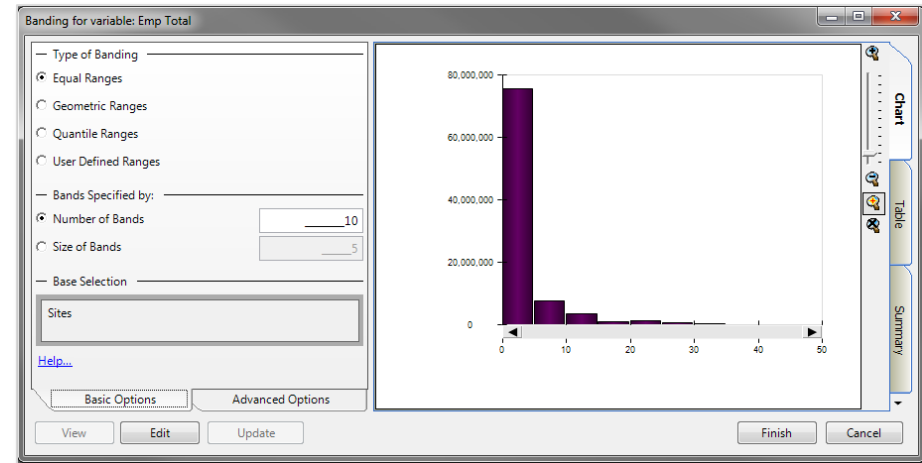
The numeric selection method provides some understanding of the distribution of values in the numeric variable. However, Market Insight provides a powerful distribution analysis and range generation tool:

- Click the  button to launch the **Banding** tool

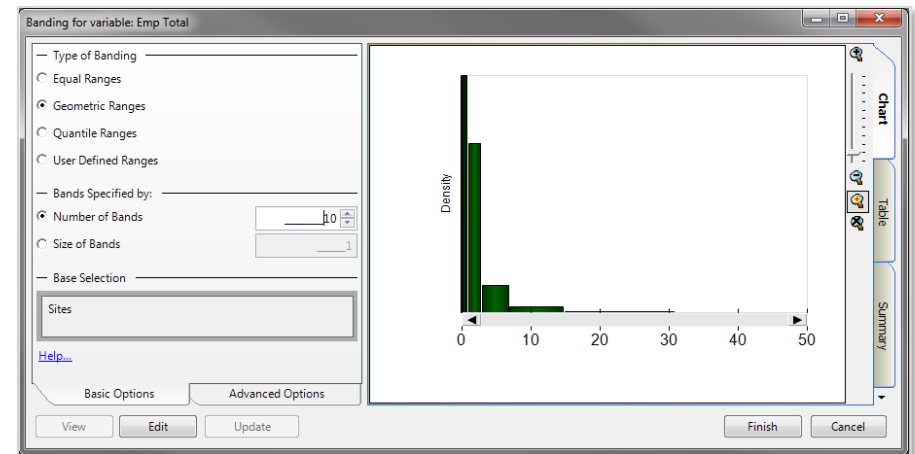
The system automatically updates the displays of the banding as you work.

The Type of Banding panel allows you to specify the method used to create the band values:

- **Equal Ranges**
Divides the range between the lower and upper bounds into an equal number of bands. You can specify either the number or size of bands you require
- **Geometric Ranges**
Divides the range between the lower and upper bounds into a number of bands with increasing size. You can specify the number of bands or the size of the first band
- **Quantile Ranges**
Divides the range between the lower and upper bounds into a number of variable size bands each with equal population as far as this is possible. For example, selecting 4 intervals will create quartiles, each interval having roughly 25% of the data. You can specify the number of bands (but not the size)
- **User Defined Range**
Divides any range into any number of bands. The definition of the bands specifies the number and size of bands



Banding Emp Total Variable into Equal Ranges – Chart Display



Banding Emp Total Variable into Geometric Ranges – Chart Display

You may wish to start by looking at a simple frequency distribution for your numeric variable to get an idea of the spread of values.

- Use the default settings of **Equal Ranges** with **10 Bands**

This calculates and then displays a chart showing the distribution of values in the variable. You can also view this information in a tabular presentation by clicking on the Table tab.

The Base Selection allows you to apply a selection to determine what subset of rows the distribution analysis will be performed on.

The Summary tab displays statistics about the numeric values (restricted by the Base Selection if applied).

The Advanced Options tab enables you to control:

- **Range Covered by Bands**
Sets the lower and upper bounds respectively to use or ignore the 2.5% extreme values. If no such extreme values exist, the system will use the full data anyway.
- **Automatic Rounding**
Whether the start, end and width of bands is rounded to whole tens, hundreds, thousands etc. to make them easier to read and interpret.
- **Extreme Values**
Whether bands are created to cover the extreme values (outside the number of bands specified for the main data). If no bands are created for extreme values, records with these values will be “unclassified”.

- Click the **Finish** button to set the ranges in your variable

Description	Order	Count	Percent of Total	Percent of Populated
Missing		1	0.00%	
Unclassified		0	0.00%	0.00%
0 - 4	1	75,533,322	80.51%	80.51%
5 - 9	2	7,722,386	8.23%	8.23%
10 - 14	3	3,615,028	3.85%	3.85%
15 - 19	4	1,125,880	1.20%	1.20%
20 - 24	5	1,480,276	1.58%	1.58%
25 - 29	6	813,080	0.87%	0.87%
30 - 34	7	462,835	0.49%	0.49%
35 - 39	8	256,319	0.27%	0.27%
40 - 44	9	252,167	0.27%	0.27%
45 - 49	10	173,922	0.19%	0.19%
50 - 7,777,707		2,378,464	2.54%	2.54%

Banding Emp Total Variable into Equal Ranges – Table Display

Total Count	93,813,680
Count of Missing	1
Count of Non-Missing	93,813,679
Count of Zero	24,883,614
Count of Non-Zero	68,930,065
Minimum	0
Main data start*	0
Lower Quartile*	0
Median*	1
Upper Quartile*	3
Main data end*	50
Maximum	7,777,707
Sample Size	11,524
Mean (Non-Missing)	14.42
Mean (Non-Zero)	19.63
Std Deviation (Non-Missing)	1,829.23
Std Deviation (Non-Zero)	2,133.99


Summary Display

Using Text Variables

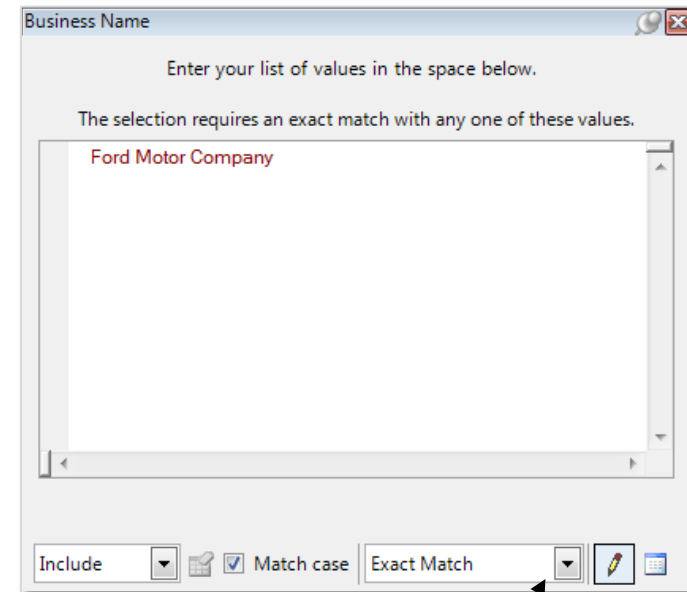
Text variables ^{ABC} allow you to search by typing in the value(s) you wish to select with.

- From the **Site** folder, display the **Business Name** variable
- Type **Ford Motor Company** as shown in the screen shot opposite

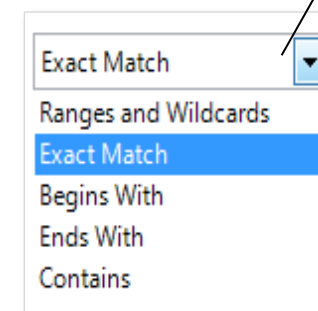
The result of this selection will be to return all Sites for the Ford Motor Company.

 **N.B.** The **Match Case** tick box is checked so, in this example only names with a capital on their first letter will be selected. The popup menu allows you to choose between four methods to match the text data:

- **Ranges and Wildcards**
Allows flexible use of pattern matching and ranges. This is the most flexible but most resource intensive (and hence slowest) matching method
- **Exact Match**
Allows simple and precise matching of single values
- **Begins With**
Allows simple matching of the start of the text value
- **Ends With**
Allows simple matching of the end of the text value
- **Contains**
Allows simple matching anywhere within the text value



Text Variable Window



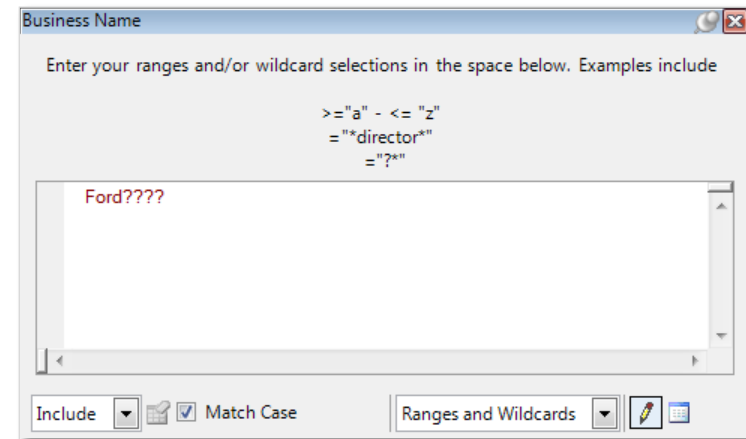
Pattern Matching

When using the Ranges and Wildcards setting, three characters have a special meaning:

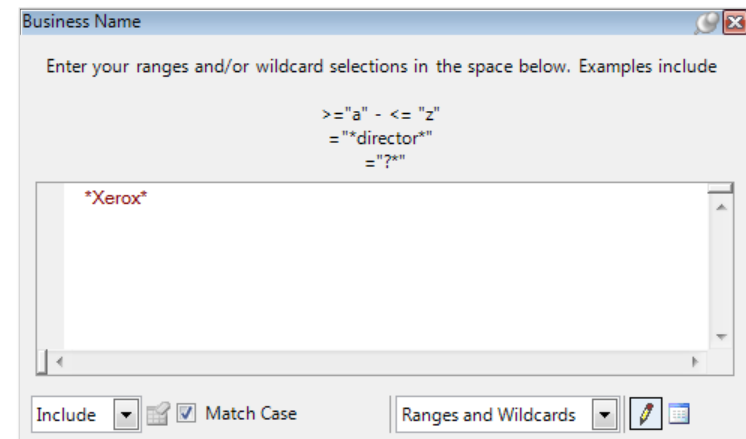
- The “*” asterisk (or star) character is a wildcard that matches zero one or more characters of any type. “Ford*” will therefore select any business name that begins with “Ford”
- The “?” question mark character is a wildcard that matches any single character (letters, numbers, punctuation). Use of several “?” allows you to specify the number of characters to match. The “?” will match a space character within a text value but does not match any spaces (notionally or actually) at the end of the text value. “Ford????” will select all Business Names that start Ford with a total of 8 characters
- The “-” hyphen character is used to separate the lower and upper bounds of a range of text values. For example, “Ford-Kilo” will select any Business Name that starts with any four letters alphabetically between Ford and Kilo. Note that the ends of the ranges do not need to be the same length

You may use multiple mixed wildcards in a single selection – for example “*Xerox*” selects any company with the word “Xerox” in the business name irrespective of prefixes and suffixes.

You can use “?*” (i.e. any character followed by anything) as an easy method to select populated text fields. This can be extended to check the formatting of specific data – for example, “?*@?*.?*” selects correctly formed email addresses.




Text Variable using the ? Wildcard



Text Variable using the * Wildcard

Using Date Variables

Date variables  are a special type of Selector variable that Market Insight can manipulate in different ways. Date variables can be accessed through predefined options, manual selection and date rules.

- From the **Site Add On** folder display the **Date of Incorporation** variable

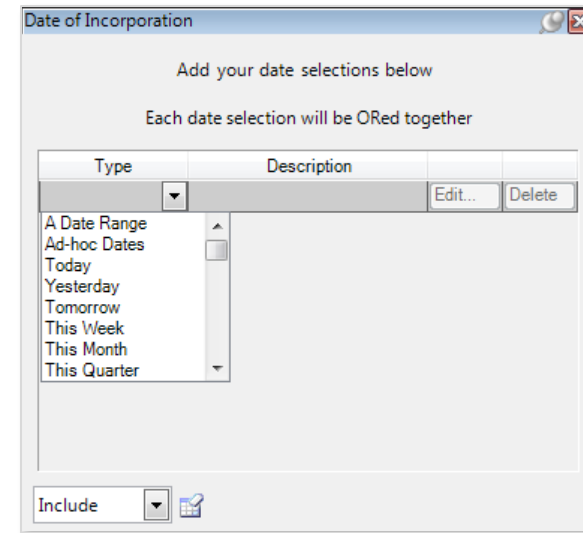
By default the Design process will create a number of predefined options listed under the drop down Type column.

- Click on the drop down arrow under the **Type** column
- Select **Ad-hoc Dates**

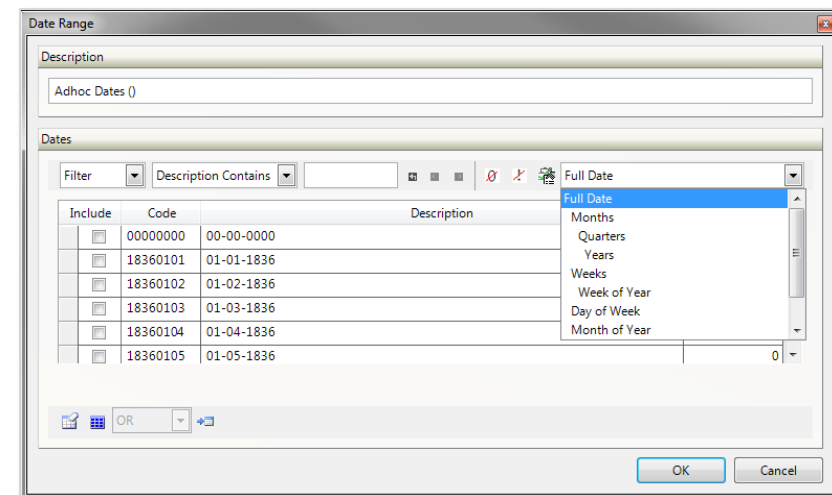
The initial display shows the Full date but this can be changed.

- Click on the drop down arrow next to the box that currently displays **Full Date**
- Click on one of the other options to see the date display change accordingly

Make your selection as you would with any other categorical variable.



Date Variable Window



Adhoc Dates Window

Date Rules

In some circumstances it may be more useful to select a set of dates by defining a rule rather than picking lots of individual days. Whilst rules can be used to select absolute date ranges they can also be used to define more complex ranges and use relative dates too.

- Select **A Date Range** from the drop down menu

The window is divided into three; the From, To and Pattern sections. The From and To sections allow you to define the time period you want to explore and the Pattern options (+currently collapsed) allow you to set the frequency of the information returned.


- Set the date options as **From 01/01/2013 – To 31/10/2013**

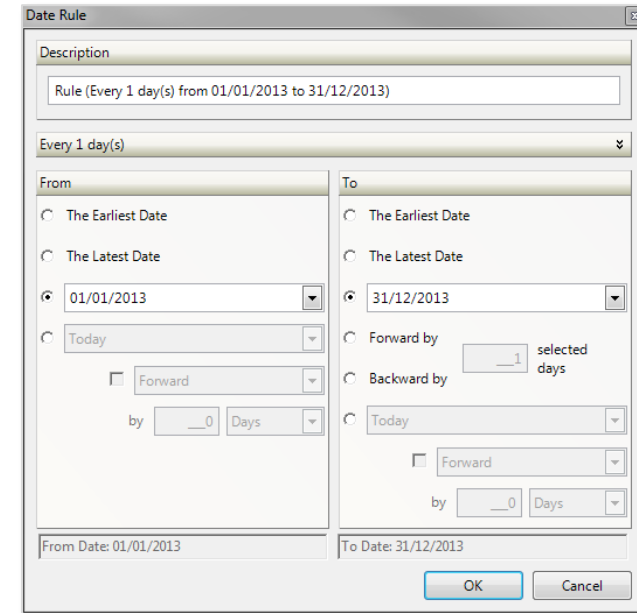
This will display all the Sites where the Date of Incorporation is between these dates. Note the Pattern bar states it is counting Every 1 day, which means every day in the time period is being considered.

A number of other predefined rules are available for immediate selection without any further input needed.

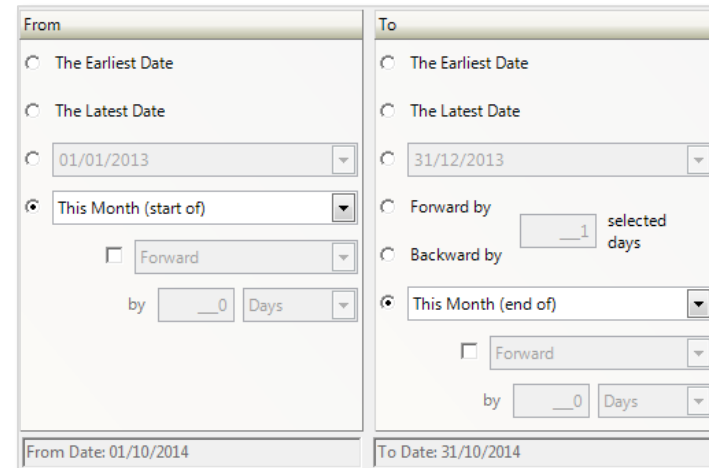
- Select **This Month** from the drop down menu
- Click on the **Edit** button at the end of the row that has now been displayed

You can now see the settings that have been used to find all the records in the current month.

 **N.B.** Whichever options you choose, the dates displayed at the bottom of the window will make it clear what date range has been selected.



Defining a Date Range for a Year



Defining a Date Range for the Month

However, you may wish to create your own Date Rule:

- Select **Custom Rule** from the drop down menu

Setting the Time Period

The Earliest and Latest radio buttons allow you to set the search based upon the First and Last date within the data.

The date calendars allow you to specify actual date parameters for your search.

The remaining options allow you to set a wider rule which is best explained with some examples:

e.g. you want to find all sites with a Base Date in the last 3 months as of today. (As shown opposite)

e.g. you want to find all sites with a Base Date in the 3 month period ending a month ago (Today is 30th October so time frame will be 30th June to 30th September) (As shown opposite)

Pattern Section

- Click on the drop down arrow on the row entitled **Every 1 day(s)**


The options here allow you to determine which days in the time period you have set in the Date Rule, will be used to return results on. The default option is to return results for every day within the time period set.

The screenshot shows two side-by-side configuration panels for 'From' and 'To' dates. Both panels have radio buttons for 'The Earliest Date' and 'The Latest Date'. The 'From' panel has 'Today' selected, with a checked 'Backward' checkbox and a dropdown set to '3 Months'. The 'To' panel has 'Today' selected, with an unchecked 'Forward' checkbox and a dropdown set to '0 Days'. At the bottom, the 'From Date' is 30/07/2014 and the 'To Date' is 30/10/2014.

The screenshot shows two side-by-side configuration panels for 'From' and 'To' dates. Both panels have radio buttons for 'The Earliest Date' and 'The Latest Date'. The 'From' panel has 'Today' selected, with a checked 'Backward' checkbox and a dropdown set to '4 Months'. The 'To' panel has 'Today' selected, with a checked 'Backward' checkbox and a dropdown set to '1 Month'. At the bottom, the 'From Date' is 30/06/2014 and the 'To Date' is 30/09/2014.

Examples of Custom Rules

Date/Time Variables

Some Date variables  give you the opportunity to apply an additional time constraint. It may be you want to identify transactions that took place on certain dates but only during certain hours of the day.

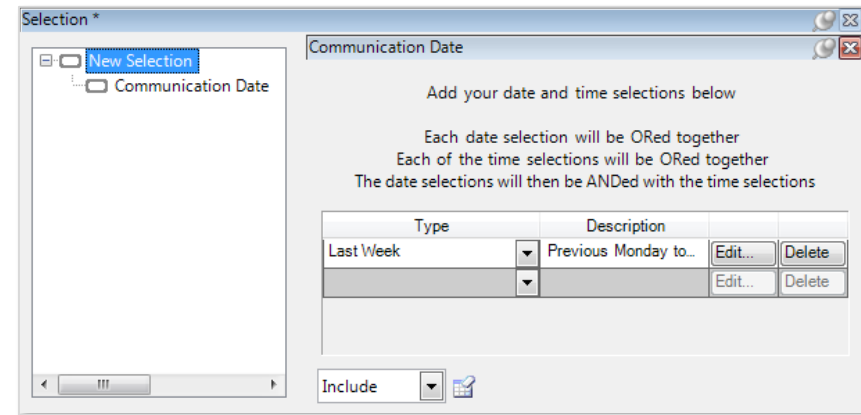
- Display a **Date/Time** variable if one is available
- Click on the drop down arrow under the **Type** column
- Select **Last Week**

You could select other date periods at this stage and each date period will be ORed together.

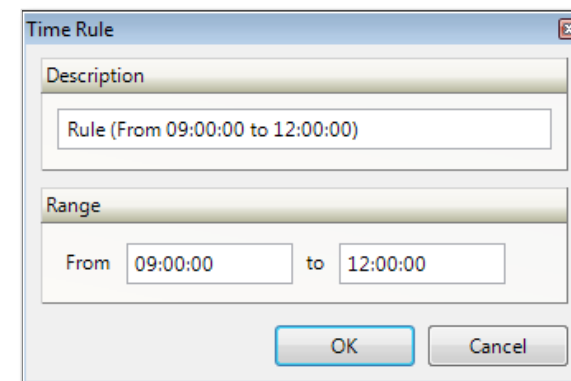
You may now want to restrict the time these communications were made to those that just took place in the morning. If more than one time period is required each one will be ORed together.

- Click on the drop down arrow under the **Type** column
- Select **Custom Time Rule**
- Set the **Range From 09:00:00 to 12:00:00** and click **OK**

The Date periods and the Time periods will now be ANDed together to obtain the result. In this fictitious example, we would get a count of communications made last week in the morning between the hours of 9am to midday.





Date/Time Variable Window



Custom Time Rule Window

Using Multi-Response Variables

A multi-response variable  (orange) allows a certain number of codes to be held on that record e.g. 2 Dig SIC Codes – each SIC code has a 2 character code and the variable holds 12 characters, therefore each site can hold up to 6 sic codes against their entry.

Alternatively, a multi-response variable  (blue) holds information as a series of Yes/No responses where an individual may need to be recorded in more than one category e.g. A variable that recorded association membership – a site may have no memberships, 1,2,3 memberships.... or be a member of all available associations.

By default the internal logic used in variables with a pick list is to use an OR logic operator.


e.g. SIC Codes of Communications **OR** Electric... **OR** Food Stores.

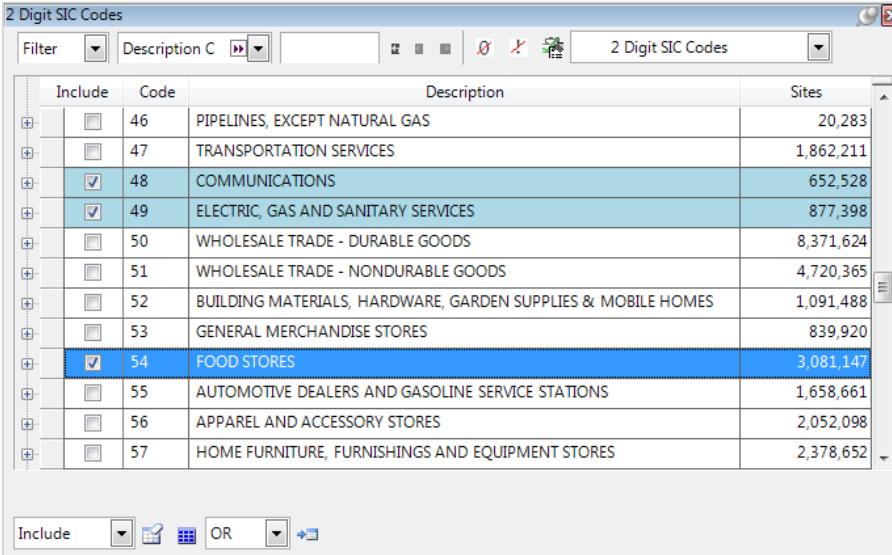
Since it is possible that a site may have more than one SIC Codes and because of the way in which the data is held, you may want to find those sites that have a combination of SIC Codes.

e.g. SIC Codes of Communications **AND** Electric... **AND** Food Stores.

By being more restrictive with the selection logic the results tend to reduce.

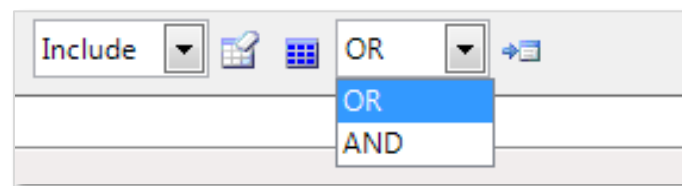
The internal logic on a multi-response variable can be changed by clicking on the box at the bottom of the window between OR and AND.

The logic on a standard categorical variable  is defaulted and restricted to an OR due to individuals falling into only one category e.g. Emp Total Range.



Include	Code	Description	Sites
<input type="checkbox"/>	46	PIPELINES, EXCEPT NATURAL GAS	20,283
<input type="checkbox"/>	47	TRANSPORTATION SERVICES	1,862,211
<input checked="" type="checkbox"/>	48	COMMUNICATIONS	652,528
<input checked="" type="checkbox"/>	49	ELECTRIC, GAS AND SANITARY SERVICES	877,398
<input type="checkbox"/>	50	WHOLESALE TRADE - DURABLE GOODS	8,371,624
<input type="checkbox"/>	51	WHOLESALE TRADE - NONDURABLE GOODS	4,720,365
<input type="checkbox"/>	52	BUILDING MATERIALS, HARDWARE, GARDEN SUPPLIES & MOBILE HOMES	1,091,488
<input type="checkbox"/>	53	GENERAL MERCHANDISE STORES	839,920
<input checked="" type="checkbox"/>	54	FOOD STORES	3,081,147
<input type="checkbox"/>	55	AUTOMOTIVE DEALERS AND GASOLINE SERVICE STATIONS	1,658,661
<input type="checkbox"/>	56	APPAREL AND ACCESSORY STORES	2,052,098
<input type="checkbox"/>	57	HOME FURNITURE, FURNISHINGS AND EQUIPMENT STORES	2,378,652

Primary SIC 2 Digit Code Multi-Response Variable



Option to Change the Internal Logic

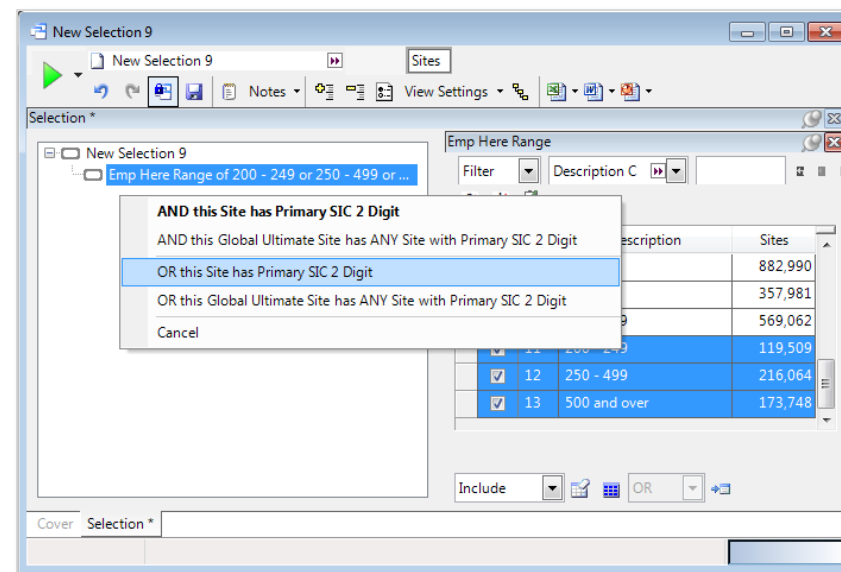
Selection Logic with AND & OR

Until now, you have primarily used the AND logic to restrict the selection further with each variable. Market Insight allows selections to be widened with the OR clause and excluded with the NOT clause.

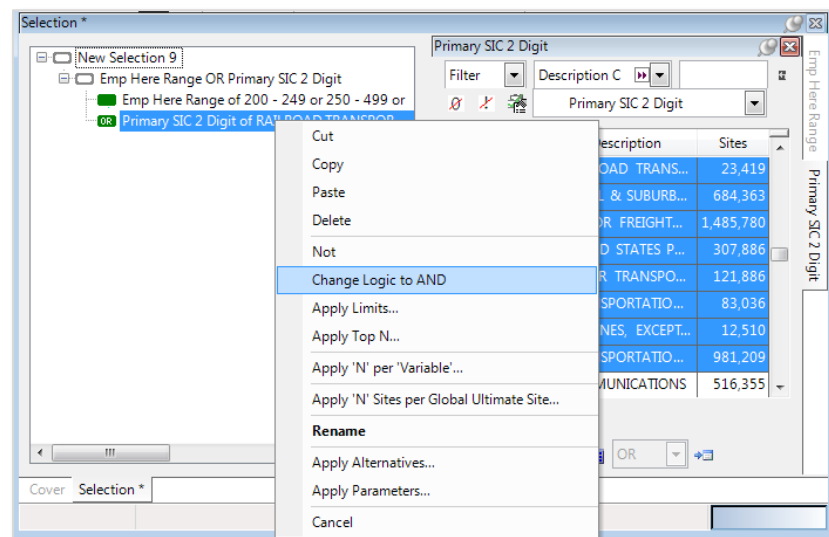
- Create a selection of large **Sites** by dragging out and selecting on the **Emp Here Range** variable and selecting the highest 3 ranges
- Right-Click and drag the **Primary SIC 2 Digit** variable onto the selection window. Note that a popup menu is presented with the options for AND or OR at both the Site table and the Global Ultimate Site table above it. The default (AND) is shown in bold
- Choose **OR this Site has Primary SIC 2 Digit** to see the selection structure with a green icon. Choose **Transportation SICs 40-47**
- Click the **Build** button

Note that you can also control the logic used in a selection:

- Right click on an existing selection clause and choose **Change Logic to...**



Selecting Query Logic



Changing Between OR and AND Logic

How Selections Work

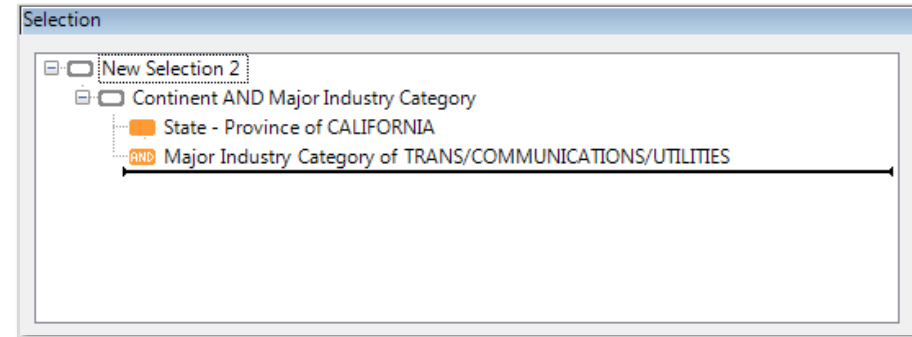
Notice that when you drag a variable over the selection tree you see two indicators:

- a black insert line between existing items
- a blue merge shading on existing items

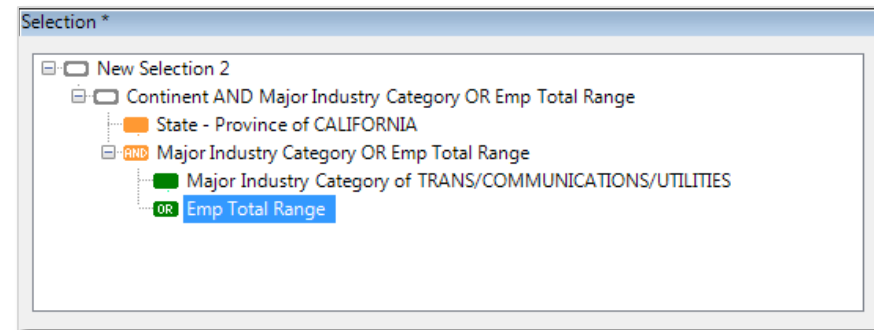
The insert line lets us indicate where to insert a new item. Notice that on nested clauses, the extent of the left edge of the insert bar indicates which clause the insert will be made into.

The merge bar indicates that the dragged item is to be associated with the target item and merged into a new sub logic clause.

A new variable dragged into the default area (below the existing selection criteria) will add to the existing bottom logic clause if the item dragged is on an ancestor or descendant table or create a new clause from the root level if not.



Insert Line Indicating Where A Variable Will Be Placed



Result Of Two Variables Being Merged

Multiple use of a Variable

Using the same principles you can build up a more complex selection using the same variables more than once. In this example you will find Florida Low Employee Sites OR California High Employee Sites.

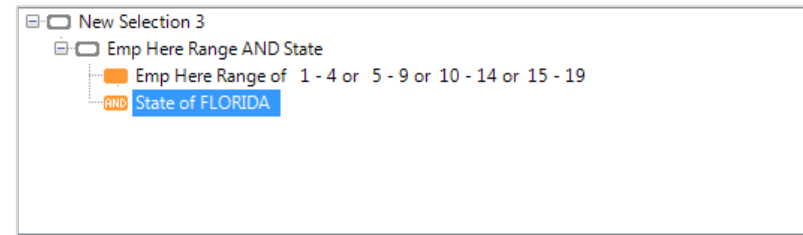
- Double click on **Emp Here Range** to open a new selection window. Select bands between **1** up to and including **19**
- Directly below the **Emp Here Range** variable drag and drop the **State** variable. Select **Florida**
- Right click and drag a second **Emp Here Range** variable above the first **Emp Here Range** until the black line extends out beyond that heading
- From the popup menu select **OR this Site has Emp Here Range**. Select the bands **200 - 249** through to **500 and over**
- Drag and drop **State** on (merge with) the second **Emp Here Range** variable. Select **California**

By merging two variables you will obtain the opposite logic operator to the original one stated.

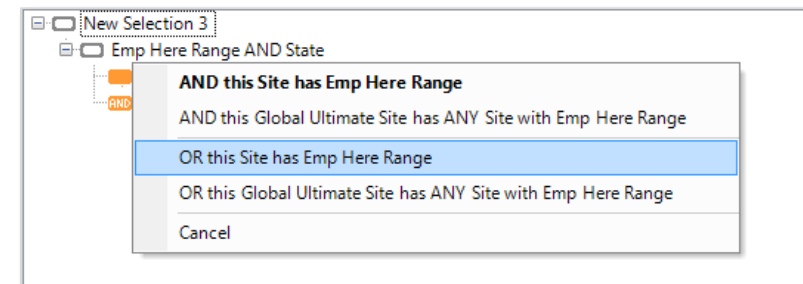
- Collapse the two sub queries to get an overview of the selection so far
- Right click on each sub query row and select **Rename**

Give each line a more readable name as shown opposite.

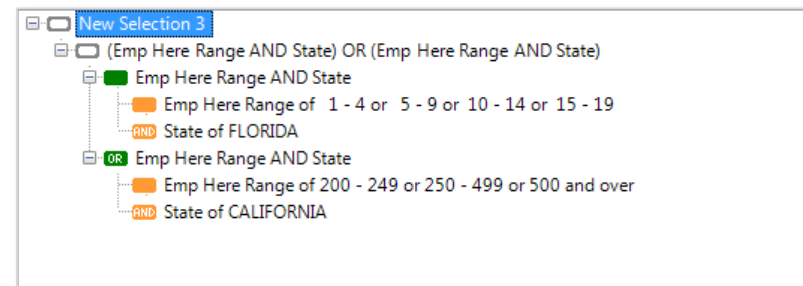
- Name the selection **Florida v California** and drag it into the **File Explorer** to save



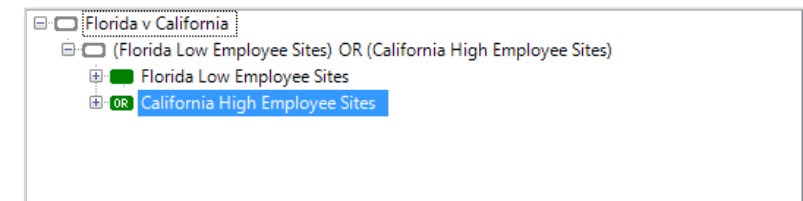
Inserting a New Clause



Selecting Logic from a Right Drag



Mixed Logic in a Selection




Renaming Elements of a Selection

Using the NOT function

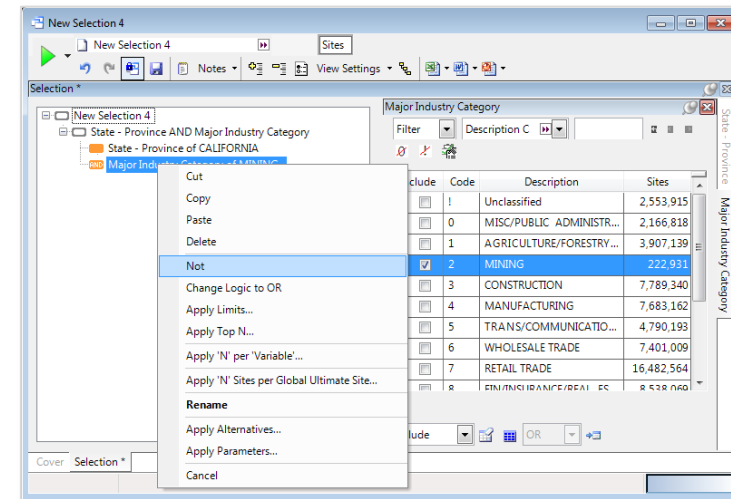
In some circumstances you may want to exclude certain records from your selection results.

You may be interested in Sites in California that are not included in another selection criterion.

- Open a new selection with the **State – Province** variable and select **California**
- Drag in another selection on **Major Industry Category** and select **Mining**
- Right click on the second row of the **AND** clause and choose **NOT**
- Click on the  **Build** button

The number of records returned here is made up of all the site records for California, but excludes any of those sites which have a SIC code of Mining.

Wherever you use a variable you could also use a saved selection, so it is easy to select one criterion and exclude a previously saved criterion.



NOT Logic Shown on a Right Click Menu





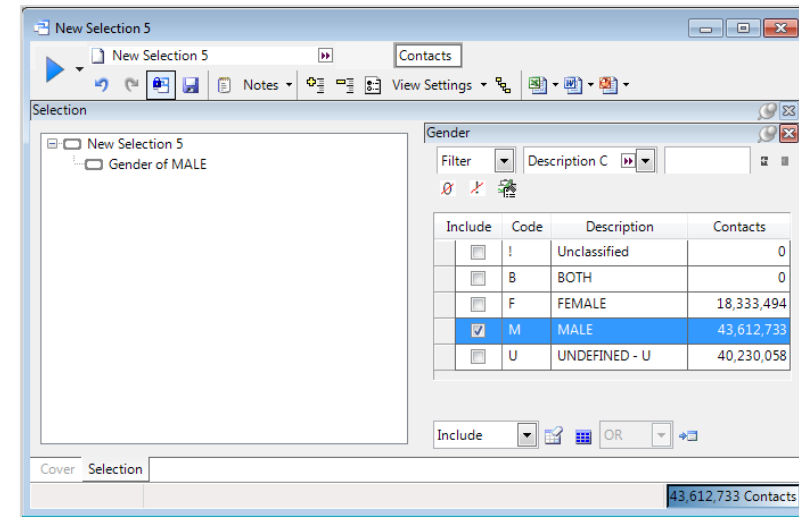
Selection with AND & NOT Logic

Selections across Tables

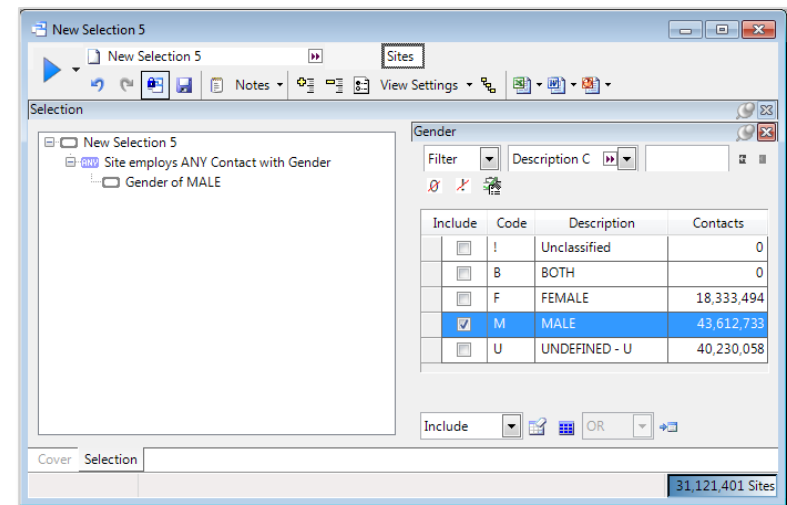
So far you have made some simple selections where the variables have been ANDed or ORed together and the results have been displayed in terms of numbers of Sites. You can also make selections that display in terms of numbers of Contacts (or any other table in your Market Insight system).

So far you have used variables to open new selection windows. There are many ways to create a new selection window. Which method you use will determine the resolve table used by default in that window.

- Double click the **Contact** table from the **System Tables** window. Note the resolve table shows Contact
- Drag onto the selection window the **Gender** variable from the **Contacts** folder. Select **Male**
- Click on the  **Build** button and note the result is expressed in **Contacts**
- Change the resolve table to **Sites** by either right clicking on the area at the top of the window that says **Contacts**, or click and drag **Sites** from the **System Tables** panel and drop it on the same area. Note the change in the query to identify that the selection is for any **Sites** that have **ANY Contact** who is Male
- Click on the  **Build** button and note the result is expressed in **Sites** and consequently is lower
- Change the selection back to resolve on **Contacts**. Note the **ANY** clause is removed automatically



Contacts who are Male

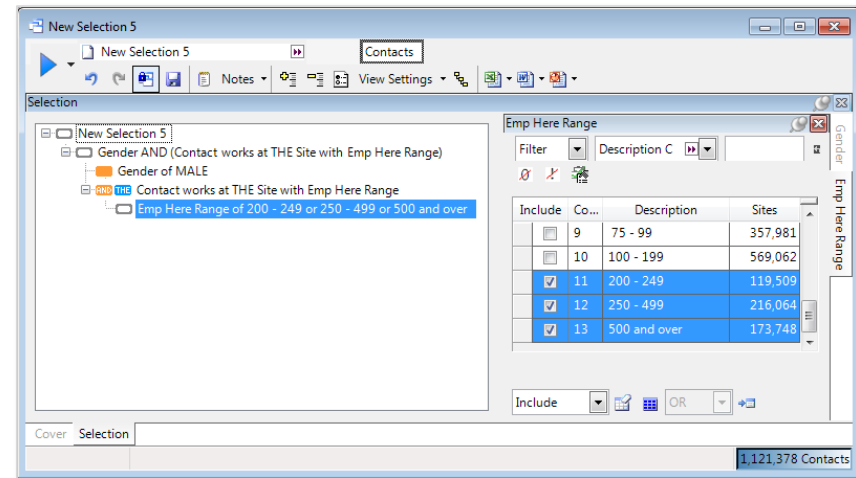


Sites that have a Contact who is Male

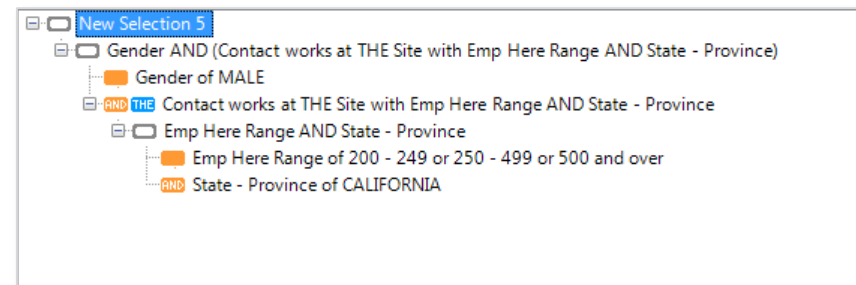
- Drag onto the selection window the **Emp Here Range** variable from the **Site → Business → Company Size** folder. Select **200 – 249 to 500 and over**. Note the selection is now for Contacts that are Male where THE Site they work at has over 200 employees
- Drop **State - Province** under **Emp Here Range** and select **California**. Note that the second Site criteria is added within the THE clause and forms a new AND clause

Market Insight supports powerful selections across tables using the THE and ANY clauses.

- THE is used when joining from many records to THE one they relate to
- ANY is used when joining from one record to ANY of the many it relates to



Number of Males at Sites with Over 200 Employees




Number of Males at Sites with Over 200 Employees in California

Logic and the Table Structure

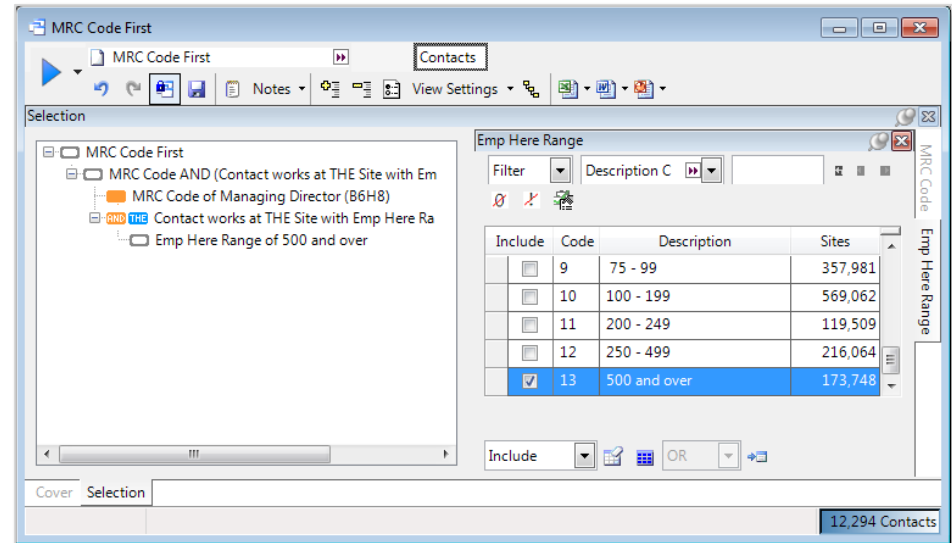
As we have seen table relationships have a one to many structure e.g. one Site can have many Contacts. The selection window also uses default tables depending on how the window is created. The order in which we apply variables from different tables can therefore have an effect on the result.

For example we decide we want to find all the Managing Director Contacts at Sites with 500 or more employees. To do this we would:

- Drag and drop **MRC Code** onto the workspace and select **Managing Director**
- Now drag and drop **Emp Here Range** under the **MRC Code** variable and select **500 and over**
- Press the  **Build** button
- Save as **MRC Code First**


By making our MRC Code selection first, we open a Contacts selection window because MRC Code is defined on the Contact table. When narrowing the selection with the Site table variable, Emp Here Range we are asking for all Managing Director Contacts at Sites with 500 and more employees.

What difference could it make if we made our selections the opposite way around?



Selection Opened with a Contact Variable

Try the alternate order

- Drag and drop **Emp Here Range** onto the workspace and select **500 and over**
- Now drag and drop **MRC Code** under the **Emp Here Range** variable and select **Managing Director**
- Change the resolve table to **Contact** as we want the result expressed in **Contacts**
- Click the  **Build** button
- Save as **Emp Here Range First**

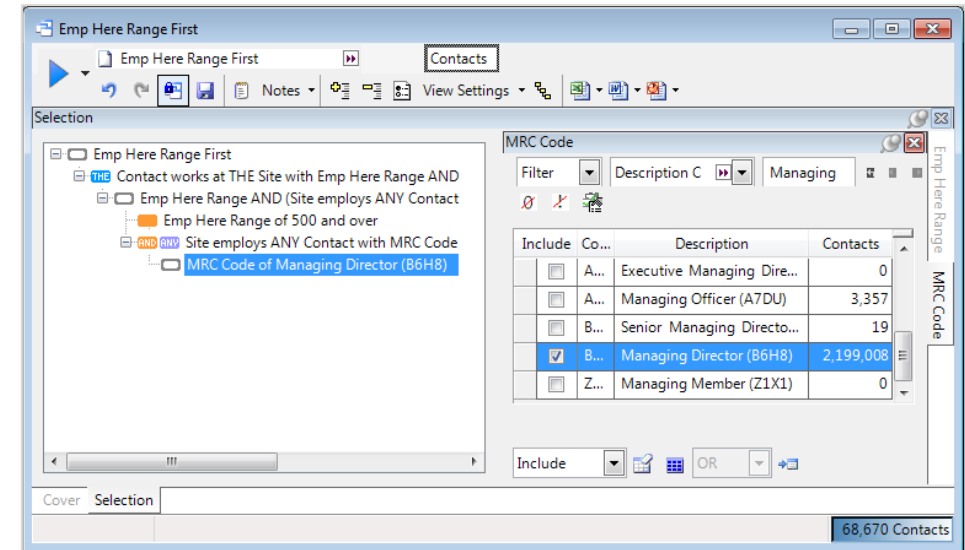
Notice that this count has resulted in a higher figure indicating that a different selection has actually taken place.

In this case by selecting Emp Here Range first we have created a Site selection clause that is then qualified to ensure that ANY of the contacts at the Site are a Managing Director. When we changed the resolve table to Contacts, we effectively asked for all the contacts at the selected sites. Hence the higher result.

You can read exactly what the selection requires:

Contacts where THE site they work at has Employee Range of 500 and over and that site has ANY contact that is a Managing Director. We have asked for (and successfully counted) all the Contacts at sites of 500 or more employees that have a Managing Director.

Market Insight has done exactly what we asked. However, the lesson is to read carefully what we asked the system to do. You can amend the request by simply dragging and dropping the items into the same order as was originally used.



Selection Opened with a Site Variable (changed to Contacts)

Selection Summary

Variable Selection

You can open a blank selection window into which you can drag the variable you want to use, or double click (or drag) the variable itself onto the workspace where it will open up in its own selection window.

Variable Types

Variables are broadly divided into two types, those that present you with a pick list and those that allow you to specify the criteria on which you want to search.

Logic Functions

The basic functions that are available are AND, OR, NOT. In general by default criteria within a variable use an OR and variables use an AND between themselves.

Location Line

When dragging a variable over the logic box a black line will indicate where it will be placed in the logic sequence. The length of the line will also determine how the variable will interact with the existing query.

Merge Variable

When a variable is dragged over another variable in the logic box it will react in a particular way. The two variables will be associated by the opposite logic currently displayed.

Build

Clicking on this button will resolve your query selection at the Table level you have chosen.


Save Selection

The rules of your selection can be saved by dragging the icon next to the selections name onto the File Explorer or through the Save button.

Data Grids

A Data Grid is a two dimensional view of the results of a selection. Each row in the grid is a record within the selection. Each column displays a field of each record. The column headers show the field names. The cells within the Data Grid are the values for that particular column of a selected record.



You can use a Data Grid to check the data you selected or prepare it for Export. By default a data grid is displayed in Browse mode as indicated by the blue outline to the Browse View button.

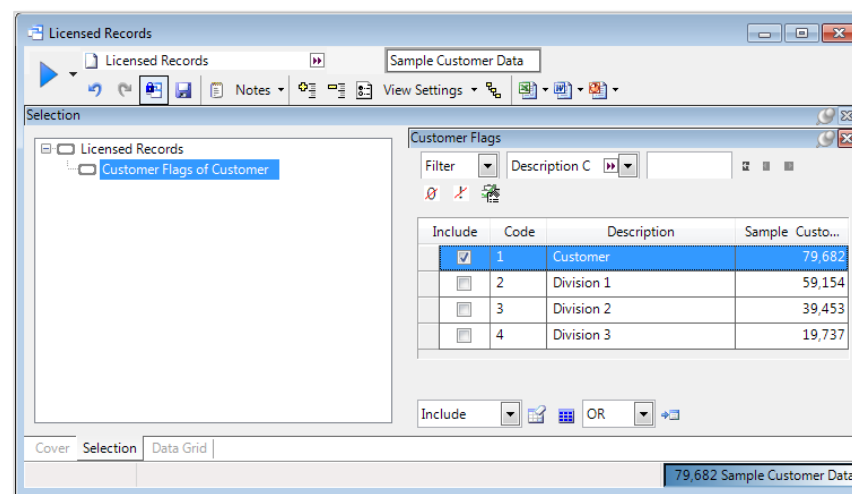
 **N.B.** You may find some columns are blank if the records selected are yet to be Licensed. Also by default only the first 1000 records will be displayed. This can be increased from the Rows to Browse button.

- Drag and drop the **Customer Flags** variable from the Sample Customer Data folder onto the workspace and select **Customer** (*all of these records have been licensed in the Training system*)
- Drag and drop a **Data Grid** from the **Toolbox** onto the open selection
- Drag and drop the following variables onto the Data Grid:

Business Name, Physical Street Address Line 1, Physical City, Physical State Abbreviation, Physical Zip (All)

- Click the  **Build** button

 **N.B.** To display all the variables used in the underlying selection click on the  **Fields From Selection** button.



Selection of Licensed Records

Business Name	Physical Street Address Line 1	Physical City	Physical State Abbreviation	Physical Zip (All)
Meyn Food Processing Technology de Mexico...	Carr. Mexico - Toluca Km. 53.9	LERMA	CAMP.	52004
Powerex-Ivata Air Technology, Inc	150 Production Dr	Harrison	OH	45030
Smith Software Development LLC	3184 Cahaba Heights Rd	Vestavia	AL	35243
Meje Corp	414 Lamont Ter	Buffalo Grove	IL	60089
Metal Casting Technology Inc	127 Old Wilton Rd	Milford	NH	03055
Pitney Bowes Software Inc.	1 Global Vw	Troy	NY	12180
Pitney Bowes Software Ltd (Uk) Sweden Filial	Gustavslundsvägen 1472tr	Bromma		167 51
Pitney Bowes Software Inc.	3 Bethesda Metro Ctr	Bethesda	MD	20814
Pitney Bowes Software Inc.	1825 Kramer Ln Ste B100	Austin	TX	78758
Pitney Bowes Software Inc.	15100 NW 67th Ave Ste 403	Miami Lakes	FL	33014
Pitney Bowes Software Inc.	1 Global Vw	Troy	NY	12180
Pitney Bowes Software Inc.	1515 W 22nd St Ste 910	Oak Brook	IL	60523

Data Grid Displaying Licensed Record Information

There may be some situations where you want to view the records individually.

- Click on the **Browse Page View** button to change the display
- Use the horizontal scroll bar buttons to move through the records
- Click on the **Browse Grid View** button to return to the default display

By right clicking on a variable heading you are presented with a number of useful options:

Change Column To Display Codes – acts as a toggle between codes and descriptions

Change Column To Display Unclassified As Spaces – for use on pick list variables only

Sort Ascending – ABC, 123

Sort Descending – CBA, 321

Remove Sort – Restore to original display

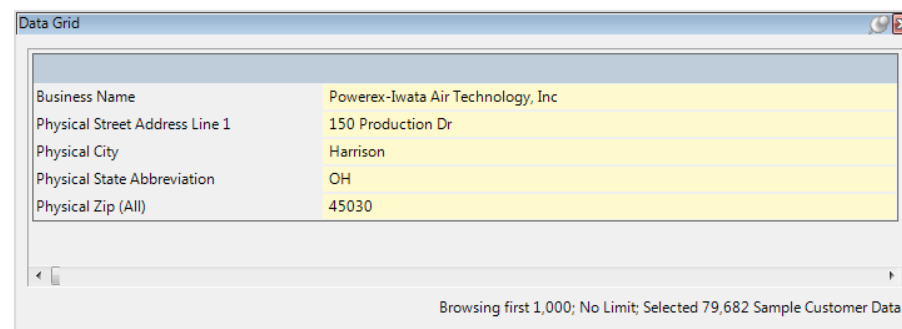
Group by this column – Same as dragging variable onto Group by box

Group by Box – Acts as a toggle switch to display Group by box

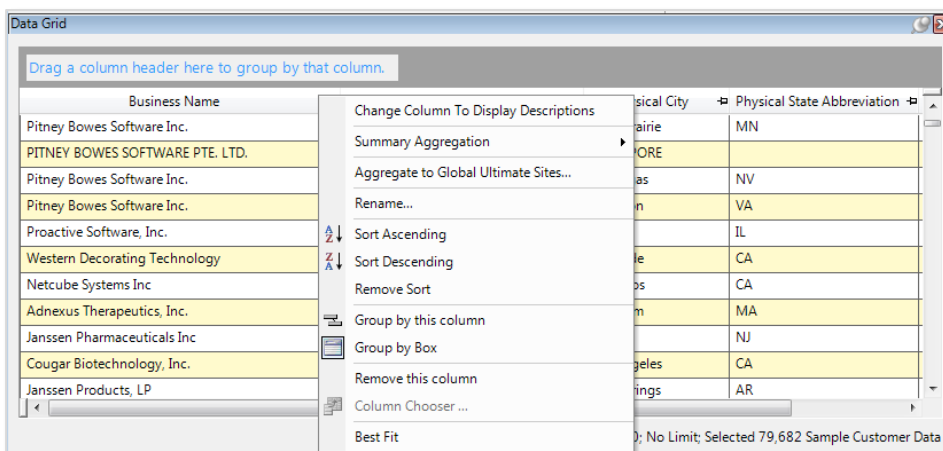
Remove this column – The selected variable is not shown

Column Choose... - Add or subtract standard columns to your display
(For use on standard selection windows)

Best Fit – Resizes the column to its longest value



Data Grid – Browse Page View



Data Grid – Browse Grid View (Right Click Options)

Templates

Market Insight allows you to store certain Toolbox settings as Templates so that you can drag them onto different selections without having to recreate them each time.

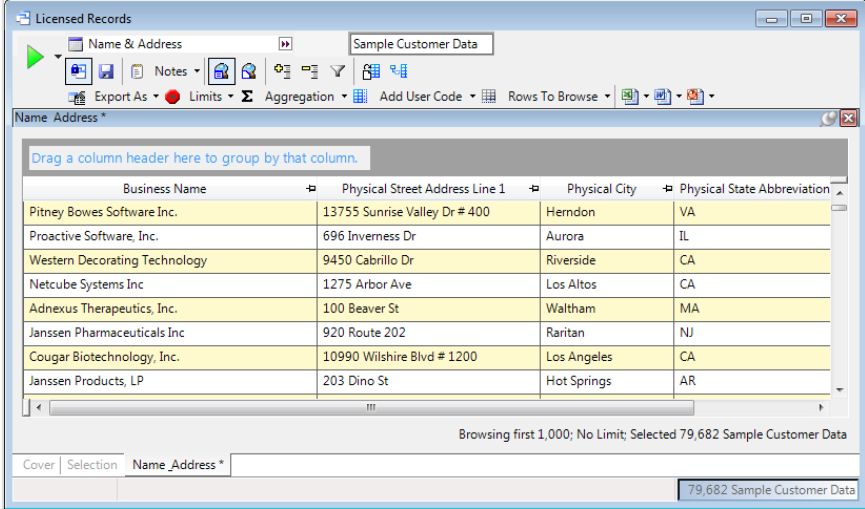
In the previous section the Data Grid was amended to show names and addresses for further selection browsing or as the requirements for Export.

- Rename the **Data Grid** as **Name & Address**
- Drag and drop the **Name & Address** Data Grid by the drag handle icon onto the **Templates** ribbon bar at the top of the screen

This Template can now be dragged onto any selection and will display the Name & Address variables for each record.

Templates can also be set up for:

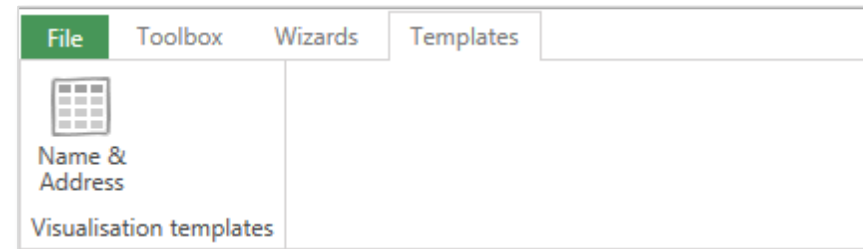
Cube, Chart, Tree, Venn, Map and Report



Business Name	Physical Street Address Line 1	Physical City	Physical State Abbreviation
Pitney Bowes Software Inc.	13755 Sunrise Valley Dr # 400	Herndon	VA
Proactive Software, Inc.	696 Inverness Dr	Aurora	IL
Western Decorating Technology	9450 Cabrillo Dr	Riverside	CA
Netcube Systems Inc	1275 Arbor Ave	Los Altos	CA
Adnexus Therapeutics, Inc.	100 Beaver St	Waltham	MA
Janssen Pharmaceuticals Inc	920 Route 202	Raritan	NJ
Cougar Biotechnology, Inc.	10990 Wilshire Blvd # 1200	Los Angeles	CA
Janssen Products, LP	203 Dino St	Hot Springs	AR

Browsing first 1,000; No Limit; Selected 79,682 Sample Customer Data

Data Grid Displaying Licensed Record Information



Data Grid Template

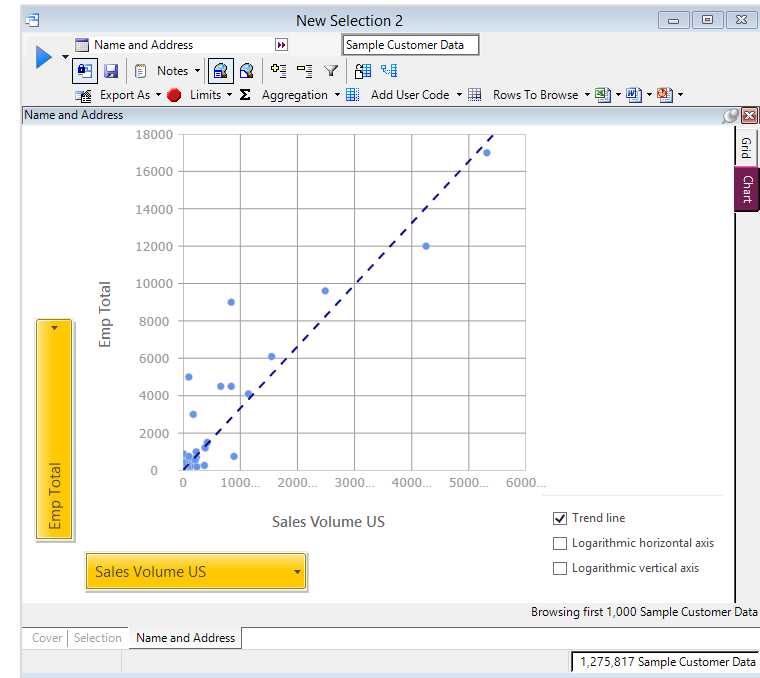
When 2 or more numeric/currency variables are displayed on a Data Grid an option appears to allow you to visualise the values on a scatter plot chart.

- Drag and drop the variables **State Variable** and Select **New York**
- Drop the **Name and Address Template** on top of the selections to view these records using the pre-created data grid template
- Click on the **Build** button
- Drop **Sales Volume US** and **Emp Total** on to the data grid
- Click on the **Build** button

On the right hand side of the Data Grid a Chart tab has appeared.

- Click on the **Chart** tab
- Click on the dimension boxes to select which variable to show on which axis
- Switch back to the Grid view and drag the **Policy Product Type** variable on to the data grid.
- Click on the **Build** button

In the top right of the Chart window is a box that lists all the selector variables used in the Data Grid. The corresponding key can be used to highlight data by a certain category.



Data Grid – Scatter Plot Chart

Why was I Selected?

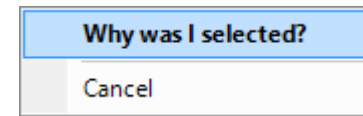
It is possible to identify why a record has been selected using the **Why was I selected?** functionality. To do this ensure that you have the identifier on your data grid that corresponds to the table level of the selection.

- Open up the **Florida v California** selection and drop the **Name and Address** template on top
- From the **Site** folder in the system explore drag the **Duns Number** variable on to your data grid
- Highlight the rows you are interested in then right click and select **Why was I selected?**

A new window will open up showing you why each record you chose to highlight was selected. The criteria the record met are displayed in Green and those not met displayed in red.

It is possible to enter the URN of a record in the box at the top of the display to investigate why that record was not selected.

Duns Number	Business Name	Physical Street Address Line 1	Physical City	Physical State Abbreviation	Physical Zip (All)
001000223	Business Interne...	120 Live Oak Ln	Largo	FL	337702606
001003370	Powell Roofing I...	118 SW Monroe Ave	Mayo	FL	32066
001005417	David Rombach	55826 Carroll St	Astor	FL	32102
001006209	Kroepin Irrigatio...	417 Guy Rd	Orlando	FL	32828
001006852	Willett Precision...	11339 43rd St N	Clearwater	FL	33762
001007355	Auto Interiors By...	6155 54th Ave N	Kenneth City	FL	33709
001007447	Lucy Zelman Lea...	11440 SW 103rd St	Miami	FL	33176
001007686	Erisken's Nursery	3005 Lake Dr	Cocoa	FL	32926



Enter URN: Check this URN

001000223 | 001003370 | 001005417

- Florida vs California
 - Florida Low employee sites OR California high employee sites
 - Florida Low employee sites
 - Emp Here Range of 1 - 4 or 5 - 9 or ...
 - State of FLORIDA
 - California high employee sites
 - Emp Here Range of 200 - 249 or 250 - 499 or ...
 - State of CALIFORNIA

Note that the inclusion status of a record may have changed if the selection depends on time/age or references data that has since been updated

OK Cancel

Word Cloud

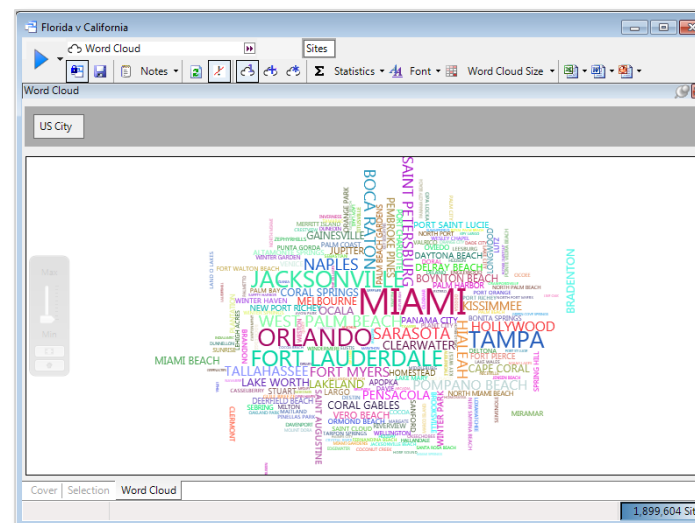
The Word Cloud is a visualization which displays the descriptions of categories from a selector or banded variable, as a “cloud” of words. Those words with the highest counts (or other cube statistic value) for the underlying selection are given the most prominence.

- Redisplay the saved selection **Florida v California**
- From the **Toolbox** drag and drop the **Word Cloud** tool onto the open selection
- Drag the variable **US City** onto the drop zone of the **Word Cloud** and click the **Build** button
- Click **OK** on the restrict results box (By default this will restrict the number of results to the top 200 if required)

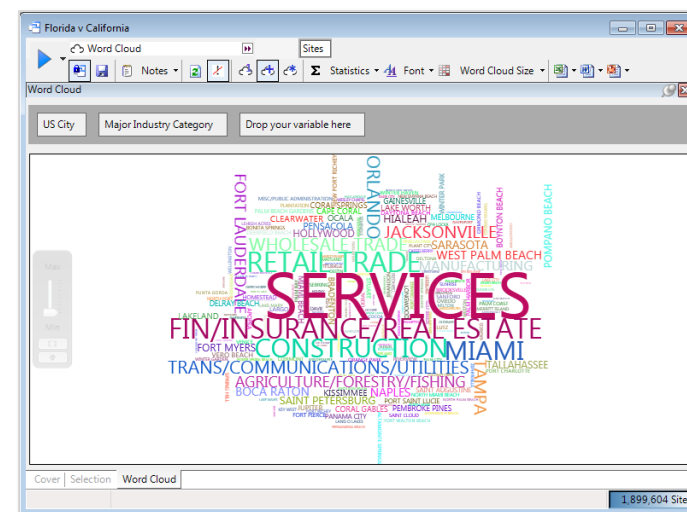
The display here is indicating that Miami is the most populous city location in the underlying selection. To show more than one variable displayed on a Word Cloud window the settings can be changed as follows:

- Click on the **Add Dimensions Together** button (This will display another drop box alongside the one set as US City)
- Drag **Major Industry Category** onto the new drop box. Click the **Build** button
- Click **OK** on the restrict results box (By default this will restrict the number of results to the top 200 if required)

The results will now show all the categories for both US City and Major Industry Category shown on the same display as separate entities.





Single Dimension




Add Dimensions Together


To show the relationship between more than one variable displayed on a Word Cloud window, the settings can be changed as follows:

- Click on the  **Combine Dimensions Together** button
- Click the  **Build** button

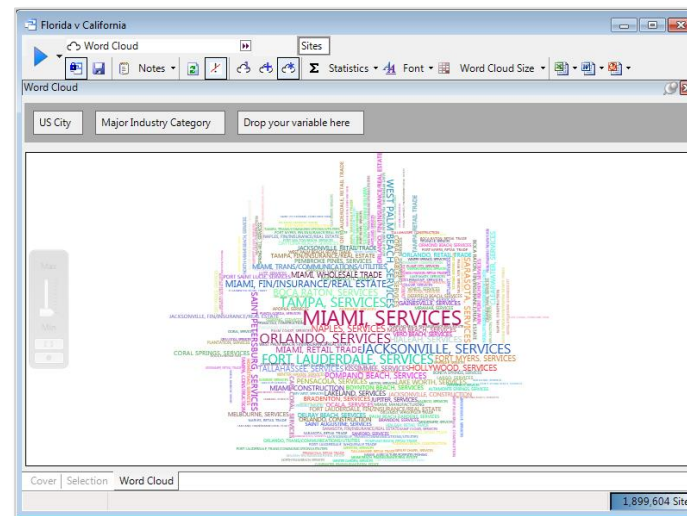
The results will now show all the categories of both variables joined together e.g. Miami Services, Miami Retail Trade etc.

Text variables can also be used in a similar way by “shredding” the content so that the individual words can be displayed. So the content of a series of Facebook status or a Twitter tweet may be analyzed.

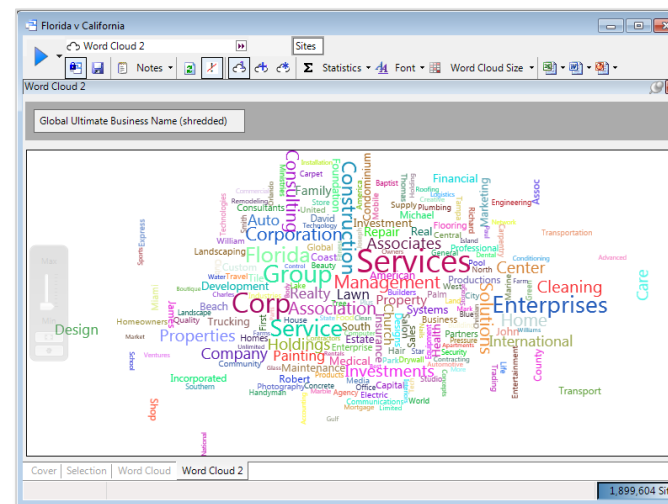
- Drag on a second Word Cloud and then right drag the variable **Global Ultimate Business Name** onto the drop zone
- Right drag the variable **Global Ultimate Business Name** onto the drop zone of the existing **Word Cloud**
- From the popup menu select **Add as shredded variable** and click the  **Build** button
- Click **OK** on the restrict results box (By default this will restrict the number of results to the top 200 if required)

 **N.B.** By right clicking on the variable drop box and selecting Edit, you can define the word length used and define the words to exclude.

For further options and information refer to the Help files... Visualization – Word Cloud.



Combine Dimensions Together



Shredded Variable

Cubes

A Cube is a numeric analysis of your data broken down by one or more of your variables. This can be displayed on either a subset of the data or the whole universe. The results of this analysis can then be used as the basis for further selection or analysis.

In the following example you will create a basic Cube showing the breakdown of Sites, initially by Emp Here Range and Major Industry Sector based on the Florida v California saved selection.

- From the **File Explorer** drag and drop the **Florida v California** selection onto the workspace
- From the **Toolbox** drag & drop the **Cube** tool onto the **Florida v California** selection window
- From the **System Explorer** drag & drop the **Emp Here Range** variable onto the horizontal drop zone (labeled “Drop your variable here”) on the upper axis of the **Cube**
- Repeat the process dragging the **Major Industry Category** variable onto the vertical drop zone
- Click the **Build** button to build the table

It may be interesting to breakdown the display further and include MSA in the analysis.

- Drag the **MSA** variable onto the box next to **Emp Here Range** and rebuild the table.

N.B. Cubes can have as many dimensions as the memory on your PC can support.

	1 - 4	5 - 9	10 - 14	15 - 19	200 - 249	250 - 499	500 and over	TOTAL
Unclassified	899	108	35	17	0	0	0	1,059
MISC/PUBLIC ADMINISTRATION	2,021	1,598	994	589	381	895	451	6,929
AGRICULTURE/FORESTRY/FISHING	51,972	3,603	1,370	541	57	72	41	57,656
MINING	622	125	57	24	3	13	4	848
CONSTRUCTION	154,962	14,266	4,379	2,015	88	137	32	175,879
MANUFACTURING	37,108	6,379	2,696	1,334	441	779	487	49,224
TRANS/COMMUNICATIONS/UTILITIES	71,735	6,374	2,126	913	212	269	150	81,779
WHOLESALE TRADE	67,601	10,193	3,529	1,556	142	173	72	83,266
RETAIL TRADE	149,626	29,462	11,011	5,795	600	545	98	197,137
FIN/INSURANCE/REAL ESTATE	173,568	17,139	5,173	2,953	144	215	158	199,350
SERVICES	928,767	84,714	20,291	9,080	1,136	1,425	1,064	1,046,477
TOTAL	1,638,881	173,961	51,661	24,817	3,204	4,523	2,557	1,899,604

Cube Using MIC & EHR Variables

	Chico-Paradise, CA				Daytona Beach, FL				
	200 - 249	250 - 499	500 and over	TOTAL	1 - 4	5 - 9	10 - 14	15 - 19	TOTAL
Unclassified	0	0	0	0	31	6	0	2	39
MISC/PUBLIC ADA	5	3	0	8	67	52	33	13	165
AGRICULTURE/FO	0	1	0	1	2,130	125	60	14	2,329
MINING	0	0	0	0	14	4	1	0	19
CONSTRUCTION	1	0	0	1	6,454	553	114	63	7,184
MANUFACTURING	0	2	0	2	1,224	173	74	36	1,507
TRANS/COMMUN	0	0	0	0	1,694	137	49	15	1,895
WHOLESALE TRAC	0	0	0	0	1,649	226	72	23	1,970
RETAIL TRADE	1	2	2	5	4,672	881	307	177	6,037
FIN/INSURANCE/F	0	2	0	2	4,212	481	149	93	4,935
SERVICES	3	7	8	18	25,525	2,361	550	267	28,703
TOTAL	10	17	10	37	47,672	4,999	1,409	703	54,783

Cube Using MIC, EHR & MSA

Saving Your Cube

As with Selections before saving your Cube for re-use at a later date it makes sense to give it a logical name. This process is the same for the other tools.

- Highlight Cube in the top left hand corner of the window and type – **MIC v EHR v MSA** - and then click away.

You can now save your newly named Cube:

- Click on the icon next to the **Cube** name and drag and drop on to a relevant folder in the **File Explorer** window
- Close the currently open **MIC v EHR v MSA** window and drag and drop the saved **Cube** back on to the work space

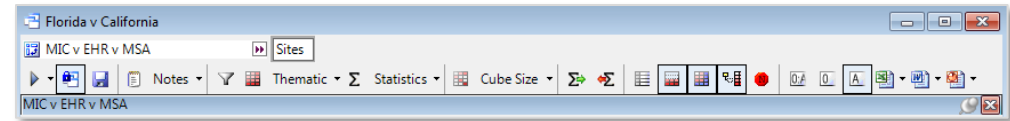
Changing the Information Displayed

By default a cube will show the record count. However by using the Statistics button you can specify different or additional information to display.

- Click on the **Add Statistics...** button from the Σ Statistics window
- Choose the **Statistic** you want to display from the drop down list and click **OK**

In the example opposite each row now displays a percentage figure as well as the count. You will also note that the Thematic shading on the table is being applied to the Count figure.

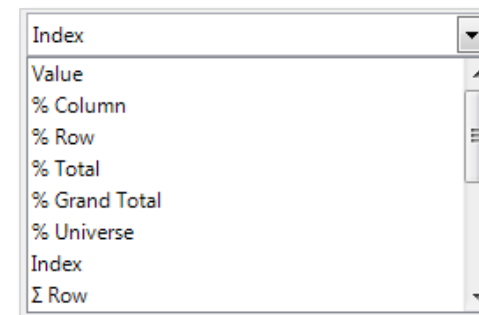
You can also scroll through the statistic display options without adding to the display by using the $\Sigma \rightarrow$ $\rightarrow \Sigma$ buttons.



Renaming a Cube before Saving

		Bakersfield, CA				TOTAL	
		200 - 249	250 - 499	500 and over			
Major Industry Category	Unclassified	0	0.00%	0	0.00%	0	0.00%
	MISC/PUBLIC ADMINISTRATION	3	6.12%	49	43.36%	19	35.19%
	AGRICULTURE/FORESTRY/FISHING	4	8.16%	12	10.62%	9	16.67%
	MINING	1	2.04%	3	2.65%	2	3.70%
	CONSTRUCTION	4	8.16%	6	5.31%	1	1.85%
	MANUFACTURING	4	8.16%	4	3.54%	5	9.26%
	TRANS/COMMUNICATIONS/UTILITIES	4	8.16%	4	3.54%	2	3.70%
	WHOLESALE TRADE	1	2.04%	1	0.88%	1	1.85%
	RETAIL TRADE	7	14.29%	13	11.50%	0	0.00%
	FIN/INSURANCE/REAL ESTATE	0	0.00%	2	1.77%	1	1.85%
	SERVICES	21	42.86%	19	16.81%	14	25.93%
	TOTAL	49	100.00%	113	100.00%	54	100.00%

Cube Displaying Count & % Column Figures



Cube Statistics

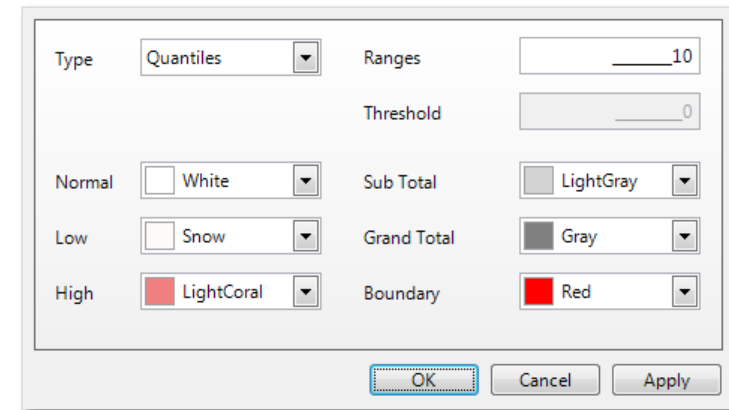
Thematic Shading

Thematic shading is a visualization technique used to highlight the numeric distribution within the Cube result. Thematic shading allows easy and quick interpretation of Cube results. You can control the range of colors used and the method of assigning cell colors based on one of the numeric results.

The default thematic shading option is set to Quantiles with 10 ranges i.e. deciles.

- Click the **Thematic** button to reveal the menu opposite


Change the Type and Color settings to see the different effects that can be produced.

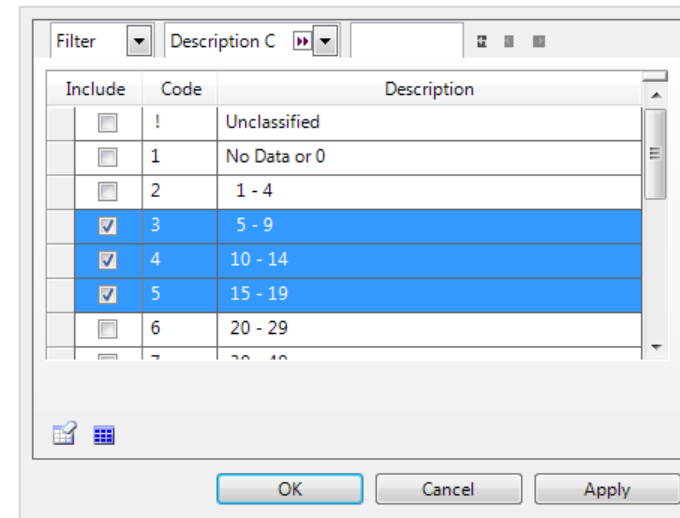


Thematic Window

Filter Row & Column Values

You may want more control over which values are displayed in a Cube. One way to do this is to restrict the values shown. In this example you will narrow the Emp Here Range display to just 3 ranges.

- Click on the black arrow beside the **Emp Here Range** box within the Cube window
- From the pop up window  **Reset** the selection and tick 5-9, 10-14 and 15-99
- Click **OK** to show the changes to the Cube



Variable Filter Window

Selecting Cells

With your Cube in place you can now select the data displayed in a number of different ways:

- Drag across a number of contiguous cells or use Shift-Click and Control-Click to choose non-contiguous areas
- Click on any one of the highlighted cells and drag onto the work space. This will create a new selection rule made of the underlying selection the cube analyzed, further restricted to the cells chosen. Count the new selection to see the total you have selected

Thematically Shaded Cells

- Use the right hand part of the **Slider** button at the bottom of the window to gradually select the colored cells as you progress. Alternatively move the whole button to the end then you can move backwards selecting the highest value cells
- Click on one of the highlighted cells and drag onto the work space. Count the new selection to see the total you have selected

Sometimes it is more appropriate to view your data in a graphical representation. The next section will guide you through how to display your data in the form of a Chart.

Major Industry Category	Daytona Beach, FL					Fort Lauderdale, FL	
	1 - 4	5 - 9	10 - 14	15 - 19	TOTAL	1 - 4	5 - 9
Unclassified	31	6	0	2	39	85	12
MISC/PUBLIC ADMINISTRATION	67	52	33	13	165	141	101
AGRICULTURE/FORESTRY/FISHING	2,130	125	60	14	2,329	3,313	245
MINING	14	4	1	0	19	61	13
CONSTRUCTION	6,454	553	114	63	7,184	13,170	1,242
MANUFACTURING	1,224	173	74	36	1,507	4,378	801
TRANS/COMMUNICATIONS/UTILITIES	1,694	137	49	15	1,895	8,116	752
WHOLESALE TRADE	1,649	226	72	23	1,970	9,227	1,330
RETAIL TRADE	4,672	881	307	177	6,037	16,138	2,864
FIN/INSURANCE/REAL ESTATE	4,212	481	149	93	4,935	21,200	1,915
SERVICES	25,525	2,361	550	267	28,703	110,694	9,466
TOTAL	47,672	4,999	1,409	703	54,783	186,523	18,741

Cube Showing Highlighted Cells




Daytona Beach, FL					Fort Lauderdale, FL		
1 - 4	5 - 9	10 - 14	15 - 19	TOTAL	1 - 4	5 - 9	10 - 14
31	6						
67	52						
2,130	125						
14	4						
6,454	553						
1,224	173						
1,694	137						
1,649	226						
4,672	881						
4,212	481						
25,525	2,361						
47,672	4,999						

Selection Dragged from a Cube

Charting

The Charting tool does not only allow you to graphically represent existing identified records but also allows you to visually explore your data. You may prefer to build your display by visualizing you variables rather than using them to create a selection.

However we will start by taking identified records and demonstrating how they can be graphically displayed.

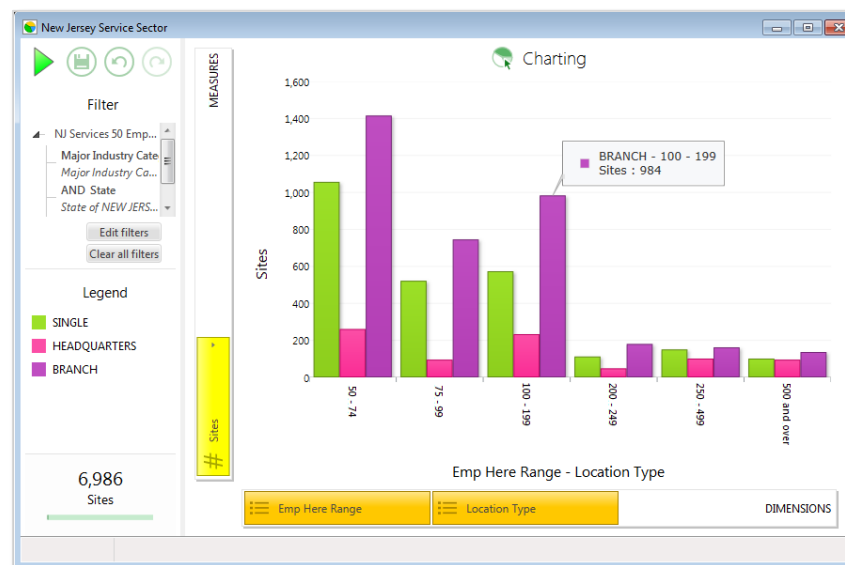
- Create a **Cube** based upon the selection, **MIC (Services) AND Emp Here Range (50-74 through to 500 and over) AND State (New Jersey)**
- Use **Emp Here Range** on the vertical axis and **Location Type** on the horizontal axis
- Click the  **Build** button
- Click and drag the Cube button  onto the **Charting** tool  on the **Toolbox** ribbon bar

By default the data is displayed as a clustered column chart. Use a Chart when the visualization of data will illustrate things more effectively than a table of numbers.

The Charting Window

To the left and bottom of the chart are 2 bars:

Measures – by default this will display what is being counted e.g. Sites, Contacts etc. Click on the default box to select a different counting level or statistic



Default Column Cluster Chart



Counting Level and Statistics

Dimensions – this displays the variables used to break down the data e.g. Emp Here Range, Location Type etc.

The panels to the left of the charting window shows:

Filter – selections that are used to restrict the results

Legend – color coded to the chart display

Count – the total number of records represented in the display

Labels – choose to add/remove values and percentages

The panel to the right of the charting window shows:

Analysis trail – a record of the key steps taken within a particular charting window. Mouse over a thumbnail image to review any of the different steps taken, or click on an image to open and return to a particular chart display.

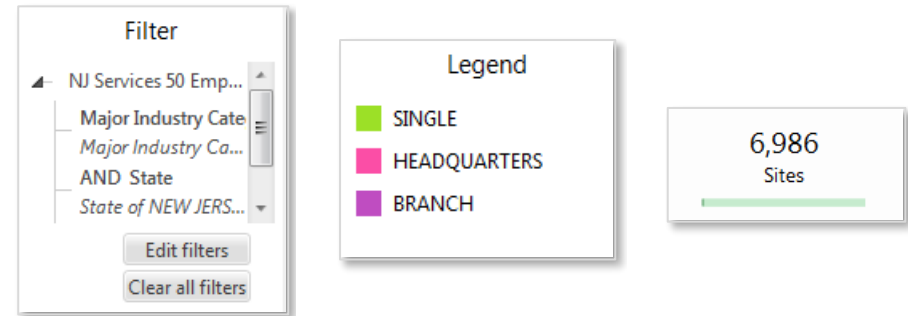
Chart Types & Combinations

When a Charting window is open a new tab will appear on the ribbon bar called Charts.

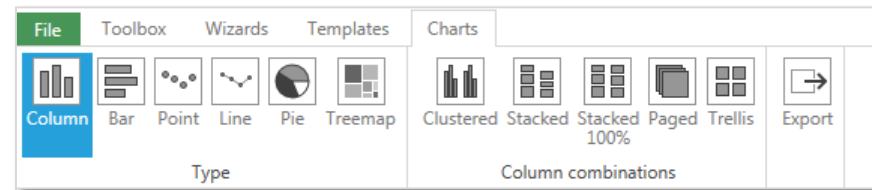
From here different chart types can be selected and the way in which the information can be combined for that chart.

For example if you select a Paged Treemap you will get the opportunity to animate the display as it cycles through the different Location Types.

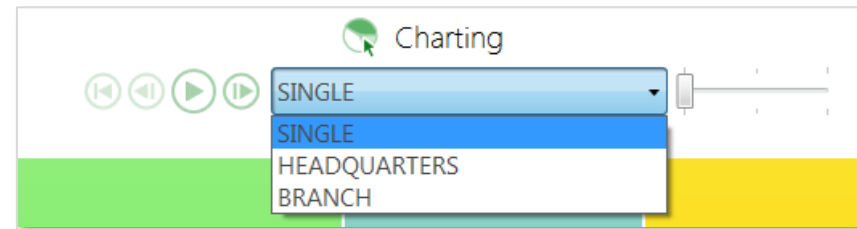
By moving the mouse pointer over the different elements of the chart you will see a tooltip that describes that element and the count it represents.



Charting Window – Filter, Legend & Count



Ribbon Bar – Charts Tab



Animation Controls

Multi-Measure Chart

It is possible to apply multiple measures to a single dimension chart.

- Return the chart to a clustered column chart
- Right click on and remove the **Location Indicator** dimension
- Click on the black arrow next to the measure on the left hand measures bar and change the measure to Sites
- Drag **Net Worth** onto the right hand **Measures** drop box and build

If you wish to see the same measure with a different statistical calculation applied

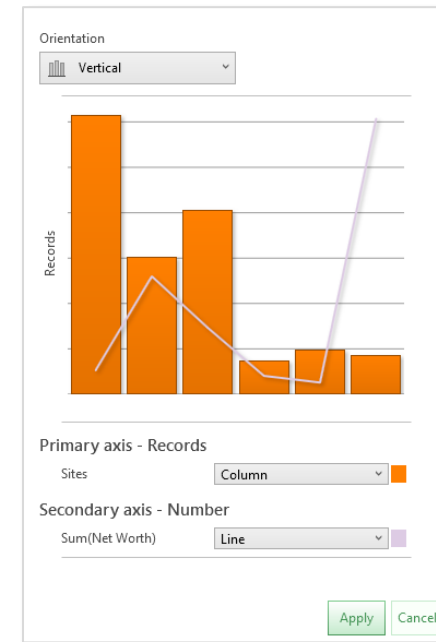
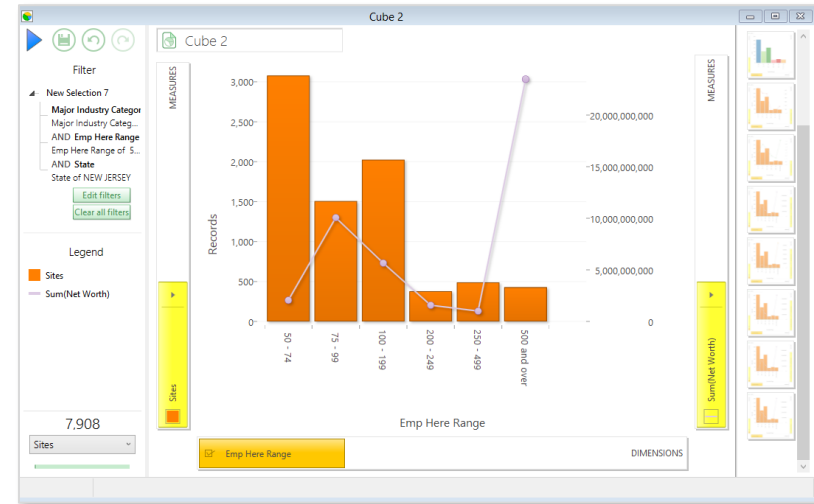
- Click on the arrow next to **Sum (Net Worth)** and change to the **required statistic**

or

- Right drag the **Customer Level Variable** and drop it on the right hand measures bar. Chose the **required statistic**
- **Build**

To change the appearance of a mutli-measure chart:

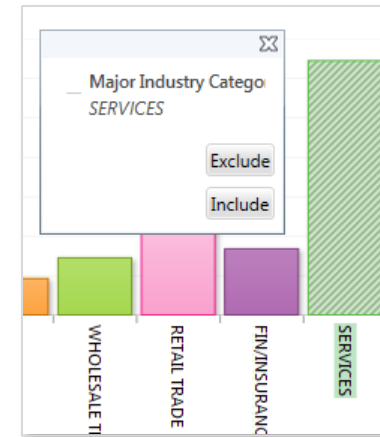
- Click on the drop down arrow below the **Multi** icon, select from the available options and **Apply** the changes



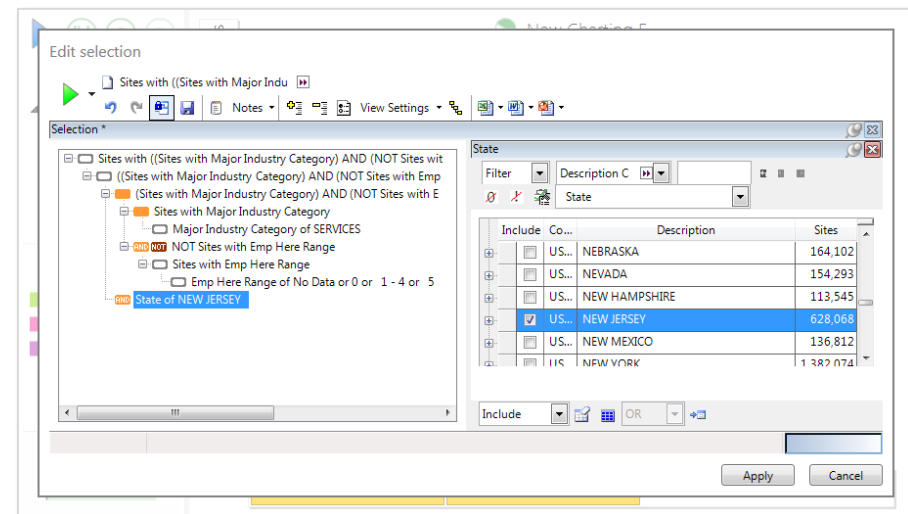
Exploring Data Using a Chart

To visually explore the data to achieve the same outcome as in the previous example we can start with a blank chart.

- Click on the **Charting** icon on the **Toolbox** ribbon bar
- Add the variable **Major Industry Category** to the **Dimensions** axis and click the **Build** button
- Click on the **Services** column which will cause an **Include/Exclude** box to appear. Click **Include** to add **Services** to the **Filter**
- Drag the **Emp Here Range** variable onto the **Major Industry Category** on the **Dimensions** axis to replace it. Click the **Build** button to update the display
- Click on the columns **No Data or 0** to **30-49** and then click on the **Exclude** button to add this exclusion to the **Filter**
- Add the **Location Type** variable to the **Dimensions** axis alongside **Emp Here Range**. Click the **Build** button to update the display
- To ensure we are only looking at **Sites** in **New Jersey** we can edit the filter selection directly by clicking on the button **Edit filters**
- Drag on the **State** variable and position it to apply to the whole query and select **New Jersey**. Click **Apply** and then the **Build** button to update the display



Include/Exclude to the Filter




Edit Filter Selection Window

Exporting a Chart

Before exporting a chart it is good practice to give it a relevant description.

- Click on the New Charting heading and amend as required

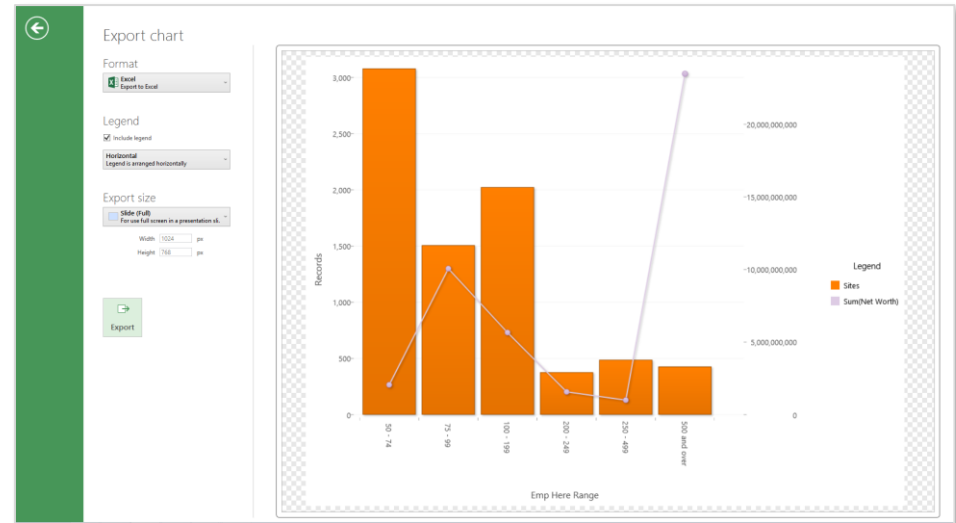
- Click on the Export  icon

From this window you can select from a number of image file formats and also copy to the clipboard.

- Once a format has been selected click on the Export button

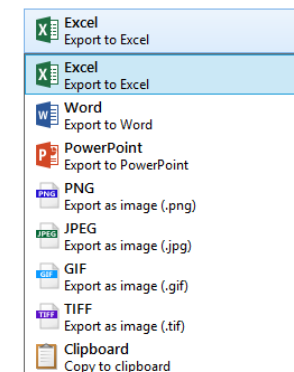


Amending Chart Title



Export Window

Format




Format Options


Trees

A Tree is a nested representation of a multi-dimensional cube. The cells are calculated in the same way as a cube but the dimension categories are represented as nodes in a tree.

Here you will recreate the example used to demonstrate Cubes to view the differences when using a Tree.

- Drag and drop the **Florida v California** selection on the workspace and then drop the **Tree** from the **Toolbox** onto it

There are 2 possible views to select from – **Collapsible Tree** and **Flattened Tree**. Select the Collapsible Tree  option.

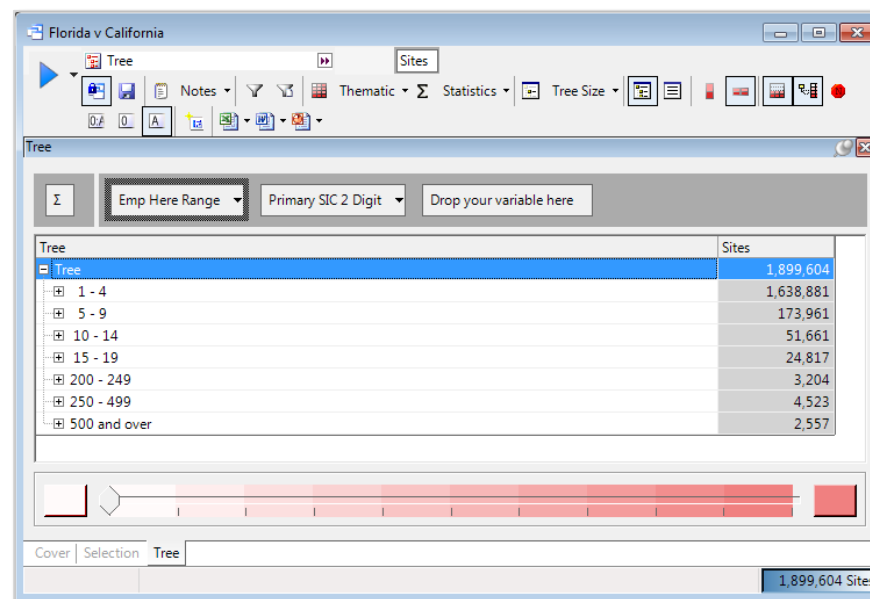
- Drag the **Emp Here Range** variable onto the first drop zone and then repeat with the **Primary SIC 2 Digit** variable
- Click on the  **Build** button

Initially the breakdown of cells is shown by the first dimension (Emp Here Range). Each cell can be opened by clicking on the plus sign to reveal the breakdown by the second dimension (Primary SIC 2 Digit). In this way you can delve into the more interesting areas of the results cube without being overwhelmed by the number of cells.

- Click on the + sign next to the **5 - 9** category

The cells displayed show the range of Employees broken down by their SIC category.

Thematic shading and the filtering of values operate in the same way as described for Cubes.




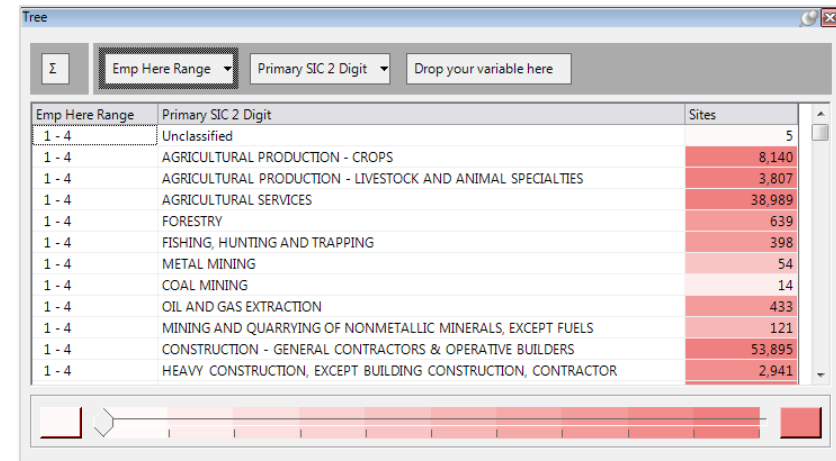
Collapsible Tree View

Tree	Sites
Tree	1,899,604
1 - 4	1,638,881
5 - 9	173,961
Unclassified	4
AGRICULTURAL PRODUCTION - CROPS	607
AGRICULTURAL PRODUCTION - LIVESTOCK AND ANIMAL SPECIALTIES	245
AGRICULTURAL SERVICES	2,634
FORESTRY	81
FISHING, HUNTING AND TRAPPING	36
METAL MINING	6
COAL MINING	4
OIL AND GAS EXTRACTION	70
MINING AND QUARRYING OF NONMETALLIC MINERALS, EXCEPT FUELS	45
CONSTRUCTION - GENERAL CONTRACTORS & OPERATIVE BUILDERS	4,157

Expanded Collapsible Tree

A Tree may also be transformed into a 'flattened' view. This will result in all cells being displayed and referenced by their dimension coordinates. This is particularly useful if combined with sorting by the Count to reveal the most highly populated cells.


- Click on the  **Flattened Tree** button
- Right click on the **Count (Sites)** column header and select **Sort Descending**




Emp Here Range	Primary SIC 2 Digit	Sites
1 - 4	Unclassified	5
1 - 4	AGRICULTURAL PRODUCTION - CROPS	8,140
1 - 4	AGRICULTURAL PRODUCTION - LIVESTOCK AND ANIMAL SPECIALTIES	3,807
1 - 4	AGRICULTURAL SERVICES	38,989
1 - 4	FORESTRY	639
1 - 4	FISHING, HUNTING AND TRAPPING	398
1 - 4	METAL MINING	54
1 - 4	COAL MINING	14
1 - 4	OIL AND GAS EXTRACTION	433
1 - 4	MINING AND QUARRYING OF NONMETALLIC MINERALS, EXCEPT FUELS	121
1 - 4	CONSTRUCTION - GENERAL CONTRACTORS & OPERATIVE BUILDERS	53,895
1 - 4	HEAVY CONSTRUCTION, EXCEPT BUILDING CONSTRUCTION, CONTRACTOR	2,941

Flattened Tree View

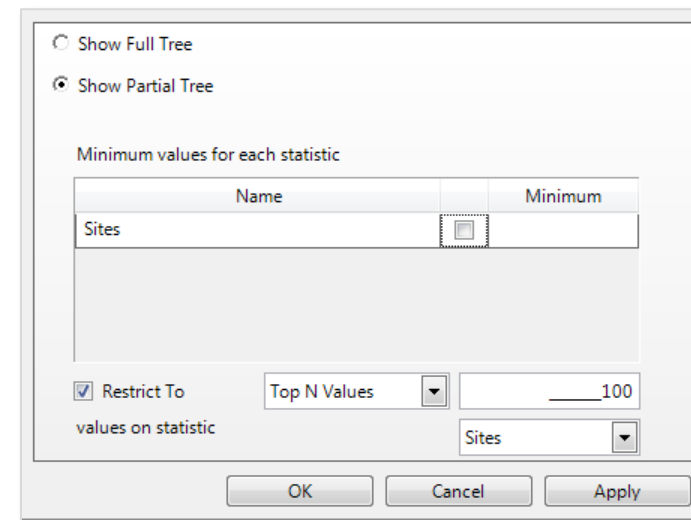
It is also possible to narrow down the display on a Tree by specifying a minimum value for each of the statistics used and/or by applying a Top or Bottom N figure.

- Click on the  **Tree Size** **Tree Size** button
- Select the **Show Partial Tree**

It is now possible to further restrict the display by applying a Top N function.

- Tick the **Restrict To N Values** box
- Enter **100** as the number of values to restrict to and **Sites** as the statistic to which to apply the restriction. Click **OK**
- Click on the  **Build** button

You can select cells in the same way as shown in the section on Cubes.



Show Full Tree
 Show Partial Tree

Minimum values for each statistic

Name	Minimum
Sites	<input type="checkbox"/>

Restrict To
 Top N Values
100

values on statistic
 Sites

Showing the Tree Size Window

Venn Diagrams


A Venn diagram gives a colorful, graphical representation of the way in which data interrelates. It is very useful in the segmentation of the data, for example when creating target groups for mailings. The name comes from John Venn a 19th century British logician who devised the notion.


Up to five sets can be used in a Venn diagram. Each is represented by a colored ellipse and intersections are shown in a different color. Any colored section (or background) may be dragged onto the workspace to be examined as a selection rule.

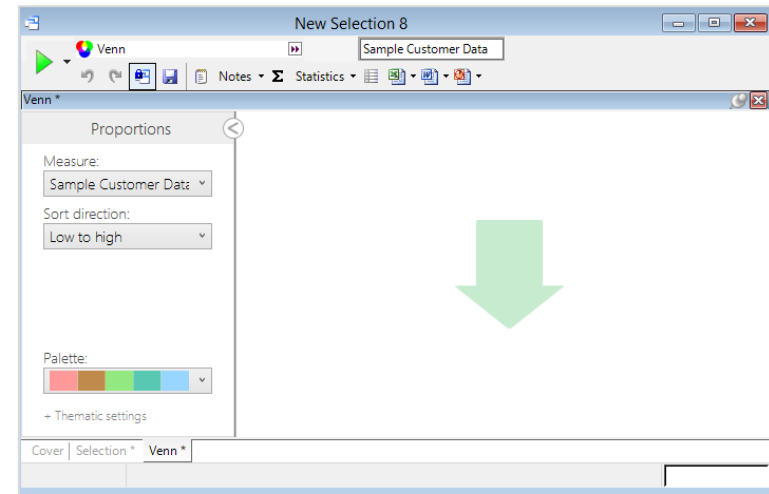
Before you start on your Venn create and save the following 3 sets in your Private Folder in the File Explorer window:

- **Selection 1** – Sites where the **State** is California
- **Selection 2** – Sites where the **Primary SIC 2 Digit** is Agricultural Services
- **Selection 3** – Sites where the **Emp Here Range** is 1-4 through to 10-14

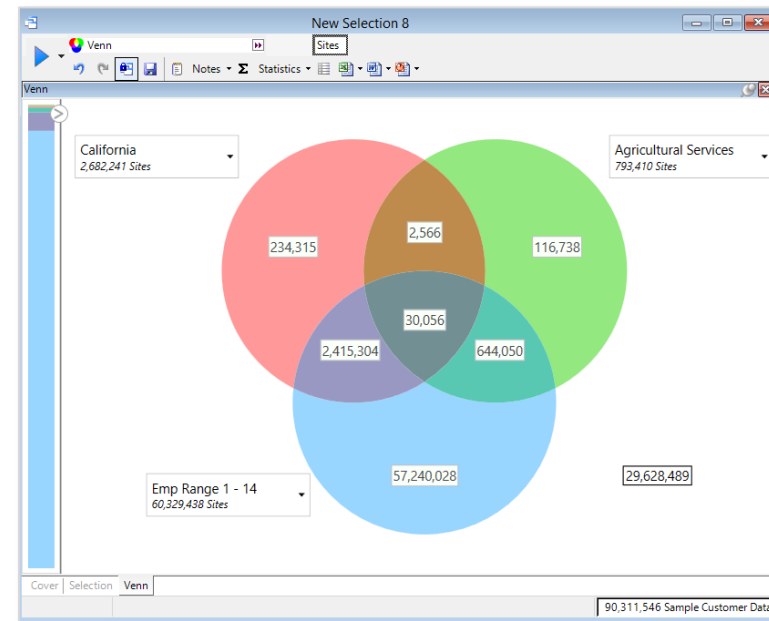
You can use these selections to now explore the workings of a Venn diagram.

 **N.B.** Ensure your underlying selection window and the selections you create are at the correct table level to display your results.

- Drag & drop a **Venn** onto the work space from the **Toolbox** window
- Now drag and drop each of the selections in turn onto the **Venn** window then click the  **Build** button to see the results



Blank Venn Window



3 Way Venn Diagram

As you dropped each selection onto the Venn you will have noticed a label appear alongside the set drawn and a count when built. Further actions can be performed when you click on the label:

Edit description

In the new window that appears enter your new description and click Save.

Edit selection

The selection window will appear. Amend your selection as appropriate and click OK.

Hide in diagram

Selecting this option will hide this segment from the Venn diagram.

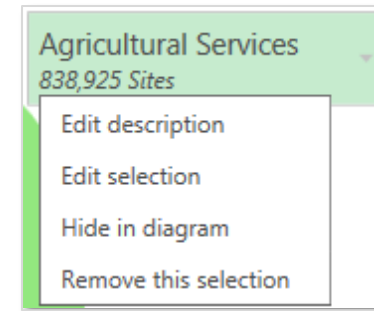
Remove this selection

Clicking on this option will remove the set from the Venn diagram

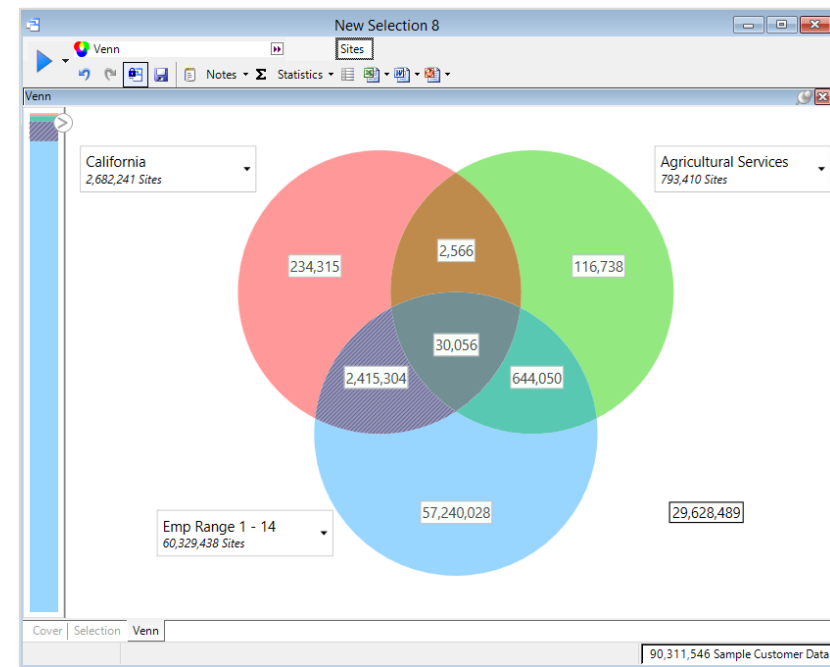
By moving the mouse pointer over the relevant segment a pop up display will strike through any selections of which that particular segment is not a member. This is very useful if you have the maximum number of data sets being displayed.

In the image opposite a segment has been highlighted with the corresponding colored part of the bar below it also highlighted. This bar is visually representing the proportion of data in each segment.

The button to the left of the bar allows you to sort the display in terms of size descending or ascending.




Venn Information Boxes



Highlighted Segment Shown on the Proportion Bar

An alternate display to the multi colored sets is to use a single color scheme.

- Click on the  **Venn Color** button. Select a single color scheme

Using a single color scheme allows you to use it as a thematic shading display. The higher value segments have the darker shading.

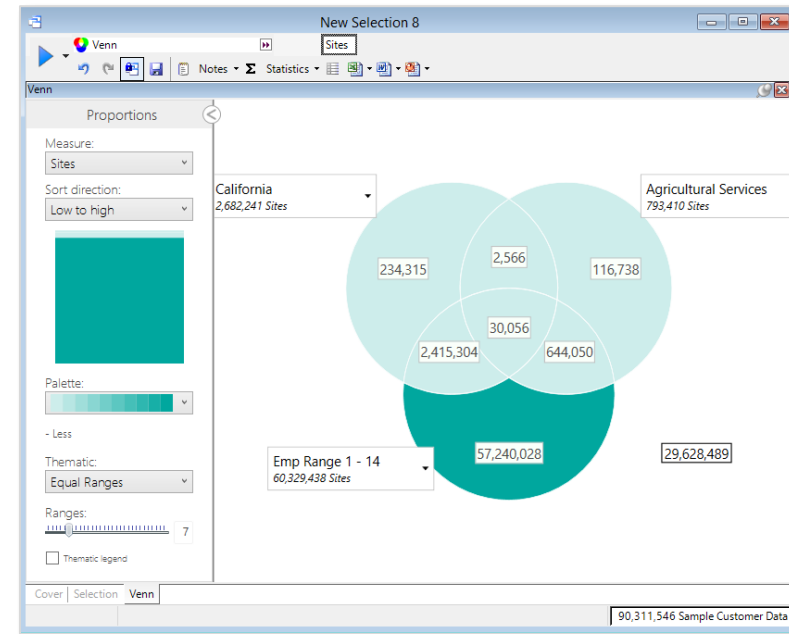
To display the results as a percentage statistic:

- From the **Statistics** button click on the **Add Statistics** option. Change the **Display** from **Value** to **Percentage**. Click **OK**

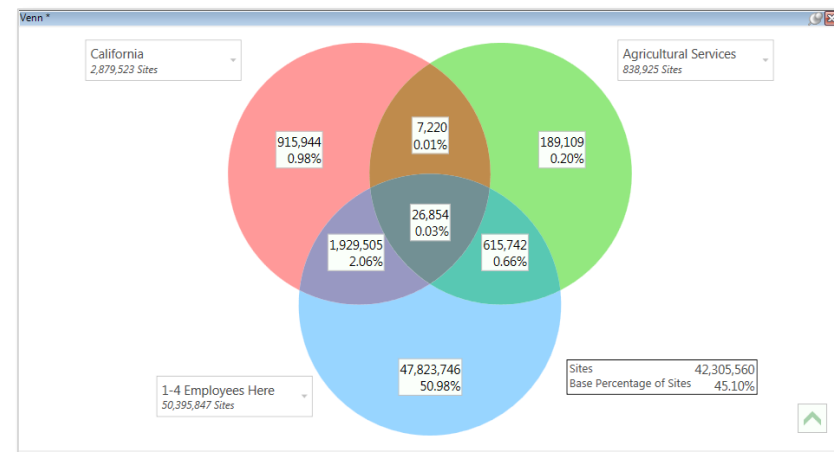
This will display an additional value of a percentage of the base selection. You also have the option of displaying a percentage of the values within the segments or as a percentage of a particular segment.

- Click on the  **Show Statistics Legend** button

Click on a segment or ctrl click on multiple segments on the Venn and then drag onto to the workspace. This will create a selection query to identify the records in the segments selected. The selection can now be built, saved or edited as shown previously.



Venn Diagram – Single Color Thematic Shading



3 Way Venn Diagram with Count & Percentage Figures

Sampling

There are a number of ways of limiting the number of records selected – for example to undertake a test mailing with a small proportion of the data prior to a full rollout. You can use the Top N function or Limits within a selection window or to specify limits on a Data Grid view.

Limits

You can apply a sampling limit to any clause of a selection tree.

- Open a saved selection.
- Right click on a clause (or the summary line to apply to the entire query) and choose **Apply Limits...**

All – This is the default setting and applies no limit. Use this setting if you wish to remove a previous limit.

First – Will take the first N records.

Regular (Stratified) – Will take a regular sample of the selected records (e.g. take 1 skip 9, take 1 skip 9 etc.)

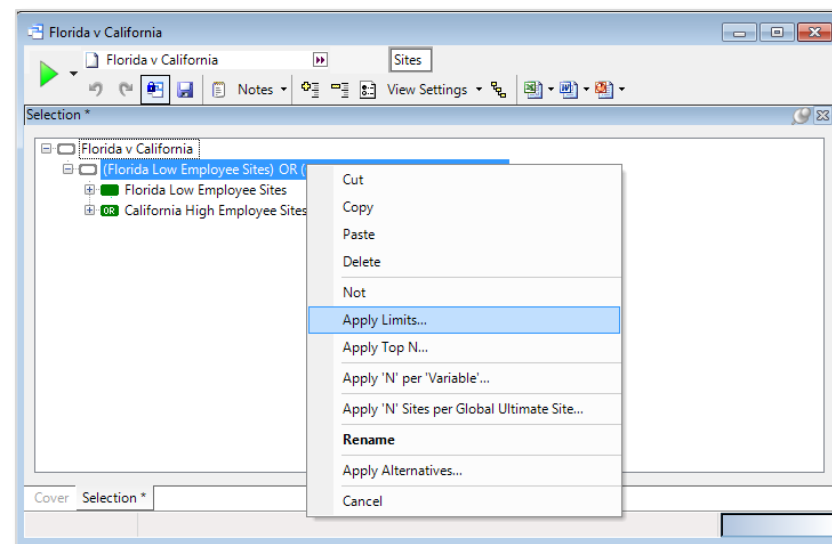
Random – Uses a random decision to select each record.

Skip First – Optionally skip the first N records.

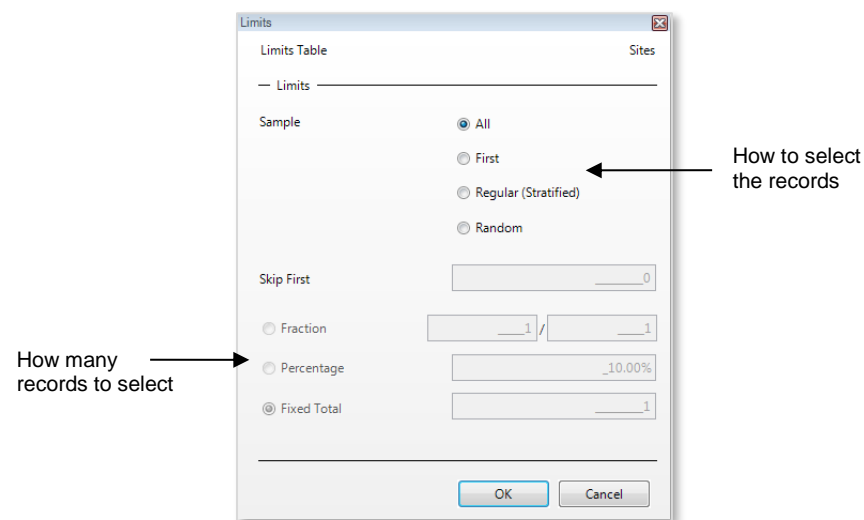
Fraction – Option to enter sample as a fraction e.g. $\frac{1}{2}$, $\frac{3}{4}$

Percentage – Option to enter sample as a percentage e.g. 50%, 75%

Fixed Total – Allows you to specify when to stop outputting records.



Selection with Right Click Menu – Apply Limits...




Limits Window

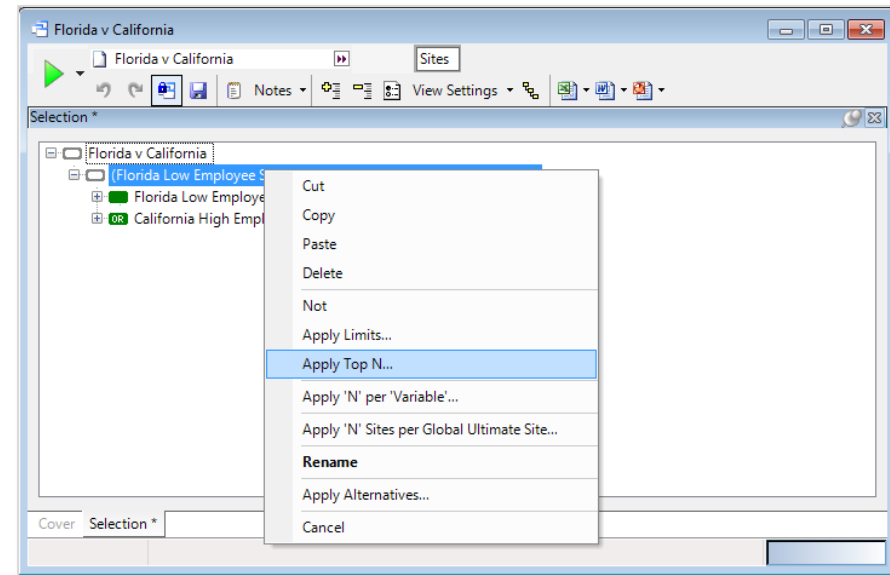
Top N

Who are my top 100 customers? A frequently asked question but one that is normally surprisingly difficult to answer using selection query tools. Using Top N enables you to identify the top or bottom N records by an ordered variable. Top N can be applied to any clause of the selection tree.

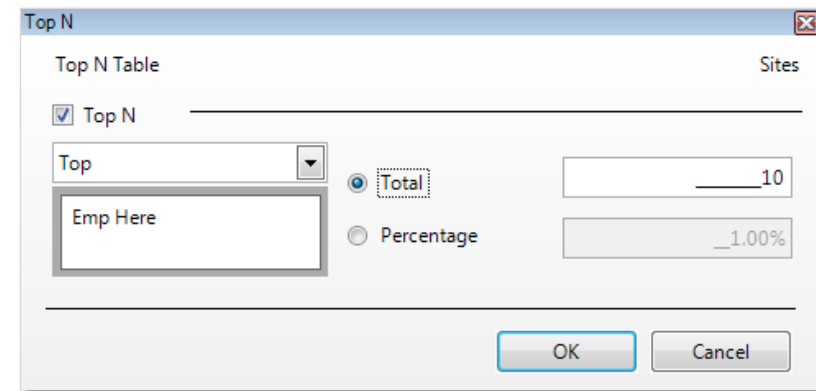
The Top N criteria are applied after all other Market Insight selections have been completed so that you can isolate the segment and then pick the top (or bottom) N or N% records.

- Close any selection windows open and display the **Florida v California** selection
- Right click on the selection name at the top of the logic tree and select **Apply Top N...**
- Tick the **Top N** box and drag and drop the **Emp Here** variable into the grey bordered box
- Type 10 as the **Total** records to be returned
- Click **OK**

 **N.B.** Non sequential variables can now be ordered by the User when using Top N. The variable used must come from the same table level as the selection or a higher table.





Selection with Right Click Menu – Apply Top N...



Top N Window

Notice that the selection now has a new icon next to it called TOP. To see the results:


- Click the  **Build** button to return the number of records. (10 Sites)
- Drag the **Name & Address** template onto the selection and then count to see the individual top 10 Sites
- To confirm they have high employee numbers drag the **Emp Here** variable onto the grid and click **Build**
- Right click on the **Emp Here** column and select **Sort Descending**

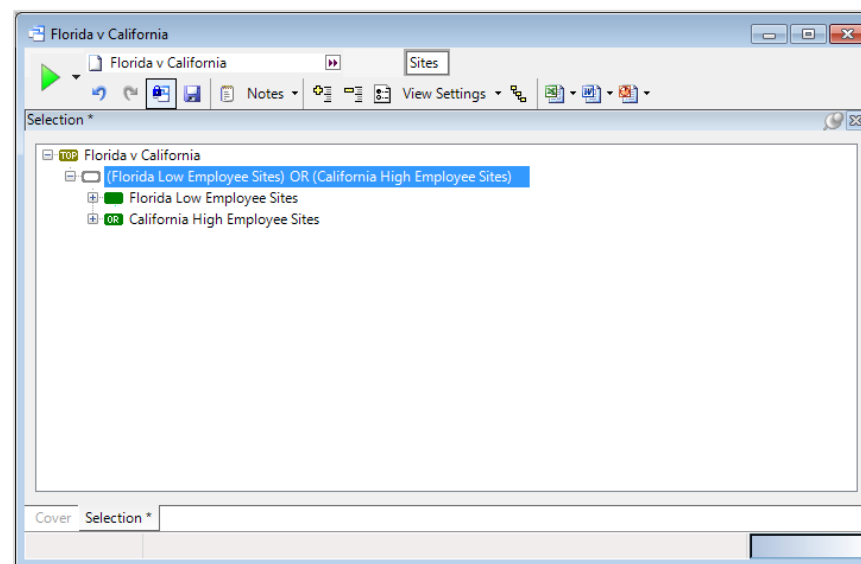
 **N.B.** If no information is showing in the Data Grid remember you have to License records to view them.

N Per Variable

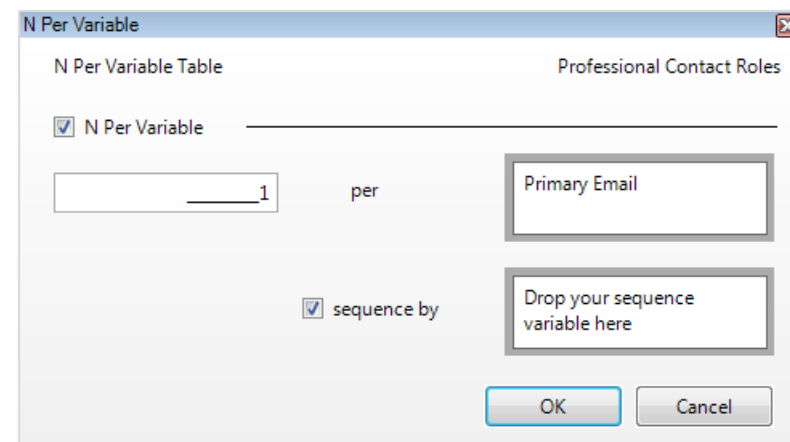
There may be some circumstances where records share an attribute and you wish to only select say 1 record. If a contact shares an email address you may want to select just 1 contact per that email address. See screen shot opposite.

It is also possible to use another variable to sequence who of the multiple contacts should be selected.

 **N.B.** Only variables from the table level you are working at (or ancestor tables) can be used with this function.



Selection with Top N Applied



N per Variable Window

N Per Table

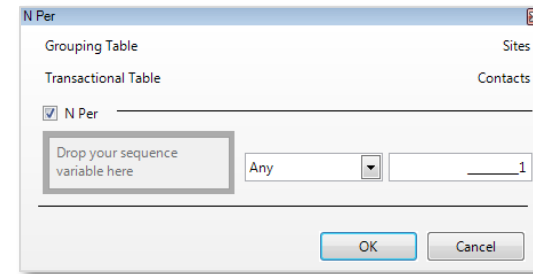
When compiling a selection for a mailing often there is a requirement to ensure the result is limited, for example, to 1 contact per site.

- Make a **Contacts** level selection on **MRC Code** and, using the search facility within the selection window, select any code containing **Partner** in its description.
- Click on the **Build** button to see the results
- Right click on the **Summary** row at the top of the logic tree and select **Apply 'N' Contacts per Site...** Leave the default settings on the pop up window and click **OK**
- Click on the **Build** button to see the results

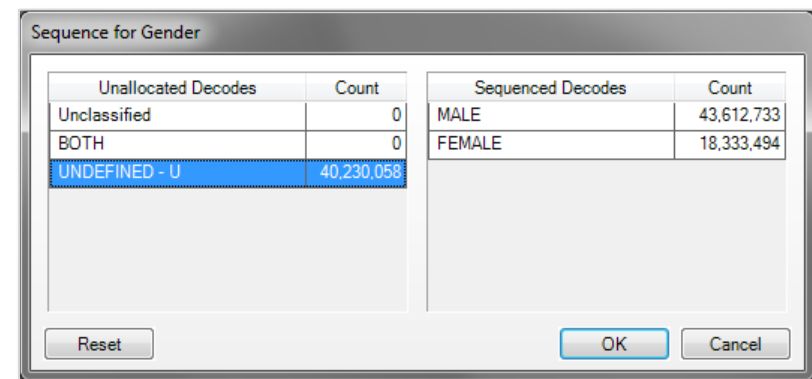
The result will now reflect only 1 contact at a site chosen by whoever is first found. If you want to make the choice of the person selected say by Gender:

- Redisplay the **N Per** window by right clicking on the line with **NPT** and select the **Modify** option and change the **Any** to **First**
- Drag the **Gender** variable onto the drop zone to be presented with a window in which you can order the categories
- Double click on the categories to present them in order of importance and then click **OK**
- Click **OK** on the main **N Per** window and then click the **Build** button

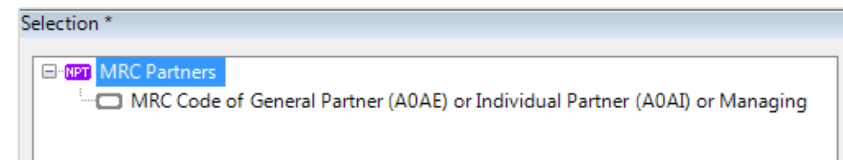
The result will now show only 1 contact per site for the selected MRC Codes with prioritization based on Gender.



N Per Window




Decode Sequence Window



Selection with N Per Applied


Market Insight & Microsoft Products

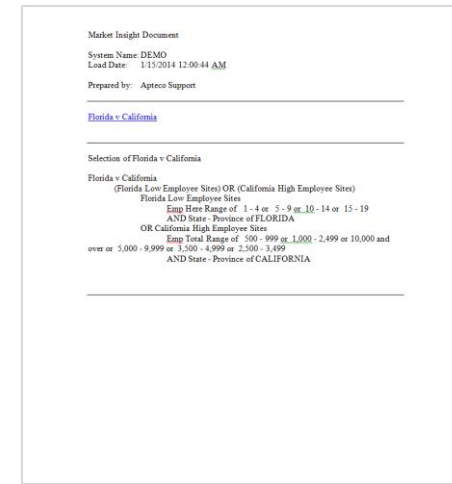
Market Insight offers a seamless integration with Microsoft Word, Excel and PowerPoint allowing you to transfer information from Market Insight into your commonly used desktop programs.

- Drag and drop the saved selection **Florida v California** onto the workspace
- Click on the **Word** button at the top of the window
- Details on the selection and Count are transferred into a Word document
- Return to the **Market Insight** window
- Drag and drop a **Cube** onto the selection
- Add **State - Province** to the horizontal dimension and **Emp Here Range** to the vertical dimension
- Click the  **Build** button
- Click on the **Transfer to Excel** button at the top of the window


Details of the Cube have been transferred to an Excel worksheet ready for you to further manipulate the figures if you so wish.

The same principal applies to using PowerPoint which you saw with the Chart.

 **N.B.** If you perform successive transfers to Word or Excel the items are appended into a single document or workbook, providing an easy to create train of thought report.



Transfer to Word Example

	A	B	C	D	E	F	G
1		Sales & Marketing Solutions					
2							
3							
4	User	apteco					
5							
6	Title	Cube					
7							
8	Axis	Emp Here Range vs State - Province					
9							
10		CALIFORNIA	FLORIDA	TOTAL			
11	No Data or 0	609	0	609			
12	1 - 4	113	1,125,335	1,125,448			
13	5 - 9	104	154,042	154,146			
14	10 - 14	108	49,223	49,331			
15	15 - 19	70	23,865	23,935			
16	20 - 29	170	0	170			
17	30 - 49	253	0	253			
18	50 - 74	280	0	280			
19	75 - 99	160	0	160			
20	100 - 199	448	0	448			
21	200 - 249	195	0	195			
22	250 - 499	481	0	481			
23	500 and over	1,198	0	1,198			
24	TOTAL	4,189	1,352,465	1,356,654			
25							
26							
27		Produced using D&B Market Insight.					
28							




Transfer to Excel Example

Mapping – Microsoft MapPoint


A Map is a visualization of the geographical breakdown of a subset of the database. Market Insight gives you the ability to thematically shade or plot records depending upon your data. On first use of this module change the World Region to North America by clicking on the Tools menu, selecting Options and then the Map tab.

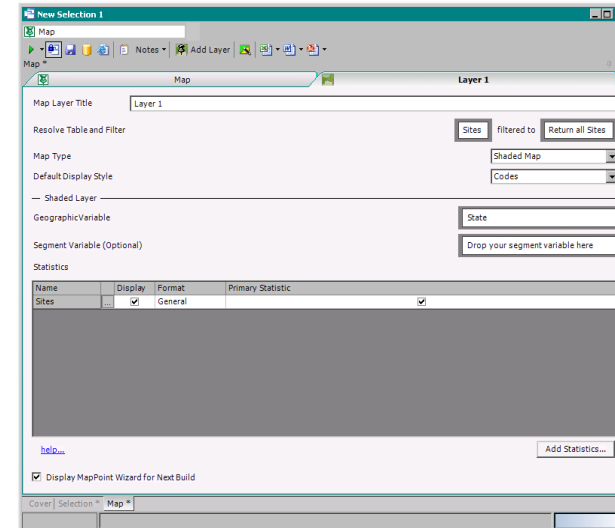
Thematic Map

Use thematic shading to look at the geographical spread of Sites with more than 100 employees.

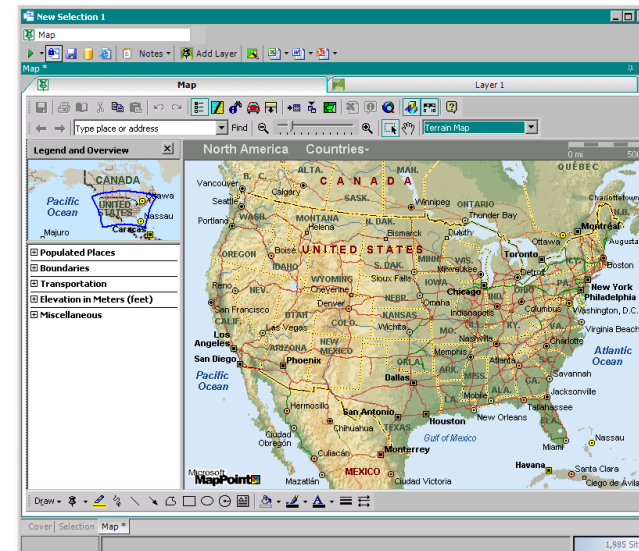
- Create a selection on **Emp Here Range**
- Drag the Map  icon onto your selection
- Click the  **Layer 1** tab to apply the settings to your Map. Set **Map Type** to **Shaded Map** and **Default Display Style** to **Codes**. Drag the **State** variable onto the **Geographic Variable** box
- Click the  **Build** button

The legend on the left hand side of the window indicates the numbers to be found in the differently shaded States.

- To zoom in further drag across a part of the Map you wish to view and click within the outline area
- Use the radius tool to select an area. Right click and drag from within the radius to the workspace
- Click the  **Build** button






Settings for a Shaded Map



Shaded Terrain Map

Plot Map

Use the same selection as previously...Sites with more than 100 employees.

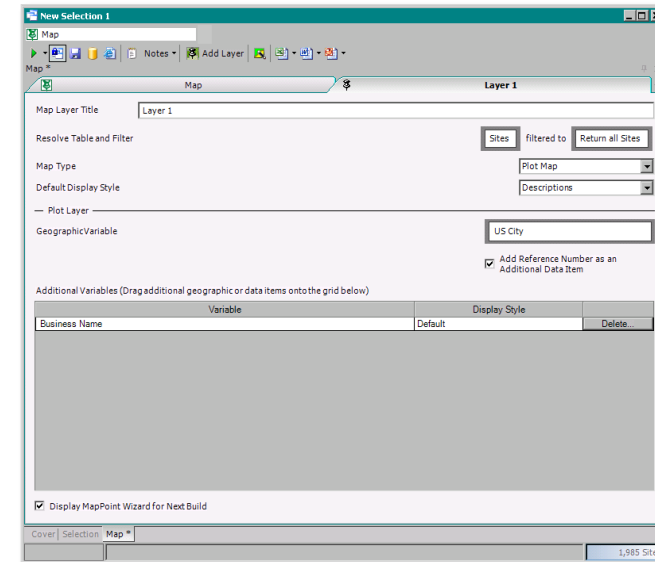
- Create a selection on **Emp Here Range**
- Drag the map  icon onto your selection
- Click the  **Layer 1** tab to apply the settings to your Map. Set **Map Type** to **Plot Map** and **Default Display Style** to **Descriptions**. Drag the **US City** variable onto the **Geographic Variable** box
- Drag the **Business Name** variable onto the **Additional Variables** area
- Click the  **Build** button

You are now able to see where individual businesses are located by the pushpin symbols.

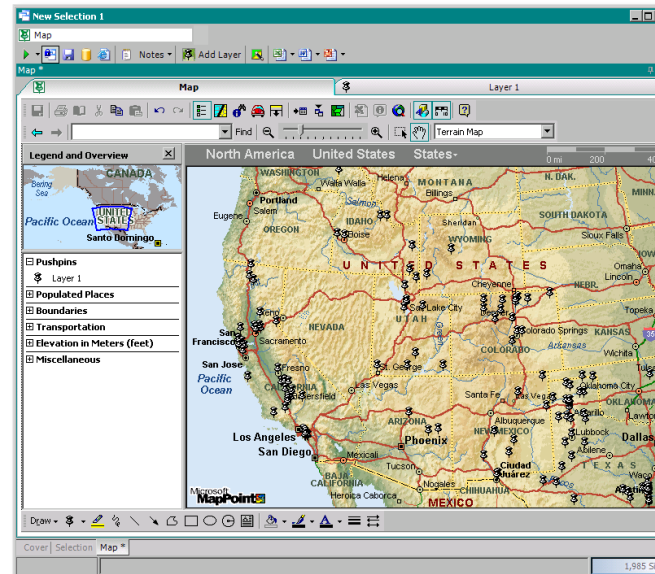
- Use the **Scribble** drawing tool to select an area. Right click within the area drawn and drag onto the workspace

You will now be presented with a selection window listing all of the DUNS numbers of Sites within that area.

- Right click on a pin and select **Show Information**. You will then be presented with an information box showing the **Business Name** and **DUNS** number



Settings for a Plot Map



Plot Terrain Map

Drive Time Mapping

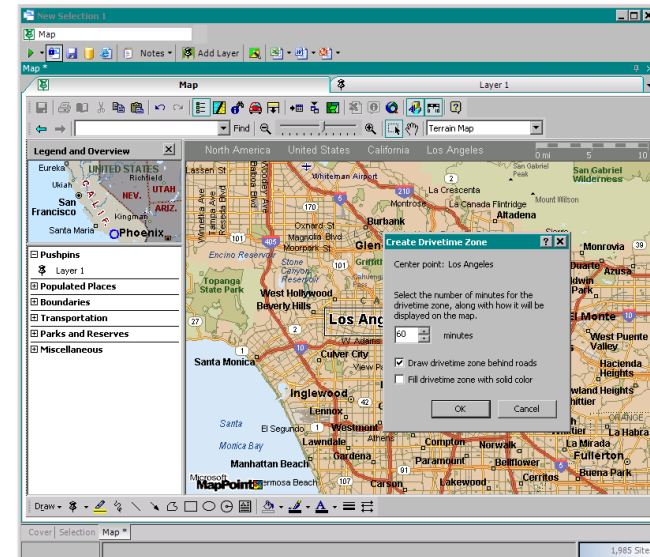
It is possible to use this function to find Sites that are within a determined area calculated upon the number of minutes it takes to drive from a given point.

- Using the **Plot Map** from the last example, create a drive time zone of 60 minutes from the center of **Los Angeles**
- Type **Los Angeles** into the **Find a Location** box and click **Find**
- Highlight the appropriate option and click **OK**
- Right click and select **Create Drivetime Zone...**
- Set the **Drivetime** to 60 minutes and check the **Draw drivetime zone behind roads**
- Click **OK**

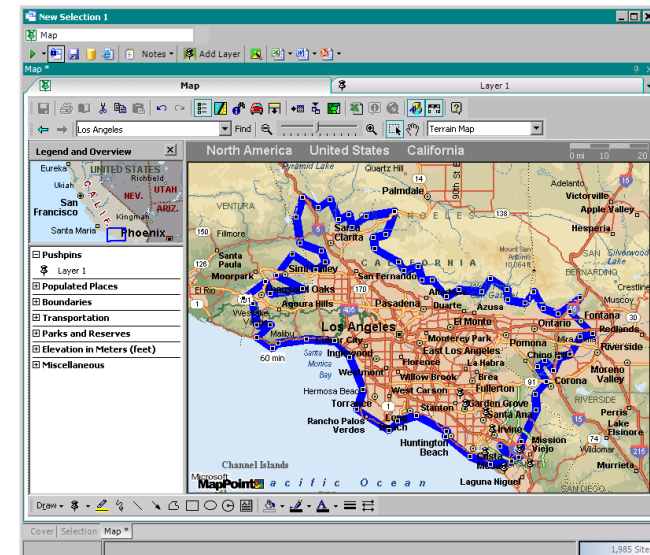
You can now find out how many Sites on the Market Insight system are within this 60 minute drive time by:

- Right click within the selected area and drag onto the workspace
- Click on the **Build** button of the selection window that has been created

The result will be all the records shown on the map which can be reached within a 60 minute drive from the center of Los Angeles.



Create Drivetime Zone Window





Drivetime Zone Display

Reporting

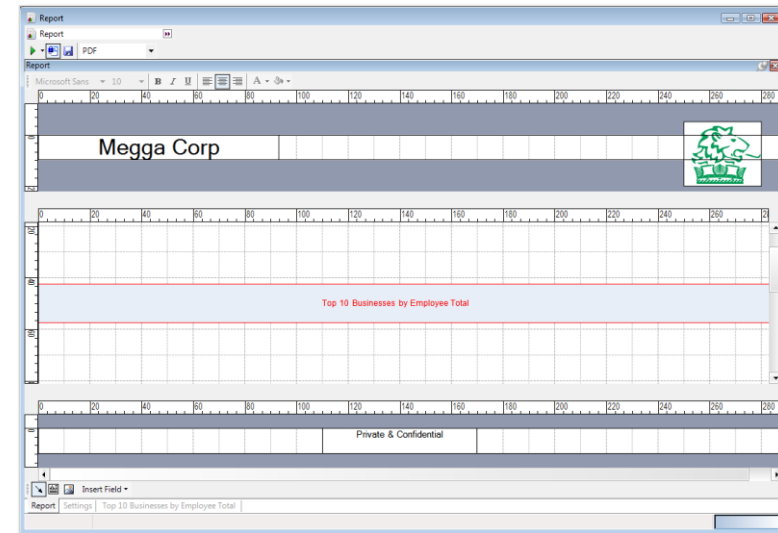
Once you have used Market Insight to find relevant or interesting data from your system you will want to share this with others. One of the more formal ways is to produce a report of your results. Market Insight reporting option allows you to take your results and present them in a branded format.

- From the **Toolbox** drag the **Report** tool onto the workspace

The Report format is split into 3 areas – Header, Main Body (Detail) and Footer. You can use the Drawing tools at the bottom of the window to top and tail your report and then save it as a Template.

- When you are happy with the layout of your Report select PDF or Word as the output format. Click on the  **Build** button to see the Report in Adobe Reader or Word
- If you are happy with your creation rename as **Report Template**. Then drag and drop the icon onto the **Templates** ribbon bar
- Close the existing **Report Template**
- Drag the **Report Template** onto the workspace
- Drag and drop a tool object onto the center part of your Report. In the example shown opposite a **Data Grid** has been dragged onto the main body of the Report
- Click on the  **Build** button

The contents of the Data Grid now form the main body of the Report.



Report Setup Window

Duns Number	Business Name	Physical City	Physical State Abbreviation	Emp Total
004428478	Brown & Brown, Inc.	Daytona Beach	FL	5,398
051015865	Fedex National LI, Inc.	Lakeland	FL	8,800
053021983	Verizon Data Services Inc.	Tampa	FL	3,800
050307919	Discount Auto Parts, LLC	Lakeland	FL	6,460
072228825	Indian River State College	Fort Pierce	FL	5,000
133020217	Dreyer's Grand Ice Cream Holdings, Inc.	Oakland	CA	5,979
175071398	Intermedia Communications Inc	Tampa	FL	5,073
305024720	Cardinal Health 303, Inc.	San Diego	CA	4,500
604506346	Citrix Systems, Inc.	Fort Lauderdale	FL	5,040
958131450	Frito-Lay North America, Inc.	Pasadena	CA	40,000


Report Displaying the Results of a Data Grid

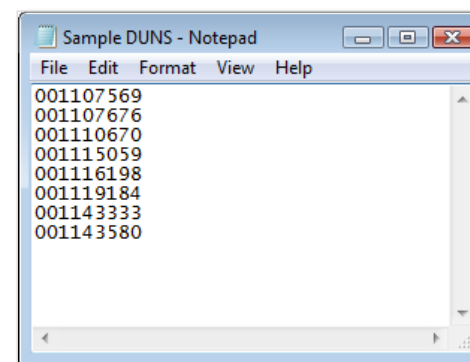
Upload DUNS to Market Insight

You can upload DUNS to Market Insight to allow you to analyze the identified records.

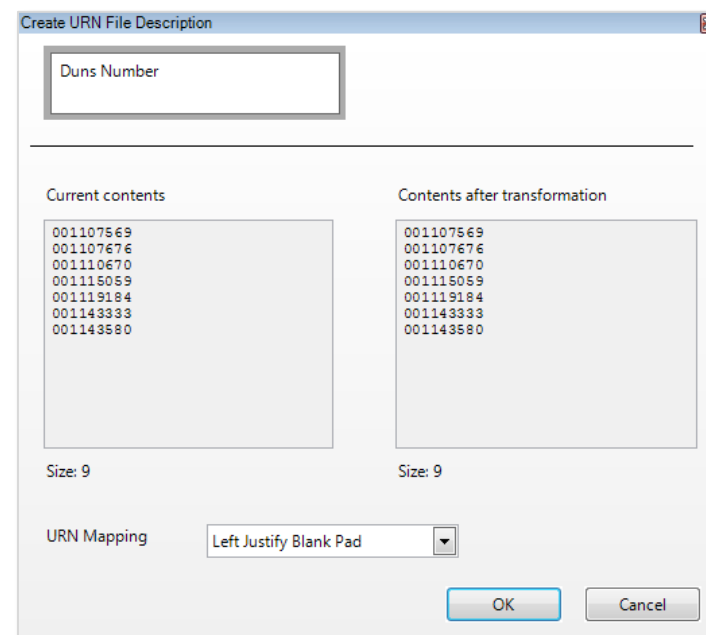
You can do this by:

- Prepare a file with one **DUNS** number on each row
- Rename the file to have a **URN** (Unique Reference Number) extension
- Use the Market Insight **File Explorer** to Navigate to the file. It will be displayed with a red cross indicating that Market Insight does not yet have details about the file
- Right Click on the file and choose **Create URN File Description**
- Drag the **Duns Number** variable onto the drop on box
- Press **OK** to accept the default settings. The red cross will disappear
- Upload the URN file by dragging it from your computer to the private folder in **My Market Insight Folders**
- You can select on the uploaded DUNS by simply dragging the file into a selection window in the same manner as you do for a selection variable

 **N.B.** Check that your DUNS number is 9 digits in length otherwise the system will not be able to find it.



URN File of DUNS



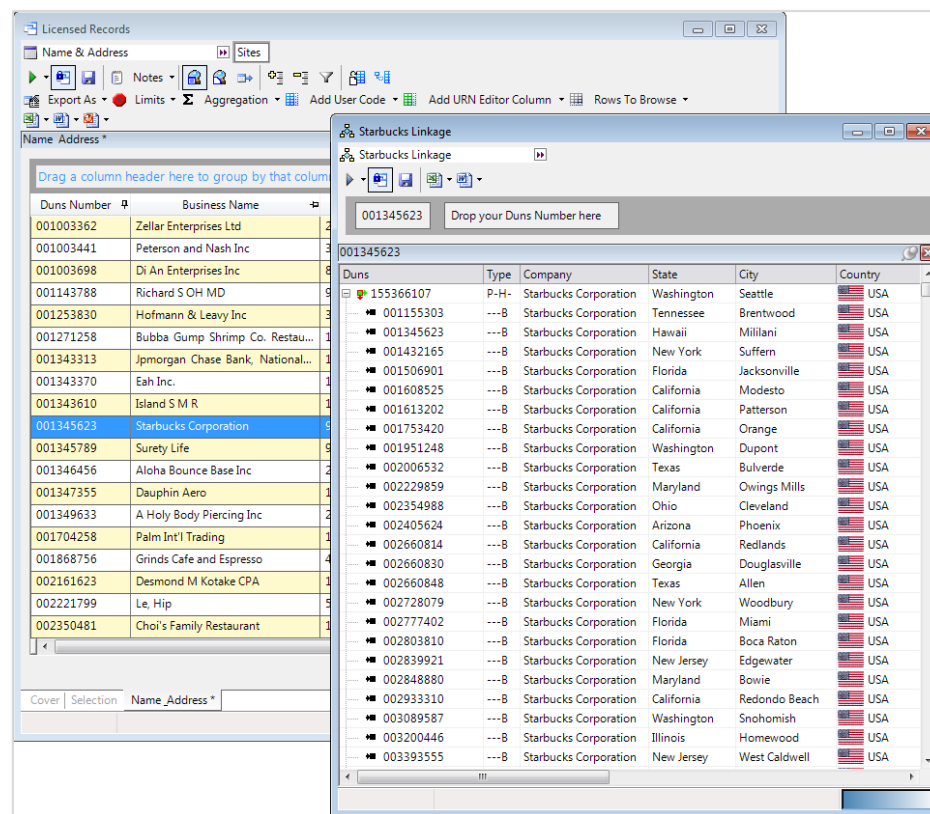
Create URN File Description Window


Linkage

Market Insight supports this optional module based on D&B's unique Who Owns Whom data about corporate ownership. This data set records ownership details so that relationships between different companies or specific sites within a corporate family can be established. A tree may be created from one or more DUNS numbers.

To create a Linkage Tree:

- Drag and drop a selection of licensed records onto the workspace
- Drag and drop the **Name & Address** template onto the selection and click **Build**
- Open a new **Linkage** tool by double clicking on it in the toolbox. Notice that the Linkage tool does not apply to a selection (there is no selection tab at the bottom left). Linkage works on individual records rather than selected groups
- Arrange the two windows so you can see the central section of each
- Click to select one row in the data grid
- Drag the selected row and drop it onto the drop zone at the top of the **Linkage** window
- Click **Build** to create the Linkage tree



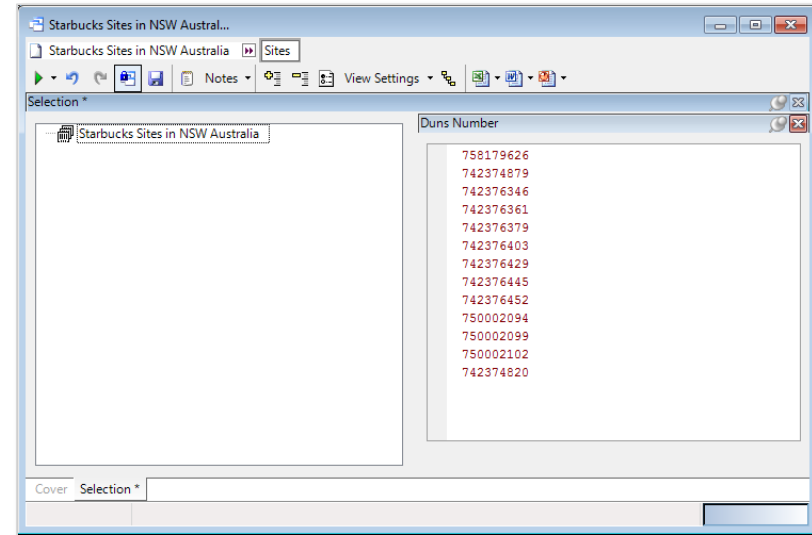
 **N.B.** The display of the whole corporate structure with the Ultimate Parent company at the top. The business site you selected is shown highlighted in position within the corporate ownership tree. Additional data is shown to the right hand side.

You can drag and drop a branch out of the Linkage Tree to create a selection expressed by DUNS numbers.









You can “hover” the mouse over the Linkage window when dragging a reference number. This will bring the Linkage window to the front to allow you to control where to drop the DUNS number.

You can run a number of trees concurrently by dragging several DUNS numbers into the drop zone area. The trees are displayed on tabs.

You can transfer the tree into Word, Excel or PowerPoint using the transfer buttons.



Branch Dragged from a Linkage Tree

Icon	Description
	Parent
	Headquarters
	Subsidiary
	Branch
	Parent & Headquarters
	Parent & Subsidiary
	Parent, Subsidiary & Headquarters
	Subsidiary & Headquarters

Linkage icons used to illustrate record relationships

Linkage Wizards

A wizard is also available to allow you to transform a series of DUNS numbers into a file of related DUNS numbers e.g. a group of sites could be transformed into a file of DUNS numbers that relate to the Full Corporate Family linked to that original group of sites.

- From the **Wizards** tab click on the **Duns Transformation** wizard under the **Linkage Wizards** section

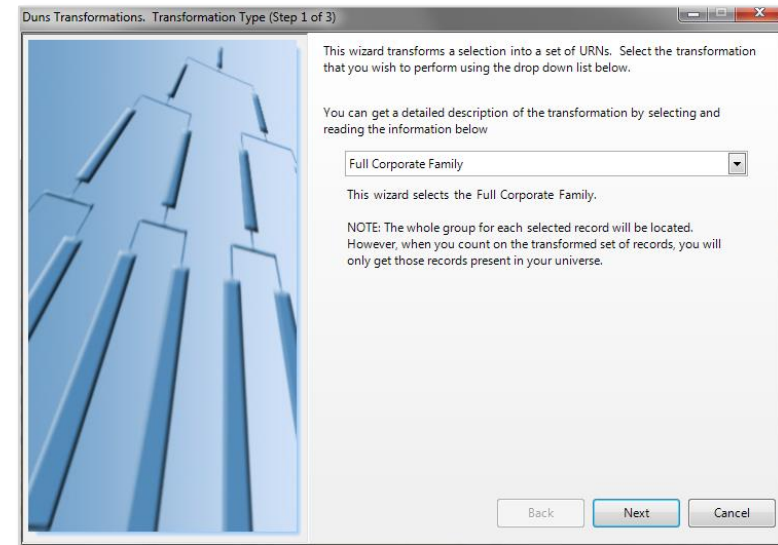
The first step of the wizard will appear which allows you to choose the transformation you want in terms of linking to other sites. A description is shown for the option you select.

- Step 1 - Select **Full Corporate Family** from the drop down list. Click **Next**
- Step 2 - From the **File Explorer** drag the selection **Florida v California** and drop it on the zone called **Drop your selection / Duns Number file here**. Click **Next**

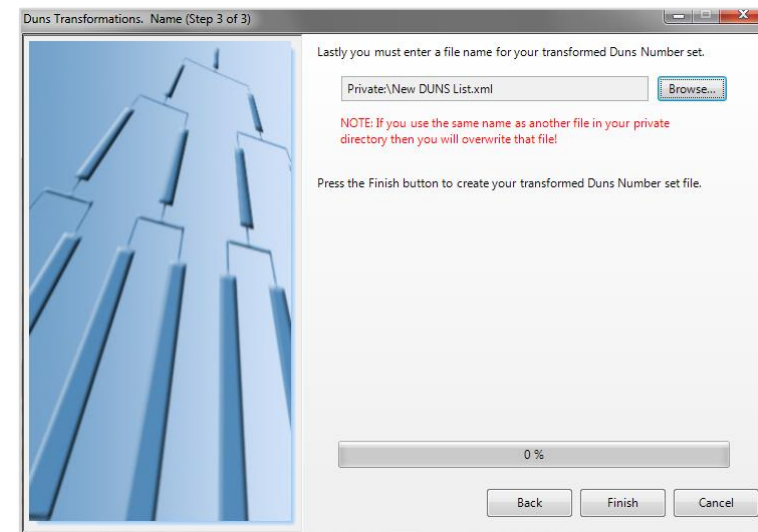
The records associated with this selection will be used for the transformation.

- Step 3 - Click the **Browse...** button to navigate to where you want the file created and to give it a name
- Click **Finish** to generate the file

This example will create a file of DUNS numbers for all sites that link to the sites in the Florida v California selection.



Step 1 – Transformation Type



Step 3 - Name

Data Purchase

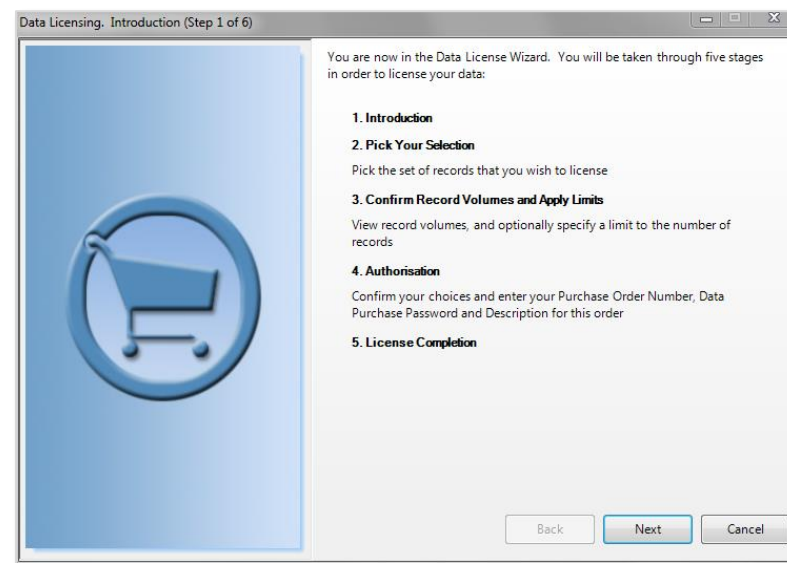
Data Purchase Wizard

Typically in a Market Insight system, some variables will not be visible to the user (through a browse or export) until they have been purchased. The Data Purchase wizard is used to license this data on demand. The wizard can be used to select what records are required and pricing is calculated based on pre-configured values.

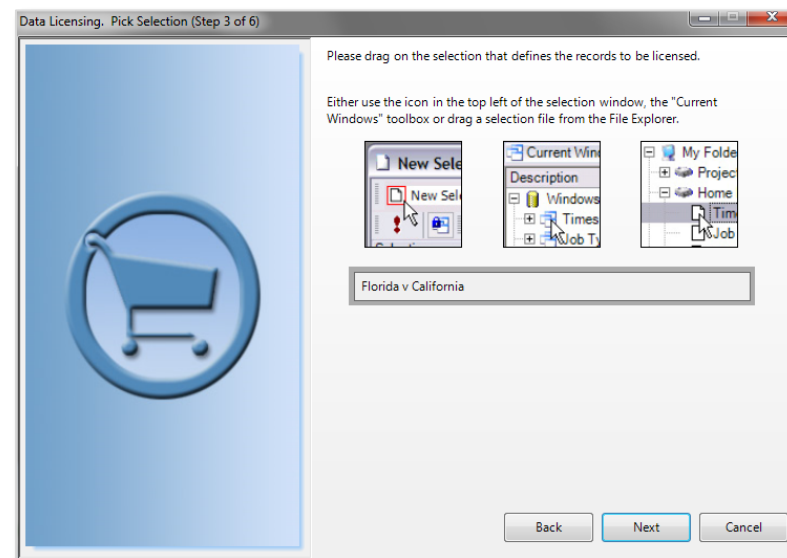
Data Purchase Wizard: Pick Selection

The first step in purchasing some data is to select (using a Selection) the records that will be bought. In some scenarios (where the wizard has been started by another wizard, such as the Best Fit Wizard) this page will not need to be displayed as the selection will already have been chosen.

To pick the records to purchase, drag on the selection you want to use.



Introduction Step



Pick Selection Step

Data Purchase Wizard: Select Use

At this step you will see the number of records available to you to be licensed. Any records from the selection you already license will be automatically excluded from the figure.

To make a random sample of the records in your selection type the number in the box. A further figure will be displayed to show how many records are still available to license.

Data Purchase Wizard: Confirm Purchase

This step of the wizard then shows the grand total cost of all the fields for all the records to be purchased.

User details then need to be entered to confirm you are allowed to make the purchase (and so that any credit checking that might take place can proceed).

The purchase order number and job description are used for your own reference to identify an order after it has been made.

If you have been given a special "Authorization Code" then you should tick the Use Authorization code checkbox and enter it here.

Pressing the Next button will then check the supplied details and make the purchase.

Number of records available to license	482,062
Number of records in this transaction	1,000
Number of records left to license	481,062

Select Use Step

Confirm Purchase Step

Retrieve Previous Orders Wizard

The Retrieve Previous Orders Wizard allows you to identify orders that have been made in the past and then generate a URN file containing all the URNs from a collection of 1 or more orders. This can then be used to build a selection to include or exclude previously ordered data.

The wizard lets you choose which orders to include in the URN file and then specify a name for the file. The URN file will be "deduped" so that no URN will appear more than once in the file.

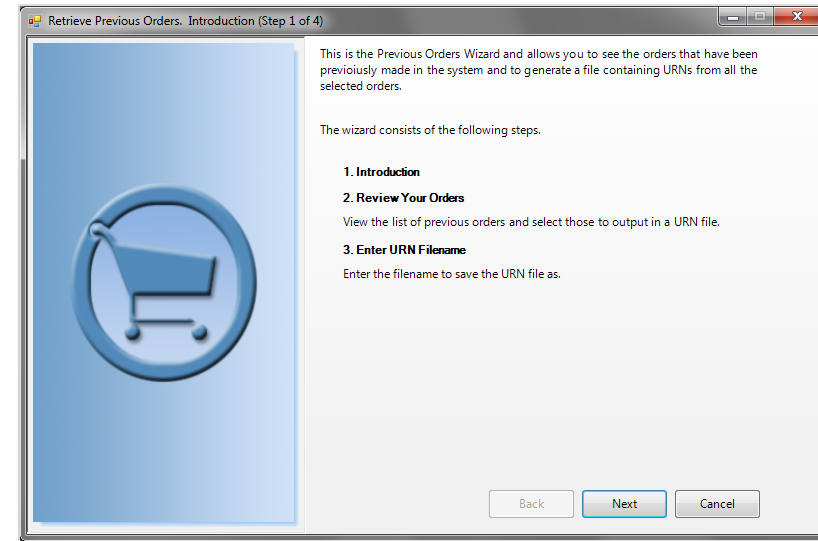
Retrieve Previous Orders Wizard: Review Your Orders

This screen shows all the previous orders for this system and starts by ordering them by date.

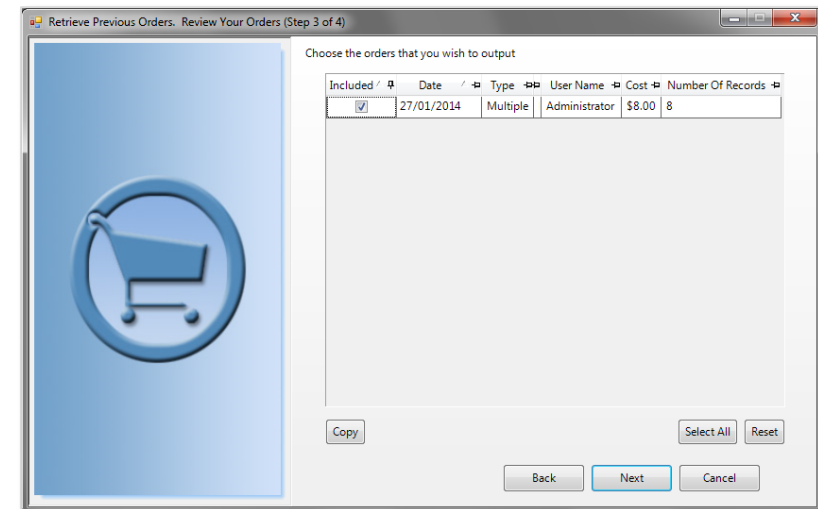
Use the Included column to pick which orders' URNs should be included in the final file. You can select all orders by pressing the "Select All" button or clear the selection by pressing the "Reset" button.

Retrieve Previous Orders Wizard: Enter Urn Filename

Once you have chosen which orders' URNs to include in the file, Browse to the save location and enter a file name. Pressing Finish will then create this file in your specified location e.g. private directory.



Introduction Step

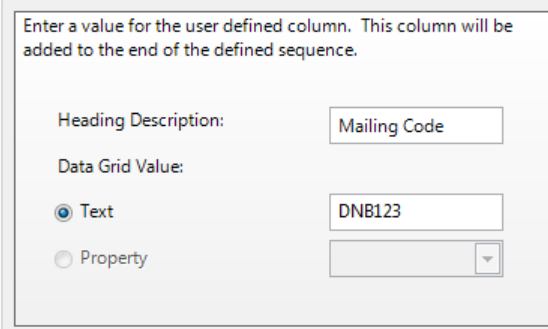


Review Your Orders Step

Exporting Data

After using Market Insight to explore and analyze your data you will want to export relevant records for mailing etc. The method for completing this task is to use the Data Grid view of your selection.

- Create a selection of licensed records
- Drag and drop the **Name & Address** template onto the selection and click **Build**



Enter a value for the user defined column. This column will be added to the end of the defined sequence.

Heading Description:

Data Grid Value:

Text

Property

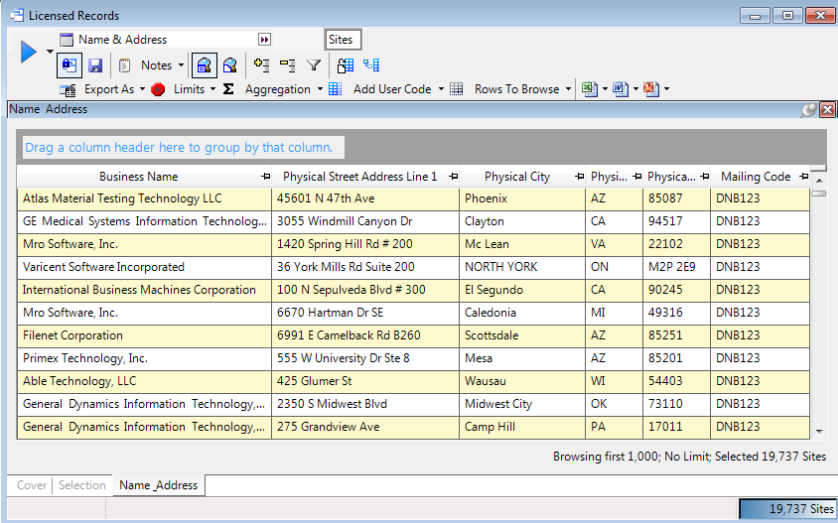
Add User Code Window

You may wish to add an extra column to your output at this stage to indicate a source/ mailing code etc.

- Click on the **Add User Code** button and complete as opposite
- Click **Add**

A new column will now appeared on your Export Data Grid.

- Click on the **Build** button to see the new column populated



Drag a column header here to group by that column.

Business Name	Physical Street Address Line 1	Physical City	Physi...	Physica...	Mailing Code
Atlas Material Testing Technology LLC	45601 N 47th Ave	Phoenix	AZ	85087	DNB123
GE Medical Systems Information Technolog...	3055 Windmill Canyon Dr	Clayton	CA	94517	DNB123
Mro Software, Inc.	1420 Spring Hill Rd # 200	Mc Lean	VA	22102	DNB123
Varicent Software Incorporated	36 York Mills Rd Suite 200	NORTH YORK	ON	M2P 2E9	DNB123
International Business Machines Corporation	100 N Sepulveda Blvd # 300	El Segundo	CA	90245	DNB123
Mro Software, Inc.	6670 Hartman Dr SE	Caledonia	MI	49316	DNB123
Filenet Corporation	6991 E Camelback Rd B260	Scottsdale	AZ	85251	DNB123
Primex Technology, Inc.	555 W University Dr Ste 8	Mesa	AZ	85201	DNB123
Able Technology, LLC	425 Glumer St	Wausau	WI	54403	DNB123
General Dynamics Information Technology,...	2350 S Midwest Blvd	Midwest City	OK	73110	DNB123
General Dynamics Information Technology,...	275 Grandview Ave	Camp Hill	PA	17011	DNB123

Browsing first 1,000; No Limit; Selected 19,737 Sites

19,737 Sites

Export Data Grid with Mailing Code

You can amend the type of data file exported.

- Click on the **Export As** button

Here you can make the choices for your preferred Output Format.

Output Format – determines the type of file to export

Header Row – if applicable for the file format selected, determines what headers are included at the top of the file;

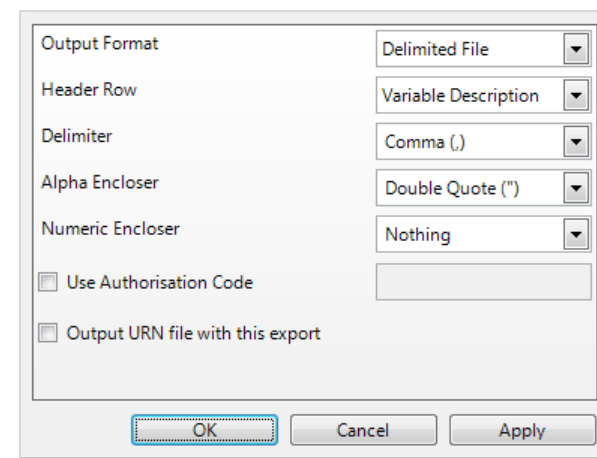
Delimiter / Alpha Encloser / Numeric Encloser – if applicable determine the characters used in the structure of a file. The popup menu offers a choice of typical and special characters, but you can type any normal character into the menu entry.

Use Authorization Code – this tick box and entry field is for use with D&B's Velocity Checking mechanism when the export exceeds the volume limits or is out of normal working hours.

Output Reference file with this Output – determines whether the application will create a file of DUNS numbers in parallel with the data output.

- Leave the settings as they are and click **OK**. Rename the file **Licensed Records** and drag it onto the **Private** folder within the **File Explorer**
- In this example you will see the file has a **.csv** extension

At this stage, the data file you have exported is on the Market Insight server. To transfer the file to your own PC, drag it from the private folder to any of your local PC's storage areas, for example to the **Desktop**. You will see the progress bar indicate the download process. Once downloaded, right click to email the file.



Export As Window

Duns Number	Business Name	Physical Street Address Line	Physical City	Physical State Abbreviation	Physical Zip - US Only	Mailing Code
1	1017867	Abraham Helman, Cheryl	2086 Pleasant Hill Rd	Pleasant Hill	CA	94523 XKD245
2	1025563	Washington Mutual Card Services	1333 Broadway	Oakland	CA	94612 XKD245
3	1026462	Glendale Photo Inc	601 N Glendale Ave	Glendale	CA	91206 XKD245
4	1083604	Best Rate Card Service	2050 Calle Leandro	San Dimas	CA	91773 XKD245
5	1086276	Claim Investigation & Support	5225 Canyon Crest Dr # 71211	Riverside	CA	92507 XKD245
6	1107494	Ultimate Carwash	150 Grand Ave	Susanville	CA	96130 XKD245
7	1107569	Amos Trucking	1217 1/2 W 60th Pl	Los Angeles	CA	90044 XKD245
8	1107676	D S Steele Inc-Cen Cardlock	702-805 Johnstonville Rd	Susanville	CA	96130 XKD245
9	1110670	City of Sacramento	3525 Norwood Ave	Sacramento	CA	95838 XKD245
10	1115059	Rebecca Thompson	1306 N Irwin St	Hanford	CA	93230 XKD245
11	1116198	Leland Livestock Hauling	14220 Avenue 228	Tulare	CA	93274 XKD245
12	1119184	Research Consultant Services	13 N San Mateo St APT B	Redlands	CA	92373 XKD245
13	1143333	Grimway Farms	Hwy 166	Cuyama	CA	93254 XKD245
14	1143580	Platinum Dental	555 S Rancho St Fe 100	San Marcos	CA	92078 XKD245
15	1171292	Firestone of Rowland Heights	18213 Colima Rd Ste 10	Rowland Heights	CA	91748 XKD245
16	1196299	LS Acquisitions	967 Poplar CT	Simi Valley	CA	93065 XKD245
17	1197107	Sundance Roofing Co	5151 Walnut Ave APT 2	Irvine	CA	92604 XKD245
18	1197289	Lindas Gift Specialties	1446 Oakcrest Ave	South Pasadena	CA	91030 XKD245
19	1197651	Paymentech Inc	701 E Ball Rd	Anaheim	CA	92805 XKD245
20	1200307	Joe Welch	383 San Bruno Ave W	San Bruno	CA	94066 XKD245
21	1200323	Certified Legal Video Specialist	212 W Perkins St	Ukiah	CA	95482 XKD245
22	1200331	Solana County Office of Education	1895 Woolner Ave	Fairfield	CA	94533 XKD245
23	1215719	Keith Lamb Construction	710 Illinois Ave	San Jose	CA	95125 XKD245
24	1221345	Dennis Wilcox MD	2650 Jamacha Rd	El Cajon	CA	92019 XKD245

Example of a .CSV File Opened in Excel