



dun & bradstreet

**Market Insight**  
**Excelsior 2 Module**  
**Training Manual** v2.0

# D&B Market Insight

## Excelsior 2 Module

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## Introduction to Excelsior

Market Insight Excelsior provides a reporting environment which combines the analytical power of Market Insight to process huge marketing databases with the flexibility of Excel to manipulate and present data driven results.

Market Insight Excelsior has two licensing levels:

- **Excelsior Developer** - small number of individuals who actually assemble the Excelsior reports in tandem with Market Insight
- **Excelsior Viewer** - larger number of individuals who can view and refresh the Excelsior reports with the latest results, but cannot alter the structure of the report

An Excelsior report is based on a number of embedded **Market Insight Objects** (e.g. a cube), which are linked to the Market Insight system and can be refreshed with the latest results.

Typically the Developer would use Excel functionality (e.g. formulae and charts) to manipulate the raw data and present it in an attractive format for the Viewers.

There is the opportunity to incorporate external data within the Excelsior workbook, for example, using some budget or target figures.

The Excelsior Report maintains a link to the Market Insight system so that the report can be refreshed to reflect the latest data.

The link between Market Insight and Excelsior is held as part of the plugin to Excel. Therefore when the report is saved it can be shared as a snapshot of the results, as there is no longer a link with the Market Insight system. An unlimited number of individuals throughout the business can use Excel, without the Excelsior plugin to view a report in this way.


	Report Functionality			Market Insight Requirements	
	Create	Refresh	View	Excelsior License	Market Insight Access Required?
Excelsior Developer	✓	✓	✓	Full	Yes
Excelsior Viewer	✗	✓	✓	Partial	Yes
Excel User	✗	✗	✓	None	No

## The Example Data

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.

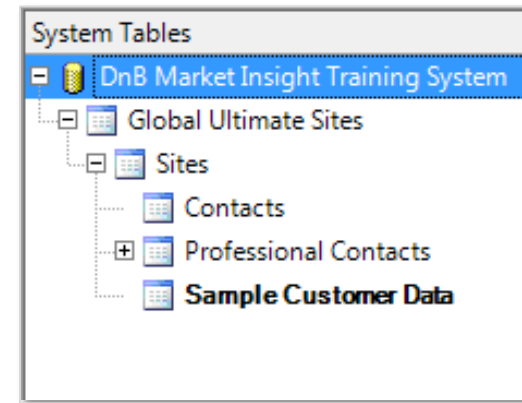
The detail present on each table of data depends on the Market Insight Administrator. The data is arranged into folders to assist the user to navigate and find data items.

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).


 **N.B. The counts and displays in this manual may well differ to the results you obtain due to the changing nature of the data.**

## Using This Manual

This manual is designed to act as a self-directed training course using the data described above or as a reference guide. Therefore you will not necessarily see the same figures as shown in this manual when working through the examples.



Training System Table Level Structure

 **N.B. This manual is not designed to provide Excel training.**

## How to Login

### Opening a Report

As a Developer or Viewer you can open an existing Excelsior report by opening it up through a version of Excel that has the Excelsior plugin installed. As a Developer you can create a new Excelsior report by logging in to the Excelsior plugin of Excel:

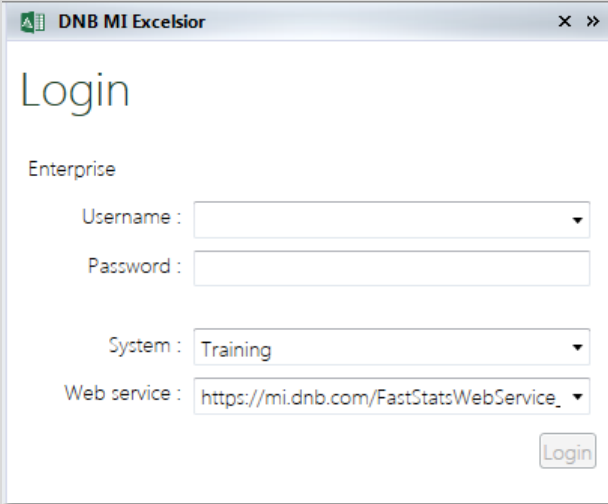
- Open **Excel** and click on the **Market Insight Excelsior** ribbon bar tab and then click on the **Show Task Pane** button

### Connecting to the Market Insight System

The Excelsior Report is essentially an Excel workbook, with links to a Market Insight system in order to retrieve the latest data. The contents of the report when opening it will be a snapshot of the results when the report was last saved. A connection to the Market Insight system is required in order to refresh the results. There is a task pane on the right hand side of the workbook which connects the Excelsior report to the Market Insight system on which it is based.

### Remote Login

Typically multiple users will view Excelsior reports that connect to a Market Insight system stored remotely. Your Market Insight Administrator will be able to set you up with an Excelsior Username and Password and provide you with the login details of the System name and Web Service address. This username will determine your level of access as a Developer or a Viewer.



Enterprise Login

## Viewing an Existing Excelsior Report

To view an Excelsior report you have been sent (or created yourself) as an Excel file, you will need to save it on your local hard drive.

An Excelsior Viewer is able to log in to the Market Insight system and refresh the contents of the report at any time.

- From the **File** menu of **Excel** locate the **.xlsm** file that you wish to open (you may not have one yet)
- Open the file

## Viewing the Report

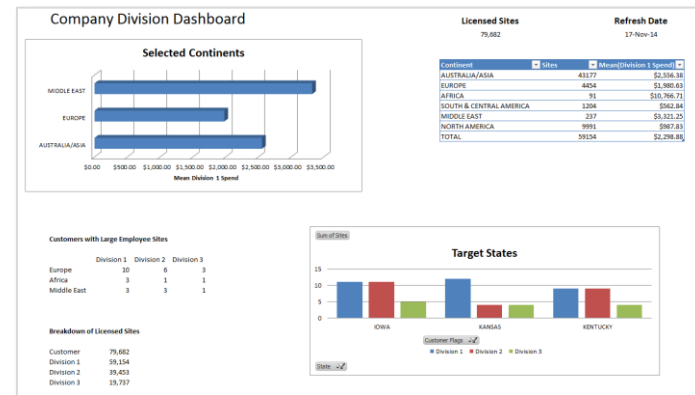
The contents of the report when opened will be a snapshot of the results when the report was last saved.

The report layout and display will be dependent upon the Excel skills of the Excelsior Developer. The aim will be to present clearly information found or derived from Market Insight. How these Market Insight objects are created and selected for use in Excelsior is shown later in this manual.

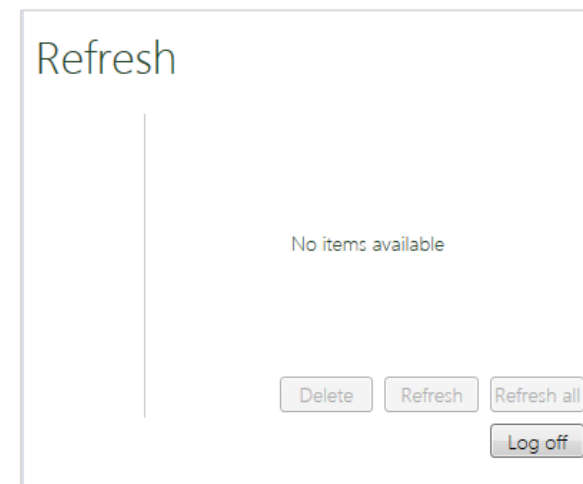
An Excelsior Viewer has two main options when using Excelsior:

- **Refresh** – to retrieve the current figures
- **Save** – to obtain a standalone copy of the report

The final option is to Log off from Excelsior which breaks the connection with the Market Insight system with which the report was generated.



Refreshed Excelsior Report



Refresh & Log off Buttons

## Refresh the Report

You are already aware that your Excelsior report is a snapshot in time. Therefore when the Market Insight database has been refreshed you will want to see this reflected in your report.

To achieve this action:

- Click the **Refresh all** button

The various Market Insight objects used within the report will be listed in the Refresh window. As the refresh takes place you will notice the report display change as new figures are inserted and graphs updated.

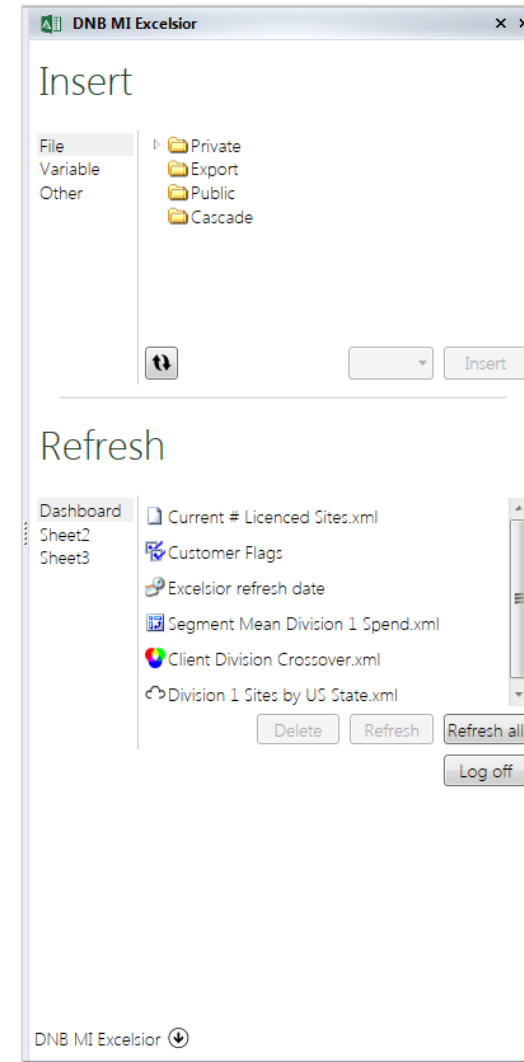
## Logoff

To disconnect from the Market Insight system:

- Click the **Log off** button

The Excelsior Report will remain open so that normal Excel functionality can still be used.

The report can be saved (as a snapshot in time) and shared with Excel users who do not have the Excelsior plugin.



Excelsior Panel

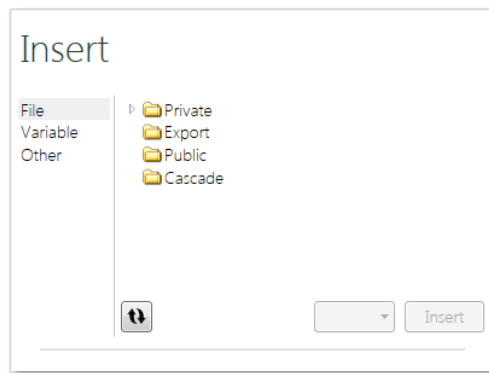


## Developing an Excelsior Report

To be able to create an Excelsior Report you will need an Excelsior Developer license. The following information gives you an overview of what is available to an Excelsior Developer.

The Excelsior panel is split into 2 sections, Insert and Refresh. The Insert section gives the Developer access to the data in the associated Market Insight system.

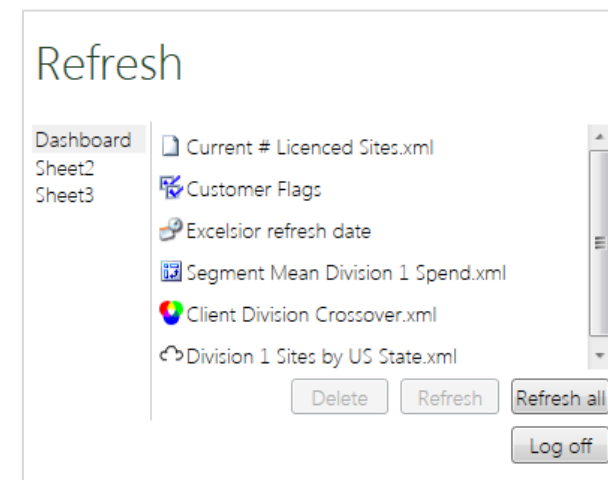
- File** This option gives you access to the My Market Insight Folders of your Market Insight system. Here you can locate any saved items you need e.g. cube, venn etc.
- Variable** This option gives you access to the System Explorer of your Market Insight system. Here you can locate any variables you wish to gain access.
- Other** This option allows you to insert 2 useful dates into your report; the refresh date of your report and the date of system build.



Insert Section of Excelsior Panel

The Refresh section allows you to refresh, delete and amend options on the items in your report. The label to the left of the vertical line indicates the sheet of your workbook (even those that are hidden). The items listed to the right of the vertical line relate to the sheet selected.

- Delete** Clicking on this button will delete the highlighted item. You will also need to delete the actual display on the report.
- Refresh** Clicking on this button will refresh the display for the highlighted item.
- Refresh All** Clicking on this button will refresh all the items, on all the sheets of the report.
- Log off** Clicking this button will sever the link between the Excelsior plugin and the Market Insight system.



Refresh Section of Excelsior Panel

## Starting a new Excelsior Report

To create a new Excelsior Report you will need to open a new blank workbook.

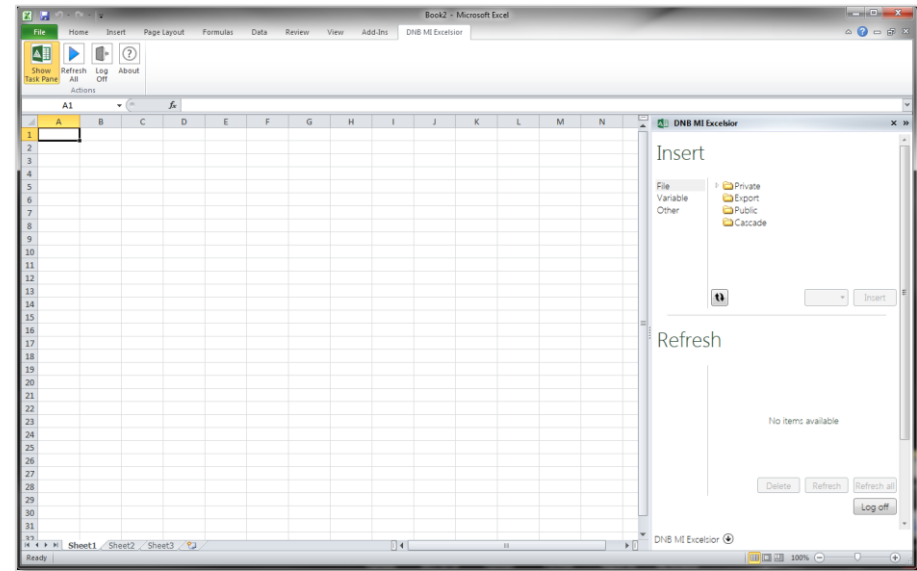
- From the **File** menu select **New → Blank workbook** and then click **Create**

The Excelsior Developer can use the powerful analysis tools available in Market Insight to prepare the report.

- In Market Insight you can create any of the Market Insight Objects listed opposite and save them in the My Market Insight Folders. (These objects will need to be saved in the Public folders if the Excelsior report is to be accessed by multiple users).
- In Excelsior, the saved objects are visible in the File section of the Insert panel.
- You can select a cell in a worksheet where the object is to be inserted, and double-click on the reportable or use the Insert button.

The latest results from the Market Insight system are inserted on to the selected worksheet. Excel functionality can then be used to manipulate and present the results inserted from the Market Insight system. The results can be updated at any time keeping the reports up to date with the latest data in the system.

The Market Insight objects shown opposite can be embedded in an Excelsior report:




New Excelsior Window

- Cubes/Trees
- Word Clouds
- Venn diagrams
- Data Grids
- Selections (saved as a Query)
- Maps
- Profiles

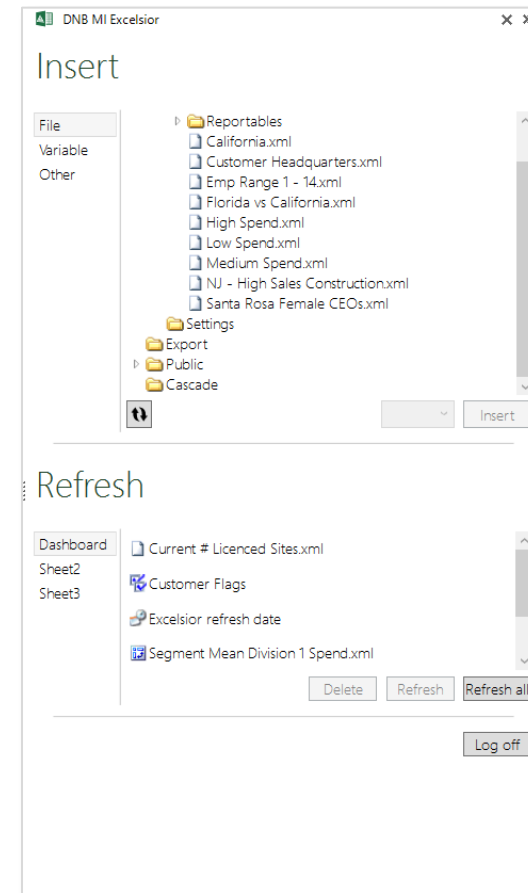
## Creating an Excelsior Report

To guide you through the developing process a series of Market Insight Objects have been created and placed into a folder called Reportables. The following pages will demonstrate how you can insert objects into the Excelsior Report and use some basic Excel functionality to create a simple dashboard.

 **N.B.** This is not an Excel training course so you will need to use your own skill and knowledge to manipulate and display the data to the required standard when creating your own reports.

When using the various Market Insight Objects you may want to manipulate them within Excel. Therefore you may want to insert different objects into different worksheets before displaying the end results.


- Right click on the Excel **Sheet1** tab
- Select **Rename** and type **Dashboard**
- Click on cell **B1** and type **Company Division Dashboard** in font Calibri 24
- Save your Excelsior Report on the Desktop as **My Excelsior Dashboard.xlsm**



Logged in Excelsior Panel

## Working with Market Insight Objects

Before using some predefined Market Insight Objects, create a cube in Market Insight to demonstrate the start to end process. (You will require access to the Market Insight Training system to do this.)

- Create a Cube of the entire Training database. Display as a breakdown of **Emp Here Range** by **Continent** at the **Site** table
- Save the Cube as **EHR by Continent** in your **Private** folder (generally save your objects in your Reportables folder)
- In Excelsior click on cell **A1** in **Sheet2**
- In the **Insert** panel click on the  **Refresh** button then highlight the **EHR by Continent** file
- Click **Insert as Data**

	AUSTRALIA/ASIA	EUROPE	AFRICA	SOUTH & CENTRAL	MIDDLE EAST	NORTH AMERICA	TOTAL
No Data or 0	3,960,899	12,815,460	529,268	3,140,836	73,756	3,806,252	24,326,471
1 - 4	2,621,758	25,191,498	67,377	4,824,875	136,876	17,552,431	50,394,815
5 - 9	1,686,285	2,587,735	16,071	1,409,369	31,855	2,341,442	8,072,757
10 - 14	1,043,587	962,314	13,165	901,900	15,860	893,888	3,830,714
15 - 19	329,856	358,656	5,996	94,166	7,178	411,777	1,207,629
20 - 29	1,145,497	471,044	10,300	290,975	9,803	516,487	2,444,106
30 - 49	371,861	328,825	8,707	77,212	9,477	419,738	1,215,820
50 - 74	337,521	229,172	7,619	40,597	18,155	249,902	882,966
75 - 99	146,393	80,448	2,521	16,995	3,935	107,679	357,971
100 - 199	219,880	143,698	6,242	22,352	11,052	165,819	569,043
200 - 249	49,721	30,412	1,870	4,563	2,255	30,684	119,505
250 - 499	105,099	47,845	3,261	9,546	3,917	46,386	216,054
500 and over	89,817	37,115	4,449	10,045	6,311	25,992	173,729
<b>TOTAL</b>	<b>12,108,174</b>	<b>43,284,222</b>	<b>676,846</b>	<b>10,843,431</b>	<b>330,430</b>	<b>26,568,477</b>	<b>93,813,680</b>

Cube – EHR by Continent

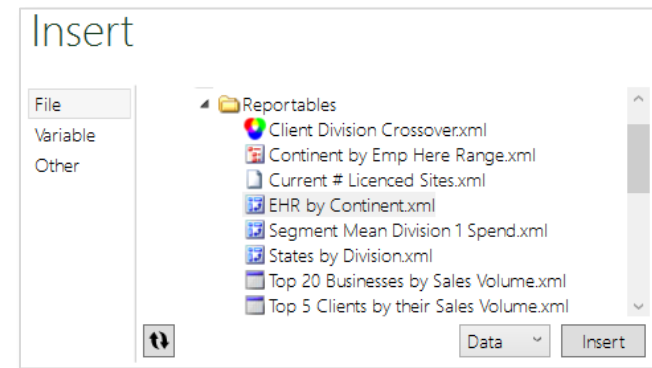
The results found in Market Insight are now represented in the Excelsior Report. In the Refresh panel there are buttons to:

### Refresh

This option will retrieve the latest results from the Market Insight system and display them in the same position the object was placed on the Excelsior report.

### Delete

With the Market Insight Object highlighted in the Refresh panel, pressing the Delete button will remove it from the report. (Do not do this now)



Insert Panel

When the mouse pointer is over the Market Insight Object in the Refresh panel a small arrow is revealed. Clicking on this arrow will present you with the Options screen for that object.

## Find

Clicking on this button will highlight the object's display in the report.

## Apply

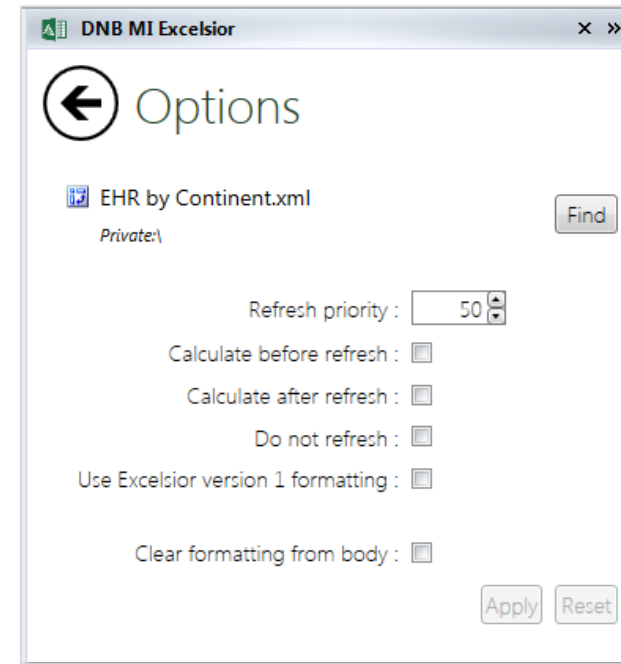
Use this button to activate the options once a mark has been placed in the relevant tick boxes.

## Reset

Click this button to restore the default options, as seen in the screen shot opposite.

Click on the arrow at the top of the screen to return to the Refresh panel.

- Delete this object and return to the **Dashboard** tab



Market Insight Object - Options

## Working with Cubes and Trees

Cubes and Trees provide a powerful tool for aggregating your data. By using Market Insight Excelsior further data manipulation can be performed on the results (e.g. indexing, cumulating, and averaging) or results can be combined with data from external sources. Excel charts can be applied to Cubes or Trees to present results visually.

### Inserting Cube Data


Any cube saved in Discoverer can be inserted into an Excelsior report either as an Excel Pivot Table, Source or the Cube Data (static table layout).

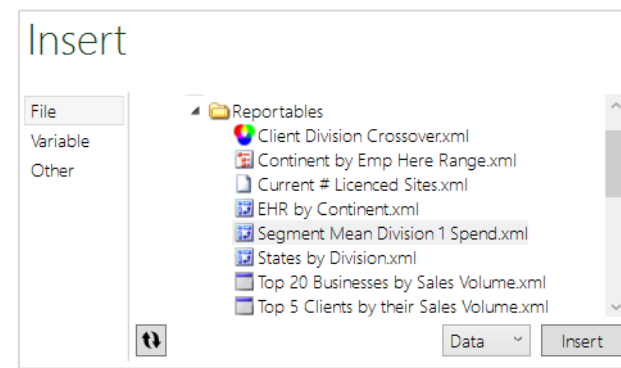
- Click on cell **J5** on the **Dashboard** where you want to insert the cube
- Select the cube saved in Discoverer from the **Insert** panel – **Public** → **Reportables** → **Segment Mean Division1 Spend.xml**
- Choose **Data** (static table) rather than **Pivot** (dynamic Excel Pivot Table) and click **Insert**

The latest results of this cube will be inserted at the selected cell. The Refresh panel will also list the cube that has been inserted.

To tidy up the display it would be useful to hide any columns/rows that are not of interest

- Right click on any such Row(s) and select **Hide**

 **N.B.** You cannot just delete elements of your Market Insight Object because when you refresh the display the original columns/rows, plus any new ones will be reinstated into that same position.




Insert Cube Data

	Sites	Mean(Division 1 Spend)
AUSTRALIA/ASIA	43177	2556.38
EUROPE	4454	1980.63
AFRICA	91	10766.71
SOUTH & CENTRAL AMERICA	1204	562.84
MIDDLE EAST	237	3321.25
NORTH AMERICA	9991	987.83
TOTAL	59154	2298.88

Cube Results in Excelsior

- On **Row 5** type **Continent** in **Column J**
- Highlight the **Mean** column of figures, right click and select **Format Cells...**
- Under the **Number** tab select **Currency**. Click **OK**
- Highlight the entire table and from the **Styles** group on the **Home** tab click on **Format as Table**
- Click on the style you require **9** and click **OK**

The formatting you have applied to these cells will be retained the next time a refresh takes place.

 **N.B.** This method is best used for objects where the number of categories is unlikely to change. Otherwise insert as a pivot table so you can always find the same categories. See the examples on the following pages.

To present some of this information as a chart:

- Highlight the **Continents** and **Mean Spend** for **Australia/Asia**, **Europe** and **Middle East**
- Click on the **Insert** ribbon

Continent	Sites	Mean(Division 1 Spend)
AUSTRALIA/ASIA	43177	\$2,556.38
EUROPE	4454	\$1,980.63
AFRICA	91	\$10,766.71
SOUTH & CENTRAL AMERICA	1204	\$562.84
MIDDLE EAST	237	\$3,321.25
NORTH AMERICA	9991	\$987.83
TOTAL	59154	\$2,298.88

Cube Data with Formatting

Continent	Sites	Mean(Division 1 Spend)
AUSTRALIA/ASIA	43177	\$2,556.38
EUROPE	4454	\$1,980.63
AFRICA	91	\$10,766.71
SOUTH & CENTRAL AMERICA	1204	\$562.84
MIDDLE EAST	237	\$3,321.25
NORTH AMERICA	9991	\$987.83
TOTAL	59154	\$2,298.88

Continent & Mean Spend Highlighted

- From the **Charts** group click on the **Bar** button
- Select the **Clustered Bar in 3D** option
- Amend titles and axis labels as shown in the screen shot opposite

You can now resize and position the chart to an appropriate place on the report.

- Drag the chart so it sits to the left of the table of figures

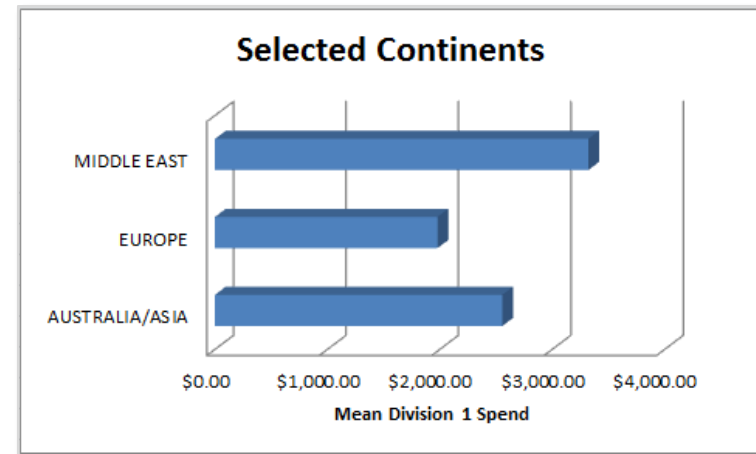


Chart of Selected Continents

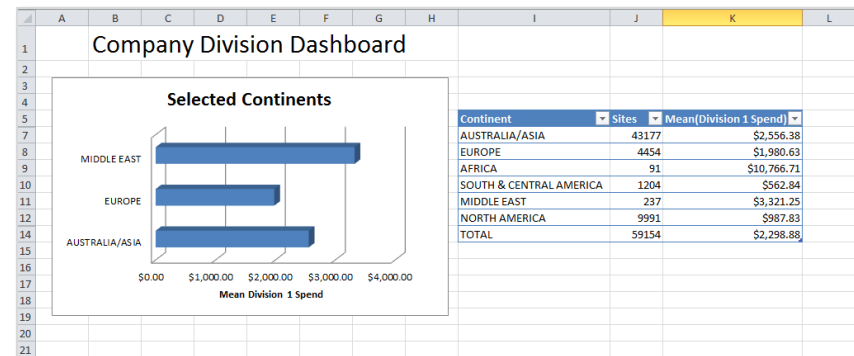


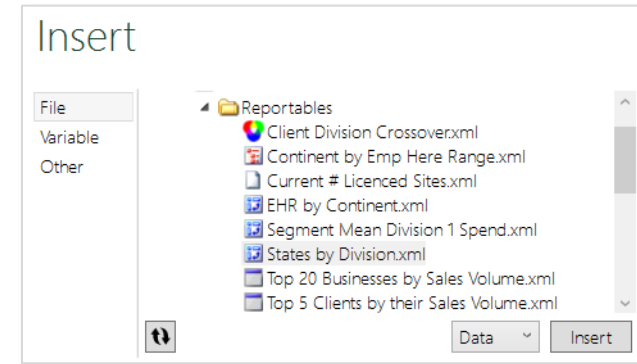
Chart & Data Displayed Side by Side



## Inserting a Cube as a Pivot Table

Any cube saved in Market Insight can be inserted into an Excelsior report either as an Excel Pivot Table or the Cube Data (static table layout).

- Click on cell **A1** on **Sheet2** where you want to insert the cube
- Select the cube saved in Discoverer from the **Insert** panel – **Public** → **Reportables** → **States by Division.xml**
- Choose **Pivot table** (dynamic Excel Pivot Table) rather than **Data** (static Cube table) and click **Insert**



Insert Panel

A Pivot Table will be inserted at the selected cell to display the latest results.

## Configuring the Pivot Table

The Pivot Table may need configuring (see Excel help for more details on this functionality). For example:

- Change Field Value Settings to display values as Sum or Count.
- Change Field Value Settings to display values as % Row or Column etc.
- Change the orientation of rows and columns.
- Use Filters to hide certain categories.

	A	B	C	D	E	F
1	Sum of Sites	Customer Flags				
2	State	Customer	Division 1	Division 2	Division 3	Grand Total
3	Unclassified	66964	11782	7794	3853	90393
4	ALABAMA	95	14	14	6	129
5	ALASKA	23	2	2	1	28
6	ARIZONA	247	36	20	12	315
7	ARKANSAS	35	5	2	3	45
8	CALIFORNIA	2203	299	201	91	2794
9	COLORADO	371	40	28	11	450
10	CONNECTICUT	178	18	16	7	219
11	DELAWARE	43	7	7	3	60
12	DISTRICT OF COLUMBIA	63	11	10	1	85
13	FLORIDA	995	129	88	50	1262
14	GEORGIA	475	56	35	24	590
15	HAWAII	28	3	2		33

Cube Displayed as a Pivot Table

These configurations will be maintained when the Pivot Table is refreshed.

To create a simple, but flexible chart:

- Click within the pivot table and then from the **Pivotable Tools** select **Analyze** and then **PivotChart**
- Select the **Clustered Column** chart and click **OK**

You now have the opportunity to choose which items you would like to display on your chart:

- On the **PivotTable Field List** click on the drop down arrow on the **State** field. Deselect all destinations except **Iowa, Kansas, and Kentucky**
- On the **PivotTable Field List** click on the drop down arrow on the **Customer Flags** field. Deselect **Customers**
- Click on the chart, the **Design** ribbon should now be displayed. From the **Charts Layouts** group select **Layout 3**
- Click on the title and amend as shown in the screen shot opposite
- Right Click on the **Chart** select **Move Chart ...** then select **Object in: Dashboard** and click **OK**

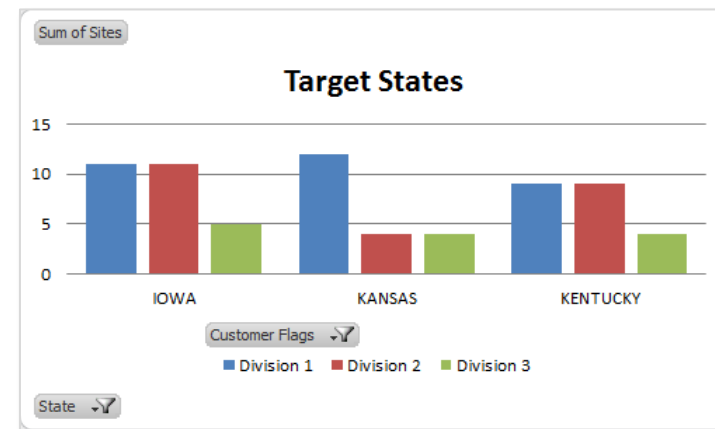
You can now drag the chart to an appropriate place on the dashboard.

- Resize the chart and place the top left corner around cell **I24**

As mentioned above, once a Market Insight object has been inserted into an Excel worksheet as a Pivot Table you have a great deal of functionality available to you. Unfortunately these further options are outside the scope of this training course.

State	Customer	Division 1
IOWA		28
KANSAS		49
KENTUCKY		419
LOUISIANA		123
MAINE		35
MARYLAND		365

PivotTable Field List



Pivot Chart of Target States

## Inserting a Tree

A tree has the same underlying structure as a cube, but is usually displayed in hierarchical form. The advantage of a Tree is that it is more efficient at storing multi-dimensional data where there are large numbers of unpopulated combinations.

A Discoverer Tree can be inserted in the same way as a Cube, with the following options: “Tree” (flattened form) or “Pivot” (dynamic Excel Pivot Table).

The examples shown above could equally apply to Trees, as would the following example apply to using a Cube.

- Click on cell **A1** on **Sheet3** where you want to insert the Tree cube
- Select the Tree saved in Market Insight from the **Insert** panel – **Public** → **Reportables** → **Continent by Emp Here Range.xml**
- Choose **Pivot table** (dynamic Excel Pivot Table) rather than **Data** (static table) and click **Insert**

## Calculations based on Cube or Tree results

The difficulty of formatting and presenting some data is that the source information location on a worksheet might change when an update takes place. New categories or variables may be included so that the position of figures may now be in a different position to when you originally set up your display.

The GetPivotData function provides a useful way to extract data from a Pivot Table by naming the information you want so it can be found despite changes made by a Refresh.

53	☐ Americas	☐ This Year to date (overlapping)	Unclassified	99
54			Manual Worker	680
55			Director	1198
56			Manager	4907
57			Professional	1873
58			Student	3676
59			Sales Executive	10500
60			Retail Worker	5976
61			Public Sector	11858
62			Unemployed	1608
63			Retired	2738
64		This Year to date (overlapping) Total		45113
65		☐ Last Year to date (overlapping)	Unclassified	148
66			Manual Worker	991
67			Director	1613
68			Manager	6781
69			Professional	2393
70			Student	5451
71			Sales Executive	14649
72			Retail Worker	7387
73			Public Sector	15703
74			Unemployed	2034
75			Retired	3283
76		Last Year to date (overlapping) Total		60433
77	Americas Total			105546
78	☐ Asia	☐ This Year to date (overlapping)	Unclassified	8
79			Manual Worker	18
80			Director	107
81			Manager	473
82			Professional	206

Tree Displayed as a Pivot Table

- Click on cell **B28** on the **Dashboard** and type **Europe**
- Complete the remainder of the table headings as shown opposite

You have now setup the format of the display you would like to see on your Dashboard. Next you need to associate each cell with where the data is held within the Pivot table on Sheet3.

- In cell **C28** type = and then click on the cell in **Sheet3** that gives the **Europe, Division 1, 500 and over** figure. Press **Return**
- Click on cell C28 and in the Excel formulae bar change the section **“Europe”** with the cell reference for the heading Europe – **B28**

**=GETPIVOTDATA("Sample Customer Data", Sheet3!\$A\$1,"Continent",B28,"Customer Flags","Division 1")**

This action has now referenced the name Europe so it will find this data anywhere in the pivot table.

- Click on the bottom right of the cell and drag down to populate **North America** and **Middle East**
- Repeat the above process for the **Division 1 & Division 2** columns
- Add a title and formatting to your table

The figures shown opposite will be different to what you see.

Customers with Large Employee Sites			
	Division 1	Division 2	Division 3
Europe			
North America			
Middle East			

Customers with Large Employee Sites			
	Division 1	Division 2	Division 3
Europe	4	1	
North America	9	5	
Middle East	3	3	

Customers with Large Employee Sites			
	Division 1	Division 2	Division 3
Europe	4	1	1
North America	9	5	1
Middle East	3	3	2

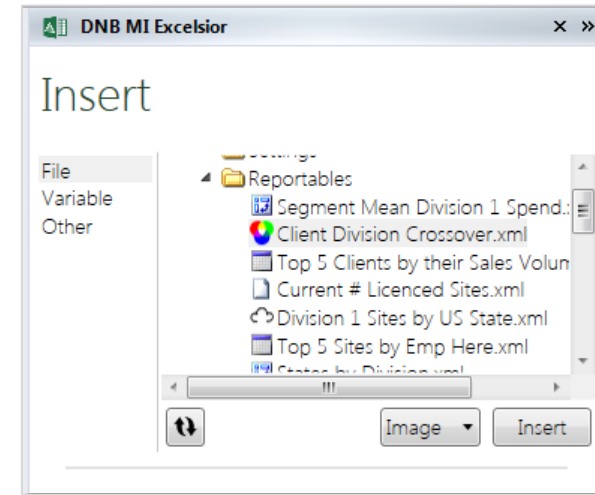
Table with formatted figures

## Inserting a Venn

A Venn diagram can be inserted into an Excelsior report as an image.

- Click on cell **B43** on the **Dashboard** where you want to insert the Venn file
- Select the Venn file saved in Discoverer from the **Insert** panel – **Public** → **Reportables** → **Client Division Crossover.xml**
- Click **Insert**

You can now drag the image around the report and resize if required. When the Venn is updated the latest counts will be displayed and the Venn diagram optimized for the new size.



Insert Panel



Venn Image

## Inserting a Data Grid

A Data Grid can be inserted into an Excelsior report as a table of data.

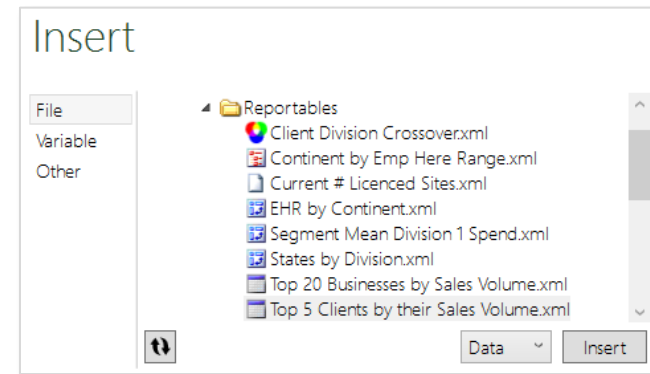
- Click on cell **G2** on the **Sheet2** where you want to insert the Data Grid cube
- Select the Data Grid cube saved in Market Insight from the **Insert** panel – **Public** → **Reportables** → **Top 10 Businesses by Percentage Growth in Sales.xml**
- Click **Insert**

To present this information on the main Dashboard you may want to pick and choose certain items of data

- Click on cell **I43** on the **Dashboard** where you want to insert the information
- Type = and click on the first **Business Name** cell on **Sheet2**
- Press **Return** to see the result
- Click on the small black box on the bottom right of the cell and drag down a further 10 cells

The Top 10 Business Names are now displayed.

- Type = in the cell next to your first **Business Name**. Click on the appropriate **Physical City** name in **Sheet2**. Press **Return**
- Click on the small black box on the bottom right of the cell and drag down a further 10 cells to replicate the formulae and show the figures



Insert Panel

Top 10 Businesses by Sales Growth	
Business Name	US City
Christian Evangelistic Economic Development	PITTSBURGH
Community Education Foundation	NEW YORK
The Huizenga Family Foundation	NILES
Alaska Children's Trust	ANCHORAGE
Sleep Medicine Research Foundation	DUBLIN
Horsemen Benevolent and Protective Association	GROVE CITY
C 5 Children School	SAN FRANCISCO
Ese Solutions LLC	CORAL SPRINGS
Epstein School Foundation Inc	ATLANTA
Edward S Jones	PITTSBURGH

Formatted Details of Top 10 Businesses by Sales Growth

## Inserting a Selection Count

The count from a selection can be inserted into a single cell anywhere on the report. In the following example you will insert a count of the total number of Sites currently licensed by the organization.

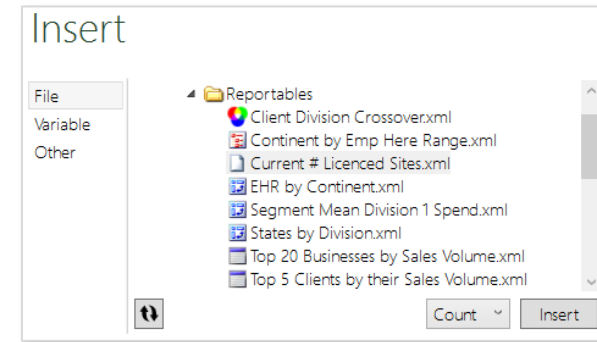
- Click on cell **J2** on the **Dashboard** where you want to insert the count
- Select the count saved in Discoverer from the **Insert** panel – **Public** → **Reportables** → **Current # Licensed Sites**
- Click **Insert**

You may want to give your figure a label:

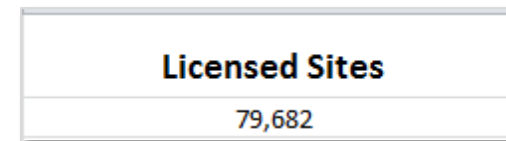
- Click on cell **J1** and type **Licensed Sites**

Use the Format Cells option in Excel to make the best display of the label and figure.

- Right click on the cell and select **Format cells...**



Insert Panel



Count Figure Inserted in Excelsior

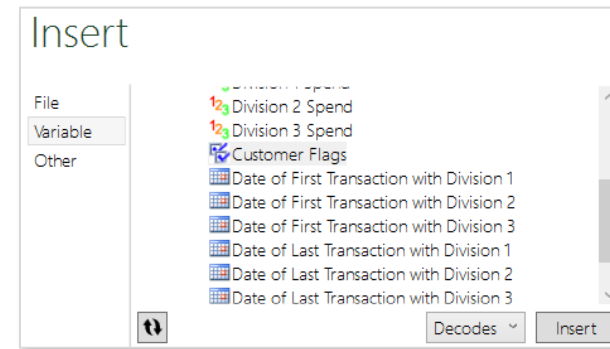
## Inserting Variable Categories and Counts

A list of categories and the full system counts can be inserted anywhere on the report. In the following example you will insert the Destination variable.

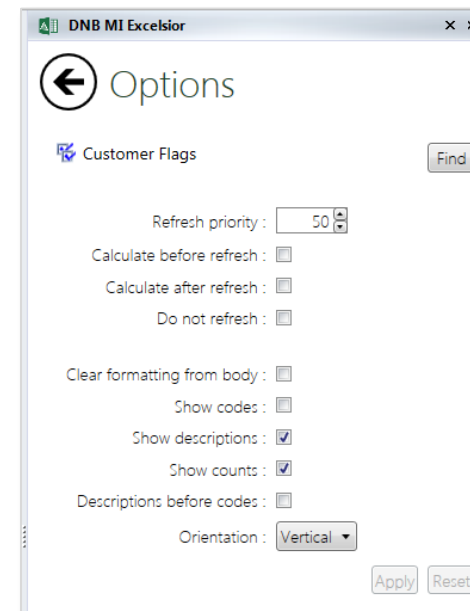
- Click on cell **B35** on the **Dashboard** where you want to insert the variable
- Select the variable in **Market Insight** from the **Variable** section of the **Insert** panel – **Sample Customer Data** → **Customer Flags**
- Click **Insert**

You can now format the display using Excel and Excelsior options.

- Click on the arrow which appears when you mouse over the **Customer Flags** variable in the **Refresh** panel
- Deselect the **Show codes** check box
- Click **Apply**
- **Refresh** the **Customer Flags** variable in the **Refresh** panel
- Add an appropriate title i.e. **Breakdown of Licensed Sites**



Insert Panel



Variable Options Window

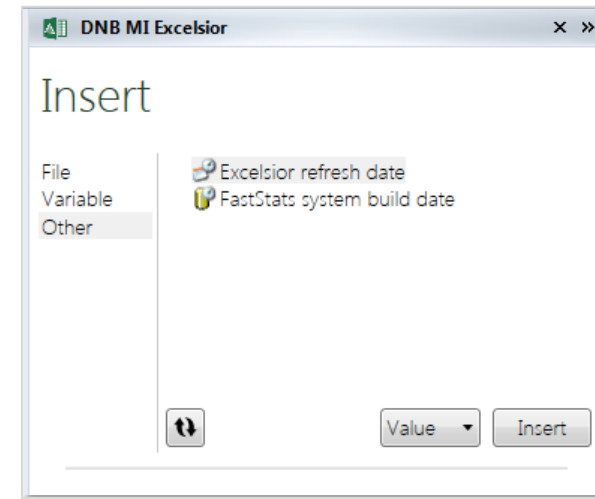




## Inserting a Refresh Date/System Build Date

An Excelsior Tool available to insert into a report is the Refresh Date. This date tells you the last time you updated the report. However, if the Market Insight database has not been refreshed then the same figures will be returned. In addition you may wish to also display the System Build date

- Click on cell **L2** on the **Dashboard** where you want to insert the **Refresh Date**
- Select the option **Excelsior refresh date** from the **Other** section of the **Insert** panel
- Click **Insert**
- Add a title in cell **L1 – Refresh Date**



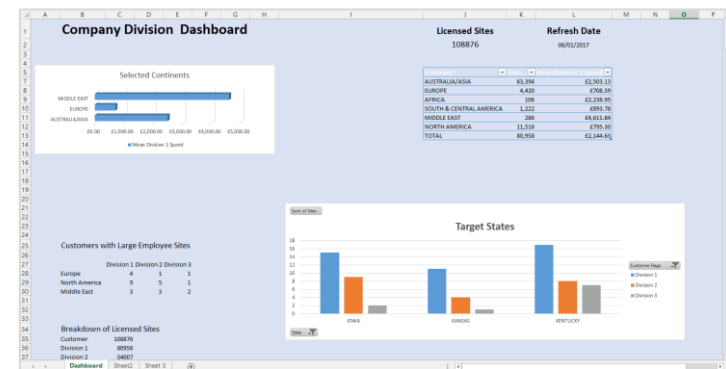
Insert Panel – Other Section

Apply formatting to the title and date as appropriate.

## Finishing Touches

To complete your report for final presentation you may want to hide the gridlines or even change the color of the background:

- In **Excel** go to the **View** ribbon and then the **Show** group
- Untick the **Gridlines** box
- Highlight the whole worksheet, right click and select **Format Cells**
- From the **Fill** tab select a light color and click **OK**



Company Division Dashboard

You may need to readjust other colored headings already applied.

## Using Parameterized Selections

Parameterization in Market Insight allows a User to determine the values used within a selection. This function can be taken advantage of within Excelsior to allow the Viewer to filter the display by the parameterized variable categories.

In this example you are going to use the Region variable as a mechanism to filter a Data Grid representing a selection of bookings.

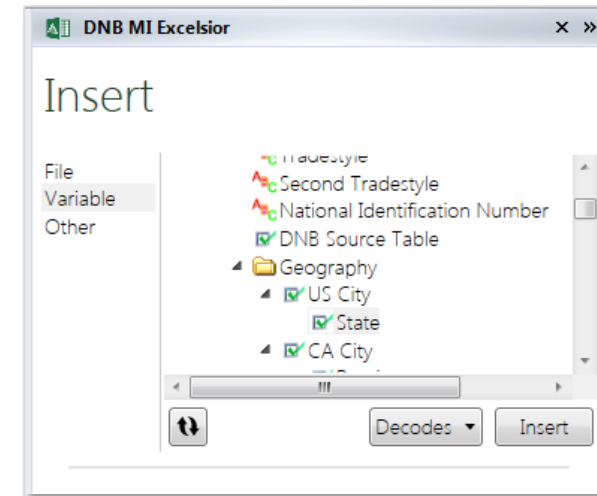
- On **Sheet 3** of the report click on cell **J12**
- Select the **State** variable in Market Insight from the **Insert** panel – **Variable section** → **Sites** → **State** and click the **Insert** button
- Hide column **J** and **L** (this will tidy up the display)
- Highlight the cells in column **M** next to the **State** descriptions
- In the **Name Box** enter **State** as the name for the range of cells and press **Return** (**N.B.** This must be the same name as the parameterized item)

To select a State or States the Viewer could just type the relevant State code in one of the cells just defined. To make this process more User friendly we will use the following formula to test for an entry in column G next to the relevant State to select the relevant code.

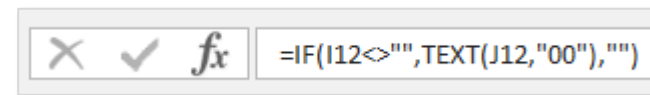
- Highlight cell **M12** and type the following in the **Formula Bar**:

```
=IF(I12<>"",TEXT(J12,"00"),"")
```

- Copy the cell down against the other regions



Insert Panel – Variable Section

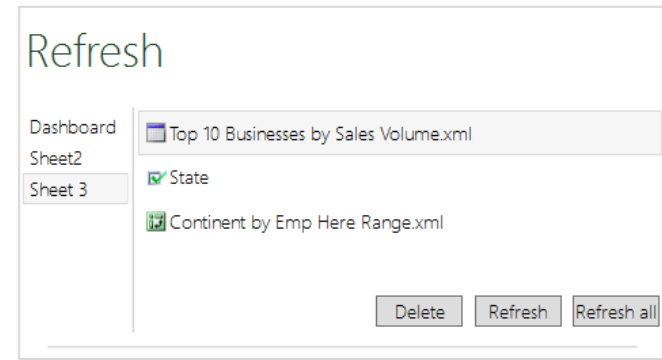


Parameterized Formula

- Hide column **M** and then put an **x** in cell **I29** against **Kansas**
- Click on cell **013** and then highlight the **Top 10 Businesses by Sales Volume Data** Grid from the **Insert** panel. Click **Insert**
- Add some relevant headings

Each time you add or change the range selected you will have to highlight the item in the Refresh panel and click on the Refresh button to see the updated results.

To use this functionality for all of the Market Insight Objects in your Report, you will need to ensure that the variable (State in this case) is parameterized in the selection of each item.



Enter X	State	Duns Num	Business Name
	Unclassified		
	ALABAMA	3296175	The Coca-Cola Company
	ALASKA	6924872	Delta Air Lines, Inc.
	ARIZONA	6868772	United Parcel Service, Inc. (oh)
	ARKANSAS	6991681	United Parcel Service, Inc.
	CALIFORNIA	46901799	Cox Enterprises, Inc.
	COLORADO	72271711	The Home Depot Inc
	CONNECTICUT	6.24E+08	Home Depot International, Inc.
	DELAWARE	7.83E+08	Home Depot U.S.A., Inc.
	DISTRICT OF COLUMBIA	3548489	AT&T Mobility LLC
	FLORIDA	99514049	Randstad North America, Inc.
X	GEORGIA		
	HAWAII		
	IDAHO		
	ILLINOIS		
	INDIANA		
	IOWA		
	KANSAS		
	KENTUCKY		
	LOUISIANA		
	MAINE		
	MARYLAND		

## Refreshing the Whole Report

The Refresh All button can be used to refresh all the Market Insight Objects in the report.

The Refresh panel displays each object and shows the progress as they are updated.

## Development Considerations

You need to ensure that the refreshed results do not clash with any Excel functionality you add to the Excelsior report. For example, you need to ensure that a change in the number of rows or columns in the results does not over-write any of your own formulae. The safest way to do this is to use separate sheets for the inserted Market Insight objects.

### Formulae

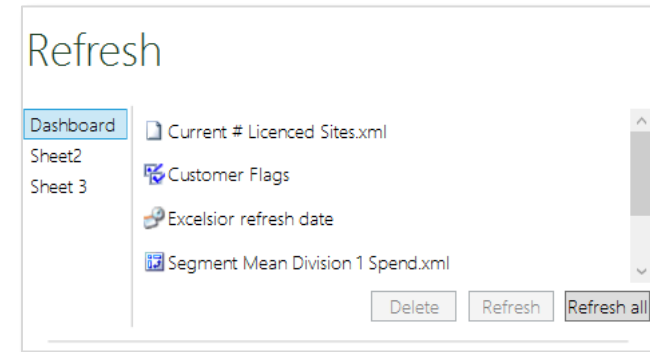
Standard Excel functionality will ensure that any formulae based on data in Market Insight Objects are updated automatically.

### Pivot Tables

All pivot tables in an Excelsior report are automatically updated whenever you do a Refresh.

### Filters

Unfortunately Excel does not refresh filters when the underlying data changes. Some simple Visual Basic can be used to achieve this.



Refresh Panel

## Appendix 1 – Excel Functionality

### Named Ranges

Individual cells and groups of cells can be given descriptive names. These can be used in formulae to refer to the cells instead of using the row-column notation, such as A1:E1.

#### Advantages

Formulae are more readable.

- For example “Sum(product\_sales)” is more meaningful than “Sum(C1:C20)”

Formulae automatically adjust if the number of cells changes in a named range.

- If the number of products change, such that they are now in cells C1:C25, the named range can be redefined and formulae such as “Sum(product\_sales)” need not be changed

Reference data (e.g. the name of a system table, such as “Holidays”) can be easily modified.

- Instead of writing formulae such as “vlookup(“Holidays”, \$A1:\$C10, 2)” it would be better to use vlookup(Transaction\_Table\_Name, \$A1:\$C10, 2) where Transaction\_Table\_Name is the name of a cell whose contents is the word “Holidays”
- If the table name is changed, then it is only necessary to update this single cell, rather than all individual formulae

### Using Named Ranges

Create the named range:

- Select the cell or cells to name
- A useful short cut is to select the cell you wish to name and also an adjacent cell containing the text to be used as the name. More powerfully, you can select say a whole table including the column headers, to name each column with the column header. Click Ctrl-Shift-F3

You can now use the name in a formula instead of the cell reference. You can click on the cell name in the formula bar and Excel will highlight the cell or cells that the name relates to.

The example opposite shows the range of cells that relate to the inserted cube. This block of cells has the name:

“FSO\_Table\_Todays\_Destinations\_652...” (which is the name of the Market Insight Object with a unique identifier appended).

This named range can be used for example in formulae or as the source data for a chart. For example:

- `Sum(FSO_Table_Todays_Destinations_65265de6578b47b9b0df1e571fdf4295)`
- Or paste the Reference in the Source Data box for a chart.

Any changes in the size of the data inserted by Market Insight will be picked up by formulae or charts referring to the data via the named range.

	A	B	C	D
1	Destination	Statistics	TOTAL	
2	Unclassified	People	3	
3	Mali	People	1	
4	Namibia	People	2	
5	Senegal	People	0	
6	Sierra Leone	People	0	
7	South Africa	People	1	
8	Jamaica	People	1	
9	United States	People	32	
10	Kuwait	People	5	
11	Mongolia	People	0	
12	Australia	People	31	
13	New Zealand	People	0	
14	Denmark	People	0	
15	France	People	18	
16	Germany	People	17	
17	Greece	People	16	
18	Italy	People	2	
19	Latvia	People	0	
20	Portugal	People	4	
21	Sweden	People	3	
22	TOTAL	People	78	
23				

## Useful Functions

The following functions are useful for creating reports to look up and reference areas of a workbook.

Function	Description
GetPivotData()	Extracts the value of a specific data field from a pivot table, matching a number of criteria based on the rows and columns. =GETPIVOTDATA("Sum(Cost)","A\$1, Year",2007,"Destination","Sweden")
Match()	Finds the position of a value within an array of cells =Match(\$C\$19,Month_Names,FALSE) [C19 contains month to find, Aug]
Index()	Picks a value from an array of cells, according to its position. =INDEX(Field_Names,C20) [C20 contains value 3 = 3 <sup>rd</sup> item]
Vlookup()	Picks a value from a block of cells according to a lookup value and an offset value. =VLOOKUP("Aug",Target_Values,3,FALSE) [Use False for exact match]
Offset()	Picks a value from a block of cells according to 2 offset values. =OFFSET(Table_Corner,8,3) [Row first, then Column]
Indirect()	Picks a value from a cell using the name of the cell. =INDIRECT(C25) [C25 contains the name or reference of a cell]

	A	B	C	D
1				
2		<b>Total Value</b>	<b>Number of Transactions</b>	<b>Number of Customers</b>
3	Jan	£ 21,245,121	60,256	35,235
4	Feb	£ 27,141,320	71,343	44,891
5	Mar	£ 32,141,835	88,217	55,961
6	Apr	£ 34,866,978	81,862	51,252
7	May	£ 50,000,000	70,634	41,723
8	Jun	£ 29,565,395	72,939	44,504
9	Jul	£ 30,985,360	75,817	45,891
10	Aug	£ 30,256,636	76,320	45,331
11	Sep	£ 24,884,018	56,384	34,456
12	Oct	£ 19,774,984	31,076	20,012
13	Nov	£ 16,002,958	25,251	16,587
14	Dec	£ 13,889,383	21,198	14,362
15	<b>Total</b>	<b>£ 330,753,988</b>	<b>731,298</b>	<b>450,203</b>
16				
17				
18		<b>Function</b>	<b>Parameter</b>	<b>Result</b>
19		Match	Aug	8
20		Index	3	Number of Customers
21		Vlookup	Aug	45,331
22			4	
23		Offset	8	45,331
24			3	
25		Indirect	SCS2	Number of Transactions
26		Indirect	Named_Cell	Total Value
27				
28				