

# D&B Market Insight User Guide Wizards & Virtual Variables

Manual Version: 1.0

Software Version: 2017 Q4

System: Training (UK & Europe)

# Contents

1
2
3
5
6
7
8
12
16
20
23
23
25
26
28
29
32
36
38
40
44
48
50

## Introduction

Virtual Variables, created through Wizards are a way of adding to the information that you can analyse within Market Insight. An initial set of variables are created when the system is built using Market Insight Designer and these can't be changed without rebuilding the system (which depending on how big the system is could take a long time and will probably require your Market Insight administrator to perform the task). Virtual Variables can be used to add information to your system or to summarize or aggregate existing information into new forms.

Virtual Variables are then treated in the same way as "normal" variables by the system and can be used in all the same ways. They will appear in the System Explorer and can be dragged onto all the same places as a normal variable.

Unlike normal variables, Virtual Variables can also be updated once they have been created. Virtual Variables can also be deleted if they are no longer needed (whereas normal variables can only be removed by rebuilding the Market Insight system).

When the Market Insight system is rebuilt (usually as part of a scheduled update of the data) the Virtual Variables will no longer be available (as the data has now changed). These variables can then be recreated from either a URN Snapshot or by Rule using the Recreate Virtual Variables dialog. This action is normally undertaken directly after the system rebuild.

Relevant Wizards will be discussed in turn on the following pages with worked examples to aid your understanding.



Market Insight Splash Screen - D&B Website

**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.

**N.B.** Where suitable variables were not available in the Market Insight Training system a holiday companies database has been used to provide the examples.

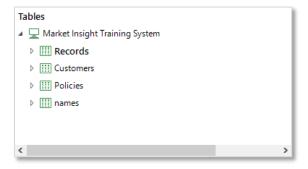
Accounts

#### **Data Structure**

The structure of your Market Insight system can vary. The elements shown here are typical – each Record may be simply flagged with Customer data or can have many related Names. A Record may also have many matched Customer Accounts. 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 Records (organisations) with Names (contacts at the organisation). Also a subset of the Records called Customers (the Users customers) is held with a related table Policies (activity of the Users customers).



Records with Customer Flags

Records

Records

Customer

**Contacts** 

D&B Ltd © 2009 - 2018

Contacts

# **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. You will normally receive a welcome email with details of this process.

To access Market Insight you need:

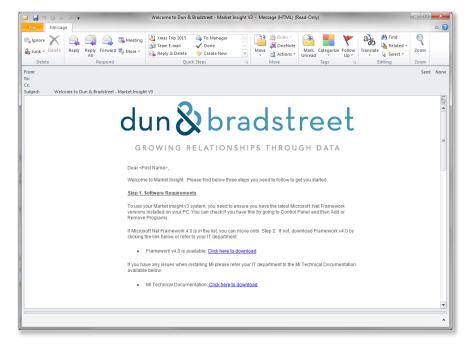
- Windows PC Market Insight is a Windows.NET application that combines the best of the Windows interface with web based systems. Market Insight is not available on Mac or UNIX computers
- The latest Windows.NET framework version installed. This can be obtained by visiting www.windowsupdate.com or from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

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

https://www.dnbmi.com/disco\_systems/v3/new/milauncher.msi

Alternatively use the links within your welcome email.

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



Welcome to D&B - Market Insight V3 Email

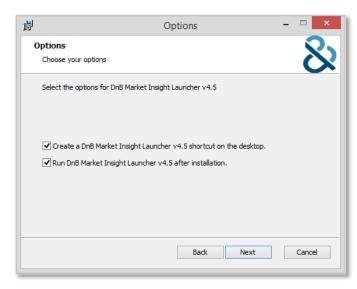
- Navigate to where you saved the downloaded file and double click it. Agree to run when prompted, and then follow the on screen instructions
- The installation process will result in an icon on your desktop and in a D&B Start Menu folder



- 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



Options

## How to Login

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

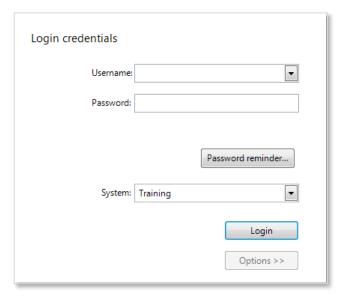
Start Market Insight by:

Clicking on the **Market Insight** icon on your desktop, or by navigating to the program using Windows Explorer

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 authorised by a user account and password. Your Market Insight Administrator will provide you with a Username and Password.



Login Window

# **Basic Principles**

Each wizard has a number of steps that will guide you through the process.

The panel on the left of each window displays all the steps that are available in that wizard. Depending on what settings are made on a step will determine the next step to progress to.

Once the first step has been completed a back button will now appear in the top left of the panel which allows the User to return to the previous step. Also the icon in front of each step name will change in some instances:

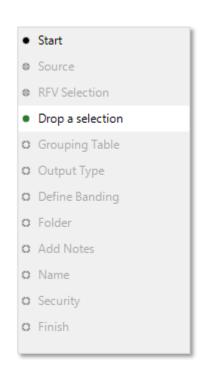
- Black dot denotes a completed step
- Grey dot denotes a step that has been skipped
- Coloured dot denotes the step currently displayed
- Open dot denotes a step yet to be reached

On most steps a Next button appears to allow confirmation and movement to the next step. In some cases where there is a binary choice, once it has been made the wizard will automatically move on to the next relevant step.

**N.B.** The currently displayed step has been set to a green dot in the system used throughout this manual.

**N.B.** The wizards used in this manual have utilised variables existing in the D&B training system wherever possible. In some instances a holiday dataset has been used to better demonstrate the full functionality of a Wizard.

**N.B.** D&B has Wizards specific to that system. These Wizards, and a number of other relevant Wizards, are detailed in the Base standard, Advanced and Modelling manuals and as such this guide should be viewed together with those manuals.



# **Aggregation Wizards**

This group of Wizards will allow you to generate Virtual Variables at a higher table level (e.g. for each person) based upon a lower transactional table (e.g. individual bookings). The wizards allow you to **Count** the number of transactions per person, identify transactions by the **Recency** of their occurrences, **Aggregate** the value of transactions and **Summarise** transactions.

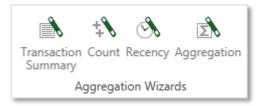
The use of RFV (Recency, Frequency, and Value) selections are at the heart of working with Aggregation Wizards.

By right clicking on the summary line of a Selection page you will have access to RFV options at any child table below the one set on the Selection page. The example opposite show the options to calculate Booking transactions grouped up to the Customers table.

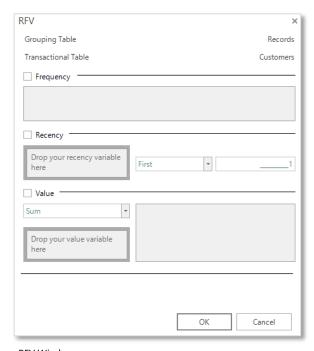
Once the RFV settings have been made the Selection page can be dragged on to the appropriate Aggregation Wizard. This will start the Wizard and bypass certain steps in creating the RFV.

In the following examples we will create the RFV selection options through the wizard.

**N.B.** For more information on RFV refer to the Market Insight Help files and the Base Advanced training manual.



Aggregation Wizards Panel



RFV Window

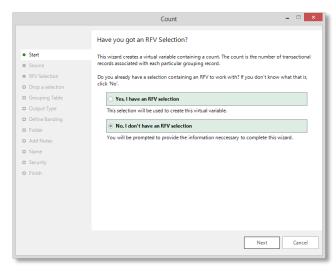
#### Count Wizard

The Count Wizard uses the calculated Frequency of your data to generate a Virtual Variable.

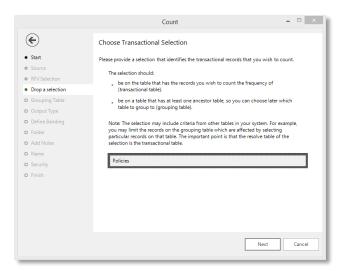
#### **Example**

Generate a banded Virtual Variable that contains categories to select Customers who have 1, 2 and 3 or more Policies.

- Click the Count wizard link
- Start Select the No, I don't have an RFV selection radio button. (You will be taken to Drop a Selection)
- Drop a selection Drag the Policies Table on to the drop zone. Click Next. It would also be possible to drag a selection on to this drop zone, for example policies of a certain type or premium.
- Grouping Table Select Customers as the grouping table for the end results. Click Next
- ➤ Output Type Select the Banded Output radio button. The Actual Values option will give you a Numerical Virtual Variable, whereas the Banded option will give you a Selector Virtual Variable. Click Next



#### Start



Drop a selection

- ➤ **Define Banding** Enter your bandings as shown opposite. Each band must be followed by a carriage return. Click **Next**
- Folder Select or create a folder where you want to place your Virtual Variable. Leave the default for the Others folder. Click Next
- Add Notes Enter optional notes. Click Next
- Name Enter the Description Number of Policies

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it.

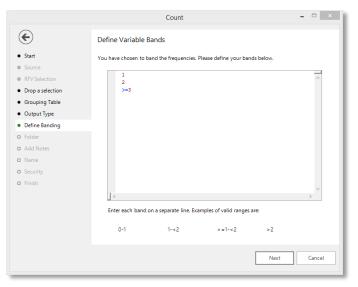
Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step

See the section **Security** (pg. 50). Click **Next** 

Finish – This step will tell you how many records have been updated. Tick the Show new variable as a selection box. This will open the finished Virtual Variable for you to view when you click on the Finish button. Click Finish



**Define Banding** 



Finish

You are now presented with a Selector Variable allowing you to select the Customers who have 1, 2 and 3 or more Policies. Every other Customer who does not fall into one of these categories will be found under Unclassified.

To Edit a Virtual Variable or read the notes associated with it:

- Find the Virtual Variable in the **System Explorer** and right click on it
- Select Properties to see the Notes, Attributes and Security
- Select Edit Virtual Variable to make changes

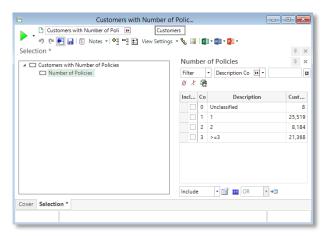
#### **Example**

Generate a numeric Virtual Variable that allows you to count Customers who have Policies. Use a pre created RFV selection.

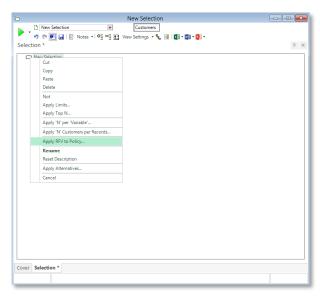
Create a selection of Customers. Right click on the line that starts New Selection N. Apply RFV to Policy ... and then tick the Frequency box and enter >0. Click OK

Rename the selection window Customers with Policies

- Click the Count wizard link
- > Start Select the Yes, I have an RFV selection radio button. Click Next
- Source Drag the selection Customers with Policies onto the Drop your selection here box. Click Next



Selection Window - Number of Policies Virtual Variable



Selection Window - Apply RFV

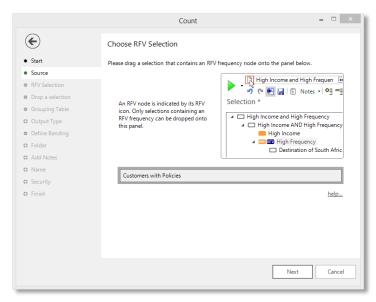
If there is more than one RFV in the selection you will go to RFV Selection to choose the one to use or as in this case you will be taken to Output Type

Output Type – Select the Output as Actual Values radio button. If you chose the Banded option as in the last example the bands would need to have been defined within the Frequency box on the Customers with Policies selection. Click Next

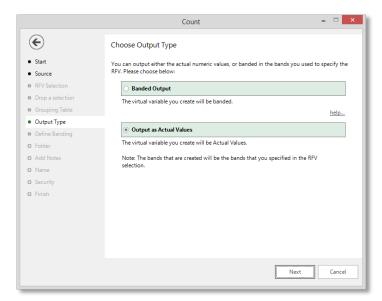
Complete the rest of the Wizard as with the previous example.

### **Suggested Uses**

- Identify frequent shoppers use the wizard to count all the transactions undertaken by your customers
- Count the number of Policies purchased following a marketing campaign – use the wizard to count all the Policies made in specified date ranges before and after a campaign
- Compare satisfaction levels in a call centre create two wizards one to measure callers who are satisfied and one to measure those who are not and then compare the two



Source



Output Type

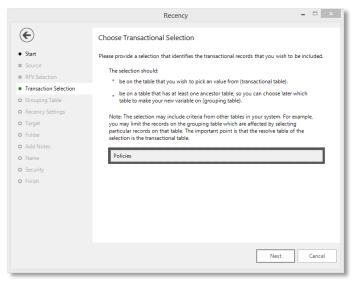
## **Recency Wizard**

The Recency Wizard uses the date of transactions to retrieve data associated with those particular transactions.

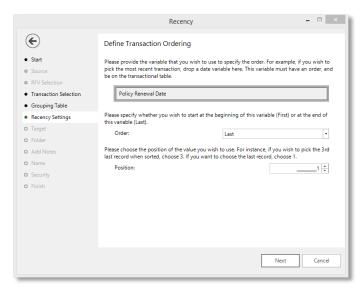
#### Example

Generate a currency Virtual Variable that allows you to select Customers by the Cost of their last Policy Premium.

- Click the Recency wizard link
- > Start Select the No, I don't have an RFV selection radio button. (You will be taken to Transaction Selection)
- Transaction Selection Drag the Policies table on to the drop on box. Click Next. It would also be possible to drag a selection on to this drop zone, for example certain types of policy
- Grouping Table Select Customers as the grouping table for the end results. Click Next
- Recency Settings Drag and drop the Policy Renewal Date variable on to the drop zone. Set the Order to Last to look at the most recent Policy Renewal. Set the Position to 1 to find the last Policy Renewal (if you wanted the second to last booking set the position to 2). Click Next
- ➤ Target Drag and drop the Policy Premium variable on to the box. This will display the cost value for the one transactional record identified for the relevant Customers. Click Next
- Folder Select or create a folder where you want to place your Virtual Variable. Leave the default for the Others folder. Click Next



#### Transaction Selection



Recency Settings

- > Add Notes Enter optional notes. Click Next
- ➤ Name Enter the Description Cost of Last Policy

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it

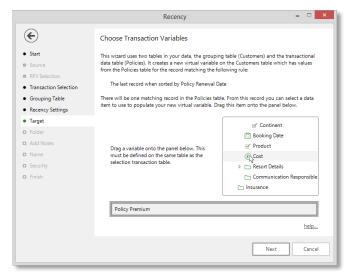
Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Start1. Click **Next** 

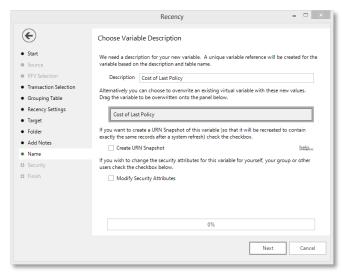
Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step

See the section **Security** (pg. 50). Click **Next** 

Finish – This step will tell you how many records have been updated. Tick the Show new variable as a selection box. This will open the finished Virtual Variable for you to view when you click on the Finish button. Click Finish



Target



Name

You are now presented with a Currency variable that allows you to select Customers by the value of their last Policy.

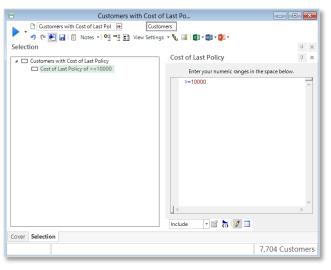
Search for Customers who have spent over £10000 on their last Policy

- Drag on a Data Grid and add some variables including Cost of Last Policy
- Click Build to see the records of your selection

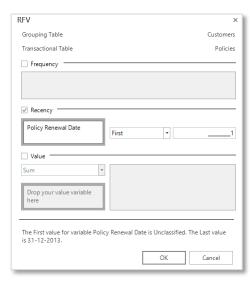
#### **Example**

Generate a currency Virtual Variable that allows you to select Customers by the Cost of their first ever Policy. Use a pre created RFV selection.

- Create a selection of all Customers. Right click on the line that starts New Selection N. Select Apply RFV to Policy... and then tick the Recency box
- Drag Policy Renewal Date on to the drop zone and enter First 1. Click OK
- Rename the selection window First Ever Policy
- Click the Recency wizard link
- > Start Select the Yes, I have an RFV selection radio button.



Selection Window – Cost of Last Policy virtual variable



RFV Window

Source – Drag the selection First Ever Policy onto the Drop your selection here zone. Click Next

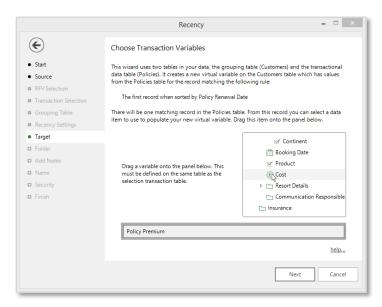
If there is more than one RFV in the selection you will go to RFV Selection to choose the one to use or as in this case you will be taken to Target

➤ Target – Drag and drop the Policy Premium variable on to the drop zone. This will display the cost value for the one transactional record identified for the relevant Customers. Click Next

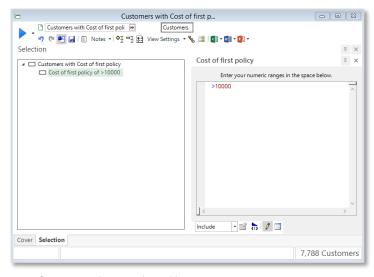
The remaining steps are the same as those in the example above.

#### **Suggested Uses**

- Determine the length of the customer relationship calculate the difference between the date of the last transaction and the date of the first transaction
- Calculate if customer spend is increasing/decreasing find value of last policy...last but one...last but two etc.



Target



Cost of First ever Policy Virtual Variable

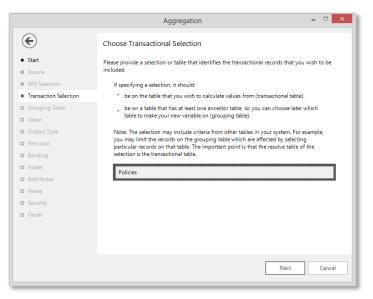
## **Aggregation Wizard**

The Aggregation Wizard creates a Virtual Variable which summarises a group of transactions by aggregating a value variable (e.g. average cost).

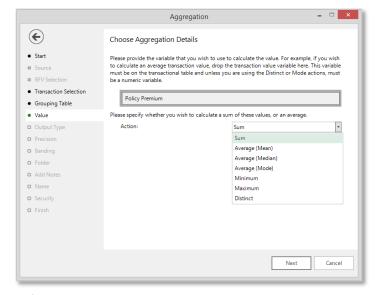
#### Example

Generate a currency Virtual Variable that allows you to select Customers by their total spend on Policies with the company.

- > Click the **Aggregation** wizard link
- Start Select the No, I don't have an RFV selection radio button. (You will be taken to Transaction Selection)
- ➤ Transaction Selection Create a selection of All Policies. Give the selection a name and then drag it on to the drop on box. Click Next
- Grouping Table— Select Customers as the grouping table for the end results. Click Next
- Policy Premium Drag and drop the Policy Premium variable on to the box. Set the Action to Sum to calculate the total cost of all Bookings per person. Click Next
- Output Type Select the Output as Actual Values radio button. If you had selected the Banded Output option you would have been taken to Banding to define the bands.



#### Transaction Selection



Value

- Precision Leave the default settings to show 2 Decimal Places for your results. Click Next
- ➤ Folder Select or create a folder where you want to place your Virtual Variable. Leave the default for the Others folder. Click Next
- ➤ Notes Enter optional notes. Click Next
- ➤ Name Enter the Description Customer Total Spend on Policies

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it

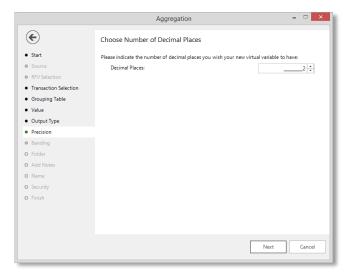
Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Start3. Click **Next** 

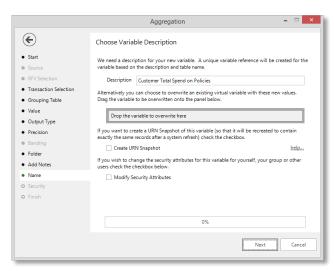
Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step

See the section **Security** (pg. 50). Click **Next** 

Finish – This step will tell you how many records have been updated. Tick the Show new variable as a selection box. This will open the finished Virtual Variable for you to view when you click on the Finish button. Click Finish



#### Precision



Name

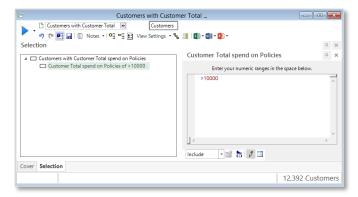
You are now presented with a Currency variable that allows you to select Customers by the total value of their Policy Premiums.

- Search for Customers who have spent in total over £10,000 on policies with the company
- Drag on a Data Grid and add some variables including Customer Total Spend
- ➤ Click ► **Build** to see the records of your selection

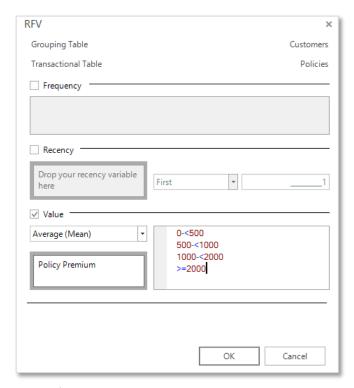
#### **Example**

Generate a banded Virtual Variable that allows you to select Customers by their average (Mean) policy premium. Use a pre created RFV selection.

- ➤ Create a selection of all **Customers**. Right click on the line that starts **New Selection N**. Select **Apply RFV to Policy...** and then tick the **Value** box and select **Average (Mean)**. Drag the **Policy Premium** variable onto the drop zone and then define some bandings as shown in the screen shot opposite. Click **OK**
- Rename the selection window Banded Avg PP
- Click the Aggregation wizard link
- > Start Select the Yes, I have an RFV selection radio button.
- Source Drag the selection Banded Avg PP onto the Drop your selection here box. Click Next



**Customer Total Spend Virtual Variable** 



RFV Window

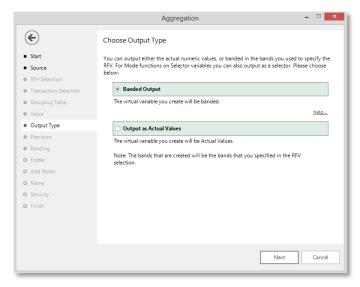
If there is more than one RFV in the selection you will go to RFV Selection to choose the one to use or as in this case you will be taken to Output Type

Output Type – Select the Banded Output radio button. This will pick up the banding defined in the selection previously. Click Next (You will be taken to Folder)

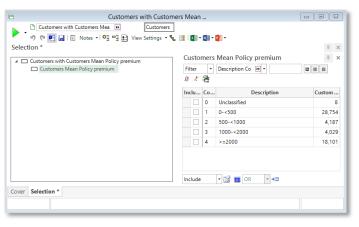
Complete the rest of the Wizard as with the previous example.

#### **Suggested Uses**

- Determine Total Customer Spend calculate the value of all transactions
- Overview of declining customers compare the average or total value of transactions this year...last year...year before
- Find maximum time spent on a webpage



Output Type



Customer Mean Policy Premium Virtual Variable

## **Transaction Summary Wizard**

The Transactional Summary Wizard summarises a set of transactional records associated with a record from a higher table, creating a flag array virtual variable on the grouping table. You can restrict which transactions are summarised by applying both a filter selection and a priority restriction.

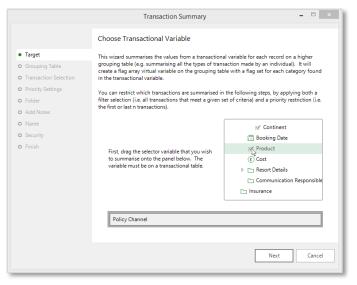
#### Example

Create a Selector Virtual Variable to allow you to select customers who came via a certain channel for one of their last 2 policy renewals.

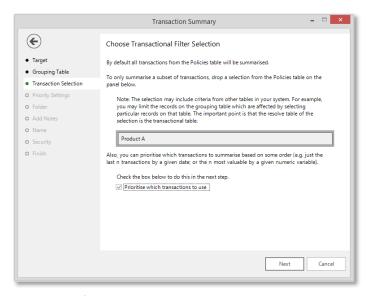
- Click the Transaction Summary wizard link
- Target Drag on to the drop zone the Selector variable (Policy Channel) that will be summarised. Click Next
- Grouping Table Select Customers as the grouping table for the end results. Click Next
- Transaction Selection Optionally drag on to the drop zone a filter selection – Policy Product A

Tick the **Prioritise which transactions to use** box so that an order can be applied to the transactions that will be summarised. This will take you to Priority Settings otherwise you will progress to - Folder

Click **Next** 



Target



**Transaction Selection** 

Priority Settings – Drag on to the drop zone the variable with which to order the transactions (Policy Renewal Date)

Set the Order to Last and the Number to 2

This will look at the last 2 Policies by Renewal Date to check if at least 1 of them is a Policy Product A

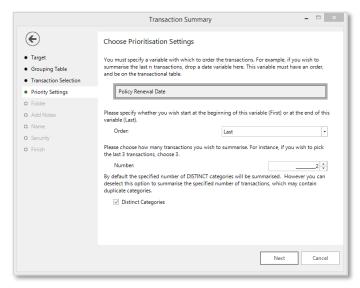
Click Next

- Folder— Select or create a folder where you want to place your Virtual Variable. Leave the default for the Others folder. Click Next
- Add Notes Enter optional notes. Click Next
- Name Enter the Description Last 2 Product A's channel

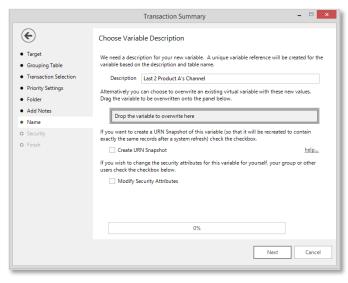
If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it

Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 



**Priority Settings** 



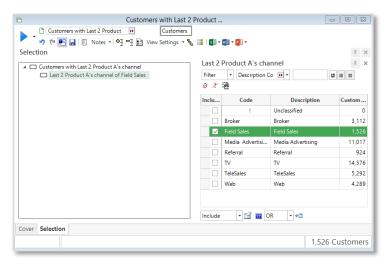
Name

- Security This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step
  - See the section **Security** (pg.50). Click **Next**
- Finish This step will tell you how many records have been updated. Tick the Show new variable as a selection box. This will open the finished Virtual Variable for you to view when you click on the Finish button. Click Finish

The screen shots opposite shows Field Sales has been selected. This selection will identify customers where one of their last two product Purchases was via Field Sales.

#### **Suggested Uses**

- Summarise a number of product purchases ordered by value
- Summarise a number of product purchases ordered by date



Last 2 Product A's channel Virtual Variable

#### Other Wizards

## **Transaction Analysis Wizard**

The Transaction Analysis Wizard allows you to look for patterns in the data and then display it. This wizard does not result in a virtual variable.

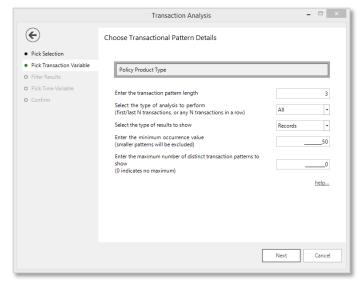
#### **Example**

Create a display of Policy Product types where the period between Policy Inception Dates is less than 400 days. Show patterns of 3 Policy Products where there are at least 50 occurrences of that pattern.

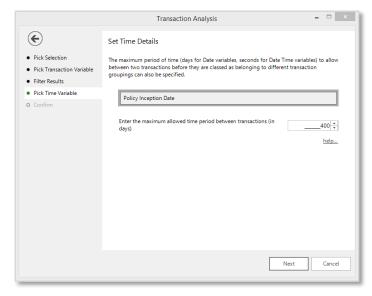
- Click on the Transaction Analysis wizard link
- Pick Selection You have the option to drag on a selection to identify the records to be included. No selection will include all records at the table level displayed. Click Next
- ➢ Pick Transaction Variable Drag on the transactional variable to be analysed (Policy Product Type). See below and then click Next

The other settings here determine the pattern length; in this example patterns of **3** Policy Products will be selected. The analysis in this example will look for patterns in **All** of the data as opposed to the First or Last set of transactions. To be included in the end results there must be at least **50** occurrences of a pattern that has been found. To allow all patterns to be found leave the setting to **0** otherwise enter the number you wish to limit to.

You may wish to change the type of results shown from Records to Occurrences if you wish to count individuals every time they meet the pattern.



Pick Transaction Variable



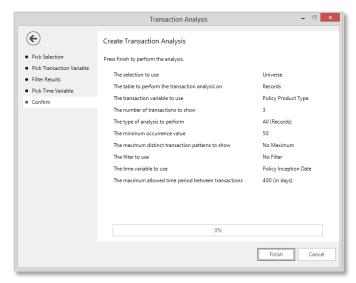
Pick Time Variable

- ➤ Filter Results Drag on a selection at the <u>transaction</u> table level to filter the transactions to be included in the analysis. E.g. to only analyse certain policy channels. No filter is required in this example. Click **Next**
- Pick Time Variable Drag on the time variable to be used in the analysis (Policy Inception Date). Click Next
  - The Policy Inception Date variable will use a time frame of days. To allow for approximately a year between new policies you might enter 400 as the maximum time period between transactions
- Confirm This presents you with a summary of your settings. Use the Back button to change any of your settings. Click Finish

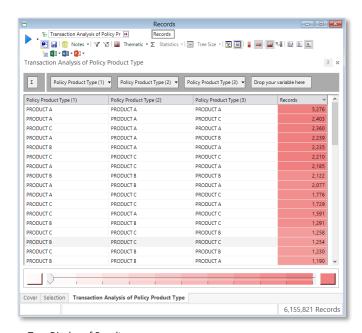
The results are now presented in the Tree format ranking the product patterns by the number of records who took that combination. If you scroll to the bottom of the list you will see no pattern has less than 50 records as per your settings.

#### **Suggested Uses**

 Identify the sequence and ordered patterns of customer groups e.g. compare high spenders and medium/high spenders over the last year



#### Confirm



Tree Display of Results

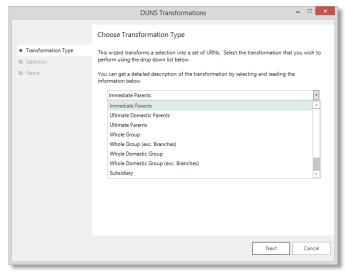
#### **DUNs Transformations**

One of the wizards available to you is the Duns Transformation wizard which allows you to transform a selection of company sites into a list of related sites according to the corporate structure. The list is shown as a set of DUNS numbers. You can choose whether the immediate parent companies, ultimate parent companies, subsidiaries, or every company within the whole group, for example, are included in the list.

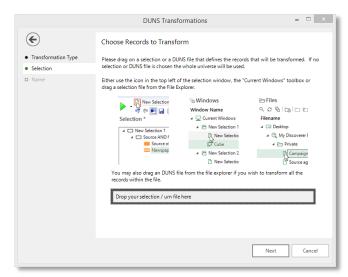
- Click on the Duns Transformations wizard link
- Transformation Type From the drop down menu select the grouping you want to make based on the Duns numbers determined in the next step. Click Next
- Selection Drag onto the drop zone a selection or DUNs file to identify the sites used to obtain the relationship set Transformation Type. Click Next
- Name Click on the **Browse**... button to determine where you want to save your file and enter the name you want to save the file as
- Click Finish

The example opposite will find the DUNs of the Full Corporate Family associated with the DUNs you identified in the selection.

You can use this selection for further analysis in Market Insight or drop it straight onto the Data Purchase wizard (see the Help files for further details).



**Dunns Transformation Wizard - Transformation Type** 



**Dunns Transformation Wizard - Selection** 

## **Output Wizard**

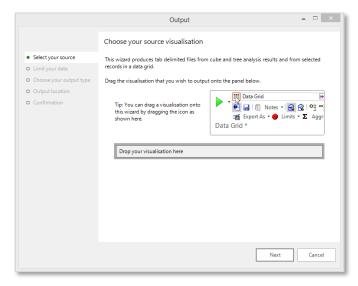
This wizard allows you to quickly and simply output the records from a Cube, Tree or Data Grid.

#### **Example**

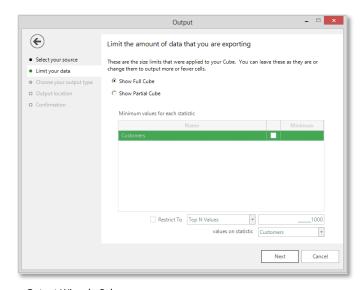
Create a Cube display and output the cell results as a text file.

- Click on the Output wizard link
- Select your Source Drag the Cube onto the drop zone box. Click Next
- ➤ Limit your data Use the options on this step to restrict the cells selected by size. Click Next
- Choose your output type Relates to the output options available if a Data Grid was chosen at the first step. Click Next
- Output location Enter the name for the file. Use the Browse... button to select the location for the file. Click Next
- > Finish This step will state the number of records that have been output. Click Finish

**N.B.** Both the Cube and Tree tool will follow the above steps and will be output as a text file.



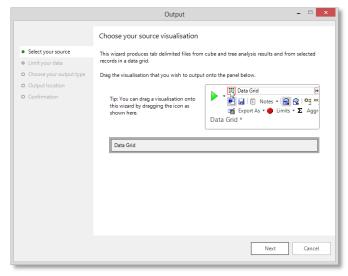
Output Wizard – Source



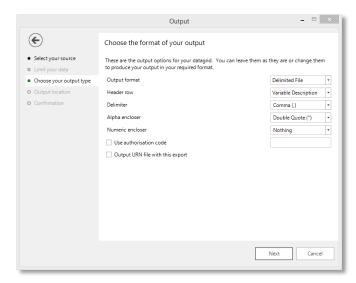
Output Wizard - Cube

Create a Data Grid display and output the cell results as a comma delimited text file.

- Click on the Output wizard link
- Select your Source Drag the Data Grid onto the drop zone box. (You will go to Choose your output type) Click Next
- ➤ Limit your data This step relates to a Cube/Tree tool if selected at the previous step. The options on this step restrict the cells selected by size. Click Next
- Choose your output type Select the output options for the records in the Data Grid. Click Next
- Output Location Enter the name for the file. Use the Browse... button to select the location for the file. Click Finish
- Confirmation This step will state the number of records that have been output. Click Finish



Output Wizard - Source



Output Wizard – Output type

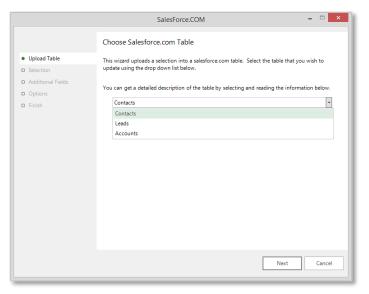
#### Salesforce.com Wizard

Salesforce.com is a well-known CRM software applications provider. This wizard allows you to quickly and simply upload a Market Insight selection into a salesforce.com table.

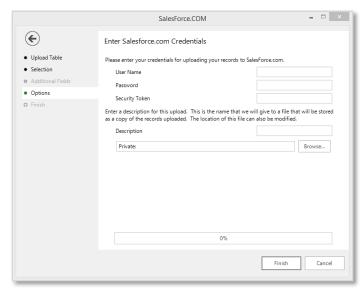
#### Example

Upload a Market Insight selection to the main salesforce.com table, Contacts.

- Click on the Salesforce.com wizard link
- ➤ **Upload Table** Select the salesforce.com table from the drop down list you wish to upload records too. A description of the table selected will be shown on this step. Click **Next**
- Selection Make a selection that identifies the records to upload. Drag the selection onto the drop zone box. Click Next
- Additional Fields If configured, enter additional information that is requested. Click Next
- Options Enter your details to connect to salesforce.com. Enter a name in the Description box and Browse... to where you would like to save a file of these records. Click Next
- Finish This step will state the number of records that have been uploaded. Click Finish



Salesforce.com Wizard - Upload Table



Salesforce.com Wizard - Options

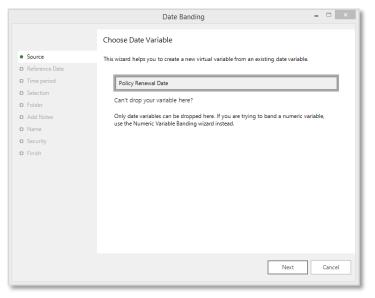
## **Date Banding Wizard**

The Date Banding Wizard provides the ability to take an existing Date variable and divide part or all of the time covered into a defined number of periods on which to select.

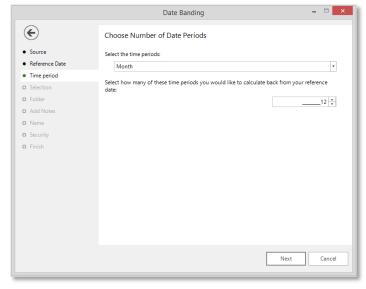
#### **Example**

Create a Date Banding virtual variable that creates 12 categories for 2013 to display the number of policies renewed in each month.

- Click on the Date Banding wizard link
- > Source Drag on the Policy Renewal Date variable. Click Next
- Reference Date Select Custom Date and enter the date 31/12/2013 (This is the last day in the time period). Click Next
- Time Period Select Month as the time period and 12 as the number of time periods. Click Next
- Selection Drag on a selection to restrict the records affected. Leave blank so the whole universe is used. Click Next
- Folder Highlight the folder you would like the variable to be stored. By default it will reside in the Others folder. Click Next
- Add Notes You may enter optional notes in this window. Click Next
- Name Enter the Description Monthly Policy Renewals 2013. Click Next



Source



Time Period

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite** here to overwrite it.

Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

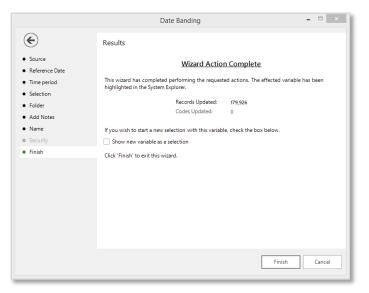
Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step. (Options for who and what others can see and do with your variable)

See the section Virtual Variable Security (pg. 50). Click Next

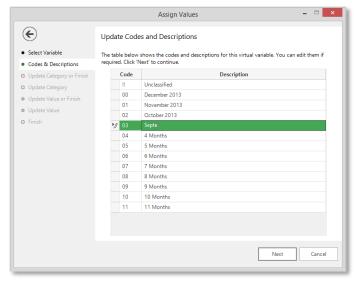
Finish – Tick the Show new variable as a selection box. Click Finish

Your date variable has now been created. However, you may want to change the default descriptions to something more user friendly. This is where you need to use the Assign Values wizard to change the category descriptions.

- Click on the Assign Values wizard link
- Select Variables— Drag on the Monthly Policy Renewals 2013 variable. Click Next
- Codes and Descriptions Rename the current description with a new one that gives the month and year e.g. December 2013. Click Next



Name



Codes & Descriptions

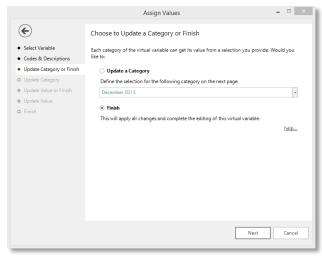
**N.B.** As the calculation is working backwards from the date we used in the Date banding wizard the first banding after Unclassified will be the month of December working through to January.

- ➤ Update Category or Finish Select the Finish radio button. Click Next
- ➤ Update Category and Update Value or Finish—Relate to updating the categories which is unnecessary in this example
- Finish Click Finish
- Redisplay the Policy Renewals 2013 variable

The variable now displays as a Selector showing the number of policy renewals in each month of 2013 with all other renewals attached to the Unclassified category.

## **Suggested Uses**

 In most cases you may find it more useful to right drag your Date variable onto a Data Grid or Cube to display the information in a number of banded outputs.



Update Category or Finish



Date Banding Menu

## **Numeric Banding Wizard**

The Numeric Banding Wizard provides a simple way to make a new banded virtual variable from an existing Market Insight numeric/currency variable.

#### Example

Create a Numeric Banding virtual variable that creates equal ranges of values using the minimum and maximum values found in the Customer Level Revenue variable.

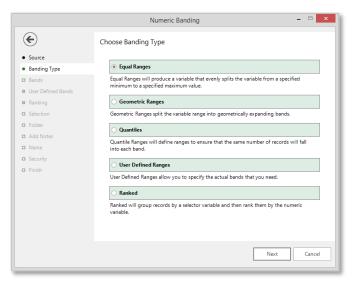
- Click on the Numeric Banding wizard link
- Source Drag on the Customer Level Revenue variable. Click Next
- ➤ Banding Type Select the Equal Ranges radio button. Click Next
- ➢ Bands Leave the default settings as they are these will use the minimum and maximum values found in the data to create 10 Equal Ranges. Click Next (You go to Selection)

The **Minimum and Maximum Band Value** used in generating the breakdown can be inserted by deselecting the **Auto** boxes.

The **Banding Sequence** allows you to order the categories to be Ascending (lowest to highest values) or Descending (highest to lowest values).

The **Size of each Band** option is an alternative option for Equal Ranges and allows you to define the size of the first band for Geometric Ranges.

User Defined Bands – Enter your bandings if you selected User Defined Ranges as a Banding Type. Click Next



**Banding Type** 



Bands

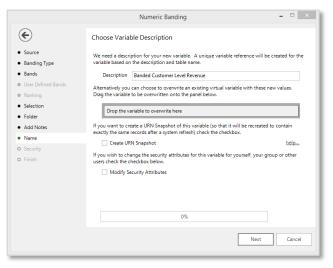
- Ranking Enter your selector variable if you selected Ranked as a Banding Type. Click Next
- Selection To include all records in the variable leave blank, otherwise drag on a selection to determine which records to use. Click Next
- Folder Highlight the folder you would like the variable to be stored. By default it will reside in the **Others** folder. Click **Next**
- > Add Notes You may enter optional notes in this window. Click Next
- Name Enter the Description Banded Customer Level Revenue.
  Click Next

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it.

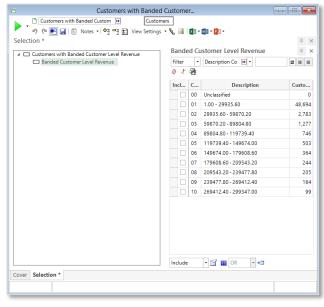
Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

- Security— This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step. See the section Virtual Variable Security (pg. 50). Click Next
- Finish This step will tell you how many records have been updated. Tick the Show new variable as a selection box. Click Finish



Name



Selection Window - Banded Customer Level Revenue Virtual Variable

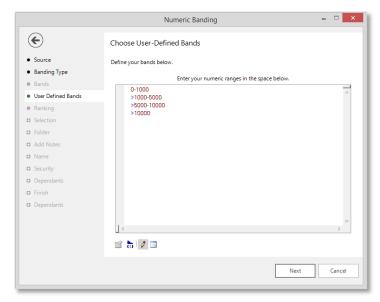
The finished banded variable presents you with 10 categories equally split using the minimum value (£1) and the maximum value (£299347).

In this wizard you get to choose the type of banding you want. Equal Ranges, Geometric Ranges and Quantile all use the same steps as in the example above. However, selecting User Defined Ranges takes you to User Defined Bands where you can define the bands you would like to see in the virtual variable, see opposite. There is also a Ranked option which will take you to Ranking – see the next example.

### **Example**

Create a Numeric Banding virtual variable that groups records by Major Industry Sector UK 2003 and then rank them by their customer level revenue.

- Click on the Numeric Banding wizard link
- Start Drag on the Customer Level Revenue variable. Click Next
- ➤ Banding Type Select the Ranked radio button.
- Ranking Enter your selector variable. Set the Sequence to Descending and chose the ranking strategy. Click Next
- Selection To include all records in the variable leave blank, otherwise drag on a selection to determine which records to use. Click Next
- Folder Highlight the folder you would like the variable to be stored.
  By default it will reside in the Others folder. Click Next
- > Add Notes You may enter optional notes in this window. Click Next



#### User Defined Bands



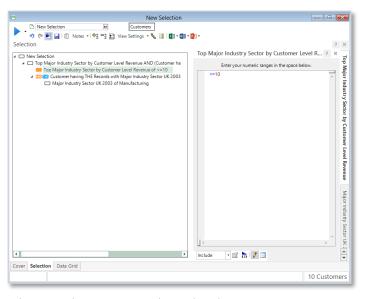
Ranking

- Description Enter the Description Top Major Industry Sector by Customer Level Revenue. Click Next
- Security This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step. See the section Virtual Variable Security (pg. 46). Click Next
- Finish This step will tell you how many records have been updated.

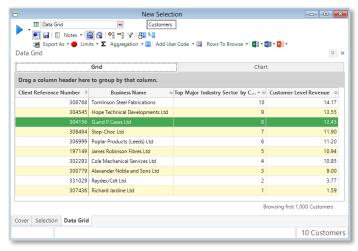
  Tick the **Show new variable as a selection** box. Click **Finish**

To use this virtual variable to see the Top 10 Manufacturing Companies by Customer Level Revenue:

- Create a Customers selection as shown in the screen shot
- Drag on a Data Grid and add the variables Business Name, Major Industry Sector, Top Major Industry Sector by Customer Level Revenue and Customer Level Revenue. Click Build



Selection Window - Top 10 Australian Bookings by Cost



Data Grid - Top Major Industry Sector by Customer Level Revenue

## Calculate Expression Wizard

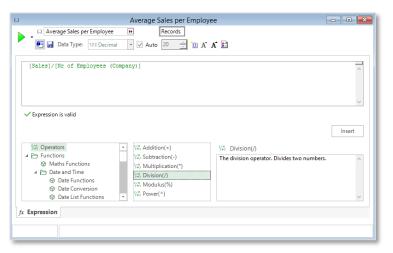
The Calculate Expression Wizard allows you to create a new virtual variable from the result of an expression. For more information on Expressions see the relevant Help files.

### **Example**

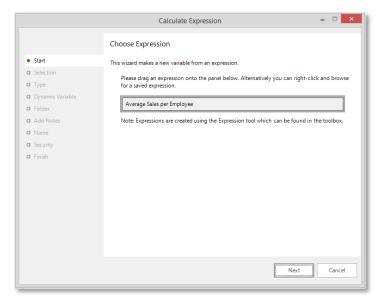
Create a Numeric Banding virtual variable that allows you to search on average sales per person calculated from an Expression.

In this example we will use the virtual variables Sales and NR of Employees (company).

- Open the Expression tool and create the expression as shown in the screen shot opposite
- Click on the Calculate Expression wizard link
- > Start Drag the Expression you created onto the box. Click Next
- Selection Drag on a selection to restrict the records affected. Leave blank so the whole universe is used. Click Next
- Type Select the Data Type and numeric settings if relevant. Leave as the defaults. Click Next
- Dynamic Select Dynamic or Static as a means to generate the variable. See the step window for a full description of the options. Click Next
- Folder Highlight the folder you would like the variable to be stored.By default it will reside in the Others folder. Click Next
- Add Notes You may enter optional notes in this window. Click Next



Expression Window - Average Sales per employee



Calculate Expression Wizard - Start

➤ Name - Enter the Description – Avg. Sales per employee. Click Next

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it.

Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

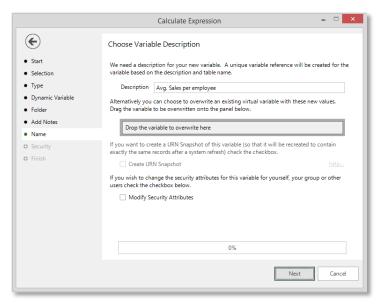
To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step

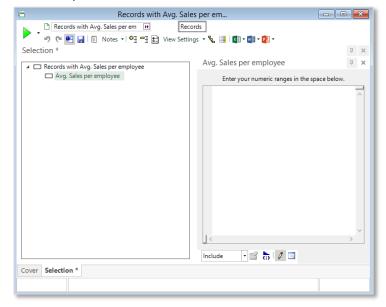
See the section Virtual Variable Security (pg. 50). Click Next

Finish – This step will tell you how many records have been updated. Tick the **Show new variable as a selection** box. Click **Finish** 

The variable is now displayed allowing you to enter a value or range to find the average sales per employee. This variable could also be dragged onto a Cube dimension to form a banded breakdown.



#### Calculate Expression Wizard - Name



Selection Window – Average Sales per employee

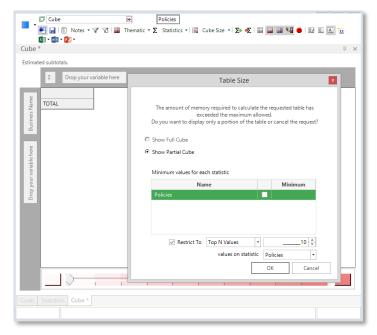
### Create From Cube Wizard

This wizard allows you to create a selector virtual variable from the results of a Cube or Tree. Only sparse 1 dimensional Cubes or Trees, with a text dimension and no overlaps between the cells can be used with this wizard.

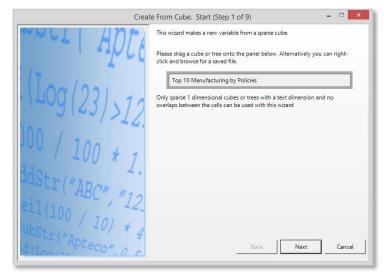
### **Example**

Create a Selector virtual variable from a Cube that displays the Top 10 Manufacturing Business Names by Policy Premium

- Create a Policies selection of MIS Manufacturing. Drag on a Cube and add Business Name to a dimension
- Click Build and then restrict the Top N Values to 10 in the Table Size window
- Click on the Create From Cube wizard link
- > Start Drag the sparse Cube or Tree on to the drop zone. Click Next
- Cube Size Amend the restriction on the cube size if required. Click Next
- Choose Selection Click the radio button to select which group of records to classify (Base Selection).
- Selection Allows you to determine which records to use if Custom Selection was selected previously 3. Click Next



Restrict to Top 10 Business Names



Create From Cube - Start

- ➤ **Folder** Highlight the folder you would like the variable to be stored in. By default it will reside in the **Others** folder. Click **Next**
- Add Notes You may enter optional notes in this window. Click Next
- Name Enter the Description Top 10 Manufacturing by Policies. Click Next

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it.

Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

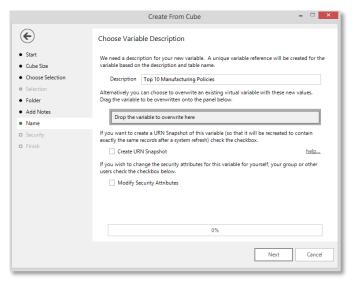
To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step

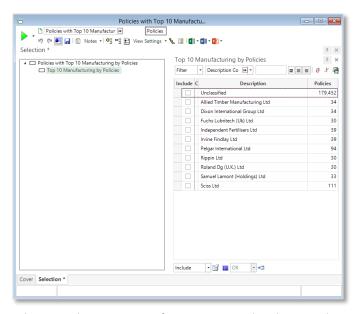
See the section Virtual Variable Security (pg. 50). Click Next

Finish – This step will tell you how many records have been updated.

Tick the **Show new variable as a selection** box. Click **Finish** 



Create From Cube - Name



Selection Window – Top 10 Manufacturing Companies by Policies Virtual Variable

## Import Data Wizard

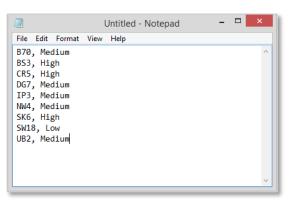
The Import Data Wizard creates a new Virtual Variable in the Market Insight system from a given text file. This is useful when you have external data that you wish to add into your system and analyse after it has been built with Market Insight Designer.

**N.B.** The Import Data Wizard will only accept fixed and delimited text files. It must match variable information already contained within the system.

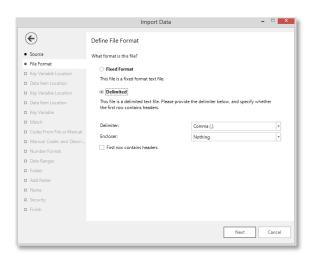
### **Example**

Create a Selector variable from an imported **delimited** text file that assigns a Risk Value to certain UK Postal Districts.

- > If you do not have the text file Risk Import Data on your machine create one in Notepad as shown opposite.
- Click on the Import Data wizard link
- > Start Drag on the Risk Import Data file. Click Next
- File Format Click the Delimited radio button and leave the options on their defaults. Click Next
- Key Variable Location Leave as the default to identify the Key position. This will be the information matched to, in this case UK Postal District. Click Next
- Data Item Location Leave as the default to identify the Data position. This is the information to be associated with, in this case the risk level. Click Next
- ➤ **Key Variable** Drag on the matching variable from your system. In this case it is **Postal District**. Click **Next**



Import Data Text File



Import Data Wizard - File Format

Match – Allows you to make a number of settings as described on the step window. Set as shown in the screen shot. Click Next

**Match** – This allows you to set the Key to match on Codes, Descriptions or an Index.

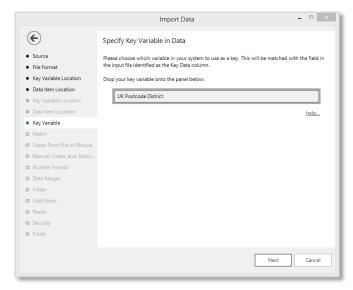
**Key Mapping** – If the format in your input file is different to the variable select that format from the list.

**Data Mapping** – If you want to change the format of the Codes and Descriptions on your Virtual Variable select from the list.

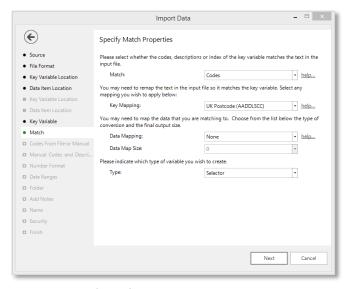
**Type** – Choose from Selector, Numeric or Text as the type of variable you wish to create.

- Codes from File or Manual This Step gives you the opportunity to allow codes and descriptions to be found automatically or to determine them yourself. Leave as the default. Click Next
- Folder Highlight the folder you would like the variable to be stored.By default it will reside in the Others folder. Click Next
- Add Notes You may enter optional notes in this window. Click Next
- ➤ Name Enter the Description Risk Level. Click Next

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it.



Import Data Wizard - Key Variable



Import Data Wizard - Match

Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step.

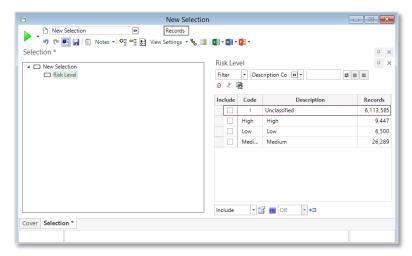
See the section Virtual Variable Security (pg. 50). Click Next

Finish – This step will tell you how many records have been updated. Tick the **Show new variable as a selection** box. Click **Finish** 

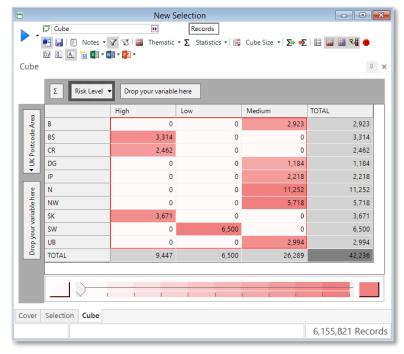
This variable can now be used in conjunction with a Cube as follows:

- Drag out a Cube and place the UK Postcode District on the vertical dimension and the Risk Level virtual variable onto the horizontal dimension
- Click Build and then remove the Unclassified categories from the display

The Cube now shows the breakdown of the Postal Districts with the number of Records in each, designated Low, Medium or High.



Selection Window - Risk Level Virtual Variable



Cube Display – Postal District by Risk Level

### **Example**

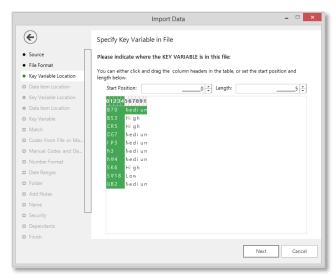
Create a Selector variable from an imported **fixed format** text file that assigns a Risk Value to certain Postcode District.

- Click on the Import Data wizard link
- Source Drag on your Fixed Format file. Click Next
- File Format Ensure the Fixed Format radio button is selected. Click Next
- Key Variable Location Highlight the area of the display that indicates the Key Variable (Postal District description). This will change the Start Position and Length figures. Alternatively you could type the figures directly into the boxes. Click Next
- Data Item Location Follow the same directions as in the previous stage but this time highlight the Data (Risk level description). Click Next

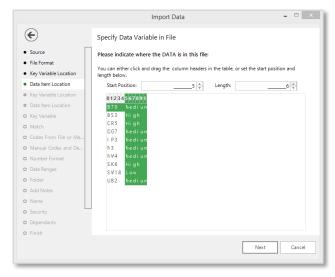
Follow through the remaining steps as described in the previous example.

## **Suggested Uses**

 Assign a label to certain records – apply a credit risk to households in certain geographical locations



Import Data Wizard - Key Variable Location



Import Data Wizard - Data Item Location

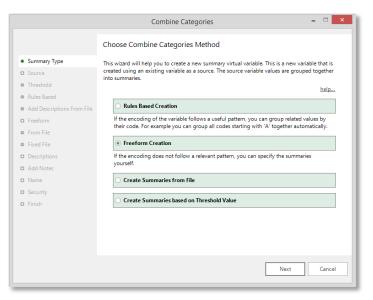
## **Combine Categories Wizard**

The Combine Categories Wizard allows you to create a virtual variable based upon an existing variable where the values are grouped together into summaries. The UK Postcode Sector, District and Area related variables are an example of this within the Market Insight training database.

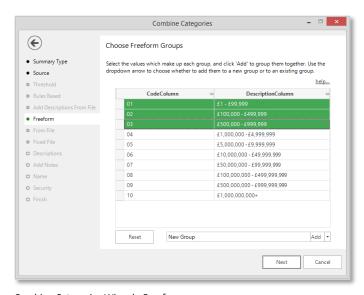
### **Example**

Create a Selector virtual variable that combines the categories of the Banded Sales variable into the categories of High, Mid and Low Sales.

- Click on the Combine Categories wizard link
- Start Choose the appropriate method required for your source data. Select the Freeform Creation radio button. The other two options are described below. Click Next
- Source Drag on the Banded Sales variable. Click Next. (You go to Freeform)
- ➤ Threshold Define your threshold here if you selected Create Summaries based on Threshold Value in Summary Type
- Rules Based If you chose Rules Based Creation in Summary Type you now have the opportunity to define how the codes are grouped. Create 4 groups (one for unclassified) Click Next
- From File If you ticked Create Summaries from File in Summary Type you can drag the file on at this step. Click Next
- ➤ Freeform Highlight the first group of categories you wish to summarise. Click Add. (See screen shot opposite)



Combine Categories Wizard - Start Summary Type



Combine Categories Wizard - Freeform

- Select the remaining categories and click Add. Click Next (You go to Descriptions)
- Fixed File Unclassified If a Fixed Format file is used you can set the column widths here. Click Next
- Descriptions Enter Unclassified for Description of group 1, Low Sales for the Description of group 2, Mid Sales for group 3 and High Sales for group 4. Click Next
- > Add Notes You may enter optional notes in this window. Click Next
- Name Enter the Description Low, Mid and High Sales. Click Next

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it.

Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

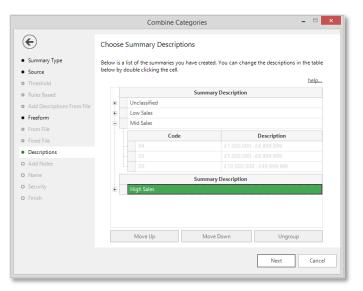
To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

Security – This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step.

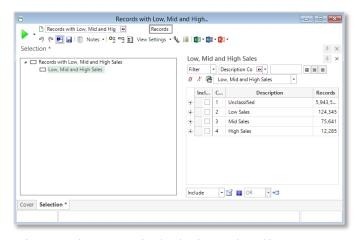
See the section Security (pg. 50). Click Next

Finish – This step will tell you how many records have been updated. Tick the **Show new variable as a selection** box. Click **Finish** 

The virtual variable now displays a selector with four categories summarising all Sales Bands into 4 groups.



Combine Categories Wizard - Descriptions



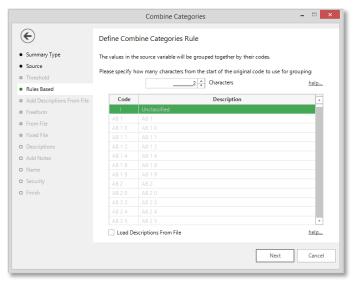
Selection Window - Low, Mid and High Sales virtual variable

### **Example – Rules Based Creation**

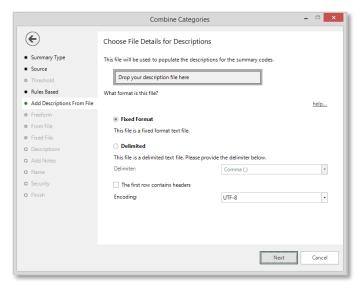
If this option is chosen you have the ability to group related values if there is a usable pattern within the encoding of the variable e.g.UK Postal Sector.

- > Click on the Combine Categories wizard link
- Summary Tppe Select the Rules Based Creation radio button. Click Next
- Source Drag on the UK Postcode Sector variable. Click Next
- Rules Based If you select the first 2 characters of the code you can group values to UK Postcode Area level. Click Next
- ➤ Add Descriptions for File If you ticked Load Descriptions from File at the Rules Based step you can drag on a file at this point that determines what descriptions are used. Ensure you indicate the file format using the appropriate radio button. Click Next

This will take you to **Descriptions** and through the remaining steps as described in the previous example.



Combine Categories Wizard - Rules Based



Combine Categories Wizard - Add Descriptions From File

### **Example – Create From File**

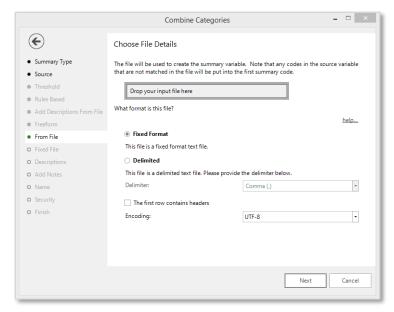
If this option is chosen you have the ability to create summaries from an existing file.

- > Click on the Combine Categories wizard link
- > Summary Type Select the Create from File radio button. Click Next
- Source Drag on the UK Postcode Sector variable. Click Next (You go to From File)
- From File Drag on the file from which you wish to create your summaries. Click Next
- Fixed File If you selected the Fixed File format you will now need to define the column widths of your file. Click **Next**

Follow through the remaining steps as described in the first example.

## **Suggested Uses**

 Group up records – group newspapers into Broadsheets and Tabloids; group the postcode into Postal Area, Postal District and Postal Sector (this is more likely to have taken place at the Design stage)



Combine Categories Wizard - From File

Your file must contain the following information:

**Code:** The code in the source variable to match to. Note that this field must be the same length (for both fixed and delimited files) as the length of the code in the source variable.

**Summary Code:** The code to use in the summary variable. Any two rows that have the same summary code will be grouped together.

**Summary Description:** The description to use for the code in the summary variable. Any two rows that have the same summary code must have the same summary description.

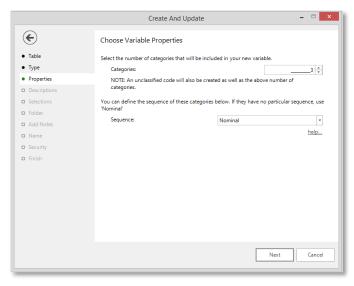
## Create and Update Wizard

The Create and Update Wizard allows you to create and assign values to Selector and Flag Array virtual variables in one process.

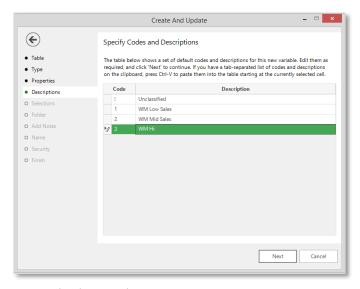
#### Example

Create a Selector virtual variable, at the Records table with 3 categories; West Midlands High, Medium and Low Sales

- ➤ Start by creating the above 3 selections and saving them in your Private folder. Make your own judgement as to what ranges to use or the variable created using the previous Wizard
- Click on the Create And Update wizard link
- ➤ Table Drag on the appropriate table (Records). Click Next
- > Type Click on the Selector radio button.
- ➤ Properties Set the number of Categories to 3 and leave the Sequence to Nominal. Click Next
- ➤ **Descriptions** Type over the category descriptions with the same names as the selections you saved. Click **Next**
- Selections Drag the saved selections on to the boxes next to the appropriate descriptions. Click Next
- Folder Select or create a folder where you want to place your Virtual Variable. Leave the default to the **Others** folder. Click **Next**
- > Add Notes Enter optional notes. Click Next



Create And Update Wizard - Properties



Create And Update Wizard – Step Descriptions

Description - Type the description name for the variable - West Midlands Sales

If you have an existing Virtual Variable which will be superseded by this one it can be dragged onto the box **Drop the variable to overwrite here** to overwrite it.

Tick the URN Snapshot if you wish to recreate this Virtual Variable after a refresh of the data with the exact same records.

To **Modify Security Attributes** tick this box and you will go to Security. Click **Next** 

Security - This step is only visible if you are running an Enterprise system and you have ticked the Modify Security Attributes box in the previous step.

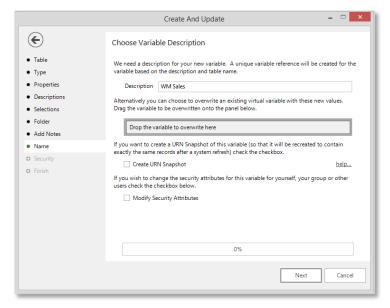
See the section **Security** (pg. 50). Click **Next** 

Finish - This step will tell you how many records have been updated. Tick the **Show new variable as a selection** box. Click **Finish** 

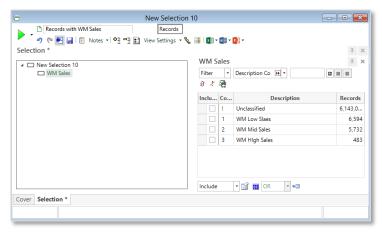
You are now presented with a Selector variable that allows you to select Customers that have been pre grouped.

#### **Suggested Uses**

 Create a selector with categories of identified individuals that meet certain criteria



Create And Update Wizard - Description



Selection Window - WM Sales Virtual Variable

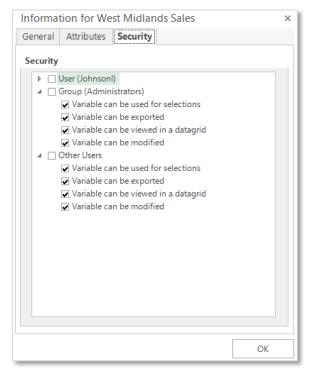
# Security

When creating a Virtual Variable on an enterprise version of Market Insight Discoverer you have the opportunity to modify the security attributes.

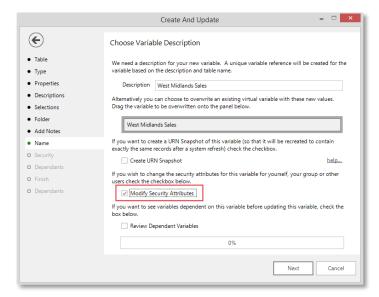
You can set the options for who sees the variable or what they can do with it, including yourself, other members of any groups you are assigned to and any other users on the system.

You can see what security settings have been set on an existing variable by:

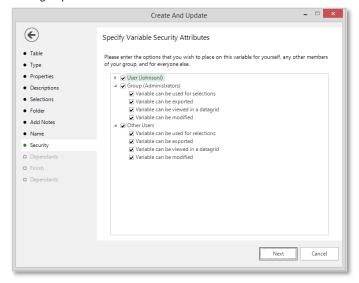
➤ Right click on the Variable → Properties → Security



**Security Properties** 



#### Naming Step



Security Step