

FastStats™

FastStats Discoverer
Everything you wanted to know about...
FastStats Geo (v1.1)

Helping you get the most out of your *FastStats™* software



FastStats™

www.apteco.com

Everything you wanted to know about...

FastStats Geo

Document Version: 1.1

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MapPoint Version: 2004

FastStats Discoverer Everything you wanted to know about... FastStats Geo (v1.1)



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Contents

Introduction	1	Searching the Map.....	40
How to Login	3	Selecting from the Map	41
Map Options.....	4	Appendix 1 – Further Information	42
Microsoft MapPoint.....	5	FastStats Geo Module	42
Shaded Map	5	Boundary Files.....	42
Shaded Map - The Layer Tab	6	Microsoft MapPoint	42
Shaded Map – Viewing the Map	7	Bing Maps.....	42
Shaded Map – Viewing the Results	8	OpenStreetMap	42
Shaded Map – Using a Segment Variable	9		
Shaded Map – Adding Statistics	10		
Plot Map	11		
Plot Map - The Layer Tab	12		
Plot Map – Viewing the Map	13		
Plot Map – Viewing the Results.....	13		
Plot Map – Create Drivetime Zone	15		
Multiple Layered Maps.....	16		
Searching the Map.....	17		
Selecting from the Map	18		
Map Wizards	19		
Drive Zone Wizard	20		
Location Geocoder.....	22		
Point to Point Wizard	24		
Territories Wizard.....	26		
Bing Maps	29		
Shaded Map	29		
Shaded Map - The Layer Tab	30		
Shaded Map – Viewing the Map	30		
Shaded Map – Viewing the Results	32		
Shaded Map – Using a Segment Variable	33		
Shaded Map – Adding Statistics	34		
Plot Map	35		
Plot Map – Viewing the Map	36		
Plot Map – Viewing the Results.....	36		
Plot Map – Create Drivetime Zone	38		
Multiple Layered Maps.....	39		

Introduction

Understanding the geographical distribution of your customers and prospects can increase insight of your marketplace, highlight areas of untapped potential and facilitate campaign planning and execution. The FastStats Geo module is an integration with Microsoft MapPoint, Microsoft Bing Maps or OpenStreetMap, that allows you to visualise the spatial distribution of your data and export targeted selections for immediate use in your marketing campaigns. See Appendix 1 – Further Information.

Microsoft MapPoint

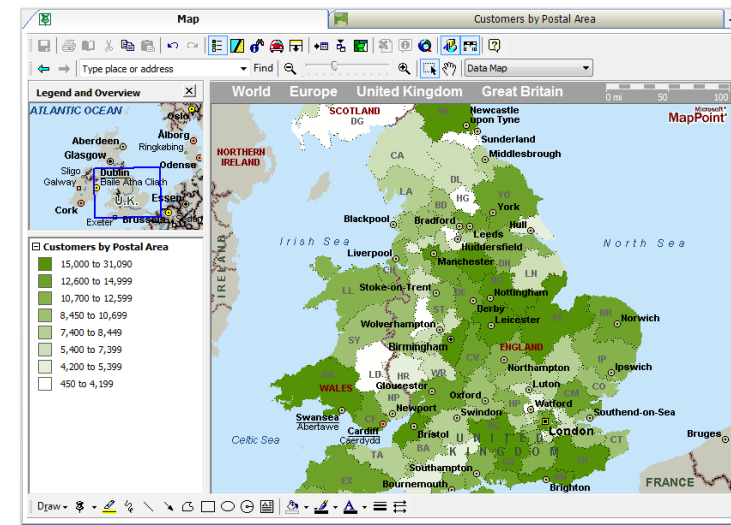
Users of this module will need Microsoft MapPoint installed on their machines. Microsoft MapPoint is not included with the FastStats Geo licence, but is available from many retailers with either European or North American maps. Please check the Microsoft website for details of countries covered.

Microsoft Bing Maps

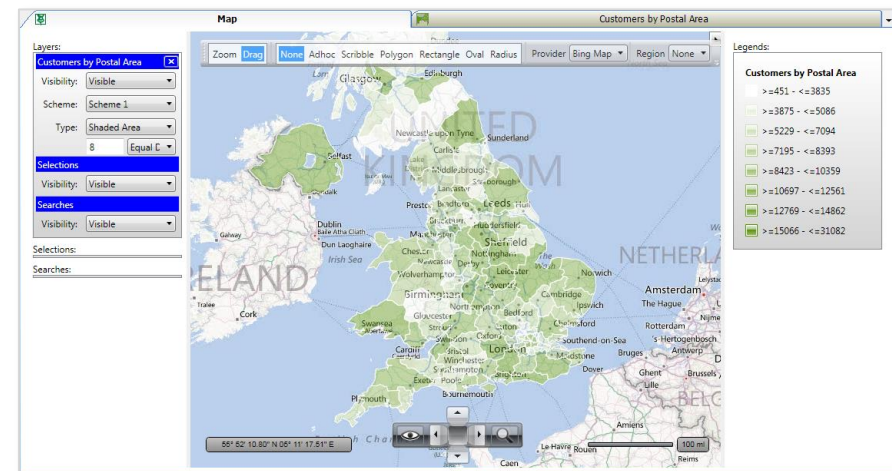
Online mapping using Bing & OpenStreetMap provides street level mapping for all regions in the world. Users will need to subscribe to the online Bing Maps web service through Apteco and ensure they have the relevant boundary files. OpenStreetMap is a free service. The mapping wizards are not available with the online module.

N.B. This document looks at the main relationship between FastStats and the Mapping tools. For specific functionality of the mapping software refer to the Microsoft online help.

N.B. The examples in this document are for illustrative purposes only. You will not be able to follow these exact examples in reality unless you have the relevant licenced software and access to the Holidays training system.



Microsoft MapPoint



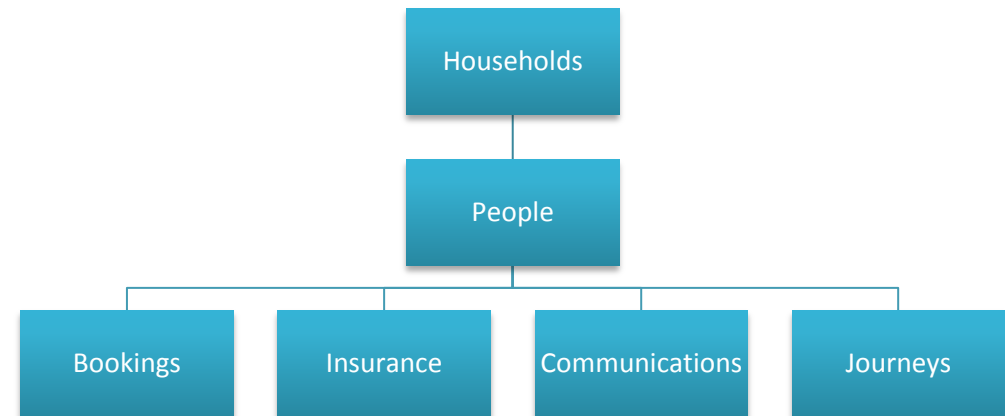
Microsoft Bing Maps

The Example Data

The FastStats system that you will use for training is based on the 1,156,553 customers of a holiday company and the 2,130,081 holidays that they have booked. The variables consist of geodemographic attributes of the customer such as postcode, occupation etc. and bookings data including booking date, value, product etc. Although this data might not exactly match your business sector, the general structure of customer records with potentially many transactional records is a common one within marketing data e.g. customers-orders, customers-accounts etc. FastStats supports much more complex hierarchies, but all the core functions can be demonstrated with this data set.

The data has been generated from a random data source, but is otherwise realistic, with most standard data types represented.


The image opposite shows the table structure in the underlying Discoverer database which uses a One to Many relationship e.g. households could contain many people and people could book many holidays. The table called Journeys relates to data that is used with the PeopleStage software. See the last page of this manual for more details.



FastStats Discoverer Training Database Table Structure

How to Login

You can start FastStats Discoverer by:

- Clicking on the **FastStats Discoverer** icon  on your desktop, or
- Navigating via

Start → All Programs → FastStats → FastStats Discoverer

In the top left hand corner of the screen you will see a Login window that gives you the opportunity to connect to a FastStats system.

Enterprise Login

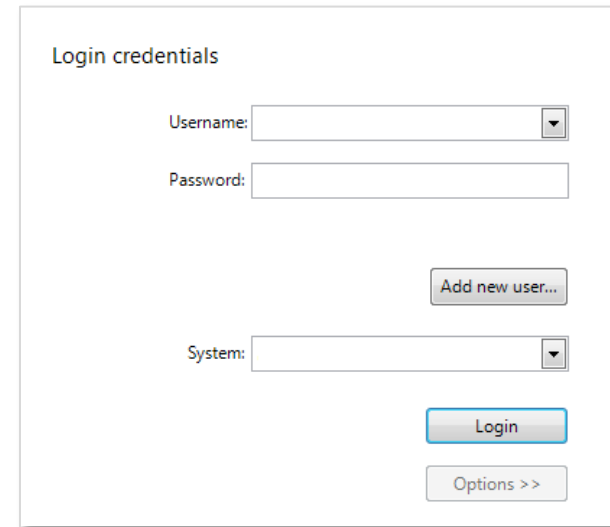
Your organisation may hold your FastStats system on a server so that a number of Users can access it at the same time. Your FastStats Administrator will be able to set you up with a Username and Password.

Local Login

If you have fewer Users you may find that the FastStats system is held on your PC. In this instance you may need to navigate to the appropriate .xml file for your system through the Browse button. If you are connecting to your system for the first time you will need to set up some standard links through the Create button.

This document is based upon the Training 1 system (Holidays)

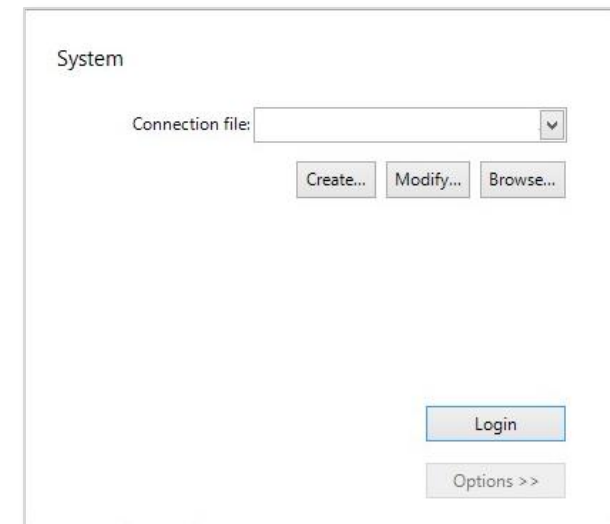
- Enter your details if appropriate and click the **Login** button



The Enterprise Login Window contains the following elements:

- Login credentials** section with a Username dropdown menu and a Password text input field.
- An **Add new user...** button.
- A **System:** dropdown menu.
- A blue **Login** button.
- An **Options >>** button.

Enterprise Login Window



The Local Login Window contains the following elements:

- System** section with a **Connection file:** dropdown menu.
- Create...**, **Modify...**, and **Browse...** buttons.
- A blue **Login** button.
- An **Options >>** button.


Local Login Window

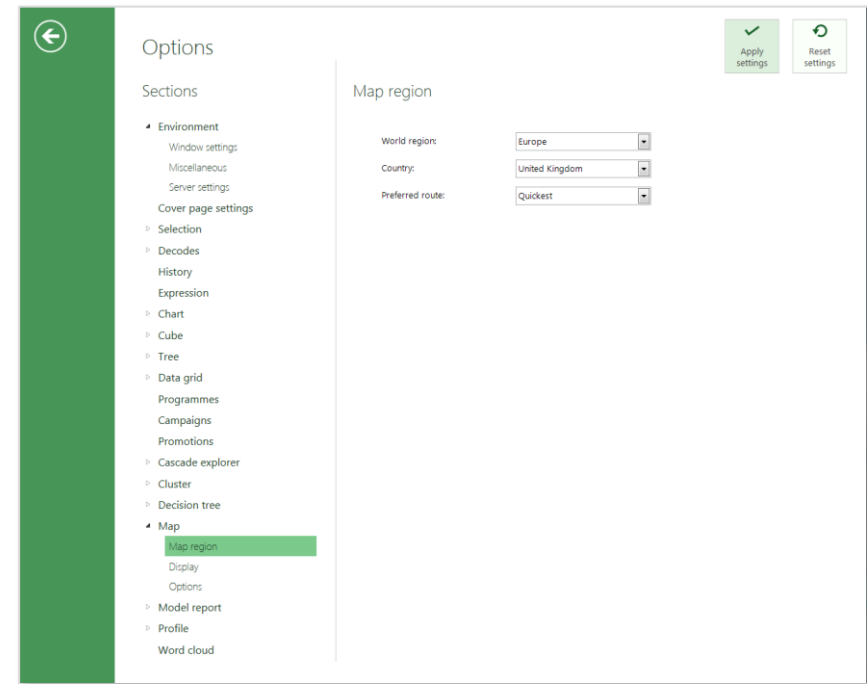
Map Options

If you have both MapPoint and Bing licences you can select the one you wish to use and the default settings you see, from the FastStats Discoverer Options window.

- On the menu bar click on **File** → **Tools** → **Options...**
- Under the **Sections** column select **Map** to see 3 further sub menus

The screen shot opposite shows the Map region options set for Europe (United Kingdom) using MapPoint. Other default settings such as map type, distance units, routing options can be made on the other sub menus.

 **N.B.** – If you are using an online mapping service you will need to select the option World from the World region drop down menu.

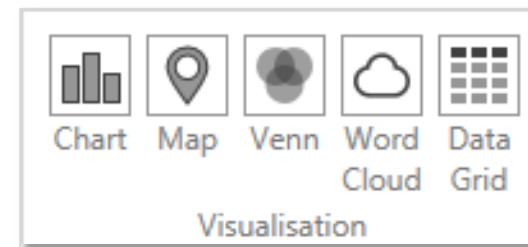


FastStats Discoverer – Options Window

To start using your mapping tool:

- Open a selection window containing the records you wish to work with
- Drag the **Map** tool from the **Visualisation** section of the **Toolbox** ribbon bar onto your selection window

The following pages will start with examples using MapPoint.




Toolbox Ribbon Bar – Map Option

Microsoft MapPoint

Shaded Map

A shaded map allows us to display records using particular geographical boundaries e.g. by Postal Area, Postal District or Postal Sector in the UK. This gives us the opportunity to look at the distribution of our customers or prospects around the country.

In the following example we will display a selection of people, who are managers that have made bookings to the US and display them on a shaded map by Postal Area.

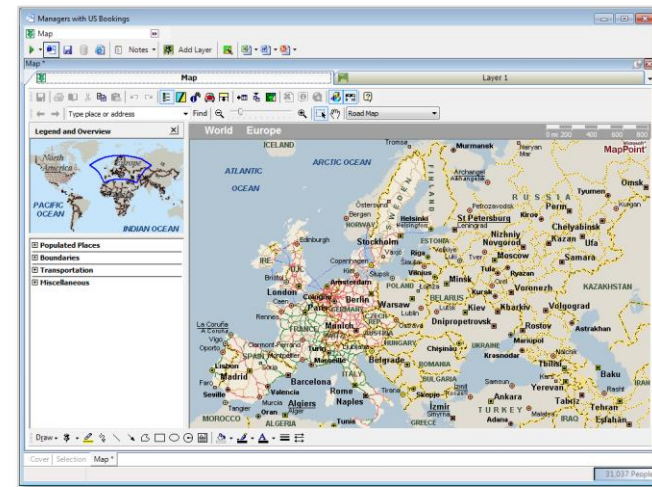
- Create a selection query that identifies **Managers** who have booked holidays to the **United States**
- Drag and drop the  **Map** tool on top of the selection window

The Map page has two tabs; the one entitled Map currently shows the default display region and will be where the final display will be shown. The second tab, entitled Layer 1 is where we define how the results will be displayed. Multiple layers can be added to your map, which will be covered further on in this document.

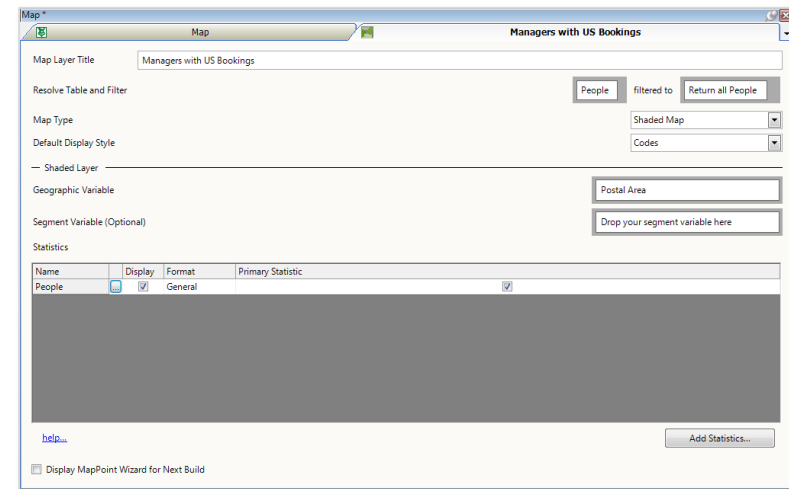
- Click on the **Layer 1** tab

An explanation of the options on this window is shown on the next page. For now we will just make the changes shown in the screen shot opposite i.e. drag on Postal Area as the Geographical Variable and change the layer title.

- Click the **Build** button



The Map Tool – Map Tab



Layer Tab – Shaded Map

Shaded Map - The Layer Tab

Map Layer Title	Enter the description to be shown on the layer tab and legend display
Resolve Table & Filter	Set the table level and any record filter here to determine the records shown e.g. People or Household figures
Map Type	Choose between the Shaded and Plot Map options
Default Display Style	When viewing the Map results select to show the Descriptions or Codes for items
Geographic Variable	Drag and drop here the geographical variable to determine how the data will be shown on the Map
Segment Variable	Allows you to segment the data by the selection variable used, displayed as pie, column charts etc.
Statistics Panel	This area displays all the statistics that have been added for possible display on the map
Add Statistics...	The statistics window allows you to define which statistics will be made available in the statistics panel
Help...	Click this link to open the FastStats Help files
Display MapPoint Wizard for Next Build	Displays the wizard each time the map is built so you can change the graph type and other options

Shaded Map – Viewing the Map

Now that the results have been calculated and displayed, we can see the Map area has zoomed in on the UK. Each Postal Area that contains records from our selection has been colour shaded. The colour shading has defaulted to Quantiles of 8 ranges. To change the shading settings:

- Right click on the legend heading (Managers with US Bookings) and select **Format Legend...**

Here you will find options to change the range type, number of ranges, range labels as well as the colours used on the display. For more details use the Microsoft Help for MapPoint.

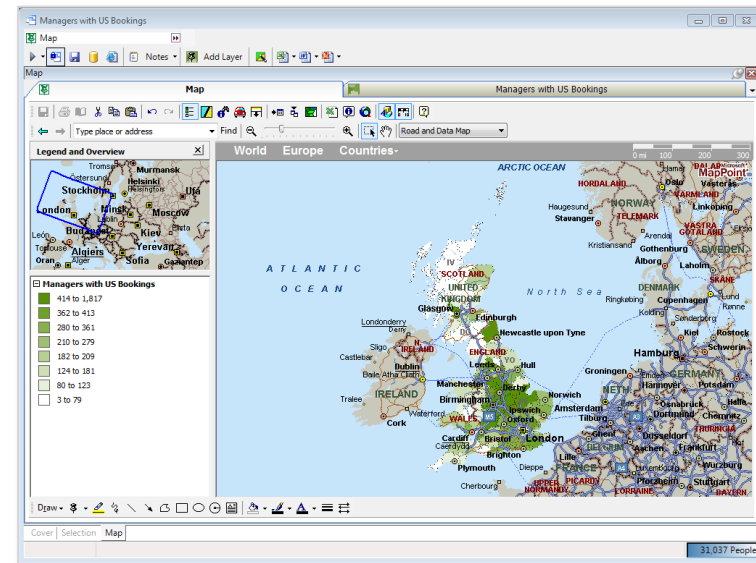
To get a closer or different view on the Map:

1. Use the zoom function to the right of the Find button on the tool bar to zoom in or out of the map
2. Using the Select pointer, left drag across the area of the map you are interested in, then click within the shape drawn
3. Move your mouse pointer to the edge of the map, a white arrow will appear and move the map in that direction when clicked
4. Click and drag within the shape on the mini map in the top left area of the window to move around the map

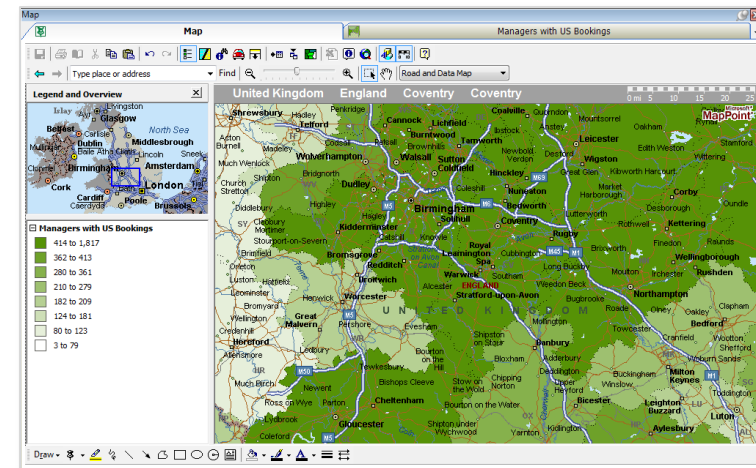
The screen shot opposite shows the map centred over Warwick, the home of FastStats. You may find the overlay of the road network distracting. You can remove this by:

- Click on the drop down arrow next to **Road and Data Map** and select **Data Map**

You can now see the Postal Areas more clearly.



A Shaded Map



A Shaded Map – Zoom In View

Shaded Map – Viewing the Results

Now that we have removed the road network we can see more clearly the Postal Areas with their letter codes being displayed e.g. CV for the Coventry Postal Area.

The results of our underlying selection have been applied through the colour shading. The legend, depending on the settings used may have a wide range of results associated with a particular colour.


To find the actual result move the mouse pointer over the Postal Area of interest and the tooltip will display the count.

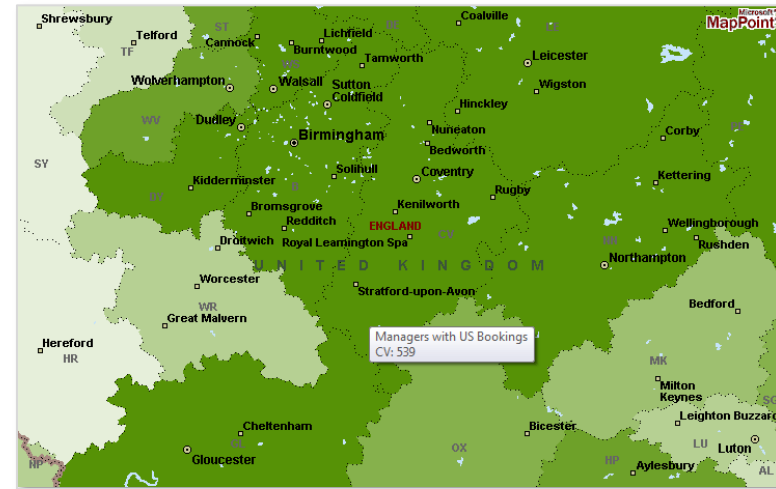
To select results from our map we can use tools from the Drawing Tool bar. In this example we will use the scribble tool to find an area of interest.

- Click on the **Scribble** tool and drag the pencil icon onto the map. Click and hold the left mouse button to draw a joined up shape

The white boxes on the line show it is active. If they disappear click on the line again.

- Right click within the shape and drag off the map to create a selection of your area

 **N.B.** – The line drawn on the map crosses several Postal Areas, so how does FastStats interpret your shape? FastStats looks to see if your line encompasses the centre point (centroid) of a geographical variable and if it does it will include everyone in that area. So for a more accurate result a more granular variable should be used e.g. Postal Sector.



Shaded Map – Tooltip Count Display



Shaded Map – Scribble Tool Selection

Shaded Map – Using a Segment Variable

When using the shaded map option it is possible to display segmented data from a selector variable or selection query. For example we may wish to display graphically the most important occupations of our customers by the Postal Area in which they live.

- Using a blank selection drag on a **Map** tool and change the **Layer 1** tab to reflect the options in the screen shot opposite
- Click the **Build** button

You will now be presented with MapPoint's Data Mapping Wizard. The Map Type step is displayed first. Here you can click on the different map types to work out which one is most appropriate for the data we want to display.

- Click on the **Column Chart** button and then click **Next>**

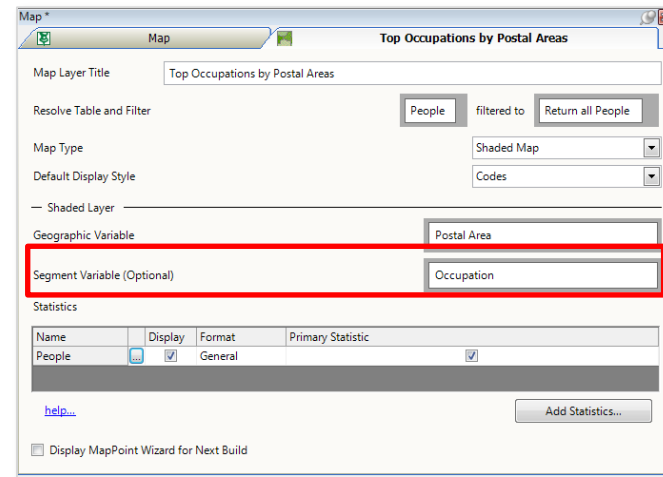
The next step allows us to choose the categories of our segment variable we wish to display. You can further divide the data variables we select by one of the items in the drop down menu. The bottom panel will highlight Postcode Area as we have already selected this geographical variable on the Layer tab.

- Tick **director**, **manager** and **professional** and then click **Next>**

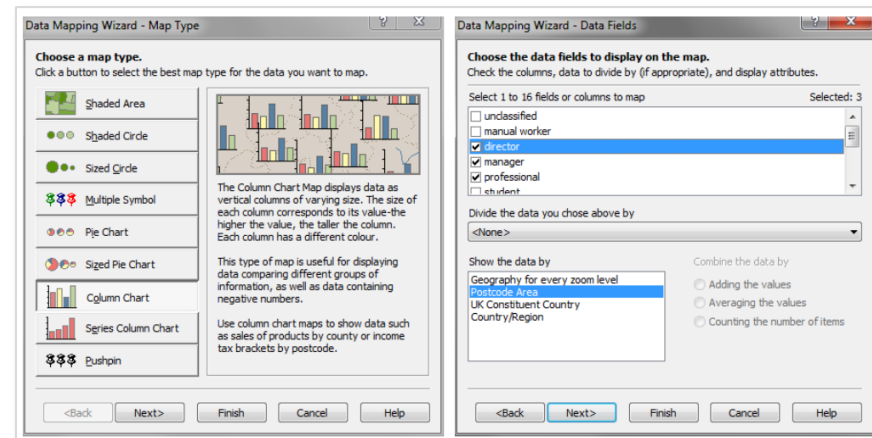
The next 2 steps allow you to change the legend title, the legend range and also the legend labels.

- Click **Finish** to display the results as a series of column charts on each **Postal Area**

N.B. – Moving the mouse pointer over a column chart will display the details in a tooltip.



Layer Tab – Occupation as the Optional Segment Variable



MapPoint Options - Displaying a Segment Variable

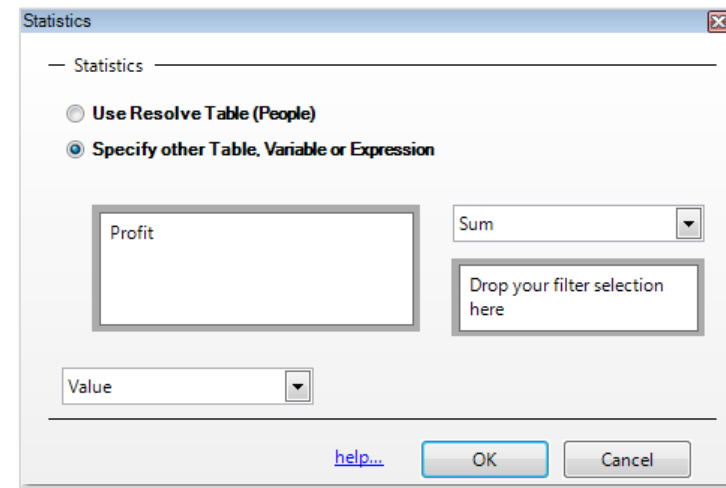
Shaded Map – Adding Statistics

As well as displaying values e.g. the number of People on a map, you can also generate and display a calculated statistic for those people being represented on the map.

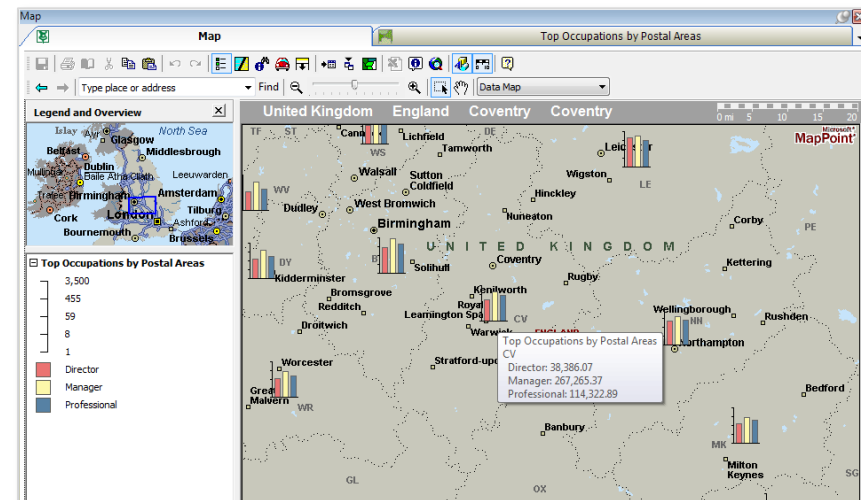
Let's use the example of Top Occupations by Postal Areas which we used in the previous example. We can now amend this example to optionally display the total profit each of those occupations (in the specific Postal Area) has contributed to our business.

- Click on the **Layer** tab (Entitled Top Occupations by Postal Areas)
- Click on the **Add Statistics...** button to display the **Statistics** window
- Click on the radio button **Specify other Table, Variable or Expression**
- We can now drag on the **Profit** variable and select the statistic we want to apply (in this example **Sum**)
- Click **OK**
- Within the **Statistics** panel change the **Primary Statistic** from **People** to **Sum(Profit)**
- Click the **Build** button

When we move the mouse pointer over a column chart, the tool tip that is displayed now shows the total profit figure per occupation for the Postal Area they live in.



Statistics Window – Summing the Profit Value for People




Shaded Map View – Sum of Profit Statistic Display

Plot Map

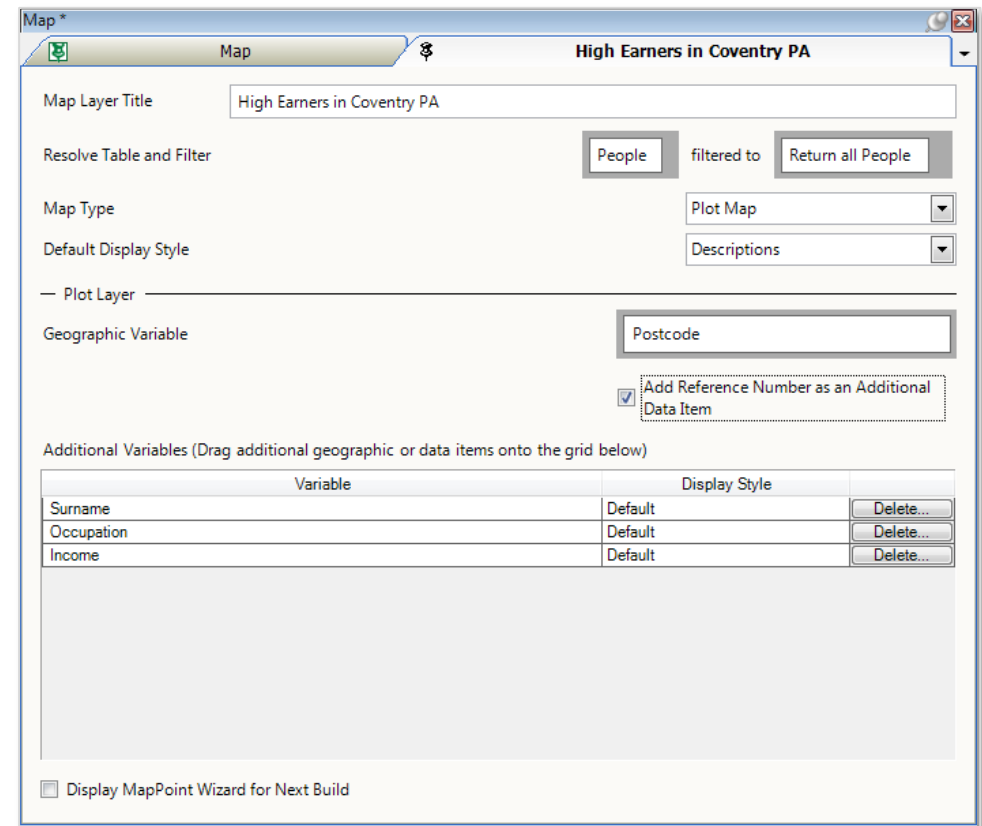
A plot map allows us to display records using a more precise geographical boundary e.g. by UK Postcode. This gives us the opportunity to look at the location of smaller groups of customers or prospects around the country.

In the following example we will display a selection of people, who live in the Coventry Postal Area and earn £70-80K or more.

- Create a selection query that identifies the high earners in the Coventry **Postal Area**
- Drag and drop the  **Map** tool on top of the selection window
- Click on the **Layer 1** tab
- Complete the window as shown opposite

An explanation of the options on this window for a Plot Map is shown on the next page.

- Click the  **Build** button



Layer Tab – Plot Map

Plot Map - The Layer Tab

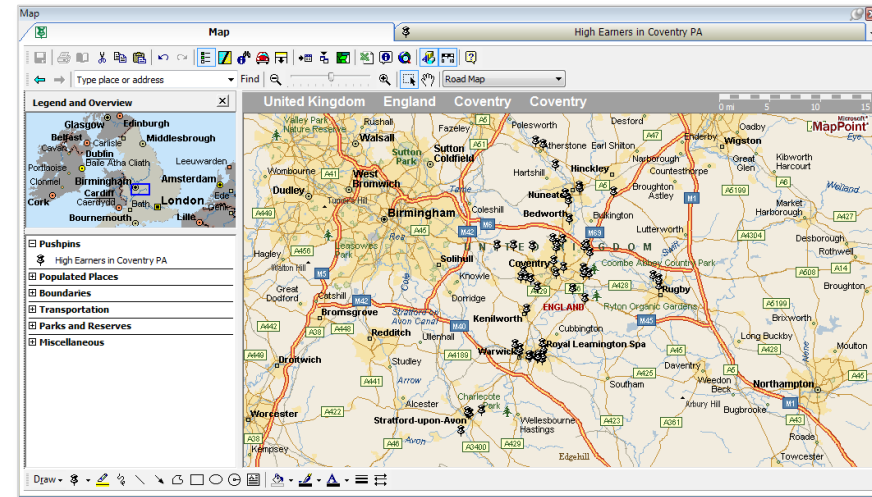
Map Layer Title	Enter the description to be shown on the layer tab and legend display
Resolve Table & Filter	Set the table level and any record filter here to determine the records shown e.g. People or Household figures
Map Type	Choose between the Shaded and Plot Map options
Default Display Style	When viewing the Map results select to show the Descriptions or Codes for items
Geographic Variable	Drag and drop here the geographical variable to determine how the data will be shown on the Map
Add Reference Number	This allows a selection to be dragged off the map listing the URN
Additional Variables	Information for these variables can be accessed for records displayed on the map
Display MapPoint Wizard for Next Build	Displays the wizard each time the map is built so you can change the graph type and other options

Plot Map – Viewing the Map

To get a closer or different view of the Map:

1. Use the zoom function to the right of the Find button on the tool bar to zoom in or out of the map
2. Using the Select pointer, left drag across the area of the map you are interested in, then click within the shape drawn
3. Move your mouse pointer to the edge of the map, a white arrow will appear and move the map in that direction when clicked
4. Click and drag within the shape on the mini map in the top left area of the window to move around the map

The screen shot opposite shows the map centred over Coventry.



Plot Map – High Earners in Coventry Postal Area

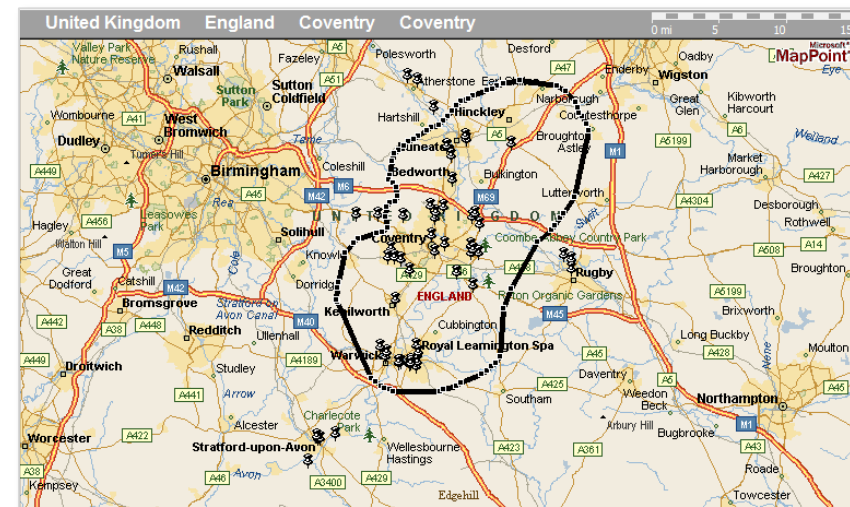
Plot Map – Viewing the Results

To select results from our map we can use tools from the Drawing Tool bar. In this example we will use the scribble tool to find an area of interest.

- Click on the **Scribble** tool and drag the pencil icon onto the map. Click and hold the left mouse button to draw a joined up shape that encompasses the pins you are interested in

The white boxes on the line show it is active. If they disappear click on the line again.

- Right click within the shape and drag off the map to create a selection of your area



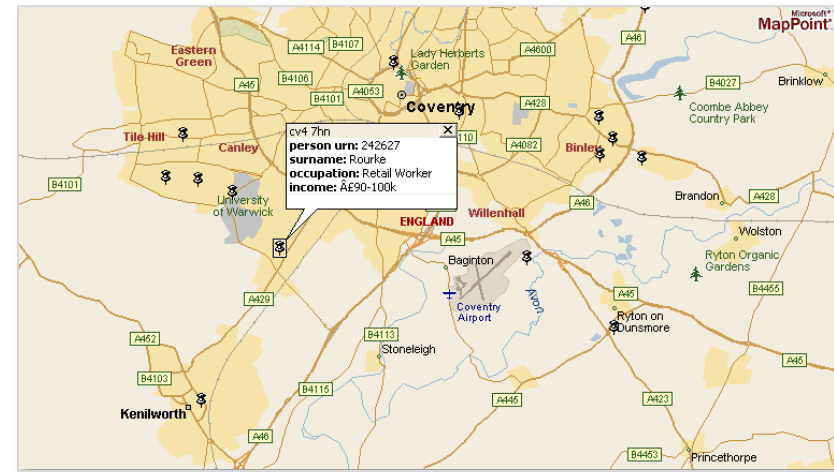
Plot Map – Scribble Tool Selection

When we were setting the options on the Layer tab we added 3 variables to the Additional Variables panel. This will allow us to view this information for the records shown on the map.

- Right click on a pin on the map
- Select **Show Information** from the pop up menu

If the pin represents a single record, a balloon will appear with the URN and the relevant variable information for that record.

If the pin represents more than one record, a window will appear listing the postcode for each of those records.



Plot Map – Show Information

Plot Map – Create Drivetime Zone

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

- Using the **Plot Map** from the last example, create a drive time zone of 20 minutes from the centre of **Warwick**
- Type **Warwick** into the **Find a Location** box and click **Find**

If necessary we can be more specific with our starting point by using a Postcode.

- Highlight the appropriate location and click **OK**
- Right click and select **Create Drivetime Zone...**
- Set the **Drivetime** to 20 minutes and check the **Draw drivetime zone behind roads** box
- Click **OK**

You can now find out how many People on the FastStats system live within this 20 minute drive time by:

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

The result will be all the records shown on the map which can be reached within a 20 minute drive from the centre of Warwick.




Create Drivetime Zone Window



Drivetime Zone Display

Multiple Layered Maps


It is possible to create Maps with multiple layers. These layers can be either shaded or plot maps using different selections. To show the two maps created earlier on the same map page:

- Redisplay the shaded **Map of Managers with US Bookings**
- Click the  **Add Layer** button to apply a second set of settings to your **Map**


To replicate the High Earners in Coventry PA display on top of the shaded map of Managers with US Bookings:

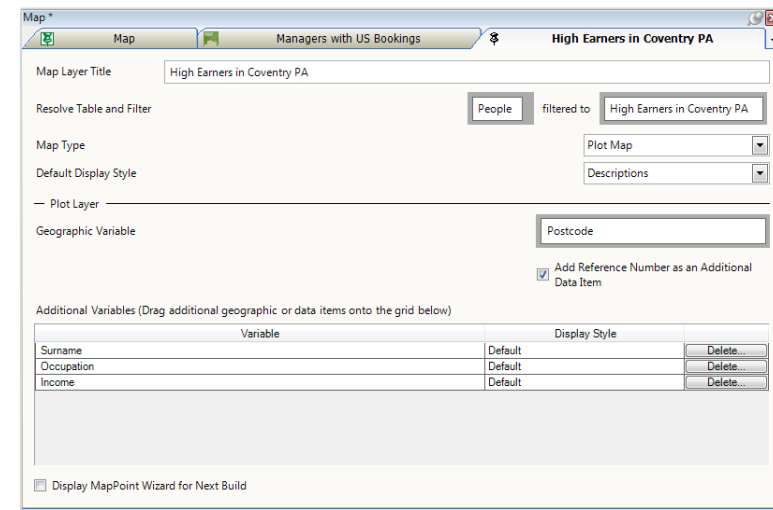
- Drag the selection **High Earners in Coventry PA** onto the **Return all People** filter box

This has to be applied in this way because the underlying selection window still holds the Manager with US Bookings query used on the shaded map.

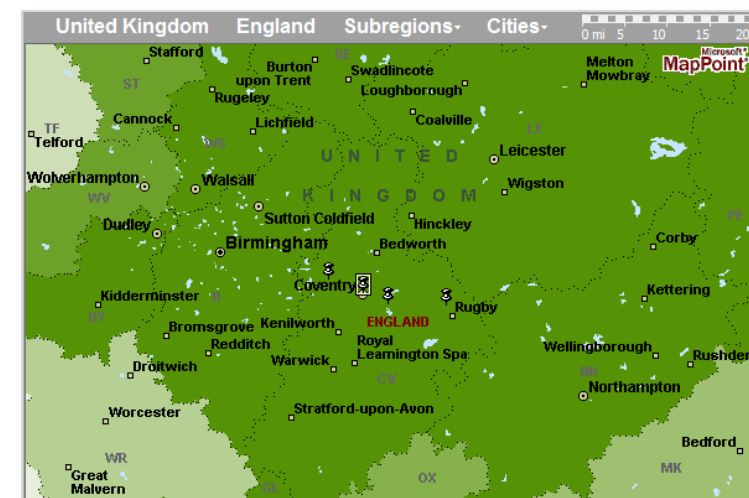
- Apply all the other settings as previously
- Click on the  **Build** button to see the results

The result is a display that now shows a shaded map of Managers with US Bookings, with pushpins indicating which of them have been identified as High Earners in Coventry PA.

 **N.B.** – To see both full sets of data displayed on the map, leave the underlying selection blank and drag Managers with US Bookings onto the filter box of the relevant layer.



Settings to Show Layered Map



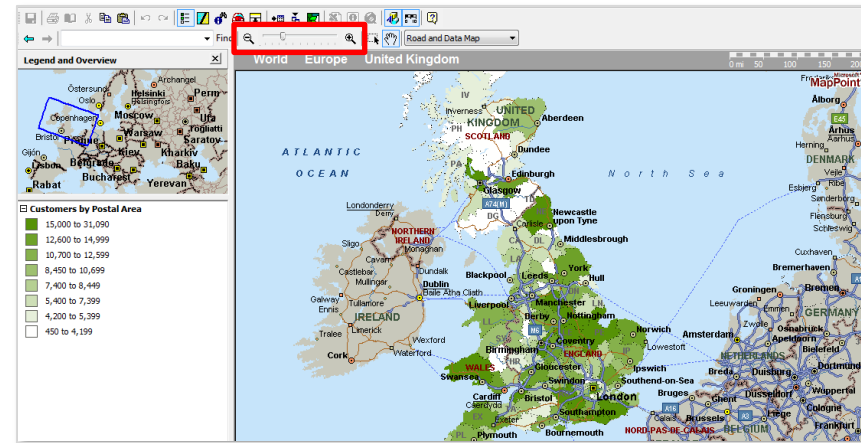
Layered Map Display

Searching the Map

Identifying particular regions and specific locations on a map can be done in a number of ways.

By default we zoom to the level dictated by the selection on which our map is based. However we can change our view level by clicking on the zoom in or zoom out button on the Navigation bar. We can also zoom in by dragging over the map and clicking within the shape we have created. Alternatively right click on the name of a location on the map and select Zoom To.

The Navigation bar also has a Find box where we can specify a particular location. This could be an entire country or and individual postcode.



Shaded Map – Zoom Control

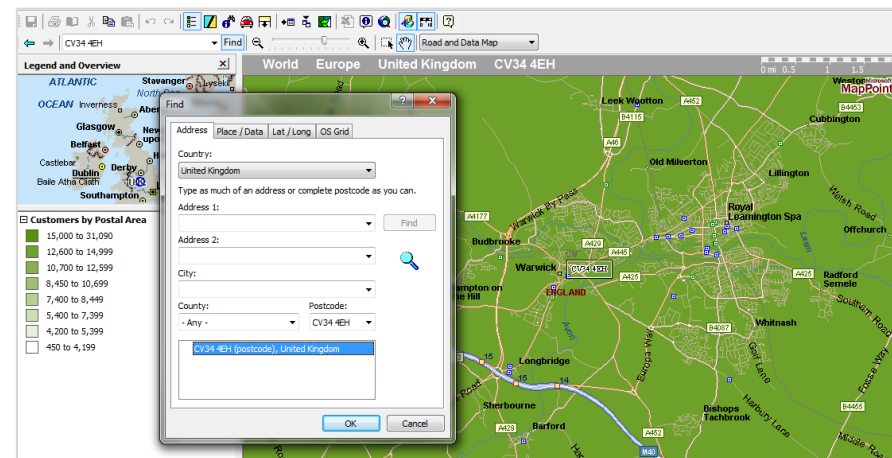
In the example opposite I have typed Apteco's postcode into the find box. This results in a window appearing, with different options to allow us to refine our search:

Address: Type in the actual address we are looking for

Place/Data: Type in as much detail as possible e.g. Warwick Station

Lat/Long: Type in the Latitude and Longitude information if available

OS Grid: Type in the Ordnance Survey grid reference if available




Find Options

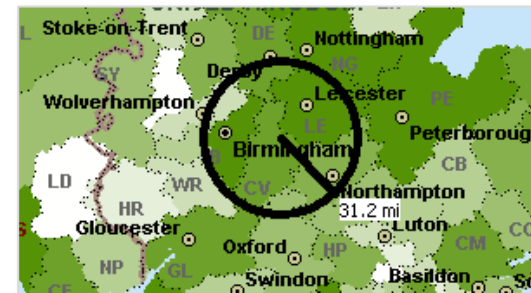
Selecting from the Map

The options below can be found on the Drawing toolbar.

Scribble	Select an area of the map by clicking, holding and dragging the pointer to create a joined up shape
Freeform	Click on the map and every subsequent click will join the previous point to the new point, until you have identified the area
Rectangle	A click and drag will draw a rectangle in any direction from the point where you clicked
Oval	A click and drag will draw an oval in any direction from the point where you clicked
Radius	A click and drag will draw a circle radiating from your click point, the tooltip indicates the radius distance

In each case above, a selection query can be created from the shape drawn. This can be achieved by a right click drag from within the shape onto the workspace.

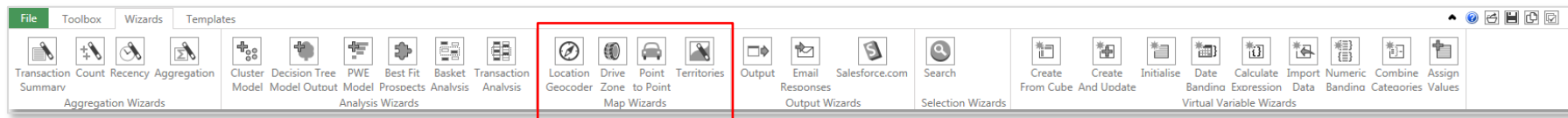
 **N.B.** – The white boxes on the line show it is active. If the boxes disappear, click on the line again.



Radius Selection

Map Wizards

This group of wizards interacts with Microsoft MapPoint to allow you to identify records in relationship to time and distance, using geographical variables. The result of these wizards will create a Virtual Variable, which will appear in the System Explorer.



Wizards Ribbon Bar – Map Wizards Section

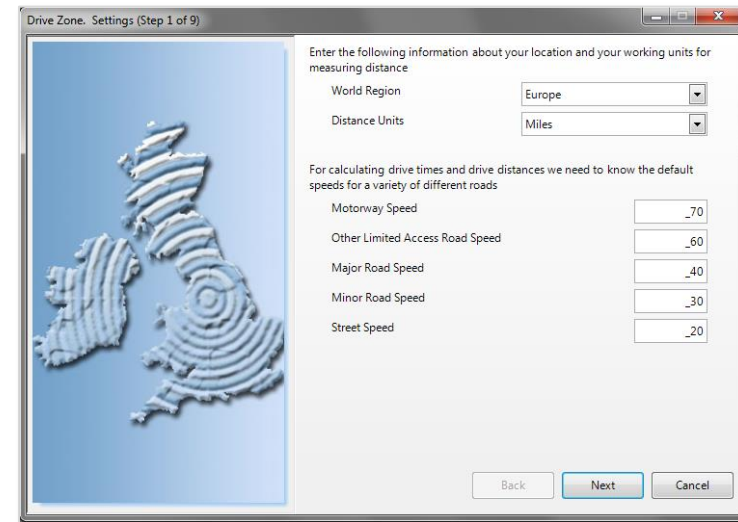
Drive Zone Wizard

The Drive Zone wizard provides a quick way to group records by their distance (or drive time) from a specific point. When grouping records by distance, the distance “as the crow flies” is used.

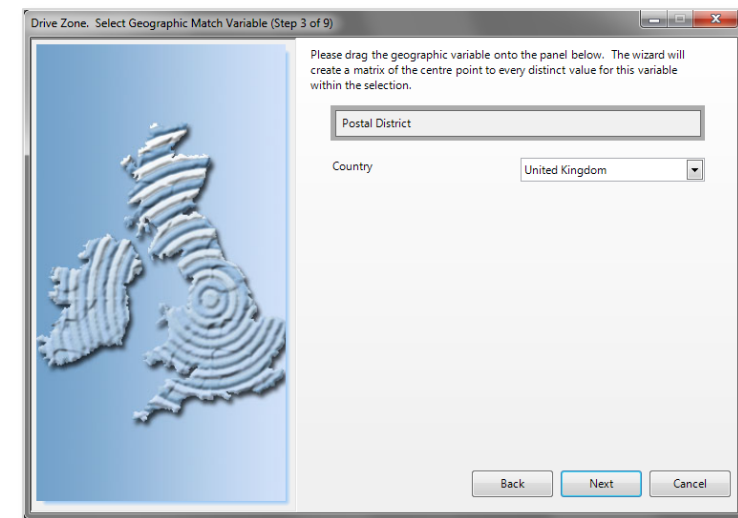
Example

Create a Selector virtual variable of 30 minute Drive Zones based from the central point of the East Midlands Airport to see where existing customers live in terms of drive time from that airport.

- Click on the **Drive Zone** wizard.
- **Step 1** – Determine the settings that will be used in the calculation of the drive times or drive distances. Click **Next**.
- **Step 2** – Enter the centre point that MapPoint can use, this could be a postcode or town name. If you have multiple centre points it is possible to drag a file containing them onto the appropriate box at this stage. In this example use East Midlands Airport’s postcode **DE74 2SA**. Click **Next**.
- **Step 3** – Drag on the geographical variable that will be used to plot the points from the centre point – **Postal District**. Click **Next**.
- **Step 4** – Determine if you are going to create a variable based upon drive time or distance – **Use Drive Time**. Click **Next**.



Drive Zone Wizard – Step 1



Drive Zone Wizard – Step 3

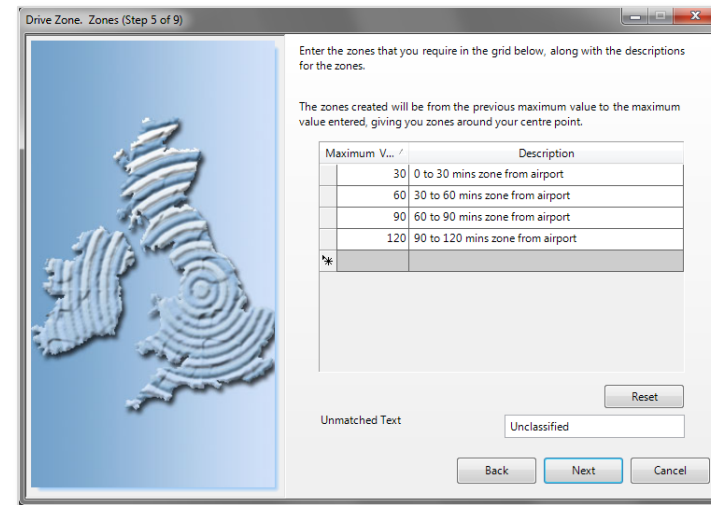
- **Step 5** – Determine the zones to be created. Half hourly zones from the centre point are shown in the screen shot opposite. Click **Next**.
- **Step 6** – Add Optional Notes. Click **Next**.
- **Step 7** – Type the description name for the variable – **Airport Drive Zones**. Click **Next**.
- **Step 8** – 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. It allows you to select security options for yourself, groups you belong to or anyone else.
- **Step 9** – 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 available for you to select individual or consecutive 30 minute drive zones to find households within Postcode Districts from the East Midlands Airport.

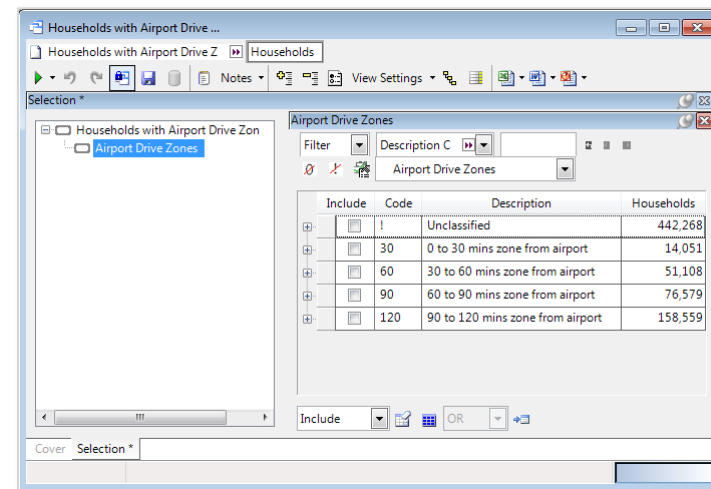
The Unclassified category in this example will be all Households in Postal Districts over 120 minutes from the East Midlands Airport.

Suggested Uses

- Identify customers/prospects within a certain distance from a retail outlet.



Drive Zone Wizard – Step 5



Drive Zone Virtual Variable

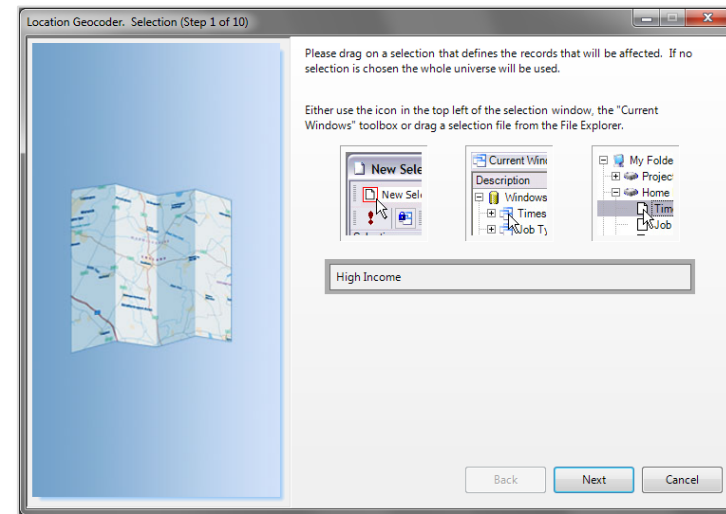
Location Geocoder

The Location Geocoder wizard gives us the opportunity to create Latitude and Longitude Virtual Variables. For a given group it will calculate the Latitude and Longitude for each distinct value for a geographical variable within the selection.

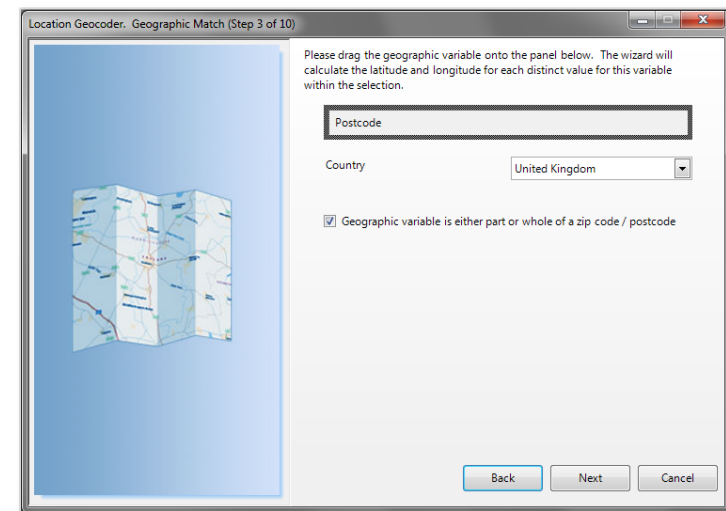
Example

Create the Latitude and Longitude variables to allow you to find the households, by Postcode for a selection of High Earners.

- Click on the **Location Geocoder** wizard.
 - **Step 1** – Drag on a selection of **People** with an **Income** of **£100+**. Click **Next**.
 - **Step 2** – Set the **World Region** to **Europe**. Click **Next**.
 - **Step 3** – Enter your geographic variable (**Postcode**) which can be a place or part of a postcode that can be evaluated to a single point. Click **Next**.
- Tick the box **Geographical variable is either part or whole of a zip code/postcode**. Click **Next**.
- **Step 4** – Select or create a folder where you want to place your Virtual Variable. Leave the default for the **Others** folder. Click **Next**.
 - **Step 5** – Enter optional notes. Click **Next**.
 - **Step 6** - Type the description name for the Latitude variable – **High Income Latitude**. Click **Next**.



Location Geocoder Wizard – Step 1

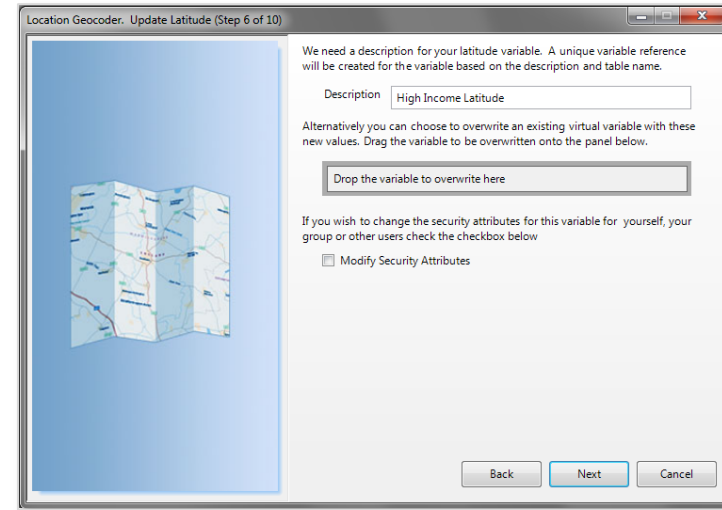


Location Geocoder Wizard – Step 3

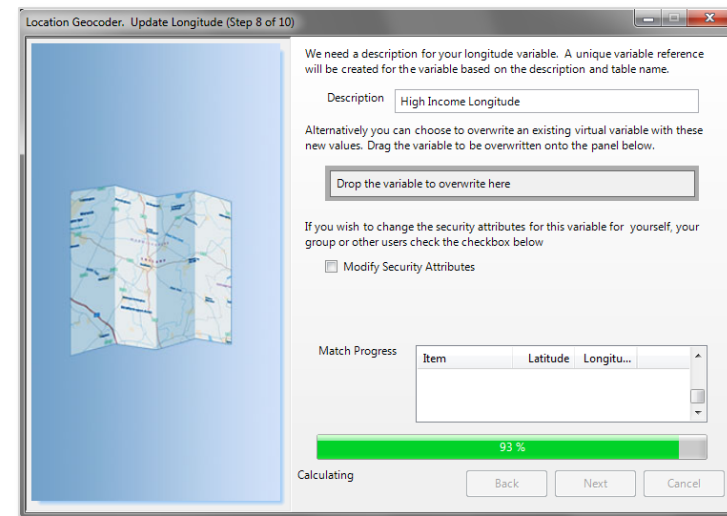
- **Step 7** – There is currently no Step 7
- **Step 8** - Type the description name for the Longitude variable – **High Income Longitude**. Click **Next**.
- **Step 9** - This step is only visible if you are running an Enterprise system and you have ticked the **Modify Security Attributes** box in the previous step(s). It allows you to select security options for yourself, groups you belong to or anyone else.
- **Step 10** - This step will tell you how many records have been updated. Tick the **Show new variable as a selection** box. Click **Finish**.

Suggested Uses

- Identify locations using latitude and longitude information



Location Geocoder Wizard – Step 6



Location Geocoder Wizard – Step 8

Point to Point Wizard

The Point to Point Wizard provides a way to record the drive time or distance between a selection of records and a specified centre point as a virtual variable.

Example

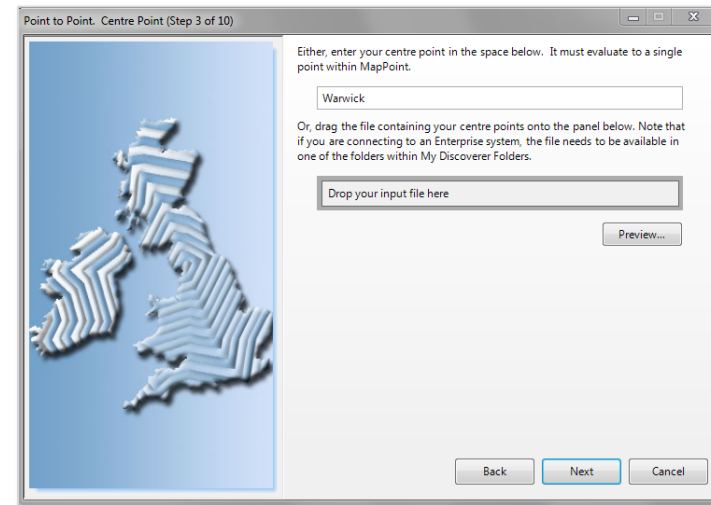
Create a Numeric virtual variable to find the number of households, by distance from Warwick to the Postal Areas within the region of West Midlands.

- Click on the **Point to Point** wizard.
- **Step 1** – Drag on a Selection to find **Households** in the West Midlands **Region**. Click **Next**.
- **Step 2** – Select the settings to reflect your location and road speeds. Click **Next**.
- **Step 3** – Enter your centre point (**Warwick**) which can be a place or part of a postcode that can be evaluated to a single point. You also have the opportunity to drag on a file if you have multiple centre points. Click **Next**.

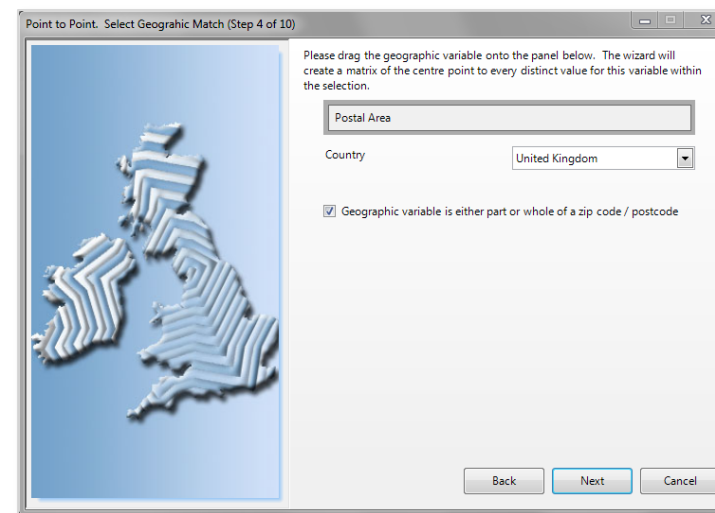
You may find at this point a pop up window appears to confirm the entry you made. Select the correct location.

- **Step 4** – Drag on the geographical variable (**Postal Area**) so that a calculation can be made between the centre point (Warwick) and the centre points of each geographical area as limited by the selection in Step 1.

Tick the box **Geographical variable is either part or whole of a zip code/postcode**. Click **Next**.



Point to Point Wizard – Step 3



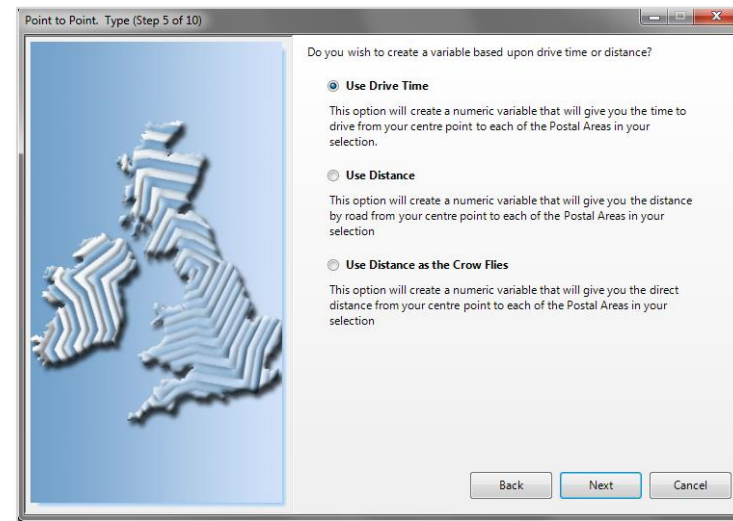
Point to Point Wizard – Step 4

- **Step 5** – This step allows you to decide if the variable created will be based upon drive time or distance. Select the **Use Drive Time** radio button. Click **Next**.
- **Step 6** - Select or create a folder where you want to place your Virtual Variable. Leave the default for the **Others** folder. Click **Next**.
- **Step 7** - Enter optional notes. Click **Next**.
- **Step 8** - Type the description name for the variable – **West Midlands Point to Point**. Click **Next**.
- **Step 9** - 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. It allows you to select security options for yourself, groups you belong to or anyone else.
- **Step 10** - This step will tell you how many records have been updated. Tick the **Show new variable as a selection** box. Click **Finish**.

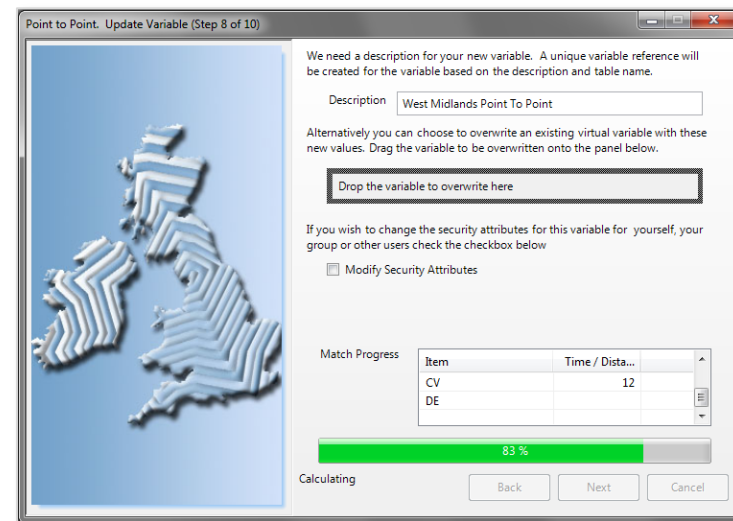
You can now make distance selections in the numeric variable by typing in the free form box. E.g. <20 will return all households within a Postal Area, less than 20 miles from its central point from Warwick.

Suggested Uses

- Identify distance/time between retail outlet and customers.
- Calculate average time travelled by customer segments – drop the variable onto a cube and use the average function to see breakdown of customer groups.



Point to Point Wizard – Step 5



Point to Point Wizard – Step 8


Territories Wizard

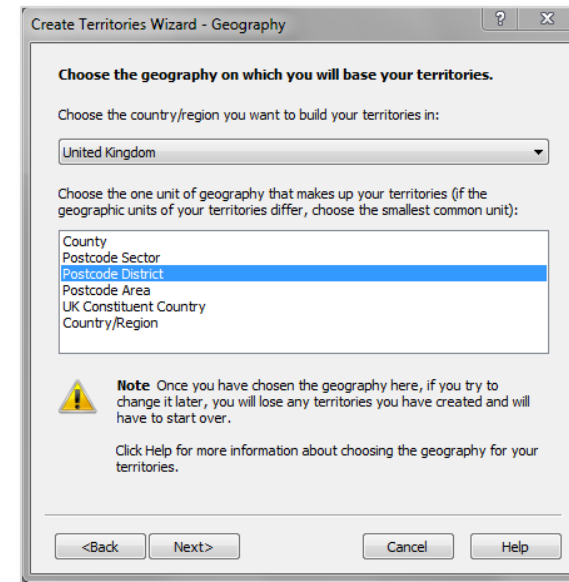
The Territories Wizard allows you to create a Virtual Variable based upon geographical territories that you can define within MapPoint. You will then be able to identify the number of records in each territory.

Example

Create a Selector virtual variable to find the number of households, in the regions of England Scotland and Wales as defined on a MapPoint map.

First you will need to define the territories on the map:

- Drag the **MapPoint** tool onto the workspace and click on the  **Territories** button.
- From the **Method** window select the **Create manually** radio button. Click **Next**.
- From the **Geography** window highlight **Postcode District**. Click **Next**.
- The final window gives you some tips on selecting your territories on the map. Click **Finish**.
- Name your first **New Territory** as **England** and start to make your selections. Continue until you have 3 territories, England, Scotland and Wales.
- Save the **MapPoint** as **UK Country Regions**.




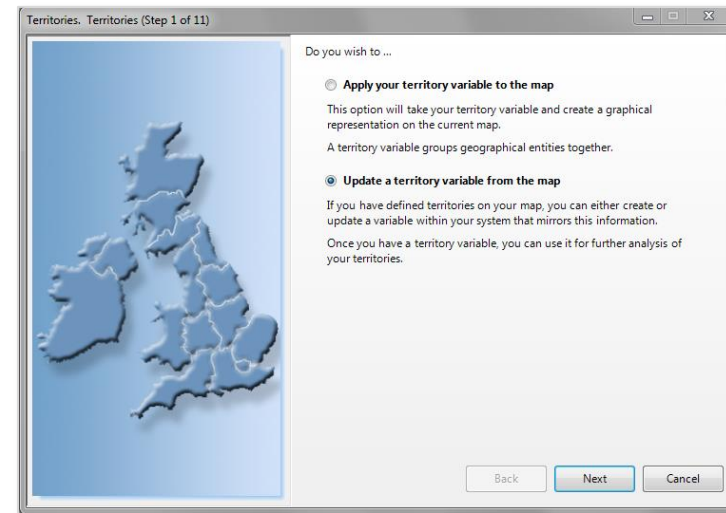
MapPoint Create Territories Wizard - Geography



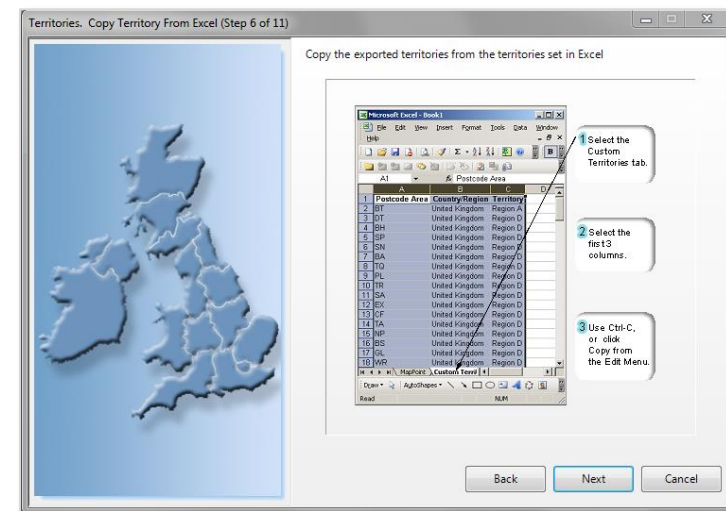
Territories Selected on a Map

The next stage is to use the Territories Wizard to create a Virtual Variable from the definitions you just made in MapPoint. As you already have the MapPoint window open that you want to use, you can click on the Territories Wizard icon at the top of the window.

- Click on the  **Territories Wizard** button.
- **Step 1** – Select the **Update a territory variable from the map** radio button. Click **Next**. (You will go to Step 4)
- **Steps 2** – This step asks for the Map you wish to work with. Click **Next**.
- **Step 3** – This step is looking for the variable which needs to be updated to the Map if you chose the other option at Step 1. Click Next. (You will go to Step 11)
- **Step 4** – You can enter the Geographical variable (**Postal District**) from which your Territory will be built. Click **Next**.
- **Step 5** – Follow the Export to Excel instructions. Click **Next**.
- **Step 6** – Follow the copy instructions. Click **Next**.
- **Step 7** – Click on the **Click here to populate the grid from your clipboard**. Click **Next**.
- **Step 8** – Add optional notes. Click **Next**.
- **Step 9** – Enter the description **UK Country Territories**. Click **Next**.
- **Step 10** - 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.




Territories Wizard – Step 1



Territories Wizard – Step 6

- **Step 11** – Tick the **Show new variable as a selection** box. Click **Finish**.

The Variable that has now been created presents you with categories based upon the selections you made on the map. Each of these categories now contains the number of relevant Households on the FastStats database.

 **N.B.** Your results will only be as accurate as your Map selection!

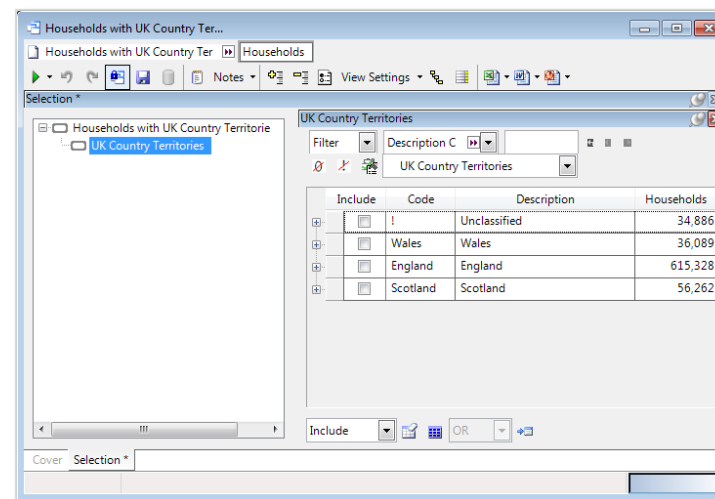
To display this variable (or any other appropriate variable) in MapPoint:

- Click on the **Territories Wizard**.
- **Step 1** – Select the **Apply your territory variable to the map** radio button. Click **Next**.
- **Steps 2** – Drag on a blank **Map**. Click **Next**.
- **Step 3** – Drag on the variable to display/update **UK Country Territories**. Click **Next**.
- **Step 11** – Click on **Finish** to display the Map.

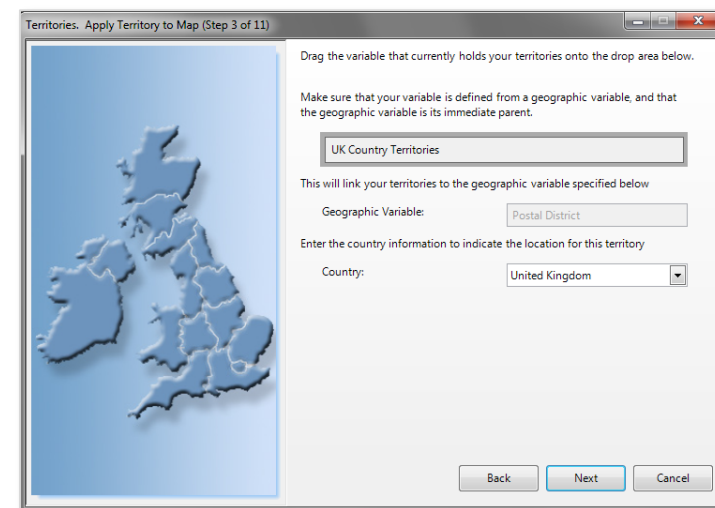
By following the steps earlier it is now possible to update the display and overwrite the virtual variable.

Suggested Uses

- Create sales regions – identify areas using geographical variables on a map



Territories Virtual Variable




Territories Wizard – Step 3

Bing Maps

Shaded Map

A shaded map allows us to display records using particular geographical boundaries e.g. by Postal Area, Postal District or Postal Sector in the UK. This gives us the opportunity to look at the distribution of our customers or prospects around the country.

In the following example we will display a selection of people, who are managers that have made bookings to the US and display them on a shaded map by Postal Area.


- Create a selection query that identifies **Managers** who have booked holidays to the **United States**
- Drag and drop the  **Map** tool on top of the selection window

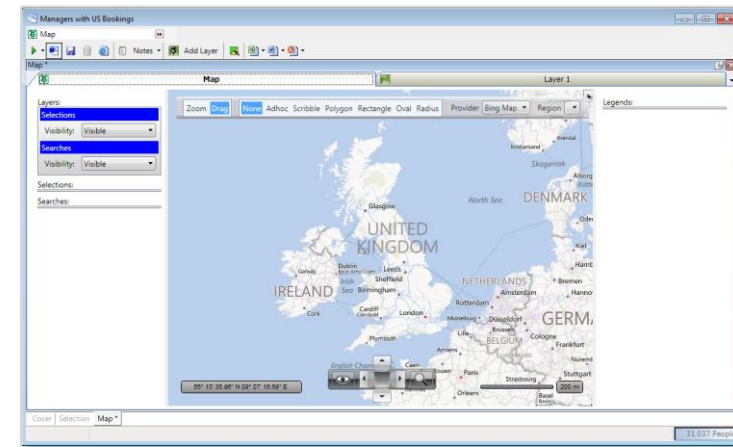
The Map page has two tabs; the one entitled Map currently shows the default display region and will be where the final display will be shown. The second tab, entitled Layer 1 is where we define how the results will be displayed. Multiple layers can be added to your map, which will be covered further on in this document.

- Click on the **Layer 1** tab

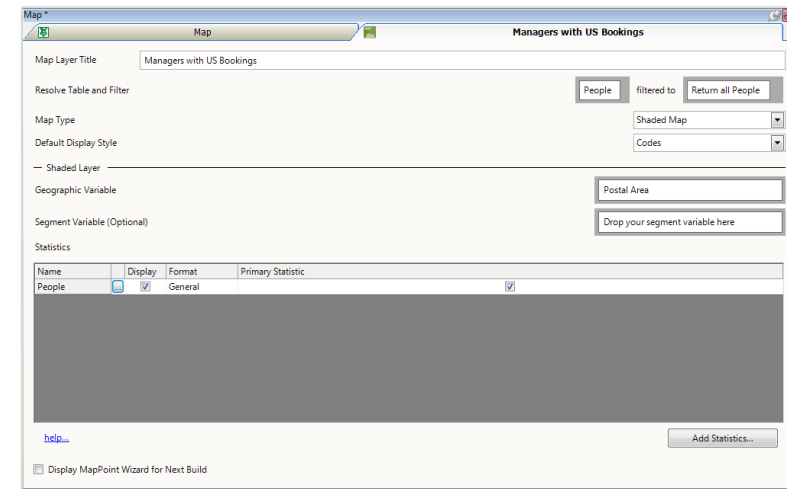
An explanation of the options on this window is shown on the next page. For now we will just make the changes shown in the screen shot opposite i.e. drag on Postal Area as the Geographical Variable and change the layer title.

- Click the **Build** button

 **N.B.** – At any time you can change the underlying map provider by clicking on the Provider drop down menu e.g. use Open Street Map.



The Map Tool – Map Tab



Layer Tab – Shaded Map

Shaded Map - The Layer Tab

The options on the Layer tab are the same as those if we were using MapPoint. See pg. 6.

Shaded Map – Viewing the Map

Now that the results have been calculated and displayed, we can see the Map area has zoomed in on the UK. Each Postal Area that contains records from our selection has been colour shaded. The colour shading has defaulted to 8 Equal Data Points. Options for this layer can be set in the Layers panel.

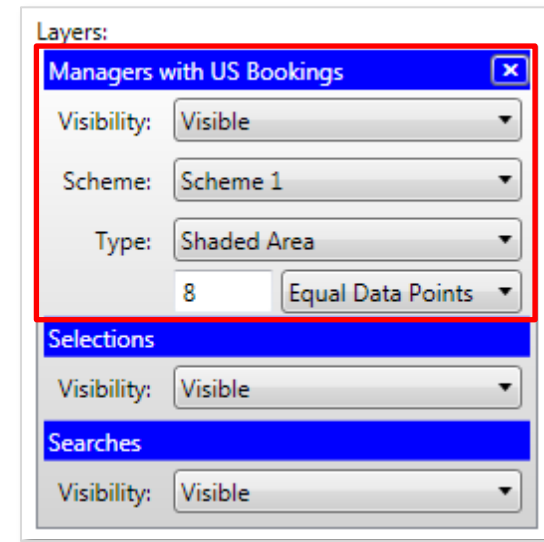
- Visibility: Make the layer display visible or hidden on the map
 Scheme: Select a colour scheme to be applied to the shading
 Type: Select the appropriate display type and ranges

At the bottom left of the map window is a display of the Latitude and Longitude coordinates. The display changes to reflect the movement of the mouse pointer.

At the bottom right of the map window is the map scale.

At the bottom centre of the map window is a view control cluster.

- The arrows will push the map in the direction of the arrow clicked
- The eye symbol gives access to the different map views
- The magnifying glass symbol gives access to the pre-set zoom levels
- The centre button makes the cluster visible or hidden



Bing Map – Layers Panel



Bing Map – Bottom of Map Window

- Click on the  Zoom button

There are 5 pre-set zoom levels, from a World view right down to a local Neighbourhood.

Clicking on the arrow buttons will push the map display in the direction of the arrow clicked.

Alternatively click on the Drag option at the top of the window:

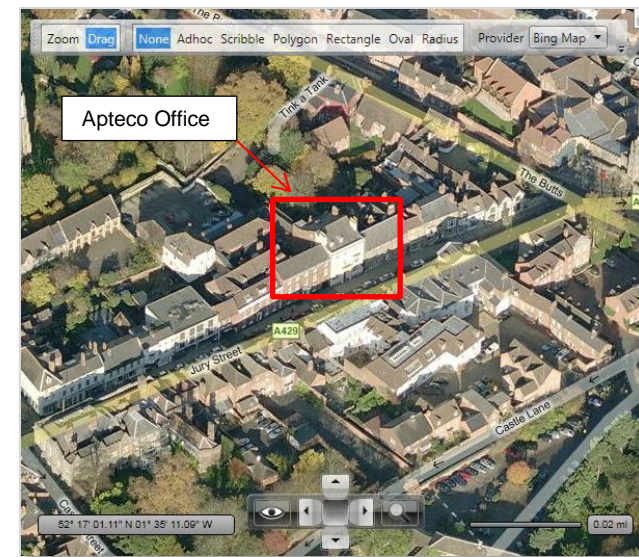
- Click and hold the left mouse button. The map will move in the direction you now move your pointer
- Click on the small arrow in the top right of the window to reveal an insert map on a larger scale. Use the same method to move around within that map



Bing Map – Zoom Options

The Eye symbol will give access to a series of views:

- | | |
|------------------|--|
| Road View: | A road map image will be displayed |
| Aerial View: | A photographic aerial image will be displayed |
| Bird's Eye View: | A photographic angled image will be displayed when using a close zoom e.g. Neighbourhood |
| Show Labels: | Applies road names etc. on a photographic display |



Bing Map – Bird's Eye View with Labels


Shaded Map – Viewing the Results


The map opposite has zoomed in over the Midlands region of the UK.

The results of our underlying selection have been applied through the colour shading. The legend, depending on the settings used may have a wide range of results associated with a particular colour.

To find the actual result move the mouse pointer over the Postal Area of interest, which will be highlighted and the tooltip will display the count.

To select results from our map we can use tools from the Drawing Tool bar at the top of the window. In this example we will use the scribble tool to find an area of interest.

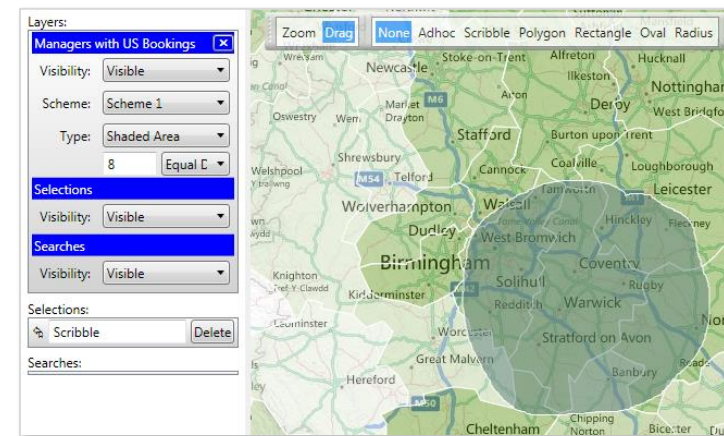
- Click on the **Scribble** tool and then click and hold the left mouse button to draw a joined up shape
- An item will be entered under the Selections section of the **Layers** panel. Click and drag the  button onto the workspace to see and count the selection

 **N.B.** – The line drawn on the map crosses several Postal Areas, so how does FastStats interpret your shape? FastStats looks to see if your line crosses the border of a geographical variable and if it does it will include everyone in that area. So for a more accurate result a more granular variable should be used e.g. Postal Sector.

 **N.B.** – See pg. 41 for more details on the various selection tools.



Shaded Map – Tooltip Count Display



Shaded Map – Scribble Tool Selection

Shaded Map – Using a Segment Variable

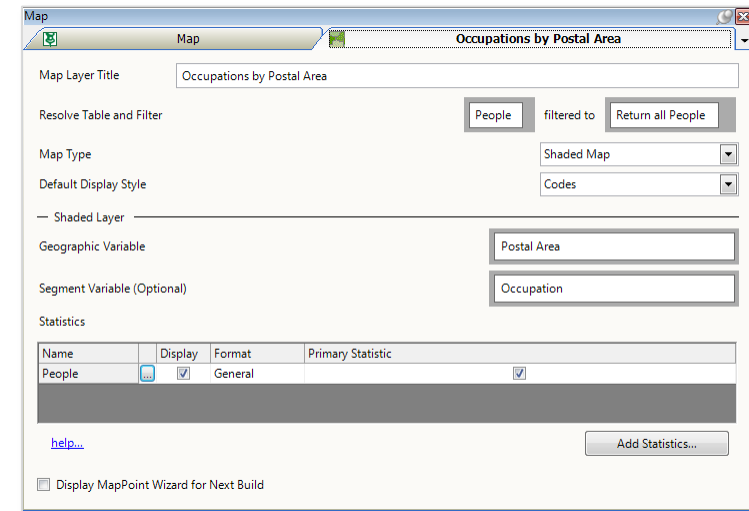
When using the shaded map option it is possible to display segmented data from a selector variable or selection query. For example we may wish to display graphically the occupations of our customers by the Postal Area in which they live.

- Using a blank selection drag on a **Map** tool and change the **Layer 1** tab to reflect the options in the screen shot opposite
- Click the **Build** button

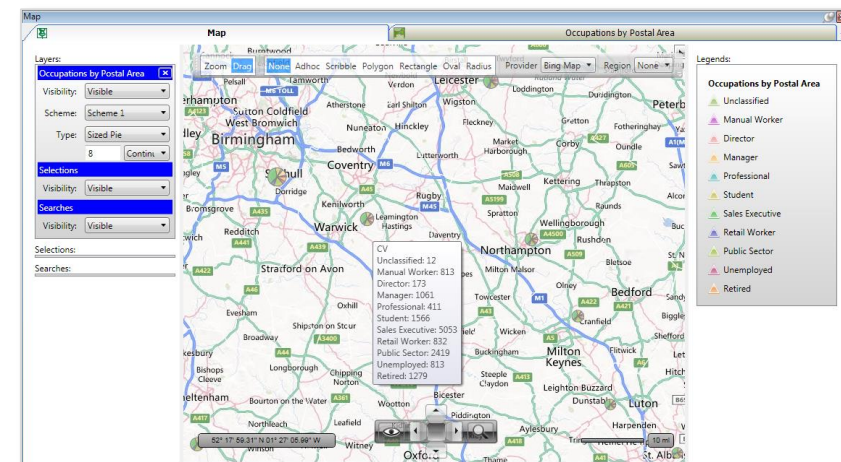
The default display uses a sized pie chart to show the categories of the variable. The legend indicates the colour coding used to identify each of the segments.

We can change the chart used by going to the Layers panel on the left of the screen, and making a selection from the Type drop down menu.

N.B. – Moving the mouse pointer over a chart on the map will display the details in a tooltip.



Layer Tab – Occupation as the Optional Segment Variable



Bing Map – Display of a Segment Variable Results

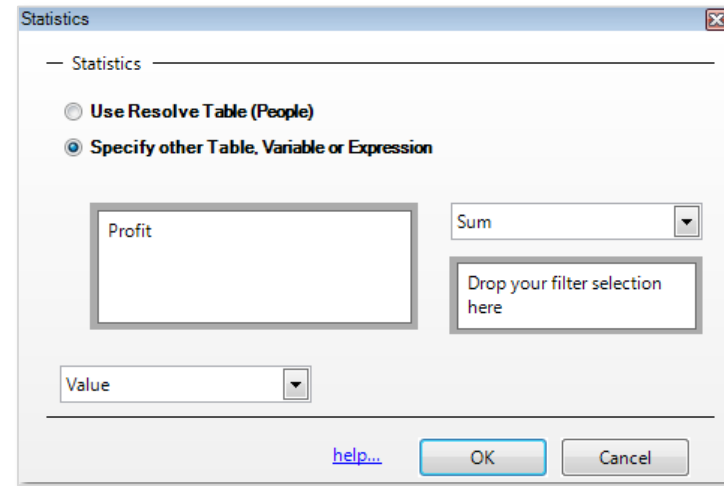
Shaded Map – Adding Statistics

As well as displaying values e.g. the number of People on a map, you can also generate and display a calculated statistic for those people being represented on the map.

Let's use the example of Occupations by Postal Areas which we used in the previous example. We can now amend this example to optionally display the total profit each of those occupations (in the specific Postal Area) has contributed to our business.

- Click on the **Layer** tab (Entitled Occupations by Postal Areas)
- Click on the **Add Statistics...** button to display the **Statistics** window
- Click on the radio button **Specify other Table, Variable or Expression**
- We can now drag on the **Profit** variable and select the statistic we want to apply (in this example **Sum**)
- Click **OK**
- Within the **Statistics** panel change the **Primary Statistic** from **People** to **Sum(Profit)**
- Click the **Build** button

When we move the mouse pointer over a chart, the tool tip that is displayed now shows the total profit figure per occupation for the Postal Area they live in.



Statistics Window – Summing the Profit Value for People




Shaded Map View – Sum of Profit Statistic Display

Plot Map

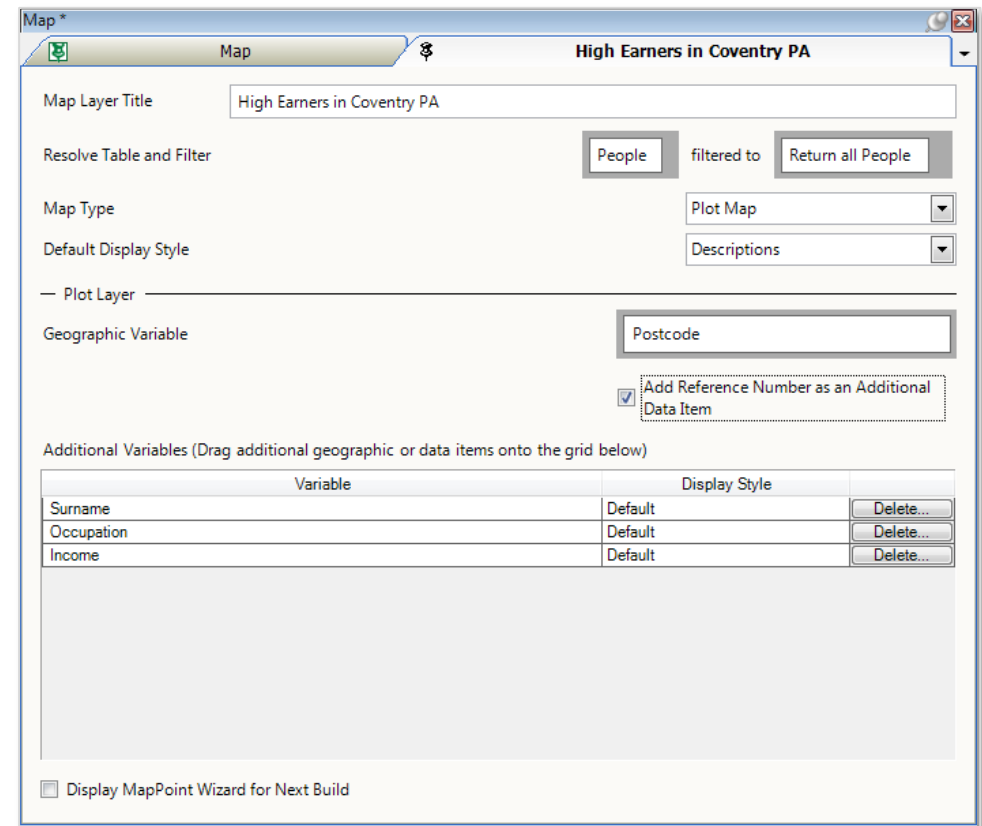
A plot map allows us to display records using a more precise geographical boundary e.g. by UK Postcode. This gives us the opportunity to look at the location of smaller groups of customers or prospects around the country.

In the following example we will display a selection of people, who live in the Coventry Postal Area and earn £70-80K or more.

- Create a selection query that identifies the high earners in the Coventry **Postal Area**
- Drag and drop the  **Map** tool on top of the selection window
- Click on the **Layer 1** tab
- Complete the window as shown opposite

An explanation of the options on this window for a Plot Map can be found on pg.12.

- Click the  **Build** button



Layer Tab – Plot Map

Plot Map – Viewing the Map

To get a closer or different view of the Map:

At the bottom centre of the map window is a view control cluster.


- The arrows will push the map in the direction of the arrow clicked
- The eye symbol gives access to the different map views
- The magnifying glass symbol gives access to the pre-set zoom levels
- The centre button makes the cluster visible or hidden

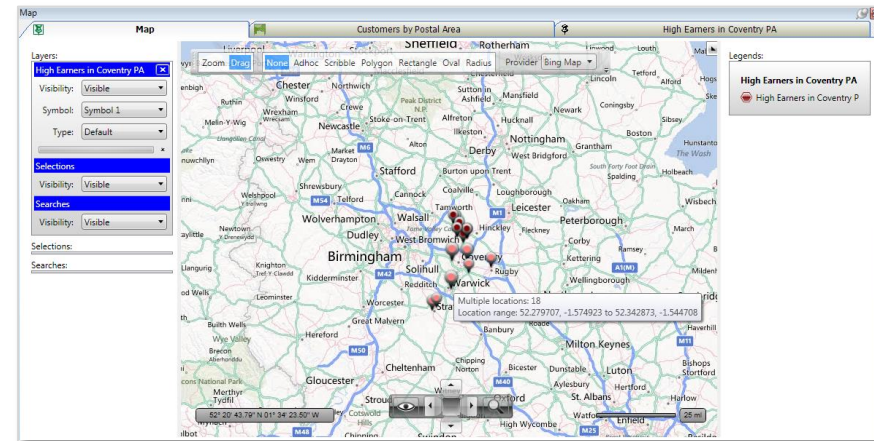
The screen shot opposite shows the map centred over Coventry.

N.B. – Large pins are displayed on the map to represent multiple sites if the map is at a less granular view e.g. State or Region.

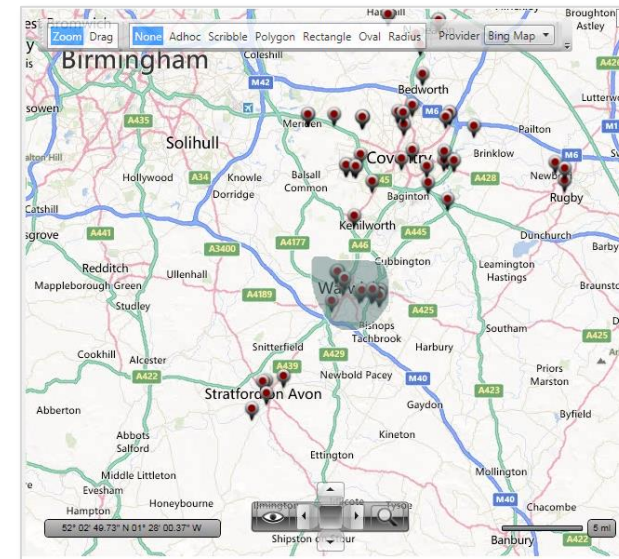
Plot Map – Viewing the Results

To select results from our map we can use tools from the Drawing Tool bar at the top of the window. In this example we will use the scribble tool to find an area of interest.

- Click on the **Scribble** tool and then click and hold the left mouse button to draw a joined up shape
- An item will be entered under the Selections section of the **Layers** panel. Click and drag the  button onto the workspace to see and count the selection



Plot Map – High Earners in Coventry Postal Area

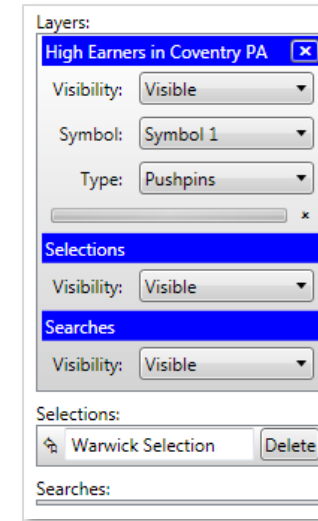


Plot Map – Scribble Tool Selection

The selection we have just made on the map can be renamed for easier reference. To temporarily hide the selection from the map, we can change the visibility option from Visible to Hidden.

To remove the selection permanently from the map we can click on the Delete button on the relevant selection row, under the selections heading.

 **N.B.** – See pg. 41 for more details on the various selection tools.



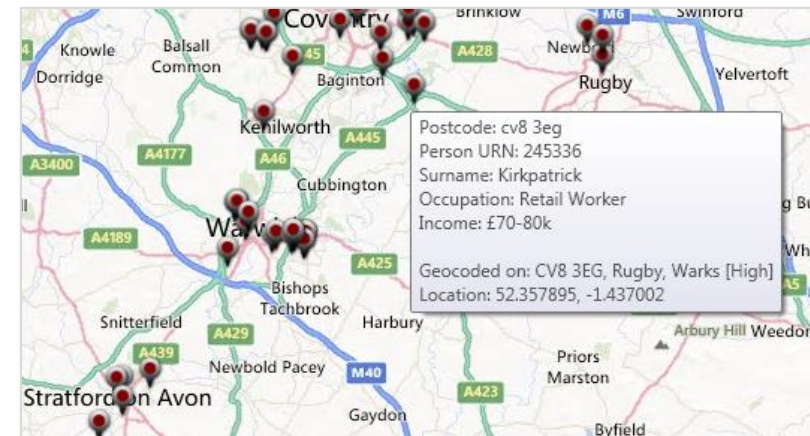
Layers Panel

When we were setting the options on the Layer tab we added 3 variables to the Additional Variables panel. This will allow us to view this information for the records shown on the map.

- Right click on a pin on the map
- Select **Show Information** from the pop up menu

If the pin represents a single record, a balloon will appear with the URN and the relevant variable information for that record.

If the pin represents more than one record, a window will appear listing the postcode for each of those records.



Plot Map – Show Information

Plot Map – Create Drivetime Zone


It is possible to use this function to find People who live within a determined area calculated upon the number of minutes or the distance it takes to drive from a given point.

- Using the **Plot Map** from the last example, create a drive time zone of 20 minutes from the centre of **Warwick**
- Right click on the map and select **Search...** from the pop up menu
- Type **Warwick** into the **Location** box and click **OK**

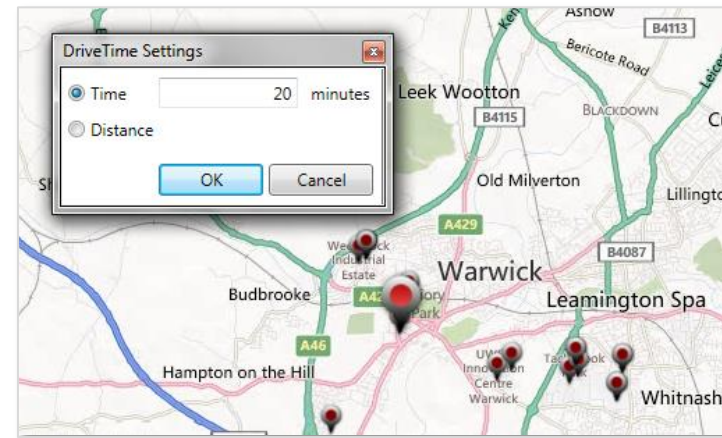
If necessary we can be more specific with our starting point by using a Postcode.

- Right click on the pin representing the location
- Select **Create DriveTime...**
- Set the **DriveTime** to 20 minutes
- Click **OK**

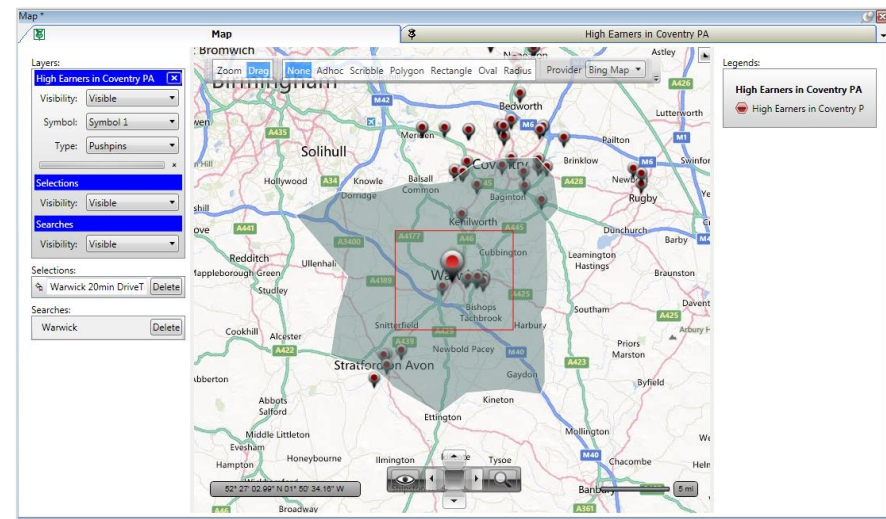
You can now find out how many People on the FastStats system live within this 20 minute drive time by:

- An item will be entered under the Selections section of the **Layers** panel. Click and drag the  button onto the workspace to see and count the selection

The result will be all the records shown on the map which can be reached within a 20 minute drive from the centre of Warwick.




DriveTime Settings Window



Drivetime Zone Display

Multiple Layered Maps


It is possible to create Maps with multiple layers. These layers can be either shaded or plot maps using different selections. To show the two maps created earlier on the same map page:

- Redisplay the shaded **Map of Managers with US Bookings**
- Click the  **Add Layer** button to apply a second set of settings to your **Map**


To replicate the High Earners in Coventry PA display on top of the shaded map of Managers with US Bookings:

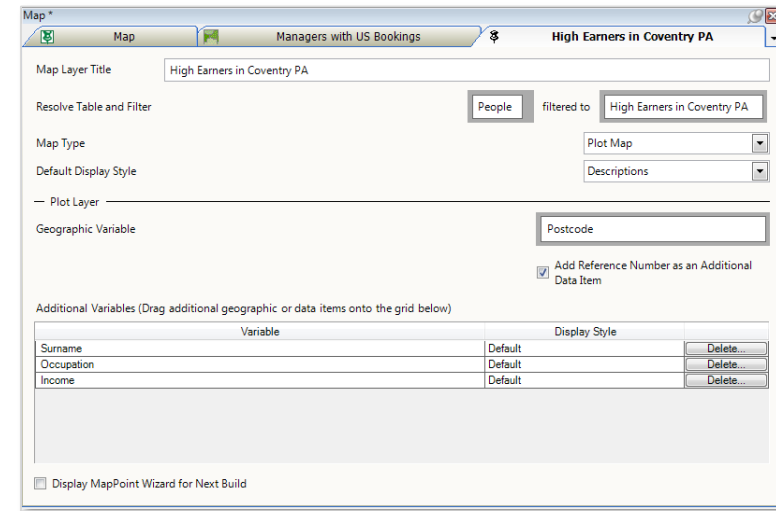
- Drag the selection **High Earners in Coventry PA** onto the **Return all People** filter box

This has to be applied in this way because the underlying selection window still holds the Manager with US Bookings query used on the shaded map.

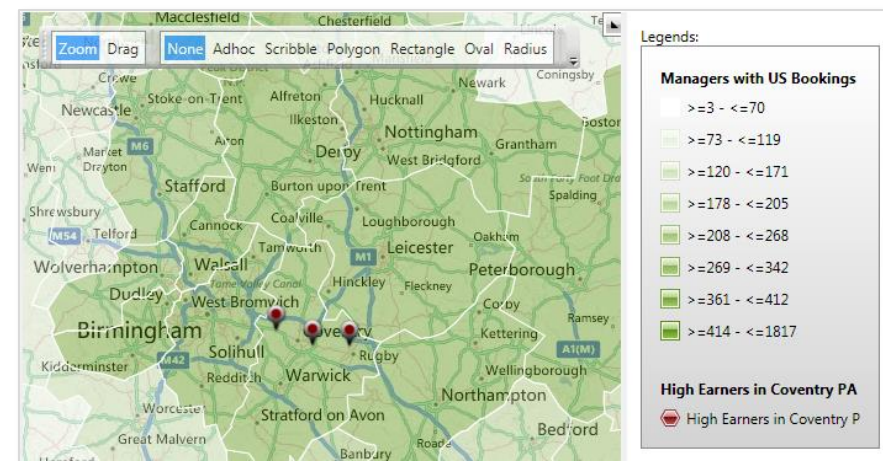
- Apply all the other settings as previously
- Click on the  **Build** button to see the results

The result is a display that now shows a shaded map of Managers with US Bookings, with pushpins indicating which of them have been identified as High Earners in Coventry PA. To see both full sets of data displayed on the map, leave the underlying selection blank and drag Managers with US Bookings onto the filter box of the relevant layer.

 **N.B.** – To select from a particular layer, ensure all other layers are set to Hidden. See pg. 41 for more details on the various selection tools.



Settings to Show Layered Map



Layered Map Display

Searching the Map

Identifying particular regions and specific locations on a map can be done in a number of ways.

Region Search

A list of countries is available from the Region drop down menu, located on the toolbar at the top of the map. Upon selecting a particular country the map will zoom to the State level view.

Cluster Tool Search

We used this tool on pg. 30/31 to allow us to zoom into the map in stages – World, State, Region, City & Neighbourhood. (Region in this context refers to an area within a State)

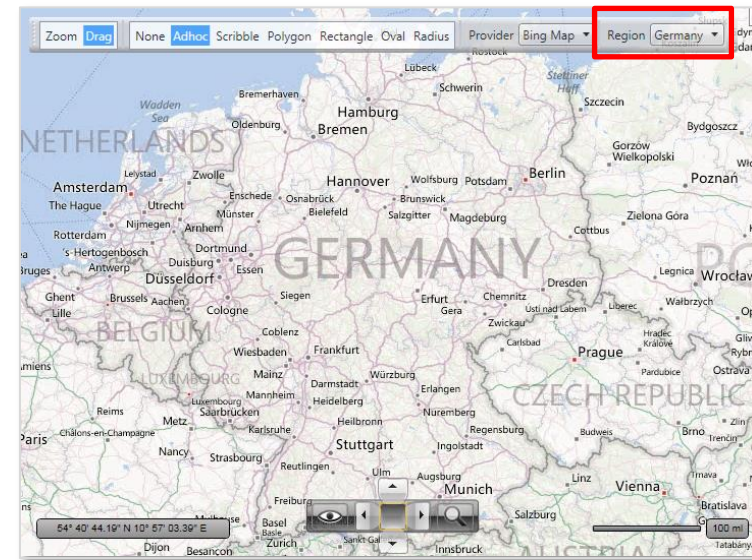
Location Search

For a more specific search we can use the Search... facility from the right click menu. The location box will allow us to enter the name of a Town, City or even a Postcode. The location will be displayed with a pin symbol.

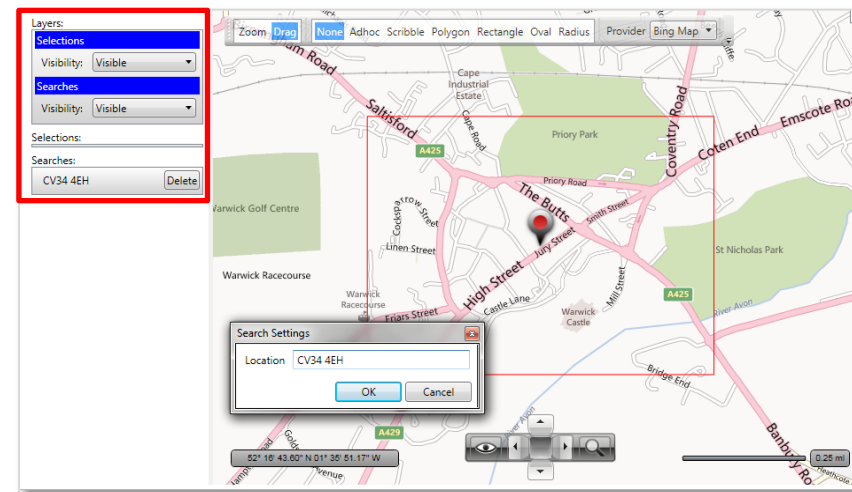
Layer Panel

In this panel the visibility of any selection can be changed temporarily from Visible to Hidden.

To remove a search permanently from the map click the Delete button next to the relevant search.



Bing Map – Region Germany



Location Search – Using Apteco's Postcode

Selecting from the Map

Adhoc	Select or deselect by clicking on individual regions on the map e.g. records displayed by Postal Area
Scribble	Select an area of the map by clicking, holding and dragging the pointer over the desired area
Polygon	Click on the map and every subsequent click will join the previous point to the new point, until you have identified the area
Rectangle	A click and drag will draw a rectangle in any direction from the point where you clicked
Oval	A click and drag will draw an oval in any direction from the point where you clicked
Radius	A click and drag will draw a circle radiating from your click point, the tooltip indicates the radius distance



Adhoc Selection

Polygon Selection

Radius Selection

Appendix 1 – Further Information

FastStats Geo Module

This licence comes with the OpenStreetMap free service. To use FastStats with Microsoft MapPoint you will need to purchase a licensed copy of this software and have it installed on the machine with which you are accessing your FastStats system. To use Microsoft Bing Maps, the online mapping service, you will need a Bing key, which can be obtained through Apteco.

Boundary Files

To apply data to your online maps you will require boundary files, also known as shape files. Apteco can provide basic UK shapes; Postal Area, Postal District and Postal Sector.

Various boundary files are available and some nations e.g. Australia make these available free of charge.

A broader range of boundary files, can be purchased from commercial organisations such as MapMechanics – www.allmapdata.com

Other commercial providers are available.

Microsoft MapPoint

As this software is loaded on to your machine you have some restrictions in terms of mapping displays i.e. Europe and North America. Also MapPoint is a 'closed box' application; therefore you are restricted to the data used in that version of the software.

www.microsoft.com

Bing Maps

A Bing key gives you access to the geocoding functionality of the software and gives you a potential worldwide display, with the appropriate boundaries. Bing maps gives you access to the majority of MapPoint functions except for the Mapping Wizards.

www.bing.com

OpenStreetMap

As OpenStreetMap is a free service and without the addition of Bing Maps, will only allow you to display thematically shaded maps, with the appropriate boundary files being available. With a Bing Maps key, OpenStreetMap can display the geocoding functions on its map display.

www.openstreetmap.org