

Module 5

Output of Information from SASPAC

SASPAC's primary function is as a tool to provide quick and easy access to the very large datasets and allows small sub-sets of areas and variables to be identified for further manipulation and analysis. This further work may be undertaken within SASPAC or via some other item of software. As SASPAC was designed with limited analysis capabilities, the link to other analytic software is important.

In many cases, it will be sufficient for the user to obtain the results of the SASPAC interrogation as printed output, or as a simple text file. In such cases the Report File output will be used. Alternatively, if the requirement is to save a sub-set of variables and/or areas for future access via SASPAC, then the output is saved as a System File. Finally, if the intention is to undertake further analysis in some other item of software, then the output will be in the form of an Interface File.

We have already discussed output of Report and System Files in previous modules. In this module we will discuss Interface Files and how they may be used to export data into other software for analysis and presentation purposes.

Interface files are SASPAC's method of allowing export of data to other software for further analysis. Generally, Interface Files will be output for:

- a selection of variables for all areas
- a selection of variables for a selection of areas.

Selection of areas and variables has already been discussed, and users should be aware that in addition to the standard count variables, the Header variables identified earlier may be also be output to Interface Files. Additionally, the ZONEID, which is automatically output to Print files and System files, is available for output, but is not automatically saved to Interface Files. Therefore, if there is a need for the ZONEID on the Interface File, it must be explicitly named on the SAVE VARIABLE command. If the command file is created through the Windows system then SASPAC will automatically prompt for the ZONEID if it is not present.

The interface file types available and their descriptions are:

FORMATTED	An ASCII text file, where each output record has exactly the same format, with the format of the records being defined by a WIDTH command.
DELIMITED	An ASCII text file, where each variable is separated from its neighbour by a delimiter - normally a comma.
CSV	An ASCII text file, where each variable is separated from its neighbour by a comma.
WKS	A binary file suitable for export of data to spreadsheet software such as LOTUS 1-2-3, and Microsoft Excel.
DBF	A binary file suitable for export of data to database software such as dBase.
DIF	Data Interchange File suitable for importing data to a variety of software.
POSTCODE	A file, used in conjunction with a postcode directory, which allows output of estimated counts at postcode unit level.

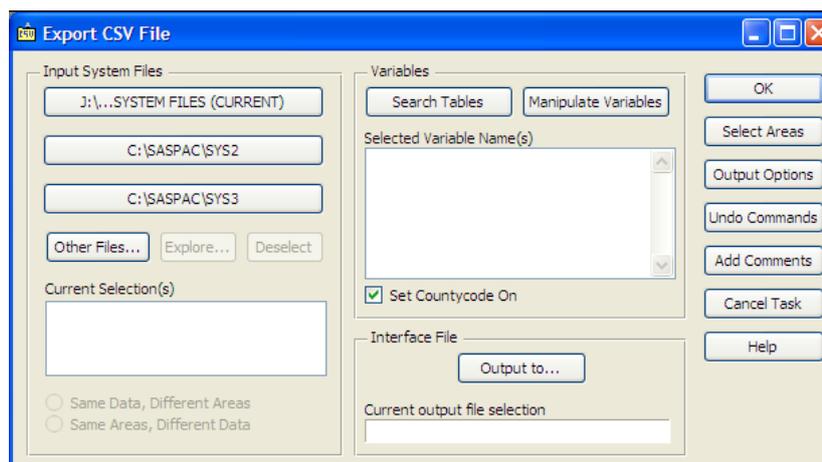
When WKS, DBF, CSV, and DIF files are exported from SASPAC, the variable names are automatically exported along with the values. With Delimited, and Formatted files this must be specifically requested by the user.

Two other types of Interface files are available - TRANSFER and MATRIX - but the use of these is restricted to specific instances, and they are not covered in this Module or in the SASPAC Training Manual.

Example

Create a CSV file containing the percentage of the population aged 0-4 for all OAs in Enfield, and map the output. Export to Word as .jpg file and export in a .kmz format to view in Google Earth.

1. The task here is defined as one involving the export of data to an interface file. The exported data can be mapped using SASPAC's own mapping utility - Mapshore. The initial selection route for this is 'File / New Task / Export Data / CSV File'. Following this route will open the task window as shown below.



This window can also be reached through the Button Bar using the CSV button shown in the image below.



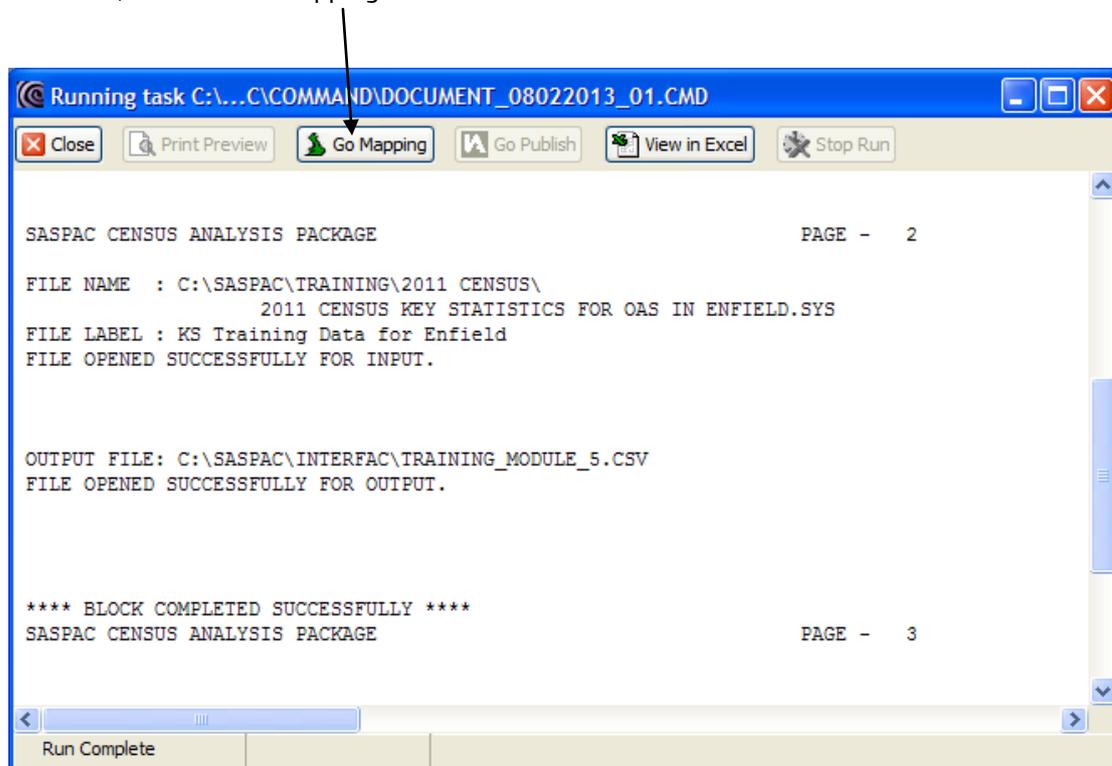
Note that in this window, the 'Set Countycode On' checkbox is already ticked. This is because in most cases, the boundary files to which the data is to be mapped will contain the county code in the zone identifier. If the county code is not required this box can be unchecked.

2. This main task window is similar to others that have been used, and the facilities available through the Command Buttons are the same. In this case we wish to select variable giving the percentage of the population that is aged 0 to 4.

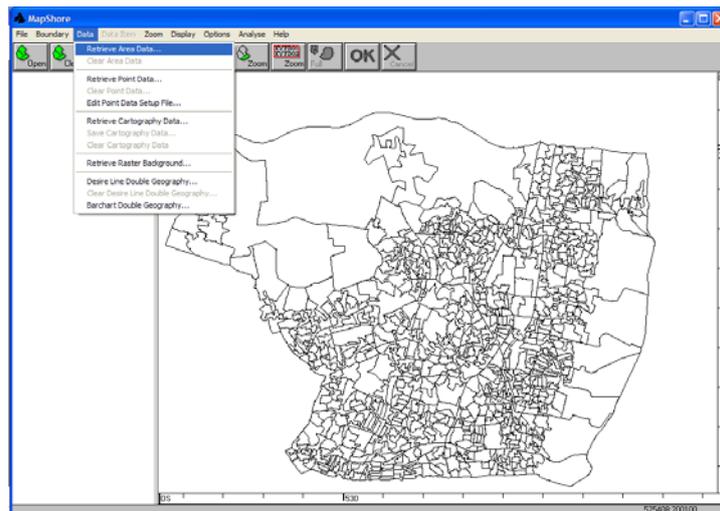
The Command File generated is as follows:

```
input system file name = "C:\SASPAC\Training\2011 /
Census\2011 CENSUS KEY STATISTICS FOR /
OAS IN ENFIELD.SYS"
set countycode on
save ZONEID KS102EW0020
output CSV file with headers name = /
C:\SASPAC\INTERFAC\Training_Module_5.CSV
end
finish
```

3. On completion of the task, the software detects that there is CSV file now available for use, and the 'Go Mapping' Command Button is now made active.

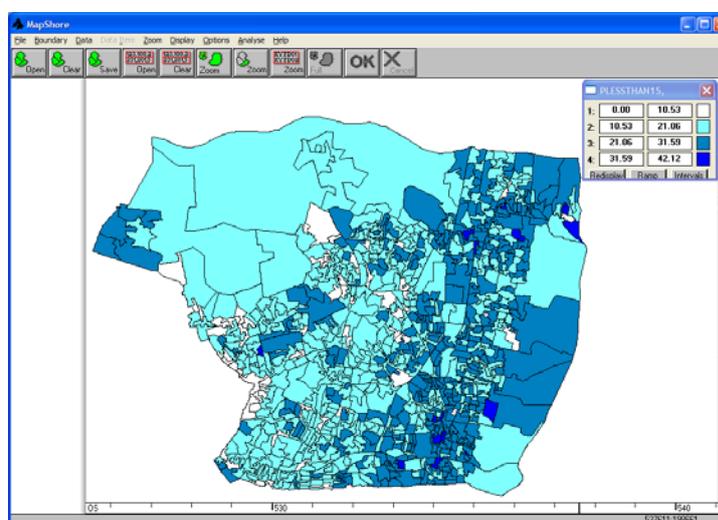


4. Use of the 'Go Mapping' Command Button opens the Mapshore application in the same way as was seen in Module 3b, and in the same way the first stage is then to open an appropriate boundary file - in this case the OAs for the London Borough of Enfield. When this is done, the CSV file may be opened using the 'Data / Retrieve Area Data' menu item as shown below.



When this option is used, the user is asked to identify the appropriate data file for mapping. Once identified, if there is only one variable in the file, the thematic map will be drawn. If there is more than one variable in the file, then the user will be asked to identify the variable to be mapped.

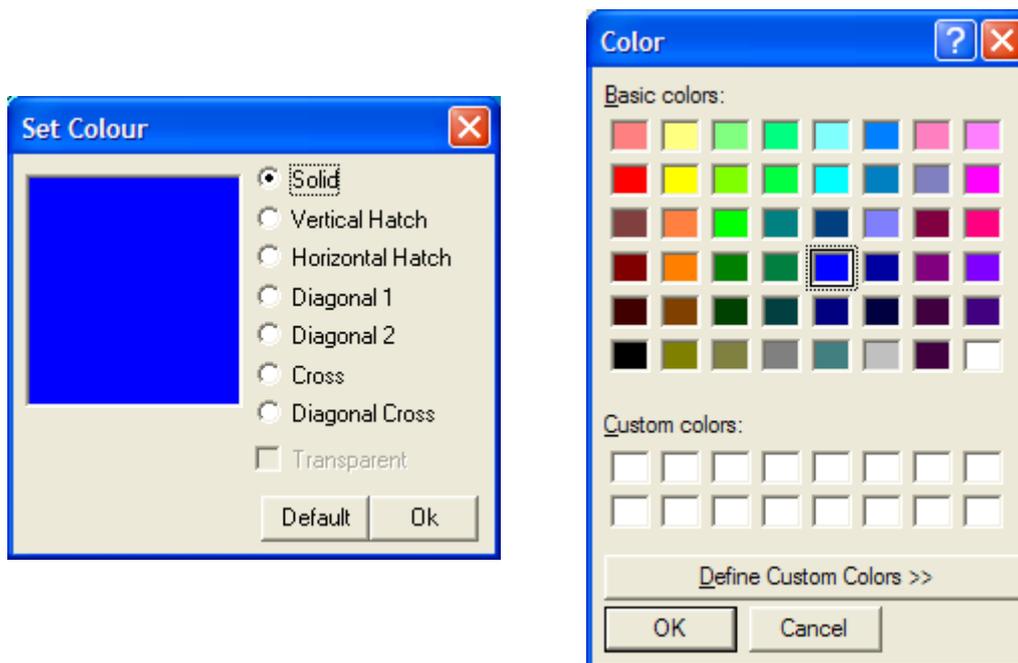
The thematic map will be drawn using default shading and number of ranges. These defaults will be the values used the last time that Mapshore was used to draw a thematic map. The result in this instance is shown below.



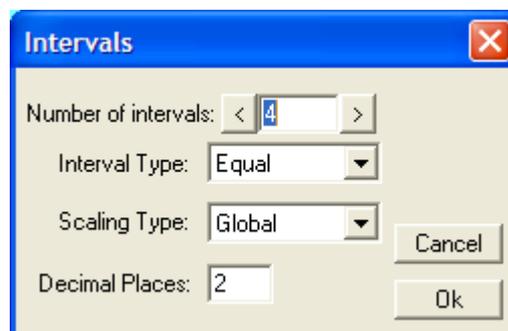
Once drawn the legend can be shown using the 'Display / Zonal Key' menu item, and this can then be used to manipulate the displayed shadings and the number of ranges.

- To change a colour, it is clicked in the legend and a 'Set Colour' window is presented to the user as shown on the next page. In this window, the user can select the type of shading to apply to the map. If non-solid shading is used, then the 'Transparent' checkbox becomes active. If this is chosen, then any underlying image will become visible.

To change the colour, then it is clicked in this window, and a palette of colours is offered to the user, as shown in the next image.

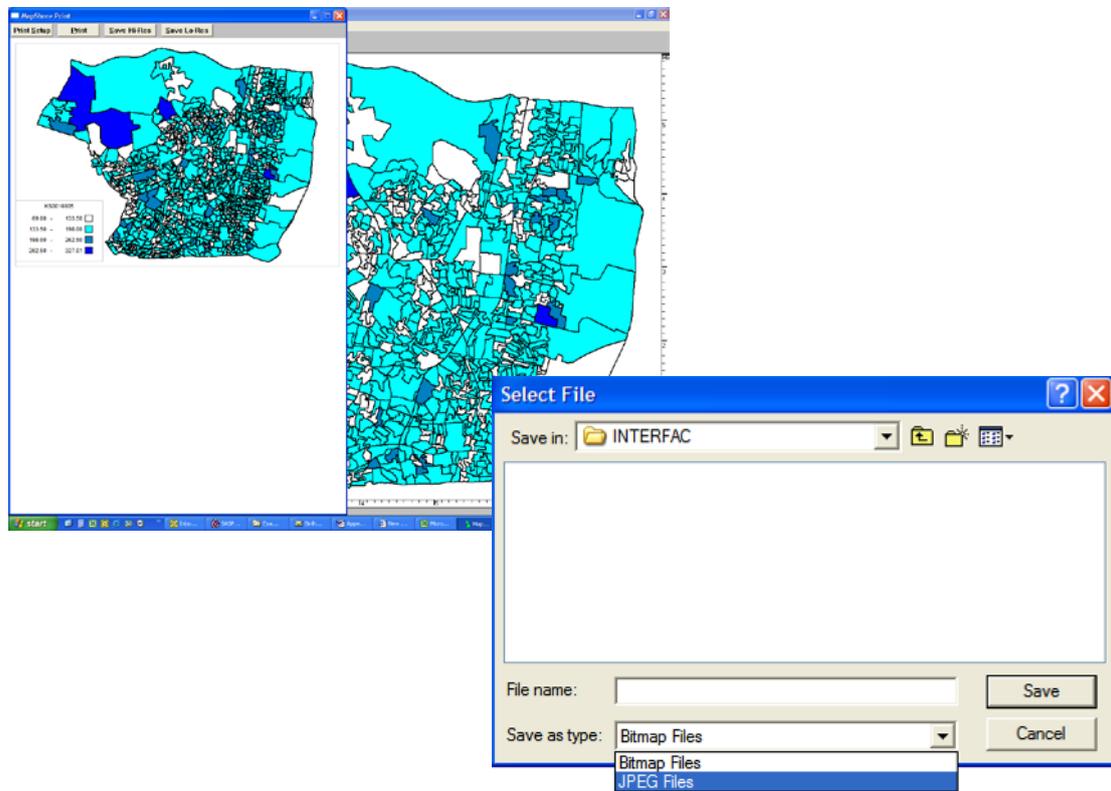


A basic colour is selected, and if there is a need to refine this, then that can be done through use of the 'Define Custom Colours>>'. This will then allow the user to create colours based on the mix of Hue, Saturation, and Luminosity, or as a unique combination of Red, Green, and Blue.

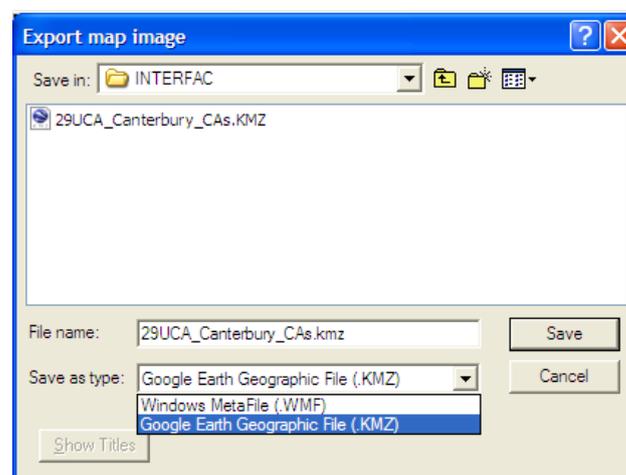


6. Numbers of ranges and type of ranges are set by using the appropriate buttons in the Zonal Key. If the 'Interval' button is used, then the window shown here will appear. As can be seen, the Number of intervals, and the Interval Type are two of the parameters that may be set by the user. When the appropriate parameters have been chosen, the map is redrawn through use of the 'Redisplay' button in the 'Zonal Key' window.
7. Once a suitable result is obtained, the map may be printed, or exported using the 'File/Print...' menu. This option allows a low or high resolution bitmap or jpeg image to be exported as shown in the two windows below. Chose to save a 'Hi-Res' image in a jpg format with a suitable name.

This jpg file may then, for example, be pasted into a Word document as the basis of a report or brief note related to the data depicted in the map. In Word this would be done through use of the 'Insert/Picture/From File...' menu item.



8. Alternatively, the release of SASPAC v8.5 saw the introduction of a Google Earth export facility. This tool allows the final Mapshare image to be exported in a .KMZ format, which can be viewed using Google's virtual globe browser 'Google Earth' (downloadable from: <http://earth.google.com/>).
9. Use of the "File|Export" menu will open an export map image dialogue box as shown below:

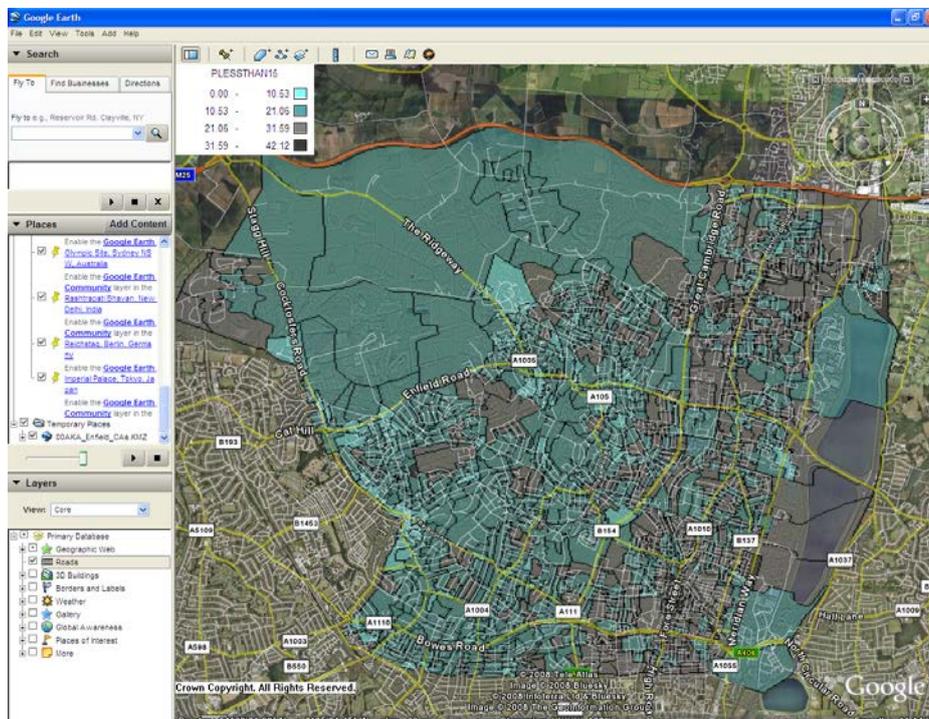


10. Choose to save the file in a Google Earth Geographic File (.KMZ) format and give the file a suitable name. This opens a copyright statement window (shown below) in which the appropriate copyright statement for both the mapped Census data and the boundary file may be added. Finally, we must choose to save the file in a vector or raster format, in this case a vector format will be used.



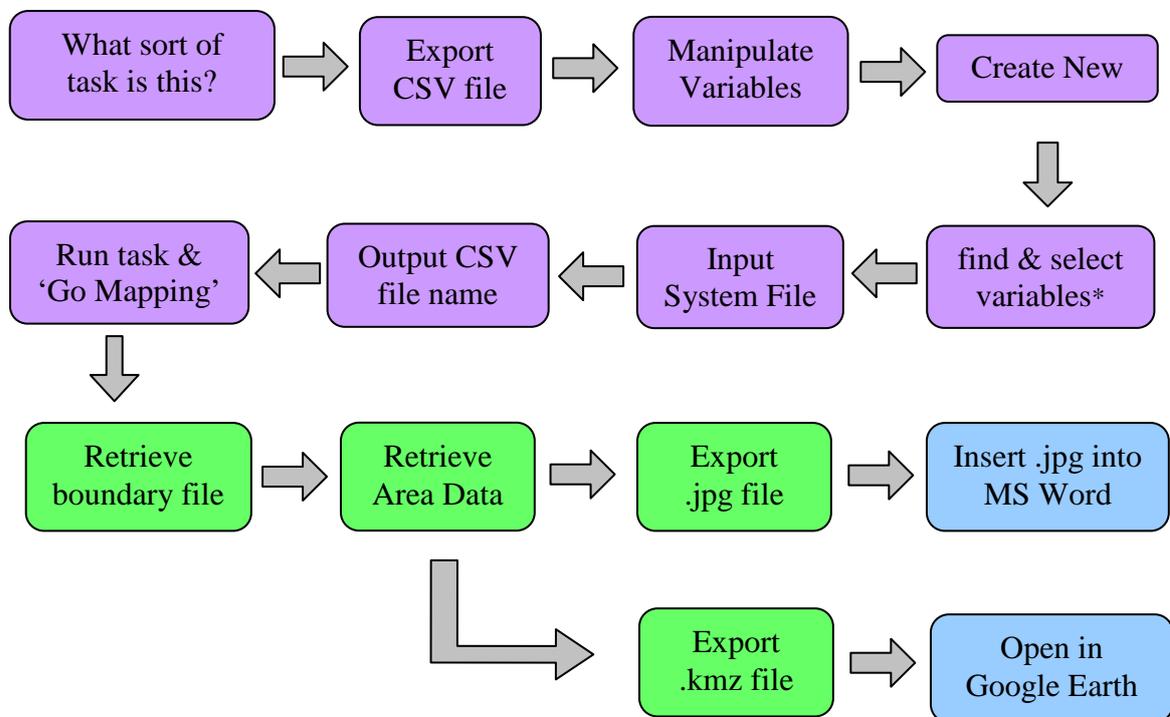
[Important: choosing to publish the .KMZ file in a vector format means other users will be able to extract and use the underlying geographic boundary data. It is important that you ensure this does not breach the terms and conditions of the licence agreement for these datasets. If you do not wish to make the geographic data available to 3rd parties, export the image in a raster format. If you are unsure of the licence restrictions, we recommend publishing in a raster format.]

11. Finally, the exported .KMZ file is opened by double clicking the file in Windows Explorer, using the left mouse button. This will launch the application and zoom to the position of the exported file on the Earth's surface. Alternatively, the "File|Open" menu within the Google Earth application itself can be used to open the .KMZ file directly. Whichever method is chosen, the result should look similar to the image below:



Here the final image has been placed in the correct geographical position of the LB of Enfield on the Earth's surface. Furthermore, the key and copyright statement are positioned in the top and bottom left corners of the map window, respectively. The menu to the left of the map window lists all the geographic features (OAs) individually. It is possible to display these, or not, using the tick-box next to the feature. Below this window is a slide bar that allows the transparency of the image to be adjusted from 0 to 100 percent. Finally, using the navigation bar in the top right-hand corner of the map window, it is possible to zoom in/out, rotate and adjust the tilt of the image. (To understand further some of the navigational aids and other datasets in Google Earth we recommend visiting: <http://earth.google.com/tour.html>).

Summary of task sequence



*remember to 'make command' after creating your new variable