Module 4b

Creating New Zones

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Gazetteer Files

Sometimes, when new zones are to be created, their definition in terms of existing areas may already be available in a machine-readable format as a constitution file. Such a file may be introduced to SASPAC as a Gazetteer File - subject possibly to some editing.

A Gazetteer File is an ASCII text file in a user-defined format where each line of the file links an existing area (or part of an existing area) to a new area, through their zone identities. A typical Gazetteer File might look like the following:

```
E00007034    AREA01
E00007035    AREA02    0.25
E00007035    AREA01    0.75
E00007036    AREA01    0.33
E00007036    AREA02    0.33
E00007036    AREA03    0.33
```

This file indicates that the whole of E00007034 is to be allocated to new zone AREA01, a quarter of E00007035 goes to AREA02, with its remainder going to AREA01, and that E00007036 is to be equally divided between AREA01, AREA02, and AREA03.

To enable SASPAC to make use of a gazetteer file, the location of the three elements -existing zone ID, new zone ID, and scale factor (if present) - within the file, must be defined. This is done in the INPUT GAZETTTEER FILE command, which takes the following form:

```
INPUT GAZETTEER FILE NAME = filename   /
        EXISTING ZONE COLS a TO b/
        SCALE FACTOR COLS c to d /
        NEW ZONE COLS e to f
```

where a and b indicate the start and end column locations of the existing zone code, c and d the start and end column locations of the scale factor, and e and f the same for the new zone code.

Note that there is no fixed order for the elements on the gazetteer file, but the order within the Command File is mandatory, and must be as shown.

The scale factor need not be present in all cases - in fact it may not be present at all - but if it is to be used, then its location must be specified in the command. If it is used, and it is not present on a line, SASPAC assumes that all of the area is to be included.

The existing zone and new zone fields may overlap, which allows users to make use of the hierarchic code structure of the standard areas to aggregate to higher areas. However aggregation of 2001 Census Area Statistics and Standard Tables is not recommended as a means of achieving higher-level statistics due to the Small Cell Adjustments that are present in the data. It is preferable to obtain the higher level data direct from the ONS.

The Gazetteer File described above merely allocates a ZONEID to the new area and does not allocate a label or name to the new zone. There is a variant of the Gazetteer File which allows

this. The presence of the words WITH LABELS following FILE in the gazetteer command instructs SASPAC to expect the file to consist of two parts separated by a blank line. The second part of the file would be the allocation to new zones and would look exactly the same as that already described. The first part would consist of a line for each new zone, where the line would have a new zone identity followed by a new zone label or name. Thus the Gazetteer file described previously would appear as:

```
AREA01 This is area 1
AREA02 This is area 2
AREA03 This is area 3

E00007034    AREA01
E00007035    AREA02    0.25
E00007035    AREA01    0.75
E00007036    AREA01    0.33
E00007036    AREA02    0.33
E00007036    AREA03    0.33
```
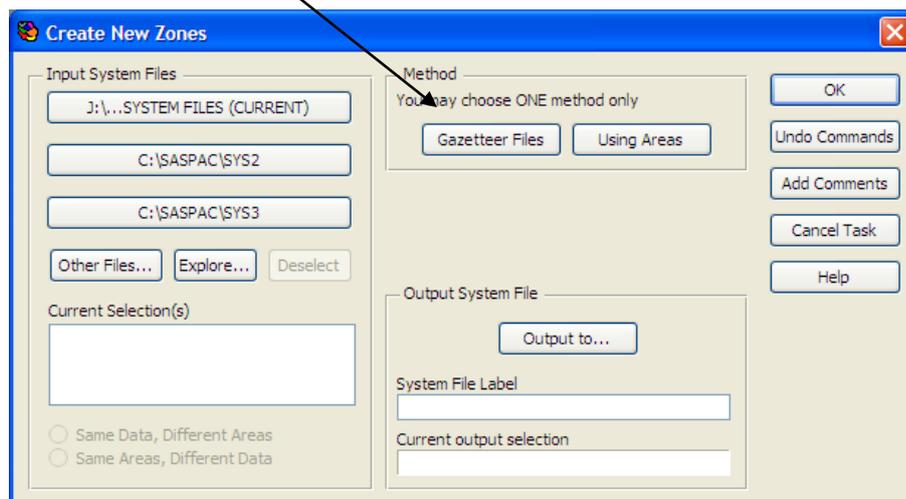
if it were to be read as a 'WITH LABELS' file.

Example

Create new areas using the gazetteer file ENFIELD.GAZ.

1.   Again the task is to create new zones or areas, and so the initial part of the task creation is as in Module 4a. This leads us again to the following screen, where this time the 'Gazetteer Files' Command Button is used.


On use of this button the user is presented with a window where the various parameters of the gazetteer file have to be entered and these (if not already known) have to be found from the gazetteer file itself. This may be done within SASPAC itself through use of the 'Open / Open Gazetteer File' option, but only before the start of the task creation procedure. Once the procedure is commenced, the 'Open' menu becomes unavailable. In this case, the file may be

opened in Textpad, Notepad, or other such text editor, as available. If we open this gazetteer file in such a text editor, we see that its layout is as follows:

ward01 Bush Hill Park
ward02 Winchmore Hill
ward03 Enfield Town
ward04 Ponders End

E00007208 ward01 0.33
E00007208 ward02 0.67
E00007209 ward01
E00007210 ward03
E00007211 ward02 0.5
E00007211 ward03 0.5
E05000200 ward04

2.   The blank line following the assignment of labels to the new ward codes indicates that this is a gazetteer file with labels. It also shows that scaling factors are used and that they appear in columns 21 to 24. The existing zones are to be found in columns 1 to 10, while the new zones are in columns 13 to 18.
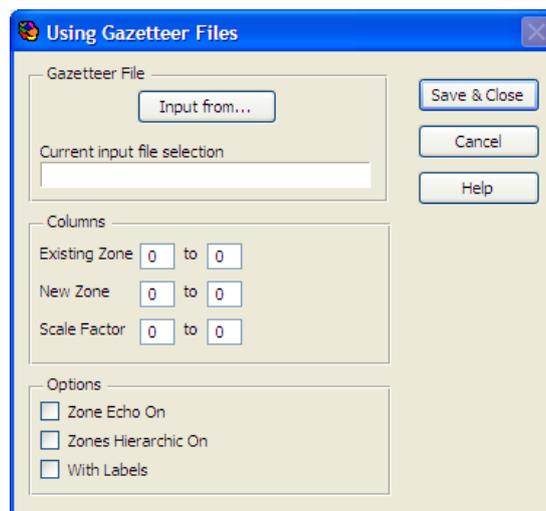
Note also that the existing zones consist of both wards and OAs, and so both levels must be present on the input system files. With this information now available, we can proceed to the next stage of the procedure which produces the following window.

3.   In this window the parameters discussed above may be entered. Additionally, there are a few check boxes available which should be considered.

Zone Echo On: If this is checked, SASPAC will provide an expanded list of the allocation of existing areas (including scale factors) to new areas. This will appear in the Log file.

Zones Hierarchic On: If the new areas are to nest into a hierarchic structure, then
                         this box should be checked.

With Labels: This box must be checked if the input gazetteer files has zone
                         labels.

Following entry of the parameters in this window, including location of the gazetteer file, as
shown below, the 'Close' Command Button is use to return to the main task window where the
appropriate input system files are identified, as well as the location of the output system file.
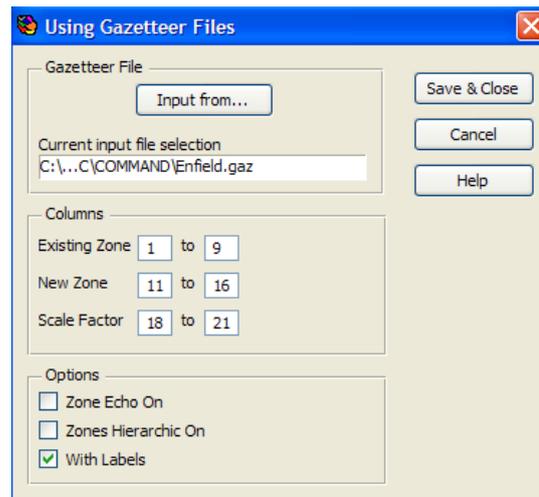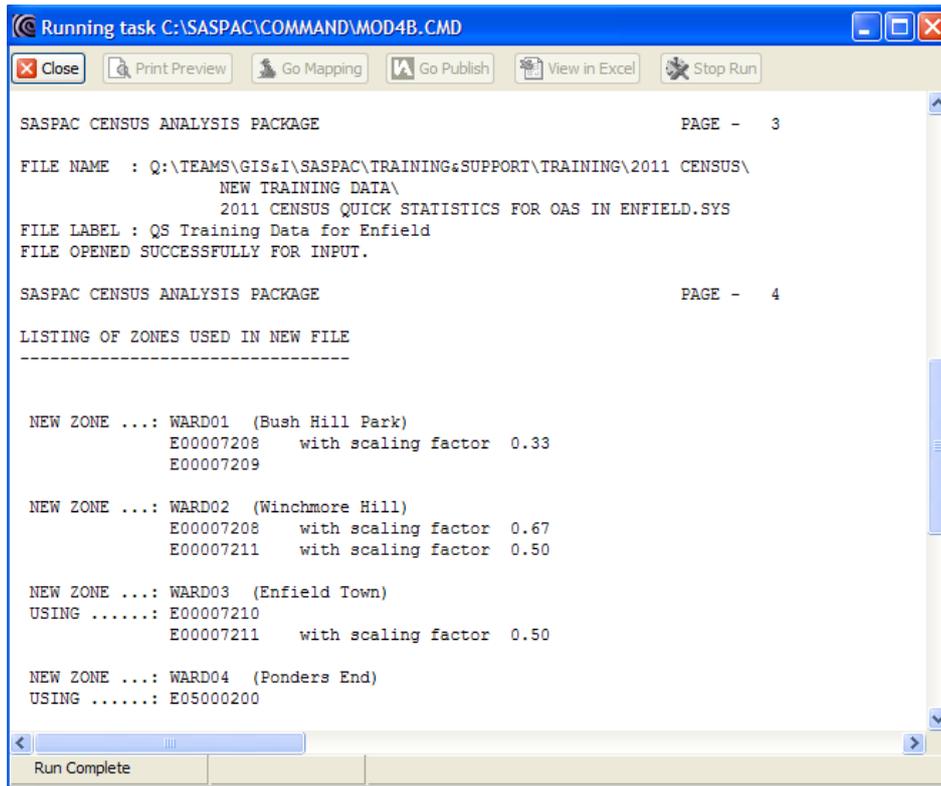

4.   The standard procedure is then followed for running the task, including allocating a
       user-defined name to the generated command file, the contents of which are as
       follows:

```
Input gazetteer file with labels name = /
C:\SASPAC\COMMAND\Enfield.gaz existing zone cols /
1 to 9 scale factor cols 18 to 21 new zone cols /
11 to 16
input system file name = "C:\SASPAC\Training\2011 /
Census\2011 CENSUS QUICK STATISTICS FOR /
OAS IN ENFIELD.SYS"
set zone echo on
output system file name = /
C:\SASPAC\SYSFILES\TRAINING_MODULE_4B.SYS /
label=Training Module 4B Exercise
end
finish
```

The effect of using the 'Zone Echo On' parameter is shown in the following screen image of the
Log File.

As with the previous example, there is no directly visible output from this task, and the only
options are to run a task on the system file, or to investigate the system file' details.

```
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FILE NAME  : Q:\TEAMS\GIS&I\SASPAC\TRAINING&SUPPORT\TRAINING\2011 CENSUS\
                 NEW TRAINING DATA\
                 2011 CENSUS QUICK STATISTICS FOR OAS IN ENFIELD.SYS
FILE LABEL : QS Training Data for Enfield
FILE OPENED SUCCESSFULLY FOR INPUT.

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LISTING OF ZONES USED IN NEW FILE
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 NEW ZONE ...: WARD01  (Bush Hill Park)
              E00007208    with scaling factor  0.33
              E00007209

 NEW ZONE ...: WARD02  (Winchmore Hill)
              E00007208    with scaling factor  0.67
              E00007211    with scaling factor  0.50

 NEW ZONE ...: WARD03  (Enfield Town)
 USING ......: E00007210
              E00007211    with scaling factor  0.50

 NEW ZONE ...: WARD04  (Ponders End)
 USING ......: E05000200
```

Summary of the task sequence

What sort of task is this? → Create New Zones → Using a Gazetteer → Investigate .gaz file*

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Input .gaz file ← Input column parameters ← Input System File ← Output System File name/label

↓

Run Task
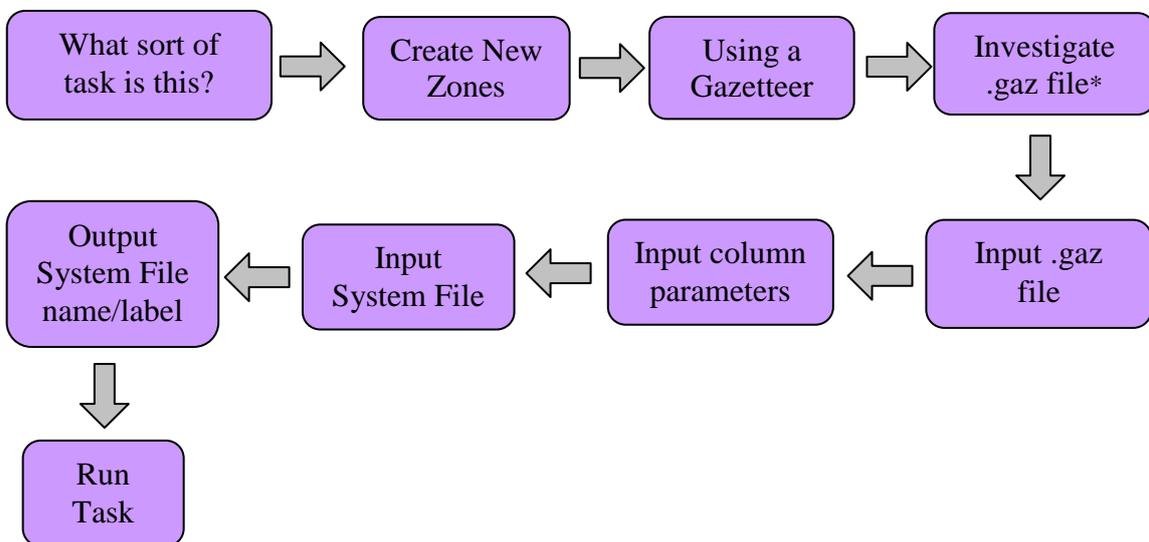
*.gaz file can be viewed within SASPAC (Open|Open Gazetteer file) or in a text editor package like notepad, textpad or Word

.