Linkage between 2011 Census Output Area and 2022 Census Output Area

For the 2022 Census, National Records of Scotland (NRS) allocated 2022 Frozen Postcodes to 2011 Output Area boundaries on a best-fit basis to create a first cut of 2022 Output Area boundaries. These were amended to follow confidentiality thresholds, or maximum size guidelines, by either splitting or merging with neighbouring Output Areas.

We have produced two look-up files to supplement the 2022 Census Output Areas. These are available in CSV format and can be found on the 2022 Census Supporting Information section of the National Records of Scotland website.

- 2011 Output Area to 2022 Output Area one to one look-up file. This links the 2011 Output Areas to the 2022 Output Areas using the grid references of the 2011 Output Area Population Weighted Centroid to provide a one to one relationship between the 2011 Output Areas and the 2022 Output Areas.
- 2011 Output Area to 2022 Output Area one to many look-up file. This enables users to identify which 2011 Output Areas make up the 2022 Output Area. A 2022 Output Area may be made up of all or part of a single 2011 Output Area or the 2022 Output Area may be made up of all or part of several 2011 Output Areas, including ones that have been split or merged. The grid references of the 2011 frozen postcodes (that were used to create the 2011 Output Areas) were assigned to the 2022 Output Area boundaries to produce a one to many distribution.

2011

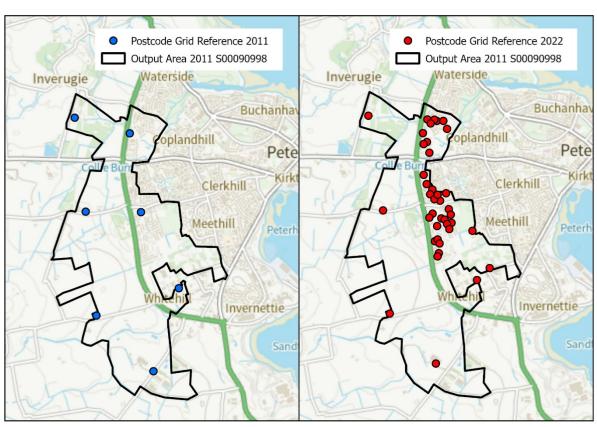
2011 Output Area to 2022 Output Area – one to one

This provides a one to one relationship of 2011 Output Areas to 2022 Output Areas using the grid reference of the 2011 master postcode.

The 2011 Output Area boundaries are not always comparable with 2022 Output Area boundaries as there has been development during the period between Censuses.

In the example below, there were 7 postcodes in 2011 within Output Area S00090998. If you apply the 2022 postcodes to this same 2011 Output Area, the amount of change that has occurred in the area between the two Censuses becomes evident from the increase in postcodes (40 in total in 2022).

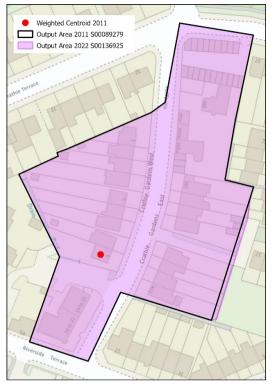
2022



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In the example below the boundaries between 2011 and 2022 are comparable. In this case the underlying postcodes between the two Censuses have hardly changed.

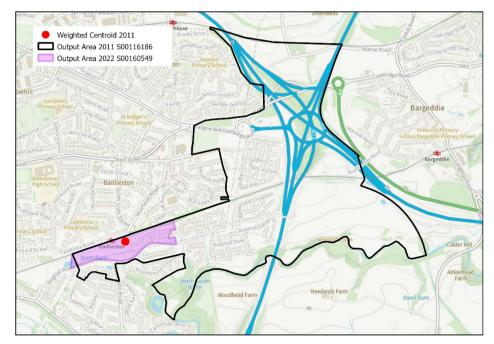
The master postcode for 2011 Output Area S00089279 is AB10 6BU. The one to one allocation using this 2011 master postcode shows S00136925 as the corresponding 2022 Output Area.



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However in the next example you can see that the Output Area boundaries have changed quite dramatically between the two Censuses.

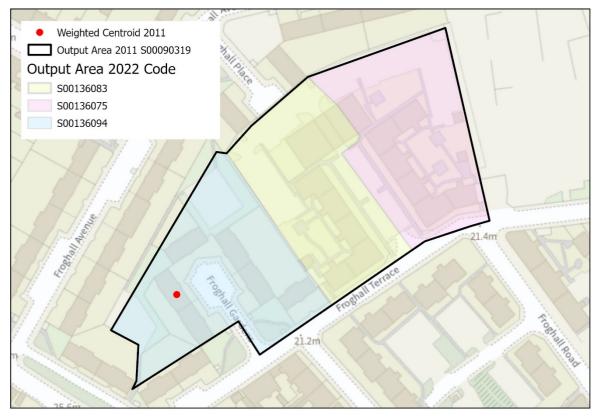
The master postcode for 2011 Output Area S00116186 is G69 7UQ. The one to one allocation using this 2011 master postcode has provided S00160549 as the 2022 Output Area.



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There are 2,221 2022 Output Areas that are not allocated in the one to one look-up. This is due to the 2011 Population Weighted Centroid falling outwith the 2022 Output Area boundary.

As shown in the example below the master postcode for 2011 Output Area S00090319 is AB24 3JQ. The one to one allocation using this 2011 master postcode has provided S00136094 as the 2022 Output Area. There are 2 other 2022 Output Areas (S00136075 and S00136083) within the 2011 Output Area S00090319 that have not received an allocation to a 2011 Output Area, as a 2011 master postcode does not fall within their boundaries.



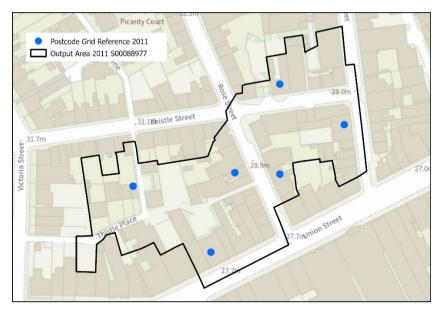
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2011 Output Area to 2022 Output Area - one to many

This look-up lists all the 2011 Output areas that make up a 2022 Output area including part 2011 Output Areas.

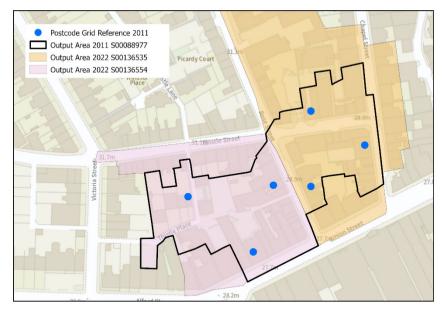
Since 2011, postcode boundaries have changed, new postcodes have been introduced and old postcodes have been removed. This erodes the link between postcodes and Output Areas, therefore postcodes for the intervening years are aggregated to Output Area level on a best-fit basis.

In the example below 2011 Output Area S00088977 contains 6 2011 postcodes.



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When you apply these 6 postcodes 2022 Output Area boundaries you get a best-fit allocation of S00136535 and S00136554 as both contain 3 postcodes



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The 2011 Output Area to 2022 Output Area – one to many file provides a one to many look-up for all 46,351 2011 Output Areas (based on 2011 postcode grid references). The breakdown per 2011 Output area is as follows:

Number of 2022 OAs (per 2011 OA)	Number of 2011 OAs
1	41,218
2	4,196
3	755
4	128
5	40
6	7
7	6
10	1
<u>Total</u>	<u>46,351</u>