Bus Route Map Data – Supporting Information (Mar 2024)

1 Background

1.1 This information note accompanies Transport for Greater Manchester's bus route map data released at:

http://data.gov.uk/dataset/bus-routes-1-25-000-scale-map-data

1.2 See the following sections for information on:

- Copyright and licence details;
- File formats;
- Data specification;
- Potential uses;
- Known issues and limitations; and
- Data updates.

1.3 Please email opendata@tfgm.com if you have any enquiries or feedback about the data or this documentation.

2 Copyright and licence details

2.1 This free dataset is released under the Open Government Licence (OGL), a copy of which can be found here:

http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

2.2 This dataset is derived from Ordnance Survey (OS) "VectorMap District" mapping. Please acknowledge the source of this information using the following attribution statement:

Contains Transport for Greater Manchester data. Contains OS data © Crown copyright and database right 2023.

2.3 A more detailed dataset, derived from OS "Integrated Transport Network" mapping, is available to public sector bodies and to Transport for Greater Manchester's contractors. It is also available to others upon purchase of the appropriate OS licence. For details, please email us at the address given above.

3 File formats

3.1 The dataset is available in a choice of file formats:

- **.kml (Google Earth)** in WGS84 Long/Lat projection (EPSG:4326) http://en.wikipedia.org/wiki/Keyhole_Markup_Language
- **.tab (MapInfo)** in British National Grid projection (EPSG:27700) http://en.wikipedia.org/wiki/MapInfo_TAB_format
- **.shp (ESRI ArcGIS)** in British National Grid projection (EPSG:27700) http://en.wikipedia.org/wiki/Shapefile

NB: The download files may have been zipped to reduce file sizes.

3.2 Email us if you would like to request data in a format not listed here.

4 Data specification

4.1 Each bus ‘service’, e.g. the 192, is represented in the dataset by one or more bus ‘routes’. These routes show differences between:

- Inbound and Outbound buses;
- Full-route and part-route services (i.e. terminating early);
- Routes taken at different times (e.g. evening and night); and
- Routes taken on different days (e.g. Sundays and Bank Holidays).

4.2 For example the dataset contains ~41 different routes for the 192 service.

4.3 The complete dataset holds about 3,400 records, of which about half are for weekday routes (Monday – Friday), a quarter for Saturday, and the remainder split roughly evenly between Sunday and Bank Holiday routes.

4.4 Each bus ‘route’ is a separate record, with one map object. The only data field is ServiceID, which is a Unique ID constructed from:

Service_no + “_” + Suffix + “_” + Direction + “_” + Day + “_” + Variation

where the components are as follows:

Component	Description
Service_no	Bus service number
Suffix	Bus service number suffix (if any)
Direction	**I** = Inbound / **O** = Outbound / **C** = Circular
Day	**1** = Weekdays / **3** = Saturday / **4** = Sundays / **5** = Bank Holidays
Variation	Bus service variant (if any)

4.5 These data fields mirror the ATCO-CIF bus timetables dataset which Transport for Greater Manchester publishes as open data. Therefore it should be possible to link timetable data to the appropriate route map by constructing a matching ServiceID from the ATCO-CIF file. NB: The component values can be null or variable-length, making the ServiceID variable-length as well.

4.6 Similarly, bus stopping points could be added to a route map by linking the route to the timetable using the ServiceID field, and then linking the timetable to the stopping points using the stop code field.

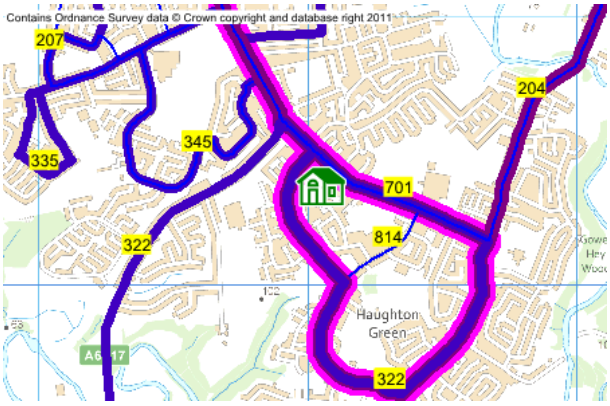
5 Potential uses

5.1 This bus route mapping is best used in conjunction with our other open datasets such as bus stop locations and timetables.

5.2 How to use the data is up to you, but here are some illustrative examples to stoke the imagination.

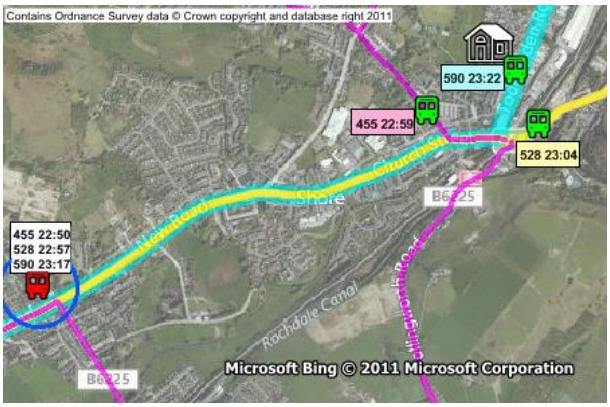
5.3 Personalised maps for local employers and residents

Map your local services and see which routes are the most frequent.



5.4 Missed the bus?

View the next few buses from this stop, see how close each route gets to your destination, what time they will get you there, and whether your ticket is valid with that operator.



5.5 Journey Guide

Identify where you want to get off the bus, and receive alerts when you are nearly there, or if the bus falls behind schedule, or if your location indicates you have got on the wrong bus.

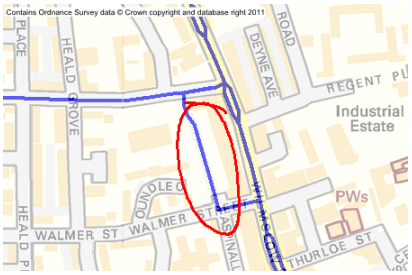
6 Known issues and limitations

6.1 When using this dataset you may encounter some of the following issues.

6.2 The dataset is only updated every few months, and updates lags behind real-world changes to bus routes. This is particularly noticeable when linking the data with bus timetables, which are updated weekly and can therefore be inconsistent (e.g. where a service has been renumbered or re-routed). We welcome feedback on whether this causes any problems.

6.3 The bus routes are derived from 1:25,000 mid-scale mapping, and do not exactly line up with roads shown in other datasets such as Google Maps.

6.4 Some bus routes show an incorrect route for short distances, e.g. a 'short-cut' between two stops. We would be grateful to hear of any such errors, which we will investigate and if possible fix in the next version.



6.5 Cross-border bus routes are only mapped for the first 10km outside the Greater Manchester county boundary.

6.6 Transport for Greater Manchester would also be interested to hear of any other types of error that you come across.

7 Data updates

7.1 At the time of writing, Transport for Greater Manchester aims to update this dataset at least four times per year. The updates are timed to coincide with the main dates for changes to timetables. Recent updates have included all route changes up to and including:

- In 2012: 29 Jan, 15 Apr, and 3 Nov;
- In 2013: 20 Feb, and 17 Nov;
- In 2014: 1 Feb, 3 May, 3 Aug, 27 Sep, and 8 Nov;
- In 2015: 16 May, and 3 Oct;
- In 2016: 13 Feb, 21 May, 10 Sep, 19 Nov, and 17 Dec;
- In 2017: 20 Mar, 4 May, 30 Sep, and 14 Nov;
- In 2018: 14 Feb, 11 Apr;
- In 2019: 26 Mar;
- In 2021: 14 Jan; 12 Aug;
- In 2022: 11 Jan, 11 Feb, 15 May, 10 Aug, 11 Nov
- In 2023: 08 Feb, 25 May, 21 Sep, 11 Nov
- In 2024: 07 Mar

7.2 The next update is likely to be:

- May 2024.

7.3 Each year, we aim to publish updates as follows:

- February;
- May;
- August; and
- November.

7.4 The updated bus route mapping will usually be released about one month after the date it represents. However, all dates are subject to change, and the frequency of updates may also change (a long-term aspiration is to produce more-frequent updates).