

Metadata format: ISO 19139**Manhattan Bus Routes, New York NY, May 2016****ISO 19139 metadata content**

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Resource Identification Information

CITATION

TITLE Manhattan Bus Routes, New York NY, May 2016

PUBLICATION DATE 2016-05-19

EDITION may2016

PRESENTATION FORMAT mapDigital

SERIES

NAME NYC Mass Transit Spatial Layers

RESPONSIBLE PARTY - POINTOFCONTACT

ORGANIZATION'S NAME Newman Library, Baruch CUNY

CONTACT'S POSITION Geospatial Data Librarian

CONTACT INFORMATION

ADDRESS

DELIVERY POINT Newman Library, Baruch CUNY

DELIVERY POINT 151 E 25th St Box H-0520

CITY New York

ADMINISTRATIVE AREA NY

POSTAL CODE 10010

COUNTRY UNITED STATES

THEMES OR CATEGORIES OF THE RESOURCE transportation, structure

PLACE KEYWORDS

KEYWORDS City of New York, 2395220, Borough of Manhattan, 979190, Borough of Queens, 979404

THESAURUS

TITLE Geographic Names Information Service (GNIS)

ALTERNATE TITLES ANSI INCITTS 446:2008

PUBLICATION DATE 2008-01-01

PLACE KEYWORDS

KEYWORDS New York County, 36061, Queens County, 36081

THESAURUS

TITLE US Census ANSI/FIPS
ALTERNATE TITLES ANSI INCITTS 38:2009 (Formerly FIPS 5-2) & ANSI INCITTS 31:2009
(Formerly FIPS 6-4)

PUBLICATION DATE 2009-01-01

TEMPORAL KEYWORDS
KEYWORDS 2016

THEME KEYWORDS
KEYWORDS Buses, Local transit, Commuting, New York City Transit Authority, Transportation

THESAURUS
TITLE Library of Congress Subject Headings (LCSH)

PUBLICATION DATE 2015-02-17

DESCRIPTIVE KEYWORDS
KEYWORDS Downloadable Data

THESAURUS ArcIMS Metadata Service Content Types

ABSTRACT

This line layer was created from the GTFS data feeds from the Metropolitan Transportation Authority (MTA) to represent Manhattan bus routes. A python script was written to take the data files as input and plot and save them as a spatial layer in the local state plane coordinate reference system. Lines in this layer represent individual bus routes over a roadway for a specific direction; they were generalized from the GTFS format where lines depicted individual services. In some cases the layer may include routes that cross into a different borough, and in other cases may be missing certain routes that are largely contained in a neighboring borough. The unique ID is route_dir, which is a combination of the bus route id and its direction. This layer was created as part of the NYC Mass Transit Spatial Layers series, and is updated biannually to account for changes in the transit system.

PURPOSE

This dataset is intended for researchers, policy makers, students, and educators for basic geographic analysis and mapping purposes. It was created by the GIS Lab at the Newman Library at Baruch College CUNY as part of the NYC Mass Transit Spatial Layers series, so that members of the public could have access to well-documented and readily-usable GIS layers of NYC mass transit features.

DATASET LANGUAGE English
DATASET CHARACTER SET utf8

STATUS completed

MAINTENANCE
UPDATE FREQUENCY biannually

RESOURCE CONSTRAINTS

CONSTRAINTS
LIMITATIONS OF USE

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RESOURCE CONSTRAINTS

LEGAL CONSTRAINTS

ACCESS CONSTRAINTS licenseUnrestricted

USE CONSTRAINTS license

SPATIAL REPRESENTATION TYPE vector

PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.2.0.3348

EXTENT

EXTENT DESCRIPTION

City of New York

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT CONTAINS THE RESOURCE true

WEST LONGITUDE -74.018048

EAST LONGITUDE -73.860976

NORTH LATITUDE 40.865772

SOUTH LATITUDE 40.701391

TEMPORAL EXTENT

BEGINNING DATE 2016-03-24 00:00:00

ENDING DATE

INDETERMINATE TIME unknown

SUPPLEMENTAL INFORMATION

The direction of a bus route is indicated with a 0 (which means that the bus runs either northbound or eastbound) or a 1 (the bus runs either southbound or westbound). Bus route ids that have a plus symbol + as a suffix represent Select Bus services. These buses make fewer stops than the regular services, and riders are required to pay their fare and get a receipt from ticket machines located at the bus stop, rather than paying upon boarding the bus.

POINT OF CONTACT - POINTOFCONTACT

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CONTACT'S POSITION Geospatial Data Librarian

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Spatial Representation - Vector

LEVEL OF TOPOLOGY FOR THIS DATASET geometryOnly
GEOMETRIC OBJECTS
OBJECT TYPE composite
OBJECT COUNT 78

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Reference System Information

REFERENCE SYSTEM IDENTIFIER
VALUE 2263

CODESPACE EPSG
VERSION 10.2

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Data Quality Information

SCOPE OF QUALITY INFORMATION
RESOURCE LEVEL dataset

LINEAGE

LINEAGE STATEMENT

This line layer was created using the data feeds from the Metropolitan Transportation Authority (MTA). The MTA provides text files that contain route information in a General Transit Feed Specification (GTFS) format, and are geographically referenced so they are able to be plotted. Python scripts were written to take the text files as input and plot and save them as a spatial layer. The text file used for plotting is 'shapes.txt' and provides geographically referenced data for the routes in the form of points. The first script plots these points and creates a layer file, which is then converted to a polyline layer and saved as a shapefile. The second script joins the new line shapefile with two text files, 'trips.txt' and 'routes.txt', which contain additional relevant information provided by the MTA. The 'routes.txt' file was modified to exclude the routes_desc field, as this field consistently exceeded the maximum allowable character count for a shapefile. This field was removed and a new text file called 'notes' was created which includes the route description information.

After the routes were plotted from their native GTFS format, the lines represented individual bus services for different times and days of the week. Additional processing was done to simplify these lines; the dissolve tool was used to create lines that represented an individual bus route that travels in one direction. Attribute columns that were blank, redundant, or that represented information that was only relevant to specific services and not to individual routes were removed. A manual edit was performed on the M101 bus route line, extending it to the Amsterdam Ave/193 St. stop point. The final layer was reprojected from NAD 83 to NY State Plane Long Island in feet. The unique ID is route_dir, which is a combination of the bus route id and its direction. This layer was created as part of the NYC Mass Transit Spatial Layers series, and is updated biannually to account for changes in the transit system.

SOURCE DATA

LEVEL OF THE SOURCE DATA Metropolitan Transportation Authority

SOURCE CITATION

TITLE MTA NYC Transit Shapes, Trips and Routes Files

PUBLICATION DATE 2016-03-24

SOURCE DATA

LEVEL OF THE SOURCE DATA US Census 2014 TIGER Line Shapefiles

SOURCE CITATION

TITLE US Census 2014 TIGER Line Shapefiles

PUBLICATION DATE 2014-08-19

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Distribution Information

DISTRIBUTOR

DISTRIBUTOR INFORMATION - POINTOFCONTACT

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FORMAT

NAME Shapefile

VERSION

NIL REASON missing

TRANSFER OPTIONS

TRANSFER SIZE 0.312

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Metadata Information

LAST UPDATE 2016-05-26

MAINTENANCE

UPDATE FREQUENCY biannually

MAINTENANCE NOTES This metadata record was updated by Janine Billadello in May 2016.

METADATA CONSTRAINTS

CONSTRAINTS

LIMITATIONS OF USE

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SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset

METADATA LANGUAGE English

METADATA CHARACTER SET utf8

NAME OF THE METADATA STANDARD USED NAP - Metadata

VERSION OF THE METADATA STANDARD 1.2

METADATA IDENTIFIER 1FDD9013-2748-4A37-9A09-43E319F2B7A6

URI OF THE DATA DESCRIBED BY THE METADATA

<https://www.baruch.cuny.edu/confluence/display/geoportal/NYC+Mass+Transit+Spatial+Layers>[Back to Top](#)