Resource Identification Information

CITATION

TITLE Metro-North Routes, New York NY, January 2017

PUBLICATION DATE 2017-01-31

EDITION jan2017

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 structure, transportation

PLACE KEYWORDS

KEYWORDS City of New York, 2395220, Borough of Bronx, 978756, Borough of Manhattan, 979190

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, Bronx County, 36005, Westchester County, 36119, Putnam County, 36079, Dutchess County, 36027, Fairfield County, 09001, New Haven County 09009
This line layer was created from the GTFS data feeds from the Metropolitan Transportation Authority (MTA) to represent the MTA Metro North railroad routes that are east of the Hudson River. A python script was written to take the data files as input, process them and save them a spatial layer in the local state plane coordinate reference system. Lines in this layer represent individual train routes; they were generalized from the GTFS format where lines depicted individual train services. Unlike other transit routes in this series, the Metro North routes do not represent physical track locations, but are simply straight lines drawn in-between stations. Given the high level of generalization with this file, it is only appropriate for schematic use for small scale (i.e. large area) maps. For example, it is appropriate at a metropolitan-area level but not at county level, where imperfections in the line work would be apparent. The unique ID is route_id, a field created by the MTA. 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.

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.

Disclaimer: Every effort was made to insure that the data, which was compiled from public sources, was processed accurately. The creator, Baruch College, and CUNY disclaim any liability for errors, inaccuracies, or omissions that may be contained therein or for any damages that may arise from the foregoing. Users should
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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 10.3.1.4959

EXTENT
EXTENT DESCRIPTION
New York Metropolitan Area

GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
EXTENT CONTAINS THE RESOURCE true
WEST LONGITUDE -73.984702
EAST LONGITUDE -72.91343
NORTH LATITUDE 41.815539
SOUTH LATITUDE 40.748037

TEMPORAL EXTENT
BEGINNING DATE 2017-01-10 00:00:00
ENDING DATE
INDETERMINATE TIME unknown

EXTENT
GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
EXTENT CONTAINS THE RESOURCE true
WEST LONGITUDE -73.984702
EAST LONGITUDE -72.91343
NORTH LATITUDE 41.815539
SOUTH LATITUDE 40.748037

POINT OF CONTACT - POINTOFCONTACT
ORGANIZATION'S NAME Newman Library, Baruch CUNY
CONTACT'S POSITION Geospatial Data Librarian

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DELIVERY POINT 151 E 25th St Box H-0520
DELIVERY POINT Newman Library, Baruch CUNY

2/10/2017
Spatial Representation - Vector

Level of Topology for this dataset: geometryOnly
Geometric objects:
  - Object Type: composite
  - Object Count: 6

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, process them and create a spatial layer. The text files used for geometry creation is 'shapes.txt' and it provides geographically referenced data for the routes in the form of points. The script creates geometry object out of the individual points provided for the route, and then creates a line geometry object out of the points grouped by the common id of the segment that they belong to. Then it joins created geometry object with data from text files, 'trips.txt' and 'routes.txt', which contain additional relevant information provided by the MTA. Based on common attribute, individual rail services for different times and days of the week are dissolved to create lines that represented an individual route. Lines that represented shuttle bus and ferry routes and the Shore Line East railroad in Connecticut were removed. Attribute columns that were blank, redundant, or that represented information that was only relevant to specific services and not to individual routes were deleted. Because the 'shapes.txt' file for the Metro North routes lacked a sufficient number of points needed to build accurate lines, the resulting routes are highly generalized and are only appropriate for schematic use at a scale that's above the county level. Some manual editing was performed to correct false lines (lines drawn directly between two stations for an express service that did not represent actual track locations),...
but the final result is still highly generalized. Using the snap tool, overlapping or express lines were snapped to the lines drawn between stations in the Bronx and Southern Connecticut. The final layer was reprojected from NAD 83 to NY State Plane Long Island in feet. The unique ID is route_id, a field created by the MTA. 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: 2017-01-10

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**Distribution Information**

**Distributor**

Distributor Information - 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

Format  
Name: Shapefile  
Version:  
Nil Reason: missing

Transfer Options  
Transfer Size: 0.003

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**Metadata Information**

Last Update: 2017-02-10  
Maintenance  
Update Frequency: biannually  
Maintenance Notes: This metadata record was updated by Anastasia Clark in January 2017.

Metadata Constraints  
Constraints  
Limitations of Use:  
Metadata for this layer is licensed under a Creative Commons Attribution-
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METADATA CONSTRAINTS
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ACCESS CONSTRAINTS licenseUnrestricted

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POSTAL CODE 10010
COUNTRY UNITED STATES

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 B3E47232-A441-4CE5-8756-14753764176C
URI OF THE DATA DESCRIBED BY THE METADATA
https://www.baruch.cuny.edu/confluence/display/geoportal/NYC+Mass+Transit+Spatial+Layers

Back to Top