OpenStreetMap Data
in
Layered GIS Format

Version 0.7.12 - 2022-03-31

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Version History and Copyright

Version	Created At	Changes
0.5	2010-02-20	Add bridge and tunnel attributes to road shapes Add layer, bridge, and tunnel attributes to railway line shape Add operator attribute to powerline shape Add note about splitting road layer for large extracts
0.6	2011-09-16	Add many new POI types, and section about area POIs. Add new traffic layer and new "non-operational" layer. Rename "railwaystations" layer to "traffic" and include information about air and sea traffic. Add many definitions. Added section on spillover shape files.
0.6.1	2012-02-04	Added "barriers" layer; added vineyards, orchards, military landuse and quarries to landuse layer; added rack railways to railway layer.
0.6.2	2012-07-30	Added section on "international names"; updated section on landmass and oceans.
0.6.3	2014-01-30	Added a few more aerialway values to the railways layer; added natural parks.
0.6.4	2014-03-12	Added a column "type" in the buildings layer.
0.6.5	2014-11-01	Added new "named_place" in places layer, fix a few missing codes
0.6.6	2015-07-06	Fix openstreetmapdata.com reference
0.6.7	2015-09-22	Add feature code 1005 in places layer
0.6.8	2016-01-28	Add X=proposed in nonop layer
0.7.0	2016-06-01	Add aeroways and routes layer, change codes of powerlines layer, redesign nonop layer (new codes and feature classes), use Navteq's nomenclature for "oneway" column, add levels and height column to buildings layer.
0.7.1	2016-10-25	Add ferries, add ref field to traffic layer.
0.7.2	2017-01-24	Use amenity=taxi instead of amenity=taxi_rank. See taginfo.osm.org for details. Add waterway=dock.
0.7.3	2017-03-02	Swap codes 5205 and 5208 (ford and speed camera). They were swapped in the produced shape files. Add Buddhist, Taoist, Shintoist, Sikh and Hindu places of worship.
0.7.4	2017-10-06	Add feature classes basin, village_green, brownfield, greenfield, plant_nursery, construction and railway to the landuse layer. Split up feature class "farm" into "farmyard" and "farmland".
0.7.5	2019-01-17	Interpret OSM tags natural=water + water=river and natural=water + water=reservoir for feature classes "river" and "reservoir" in addition to waterway=riverbank and landuse=reservoir.
0.7.6	2019-03-27	Added "surface" column to roads.
0.7.7	2019-05-13	Added "cycle_route_segments" layer. Add list of fields which are available in the paid shape files only.
0.7.8	2019-11-06	Correct overview table in section 3: Change 26xx to 27xx, add banks and atms as 26xx.
0.7.9	2020-01-13	Add fields service and electr to railways layer.
0.7.10	2021-07-08	Only add objects with amenity=place_of_worship to pofw layer. Add recycling:glass_bottles=yes to code 2031 (recycling_glass).
0.7.11	2021-08-12	Add code 2510 (general) for general stores to poi layer.
0.7.12	2022-03-31	Add code 5124 (busway) to roads layer.

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1 Preface

The OpenStreetMap (OSM) project (www.openstreetmap.org) has collected an enormous amount of free spatial data and the database is growing every day. Many people want to use this data for their own GIS projects but have been hindered by the use of a non-standard data format in the OSM project. This document describes a mapping from OSM data formats to the usual GIS formats to make the OSM data accessible to more people.

The mapping from OSM data to other formats is not an exact science. OSM rules on how to map certain features are often not well defined and there is no mandatory quality control. This openness allows a lot of flexibility and is part of the reason why OSM has been able to collect so much data in such a short time frame, but it makes using the data more difficult. When using or exporting the data, many decisions have to be made on how to extract the different features into something usable for the task at hand.

The mapping described in this document is in no way the only mapping possible, in fact there is an infinite number of possible mappings. In this document we have specified a general-use mapping of the basic features like roads, waterways, different land use types, and points of interest. Other uses might need specialized mappings, but they are out of the scope of this document.

The format described in this document is used by Geofabrik to create shapefiles and other formats for its clients.

2 Introduction

2.1 Versions

This is no static document. New versions of this document are likely to appear from time to time. If the definition of layers or features is changed significantly, the layers will get new version identifiers.

Layer names will use version numbers with leading 'v' and without the embedded '.': So version 0.1 of this document will use the suffix "v01", version 2.7 will use "v27" (minor versions above 9 are not allowed).

2.2 Map datum

All coordinates are unprojected WGS84 (EPSG:4326).

2.3   Character encoding

All strings are encoded in UTF-8.

2.4   Attribute names

All attribute names are lower case and are less than 11 characters long so that they are not truncated in shapefiles.

2.5   Common attributes

Most tables/shape files will have the following columns/attributes:

Attribute	PostGIS Type	Descriptiosteps/gis-roads-v06.pln
id	VARCHAR (4 Bytes)	Id of this feature. Unique in this layer.
osm_id	VARCHAR (10)	OSM Id taken from the Id of this feature (node_id, way_id, or relation_id) in the OSM database. In case several features in the OSM database are joined into one feature, this is one of the Ids. This Id is not necessarily unique because one OSM object can result in several geometry objects. Also note that when doing shape file exports, this will be exported as a VARCHAR type since shape files don't support long integers.
lastchange	TIMESTAMP WITHOUT TIME ZONE	Last change of this feature. Comes from the OSM last_changed attribute. Reflects changes in the attributes of a feature; changes in the geometry will not necessarily change this.
code	SMALLINT (2 Bytes)	4 digit code (between 1000 and 9999) defining the feature class. The first one or two digits define the layer, the last two or three digits the class inside a layer.
fclass	VARCHAR(40)	Class name of this feature. This does not add any information that is not already in the "code" field but it is better readable.
name	VARCHAR(100)	Name of this feature, like a street or place name. If the name in OSM contains obviously wrong data such as "fixme" or "none", it will be empty. See note on "international names" below!

The code and the combination of layer name and fclass always contains the same information.

2.6   International Names

In OpenStreetMap, every feature can have many names. The standard name is always the name used on the ground, locally, usually the name as it would be written on a sign. There may be any number of additional names in different languages, plus also a specific "international name". In cases where the local script is not latin script, the international name will often contain a transcribed version of the standard name.

By default, Geofabrik shape files will always carry the standard name, the one that is given in OSM's "name" tag. At the client's request, or if we export shape files for the whole world, we will not use a "name" column, but instead have two columns called "loc_name" (which will contain the standard name) and "int_name" (which will contain the international name, or the English name, or if neither of them are given will be the same as the loc_name).

2.7 Layers

In OSM there are no layers in the traditional GIS sense. All features are in one big coherent database.

For the purpose of the mapping described in this document, the features stored in the OSM database are extracted into different layers depending on their type.

All layers defined in this document use the "osm_" prefix for their names.

To allow for future changes of this document, the document version number is embedded in the layer names. So the "roads" layer in version 1.0 is called "osm_roads_v10" in file names, WMS layers etc.

2.8 Points and Areas

The availability of high-resolution aerial imagery has led to many POI features being recorded as areas (building or site outlines), not points, in OpenStreetMap. You will, for example, often find a restaurant or hotel drawn as an area. This makes processing difficult because you have to cater for both types of POIs even if you are not interested in areas.

The Geofabrik shape files alleviate this problem by converting any area feature to a point, and adding it to the appropriate point layer. All point layers which are marked as having an "associated area layer" in this document work this way. They will have an extra "geomtype" column that has one of the three values "N" (=the feature stems from a node, or point, in OSM), "W" (=the feature stems from a way, a simple area, in OSM), or "R" (=the feature stems from a multipolygon relation in OSM). For these layers, there will be an extra shape file with the name suffix "_a" containing the proper polygon.

So in case you are not interested in areas, you can just ignore the "geomtype" column in the point shape, and process everything normally. The automatic conversion of areas to points will make sure that you do not lose any information. If, however, you would like to process areas wherever they are available, then you should disregard the auto-converted objects of types "W" and "R" from the point shape, and additionally use the polygons from the _a shape.

Note that sometimes features are contained twice in the OSM database, once as point and once as area. If this happens, they will turn up twice in these layers.

2.9 Spillover Shape Files

When a certain layer becomes too large for one shape file (shape files are limited to 2 GB in size), it will automatically spill over into additional shape files. A shape file named "osm_pois_v07_1.shp" will have spillover shape files names "osm_pois_v07_2.shp", "osm_pois_v07_3.shp" and so on.

3 Feature Catalogue - Overview

The following layers are available:

Geometry	Code	Layer	AAL*	page	Description
Point					
	10xx	places	yes	8	Cities, towns, suburbs, villages,...
	2xxx	pois	yes	9	Points of Interest, therein:
	20xx				Public facilities such as government offices, post office, police, ...
	21xx				Hospitals, pharmacies, ...
	22xx				Culture, Leisure, ...
	23xx				Restaurants, pubs, cafes, ...
	24xx				Hotel, motels, and other places to stay the night
	25xx				Supermarkets, bakeries, ...
	26xx				Banks and atms
	27xx				Tourist information, sights, museums, ...
	29xx				Miscellaneous points of interest
	3xxx	pofw	yes	14	Places of worship such as churches, mosques, graveyards, ...
	41xx	natural	yes	14	Natural features
	52xx	traffic	yes	15	Traffic related
	50xx	transport	yes	16	Parking lots, petrol (gas) stations, ...
	64xx	power	yes	17	Power generators, substations, ...
Line					
	11xx	boundaries		18	Borders between countries ...
	51xx	roads		18	Roads, tracks, paths, ...
	61xx	railway		20	Railway, subways, light rail, trams, ...
	66xx	powerlines		21	Power lines
	67xx	aeroway		22	Runways and taxiways at airports
	81xx	waterways		21	Rivers, canals, streams, ...
	83xx	coastline		21	Coastline
	53xx, 54xx, 55xx, 56xx, 62xx, 63xx, 64xx, 65xx	nonop		22	Roads and railways planned, under construction, or disused
	90xx	routes		27	Signposted routes for hiking, cycling, running
	91xx	cycle_route_segments		27	Road segments tagged as cycle routes without special route names/reference numbers
Polygon					
	12xx	adminareas		24	Administrative areas (countries, states, counties, ...)
	15xx	buildings		25	Building outlines
	72xx	landuse		25	Forests, residential areas, industrial areas,...
	82xx	water		26	Lakes, wetlands, ...

* AAL = associated area layer.

4 Point Features

4.1 Places ("places")

Location for cities, towns, etc. Typically somewhere in the centre of the town.

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
population	INTEGER	Number of people living in this place	population=*

Note that for many places the population is not available and will be set to 0. For islands the population is always 0.

The following feature classes exist in this layer:

code	fclass		Description	OSM Tags
1000	place			
1001	place	city	As defined by national/state/provincial government. Often over 100,000 people	place=city (but see 1005)
1002	place	town	As defined by national/state/provincial government. Generally smaller than a city, between 10,000 and 100,000 people	place=town
1003	place	village	As defined by national/state/provincial government. Generally smaller than a town, below 10,000 people	place=village
1004	place	hamlet	As defined by national/state/provincial government. Generally smaller than a village, just a few houses	place=hamlet
1005	place	national_capital	A national capital	place=city with (a) is_capital=country or (b) admin_level=2 or (c) capital=yes and no admin_level set
1010	place	suburb	Named area of town or city	place=suburb
1020	place	island	Identifies an island	place=island
1030	place	farm	Named farm	place=farm
1031	place	dwelling	Isolated dwelling (1 or 2 houses, smaller than hamlet)	place=isolated_dwelling
1040	place	region	A region label (used in some areas only)	place=region
1041	place	county	A county label (used in some areas only)	place=county
1050	place	locality	Other kind of named place	place=locality
1099	place	named_place	see below.	area=yes, name=*

The "associated area layer" for this layer uses code 1099 for objects tagged "area=yes" but not having any tags that would put them into any of the other layers. Objects in this layer have either not been categorized in OSM at all, or they have been categorized but not in a way that fits any of the Geofabrik layers.

4.2 Points of Interest

This layer has an associated area layer (see section 2.8).

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
20xx	public			
2001		police	A police post or station.	amenity=police
2002		fire_station	A fire station.	amenity=fire_station
2004		post_box	A post box (for letters).	amenity=post_box
2005		post_office	A post office.	amenity=post_office
2006		telephone	A public telephone booth.	amenity=telephone
2007		library	A library.	amenity=library
2008		town_hall	A town hall.	amenity=townhall
2009		courthouse	A court house.	amenity=courthouse
2010		prison	A prison.	amenity=prison
2011		embassy	An embassy or consulate.	amenity=embassy or office=diplomatic
2012		community_centre	A public facility which is mostly used by local associations for events and festivities.	amenity=community_centre
2013		nursing_home	A home for disabled or elderly persons who need permanent care.	amenity=nursing_home
2014		arts_centre	A venue at which a variety of arts are performed or conducted, and may well be involved with the creation of those works, and run occasional courses.	amenity=arts_centre
2015		graveyard	A graveyard.	amenity=grave_yard or landuse=cemetery
2016		market_place	A place where markets are held.	amenity=marketplace
2030		recycling	A place (usually a container) where you can drop waste for recycling.	amenity=recycling with none of the specifics below
2031		recycling_glass	A place for recycling glass.	... recycling:glass=yes or recycling:glass_bottles=yes
2032		recycling_paper	A place for recycling paper.	... recycling:paper=yes
2033		recycling_clothes	A place for recycling clothes.	... recycling:clothes=yes
2034		recycling_metal	A place for recycling metal.	... recycling:scrap_metal=yes
208x			Education	
2081		university	A university.	amenity=university
2082		school	A school.	amenity=school
2083		kindergarten	A kindergarten (nursery).	amenity=kindergarten
2084		college	A college.	amenity=college
2099		public_building	An unspecified public building.	amenity=public_building
21xx	health			
2101		pharmacy	A pharmacy.	amenity=pharmacy
2110		hospital	A hospital.	amenity=hospital

code	layer	fclass	Description	OSM Tags
2120		doctors	A medical practice.	amenity=doctors
2121		dentist	A dentist's practice.	amenity=dentist
2129		veterinary	A veterinary (animal doctor)	amenity=veterinary
22xx	leisure			
2201		theatre	A theatre.	amenity=theatre
2202		nightclub	A night club, or disco.	amenity=nightclub
2203		cinema	A cinema.	amenity=cinema
2204		park	A park.	leisure=park
2205		playground	A playground for children.	leisure=playground
2206		dog_park	An area where dogs are allowed to run free without a leash.	leisure=dog_park
225x			Sports	
2251		sports_centre	A facility where a range of sports activities can be pursued.	leisure=sports_centre
2252		pitch	An area set aside for a specific sport.	leisure=pitch
2253		swimming_pool	A swimming pool or water park.	amenity=swimming_pool, leisure=swimming_pool, sport=swimming, leisure=water_park
2254		tennis_court	A tennis court.	sport=tennis
2255		golf_course	A golf course.	leisure=golf_course
2256		stadium	A stadium. The area of the stadium may contain one or several pitches.	leisure=stadium
2257		ice_rink	An ice rink.	leisure=ice_rink
23xx	catering		Catering services	
2301		restaurant	A normal restaurant.	amenity=restaurant
2302		fast_food	A fast-food restaurant.	amenity=fast_food
2303		cafe	A cafe.	amenity=cafe
2304		pub	A pub.	amenity=pub
2305		bar	A bar. The difference between a pub and a bar is not clear but pubs tend to offer food while bars do not.	amenity=bar
2306		food_court	A common seating area with various fast-food vendors.	amenity=food_court
2307		biergarten	An open-air area where food and drinks are served.	amenity=biergarten
24xx	accommodation		(indoor)	
2401		hotel	A hotel.	tourism=hotel
2402		motel	A motel.	tourism=motel
2403		bed_and_breakfast	A facility offering bed and breakfast.	tourism=bed_and_breakfast
2404		guesthouse	A guesthouse. The difference between hotel, bed and breakfast, and guest houses is not a strict one and OSM tends to use whatever the facility calls itself.	tourism=guest_house

code	layer	fclass	Description	OSM Tags
2405		hostel	A hostel (offering cheap accomodation, often bunk beds in dormitories).	tourism=hostel
2406		chalet	A detached cottage, usually self-catering.	tourism=chalet
2420			(outdoor)	
2421		shelter	All sorts of small shelters to protect against bad weather conditions.	amenity=shelter
2422		camp_site	A camp site or camping ground.	tourism=camp_site
2423		alpine_hut	An alpine hut is a building typically situated in mountains providing shelter and often food and beverages to visitors.	tourism=alpine_hut
2424		caravan_site	A place where people with caravans or motorhomes can stay overnight or longer.	tourism=caravan_site
25xx	shopping			
2501		supermarket	A supermarket.	shop=supermarket
2502		bakery	A bakery.	shop=bakery
2503		kiosk	A very small shop usually selling cigarettes, newspapers, sweets, snacks and beverages.	shop=kiosk
2504		mall	A shopping mall.	shop=mall
2505		department_store	A department store.	shop=department_store
2510		general	A general store, offering a broad range of products on a small area. Exists usually in rural and remote areas.	shop=general
2511		convenience	A convenience store is a small shop selling a subset of items you might find at a supermarket.	shop=convenience
2512		clothes	A clothes or fashion store.	shop=clothes
2513		florist	A store stelling flowers.	shop=florist
2514		chemist	A shop selling articles of personal hygiene, cosmetics, and household cleaning products.	shop=chemist
2515		bookshop	A book shop.	shop=books
2516		butcher	A butcher.	shop=butcher
2517		shoe_shop	A shoe shop.	shop=shoes
2518		beverages	A place where you can buy alcoholic and non-alcoholic beverages.	shop=alcohol, shop=beverages
2519		optician	A place where you can buy glasses.	shop=optician
2520		jeweller	A jewelry shop.	shop=jewelry
2521		gift_shop	A gift shop.	shop=gift
2522		sports_shop	A shop selling sports equipment.	shop=sports
2523		stationery	A shop selling stationery for private and office use.	shop=stationery
2524		outdoor_shop	A shop selling outdoor equiment.	shop=outdoor
2525		mobile_phone_shop	A shop for mobile phones.	shop=mobile_phone

code	layer	fclass	Description	OSM Tags
2526		toy_shop	A toy store.	shop=toys
2527		newsagent	A show selling mainly newspapers and magazines.	shop=newsagent
2528		greengrocer	A shop selling fruit and vegetables.	shop=greengrocer
2529		beauty_shop	A shop that provides personal beauty services like a nail salon or tanning salon.	shop=beauty
2530		video_shop	A place where you can buy films.	shop=video
2541		car_dealership	A car dealership.	shop=car
2542		bicycle_shop	A bicycle shop.	shop=bicycle
2543		doityourself	A do-it-yourself shop where you can buy tools and building materials.	shop=doityourself and shop=hardware
2544		furniture_shop	A furniture store.	shop=furniture
2546		computer_shop	A computer shop.	shop=computer
2547		garden_centre	A place selling plants and gardening goods.	shop=garden_centre
2561		hairdresser	A hair salon.	shop=hairdresser
2562		car_repair	A car garage.	shop=car_repair
2563		car_rental	A place where you can rent a car.	amenity=car_rental
2564		car_wash	A car wash.	amenity=car_wash
2565		car_sharing	A car sharing station.	amenity=car_sharing
2566		bicycle_rental	A place where you can rent bicycles.	amenity=bicycle_rental
2567		travel_agent	A travel agency.	shop=travel_agency
2568		laundry	A place where you can wash clothes or have them cleaned.	shop=laundry, shop=dry_cleaning
2590		vending_machine	An unspecified vending machine.	amenity=vending_machine with none of the specifics below
2591		vending_cigarette	A cigarette vending machine.	vending=cigarettes
2592		vending_parking	A vending machine for parking tickets.	vending=parking_tickets
2600	money			
2601		bank	A bank.	amenity=bank
2602		atm	A machine that lets you withdraw cash from your bank account.	amenity=atm
2700	tourism		information	
2701		tourist_info	Something that provides information to tourists; may or many not be manned.	tourism=information with none of the specifics below
2704		tourist_map	A map displayed to inform tourists.	tourism_information and information=map
2705		tourist_board	A board with explanations aimed at tourists.	and information=board
2706		tourist_guidepost	A guide post.	and information=guidepost
			destinations	
2721		attraction	A tourist attraction.	tourism=attraction
2722		museum	A museum.	tourism=museum
2723		monument	A monument.	historic=monument

code	layer	fclass	Description	OSM Tags
2724		memorial	A memorial.	historic=memorial
2725		art	A permanent work of art.	tourism=artwork
2731		castle	A castle.	historic=castle
2732		ruins	Ruins of historic significance.	historic=ruins
2733		archaeological	An excavation site.	historic=archaeological_site
2734		wayside_cross	A wayside cross, not necessarily old.	historic=wayside_criss
2735		wayside_shrine	A wayside shrine.	historic=wayside_shrine
2736		battlefield	A historic battlefield.	historic=battlefield
2737		fort	A fort.	historic=fort
2741		picnic_site	A picnic site.	tourism=picnic_site
2742		viewpoint	A viewpoint.	tourism=viewpoint
2743		zoo	A zoo.	tourism=zoo
2744		theme_park	A theme park.	tourism=theme_park
2900	miscpoi			
2901		toilet	Public toilets.	amenity=toilets
2902		bench	A public bench.	amenity=bench
2903		drinking_water	A tap or other source of drinking water.	amenity=drinking_water
2904		fountain	A fountain for cultural, decorative, or recreational purposes.	amenity=fountain
2905		hunting_stand	A hunting stand.	amenity=hunting_stand
2906		waste_basket	A waste basket.	amenity=waste_basket
2907		camera_surveillance	A surveillance camera.	man_made=surveillance
2921		emergency_phone	An emergency telephone.	amenity=emergency_phone, emergency=phone
2922		fire_hydrant	A firy hydrant.	amenity=fire_hydrant, emergency=fire_hydrant
2923		emergency_access	An emergency access point (signposted place in e.g. woods the location of which is known to emergency services).	highway=emergency_access _point
2950		tower	A tower of some kind.	man_made=tower and none of the specifics below
2951		tower_comms	A communications tower.	man_made=tower and tower:type=communication
2952		water_tower	A water tower.	man_made=water_tower
2953		tower_observation	An observation tower.	man_made=tower and tower:type=observation
2954		windmill	A windmill.	man_made=windmill
2955		lighthouse	A lighthouse.	man_made=lighthouse
2961		wastewater_plant	A wastewater treatment plant.	man_made=wastewater_plant
2962		water_well	A facility to access underground aquifers.	man_made=water_well
2963		water_mill	A mill driven by water. Often historic.	man_made=watermill
2964		water_works	A place where drinking water is processed.	man_made=water_works

4.3 Places of Worship ("pofw")

This layer has an associated area layer (see section 2.8).

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
3000	**pofw**		**Places of worship**	
3100	pofw	christian	A christian place of worship (usually a church) without one of the denominations below.	amenity=place_of_worship + religion=christian
3101	pofw	christian_anglican	A christian place of worship where the denomination is known. (Note to German users: "protestant" is "evangelisch" in German; "evangelical" is "evangelikal" in German.)	+ denomination=anglican
3102	pofw	christian_catholic		+ denomination=catholic
3103	pofw	christian_evangelical		+ denomination=evangelical
3104	pofw	christian_lutheran		+ denomination=lutheran
3105	pofw	christian_methodist		+ denomination=methodist
3106	pofw	christian_orthodox		+ denomination=orthodox
3107	pofw	christian_protestant		+ denomination=protestant
3108	pofw	christian_baptist		+ denomination=baptist
3109	pofw	christian_mormon		+ denomination=mormon
3200	pofw	jewish	A jewish place of worship (usually a synagogue).	amenity=place_of_worship + religion=jewish
3300	pofw	muslim	A muslim place of worhsip, (usually a mosque) without one of the denominations below.	amenity=place_of_worship + religion=muslim
3301	pofw	muslim_sunni	A Sunni muslim place of worship.	+ denomination=sunni
3302	pofw	muslim_shia	A Shia muslim place of worship.	+ denomination=shia
3400	pofw	buddhist	A Buddhist place of worship.	amenity=place_of_worship + religion=buddhist
3500	pofw	hindu	A Hindu place of worship.	amenity=place_of_worship + religion=hindu
3600	pofw	taoist	A Taoist place of worship.	amenity=place_of_worship + religion=taoist
3700	pofw	shintoist	A Shintoist place of worship.	amenity=place_of_worship + religion=shintoist
3800	pofw	sikh	A Sikh place of worship.	amenity=place_of_worship + religion=sikh

4.4 Natural Features ("natural")

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
elevation	INTEGER	Height of the feature above mean sea level, in metres.	elevation=*

Note that for many features the elevation is not available and will be set to 0.

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
4101	natural	spring	A spring, possibly source of a stream.	natural=spring
4103	natural	glacier	A glacier.	natural=glacier
4111	natural	peak	A mountain peak.	natural=peak
4112	natural	cliff	A cliff.	natural=cliff
4113	natural	volcano	A volcano.	natural=volcano
4121	natural	tree	A tree.	natural=tree
4131	natural	mine	A mine.	natural=mine
4132	natural	cave_entrance	A cave entrance.	natural=cave_entrance
4141	natural	beach	A beach. (Note that beaches are only rarely mapped as point features.)	natural=beach

4.5 Traffic Related ("traffic")

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
ref	VARCHAR(8)	Reference number (only common for motorway_junction (5206) but may also exist for other feature classes of this layer)	ref=*

This layer has an associated area layer (see section 2.8). The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
5201	traffic	traffic_signals	Traffic lights.	highway=traffic_signals
5202	traffic	mini_roundabout	A small roundabout without physical strucutre, usually just painted onto the road surface.	highway=mini_roundabout
5203	traffic	stop	A stop sign.	highway=stop
5204	traffic	crossing	A place where the street is crossed by pedestrians or a railway.	highway=crossing, railway=level_crossing
5205	traffic	ford	A place where the road runs through a river or stream.	highway=ford
5206	traffic	motorway_junction	The place where a slipway enters or leaves a motorway.	highway=motorway_junction
5207	traffic	turning_circle	An area at the end of a street where vehicles can turn.	highway=turning_circle
5208	traffic	speed_camera	A camera that photographs speeding vehicles.	highway=speed_camera
5209	traffic	street_lamp	A lamp illuminating the road.	highway=street_lamp
5210	traffic	barrier	Barriers	barrier=* (unless one of the cases below)
5211	traffic	barrier_gate	A gate.	barrier=gate
5212	traffic	barrier_bollard	A bollard intended as a barrier against wide vehicles.	barrier=bollard
5213	traffic	barrier_lift_gate	A gate that can be lifted.	barrier=lift_gate
5214	traffic	barrier_stile	A stile that allows climbing over a wall or fence.	barrier=stile, highway=stile
5215	traffic	barrier_cycle	A barrier that keeps out cyclists.	barrier=cycle_barrier

code	layer	fclass	Description	OSM Tags
5216	traffic	barrier_fence	A fence.	barrier=fence
5217	traffic	barrier_toll	A place where you have to pay toll to continue.	barrier=toll_booth
5218	traffic	barrier_block	A solid concrete block or rock impeding traffic.	barrier=block
5219	traffic	barrier_kissing_gate	A kissing gate.	barrier=kissing_gate
5220	traffic	barrier_cattle_grid	A cattle grid.	barrier=cattle_grid
5230	traffic	calming	Traffic Calming	traffic_calming with none of the values below
5231	traffic	calming_hump	A hump in the street surface.	traffic_calming=hump
5232	traffic	calming_bump	A bump – shorter than a hump.	...bump
5233	traffic	calming_table	A table – longer than a hump.	...table
5234	traffic	calming_chicane	Some kind of traffic calming hazard in the street that has to be navigated.	...chicane
5235	traffic	calming_cushion	A special kind of hump that allows cyclists and wide vehicles to pass without slowing down.	...cushion
			Fuel and Parking	
5250	traffic	fuel	A gas station.	amenity=fuel
5251	traffic	service	A service area, usually along motorways.	highway=services
5260	traffic	parking	A car park of unknown type.	amenity=parking with none of the specifics below
5261	traffic	parking_site	A surface car park.	amenity=parking and... ... parking=site
5262	traffic	parking_multistorey	A multi storey car park.	... parking=multi-storey
5263	traffic	parking_underground	An underground car park.	... parking=underground
5270	traffic	parking_bicycle	A place to park your bicycle.	amenity=bicycle_parking
			Water Traffic	
5301	traffic	slipway	A slipway.	leisure=slipway
5302	traffic	marina	A marina.	leisure=marina
5303	traffic	pier	A pier.	man_made=pier
5311	traffic	dam	A dam.	waterway=dam
5321	traffic	waterfall	A waterfall.	waterway=waterfall
5331	traffic	lock_gate	A lock gate.	waterway=lock_gate
5332	traffic	weir	A barrier built across a river or stream.	waterway=weir

Note: Most of the 53xx type objects do sometimes appear as linear features in OSM as well but those are not yet available in the shape files.

4.6 Transport Infrastructure ("transport")

This layer has an associated area layer (see section 2.8).

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
5601	transport	railway_station	A larger railway station of mainline rail services.	railway=station

code	layer	fclass	Description	OSM Tags
5602	transport	railway_halt	A smaller, local railway station, or subway station.	railway=halt, or public_transport=stop_position + train=yes
5603	transport	tram_stop	A tram stop.	railway=tram_stop, or public_transport=stop_position + tram=yes
5621	transport	bus_stop	A bus stop.	highway=bus_stop, or public_transport=stop_position + bus=yes
5622	transport	bus_station	A large bus station with multiple platforms.	amenity=bus_station
5641	transport	taxi_rank	A taxi rank.	amenity=taxi
565x			Air Traffic	
5651	transport	airport	A large airport.	amenity=airport or aeroway=aerodrome unless type=airstrip
5652	transport	airfield	A small airport or airfield.	aeroway=airfield, military=airfield, aeroway=aeroway with type=airstrip
5655	transport	helipad	A place for landing helicopters.	aeroway=helipad
5656	transport	apron	A apron (area where aircraft are parked)	aeroway=apron
566x			Water Traffic	
5661	transport	ferry_terminal	A ferry terminal.	amenity=ferry_terminal
567x			Other Traffic	
5671	transport	aerialway_station	A station where cable cars or lifts alight.	aerialway=station

4.7 Power Generation and Distribution ("power")

This layer has an associated area layer (see section 2.8).

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
6401	power	tower	A towers supporting power lines.	power=tower
6204	power	pole	A pole supporting power lines.	power=pole
6410	power	station	A power station where the power source is not specified.	power=generator with none of the specifics below
6411	power	station_nuclear	A nuclear power station.	power=generator with generator:source=nuclear
6412	power	station_solar	A solar power station.	with generator:source=solar or power_source=photovoltaic
6413	power	station_fossil	A power station burning fossil fuels.	with generator:source=gas or coal
6414	power	station_water	A hydroelectric power station.	with generator:source=hydro or power_source=hydro
6415	power	station_wind	A wind turbine, or park thereof.	with generator:source=wind or power_source=wind
6422	power	substation	A power substations or relay station.	power=station power=sub_station

code	layer	fclass	Description	OSM Tags
6423	power	transformer	A power transformer within a station or substation.	power=transformer

5 Line Features

5.1 Boundaries ("boundaries")

OSM currently uses up to 11 different levels for administrative boundaries. Boundaries currently don't have a name attribute.

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
1100	boundary			boundary=administrative
1101	boundary	admin_level1		+ admin_level=1
1102	boundary	national	National border	+ admin_level=2
1103	boundary	admin_level3		+ admin_level=3
1104	boundary	admin_level4	Usually a border of the first level below national; NUTS-2 (Germany: Land, France: région, UK: England/ Scotland/Wales…).	+ admin_level=4
1105	boundary	admin_level5		+ admin_level=5
1106	boundary	admin_level6	Usually a border of the second level below national; NUTS-3 (Germany: Kreis, France: département, UK: county…).	+ admin_level=6
1107	boundary	admin_level7		+ admin_level=7
1108	boundary	admin_level8	Usually a city or borough boundary.	+ admin_level=8
1109	boundary	admin_level9		+ admin_level=9
1110	boundary	admin_level10		+ admin_level=10
1111	boundary	admin_level11		+ admin_level=11

The exact meaning of the admin_levels 1 to 11 varies between countries and is documented in detail on the OpenStreetMap Wiki: http://wiki.openstreetmap.org/wiki/Admin_level. Other levels depend on the country they are in.

See section 6.1 for polygonal administrative areas. It is recommended to use the line features if all you need is borders drawn, but use polygons if you need to test feature for lying inside or outside of an area.

5.2 Roads and Paths ("roads")

All kinds of roads from motorways to gravel tracks as well as cycleways, footpaths, etc.

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
ref	VARCHAR(20)	Reference number of this road ('A 5', 'L 605', …)	ref=*
oneway	VARCHAR(1)	Is this a oneway road? ("F" means that only driving in direction of the linestring is allowed. "T" means that only driving against the direction of the linestring is allowed. "B" (default value) means that traffic is permitted in both directions.	oneway=*
maxspeed	SMALLINT	Max allowed speed in km/h	maxspeed=*
layer	SMALLINT	Relative layering of roads (-5, …, 0, …, 5)	layer=*
bridge	VARCHAR(1)	Is this road on a bridge? ("T" = true, "F" = false)	bridge=*
tunnel	VARCHAR(1)	Is this road in a tunnel? ("T" = true, "F" = false)	tunnel=*
surface	VARCHAR(20)	The road surface, if specified. Common values are "asphalt", "unpaved", "paved", "ground", "gravel", "concrete", "paving_stones", "dirt", and "grass" but others are possible.	surface=*

Roads of type 5111 (motorway) and 5112 (trunk) are always oneway.

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
511x	roads		**Major roads**	
5111	roads	motorway	Motorway/freeway	highway=motorway
5112	roads	trunk	Important roads, typically divided	highway=trunk
5113	roads	primary	Primary roads, typically national.	highway=primary
5114	roads	secondary	Secondary roads, typically regional.	highway=secondary
5115	roads	tertiary	Tertiary roads, typically local.	highway=tertiary
512x	roads		**Minor Roads**	
5121	roads	unclassified	Smaller local roads	highway=unclassified
5122	roads	residential	Roads in residential areas	highway=residential
5123	roads	living_street	Streets where pedestrians have priority over cars	highway=living_street
5124	roads	pedestrian	Pedestrian only streets	highway=pedestrian
5125	roads	busway	Dedicated roads for bus, usually closed for any mode of transport except public transport.	highway=busway
513x	roads		**Highway links (sliproads/ramps)**	
5131	roads	motorway_link	Roads that connect from one road to another of the same of lower category.	highway=motorway_link
5132	roads	trunk_link		highway=trunk_link
5133	roads	primary_link		highway=primary_link
5134	roads	secondary_link		highway=secondary_link
5135	roads	tertiary_link		highway=tertiary_link
514x	roads		**Very small roads**	
5141	roads	service	Service roads for access to buildings, parking lots, etc.	highway=service
5142	roads	track	For agricultural use, in forests, etc. Often gravel roads.	highway=track without tracktype specification
5143	roads	track_grade1	Tracks can be assigned a "tracktype" from 1 (asphalt or heavily compacted) to 5 (hardly visible). A detailed description is here: http://wiki.openstreetmap.org/wiki/Tracktyp	… with tracktype=grade1
5144	roads	track_grade2		… with tracktype=grade2
5145	roads	track_grade3		… with tracktype=grade3
5146	roads	track_grade4		… with tracktype=grade4

code	layer	fclass	Description	OSM Tags
5147	roads	track_grade5	e	… with tracktype=grade5

code	layer	fclass	Description	OSM Tags
515x	roads		**Paths unsuitable for cars**	
5151	roads	bridleway	Paths for horse riding	highway=bridleway or highway=path with horse=designated
5152	roads	cycleway	Paths for cycling	highway=cycleway or highway=path with cycle=designated
5153	roads	footway	Footpaths	highway=footway or highway=path with foot=designated
5154	roads	path	Unspecified paths	highway=path without cycle/foot/horse=designated
5155	roads	steps	Flights of steps on footpaths	highway=steps
516x	roads		**Ferries**	
5160	roads	ferry	Ferry routes	route=ferry
			Unknown	
5199	roads	unknown	Unknown type of road or path	highway=road

5.3   Railways, Subways, Trams, Lifts, and Cable Cars ("railways")

Railways do not have a name attribute. Instead, they have the following additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
layer	SMALLINT	Relative layering of railways/roads (-5, …, 0, …, 5)	layer=*
bridge	VARCHAR(1)	Is this road on a bridge? ("T" = true, "F" = false)	bridge=*
tunnel	VARCHAR(1)	Is this road in a tunnel? ("T" = true, "F" = false)	tunnel=*
electr	VARCHAR(25)	Electrification ("no", "contact_line", "rail") if available. See https://wiki.openstreetmap.org/wiki/Key:electrified for details.	electrification=*
service	VARCHAR(20)	Type of minor track if it is any (empty for major tracks): "siding", "crossover", "yard", "spur". See https://wiki.openstreetmap.org/wiki/Key:service#Railways for details.	service=*

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
6101	railways	rail	Regular railway tracks.	railway=rail (unless traction=* also set)
6102	railways	light_rail	Light railway tracks, often commuter railways.	railway=light_rail
6103	railways	subway	Underground railway tracks.	railway=subway
6104	railways	tram	Tram tracks (may be incident with roads).	railway=tram
6105	railways	monorail	A monorail track.	railway=monorail

code	layer	fclass	Description	OSM Tags
6106	railways	narrow_gauge	A narrow gauge railway track.	railway=narrow_gauge
6107	railways	miniature	A miniature railway track.	railway=miniature
6108	railways	funicular	A funicular, or cable railway usually on a steep incline.	railway=funicular, or railway=rail with traction=funicular
6109	railways	rack	A rack railway	railway=rack, or railway=rail with traction=rack or railway=rail with rack=yes
6111	railways	drag_lift	An overhead tow-line for skiers.	aerialway=drag_lift
6112	railways	chair_lift	An open chairlift run.	aerialway=chair_lift or high_speed_chair_lift
6113	railways	cable_car	A cabin cable car run.	aerialway=cable_car
6114	railways	gondola	An aerialway where the cabins go around in a circle,	aerialway=gondola
6115	railways	goods	An aerialway for the transport of goods.	aerialway=goods
6119	railways	other_lift	Another type of lift.	aerialway=one of platter, t-bar, j-bar, magic_carpet, zip_line, rope_tow, or mixed_lift

5.4 Waterways ("waterways")

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
width	SMALLINT	Width of the waterway in metres.	width=*

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
8101	waterways	river	A large river.	waterway=river
8102	waterways	stream	A smaller river or stream.	waterway=stream
8103	waterways	canal	An artificial waterway.	waterway=canal
8104	waterways	drain	A small drainage ditch or similar structure.	waterway=drain

Note that in OSM larger rivers are often available as polygon geometries and line geometries; the line geometry will then run through the middle of the river in the direction of the water flow.

5.5 Coastline ("coastline")

Only the code 8300 is used. Coastlines don't have a name attribute.

5.6 Power lines ("powerlines")

Power lines don't have a name attribute.

code	layer	fclass	Description	OSM Tags
6600	powerlines	line	A regular power line.	power=line

code	layer	fclass	Description	OSM Tags
6601	powerlines	minor_line	A smaller power line usually supported by poles, not masts.	power=minor_line
6611	powerlines	cable	An underground or submarine power cable.	power=cable
6612	powerlines	minor_cable	A smaller underground or submarine power cable.	power=minor_cable

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
operator	VARCHAR(30)	Operator/owner of infrastructure	operator=*

Note: Some power lines in OpenStreetMap are modelled as relations and are not yet included in this layer. Contact Geofabrik for details.

5.7 Runways and taxiways

This layer contains runways and taxiways. There is a layer with an "_a" suffix which contains those which are mapped as areas at OpenStreetMap and there is a layer without an that suffix which contains those which are mapped as lines.

code	layer	fclass	Description	OSM Tags
6701	aeroways	runway	Runway at an airport	aeroway=runway
6702	aeroways	taxiway	Taxiway at an airport	aeroway=taxiway

5.8 Infrastructure disused, planned, under construction ("nonop")

This layer contains roads and railways which are disused, planned, under construction or abandoned. These elements have been placed in a separate layer because they are not usable for traffic; yet for some applications they may be relevant.

This layer uses the codes from the "roads" and "railways" layers incremented by integral multiples of 100. The names of the feature classes are appended by the suffixes "_proposed", "_construction", "_disused" and "_abandoned" depending on their operational status.

code range	layer	fclasses	Description	OSM Tags
53xx	nonop	motorway_proposed/ trunk_proposed/...	Proposed roads.	highway=proposed with proposed=motorway/trunk/...
54xx	nonop	motorway_construction/ trunk_construction/...	Roads under construction.	highway=construction with construction=motorway/trunk/...
55xx	nonop	motorway_disused/ trunk_disused	Disused roads. Road still exists but is closed and not used any more. Paving may be covered by vegetation.	highway=disused with disused=motorway/trunk/...
56xx	nonop	motorway_abandoned/ trunk_abandoned	Paving has been removed but it is still clearly visble that ther was a road.	highway=abandoned with abandoned=motorway/tr

code range	layer	fclasses	Description	OSM Tags
				unk/...
62xx	nonop	rail_proposed/ light_rail_proposed/...	Proposed railway tracks.	railway=proposed with proposed=rail/light_rail/ ... or railway=proposed with proposed:railway=rail/light_rail/...
6200	nonop	other_rail_proposed	Proposed railway tracks but exact railway type (railway, light rail, tram, subway ...) not given.	railway=proposed without both proposed=* a and proposed:railway=*
63xx	nonop	rail_construction/ light_rail_construction/...	Railway tracks under construction.	railway=construction with construction=rail/light_rail/... or railway= construction with construction:railway=rail/light_rail/...
6300	nonop	other_rail_construction	Railway tracks under construction but exact railway type (railway, light rail, tram, subway ...) not given.	railway=construction without both construction=* a and construction:railway=*
64xx	nonop	rail_disused/ light_rail_disused/...	Disused railway tracks.	railway=disused with disused=rail/light_rail/... or railway=disused with disused:railway=rail/light _rail/...
6400	nonop	other_rail_disused	Proposed railway tracks but exact railway type (railway, light rail, tram, subway ...) not given.	railway=disused without both disused=* a and proposed:railway=*
65xx	nonop	rail_abandoned/ light_rail_abandoned/...	Abandoned railway tracks, i.e. rails and sleepers have been removed but ballast is still in place.	railway=abandoned with abandoned=rail/light_rail /... or railway= abandoned with abandoned:railway=rail/light_rail/...
6500	nonop	other_rail_abandoned	Abandoned ailway tracks but exact railway type (railway, light rail, tram, subway ...) not given. Rails and sleepers have been removed but ballast is still in place.	railway=construction without both construction=* a and construction:railway=*

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
ref	VARCHAR(20)	Reference number of this road ('A 5', 'L 605', ...); unset for railways.	ref=*
layer	SMALLINT	Relative layering of roads (-5, ..., 0, ..., 5)	layer=*
bridge	VARCHAR(1)	Is this road/railway on a bridge? ("T" = true, "F" = false)	bridge=*
tunnel	VARCHAR(1)	Is this road/railway in a tunnel? ("T" = true, "F" = false)	tunnel=*

5.9   Barrier-type linear features ("barriers")

This layer contains natural or man-made barrier lines, like fences, hedges, or walls.

code	layer	fclass	Description	OSM Tags
5501	barriers	fence	A fence.	barrier=fence, wood_fence, wire_fence
5511	barriers	hedge	A hedge.	barrier=hedge
5512	barriers	tree_row	A row of trees.	barrier=tree_row
5521	barriers	wall	A wall.	barrier=wall
5531	barriers	dyke	A dyke.	man_made=dyke

6   Polygon Features

Polygon features are extracted from simple polygons and from multipolygons in OSM.

6.1   Administrative Areas ("adminareas")

This layer is similar the the "boundaries" layer but it contains polygons built from boundary lines. This layer does have a name attribute.

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
postalcode	VARCHAR(10)	Postal code for this administrative area. Postal codes are only available for a few administrative areas, they are not necessarily unique.	postal_code=*

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
1200	adminareas			boundary=administrative
1201	adminareas	admin_level1		+ admin_level=1
1202	adminareas	national	National border	+ admin_level=2
1203	adminareas	admin_level3		+ admin_level=3
1204	adminareas	admin_level4	Usually a border of the first level below national; NUTS-2 (Germany: Land, France: région, UK: England/ Scotland/Wales…).	+ admin_level=4
1205	adminareas	admin_level5		+ admin_level=5
1206	adminareas	admin_level6	Usually a border of the second level below national; NUTS-3 (Germany: Kreis, France: département, UK: county…).	+ admin_level=6
1207	adminareas	admin_level7		+ admin_level=7
1208	adminareas	admin_level8	Usually a city or borough boundary.	+ admin_level=8
1209	adminareas	admin_level9		+ admin_level=9
1210	adminareas	admin_level10		+ admin_level=10
1211	adminareas	admin_level11		+ admin_level=11

Note that due to editing errors introduced by OpenStreetMap contributors and also due to lack

of data in some areas, there is no guarantee that these areas are complete; there may always be missing bits. Contact Geofabrik if you are interested in a redacted data set.

The exact meaning of the admin_levels 1 to 11 varies between countries and is documented in detail on the OpenStreetMap Wiki: http://wiki.openstreetmap.org/wiki/Admin_level

6.2 Building outlines ("buildings")

Buildings don't have a name attribute.

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
type	VARCHAR(20)	The type of building, if specified in OSM; otherwise empty.	building=(anything other than yes)
height	SMALLINT	Height of the building.	height=* (building:height=* if height=* is not set)
levels	SMALLINT	Number of floors	building:levels=*

The following feature classes exist in this layer:

code	layer	fclass	Description	
1500	buildings		Building outlines	building=*

6.3 Land use and land cover ("landuse")

The following feature classes exist in this layer:

code	layer	fclass	Description	OSM Tags
7201	landuse	forest	A forest or woodland.	landuse=forest, natural=wood
7202	landuse	park	A park.	leisure=park, leisure=common
7203	landuse	residential	A residential area.	landuse=residential
7204	landuse	industrial	An industrial area.	landuse=industrial
7206	landuse	cemetery	A cemetery or graveyard.	landuse=cemetery
7207	landuse	allotments	An area with small private gardens.	landuse=allotments
7208	landuse	meadow	A meadow, possibly used for grazing cattle.	landuse=meadow
7209	landuse	commercial	A commercial area.	landuse=commercial
7210	landuse	nature_reserve	A nature reserve.	leisure=nature_reserve
7211	landuse	recreation_ground	An open green space for general recreation.	leisure=recreation_ground or landuse_recreation_ground
7212	landuse	retail	An area mainly used by shops.	landuse=retail
7213	landuse	military	Military landuse, usually no access for civilians.	landuse=military
7214	landuse	quarry	A quarry.	landuse=quarry
7215	landuse	orchard	An area used for growing fruit-bearing trees.	landuse=orchard
7216	landuse	vineyard	An area used for growing grapes.	landuse=vineyard

code	layer	fclass	Description	OSM Tags
7217	landuse	scrub	An area where scrub grows.	landuse=scrub
7218	landuse	grass	An area where grass grows.	landuse=grass
7219	landuse	heath	Heath areas.	natural=heath
7220	landuse	national_park	A national park.	boundary=national_park
7221	landuse	basin	A basin.	landuse=basin
7222	landuse	village_green	A green area in the centre of a village.	landuse=village_green
7223	landuse	plant_nursery	Areas where plant nurseries exist.	landuse=plant_nursery
7224	landuse	brownfield	Land where old buildings have been demolished and cleared.	landuse=brownfield
7225	landuse	greenfield	Land scheduled for new development where there have been no buildings before.	landuse=greenfield
7226	landuse	construction	A construction site.	landuse=construction
7227	landuse	railway	Area used for railway operations. Not all land used for railway is covered by this type.	landuse=railway
7228	landuse	farmland	Agricultural land (areas where crops are grown)	landuse=farmland
7229	landuse	farmyard	Area of land with farm buildings and the shrubbery/trees around them.	landuse=farmyard

6.4 Bodies of Water ("water")

The following feature classes exist in this layer:

code	layer	fclass	Description	
8200	water	water	Unspecified bodies of water. Typically lakes, but can also be larger rivers, harbours, etc.	natural=water + water! =river/reservoir
8201	water	reservoir	Artificial lakes, typically above a dam.	landuse=reservoir, natural=water + water=reservoir
8202	water	river	Polygons for larger rivers.	waterway=riverbank, natural=water + water=river
8203	water	dock	Dock (to repair ships, don't confuse it with the American term "dock")	waterway=dock
8211	water	glacier	Glaciers	natural=glacier
8221	water	wetland	Wetland	natural=wetland

Note that in OSM larger rivers are often available as polygon geometries and line geometries; the line geometry will then run through the middle of the river in the direction of the water flow.

6.5 Landmass and Oceans

The Geofabrik shape files do not come with landmass or ocean polygons built from coastline data. However, there are free shapefile downloads provided here which are regularly extracted from OSM:

http://openstreetmapdata.com/

You'll find both ocean polygons and land mass polygons there, as well several generalized data sets.

7 Routes

Routes are extracted from OpenStreetMap relation objects which have the tag type=route.

7.1 Routes

Additional attributes:

Attribute	PostGIS Type	Description	OSM Tags
ref	VARCHAR(100)	Reference number/code of this route.	ref=*
name	VARCHAR(100)	Name of the route. This might be sometimes more a description than a real name.	name=*
operator	VARCHAR(100)	Operator of this route.	operator=*
network	VARCHAR(20)	Network hiearchy. Common values: • nwn: national hiking route • rwn: regional hiking route • lwn: local hiking route • ncn: national cylce route • rcn: regional cycle route • lcn: local cycle route	network=*
osmc_symb	VARCHAR(100)	machine-readable description of the hiking path symbol, full documentation see https://wiki.openstreetmap.org/wiki/Key:osmc:symbol	osmc:symbol=*

The following feature classes exist in this layer:

code	layer	fclass	Description	
9001	routes	bicycle	cycle route	route=bicycle
9002	routes	mtb	route for moutain bikes	route=mtb
9003	routes	hiking	hiking route	route=hiking
9004	routes	horse	riding route	route=horse
9005	routes	nordic_walking	nordic walking route	route=nordic_walking
9006	routes	running	running route	route=running

7.2 Cycle Route Segments

Sometimes cycle routes do either have no proper name or reference number or they are just mapped as an additional attribute to the roads they use. No long route multilinestrings can be derived in these cases as they are available in the routes layer. Instead, these road segments are included in the cycle route segment.

These segments can overlap with mapped route relations from the routes layer. It is recommended to use the content in this layer as a fallback for the routes layer.

The following feature classes exist in this layer:

code	layer	fclass	Description	
9102	cycle_route_segments	regional_cycle_network	regional cycle route (usally county level)	rcn=yes
9102	cycle_route_segments	local_cycle_network	local cycle route (usally municipal level)	lcn=yes

8 Migrating from Free Shape Files

There are some differences between the free shape files provided by Geofabrik at download.geofabrik.de and the shapefiles described in this document.

8.1 Associated Area Layer

If a feature class exists both as area and as points in OpenStreetMap, point layers of paid shape files will contain a centroid point of the area. The geomtype field of this objects is set to "P" (polygon). Exclude all objects of a point layer with geomtype=P to prevent pois mapped as areas in OpenStreetMap being drawn twice.

8.2 Additional Layers

Following layers are not part of the free shape files:

Geometry	Code	Layer	Description
Point			
	64xx	power	Power generators, substations, ...
Line			
	11xx	boundaries	Borders between countries ...
	55xx	barriers	Natural or man-made barrier lines like fence, hedges or walls
	66xx	powerlines	Power lines
	67xx	aeroways	Runways and taxiways at airports
	83xx	coastline	Coastline
	53xx, 54xx, 55xx, 56xx, 62xx, 63xx, 64xx, 65xx	nonop	Roads and railways planned, under construction, or disused
	91xx	cycle_route_segments	Roads of cycle roads which are not available in the routes layer (codes 90xx).
Polygon			
	12xx	adminareas	Administrative areas (countries, states, counties, ...)
MultiLineString			
	90xx	routes	Routes for cycling, hiking, moutain bikes, nordic walking and running

8.3   Additional Feature Classes

The following table shows all feature classes which are not part of the free shape files. Feature classes which are part of layers given at section 8.2 are not listed here.

code(s)	layer	fclass(es)
1005	places	national_capital
565x	transport	airport, airfield, helipad
5671	transport	aerialway_station
2524	pois	outdoor_shop
2525	pois	mobile_phone_shop
2529	pois	beauty_shop
2530	pois	video_shop
2541	pois	car_dealership
2544	pois	furniture_shop
2923	pois	emergency_access_point
4103	natural	glacier
4121	natural	tree
5208	traffic	speed_camera
5209	traffic	street_lamp
521x, 522x	traffic	barriers on roads and pathes, e.g. lift gates and bollards
523x	traffic	traffic calming
7210	landuse	nature_reserve
7220	landuse	national_park
7221	landuse	basin
7222	landuse	village_green
7223	landuse	plant_nursery
7224	landuse	brownfield
7225	landuse	greenfield
7226	landuse	construction
7227	landuse	railway
8211	water	glacier
611x	railways	drag_lift, chair_lift, cable_car, gondola, goods, other_lift

8.4   Additional Fields

The following fields are not available in the free shape files:

Layer	Attribute	PostGIS Type	Description	OSM Tags
all layers	lastchange	TIMESTAMP WITHOUT TIME ZONE	Last change of this feature. Comes from the OSM last_changed attribute. Reflects changes in the attributes of a feature; changes in the geometry will not necessarily change this.	
natural	elevation	INTEGER	Height of the feature above mean sea level, in metres.	elevation=*
roads	maxspeed	SMALLINT	Max allowed speed in km/h	maxspeed=*
roads	surface	VARCHAR (20)	The surface of the road	surface=*

Layer	Attribute	PostGIS Type	Description	OSM Tags
railways	electr	VARCHAR (25)	Electrification	electrified=*
railways	service	VARCHAR (20)	Type of minor track if it is any	service=*
traffic	ref	VARCHAR (8)	Reference number (motorway junctions)	ref=*
buildings	height	SMALLINT	Height of the building.	height=*
buildings	levels	SMALLINT	Number of floors	building:levels=*