



The Geofabrik Download Server

What it does & how it works

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SOTM-US, San Francisco
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What it does

- cuts “planet file” in handy pieces
- daily updates
- Shapefiles

new:

- regional diff updates
- collection of older files for each region



OpenStreetMap Data Extracts

🇬🇧 New site layout - we've tried to make it so that any old saved links still work; do tell us if there's a problem!

Welcome to Geofabrik's free download server. This server has data extracts from the [OpenStreetMap project](#) which are normally updated every day. Select your continent and then your country of interest from the list below. (If you have been directed to this page from elsewhere and are not familiar with OpenStreetMap, we highly recommend that you read up on OSM before you use the data.) This download service is offered for free by Geofabrik GmbH.

🇩🇪 Neue Webseiten-Struktur - Alle alten gespeicherten Links sollten aber trotzdem noch funktionieren.

Willkommen auf dem Geofabrik-Downloadserver. Hier gibt es Daten-Auszüge aus dem [OpenStreetMap-Projekt](#), die normalerweise täglich aktualisiert werden. Wählen Sie aus dem Verzeichnis unten den Kontinent und ggf. das Land, für die Sie Daten benötigen. (Wenn Sie von anderswo auf dieser Seite gelandet sind und von OpenStreetMap nichts wissen, dann ist es empfehlenswert, sich mit dem Projekt vertraut zu machen, bevor Sie mit den Daten arbeiten.) Diese Downloads werden von der Geofabrik GmbH kostenlos angeboten.

Click on the region name to see the overview page for that region, or select one of the file extension links for quick access.

Sub-Region	Quick Links		
	.osm.pbf	.shp.zip	.osm.bz2
Africa	[.osm.pbf]	✘	[.osm.bz2]
Antarctica	[.osm.pbf]	[.shp.zip]	[.osm.bz2]
Asia	[.osm.pbf]	✘	[.osm.bz2]
Australia and Oceania	[.osm.pbf]	✘	[.osm.bz2]
Central America	[.osm.pbf]	✘	[.osm.bz2]
Europe	[.osm.pbf]	✘	[.osm.bz2]
North America	[.osm.pbf]	✘	[.osm.bz2]



🇬🇧 Not what you were looking for? Geofabrik is a consulting and software development firm based in Karlsruhe, Germany specializing in OpenStreetMap services. We're happy to help you with data preparation, processing, server setup and the like. [Check out our web site](#) and contact us if we can be of service.

🇩🇪 Nicht das Richtige dabei? Die Geofabrik ist ein auf OpenStreetMap spezialisiertes Beratungs- und Softwareentwicklungsunternehmen in Karlsruhe. Gern helfen wir Ihnen bei der Datenaufbereitung, Datenkonvertierung,



File Edit View History Bookmarks Tools Help

http://download...th-america.html

download.geofabrik.de/north-america.html

Google

GEOFABRIK downloads

Download OpenStreetMap data for this region:

North America

[\[one level up\]](#)

Commonly Used Formats

- [north-america-latest.osm.pbf](#), suitable for Osmium, Osmosis, imposm, osm2pgsql, mkgmap, and others. This file was last modified 1 hour ago and contains all OSM data up to 2013-06-06T18:59:04Z. File size: 5.5 GB; MD5 sum: 28b04c07bb420c3dbf2fab9cfc96e089.
- [north-america-latest.shp.zip](#) is not available for this region; try one of the sub-regions.


Other Formats and Auxiliary Files

- [north-america-latest.osm.bz2](#), yields OSM XML when decompressed; use for programs that cannot process the .pbf format. This file was last modified 2 days ago. File size: 8.3 GB; MD5 sum: 297e39495bc42843e73b2c32fe0d7366.
- [.poly file](#) that describes the extent of this region.
- [.osc.gz files](#) that contain all changes in this region, suitable e.g. for Osmosis updates
- [raw directory index](#) allowing you to see and download older files

Sub Regions

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Sub Region	Quick Links		
	.osm.pbf	.shp.zip	.osm.bz2
Canada	[.osm.pbf] (1.4 GB)	✘	[.osm.bz2]
US Midwest	[.osm.pbf] (867 MB)	✘	[.osm.bz2]
US Northeast	[.osm.pbf] (504 MB)	✘	[.osm.bz2]
US Pacific	[.osm.pbf] (24.4 MB)	✘	[.osm.bz2]
US South	[.osm.pbf] (1.5 GB)	✘	[.osm.bz2]



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ABP S



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http://download.../california.html

download.geofabrik.de/north-america/us/california.html

Google

GEOFABRIK downloads

Download OpenStreetMap data for this region:

California

[\[one level up\]](#)

Commonly Used Formats


- [california-latest.osm.pbf](#), suitable for Osmium, Osmosis, imposm, osm2pgsql, mkgmap, and others. This file was last modified 60 minutes ago and contains all OSM data up to 2013-06-06T18:59:04Z. File size: 465 MB; MD5 sum: c42e0f4d7c9fe905f44d77840c87ffa6.
- [california-latest.shp.zip](#) is not available for this region.

Other Formats and Auxiliary Files

- [california-latest.osm.bz2](#), yields OSM XML when decompressed; use for programs that cannot process the .pbf format. This file was last modified 1 day ago. File size: 685 MB; MD5 sum: add33963b0be9560738c4f6f01df39e4.
- [.poly file](#) that describes the extent of this region.
- [.osc.gz files](#) that contain all changes in this region, suitable e.g. for Osmosis updates
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Sub Regions

No sub regions are defined for this region.



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Data held

- all continents
- most countries
- sub-country units for US, Canda, Germany, France, UK



Why?

- easier for everyone to work with
- makes Geofabrik a “household name” in OSM circles



[OSM-talk] planet.osm excerpt for Germany available

Frederik Ramm [frederik at remote.org](mailto:frederik@remote.org)

Sun Feb 4 23:16:38 GMT 2007

- Previous message: [\[OSM-talk\] last](#)
- Next message: [\[OSM-talk\] Newbie - Streets not showing up](#)
- **Messages sorted by:** [\[date \]](#) [\[thread \]](#) [\[subject \]](#) [\[author \]](#)

Hi,

I have extracted the planet.osm data that lies within Germany and made it available for download here:

<http://openstreetmap.gryph.de/>

(Currently a 14 MB file based on the current planet.osm.)

7.0% of all nodes (545914/7737879), 7.2% of all segments (577676/8018172), and 11.3% of all ways (42348/373595) seem to be within Germany if my script is not completely mistaken.

The script uses a rather complex polygon boundary instead of just clipping out a rectangular area. The script is in SVN, at

`/utils/planet.osm/perl/extract-germany.pl`

and can easily adapted to extract other areas. I haven't built a universal polygon extraction script (yet) but for anyone with a bit of Perl knowledge this should be straightforward.

I haven't checked the output very thoroughly, just given it a quick glance, so if anything is "politically incorrect" (accidental inclusion of neighbouring countries?) please don't shoot me.

Bye

x



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A couple numbers

- monthly traffic ~ 50 TB
(20 billable, 5 Hetzner internal, 25 handled by GWDG FTP mirror)
- about 2k unique (downloading) visitors daily
- PBF data preferred 3:1 over bzip2
- 5% most popular files account for 90% of traffic



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Thank you GWDG!

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A couple numbers

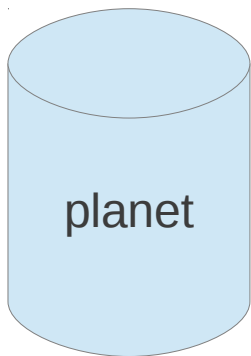
- used to be computed on server at the Geofabrik office
- later moved bz2 generation to download server
- meanwhile all done directly on download server – office line had 10 MBit/s upstream and could not cope



How does it work?

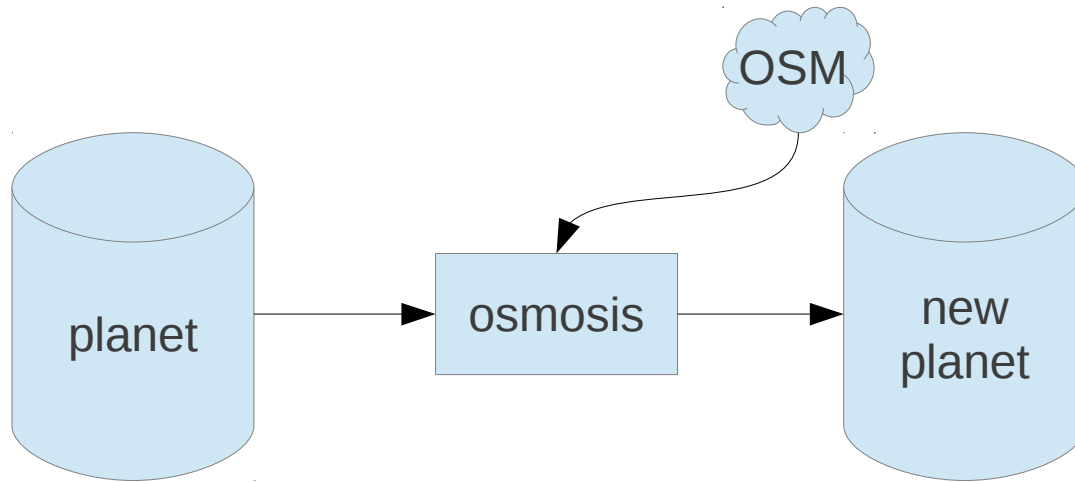


How does it work?



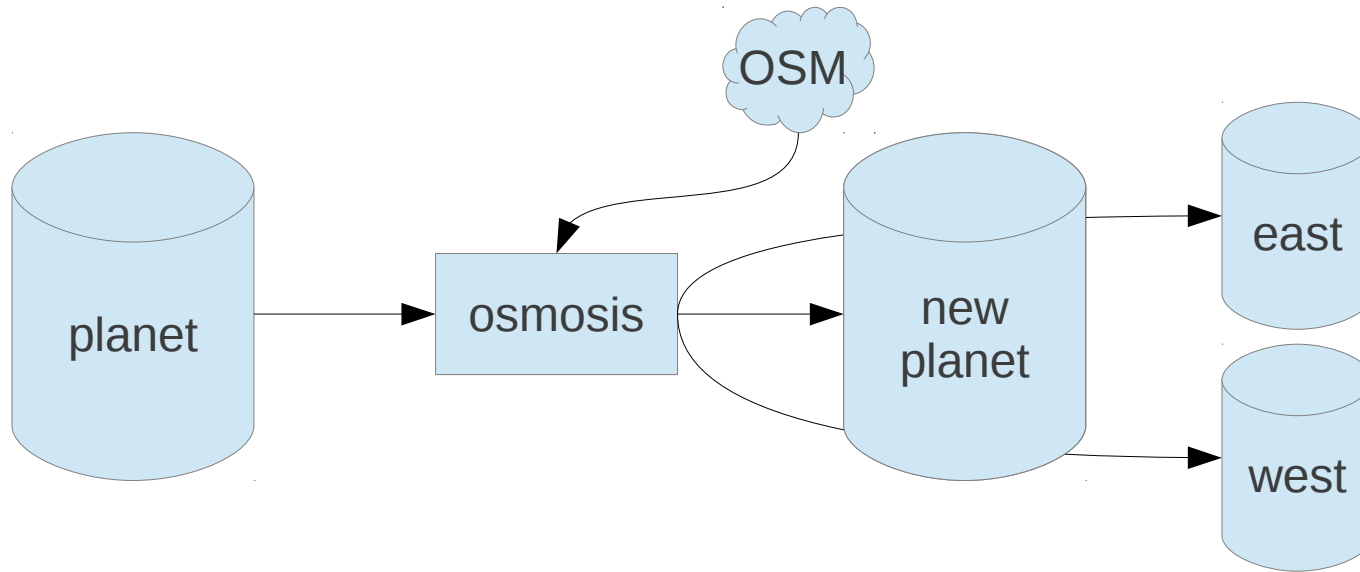


How does it work?



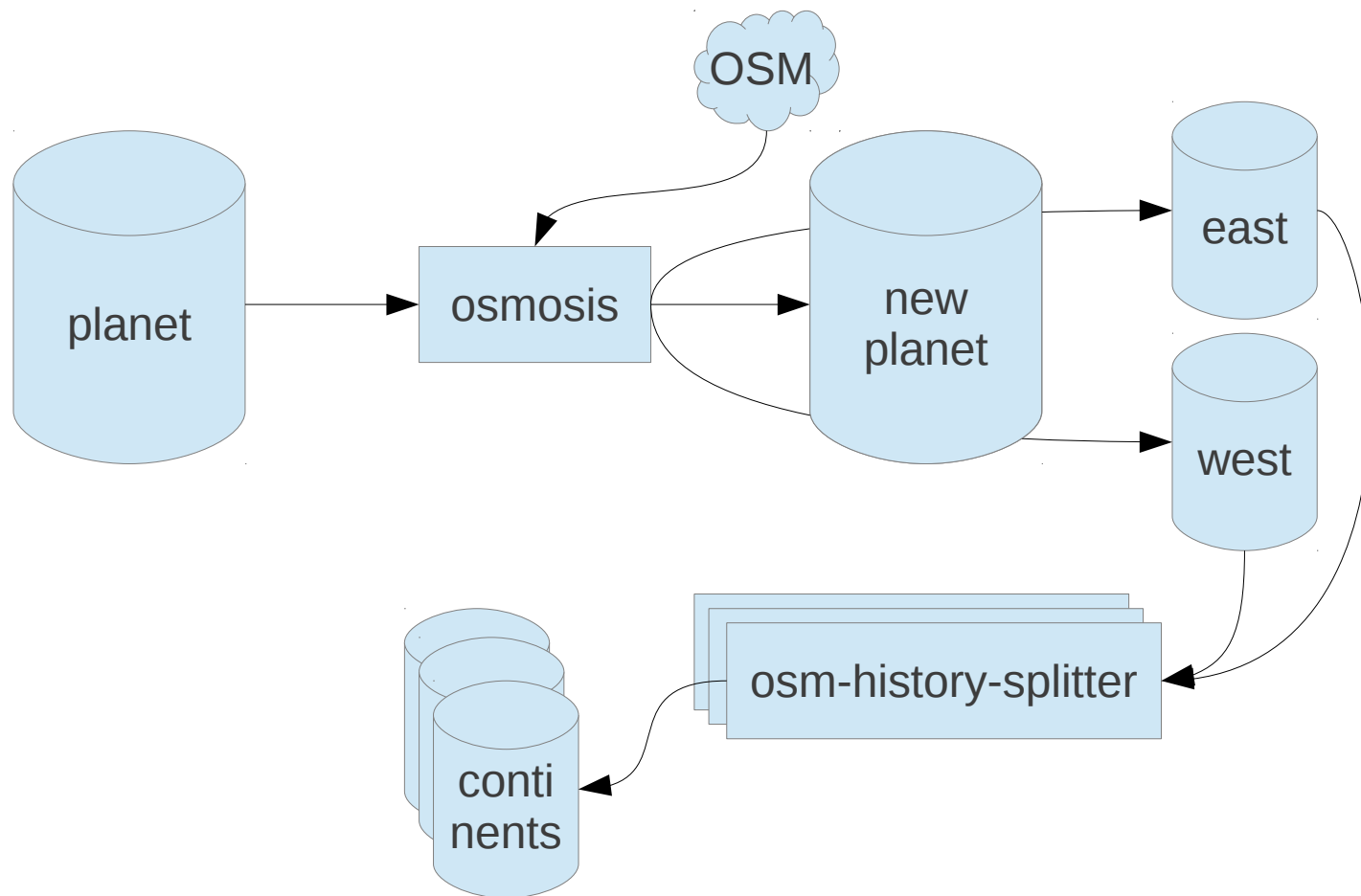


How does it work?



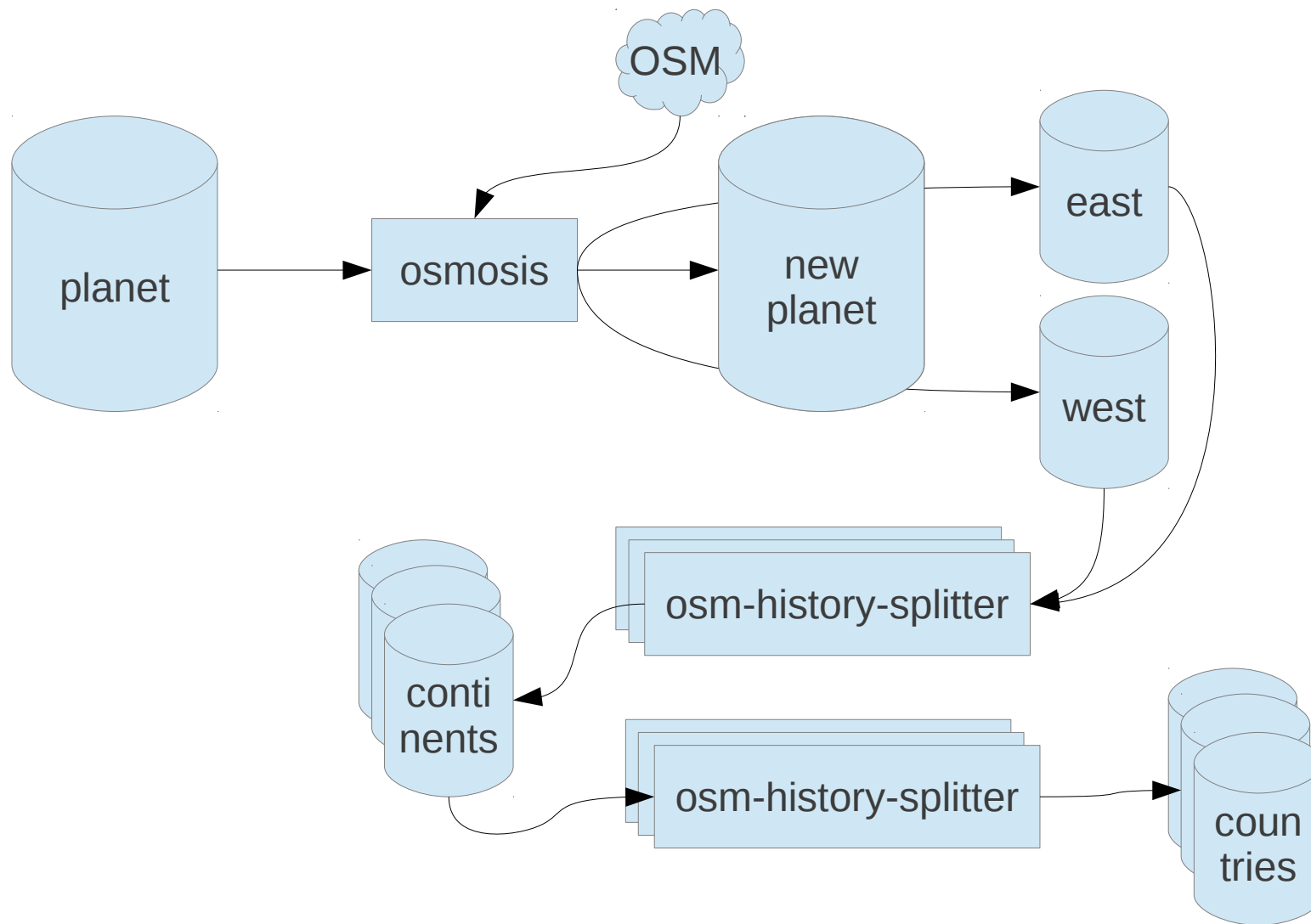


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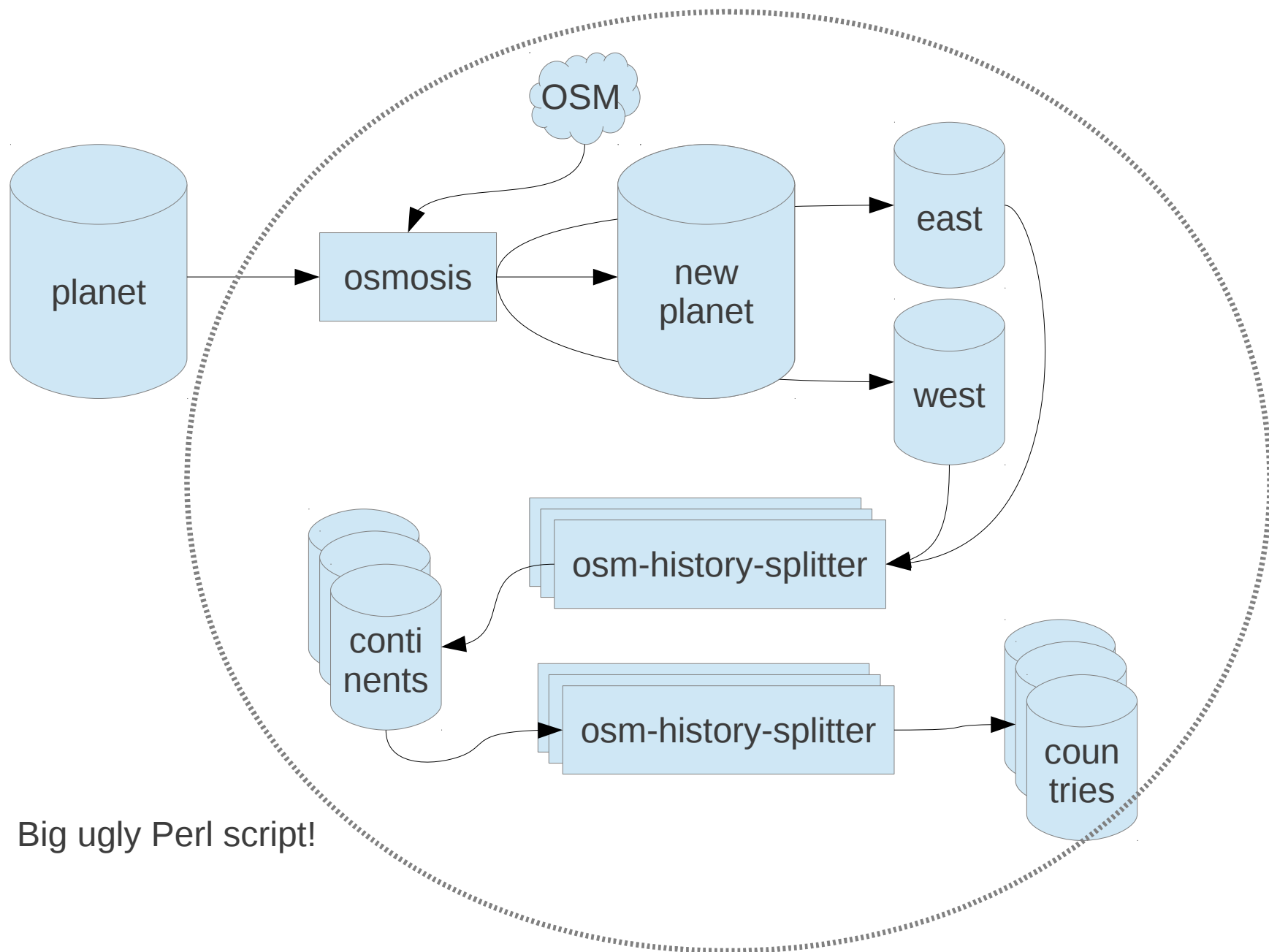


How does it work?





How does it work?



Big ugly Perl script!



Polygon files WTF?

- maproom.psu.edu/dcw ← their fault!
- format later adopted by Osmosis
- convert anything to poly files
(svn.openstreetmap.org/applications/utils/osm-extract/polygons)
- planet-history-splitter can use .osm files



Shortcomings

- cascading production causes problems
- complete relations
- large setup effort even for seldom-required extracts
- could small extracts be generated on the fly?
- no layers; extra shapes for rendering



If you want to do this yourself...

- do you need “lossless” extracts?
- do you need the whole planet?
- ...
- Geofabrik code is available but not polished



Alternatives

- extract.bbbike.org
- Overpass API
- wiki.openstreetmap.org/wiki/Planet.osm



Thank you!

Questions?

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