

Getting Started with PostgreSQL

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PostgreSQL on the Desktop - single user

Download the installer

1. Go to EnterpriseDB download site
<https://www.enterprisedb.com/downloads/postgres-postgresql-downloads>.
2. Select the latest version (10.2)
3. Select your operating system (Windows or Mac)

Installation

Install StackBuilder but don't start it yet

Connecting with pgAdmin

- Reference: R. Obe and Hsu (2017b), chapter 4

Exploring the tree

Creating a database

PostgreSQL on a (Linux) Server

Two dialects of Linux

- ▶ Ubuntu 16.04.x LTS (most popular)
- ▶ RHEL 7 / CentOS 7

Docker container

- ▶ Debian stable - similar to Ubuntu
- ▶ Alpine - avoid this unless you want to do a lot of research

The PGDG repositories

Configuring

- ▶ Initializing the cluster
- ▶ Enabling and starting the service

Listening address and port

PostGIS

Reading in GIS data (Obe and Hsu 2015, chap. 4)

- ▶ Shapefiles
- ▶ “GDB” databases
- ▶ OpenStreetMap data

Tagging points with a geometry column

Geocoding (Obe and Hsu 2015, chap. 8)

Spatial joins

pgRouting - what it can do

Turn-by-turn directions

- ▶ Reference: (R. Obe and Hsu 2017a)

References

Obe, Regina O., and Leo S. Hsu. 2015. *PostGIS in Action, Second Edition*. Manning Publications Co. <https://www.manning.com/books/postgis-in-action-second-edition>.

Obe, Regina, and Leo Hsu. 2017a. *PgRouting: A Practical Guide*. Locate Press LLC. <https://locatepress.com/pgrouting>.

———. 2017b. *PostgreSQL: Up and Running, 3rd Edition*. O'Reilly Media, Inc. <http://shop.oreilly.com/product/0636920052715.do>.