

Design Tools

From PostgreSQL wiki

Tools to help with designing a schema, via creating Entity-Relationship diagrams (https://en.wikipedia.org/wiki/Entity–relationship_model) and similar. Most are GUI.

List also includes tools to help with "visualization" or "documentation" of already existing databases.

For tools to "run SQL and see its output" see PostgreSQL Clients.

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Windows

Proprietary

pgModeler

<https://github.com/pgmodeler>

<https://pgmodeler.io/>

Windows / Linux / macOS

This is open source (GPLv3) and can be freely built yourself, if you have Qt available, but downloadable binaries appear to be time-limited demos that can be unlocked with paypal.

Aqua Data Studio

http://www.aquafold.com/aquadatastudio/er_modeler.html

The Aqua Data Studio Entity Relationship Modeler (ER Modeler) helps you design complex database models for all major RDBMS vendors and versions. Use the Forward Engineer feature to model entities and convert them into SQL Scripts, or Reverse Engineer existing databases to visualize a database model.

DeZign

<http://www.datanamic.com/dezign/index.html>

An intuitive database design and modeling tool for developers and DBA's that can help you model, create and maintain databases. The software uses entity relationship diagrams (ERDs, data models) to graphically design databases and automatically generates the most popular SQL and desktop databases.

ERBuilder Data Modeler

<https://soft-builder.com/erbuilder-data-modeler/>

ERBuilder Data Modeler is a GUI data modeling tool that allows developers to visualize, design, and model databases by using entity relationship diagrams and automatically generates the most popular SQL databases. Generate and share the data Model documentation with your team. Optimize your data model by using advanced features such as test data generation, schema compare, and schema synchronization.

PostgreSQL Maestro

<https://www.sqlmaestro.com/products/postgresql/maestro/>

Toad Data Modeler

<https://www.quest.com/products/toad-data-modeler/>

Toad Data Modeler enables you to rapidly deploy accurate changes to data structures across more than 20 different platforms. It allows you to construct logical and physical data models, compare and synchronize models, quickly generate complex SQL/DDI, create and modify scripts, as well as reverse and forward engineer both databases and data warehouse systems.

May have free versions? Website is a bit of a wreck.

EMS SQL Manager

<https://www.sqlmanager.net/en/products/postgresql/manager>

Cross-Platform

Open Source (Free)

pgAdmin 4

<https://www.pgadmin.org/>

Supports Windows, Linux and Mac. ERD Tool demo video at <https://www.youtube.com/watch?v=2pxVCzRFGeg>

Kexi

<http://www.kexi-project.org/>

A visual database application creator, c.f. Access or FileMaker. Windows/linux.

Open System Architect

<http://www.codebydesign.com>

Windows / macOS / Linux / Solaris

OSA currently supports data modelling (physical and logical) with UML in the works.

SQL Power*Architect

<http://software.sqlpower.ca/page/architect>

Java

The SQL Power Architect data modeling tool was created by data warehouse designers and has many unique features geared specifically for the data warehouse architect. It allows users to reverse-engineer existing databases, perform data profiling on source databases, and auto-generate ETL metadata.

Valentina Studio

<https://www.valentina-db.com/en/valentina-studio-overview>

Windows / macOS / Linux

Free version supports reverse-engineering an existing schema, but only the proprietary version supports forward-engineering.

Open ModelSphere

<http://www.modelsphere.com/org/>

Java

Open ModelSphere is a powerful data, process and UML modeling tool - supporting user interfaces in English and French.

Umbrello

<https://umbrello.kde.org>

Windows / macOS / Linux

Umbrello UML Modeller is a Unified Modelling Language (UML) diagram program based on KDE Technology.

UML allows you to create diagrams of software and other systems in a standard format to document or design the structure of your programs.

ERDesignerNG

<http://mogwai.sourceforge.net/erdesignerng.html>

Java, GPL

Proprietary

DbSchema

<http://www.dbschema.com>

Windows / macOS / Linux / Java

Features interactive diagrams, relational data browse, schema compare and synchronization, query builder, query editor, HTML5 documentation, random data generator, forms and reports.

DbVisualizer

<http://www.dbvis.com>

Windows / macOS / Linux / Java

A client that does a lot of things other than schema design. It has a free version that provides many of the features, but not apparently design and DDL export. DbVisualizer is a feature rich, intuitive multi-database tool for developers, database administrators, and increasingly for advanced analysts providing a single powerful interface across a wide variety of operating systems. With its easy-to-use and clean interface, DbVisualizer has proven to be one of the most cost effective database tools available, yet to mention that it runs on all major operating systems and supports all major RDBMS that are available. Users only need to learn and master one application. DbVisualizer integrates transparently with the operating system being used.

DbWrench

<http://www.dbwrench.com>

Windows / macOS / Linux / Java

Diagramming / Forward & Reverse Engineering

Moon Modeler

<https://www.datensen.com>

Windows / macOS / Linux

Features:

- Database modeling
- Visualization of nested structures and JSON
- SQL script generation
- Reverse engineering
- Support for PostgreSQL specifics, modeling of composite types, hierarchical JSON structures etc.
- GraphQL schema design

StarUML

<http://staruml.io>

Windows / macOS / Ubuntu

<https://github.com/adrianandrei-ca/staruml-postgresql> - extension to support PostgreSQL

(This is version 2. The much older, open source version 1 is available at <http://staruml.sourceforge.net/v1/download.php>)

Vertabelo

<http://www.vertabelo.com>

Vertabelo is an online database designer working under Chrome. It free to use for smaller projects and have a proprietary versions for larger database projects.

Features:

- Intuitive HTML5 web interface (Chrome)

- OS independent
- Sharing DB model with team members
- Support for PostgreSQL, MySQL, Oracle, MS SQL Server, DB2, SQLite, HSQLDB,
- Model versioning
- Dynamic/Visual search
- Live model validation
- Reverse engineering

Abris Platform

<https://abrisplatform.com>

Web Application for Linux/Windows, requires Apache+PHP or Docker

Abris Platform is an application development platform for creating Web-based front-ends for PostgreSQL databases. Can be used to quickly create applications with convenient forms via SQL declarative description.

Allows to create, alter and drop tables, views, foreign keys, triggers.

Navicat

<https://www.navicat.com/en/products/navicat-for-postgresql>

Windows, macOS, iOS

A general purpose client with good modeling features.

Commandline Tools

Tools that take a description of a database schema in one format and convert it to SQL, and sometimes vice-versa.

SQLFairy

<http://sqlfairy.sourceforge.net>

Perl, manipulate structured data definitions (mostly database schemas) in interesting ways, such as converting among different dialects of CREATE syntax (e.g., MySQL-to-Oracle), visualizations of schemas (pseudo-ER diagrams: GraphViz or GD), automatic code generation (using Class::DBI), converting non-RDBMS files to SQL schemas (xSV text files, Excel spreadsheets), serializing parsed schemas (via Storable, YAML and XML), creating documentation (HTML and POD), and more.

DbVisualizer

<http://www.dbvis.com/>

Windows/OS X/Linux/UNIX

DbVisualizer is a feature rich, intuitive multi-database tool for developers, database administrators, and increasingly for advanced analysts providing a single powerful interface across a wide variety of operating systems. With its easy-to-use and clean interface, DbVisualizer has proven to be one of the most cost effective

database tools available, yet to mention that it runs on all major operating systems and supports all major RDBMS that are available. Users only need to learn and master one application. DbVisualizer integrates transparently with the operating system being used.

schemalint

<https://github.com/kristiandupont/schemalint>

A tool to verify the database schema against Don't Do This recommendations.

Unknown

Autodoc

<https://github.com/cbbrowne/autodoc>

perl, open source

This is a utility which will run through PostgreSQL system tables and returns HTML, DOT, and several styles of XML which describe the database.

As a result, documentation about a project can be generated quickly and be automatically updatable, yet have a quite professional look if you do some DSSSL/CSS work.

Schema Spy

<http://schemaspy.org/>

GPLv3 Java based console tool to auto-generate documentation in HTML format for an existing database. It uses viz.js (<http://viz-js.com/>) or, optionally, Graphviz (<https://graphviz.org/>) to render ERD diagrams. It can render markdown for database object comments. Also it allow some basic preprocessing defined with XML configuration file such as implied relationships, column suppression, foreign/remote tables.

SQLFairy

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DB Doc

http://www.yohz.com/dbdoc_details.htm

Windows/Linux(Wine)

DB Doc helps you document your database structure and objects. Documents can be generated as PDF reports, HTML pages, Microsoft Word (docx) file, or a single compiled HTML file. The layout is fully customizable, and you can quickly view inter-object dependencies using hyperlinks.

MicroOLAP Database Designer

<http://www.microolap.com/products/database/postgresql-designer/>

Windows ODBC

Database Designer for PostgreSQL is an easy CASE tool with an intuitive graphical interface allowing you to build a clear and effective database structure visually, see the complete picture (diagram) representing all the tables, references between them, views, stored procedures and other objects. Then you can easily generate a physical database on a server, modify it according to any changes you made to the diagram using fast ALTER statements.

GenMyModel

<https://www.genmymodel.com>

GenMyModel is an online modeling tool supporting database modeling (<http://www.genmymodel.com/database-diagram-online>). It is free to use for smaller projects and have a proprietary version for larger database projects.

Features:

- Intuitive HTML5 web interface (Chrome, Firefox, Safari, Internet Explorer)
- OS independent
- Instant sharing and collaboration
- Customizable SQL generators
- Model versioning
- Live model validation

dbForge Studio for PostgreSQL

- dbForge Studio for PostgreSQL (<https://www.devart.com/dbforge/postgresql/studio/>)

ModelRight

- ModelRight (<http://www.modelright.com/>)

WaveMaker

??? Doesn't seem to mention Postgres.

- WaveMaker Visual Ajax Studio (<http://www.wavemaker.com/>)

Other Resources

- Community Guide to PostgreSQL GUI Tools miscellaneous utilities
- PostgreSQL Clients GUI SQL clients

- Old possibly abandoned projects, see [Community_Guide_to_PostgreSQL_Tools_Abandoned](#)

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