Why pgAdmin 4?

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pgAdmin 4

- Introduction
- Basic Architecture
- Features
INTRODUCTION
What is pgAdmin 4?

- Web based Open Source GUI management tool for PostgreSQL
- Fourth generation; replacing pgAdmin III written in C++
- Supports all the features of pgAdmin III except a few which are known to be largely unused
- Supports PostgreSQL 9.2 and above and its derivatives such as EDB Postgres Advanced Server
- Easily Extendable (Modular Architecture)
Technologies

• Python
  › Server side scripting
  › Supported versions: 2.7.x & 3.0 to 3.4

• Flask, micro-framework
  › Python application framework

• Javascript/JQuery/Backbone
  › Client side scripting

• Bootstrap
  › HTML layouts
BASIC ARCHITECTURE
Deployable

• In a desktop runtime, in a single user mode

• In a web server using WSGI, in a multi user mode
Framework

The application provides a framework for extensibility

• Tree view nodes are all plugins

• Individual tools are plugins

• Database drivers are plugins, to allow support for postgres derivatives

• The module wise test-cases are plugins
FEATURES
Usability

• Use of one or more servers simultaneously
• Slick and pretty web based Interface
• Responsive layout
• No full-page loading, used AJAX for partial loading
• Dock-able panels
• No sub-dialogues when working with any Postgres object
Demo
Functional Features

• Supports all the PostgreSQL database object types
• Query tool
• Debugger for procedural languages
• Dashboards for simple real time monitoring
• Grant wizard
• Backup, Restore, Vacuum and Analyze on demand
• Manage pgAgent
• Automated unit testing
Functional Features

PostgreSQL Database objects

• All the PostgreSQL database objects like servers, databases, table-spaces, roles, extensions, schemas, tables, indexes, constraints, triggers, functions etc. are supported.

• CRUD operations for all the PostgreSQL database objects

• Separate panels for:
  ▶ Reverse engineered SQL
  ▶ Statistics
  ▶ Dependents
Functional Features

Query Tool

• Execute arbitrary SQL commands
• Export Data to a csv file
• Graphical explain plan
• View Analytical information about a SQL statement
• Auto complete
• Import SQL script through File Manager

View Data

• View / Modify data, limited by tables with primary keys
• Filter the result set
• Export Data as csv file
Functional Features

Procedural language debugger

• Support for plpgsql and edbspl languages

• All the basic needs of the debugging are supported:
  ‣ Set/Clear break point
  ‣ Play/pause
  ‣ Step over/Into
Demo
Functional Features

Automated test framework

• Each individual module having its own test-case set
• Can run module wise test-cases
• Application level test-cases can also be executed
Bug Report

Where to report?

• pgadmin-support@postgresql.org
• Log issue at https://redmine.postgresql.org/ under pgAdmin4 project

What to report?

• Issue Details
• Describe the issue properly
• Steps to reproduce the issue
• Mention desktop/web server mode
• Mention OS details (name, version etc)
• Logs (Web Server, and pgAdmin4)
More Info

• Website
  • https://www.pgadmin.org

• Source code
  • https://git.postgresql.org/gitweb/p=pgadmin4.git

• Mailing list
  • pgadmin-support@postgresql.org
  • pgadmin-hackers@postgresql.org
THANK YOU

mercì grazie spasiba kam ouen gratzias manana mahaloCheers toda gracias grassie danki

mahalo kitos welalin grazia tak

merci dankon mesi
talofa miigwetch
domo arrigato danke kitos
dziekuje takk

thanks grateitude