

Database Monitoring

pg_activity

pg_activity is a powerful tool for real-time PostgreSQL monitoring. Install it

Method 1:- Direct installation using dnf or apt utility

Redhat:-

```
dnf install pg_activity
```

Ubuntu:-

```
$ sudo apt install pg-activity
```

Method 2:- Source

Step 1:- Download file

wget https://github.com/dalibo/pg_activity/archive/refs/tags/v3.6.0.tar.gz

Step 2:- untar file

```
tar -xvf v3.6.0.tar.gz
```

```
root@cdbtestdcserver2:/tmp# wget https://github.com/dalibo/pg_activity/archive/refs/tags/v3.6.0.tar.gz
--2025-04-03 22:00:38-- https://github.com/dalibo/pg_activity/archive/refs/tags/v3.6.0.tar.gz
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)|20.207.73.82|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/dalibo/pg_activity/tar.gz/refs/tags/v3.6.0 [following]
--2025-04-03 22:00:38-- https://codeload.github.com/dalibo/pg_activity/tar.gz/refs/tags/v3.6.0
Resolving codeload.github.com (codeload.github.com)... 20.207.73.88
Connecting to codeload.github.com (codeload.github.com)|20.207.73.88|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/x-gzip]
Saving to: 'v3.6.0.tar.gz'

v3.6.0.tar.gz                                     [ <=> ]
2025-04-03 22:00:39 (2.30 MB/s) - 'v3.6.0.tar.gz' saved [440434]

root@cdbtestdcserver2:/tmp# ls -lrth
total 452K
drwx----- 3 root    root    4.0K Sep 22  2024 systemd-private-fc58460288ef491dbc30ce864ae847c1-systemd-resolved.service-DdnXlg
drwx----- 3 root    root    4.0K Sep 22  2024 systemd-private-fc58460288ef491dbc30ce864ae847c1-chrond.service-f2gmGN
drwx----- 3 root    root    4.0K Sep 22  2024 systemd-private-fc58460288ef491dbc30ce864ae847c1-systemd-logind.service-ifaSoR
drwx----- 3 root    root    4.0K Sep 22  2024 snap-private-tmp
-rw-r----- 1 postgres postgres 40 Jan 17 13:22 pypass
-rw-r----- 1 root    root    431K Apr  3 22:00 v3.6.0.tar.gz
root@cdbtestdcserver2:/tmp# tar -xvf v3.6.0.tar.gz
pg_activity-3.6.0/
pg_activity-3.6.0/.codespellrc
pg_activity-3.6.0/.coveragerc
pg_activity-3.6.0/.editorconfig
pg_activity-3.6.0/.flake8
pg_activity-3.6.0/.github/
pg_activity-3.6.0/.github/dependabot.yml
pg_activity-3.6.0/.github/workflows/
```

Step 3:- install pg_activity

```
python3 -m pip install "pg_activity[psycopg]"
```

```

root@cdbtestdcserver2:/tmp/pg_activity-3.6.0# python3 -m pip install "pg_activity[psycpg]"
Collecting pg_activity[psycpg]
  Downloading pg_activity-3.6.0-py3-none-any.whl (73 kB)
----- 73.2/73.2 KB 1.5 MB/s eta 0:00:00
Collecting humanize[4.12.0,>=0.5.1]
  Downloading humanize-4.12.2-py3-none-any.whl (128 kB)
----- 128.3/128.3 KB 3.4 MB/s eta 0:00:00
Requirement already satisfied: attrs[=21.1,>=17.4] in /usr/lib/python3/dist-packages (from pg_activity[psycpg]) (21.2.0)
Collecting blessed[=1.15.0]
  Downloading blessed-1.20.0-py2.py3-none-any.whl (58 KB)
----- 58.4/58.4 KB 2.8 MB/s eta 0:00:00
Requirement already satisfied: psutil[>=2.0.0] in /usr/lib/python3/dist-packages (from pg_activity[psycpg]) (5.9.0)
Collecting psycpg[binary]>=3.1
  Downloading psycpg-3.2.6-py3-none-any.whl (199 kB)
----- 199.1/199.1 KB 16.5 MB/s eta 0:00:00
Requirement already satisfied: wcwidth[=0.1.4] in /usr/lib/python3/dist-packages (from blessed[=1.15.0->pg_activity[psycpg]]) (0.2.5)
Requirement already satisfied: six[=1.9.0] in /usr/lib/python3/dist-packages (from blessed[=1.15.0->pg_activity[psycpg]]) (1.16.0)
Collecting typing-extensions[>=4.6]
  Downloading typing_extensions-4.13.1-py3-none-any.whl (45 kB)
----- 45.7/45.7 KB 3.7 MB/s eta 0:00:00
Collecting psycpg-binary[=3.2.6]
  Downloading psycpg_binary-3.2.6-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (4.3 MB)
----- 4.3/4.3 MB 2.1 MB/s eta 0:00:00
Installing collected packages: typing-extensions, psycpg-binary, humanize, blessed, psycpg, pg_activity
Successfully installed blessed-1.20.0 humanize-4.12.2 pg_activity-3.6.0 psycpg-3.2.6 psycpg-binary-3.2.6 typing-extensions-4.13.1
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system package manager. It is recommended to use a virtual
environment: https://pip.pypa.io/warnings/venv
root@cdbtestdcserver2:/tmp/pg_activity-3.6.0# pg_activity --version
pg_activity 3.6.0
root@cdbtestdcserver2:/tmp/pg_activity-3.6.0#

```

Error faced:-

Traceback (most recent call last):

File "/usr/local/bin/pg_activity", line 5, in <module>

from pgactivity.cli import main

ModuleNotFoundError: No module named 'pgactivity.cli'

Change the owner of file:-

PermissionError: [Errno 13] Permission denied: '/usr/local/lib/python3.10/dist-packages/typing_extensions-4.13.1.dist-info'

Sol:-

root@cdbtestdcserver2:/usr/local/lib/python3.10# chown postgres:postgres dist-packages/-R

```

root@cdbtestdcserver2:/usr/local/lib/python3.10
root@cdbtestdcserver2:/tmp/pg_activity-3.6.0# pg_activity --version
pg_activity 3.6.0
root@cdbtestdcserver2:/tmp/pg_activity-3.6.0# su - postgres
postgres@cdbtestdcserver2:~$ pg_activity --version
Traceback (most recent call last):
  File "/usr/local/bin/pg_activity", line 5, in <module>
    from pgactivity.cli import main
ModuleNotFoundError: No module named 'pgactivity.cli'
postgres@cdbtestdcserver2:~$ cd /tmp
postgres@cdbtestdcserver2:/tmp$ python3 -m pip install "pg_activity[psycpg]"
ERROR: Exception:
Traceback (most recent call last):
  File "/usr/lib/python3/dist-packages/pip/_internal/cli/base_command.py", line 165, in exc_logging_wrapper
    status = run_func(*args)
  File "/usr/lib/python3/dist-packages/pip/_internal/cli/req_command.py", line 205, in wrapper
    return func(self, options, args)
  File "/usr/lib/python3/dist-packages/pip/_internal/commands/install.py", line 285, in run
    session = self.get_default_session(options)
  File "/usr/lib/python3/dist-packages/pip/_internal/cli/req_command.py", line 75, in get_default_session
    self.session = self._enter_context(self._build_session(options))
  File "/usr/lib/python3/dist-packages/pip/_internal/cli/req_command.py", line 89, in _build_session
    session = PipSession(
  File "/usr/lib/python3/dist-packages/pip/_internal/network/session.py", line 282, in __init__
    self.headers["User-Agent"] = user_agent()
  File "/usr/lib/python3/dist-packages/pip/_internal/network/session.py", line 157, in user_agent
    setuptools_dist = get_default_environment().get_distribution("setuptools")
  File "/usr/lib/python3/dist-packages/pip/_internal/metadata/_init_.py", line 24, in get_default_environment
    from pkg_resources import Environment
  File "/usr/lib/python3/dist-packages/pip/_internal/metadata/pkg_resources.py", line 9, in <module>
    from pip._vendor import pkg_resources
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 3252, in <module>
    def initialize_master_working_set():
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 3235, in _call_aside
    f(*args, **kwargs)
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 3264, in _initialize_master_working_set
    working_set = WorkingSet._build_master()
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 574, in _build_master
    ws = cls()
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 567, in __init__
    self.add_entry(entry)
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 623, in add_entry
    for dist in find_distributions(entry, True):
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 2065, in find_on_path
    for dist in factory(fullpath):
  File "/usr/lib/python3/dist-packages/pip/_vendor/pkg_resources/_init_.py", line 2127, in distributions_from_metadata
    if len(os.listdir(path)) == 0:
PermissionError: [Errno 13] Permission denied: '/usr/local/lib/python3.10/dist-packages/typing_extensions-4.13.1.dist-info'

```

Run it:-

pg_activity -U postgres -h /tmp

```
root@cdbtestdcsrver2: /usr/local/lib/python3.10
PostgreSQL 15.6 - cdbtestdcsrver2 - postgres@tmp:4702/postgres - Ref.: 2s - Duration mode: query
* Global: 76 days, 8 hours and 37 minutes uptime. 0B db size - 0B/s growth - cache hit ratio. 0.00% rollback ratio
* Sessions: 0/100 total. 1 active. 0 idle. 0 idle in txm. 0 idle in txm abrupt. 0 waiting
* Activity: 1 tps. 0 insert/s. 0 update/s. 0 delete/s. 0 tuples returned/s. - temp files. - temp size
* Worker processes: 0/8 total. 0/4 logical workers. 0/8 parallel workers
* Other processes & info: 0/3 autovacuum workers. 1/10 wal senders. - wal receivers. 0/10 repl. slots
* Mem.: 7.75G total. 3.37G (43.4%) free. 375.75M (4.73%) used. 4.62G (51.81%) buff-cached
* Swap: 0B total. 0B (-) free. 0B (-) used
IO: 0/s max iops. 0B/s - 0/s read. 0B/s - 0/s write
Load average: 0.05 0.06 0.01

RUNNING QUERIES
PID  XMIN  DATABASE  APP  USER  CLIENT  CPU%  MEM%  READ/s  WRITE/s  TIMED*  Waiting I/O  state Query
227987  barman_receive_w  postgres  local  0.0  0.1  0B  0B  1632 s  WalSenderMain N  active START_REPLICATION 0/22000000 TI

P1/1 running queries P2/2 waiting queries P3/3 blocking queries Space Pause/unpause q quit h help
```