

# Exploring Postgres Tips and Tricks

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Postgres is a complex piece of software with many facets to explore. This presentation will demonstrate tips and tricks for using Postgres effectively.

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# Outline

1. Hardware
2. Internals
3. Monitoring
4. Configuration
5. SQL
6. Clients

# Hardware

## 1. SMART

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#January\\_25\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#January_25_2012)

## 2. *pg\_test\_fsync*

- ▶ <https://www.postgresql.org/docs/11/pgtestfsync.html>
- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#August\\_3\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#August_3_2012)

## 3. *pg\_test\_timing*

- ▶ <https://www.postgresql.org/docs/11/pgtesttiming.html>

# Internals

## 4. Backend flowchart

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#September\\_4\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#September_4_2012)
- ▶ <https://www.postgresql.org/developer/backend/>

## 5. Backend diagram

- ▶ [https://momjian.us/main/blogs/pgblog/2009.html#March\\_11\\_2009](https://momjian.us/main/blogs/pgblog/2009.html#March_11_2009)
- ▶ [http://momjian.us/main/writings/pgsql/src\\_flow.pdf](http://momjian.us/main/writings/pgsql/src_flow.pdf)

# Monitoring

## 6. *ps -ef, top*

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#August\\_6\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#August_6_2012)

## 7. Timing a query

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#June\\_6\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#June_6_2012)

## 8. Timing query internals

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#June\\_8\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#June_8_2012)

# Configuration

## 9. GUC levels

- ▶ [https://momjian.us/main/blogs/pgblog/2011.html#December\\_1\\_2011](https://momjian.us/main/blogs/pgblog/2011.html#December_1_2011)

## 10. *work\_mem*

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#February\\_2\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#February_2_2012)
- ▶ [https://momjian.us/main/blogs/pgblog/2018.html#December\\_7\\_2018](https://momjian.us/main/blogs/pgblog/2018.html#December_7_2018)

## 11. Transactional DDL

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#June\\_1\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#June_1_2012)

## 12. *template1*

- ▶ [https://momjian.us/main/blogs/pgblog/2012.html#May\\_16\\_2012](https://momjian.us/main/blogs/pgblog/2012.html#May_16_2012)

## 13. Virtual columns

- ▶ [https://momjian.us/main/blogs/pgblog/2013.html#April\\_1\\_2013](https://momjian.us/main/blogs/pgblog/2013.html#April_1_2013)

## 14. Time zone

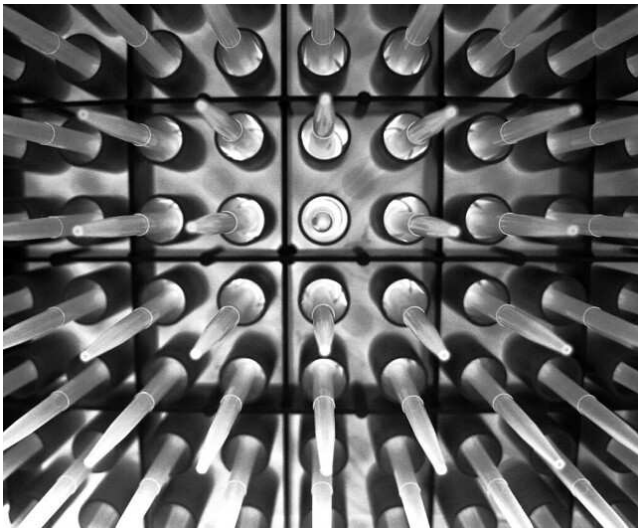
- ▶ [https://momjian.us/main/blogs/pgblog/2019.html#February\\_11\\_2019](https://momjian.us/main/blogs/pgblog/2019.html#February_11_2019)

## 15. *psql*

- ▶ <https://www.postgresql.org/docs/11/app-psql.html>
- ▶ \h
- ▶ \?
- ▶ variables



# Conclusion



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*[https://www.flickr.com/photos/m\\_j-n/](https://www.flickr.com/photos/m_j-n/)*