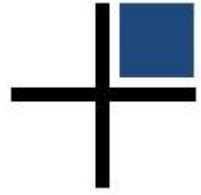


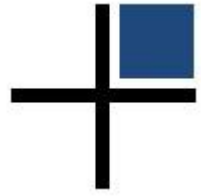
# **Open Source, Open Engineering & PostgreSQL**

**Simon Riggs  
CTO 2ndQuadrant  
& Major Developer**



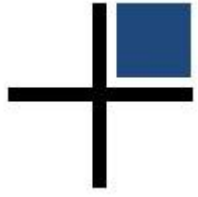
# PostgreSQL Committers

- US – Tom, Bruce, Andrew, Robert, Jeff, Stephen, Noah, Kevin
- Germany – Michael, Jan, Peter, Andres
- Japan – Ishii, Itagaki, Fujii
- Chile - Alvaro
- Sweden – Magnus
- Finland - Heikki
- UK – Simon



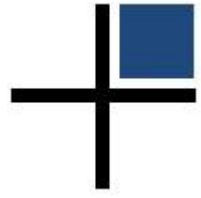
# 10 years Ago

- Point in Time Recovery
- Partitioning
- Warm Standby
- HOT
- Performance enhancements
- Hot Standby
- ...



# Expanding Capabilities





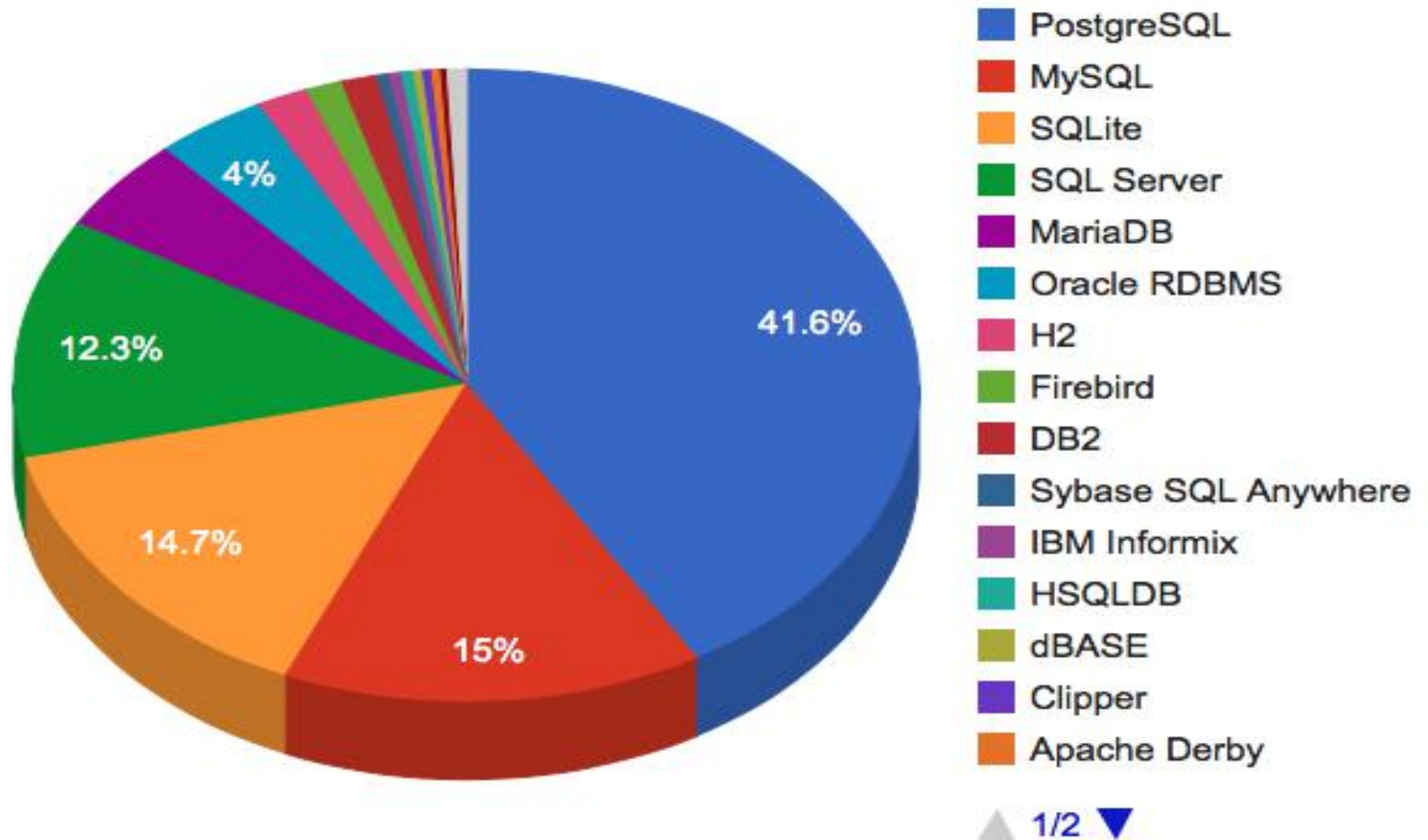
# Expanding Community

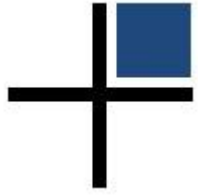




# Popularity

**Favorite relational database management system**



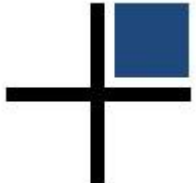


# AXLE Project

Analytics on Xtremely Large European data

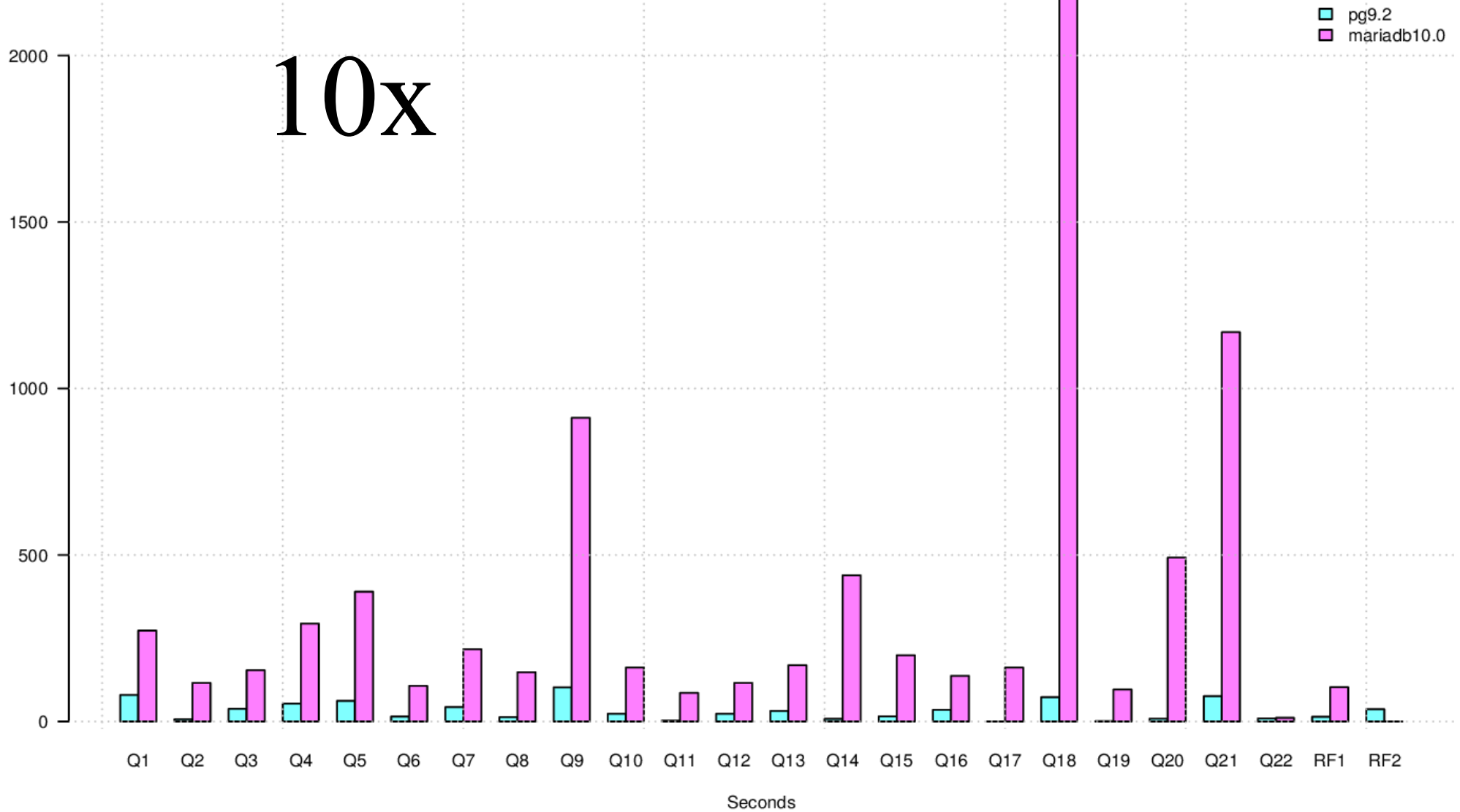
- Secure
- Big
- Fast
- Hardware optimised
- Visual Analytics





# TPC-H: PG9.2 v Mariadb 10.0

Power Test Query Comparison



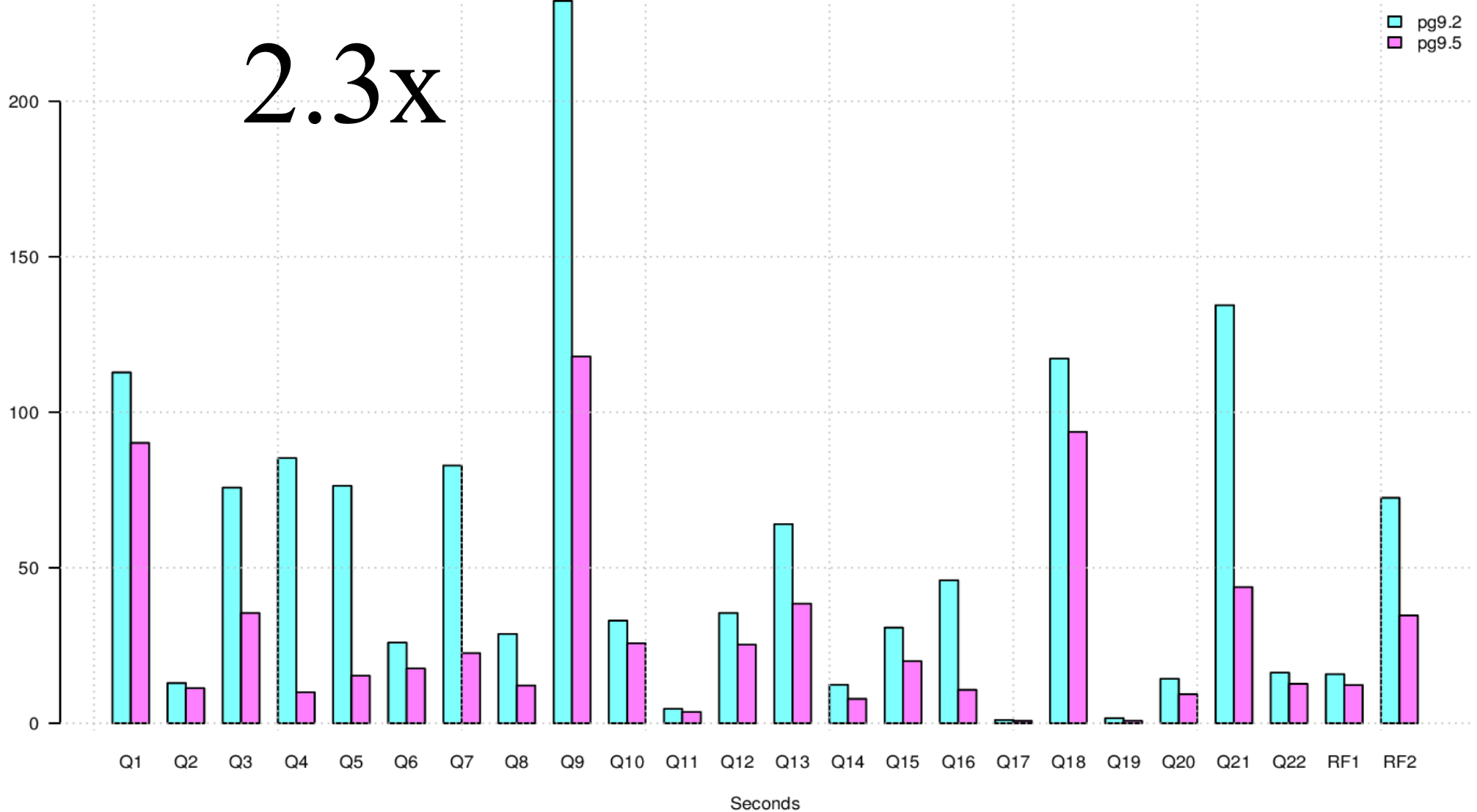


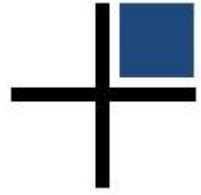


# Latest results from AXLE

## TPC-H: PG9.2 v PG9.5dev++

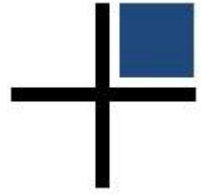
Throughput Test Query Comparison





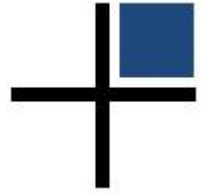
# Good News

- Transaction controlled robustness - synchronous\_commit
- Lock level reductions
- JSONB
- Logical Decoding/Logical Replication/BDR
- BRIN indexes
- Atomics
- UPSERT
- Parallel Query



## Q: Why is PostgreSQL good?

- PostgreSQL is open source
- You can download PostgreSQL for free
- You can use it without restriction
- Nobody makes any money by selling it
- Nobody can afford to pay developers to improve it
- Many people think FREE == POOR QUALITY
- “You get what you pay for”



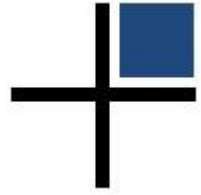
# Free, as in Communication

- Freedom to communicate
- Freedom to work together
- Freedom to create something more than the work of one person
  - Most open source projects are just one person



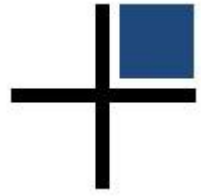
# A: Why is PostgreSQL good?

- Worldwide contribution
- Open to new ideas (eventually!)
- Open to the best ideas (eventually)
- Open Engineering
- Steady progress



# So we all love each other?

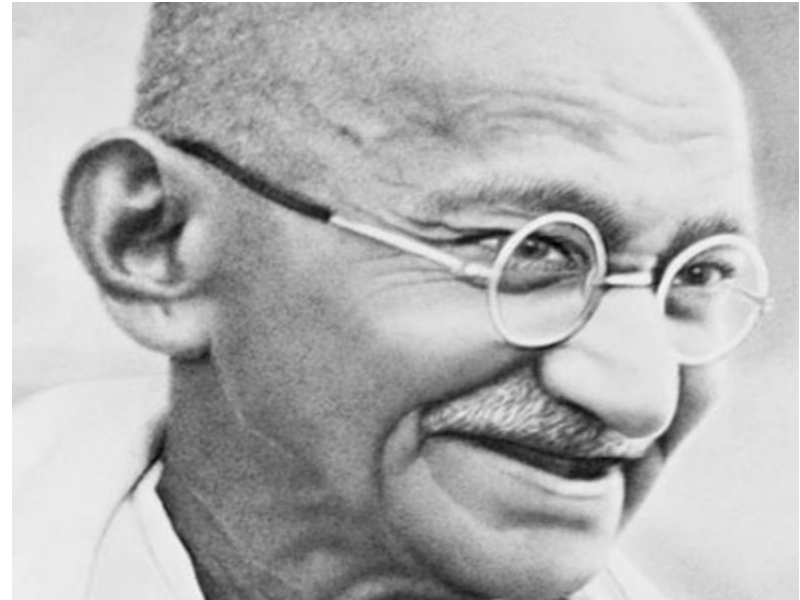
- No
- That's a good and powerful word
- When used sparingly, with courage and restraint
- Peer Review is an important aspect of Quality
- Objectivity, and some polite distance is essential
- English folk wisdom
  - “Fools seldom differ”



# Disagreement

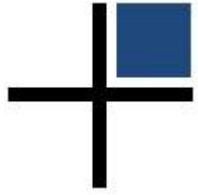
- “Honest disagreement is often a good sign of progress”

– Mahatma Gandhi  
1869-1948



- *Who is Gandhi?*

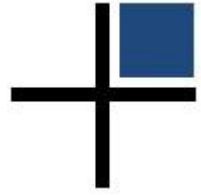
– He's the guy that persuaded the British Empire to give control of India back to its people,  
*without firing a shot*



# Fork Off!

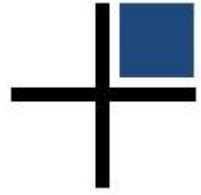
- You don't like it, fork it!
  - It's all about freedom, right?
- Working together is our strength
  - Observe Linux and BSD
- Please try hard to contribute to core PostgreSQL, even with the difficulties
- Do not be tempted to fork – work together





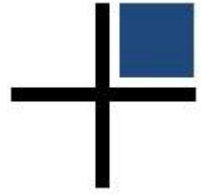
# Open Engineering

- At 2ndQuadrant
  - You're allowed to contribute to PostgreSQL
  - You're allowed to disagree with me
  - Your ideas are great,  
working together on ideas is better
  - Open, public discussion not private chats
- Working alone is efficient
- Working together is best



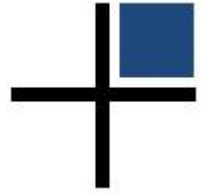
# Working Together

- I'm in Tokyo on 8/12 and 9/12
- I expect to be busy working on PostgreSQL development projects
- If any Hackers would like to meet for work, I would be very happy to spend time working with you



# Contributing to PostgreSQL

- Contributing to the PostgreSQL community is important to keep the software alive and well
  - Development – please discuss early!
  - Documentation & Translation
  - Patch review
  - Early testing – do not wait for 9.4.1 !
  - Useful bug reports



# Economics of PostgreSQL

- The economic model is different and so it is important that people that make money from using PostgreSQL feed that back into community activity
- Understand the lesson of **heartbleed**:  
OpenSSL – used by everybody, supported by nobody
- It is a well understood problem, across many different fields of human activity. In ecology this was called “The Tragedy of the Commons”
- User choice is important: support companies that **actively** support PostgreSQL



# Japan PostgreSQL User Group

- Thank you to JPUG for being good citizens
- Most active user group worldwide!
- Please enjoy the conference