POSTGRESQL is successful only because of its vibrant open source development community. This presentation chronicles the building of that community.

https://momjian.us/presentations

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• OS Files
• ISAM, indexed on a key
• No joins, WHERE clauses, or complex sorts
The University of California at Berkeley
Postgres

Michael Stonebraker

Postgres95

Jolly Chen and Andrew Yu
PostgreSQL Code Base History

- Ingres — research prototype, spawned Relational Technologies, purchased by Computer Associates
- Postgres — research prototype, spawned Illustra, purchased by Informix
- Postgres95 — added SQL, spawned PostgreSQL
1977–1985  Ingres
1986–1994  Postgres
1994–1995  Postgres95
1996–  PostgreSQL
Transition from Single Maintainer To Internet Development

- Getting approval
- Scouring the mailing list
- Todo list
- Faq
- How does this thing work?
PostgreSQL Core Team

Top row: Thomas Lockhart, Jan Wieck, Tom Lane, Marc Fournier
Bottom row: Vadim Mikheev, Bruce Momjian
Assisting Our Developers

- Developer Education
  - Developer’s Faq
  - Source code flowchart
  - Emphasize code clarity and people will respond
- Developer Recruitment
- Cvsup, remote Cvs
- Managing an increasing installed base
Internals Flowchart

1. Main
2. Postmaster
3. Postgres
4. Traffic Cop
5. Generate Paths
6. Optimal Path
7. Execute Plan
8. Parse Statement
9. Rewrite Query
10. Utility Command
11. Libpq

Objects:
- Utilities
- Catalog
- Storage Managers
- Access Methods
- Nodes / Lists

Queries:
- SELECT, INSERT, UPDATE, DELETE, MERGE
- CREATE TABLE, COPY
Keeping the Code Clean

- automatic formatting
- remove unused functions
- mark single-file functions as static
- rename variables and functions
- require patches to be of acceptable quality
Developer’s Globe
Daily Chores

- Mailing list
  - Answer simple questions
  - Identify valid bug reports
  - Work with users to test bug fixes
  - Collect feature requests
  - Encourage technical discussions
- Patch application
- Encourage
- Marketing
Packaging a Release

- Collect unapplied patches
- Resolve outstanding issues
- Regression testing
- Enter beta
- Resolve all bug reports
- Final release
- Collect and apply safe patches
- Issue subreleases
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Development Directions

- Features
- Performance
- Reliability
- Code simplicity
- Standards conformance
- Documentation
- Pace of releases
Performance - AS3AP
Conclusion

Top row: Thomas Lockhart, Jolly Chen, Vadim Mikheev
   Jan Wieck, Andrew Yu, Tom Lane
Bottom row: Bruce Momjian, Marc Fournier