

# Building Open Source Teams

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This presentation highlights the challenges of building and managing an open source team of volunteers. Topics include motivation, communication, and project management.

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*Last updated: February, 2019*

# My Open Source Experience

- ▶ Cofounder of the Postgres Internet development team
- ▶ Postgres core team member since 1996
- ▶ Worked for three companies as an open source manager

# Outline

1. Motivation
2. Open source management
3. Development process

# Open Source Motivations

- ▶ Professional advancement, learn new skills
- ▶ Practical need for the software
  - ▶ *Business needs the enhancement*
  - ▶ *Business wants the software to thrive*
- ▶ Mental Stimulation
- ▶ Belief in open source

Concepts derived from a survey conducted by OSDN and reported in “Open source a needed outlet for programming pros”, *The Register*, May 2, 2002, <http://www.theregister.co.uk/content/4/23935.html>.

# Why Is Programming Fun?

- ▶ Joy of making things
- ▶ Joy of making useful things
- ▶ Fun of a complex puzzle
- ▶ Joy of learning
- ▶ Tractable medium

Concepts derived from *The Mythical Man-Month* by Frederick P. Brooks, Jr.

# Open Source Management Challenges

- ▶ Communication
- ▶ Travel distance
- ▶ Time zones
- ▶ Culture
- ▶ Language
- ▶ Funding

# Communication

- ▶ Email
- ▶ Phone
- ▶ Instant messaging
- ▶ Group chat
- ▶ Wiki
- ▶ Software configuration manager
- ▶ Conferences

# Travel Distance

- ▶ Expensive
- ▶ Time-consuming
- ▶ Often only a few people in any one location



# Time Zones

- ▶ Work beyond business hours
- ▶ Use your cell phone for communicating off-hours
- ▶ Time zone variances allow 24-hour activity

# Culture

- ▶ Show interest in other cultures
- ▶ Utilize culturally-effective communication methods
- ▶ Build per-culture teams

# Language

Consider the creation of per-language:

- ▶ Email lists
- ▶ Chat channels
- ▶ Conferences
- ▶ Documentation

# Funding

You don't have any, so work around it.

# Development Process

- ▶ Involve everyone
- ▶ Find each person's motivator
- ▶ Reach out to individuals
- ▶ Harvest the strength of the team
- ▶ There is always someone smarter than you
- ▶ Produce work people can be proud of

# Clean Code

- ▶ People can't work on the code if they can't easily understand it
- ▶ You aren't paying people to work, so make it as easy and interesting as possible
- ▶ Produce quality documentation

# Manage the Team

- ▶ Lead by example, not from authority
- ▶ See value in other people's opinions
- ▶ Accept failure gracefully
- ▶ Seek consensus
- ▶ Don't be ruled by deadlines

# Conclusion



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