A Million Lines, Eighteen Months

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Why Agile?

- Failed projects

- Late projects

- Major database changes

- Major architecture changes

- Management demanded something must change

XP Values

- Communication
- Simplicity
- Feedback
- Courage
- Respect

Communication

- Whole Team meetings
  - Daily stand-up
  - Beginning of iteration planning meeting
  - End of iteration retrospective
- Estimation meetings

Communication

- Bullpen
- Pair Testing
- Big Visible Charts
- Emails
- Wiki

Simplicity

- Do the simplest thing that could possibly work

- Automation, automation, automation

- Visual SourceSafe to Subversion: simpler source control

- Custom defect database to Trac: simpler issue tracking

Feedback

- Automated tests
- Continuous builds
- One week iterations
- Retrospectives
  - Post-iteration
  - Post-story
  - Post-pairing
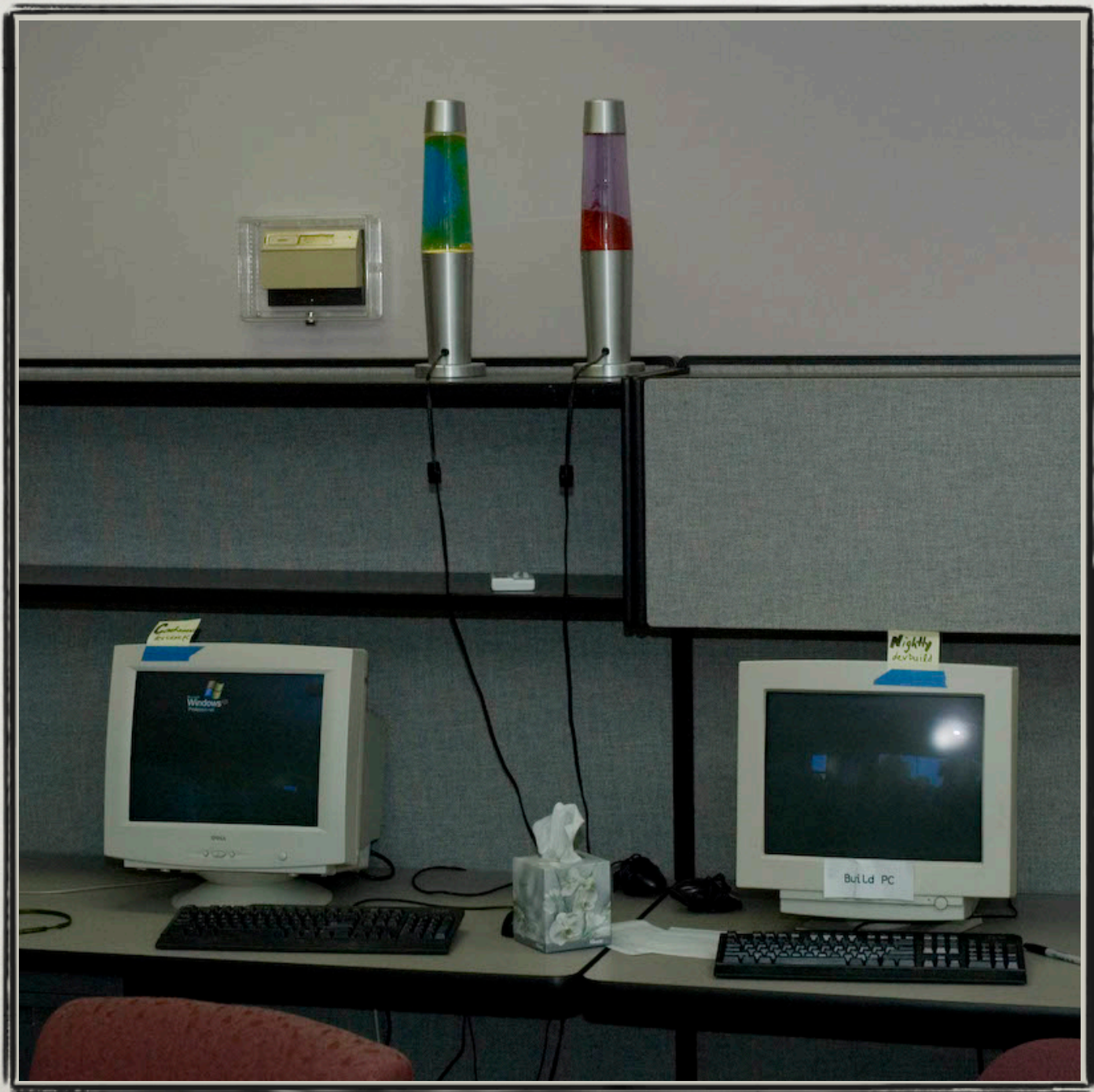
Courage

- To work in unfamiliar code
- To change how we do things
- To hold teammates accountable
- To voice opinions

Respect

- When things get heated remember: we are all professionals

- Personality differences must be put aside

- Change is good, but should be brought about carefully and politely

XP Practices

- Pair Programming

- Planning Game

- Test Driven Development

- Whole Team

XP Practices

- Continuous Integration

- Design Improvement

- Small Releases

- Sustainable Pace

XP Practices

- Coding Standard

- Collective Code Ownership

- Simple Design

- System Metaphor

Pair Programming

- Must learn to cope with different personalities

- A higher degree of respect is necessary

- A paradox: it is both easier to stay on task, and easier to get off task

- Knowledge dissemination

Planning Game

- Most of our estimation is done outside of the planning meeting

- Mike Kohn's estimation poker (get a kitchen timer)

- 30 minute planning game

Test Driven Development

- Essential to our success

- Addictive rhythm

- 5588 automated tests

- Working Effectively With Legacy Code by Michael Feathers

- Don't leave out exploratory testing

Whole Team

- Testers and developers working **together**
- Customers were surprisingly hard to engage at first
- We adapted to not having a full-time Customer, and our customers adapted to better meet our needs

Continuous Integration

- Implemented before we started XP. It has been instrumental to our success

- Knowing when a source change has broken something as soon as it is committed to version control is essential

Design Improvement

- A million lines of mud

- We tried a big refactoring. A year later, we were still finding bugs

- Small refactorings get to the goal. We refactor with every story we do

Small Releases

- Nine months to our first release, including completely changing our database platform

- Released almost every month since then

Collective Code Ownership

- It's harder to do than it sounds

- We all feel entitled to change the code, but there are still areas in which we don't feel confident

- We still have large swaths that only the experts are comfortable in

Simple Design

- A million lines of mud

- Transforming a complex design into a simple one is a tall order

- Work in progress

Sustainable Pace

- Very important

- One week iteration

- From time to time, a week with overtime, but not the norm

The Bullpen

- It's amazing the effect the environment has on productivity

- Lots of open space

- Dedicated pairing stations

- Big Visible Charts

- Acres of white board

Challenges

- Delphi

- Legacy code

- Estimation

- Testing

- People

0.004 acres shown

Bullpen:
Wall of Whiteboard

Bullpen:
Tester Pod

Bullpen:
Pairing Pod

Pairing Station

Questions?