Joomla, 40 Million Page Views, and You

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Summary Overview

MTV brought Mitch Pirtle in to recommend a platform for a very high-traffic website - he chose an open source platform and then led development to a successful release. Problems solved: lowering costs, fostering a can-do philosophy, promotion of the free software approach of sharing with others, unique development approaches learned from working on large FOSS projects

Obligatory ‘Me’ Slide

- American, married Swiss
- Lived in US and EU
- Currently in NYC
- Web-only since 1995
- VP at KickApps
- High traffic sites
- Pragmatic, not dogmatic
- Joomla! co-founder
- Former Mambo core
- Booster of many FOSS
- Co-founded NYCJUG
- Too many projects to list

Let’s Get This Thing Started

Audience Breakdown

Technology

Are you a technologies person?

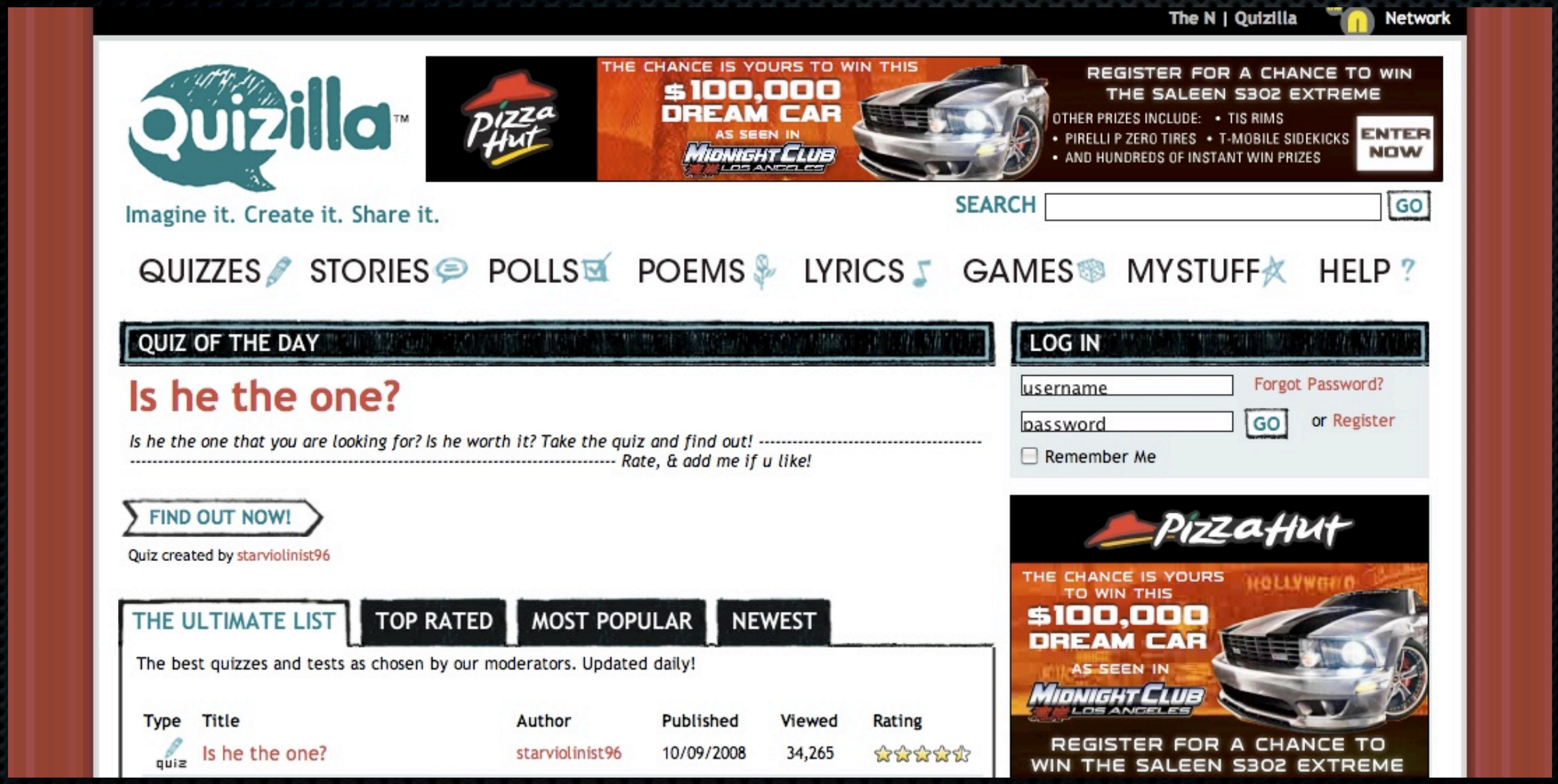
Business

Are you a business person?

Not Technology or Business

Are you neither?

Drum Roll, Please



Quizilla

www.quizilla.com

The Challenge

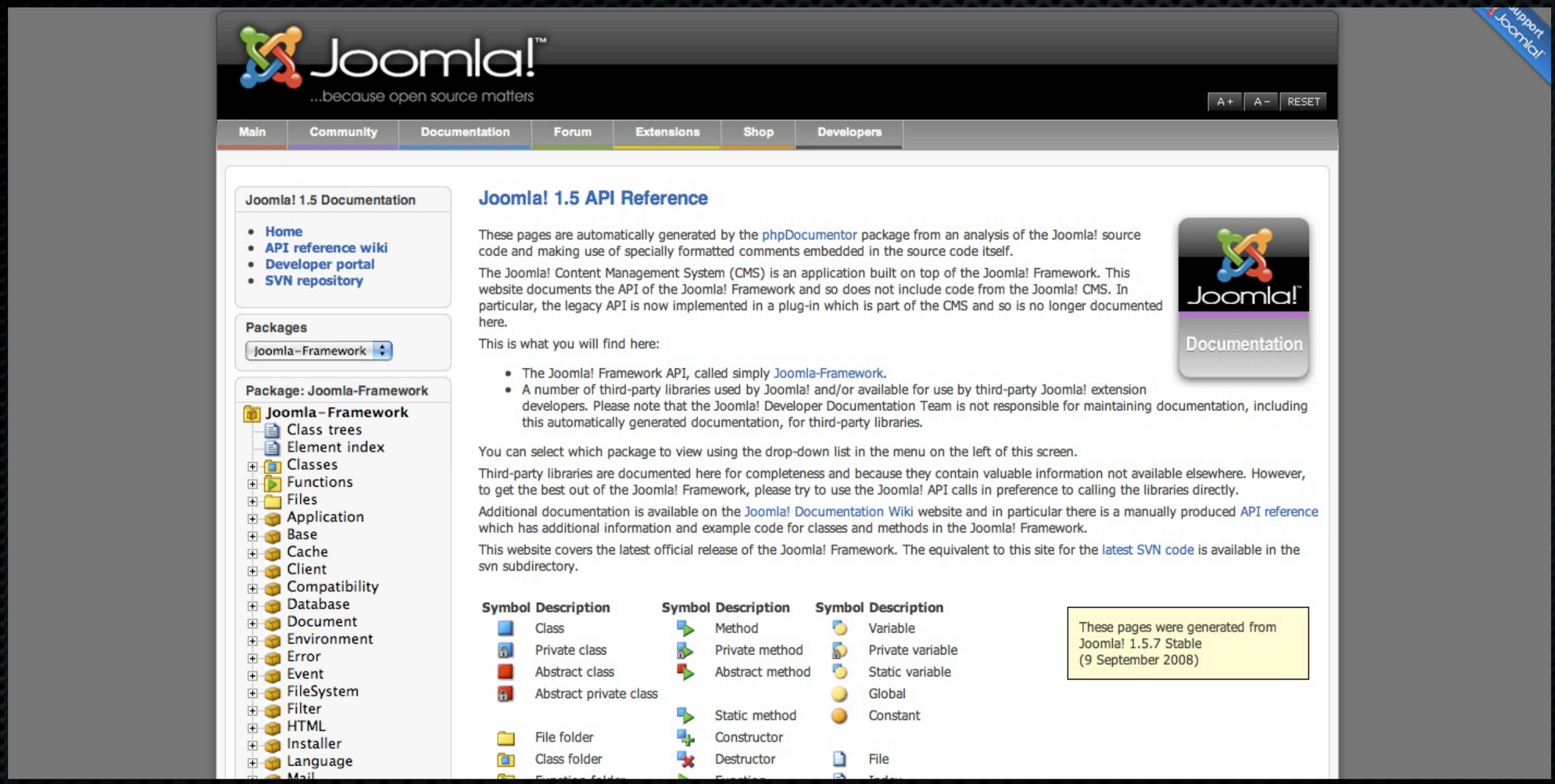
- www.quizilla.com
- Acquired in 2006
- Peaks of 40,000,000 unique pageviews in a week
- Mix of two codebases (perl & php)
- Difficult to maintain
- Difficult to augment/evolve

The Objectives: New World

- High performance
- Reliable, stable
- Scale to extremes
- Easy to maintain
- Easy to extend

The Shopping List

- Open Source
- Framework
- MVC
- Strong Community
- Active Development
- Common Language
- Available Resources
- Modular Architecture
- Flexible, Customizable



Winner: Joomla! Framework

http://docs.joomla.org/Category:Framework

Psssssst! Hey buddy!

Ok, we could have used CakePHP, Symfony, Zend Framework, Django, Ruby on Rails, Merb....

However PHP was desired, and I was available.

Why Joomla! Framework?

- Meets all objectives
  - PHP, MySQL
  - FOSS
  - Flexible
  - Framework
  - MVC...

Result: Success

- Only needed 3 webservers
- Only needed 2 database servers
- Becoming standard base platform for future development

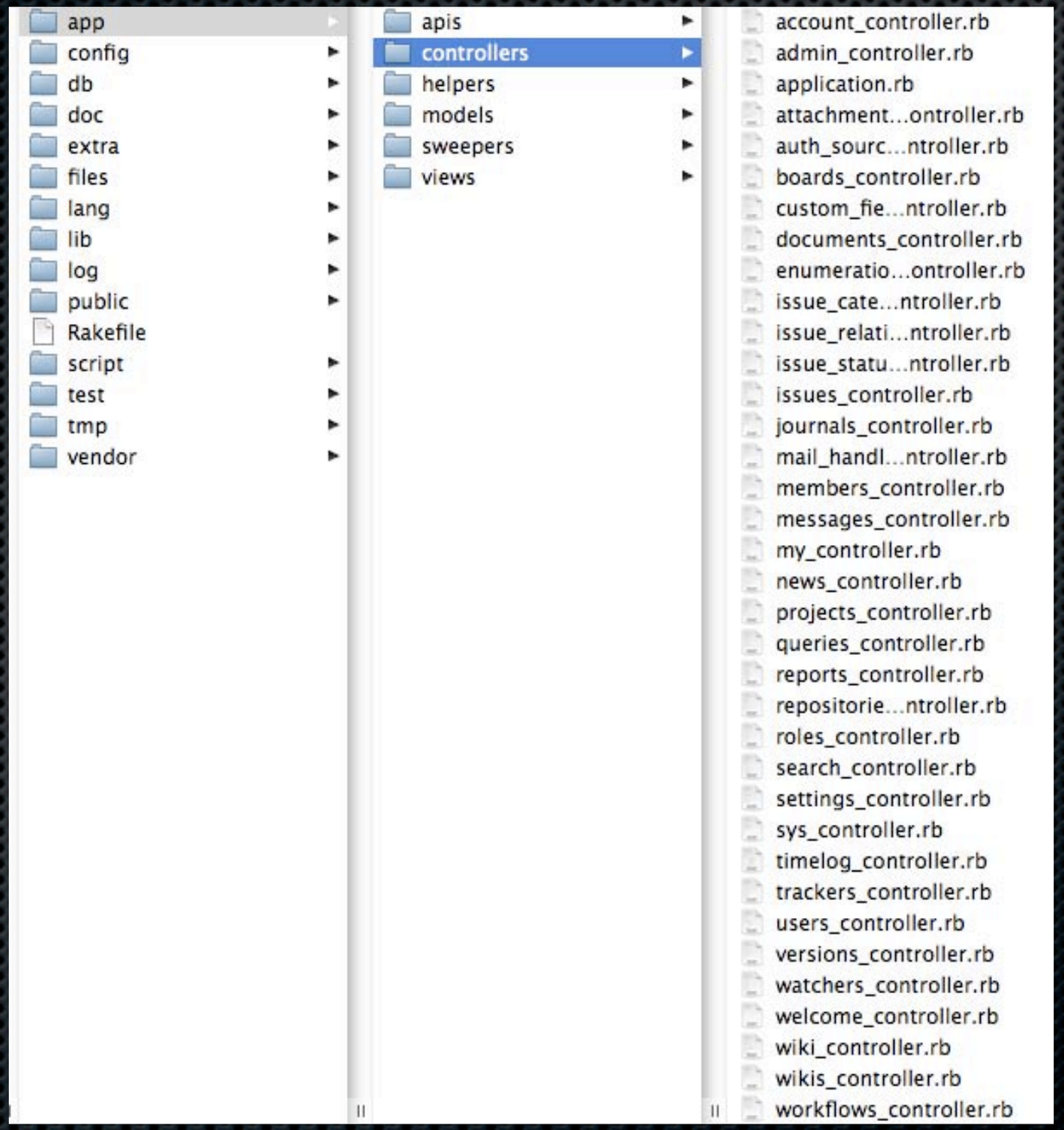
Impact: Development

- Atomic MVC - many developers, few conflicts
- Source code - Tight reliance on revision control systems
- Issue Tracker - Daily SCRUM-style planning meet
- Change management - Build process with controls

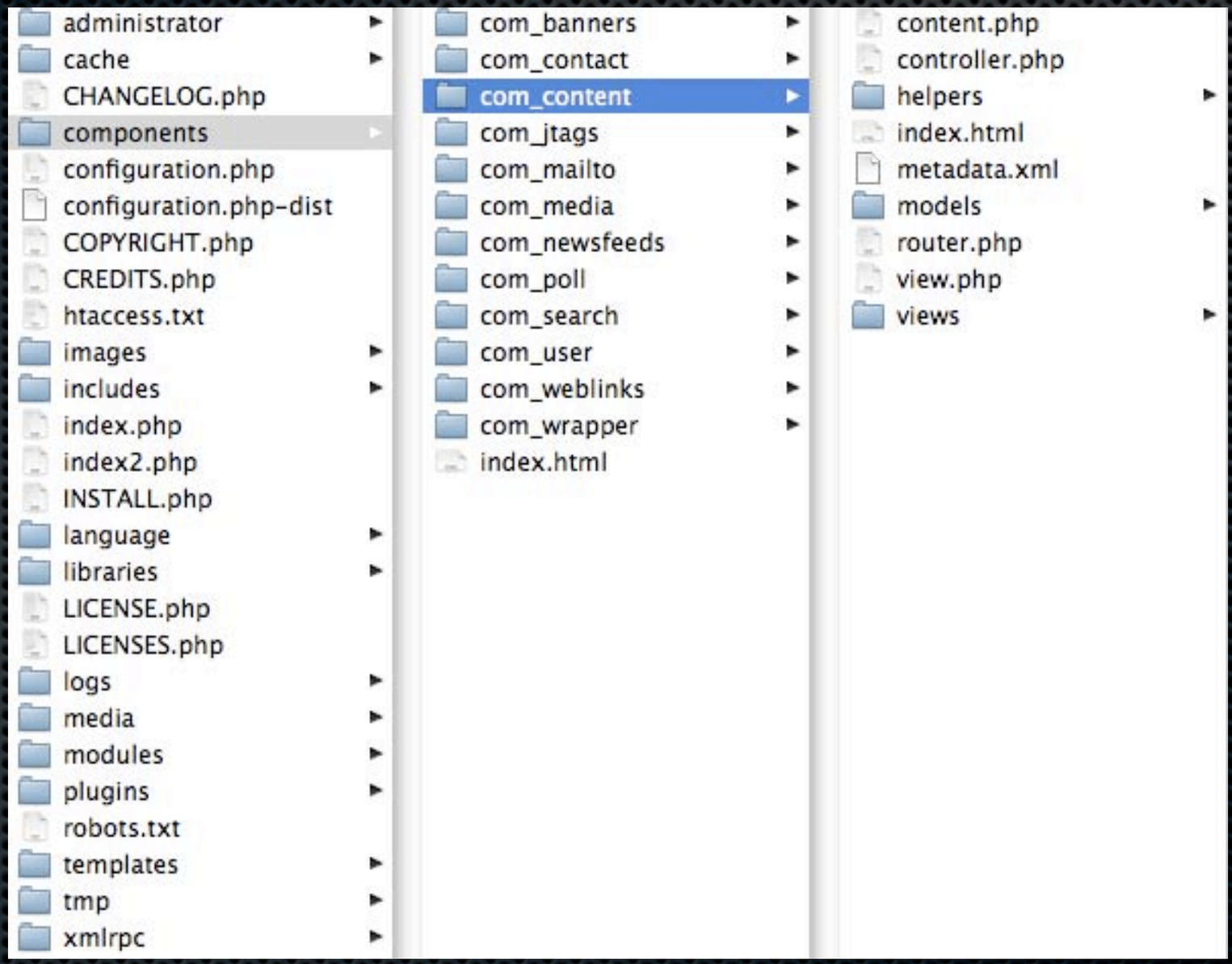
Atomic MVC?

- Ok, I made that up. Sounds cool though.

What MVC Looks Like



This is Atomic MVC



Plain MVC

Atomic MVC

Impact: Philosophy

- Anything developed that wasn't a proprietary feature or function was contributed back to the project
- All code was packaged for ease of reuse on other projects within the enterprise

So What Did We Learn?

One Size Fits All

Ok, almost.

Modular Framework

Not fully decoupled from CMS (yet)

Database Class

Still very specific to one instance - no tiers or pools

So How Does It End?

No biggie. We didn’t fall ALL the way down.

One Size Fits All: Classes!

- Joomla is a *stack* framework
- No need for language support
- No need for dynamic navigation
- No need for third party API support
- JDate? A date class? Are you freaking kidding me?

Modular Framework: Extend

- Extended existing classes for specific needs
- Introduced helper classes to simplify complex tasks

Taming JDatabase

- We cheated. And we're proud of it.
- Extended jConf with a constructor for poor-man's query pool
- Extended JDatabase mysqli driver to have one connection for reads, one for writes

JSession Ate My Brain

- Changes too numerous to mention :-)
- Fixes to storage driver
- Fixes to cookie mechanism
  - Auto-remember
  - Auto-resume

Input, Output

- Hacked the output buffers so modules could share information with components

Special Note on Caching

- JCache needs help. Serious help.
- Used memcached driver
- Chose our own key namespace strategy
- Switched to a write-through cache approach
- Dropped output caching entirely
- Added per-item expiration TTL

Current Status

- Codebase is now part of the standard offering for MTV websites that would like to take advantage of the platform

Questions?

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