

# Joomla, 40 Million Page Views, and You

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NYPHP, January 2009

# 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



Imagine it. Create it. Share it.



REGISTER FOR A CHANCE TO WIN  
THE SALEEN S302 EXTREME

OTHER PRIZES INCLUDE:

- TIS RIMS
- PIRELLI P ZERO TIRES
- T-MOBILE SIDEKICKS
- AND HUNDREDS OF INSTANT WIN PRIZES

**ENTER  
NOW**

SEARCH

GO

QUIZZES  STORIES  POLLS  POEMS  LYRICS  GAMES  MYSTUFF  HELP ?

QUIZ OF THE DAY

## Is he the one?

*Is he the one that you are looking for? Is he worth it? Take the quiz and find out! ----- Rate, & add me if u like!*

**FIND OUT NOW!**

Quiz created by [starviolinist96](#)

**THE ULTIMATE LIST**

**TOP RATED**

**MOST POPULAR**

**NEWEST**

The best quizzes and tests as chosen by our moderators. Updated daily!

Type



Is he the one?

Author

[starviolinist96](#)

Published

10/09/2008

Viewed

34,265

Rating



LOG IN

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password

or [Register](#)

Remember Me



THE CHANCE IS YOURS  
TO WIN THIS

**\$100,000  
DREAM CAR**

HOLLYWOOD

AS SEEN IN  
**MIDNIGHT CLUB**  
LOS ANGELES



REGISTER FOR A CHANCE TO  
WIN THE SALEEN S302 EXTREME

# Quizilla

[www.quizilla.com](http://www.quizilla.com)

# The Challenge

- [www.quizilla.com](http://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

The screenshot shows the Joomla! 1.5 API Reference documentation page. At the top, the Joomla! logo and slogan "...because open source matters" are visible, along with navigation links for Main, Community, Documentation, Forum, Extensions, Shop, and Developers. A support button is in the top right corner.

The main content area is titled "Joomla! 1.5 API Reference". It includes a sidebar with links to Home, API reference wiki, Developer portal, and SVN repository, and a dropdown menu for Packages set to "Joomla-Framework". Below this is a detailed tree view of the "Joomla-Framework" package, listing categories like Class trees, Element index, Classes, Functions, Files, Application, Base, Cache, Client, Compatibility, Database, Document, Environment, Error, Event, FileSystem, Filter, HTML, Installer, Language, and Mail.

The main content area also contains descriptive text about the automatically generated nature of the API reference, the Joomla! CMS context, and the legacy API implementation. It lists what you will find here: the Joomla! Framework API and third-party libraries used by Joomla!.

Below this, there's a note about selecting packages via a dropdown menu and a statement that third-party libraries are documented for completeness. It also mentions additional documentation available on the Joomla! Documentation Wiki.

At the bottom, there are three columns of "Symbol Description" icons:

Symbol Description	Symbol Description	Symbol Description
Class	Method	Variable
Private class	Private method	Private variable
Abstract class	Abstract method	Static variable
Abstract private class	Static method	Global
File folder	Constructor	Constant
Class folder	Destructor	File
Function folder	Function	Folder

A yellow callout box in the bottom right corner states: "These pages were generated from Joomla! 1.5.7 Stable (9 September 2008)".

# Winner: Joomla! Framework

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

# Psssst! 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



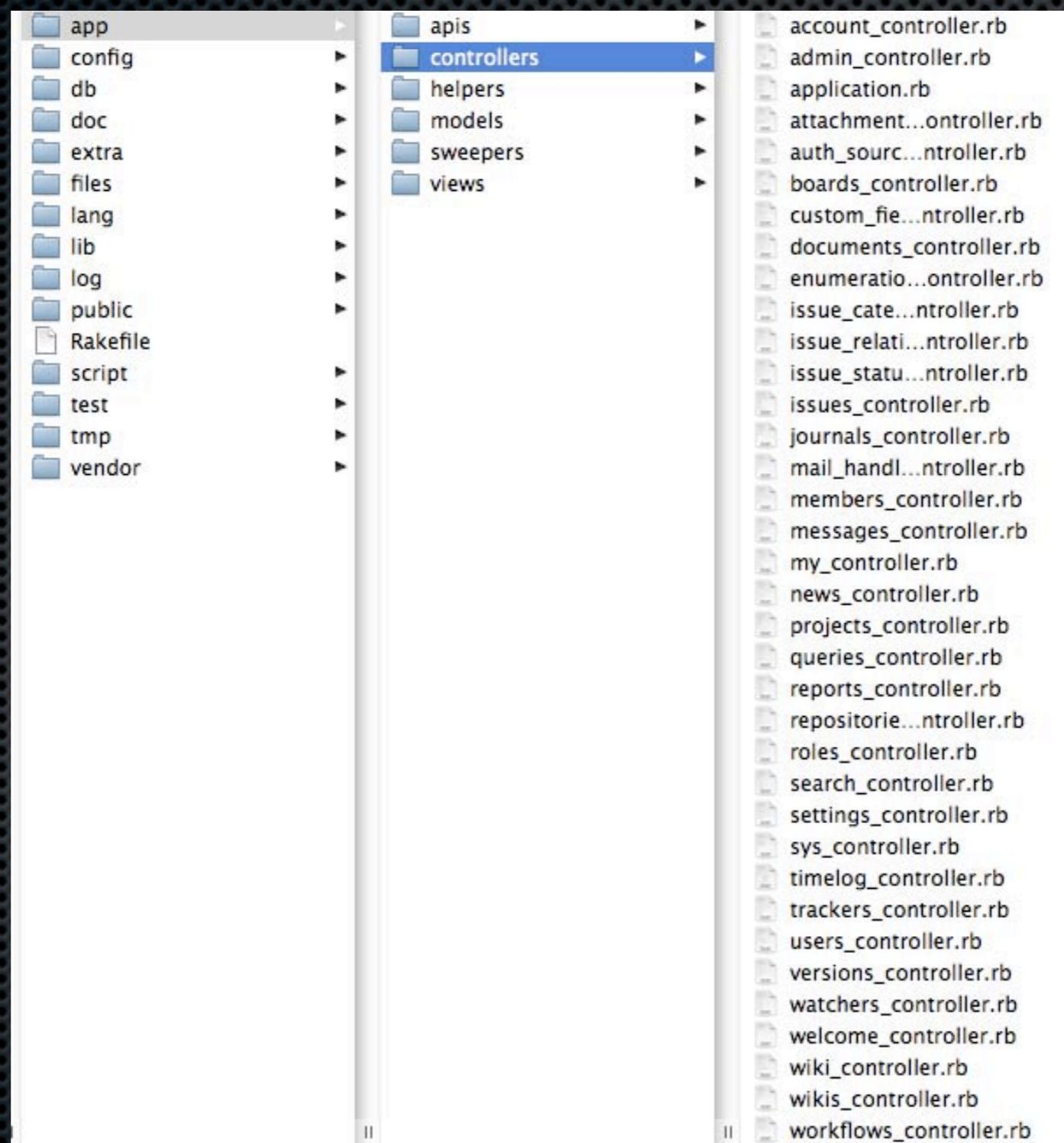
# Impact: Development

- 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

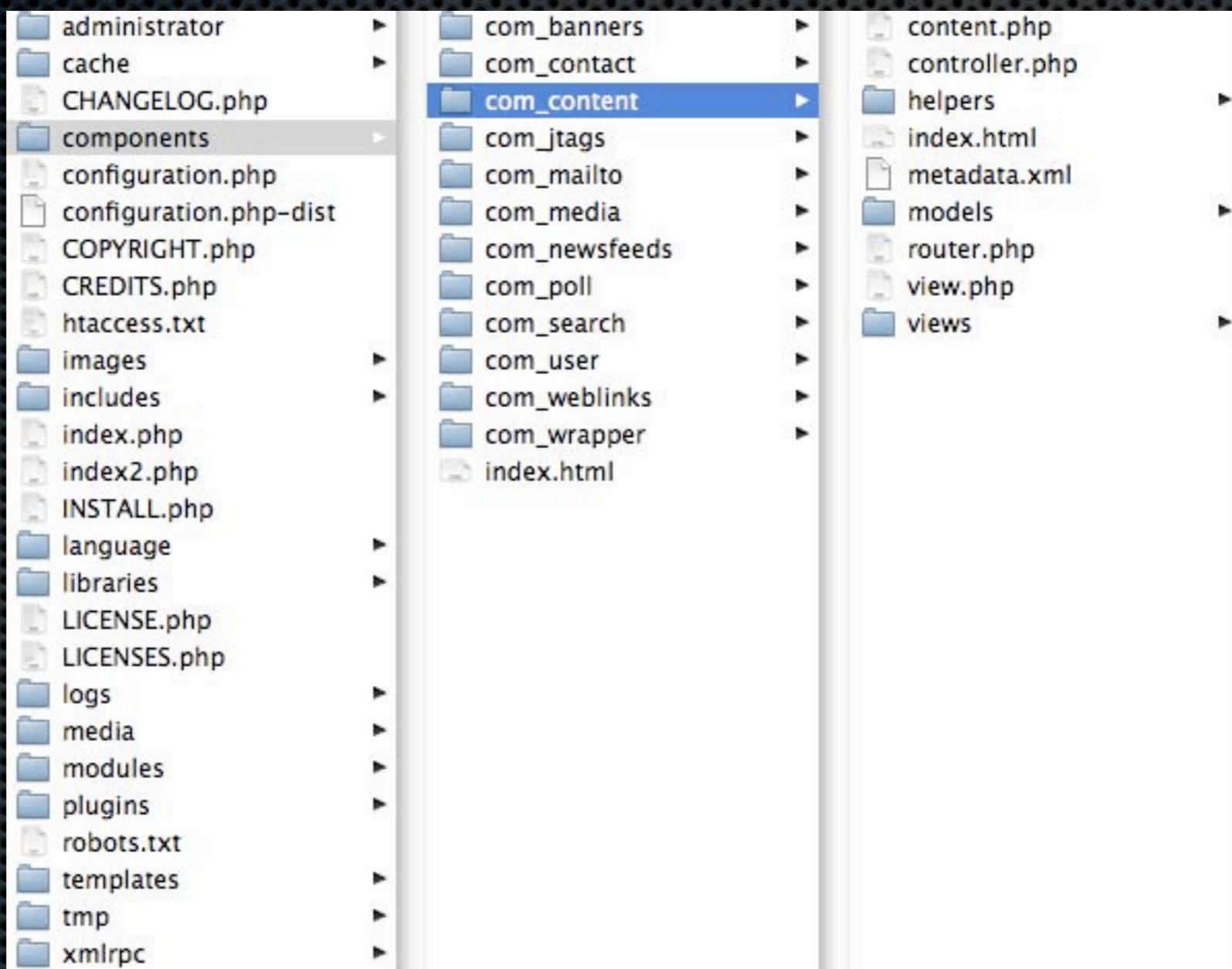
# Atomic MVC?

- 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.



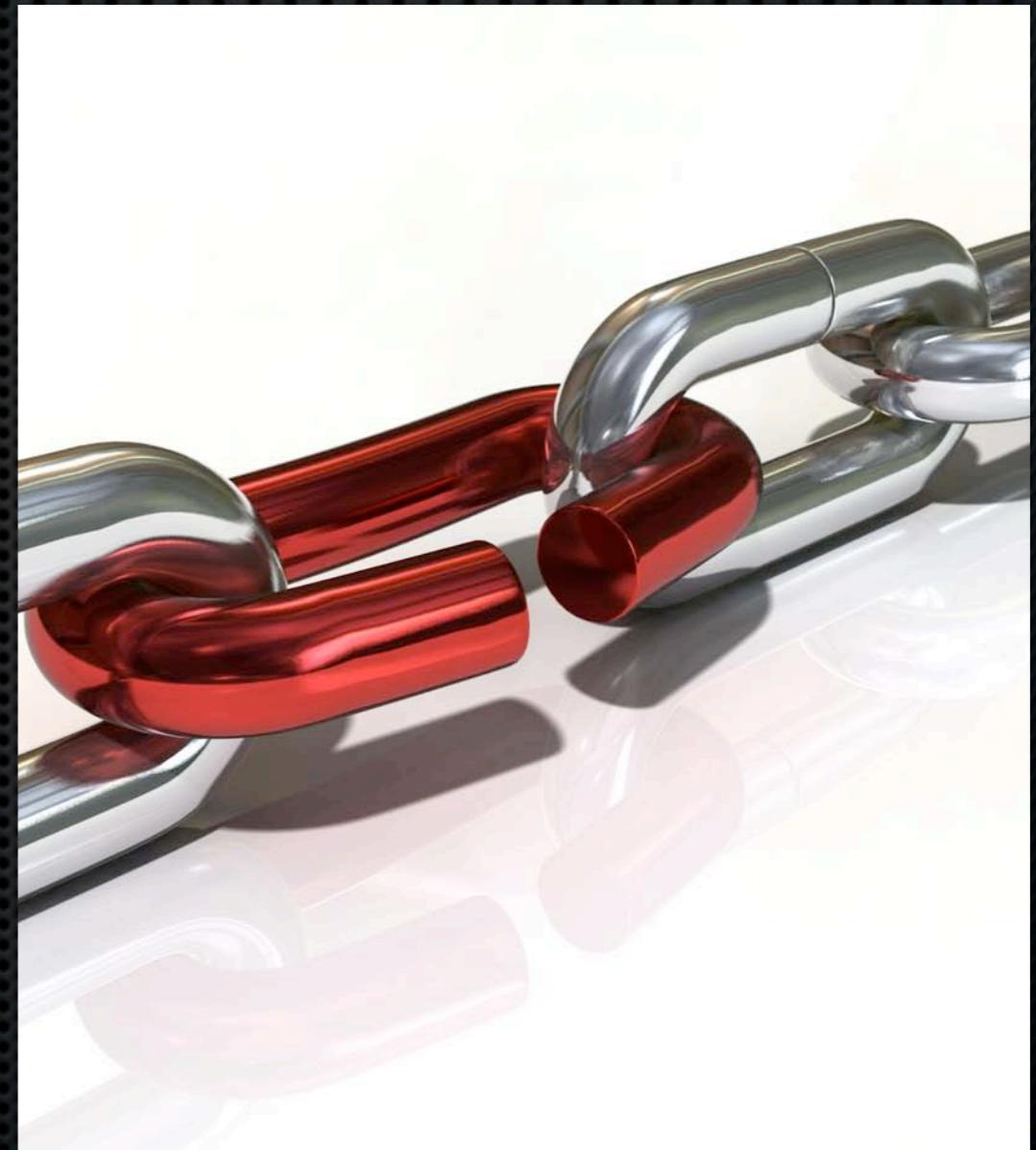
# Modular Framework

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?

Mitchell Pirtle

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