

# The Dope On Zope

## *Getting Started With The Zope Application Server*

Tim Wilson

wilson@visi.com

Henry Sibley High School  
Mendota Heights, Minnesota

# What's Zope?

Zope is an open source application server written in Python that features a transactional object database, distributed control, lots of 3rd party products, a search engine, and a growing community of users and developers.

# History of Zope

In November 1998, Digital Creations combined:

**Bobo** an open source Web-object toolkit

**Principia** a commercial Web application platform

DC's venture capital firm encouraged them to open source their software and Zope was born.

# Architecture

Zope has a component architecture:

- ZServer
- Zope Core
- Object Database (ZODB)
- RDMBS integration
- Zope Products
- ZClasses

# ZServer

- Supports HTTP, FTP, XML-RPC, FastCGI, and PCGI
- Plays well with others (e.g., Apache, Squid)

Note: ZServer on its own won't win any races serving static content. Proxies make a world of difference. Zope supports caching of "expensive" SQL queries and heavily dynamic content.

# Zope Core

Zope has built-in

- Search engine
- Flexible security layer
- Membership
- Dynamic Text Markup Language (DTML)  
e.g., `<dtml-var foo>`

# Object Database

## The Zope Object Database (ZODB)

- Thinks it's a file system
- Supports:
  - Transactions
  - Undos
  - Private versions
- Scales well with failover using ZEO

# RDMBS Integration

Zope supports connections to:

- Oracle
- Sybase
- ODBC
- Solid
- MySQL
- PostgreSQL



# Zope Plugins

Zope is extended in two main ways:

# Zope Plugins

Zope is extended in two main ways:

- Add-on Python products
  - Created in the filesystem
  - Most powerful, takes full advantage of Python
  - Very distributable

# Zope Plugins

Zope is extended in two main ways:

- Add-on Python products
  - Created in the filesystem
  - Most powerful, takes full advantage of Python
  - Very distributable
- ZClasses
  - New object type created through the Web
  - Requires no programming

# Zope Advantages

I continue to use Zope because...

- I don't have to create all the content.

# Zope Advantages

I continue to use Zope because...

- I don't have to create all the content.
- Users can't nuke the rest of the site.

# Zope Advantages

I continue to use Zope because...

- I don't have to create all the content.
- Users can't nuke the rest of the site.
- Easy workflow (with CMF)

# Zope Advantages

I continue to use Zope because...

- I don't have to create all the content.
- Users can't nuke the rest of the site.
- Easy workflow (with CMF)
- Acquisition makes it easy to propagate changes.

# Zope Advantages

I continue to use Zope because...

- I don't have to create all the content.
- Users can't nuke the rest of the site.
- Easy workflow (with CMF)
- Acquisition makes it easy to propagate changes.
- Versions are like magic!



# Zope Disadvantages

Zope isn't a cure-all because...

- It really helps to grok Python and OOP.

# Zope Disadvantages

Zope isn't a cure-all because...

- It really helps to grok Python and OOP.
- Most managers still haven't heard of it.  
"What if you get hit by a bus?"

# Zope Disadvantages

Zope isn't a cure-all because...

- It really helps to grok Python and OOP.
- Most managers still haven't heard of it.  
"What if you get hit by a bus?"
- It ain't *easy*.

# Acknowledgements

- Most of the details listed on these slides are taken from information available at [www.zope.org](http://www.zope.org) and [www.digicool.com](http://www.digicool.com).
- This presentation was created using `vim` and the `Prosper` class for  $\text{\LaTeX}$ . Here's proof:

# Acknowledgements

- Most of the details listed on these slides are taken from information available at [www.zope.org](http://www.zope.org) and [www.digicool.com](http://www.digicool.com).
- This presentation was created using `vim` and the `Prosper` class for  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ . Here's proof:

$$I(z) = \sin\left(\frac{\pi}{2}z^2\right) \sum_{n=0}^{\infty} \frac{(-1)^n \pi^{2n}}{1 \cdot 3 \cdots (4n+1)} z^{4n+1}$$