

# An introduction to Plone for developers

# Roché Compaan

Founder of Upfront Systems

A small consultancy founded in 1998,  
that specialises in web development with  
Zope and Plone

# Why do we love Plone?

- It is written in Python
- Rapid development
- Huge amount of web infrastructure (workflow, session, membership, security, webdav, ftp, xmlrpc)
- ZODB (Z Object Database)
- It scales
- Huge amount of 3<sup>rd</sup> party products ([plone.org/products](http://plone.org/products))

# Goals of this talk

- Show you how to install Zope and Plone
- Introduce Zope concepts (ZODB, Page Templates, Acquisition, ZEO)
- Do some development
- Introduce Plone features
- General Plone Plug

# Installing Plone

- Learn how to install from source so that you can experiment with versions that are not bundled in your distro. It's the familiar *configure make install* dance.
- Always install a ZEO cluster so that you debug a running Zope.
- Some commands to remember:
  - Create a zope instance: /path/to/zope/bin/mkzopeinstance.py
  - Create a zeo instance: /path/to/zope/bin/mkzeoinstance.py
  - Start zope: /path/to/instance/bin/zopectl start
  - Run zope in debug mode: /path/to/instance/bin/zopectl fg
  - Debug zope: /path/to/instance/bin/zopectl debug
  - Start zeo: /path/to/zeoinstance/bin/zeoctl start

# ZODB

- Powerful object database for Python
- High read, low write database
- Use Python pickle module to serialise objects
- Transactional
- Uses multi-version concurrency control (MVCC)
- No locking, raise ConflictErrors
- Example

# Page Templates

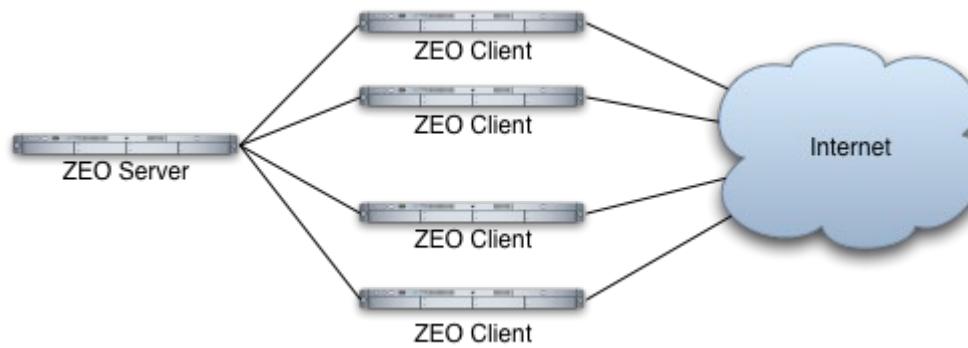
- HTML-editor-safe way of dynamically generating HTML or XML:  
`<span tal:content="request/name"> name appears here </span>`
- Consists of:
  - Template Attribute Language (or TAL)
  - Macro Expansion for TAL (or METAL)

# Acquisition

- Allows dynamic behavior to be shared between Zope objects via containment.
- Useful for sharing standard template with all objects in site.
- “Where am I” example
- Plone's SkinsTool relies heavily on acquisition.
- Makes Zope hell to debug. Zope3 makes acquisition explicit.

# ZEO (Zope Enterprise Objects)

- Used to scale Zope
- Allows you to share a Zope Object Database between more than one Zope process



# ArchgenXML DEMO

## see tutorial at

<http://plone.org/documentation/tutorial/archgenxml-getting-started>

# Plone features

- Site Setup
- Actions
- Skins
- Workflow
- Internationalisation (I18N)
- Security

# Skinning Plone

- Quick wins by changing Logo and base\_properties
- Customising main\_template

# Plone 3.0

- Continues the move to Zope 3.0 by using Five
- Cool features in the upcoming Plone 3.0 release:
  - Versioning
  - AJAX (KSS)
  - Locking
  - Wiki syntax support for all content
  - Improved Markup support (Markdown, Textile)
  - Content rules engine
  - Ensure link/reference integrity (eg. when deleting referenced resources)

Questions?