

## Five - Zope 2 and Zope 3 in Harmony

Sidnei da Silva

Enfold Systems, LLC

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# Motto

It was the dawn of the third age of Zope. The Five project was a dream given form. Its goal: to use Zope 3 technologies in Zope 2.x by creating a Zope 2 product where Zope 3 and Zope 2 could work out their differences peacefully.

(Babylon 5 season 1 intro, creatively quoted)



## Motto 2

The Law of Fives states simply that: ALL THINGS HAPPEN IN FIVES, OR ARE DIVISIBLE BY OR ARE MULTIPLES OF FIVE, OR ARE SOMEHOW DIRECTLY OR INDIRECTLY RELATED TO FIVE.

THE LAW OF FIVES IS NEVER WRONG.

(Principia Discordia)



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# This talk

- Five status update - where we are now
- Describe Five applications - Five in action
- Future



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# The problem

- We are using Zope 2 in production
- Zope 2 is showing its age
- Zope 3 has better ways to do things
- But can't just switch, we have customers!



## Benefits of using Zope 3 in Zope 2

- Able to use Zope 3 technologies right away
- Do not reinvent the wheel/APIs
- Better prepared for Zope 3 transition
- Evolution, not revolution
- Convergence, not divergence



## Last year

- Last year it was just Martijn Faassen
- Last year it was mostly a prototype
- Enfold Systems put some work on the prototype and built the Oxfam America website



# This year

- Philipp, Lennart, many others
- Five is in the Zope 3 base
- We are using it for production applications
- Reenergized Zope 2 development
- Paris Sprint

# Use Five today

- Zope 2.8 was released
- Zope 2.8 contains Five
- Thanks to Paris Sprint and the community
- Open source rules



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# Features

- Interfaces (`zope.interface`)
- Schema (`zope.schema`)
- ZCML (`zope.configuration`)
- Adapters (`zope.component`)
- Views, including layers, skins (`zope.component`)



## Features, continued

- Global utilities
- Edit forms
- Add forms
- Menus
- Zope 3-style macros

# Oxfam America

- Enfold Systems
- Completely from scratch skin
- Uses Zope 3 Page Templates (`zope.pagetemplate`)
- Newbie Zope developer uses Five
- One Year's traffic in 15 days
- Single dual processor box



# Oxfam America

The screenshot shows the Oxfam America website in a Mozilla Firefox browser window. The address bar displays "http://www.oxfamamerica.org/". The website layout includes a green header with the mission statement: "Oxfam America is committed to creating lasting solutions to global poverty, hunger, and social injustice." Below this are links for "Donate now" and "Join our eCommunity".

The main content area is divided into several sections:

- Information for:** Press, Job Seekers, Students, Teachers. Includes a search bar and links for "Español", "Site Map", and "Contact Us".
- LATEST NEWS:**
  - 24 June, 2005**: [Poorest People Suffered Most From The Tsunami](#). Accompanied by a photo of a man in a white cap. Text: "Oxfam's Elizabeth Stevens offers initial impressions from her tour of tsunami reconstruction efforts in Indonesia." Link: [Read more](#).
  - 20 June, 2005**: [Oxfam Presses Bush For Cotton Reform](#). Accompanied by a photo of a woman in a hat.
  - 15 June, 2005**: [Oxfam Welcomes Debt-Cancellation Deal](#). Accompanied by a photo of a man in a blue shirt.
- LATEST PUBLICATIONS:**
  - [Exchange Spring 2005](#)
  - [Annual Report 2004](#)
- Other highlights:**
  - Oxfam launches Spanish-language site**: Site will feature news, information and resources on Oxfam's work in the US, Central America and South America.
  - Activists get creative**: Participation in the [Global Week of Action](#) exceeded expectations with colorful events calling attention to unfair trade rules.
  - Crisis in Sudan**: Order Oxfam's new CD-ROM or read about the conflict that has driven more than 2 million people from their homes in Darfur.

At the bottom, the footer contains: "© 2005 Oxfam America. Oxfam America is a member of [Oxfam International](#). [Privacy & Legal Information](#) - [Contact Us](#). site design by [Corey McPherson Nash](#) powered by [Plone](#)".

The browser's search bar at the bottom shows "Find: syntax" and "Looking up www.oxfamamerica.org...".

Figure: Oxfam America

# UnionCMS

- Were using Zope 3 in Zope 2 tech before there was Five
- Switched to Five soon after it was released
- Use schemas, widgets for authoring interface
- Dumb content objects with application surrounding it



# UnionCMS

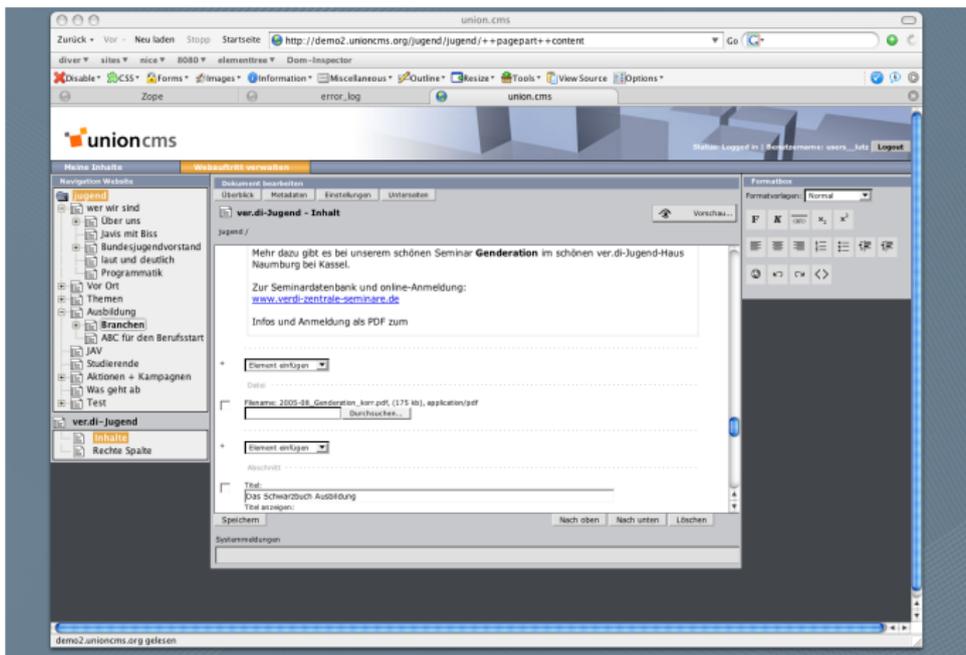


Figure: UnionCMS

# UnionCMS

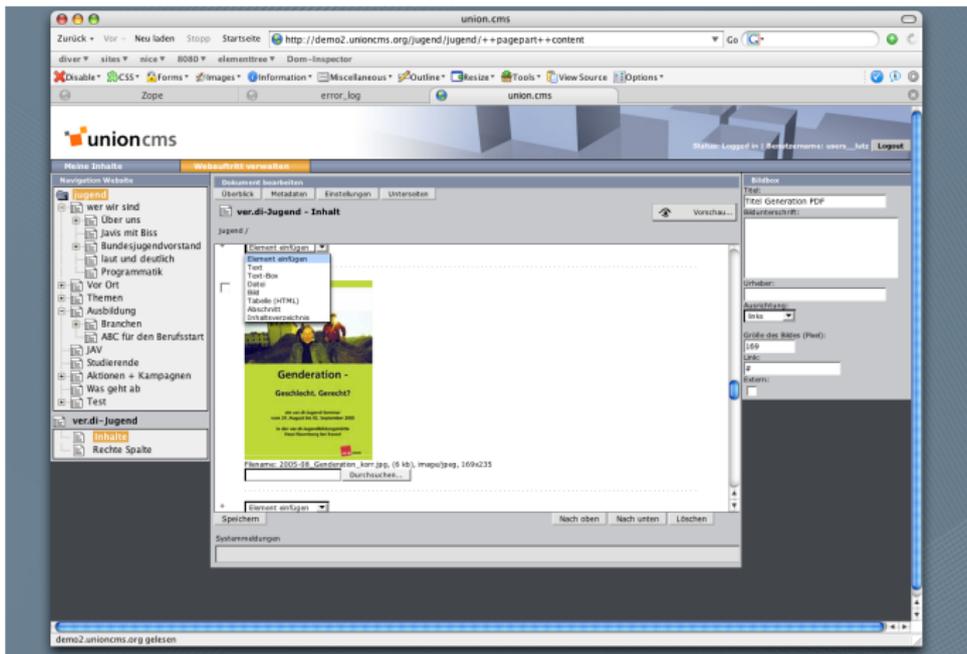


Figure: UnionCMS

# SilvaLayout

- Infrae
- Reusable layout components for Silva
- Maintainable site layouts for Silva
- WUW (Vienna University of Economics and Business Administration)

# SilvaLayout

The screenshot shows a web browser displaying the SilvaLayout interface for the University of Vienna. The browser address bar shows `http://tubbin.BSRG/wuw/index`. The page header includes the university's name and logo. A navigation menu contains links for LEHRE, FORSCHUNG, and SERVICE. A sidebar on the left lists quick links such as 'Silva 1.2 Dokumentation', 'Silva-er', and 'Site-Backuptool'. A search box is also present.

The main content area features a 'WELCOME TO SILVA!' message and a grid of buttons labeled 'a' through 'j'. Below this, there are several tables with columns and rows, some of which are highlighted in blue.

© 2004 Wirtschaftsuniversität Wien | Engineering | Karlsruhe | 22. 6. 2003

Figure: SilvaLayout  enfoldsystems

# SilvaLayout

Wirtschaftsuniversität Wien  
Vienna University of Economics and Business Administration

http://hubbun:8080/silva/silva\_doc/author\_advanced/properties

Wirtschaftsuniversität Wien, August 24, 6:10PM Wien, Austria

HOME | LEHRE | FORSCHUNG | SERVICE

Suche (WS) Home

Quick Links

Silva 1.2 Documentation

- Getting started
- Author basic
- Author advanced
- Adding metadata
- Document versioning
- Content organization
- Importing spreadsheet data
- Exporting content
- Forms editor - updated
- Editor
- Chief Editor
- Manager
- Silva 1.2 index

Suche

Google (WS)

WSI

Silva Site > Silva 1.2 Documentation > Author advanced > Adding metadata

### ADDING METADATA TO CONTENT

Each Silva Publication, Folder and Document has a property screen that can contain metadata and other settings describing the item.

Navigate to the Document, Folder or Publication and click on properties in the top navigation bar of the Silva management area (Fig. 1.)

#### metadata for public version of Shakespeare

metadata set # silva-content	
name	Shakespeare
short title	
metadata set # silva-external	
description	metadoc
subject	
keywords	
description	
creation	21/04/2004 07:34
modification	21/04/2004 07:34
publication	10/03/2004 18:15
show	
propagation	
show	
author	Jan Seifert
last author	jan.seifert
url	http://www.wu-wiwi.com/8080/WSI_en_Texts/Writers/Shakespeare/index
url2	
url3	
url4	
url5	
url6	
url7	
url8	

[Edit metadata](#)

Fig. 1 Metadata and properties

**Updating metadata**  
You can change the metadata associated with an item by filling in values in the properties screen. Certain information is filled in automatically by Silva. (The case only, such as creation time, modification time etc. in sub-object and site areas are defined by Silva itself and are needed for Silva's operation)

For some metadata elements, it is very useful to be able to acquire values from the Folder or Publication the contents is in. This may be achieved by "dagger" entry needs to be filled in once per subfile, instead of for each and every page of the subfile.

The content of some elements can be copied from the parent. This is indicated by a dagger (†) in the "related content" column for that element. If there's nothing entered right up in the line, then the element will be empty except for the dagger. If an assigned value is present then the dagger is shown at the end of the list.

Metadata of Publications, Folders and Assets is not versioned and can always be edited.

Wirtschaftsuniversität Wien - [www.wu-wiwi.com](#)

Figure: SilvaLayout



# CPSSharedCalendar

- Nuxeo and Infrae
- Advanced calendaring application
- Aims at forward portability to Zope 3
- Not bound to Zope: CalCore is (almost) pure-Python
- Not bound to CPS: CalZope runs in straight Zope 2 + Five

# CPSSharedCalendar

The screenshot displays the CPSSharedCalendar web interface. On the left is a sidebar with navigation and utility links. The main area shows a weekly calendar for May 2005, with events like 'Important meeting' and 'Go to the dentist'. On the right is a sidebar with object actions, content, and folder actions.

**Session**  
You are currently logged in as userf (log out)

**Language selector**  
Change language: French [OK]

**User actions**

- Log out
- My stuff
- My stuff
- My preferences
- Add to favorites
- My favorites
- My calendar
- My mails
- My subscriptions

**Portal actions**

- Directores

**Plan du site**

**2005 - May - << Week 18 >>**

Today

Mo 25	Tu 36	We 46	Th 56	Fr 66	Sa 76	Su 86
Morning insertion						
		Important meeting				
				Go to the dentist		

**Object actions**

- Send a mail notification
- Add Event
- Meeting Helper
- View Calendar

**Contenu**

- Google
- Moteur de recherche très puissant >>

**Folder actions**

- Manage portlets
- Notifications Management
- Subscriptions

Figure: CPSSharedCalendar



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# CPSSharedCalendar

**Session**  
You are currently logged in as user? (log out)

**Language selector**  
Change language:  
French [v] OK

**User actions**  
Log out  
My stuff  
My subscriptions  
My preferences  
Add to favorites  
My favorites  
My calendar  
My mail  
My subscriptions

**Portal actions**  
Directories

**Plan du site**  
Sections  
Mon espace de publication  
Site Doc  
Mes favoris

**Add event**

**Title:**  
Important meeting

**Description:**

**Starts:**  
2005-05-04 10:00

**Ends:**  
2005-05-04 12:00

**Take all day:**

**Not busy:**

**Location:**

**Status:**  
CONFIRMED

Create

**Object actions**  
Send e-mail notification

**Contents**  
Google  
Moteur de recherche via yahoo 1.1

**Folder actions**  
Manage portlets  
Notifications Management  
Subscriptions

Figure: CPSSharedCalendar



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# CPSMailAccess

- Nuxeo
- Advanced webmail application
- Webmail application
- Aims at forward portability to Zope 3
- Few dependencies on CPS



# CPSMailAccess

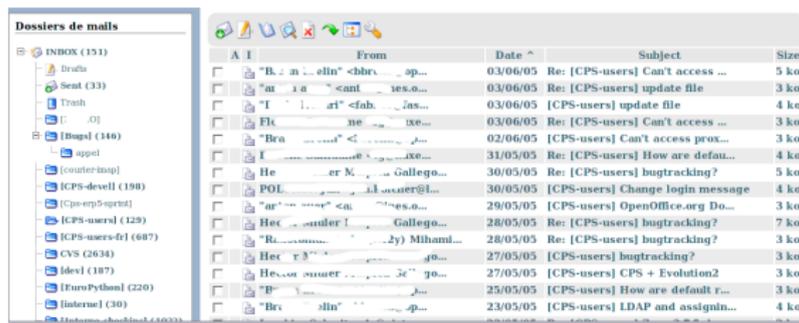


Figure: CPSMailAccess



# CPSMailAccess

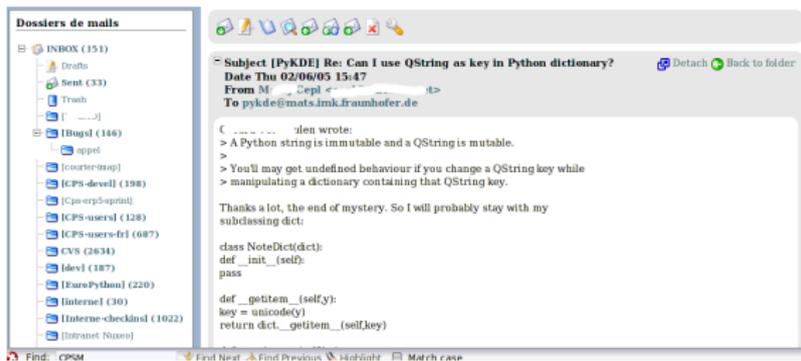


Figure: CPSMailAccess

# TextIndexNG3

- Uses Zope 3 component architecture
- Integrates with both Zope 2 and Zope 3

# Flon

- Five in Plone
- Interface to bind marker interfaces to content
- Default Page adapter
- Index Integration



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# Flon

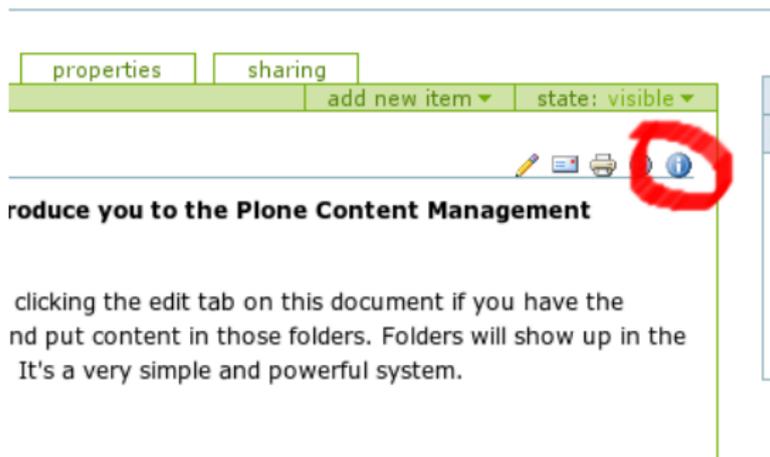


Figure: Flon



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# Flon

contents view edit properties sharing

add new item state: visible

**Marker interfaces changed.**

## Edit Marker Interfaces

A marker interface is used to set a marker on a piece of content. This allows you to enable and disable functionality based on the markers you've set.

**Marker Interfaces**

**Remove Interfaces**

If you want, you can remove some interfaces from the list of interfaces directly provided by your object.

	interface	description
<input type="checkbox"/>	<b>ILegacyContent</b>	Legacy CMS pages have wide content and no sidebars.
<input type="checkbox"/>	<b>ISubsection</b>	View for subsection pages (large intro text).
<input type="checkbox"/>	<b>INavigationInclude</b>	Include item into navigation tree, unconditionally.
<input type="checkbox"/>	<b>INavigationLeaf</b>	Item should behave as a leaf (ie: don't show children in tree).

**Add Interfaces**

You can choose one or more interfaces to be added to the list of provided interfaces for this object.

	interface	description
<input type="checkbox"/>	<b>ICalendar</b>	Default view for Calendar, showing all events by state
<input type="checkbox"/>	<b>ICampaign</b>	Default view for Campaign pages
<input type="checkbox"/>	<b>IEvent</b>	Default view for Events
<input type="checkbox"/>	<b>IFAQ</b>	Default view for a single FAQ

Figure: Flon



# Flon

<input type="checkbox"/>	<b>IRegion</b>	View for regional homepages (orange intro box).
<input type="checkbox"/>	<b>ISitemap</b>	View for the sitemap page
<input type="checkbox"/>	<b>ISubsectionWide</b>	View for subsection pages with wide content and no sidebars.
<input type="checkbox"/>	<b>ITopicFeature</b>	View for topics showing feature stories: title/blurb/thumbnail lists with pagination
<input type="checkbox"/>	<b>ITopicNews</b>	View for topics showing news and publications: date/title list with pagination.
<input type="checkbox"/>	<b>IZopeCallable</b>	Interface for __call__
<input type="checkbox"/>	<b>INavigationExclude</b>	Exclude item from navigation tree.
<input type="checkbox"/>	<b>INavigationForceExclude</b>	Item should be hidden unconditionally.

Additional Info

**Implemented Interfaces**

Those are the interfaces this object provides, either directly or through its base classes.

interface	description
<b>ILegacyContent</b>	Legacy CMS pages have wide content and no sidebars.
<b>ISubsection</b>	View for subsection pages (large intro text).
<b>INavigationInclude</b>	Include item into navigation tree, unconditionally.
<b>INavigationLeaf</b>	Item should behave as a leaf (ie: don't show children in tree).

Figure: Flon

# Fate

- Five for Archetypes
- `base_add`-like functionality
- Using Five views to sanely allow filling form before creating object
- Death to `portal_factory`



# Fate

```
<configure xmlns="http://namespaces.zope.org/zope"
            xmlns:fate="http://namespaces.plone.org/fate">
  <fate:addform
    name="add_file.html"
    for=".interfaces.ISimpleContent"
    permission="zope.View"
    product="MyFiveProduct"
    meta_type="File"
    class=".view.BaseView"
    template="add_file.pt"
  />
</configure>
```



# Convergence

- Developers from Silva, CPS, Plone, UnionCMS and other Zope 2 apps
- CMF and Zope are slowly converging to using Zope 3 interfaces
- Enfold Systems is using Five in several projects internally
- Five is the path of transition from Zope 2 to Zope 3



# Soon

- Cleanup of the Five source code
- Improvements in test infrastructure (atomic tests)
- i18n (Localizer, PlacelessTranslationService, zope.i18n)
- Local utilities (in a branch since Paris Sprint)

## This year

- Enabling zope.formlib (zc.page) package (new Zope 3 form machinery)
- Zope 3.1 support, Zope 3.2 support
- Five is on the roadmap for 2.9



## Join us

- It's easy: you can use it in Zope 2.8 straight away
- It is a cleaner way to write views straight away
- Let us know how it's working for you
- Join the mailing list, #z3-base on irc



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# Shameless Plug

- Enfold Systems has Five experts
- Enfold Systems does Five consulting
- We can help you with your Zope 3 migration strategy
- Hire us!



# Five is Supported

- Enfold Systems
- Infrae
- Nuxeo
- Five Community
- Plone Community - Plone 2.2 should use Five



# Questions?

- Any questions?