



WOWODC '011

MONTREAL 1/3 JULY 2011



Beyond Fluffy Bunny

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Objectives

- Macro-level view of the layout of my application frameworks and application, beyond Fluffy Bunny
- Hope to be helpful to the next New WebObjects project team
- To encourage discussions of “simplifying” the building of WebObjects/WOnder applications
- Improve adoption of WebObjects/WOnder

Agenda

- Introduction
- What is Fluffy Bunny? And Why it's important
- How do I structure my applications?
- A few details
- Q&A

Introduction

- Been around WebObjects since the 1.0
- At NeXT when Apple acquired NeXTSTEP/Cocoa/OS X
- Was in the room when price dropped from \$50K to \$699
- Programmed in JSP
- Managed numerous .Net and other Java development efforts
- But I keep coming back to WebObjects



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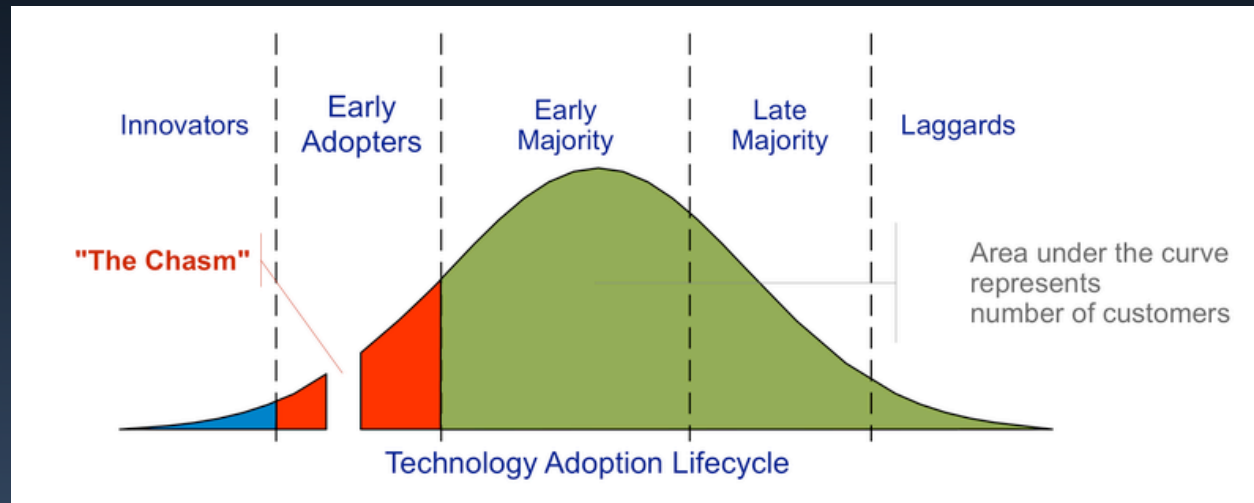


What is Fluffy Bunny?

Why it is important...

Crossing the Chasm

Product Adoption Life Cycle



Geoffrey Moore

WebObjects in the Old Days



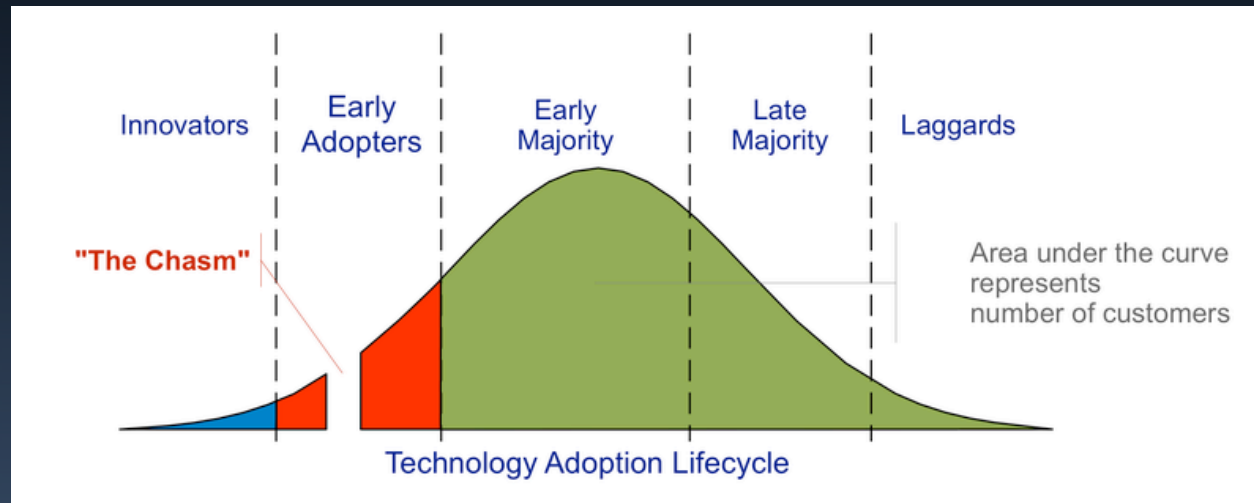
WebObjects Adoption

- Technically
 - Too complex
 - Too many choices
 - Too many ways of doing things
- Business-wise?
 - No marketing, no major corporate backing

Too Many Choices

- WebObjects App
- Wonder/WebObjects App
- WebObjects D2W App
- Wonder D2W App
- Etc. Etc...

Where is WebObjects on the Curve?



Geoffrey Moore

Why Ask the Macro Question?

- Does the iOS/Mobile and Software as a Service business models change the calculus for us?

Why WOnder?

"It's time to stop pretending that WebObjects is a solution by itself anymore.

WebObjects is really just WonderFoundation at this point.

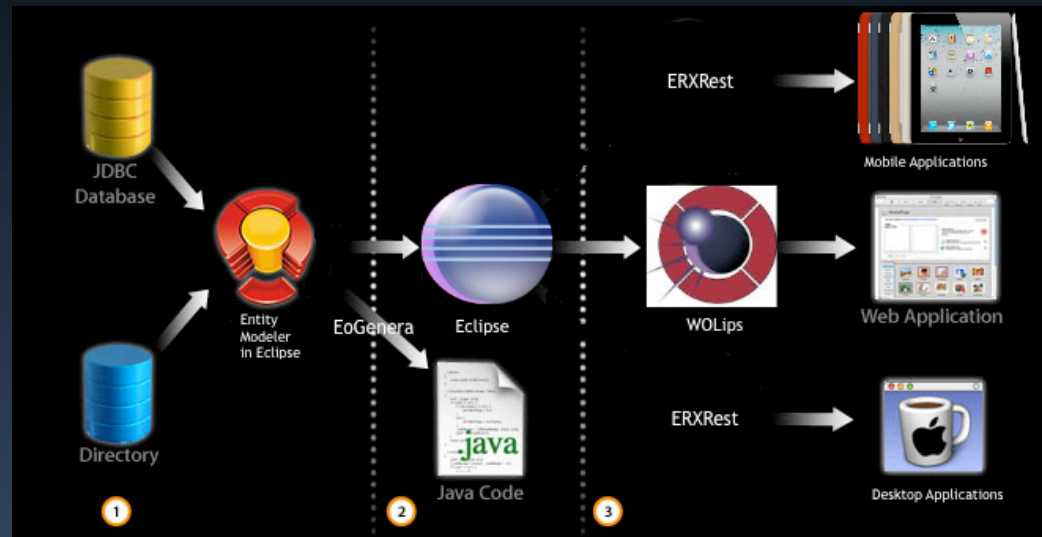
No new developer should ever be starting a plain-jane WO project. Ever!! Not even a Hello World app." Dave Avendasora

Along came Fluffy Bunny



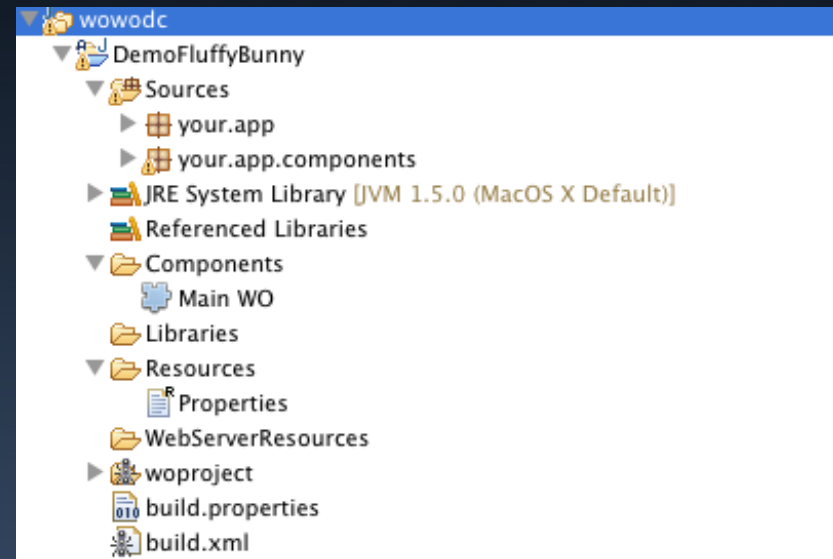
- Introduced with WOLips 3.3
- “All projects now use the Wonder-style project layout (aka Fluffy Bunny Layout)” Mike Schrag

WebObjects and Eclipse



Fluffy Bunny Structure

- Standardized the structured of all WOnder based projects
- Lots of conversation and discussions about this change in the way that WOnder-based WebObjects application would be structured
- Fighting by the OLD guards



Why Fluffy Bunny?

- Mike's way or the highway!
- Moving the product forward so there are less choices for the early majority
- But without knowing it, the current users may not be willing to help crossing the chasm

Where does a new person start?

- WOCcommunity.org
- wiki.objectstyle.org/confluence
- webobjects-dev@apple.com
- wonder-disc@lists.sourceforge.net
- Wonder Examples???



What's wrong with WOnder Examples?

- Too simplistic?
- Too complex?
- Too not tied to EOF?
- Too sparse...



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Beyond Fluffy Bunny

How I structured my apps

Design Patterns Overtime

Thanks Travis and Kieran

Application Setup

- MyAppCore.framework
- MyAppModels.framework
- MyExtensions.framework
- MyAppJasperReports.framework
- MyApp_1.woa
- MyAppWebServices.woa
- MyApp_2.woa

Application Core Framework

- Your own Exception Handling
- Your own Backtrack Handling
- May be your own component extensions
- Your private patches to WOnder

MyAppModel Framework

- Includes your EOModelds
- EOGenerator
 - Templates: Entity, _Entity.java
 - Sources com.mycompany.eo, GeneratedEOs
- jdbc jar(s) in Libraries
- Turn on Migration!!! Even after the fact...

MyExtensions Framework

- String utilities
- Date utilities
- Mail utilities
- Keiran's Controllers and Concurrent handlers
- Others

MyAppJasperReports

- Keiran's JasperReports Framework
- Loose collection of the other stuff needed to support last year's demonstrations
- Your jasperReports.jasper and .jrxml files
- Would be nice not to have JasperReports.jar inside of the JasperReport Framework, so you can pick your own version?

MyApp_1, _2

- Based on the underlying frameworks, then it is easy to implement different application perspectives into the business model
- Productivity much higher than normal

MyAppWebServices

- ERRest really really cool thing
- Uses the same MyAppModelFramework
- RestActions to deliver
 - Binary plist, json, xml, etc.

Client App Experiments

- iPod Read-only app to ERRest API
- Cappuccino update app to ERRest API
- Ipad app (in progress) to ERRest API



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A Few Details

Some Specific Things

- Classpath List at runtime
- Nagios Support
- Log4j notifications
- Component Naming Convention
- Properties.<myName>
- Inline bindings

Kieran's Classpath List

```
@Override
public void didFinishLaunching() {
    super.didFinishLaunching();

    // Output classpath
    if (log.isInfoEnabled()) {
        // Classpath debugging
        // When launched by wotaskd in deployment, the classpath property is
        // com.webobjects.classpath
        String classpath = ERXProperties.stringForKey("com.webobjects.classpath");

        // When launched manually or from within IDE, the classpath is the
        // regular java.class.path
        if (classpath == null) {
            classpath = ERXProperties.stringForKey("java.class.path");
        } // ~ if (classpath == null)

        // Clean it up to a dir prints on each line of console or log file
        if (classpath != null) {
            classpath = classpath.replace(':', '\n');
        } // ~ if (classpath != null)

        log.info("classpath = \n" + classpath);
    } // ~ if (logger.isInfoEnabled())
}
```

Nagios Support

- DirectAction methods
 - Ping
 - PingEO
- Contract with Pascal Roberts

Nagios DirectActions

DirectAction.java

```
/**
 * For Nagios test
 * @return 1
 */
public WOActionResults pingAction() {
    WOResponse response = new WOResponse();
    response.appendContentString("1");
    return response;
}

/**
 * For Nagios EO deadlock test
 * @return "VoiceType.displayCode of Object with primaryKey = 1"
 */
public WOActionResults pingEOAction() {
    VoiceType voiceType = VoiceType.fetchVoiceType(ERXEC.newEditingContext(), VoiceType.DISPLAY_SEQUENCE.eq(new Integer(1)));

    WOResponse response = new WOResponse();
    response.appendContentString(voiceType.displayCode()); //
    return response;
}
```

Log4J Email

- Add log to Components, not just inside of EOs
- Set Properties to send log4j emails to admin account
- GmailSMTPAppender

Component Log4J setup

```
private static Logger log = Logger.getLogger(ComponentName.class);

public WOActionResults saveChanges() {
    try {
        log.info(" schoolSelection = " + schoolSelection.name());
        log.info("_person.currentSchool( " + _person.currentSchool().name());
        editingContext().saveChanges();

        AjaxModalDialog.close(context());
    }
    catch (EOGeneralAdaptorException saveException) {
        log.error("Exception while saving in " + name() + ": " + saveException.getMessage());

        if (isOptimisticLockingFailure(saveException)) {
            handleOptimisticLockingFailureByRefaulting(saveException);
        }
        else {
            editingContext().revert();
        }
    }
}
```

Log4j Email Notification

Properties

```
log4j.rootCategory=INFO, A1, EMAIL
```

```
log4j.appender.EMAIL=fdl.utilities.log4j.appender.GmailSMTPAppender
```

```
log4j.appender.EMAIL.SMTPHost=smtp.gmail.com
```

```
log4j.appender.EMAIL.SMTPDebug=true
```

```
log4j.appender.EMAIL.From=admin@<yourDomain>.com
```

```
log4j.appender.EMAIL.To=support@<yourDomain>.com
```

```
log4j.appender.EMAIL.SMTPUsername=admin@<yourDomain>.com
```

```
log4j.appender.EMAIL.SMTPPassword=<yourPassword>
```

```
log4j.appender.EMAIL.Subject=Email Notification from Gmail SMTP Appender
```

```
log4j.appender.EMAIL.cc=admin@<yourDomain>.com
```

```
log4j.appender.EMAIL.layout=org.apache.log4j.PatternLayout
```

```
log4j.appender.EMAIL.layout.ConversionPattern=%p %t %c - %m%n
```

```
log4j.appender.EMAIL.BufferSize=512
```

Base Components

- BaseComponent
- ListComponent
- Query
- Detail
- BatchDisplayGroup

Component Naming Convention

- NounVerb or <Entity><Task>
- VerbNoun or <Task><Entity>
- Pick one and try to stick with it

YUIText Component

- Plugin replacement for WOText using the YUI 2.9+ editor
- Does not work with iOS Safari

Properties

- Application.woa
 - Properties (checked in with the Project)
 - Properties.<developerName> (ignored and NOT checked in)
 - /etc/WebObjects/<JavaMonitorInstanceName>/Properties
- Don't store the production password in the EOModel!!!

Lessons Learned

- Hire experts from the group to help you
- Their expertise can save you many many hours of labor
- WebObjects & WOnder is great for a small startup if you know the technology already
- We, as a community, need to create more opportunities to make money with WO
- The future business model is not based on labor hours

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Credits

Travis Britt, Kieran Kelleher, Mike Schrag, and all the other WO "gods"



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Q&A