



Transcendent Web Development

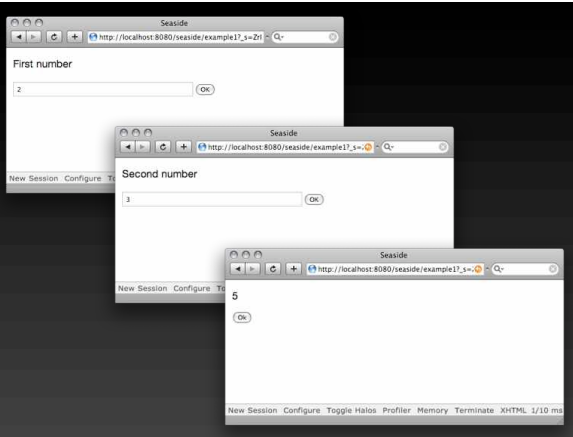
Lukas Renggli

- ★ Academics
 - ★ PhD Student, University of Bern (CH)
- ★ Industry
 - ★ Independent Software Consultant
- ★ Communities
 - ★ Core-developer of Seaside
 - ★ Author of Magritte and Pier

Outline

- ★ Natural Flow
- ★ Reusable Components
- ★ Secure by Default
- ★ Web 2.0
- ★ Applications

1 Natural Flow



```
<form action="second.html">
  <input type="text" name="value1">
  <input type="submit" value="OK">
</form>

<form action="result.html">
  <input type="hidden" name="value1" value="<% value1 %>">
  <input type="text" name="value2">
  <input type="submit" value="OK">
</form>

<p>
  <% value1 + value2 %>
</p>
```

```
function calculator() {
  var a = getNumber("a");
  var b = getNumber("b", a);
  sendResult(a, b, a + b);
}

function getNumber(name, a, b) {
  var url = "page/getNumber" + name.toUpperCase();
  cocoon.sendPageAndWait(url, { "a" : a, "b" : b });
  return parseFloat(cocoon.request.getParameter(name));
}

function sendResult(a, b, result) {
  cocoon.sendPage("page/displayResult", {
    "a" : a,
    "b" : b,
    "result" : result
  });
}
```

Unbelievable

Complexity

seaside[★] is different

Concentrate on
your application ...

... no manual
request parsing

... no parameter
naming

... no additional
languages

3 user interactions

3 lines of code

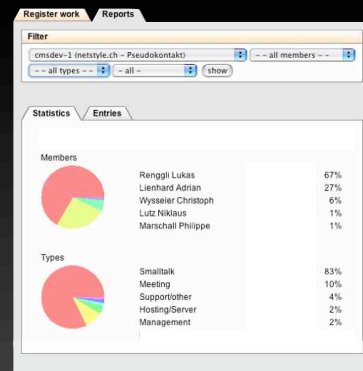
```
value1 := self request: 'First Number'.  
value2 := self request: 'Second Number'.  
self inform: value1 + value2.
```

Demo

2 Reusable Components

We don't think in pages ...

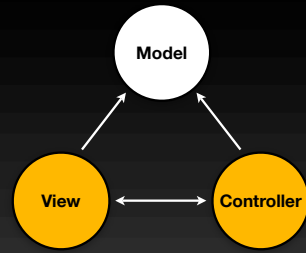
..., but in stateful components



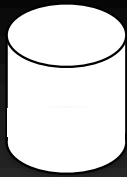
Components are cool 😊😊



Reuseable



Model, View, Controller



Persistent



Valid

CSS
Designer

XHTML
Developer & Seaside

Domain Specific Language

DRY

Don't Repeat Yourself

```
html div id: 'title'; with: 'Title'
```



```
<div id="title">Title</div>
```

```
html unorderedList: [  
  html listItem: 'Item 1',  
  html listItem: 'Item 2' ]
```



```
<ul>  
  <li>Item 1</li>  
  <li>Item 2</li>  
</ul>
```

Demo

3

Secure by
Default



Cross Site Scripting

Photo: Alvaro Luna

Output is **encoded**
by default

html text: `<script>alert("xss")</script>`



`<script>alert('xss');</script>`



Replay Attacks

Photo: Alvaro Luna

Session

`_s=Ru8ZKggjyOuDX3kf`

96-bit

Page

`_k=K5EQyqKE`

48-bit



Parameter Tampering

Photo: Alvaro Lima

Names are generated
automatically

Names are bound
to functions

No manual
request parsing

Don't call Seaside,
Seaside will call you



Photo: Pascal Zamboni

```
html anchor  
callback: [ self inform: 'Hello World' ];  
with: 'Show Message'
```



```
<a href="/seaside/example1  
?_s=Ru8ZKgqjyOuDX3kf  
&_k=K5EQyqKE  
&32">Show Message</a>
```




script.aculo.us



Tight, but **optional**
integration

Feature **complete**
and up-to-date

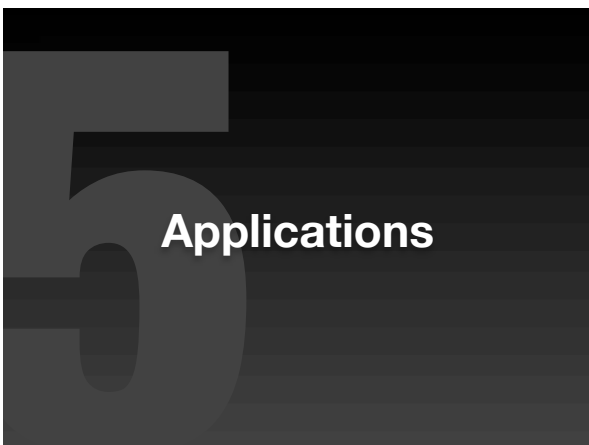
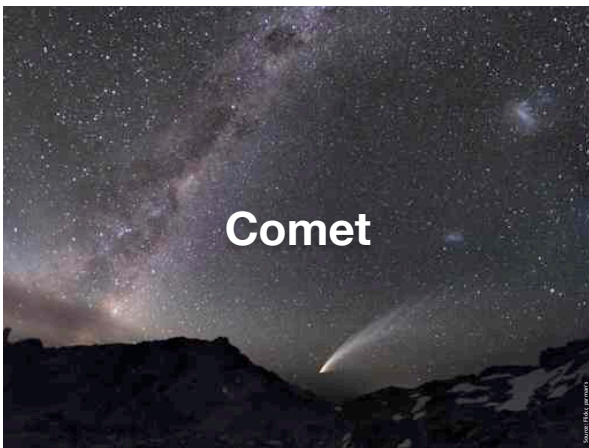
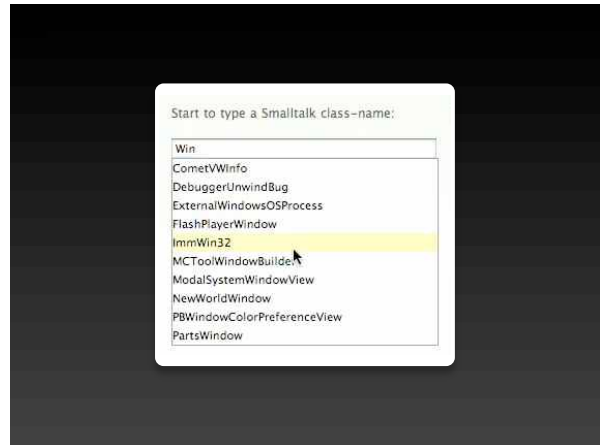
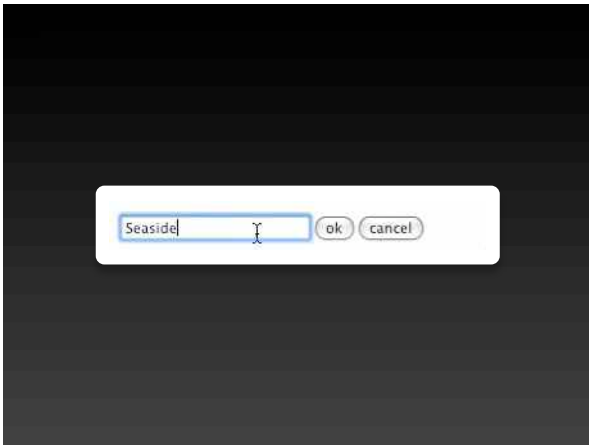
Say it in **Smalltalk**

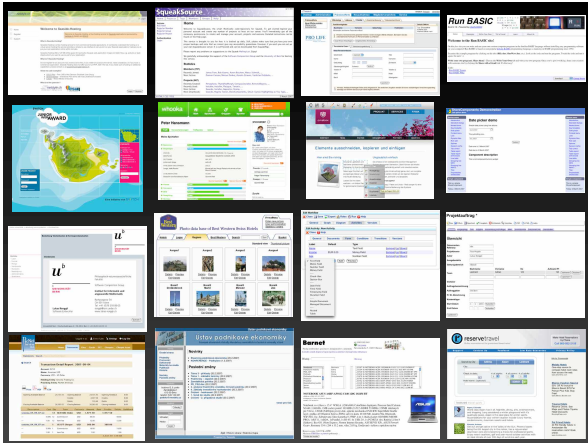
html effect shake



new Effect.Shake(this)

AJAX Widgets





Commercial Success Stories



 A promotional banner for Dabble DB. The text reads:

Enter your data once. Share it with a dozen people. View it from a hundred engines. The power of a database with point-and-click simplicity.

Try Dabble DB right now Free for 1 month

Sign up: 1 Month Free Private Trial

CLICK TO WATCH THE DEMO VIDEO

 A Biztech CONTENTS advertisement. It features two men in a field. The text includes:

- 29 Nimble Fast and Small
- 34 Pay-Per-Click
- 43 Spin Control

 The Biztech logo is on the left, and the word 'CONTENTS' is in large letters at the bottom.

 A screenshot of the CMSbox website interface. The menu includes:

- Neue Seite
- Artikel
- Formular
- Tabelle

 The main content area is titled 'Das Content Management mit System' and features sections for '100% Inline-Editor', 'Drag & Drop', and 'Copy / Paste'.

best of swiss web master 2008

usability silver 2008
 technology quality silver 2008
 technology innovation silver 2008

automatic

Home | Signout | Blog | About | Features | Support | Login

Selling made easy

Wish you could **sell more** on eBay?
 Then start using **automatic**.

"Essential to anyone handling high volumes of listings"
 —Pete Cashmore, Mashable

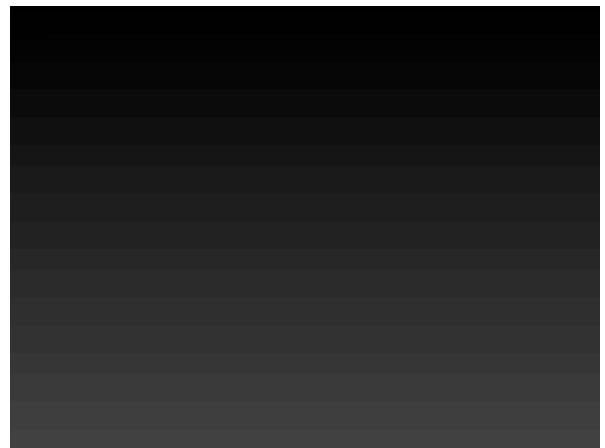
Inventory Management
 Take on all of your stock

Auctions
 Create great-looking auctions quickly

Pictures
 Store and sell your pictures

Take the tour
 Sign up now

\$5 M



pier

Content and Application Management System

Photo: Christopher Osborn

seaside

The framework for developing sophisticated web applications in Smalitalk

About
 Community
 News
 download

Seaside 2.8

Documentation
 FAQ
 Tutorial
 Index

navigation participate manage

esuu

SIG Beer - Ralf Lämmel - Not quite a sales pitch for C# 3.0 and .NET's LINQ

1 September 2007
Date: 3 March 2009 9:30 pm
Registered participants: 11
Location: invited by r.laemmel and angewandte Informatik (AI), Universität Bonn, Engelkestr. 5, Raum 021

About Ralf Lämmel

Ralf Lämmel serves on the faculty of the Department of Computer Science at the University of Koblenz-Landau. He was appointed a professorship per 1 July 2007. Prior to this appointment, in the years 2005-2007, Ralf Lämmel was affiliated with Microsoft Corp. where he served as a research and development position with focus on XML technologies. In the years 2001-2006, Ralf Lämmel served as a permanent faculty position at the Free University of Amsterdam, in the Software Engineering department, and he was also affiliated with the Dutch Center for Mathematics and Computer Science (CWI), starting in 1998. Ralf Lämmel obtained the PhD in Computer Science (specialization in programming theory) from the University of Koblenz (Germany) in December 1998.

Ralf Lämmel's specialty is "software language engineering". But he is generally interested in many facets of software engineering and programming. His research and teaching interests include:

Talk abstract

Suppose you are an academic. Hated your Ph.D. and so on as a planner teacher with a sympathy for the nice IT world (with special focus: XML, C#, and more recently, W3, C#, XML). Temptingly lured by the academic freedom and research's purity, you end up working at Microsoft for some time, which is good thing because Microsoft's LINQ is just being changed (invented in the SQL/XML/LINQ teams at Microsoft Redmond, 2005-2007.)

Slides



who i am

My name is Tudor Girba. Actually, it's Gîrba. People call me Dore.

I am a Romanian living in Switzerland. I earned my PhD from the University of Bonn in 2005 and since then I am a postdoctoral researcher at Software Engineering Group. I also made it a consultant through the very "flexible" engineering I do, a so-called temporary based in Bonn.

what i do

RESEARCH and **I published**: My research area is software engineering with focus on programming theory. I am one of the main developers and architect of Hanoi. During my PhD I have built the Hanoi meta model for software evolution analysis, and custom-metamodel based on it. I am the co-author of Modularity on targets for mapping structural similarities that received 2nd prize at ESEC 2006 International Awards. Over the past 3 years I have maintained the FAMES language independent meta model, and I am now part of the team that creates FAMES 10. I have recently started a research project that targets the analysis of JEE2 systems.

Office consulting: My expertise extends over various software engineering topics like: programming, quality assessment, teaching, development process, requirements analysis, software design, test driven development, or project management.

I present and I think about it: I am connected with communities in general, and I blog about programming, representation of the real. Presentation is about communicating information, representation is about modeling it, and the rest is about what remains.

what i like

I like to talk. A lot I like to listen, although I sometimes wish I don't. I like to teach. I like to learn. I like to read. I like photography. I like to think about design. I like movies. I like to listen. I like to play video games. I like music. I don't like to talk myself too verbally.

blog (11)

It's all a matter of choice. Life is a combination of choices. The programming and research involving in a choice. The work one do...

Choosing an alternative when I need to react to these things. Sometimes... Choosing an hour when I have...

Why should they listen to you? What are so many people doing. Also so many a-fairly good...

What matters is choosing, creating, making. What matters is choosing, creating, making. What...

How to what I know with others. How to what I know with others. How to what I know with others...

news

2007-03-04 I am invited to join the Program Committee of ACM 2008.

2007-03-04 I am invited to join the Program Committee of W3 2008.

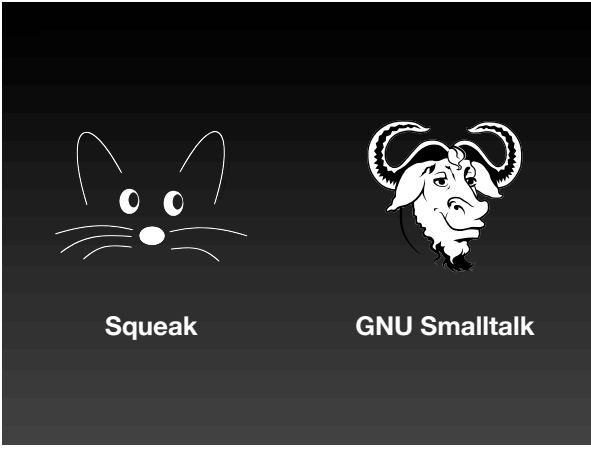
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contact

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Did you notice?

Web applications

No URL fiddling

No request parsing

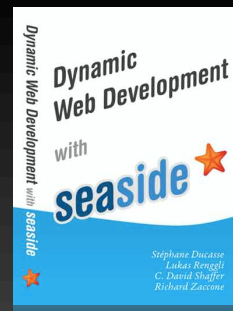
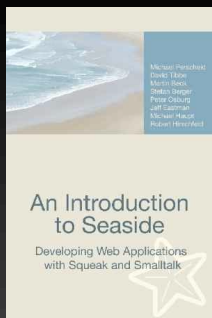
Development tools



Control flow at ease

One last thing ...

<http://www.swa.hpi.uni-potsdam.de/seaside>



3rd quarter
2008

seaside 

www.seaside.st
www.lukas-renggli.ch