

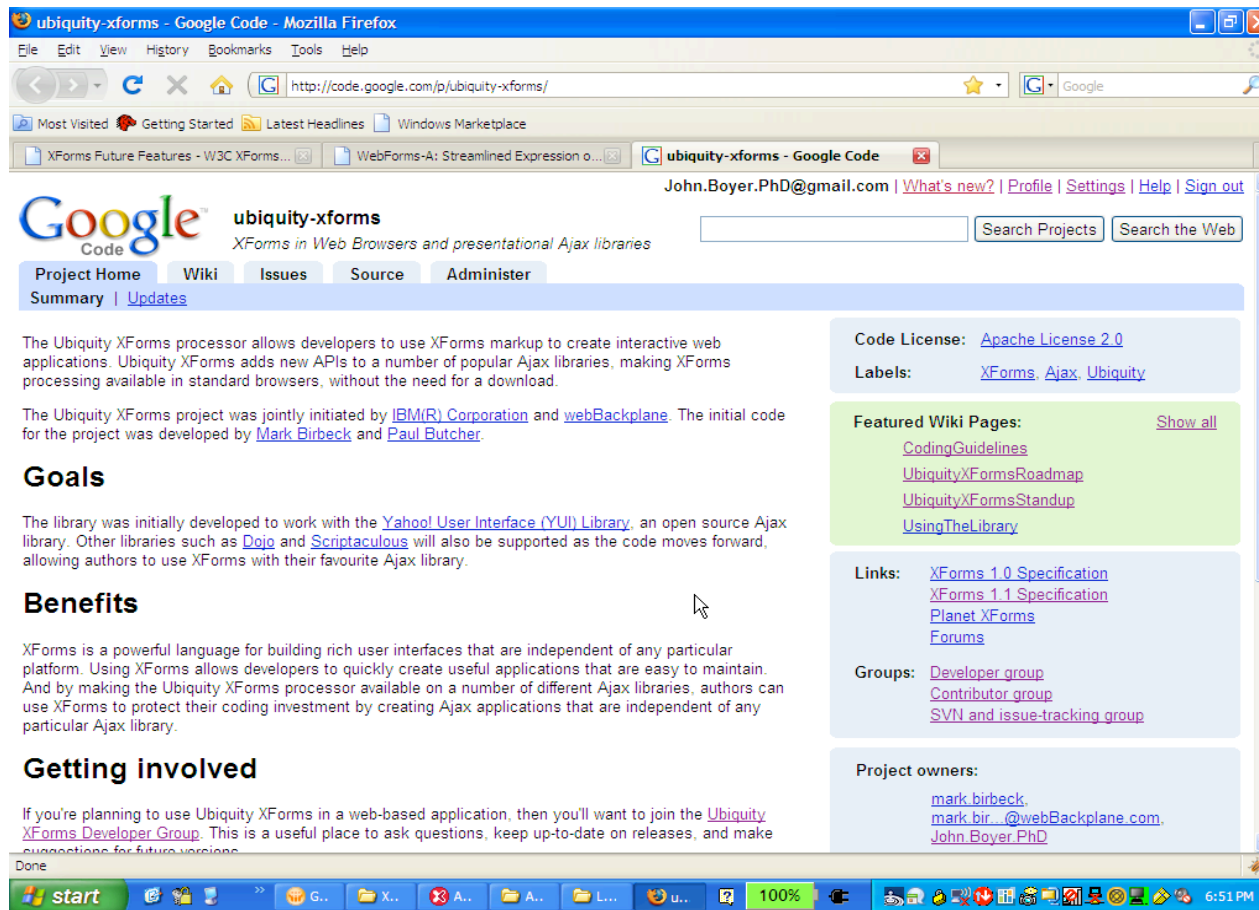
XML technologies on the client:
Ubiquitous XForms, Webforms-A, and “Beyond Forms”

Charlie Wiecha (Rich Web Backplane XG Chair, IBM) and John Boyer (Forms Chair, IBM)

XML technologies on the client: Ubiquitous XForms, Webforms-A, and “Beyond Forms”

- **Ubiquitous XForms**
 - Enabling adoption of XML technologies through zero-install Javascript tag libraries
- **Webforms-A**
 - Incremental set of attributes in HTML for “on the glass” authoring of forms
 - Preserve HTML syntax but converge with XForms architecture
- **Beyond Forms**
 - “Bite size” specs for easier consumption
 - Having some fun: examples of composition using forms modules

Ubiquitous XForms Library in Google Code



XML delivered to client

Preserve document model as authored

Tag library implementation in script

Zero install

<http://code.google.com/p/ubiquity-xforms/>

Safari

XForms Loan Application Form

file:///C:/eclipse-workspace-Freedom/Trunk/_samples/Loan/loan-lowercase-rahul.ht

Apple Yahoo! Google Maps YouTube Wikipedia News (122) Popular

Big Red Loan and Mortgage Co.

The

Agreement Date: 10/22/2008

Borrower Name: John Q. Public

Borrower's Address: 123 Main St. Tinyville

Principal of Loan: 10000

Choose currency: US Dollars

Duration of Loan in Months: 12

Yearly Interest Rate (compounded monthly): 5

Monthly Payment: 856.0748178846737

Total Payout: 10272.897814616084

Firefox

XForms Loan Application Form - Mozilla Firefox

file:///C:/eclipse-workspace-Freedom/Trunk/_samples/Loan/k

Big Red Loan and Mortgage Co.

The name to trust when you're... in the red.

Agreement Date: 10/30/2008

XForms Loan Application Form - Windows Internet Explorer

W:\Watson\Ubiquity\Repository\trunk_samples\Loan\loan

Big Red Loan and Mortgage Co.

The name to trust when you're... in the red.

Agreement Date: 10/10/2008

Borrower Name: John Q. Public

Borrower's Address: 123 Main St. Tinyville

Principal of Loan: 10000

Choose currency: US Dollars

Duration of Loan in Months: 12

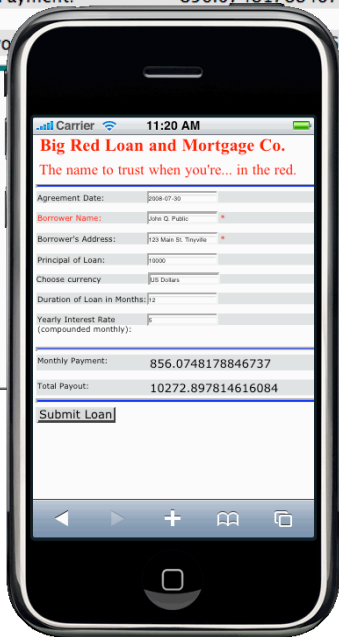
Yearly Interest Rate (compounded monthly): 5

Monthly Payment: 856.0748178846737

Total Payout: 10272.897814616084

Submit Loan

Su	Mo	Tu	We	Th	Fr	Sa
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8



iPhone

XForms Loan Application Form

file:///C:/eclipse-workspace-Freedom/Trunk/_samples/Loan/loan-lowercase-rahul.ht

Big Red Loan and Mortgage Co.

The

Agreement Date: 10/22/2008

Borrower Name: John Q. Public

Borrower's Address: 123 Main St. Tinyville

Principal of Loan: 10000

Choose currency: US Dollars

Duration of Loan in Months: 12

Yearly Interest Rate (compounded monthly): 5

Monthly Payment: 856.0748178846737

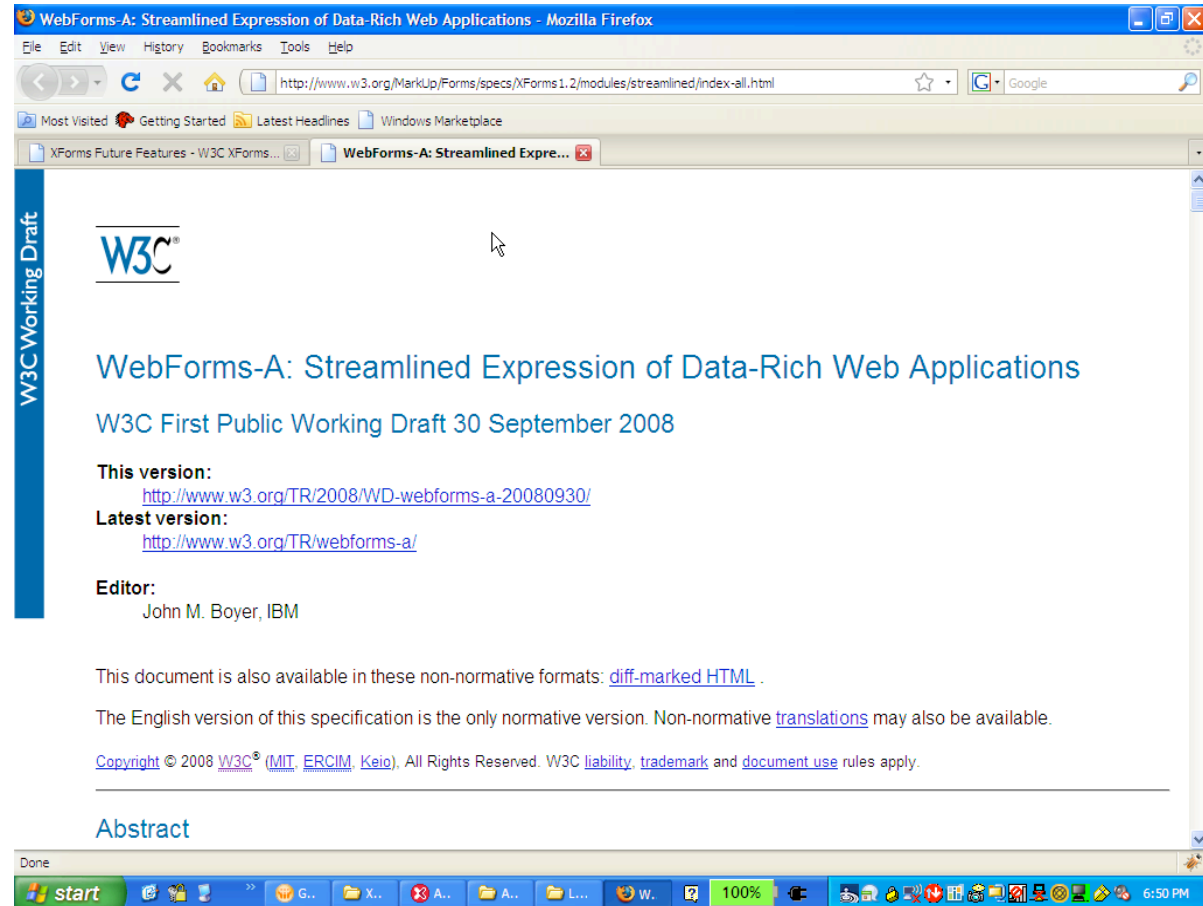
Total Payout: 10272.897814616084

Chrome

IE

Webforms-A: Streamlined Syntax for Rich Web Apps

- Incremental set of attributes in HTML for “on the glass” authoring of forms
- Preserve HTML syntax but converge with XForms architecture



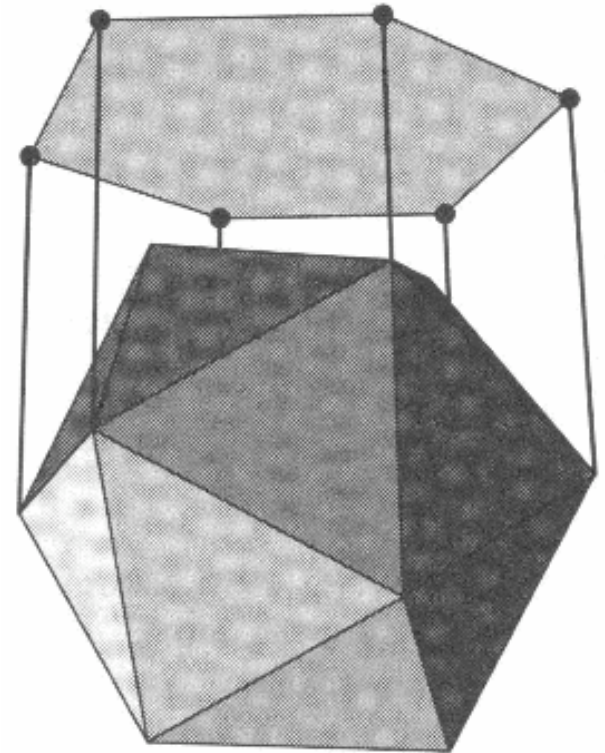
Webforms-A as a projection of XForms onto the glass

- **Webforms-A**

```
<input name="addr"  
  datatype="string"  
  value="123 Main Street"  
  constraint="string-length(.) > 0" />
```

- **XForms equivalent**

```
<model>  
  <instance>  
    <data>  
      <addr>123 Main Street</addr>  
    </data>  
  </instance>  
  <bind nodeset="addr" type="string"  
    constraint="string-length(.) > 0" />  
</model>  
<input ref="addr"/>
```



Webforms-A: Implementation in the Ubiquity XForms open source project

Mozilla Firefox

http://ubiquity-xforms.googlecode.com/sv

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Big Red Loan and Mortgage Co.

The name to trust when you're ... in the red.

Agreement Date: 08/20/2008

Name: Joe Q. Public

Address: 123 Main St. Tinyville

Principal: 100000

Duration of Loan in Months: 12

Yearly Interest Rate: 5

Yearly Interest Rate: 0.00416666666666667

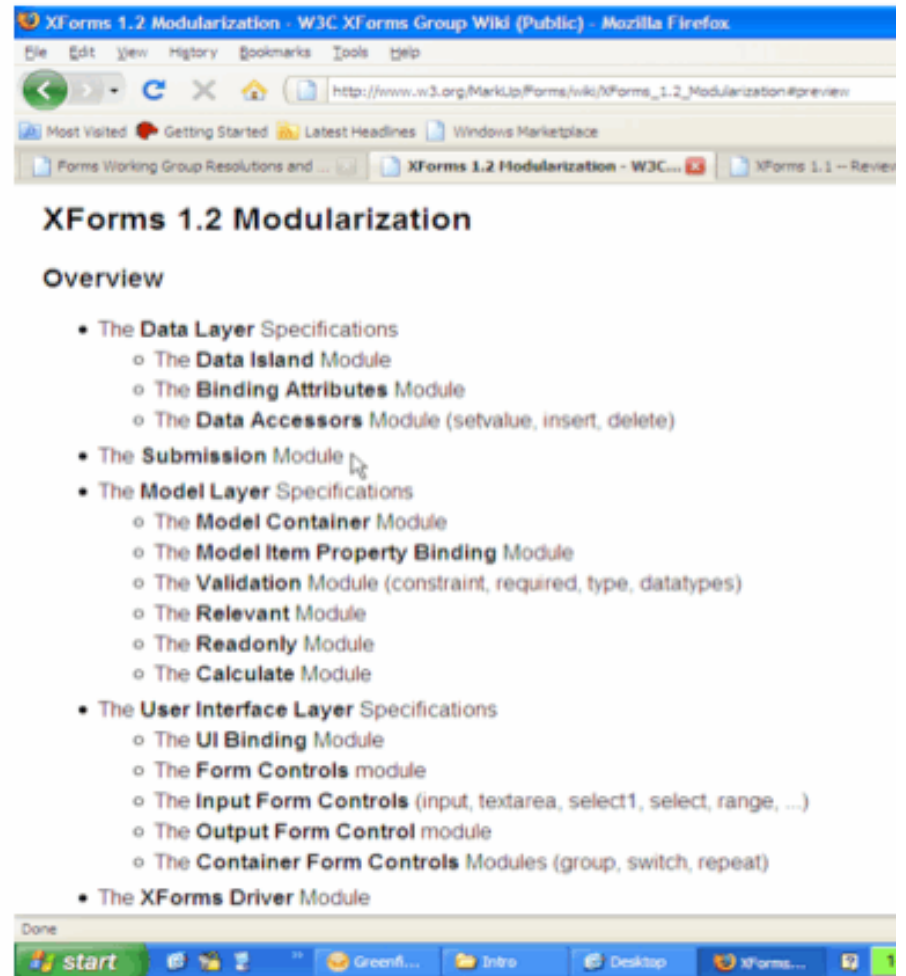
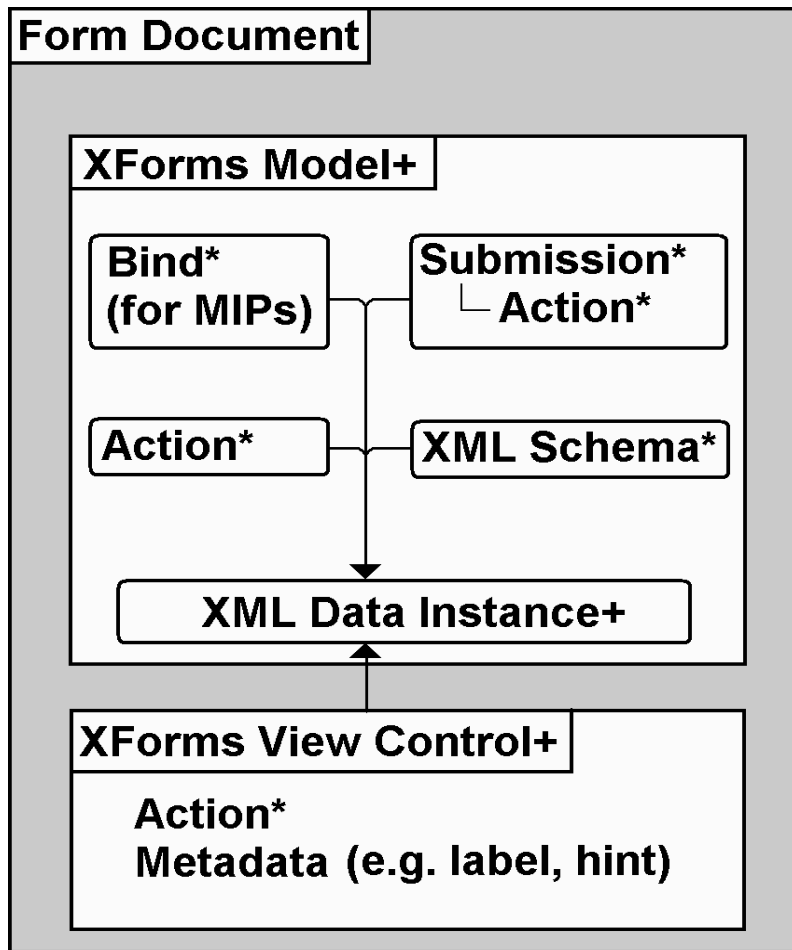
Monthly Payment: 8395.833333333334

Total Payout: 100750

show model

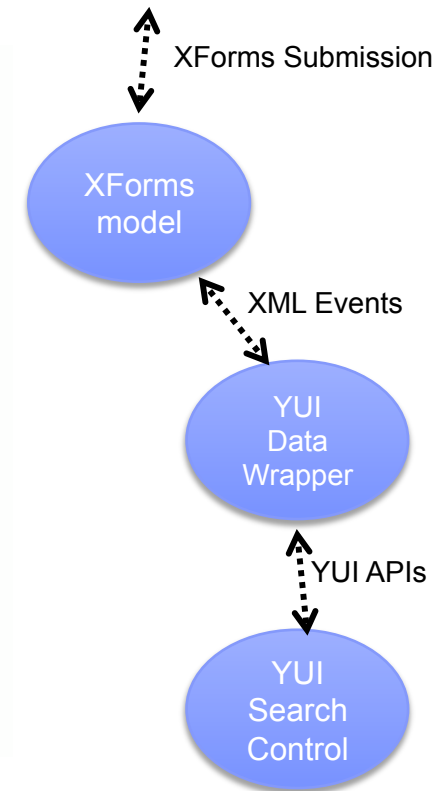
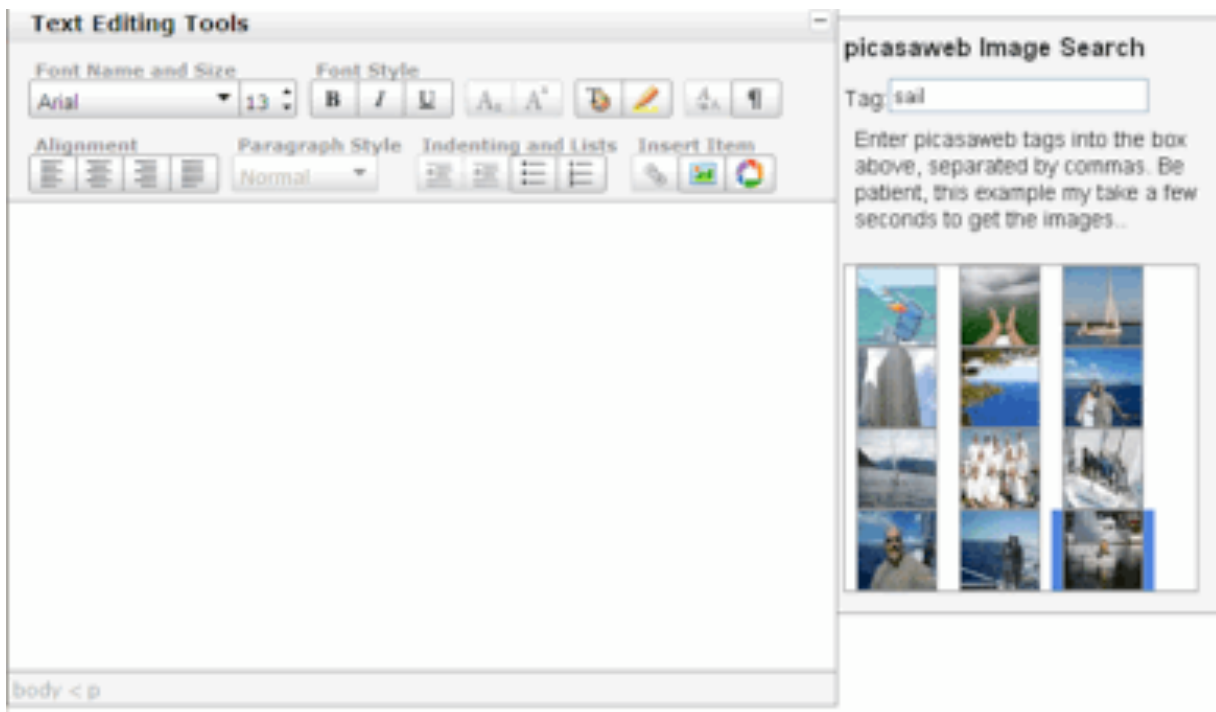
Done

Modularization of XForms 1.2



Beyond Forms: Building blocks for open RIAs:

Example: XForms data model as YUI data provider



Data Backplane: ODF and XHTML

XHTML Form

The screenshot shows a web browser window titled "XForms Loan Application Form" with the URL "http://ubiquity-xforms.googlecode.com/svn/". The page header for "Big Red Loan and Mortgage Co." includes the slogan "The name to trust when you're ... in the red.". The form contains several input fields: "Agreement Date" (08/21/2008), "Borrower Name" (John Q. Public), "Borrower's Address" (123 Main St. Tinyville), "Principal of Loan" (10000), "Choose currency" (US Dollars), "Duration of Loan in Months" (12), and "Yearly Interest Rate (compounded monthly)" (5). Summary statistics at the bottom show "Monthly Payment: 896" and "Total Payout: 10750". A "Submit Loan" button is located at the bottom right.

ODF Spreadsheet

The screenshot shows an ODF spreadsheet titled "Home mortgage wizard." with a table containing the following data:

	A	B
1	Principal	100,000
2	Down payment(-\$)	-10,000
3	Points (%)	0
4	Closing costs	10,000
5		
6	Total loan	100,000
-		

Below the spreadsheet is a blue rounded rectangle labeled "XForms Instance".

Framework events
for UI refresh

Framework events
for UI refresh

XForms Data Model

Data Backplane: VoiceXML and XHTML

XHTML Form

XForms Loan Application Form

http://ubiquity-xforms.googlecode.com/svn/

Big Red Loan and Mortgage Co.
The name to trust when you're ... in the red.

Agreement Date: 08/21/2008

Borrower Name: John Q. Public

Borrower's Address: 123 Main St. Tinyville

Principal of Loan: 10000

Choose currency: US Dollars

Duration of Loan in Months: 12

Yearly Interest Rate (compounded monthly): 5

Monthly Payment: 896

Total Payout: 10750

Submit Loan

VoiceXML Form

```
<vxml:field name="voice_loan_principal">
<vxml:filled>
  <vxml:value expr="xforms_setvalue(...)" />
</vxml:filled>
</vxml:field>
```

XForms Instance

Framework events
for UI refresh

Framework events
for UI refresh

XForms Data Model

No Budget Bicycle Tours

Amsterdam

No Budget Bicycle Tour

Amsterdam

Paris

Hanoi

Downloads

Amsterdam

Capital of the Netherlands.

Generally considered to be the most beautiful city of the world.

Select optional content in the sidebar, then press "Start" to start the video.



Als je een hotel zoekt kun je bijvoorbeeld ...

Searches

Search:

Websites Referenced

- [VVV \(Municipal Tourist Information\)](#)

Options

Hotel Information



Museums and other culture



Shopping



Entertainment (including adult)



Subtitles

Map



Map data ©2009 Tele Atlas, [Terms of Use](#)

Data Backplane: SMIL and XHTML

