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

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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/
### Big Red Loan and Mortgage Co.

**Agreement Date:** 10/22/2008  
**Borrower Name:** John Q. Public  
**Borrower's Address:** 123 Main St, Tinyville  
**Principal of Loan:** $10,000  
**Choose currency:** US Dollars  
**Duration of Loan in Months:** 12  
**Yearly Interest Rate (compounded monthly):** 5%  

<table>
<thead>
<tr>
<th>Monthly Payment:</th>
<th>856,074.8178846737</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Payment:</td>
<td>10272.897814615064</td>
</tr>
</tbody>
</table>

**Total Payout:** 10272.897814615064
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**

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

- **XForms equivalent**

  ```xml
  <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
Modularization of XForms 1.2

Form Document

XForms Model+

Bind* (for MIPs)

Submission* ┌──── Action*

Action*

XML Schema*

XML Data Instance+

XForms View Control+

Action*

Metadata (e.g. label, hint)
Beyond Forms: Building blocks for open RIAs:
Example: XForms data model as YUI data provider
Data Backplane: ODF and XHTML

XHTML Form

ODF Spreadsheet

XForms Data Model

Framework events for UI refresh
Data Backplane: VoiceXML and XHTML

XHTML Form

VoiceXML Form

XForms Data Model

Framework events for UI refresh

Example VoiceXML:

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

Search: [hotel amsterdam]  
- [Google]  
- [Wikipedia]

### Websites Referenced

- [VVV (Municipal Tourist Information)]

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Data Backplane: SMIL and XHTML