XIDE: Expanding End-User Web Development

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End users vs. Developers
End users vs. Developers

Visually

Source code editing

Web surfing

Professional development
Problem Statement

Visually

L1: Customizing components
L2: WYSIWYG editing
L3: Visual editing

Source code editing

L4: Markup authoring
L5: Simple programming
L6: Advanced programming
Our approach

- Component-based
- Familiar technology
- Unified technology

• Component-based
• Familiar technology
• Unified technology

• XIDE
• XFormsDB
XFormsDB

- XForms
- Markup-based
- Unified
XIDE

You are logged in as Evgenia Samochadina. Logout Home My applications

Save as new Component Don’t save and back Save and back

Search Base Hierarchy Used Components

Search here Search Clear Search Use tag

Simple login component
This is simple login component which offers user to enter his/her login and password. Authentication query is included.

Login component with email
This is advanced login component which offers user to enter his/her login, password and e-mail. Query is not included.

Simple survey
This is a simple survey component which has a slot for adding questions and a commit button to commit the survey answers. Require query modification? Basic query is included.

Yes/No question
Simple question with 2 variants of answer. Question and answers texts are designated as parameters.

Select the file name: tpl_news_widget.xml

<template:meta name="tags">component public self-sufficient news_widget</template:meta>
<template:param name="RSSFeedURL" type="binding" description="RSS feed address">http://rss.cnn.com/rss/edition.rss</template:param>
<link rel="stylesheet" type="text/css" href="css/tpl_news_widget/base.css" media="all" />
<xforms:model>
  <!-- XForms instances -->
  <xforms:instance id="tpl_news_widget_rss_feed_instance" src="$RSSFeedURL"/>
  <dummy xmlns="" />
</xforms:instance>
XIDE
XIDE

Select the file name: tpl_news_widget.xml

19 <template:meta name="tag" component="public self-sufficient news_widget"/>
20
21 <template:param name="RSSFeedURL" type="string" binding description="RSS feed address">http://rss.cnn.com/rss/eedition.rss</template:param>
22 <link rel="stylesheet" type="text/css" href="/css/tpl_news_widget/base.css" media="all" />
23 <xforms:model>
24  <!-- XForms instances -->
25  <xforms:instance id="tpl_news_widget_rss_feed_instance" src="$RSSFeedURL"/>
26  <dummy xmlns="" />
27 </xforms:instance>
User studies

- 9 users
- 10 tasks

- Opportunistic approach
- Code reading
- Copy-paste
Conclusions

Visually

L1: Customizing components
L2: WYSIYG editing
L3: Visual editing

Source code editing

L4: Markup authoring
L5: Simple programming
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Thank you!

Questions?
Our approach:

- Edit the source code
- Existing knowledge
- Component-based
- Familiar technology
- Simple architecture
Agenda

• End-user Web development
• Problem statement
• Our proposal
• Evaluation
• Conclusions