



The Iam Lotus User Group

XPages

Beyond the Introduction

David Leedy
NotesIn9.com

© 2010 by the individual speaker





The Iam Lotus User Group



IamLUG 2010 Sponsors

© 2010 by the individual speaker



About Me

- **Customer, Not a Business Partner**
- **Notes Developer since 1995**
- **Notesin9.com - Video Podcast on Notes Dev & XPages**
- **lotusnotebook.com**
- **xpagesblog.com**
- **Speaking**
 - ◆ **Lotusphere 2010**
 - ◆ **Lotus Education Online**
 - ◆ **Tri-State LUG**
- **WikiMadness.com**

Goals

- **The Goal is to try and help establish more of a comfort zone with XPages.**
- **This is not an “Eye Candy” session.**
 - ♦ **But there might be something neat inside.**
- **Lots of Demo’s and Code Walkthroughs**
- **All code will be made available on:**
 - ♦ **lotusnotebook.com**
 - ♦ **notesin9.com**

What We'll Cover ...

- **Custom Controls**
 - ♦ **Navigation with Blueprint CSS**
- **Data Binding**
- **Server Side JavaScript**
- **Dojo**
- **Repeat Controls**
- **Rendering**
- **The Big Finish**

Disclaimer

- I'll be using beta of Notes 8.5.2 CD5 in this session.
- IBM makes no guarantees that anything in the beta software will make the final release.

Custom Controls

- **Building Blocks of XPages**
 - ◆ Like Sub Form but better
 - ▶ Reusable
 - ▶ Can take Parameters
- **Useful for Content Areas**
 - ◆ Break down your app into small pieces
- **Useful for Layout Structure**
 - ◆ Navigation Framework

Why Blueprint CSS

- **Very Light**
- **Excellent Grid System**
- **Cross Browser Compatible**
- **Free**
 - ◆ **Modified MIT and a GPL License**

Main BluePrint Files

- **reset.css**
- **grid.css**
- **typography.css**
- **forms.css**

- **These are compressed into screen.css!!**

Theme

- Make sure to **EXTEND** a server Theme

```
<theme extends="webStandard">
  <resource>
    <content-type>text/css</content-type>
    <href>/screen.css</href>
  </resource>

  <resource rendered="{javascript:context.getUserAgent
().isIE(0,6) == true}">
    <content-type>text/css</content-type>
    <href>/ie.css</href>
  </resource>

  <resource>
    <content-type>text/css</content-type>
    <href>/application.css</href>
  </resource>
</theme>
```

How to Use BluePrint CSS

- Custom Control for all Content Areas
- Wrapped in a Panel or a Div
- Apply BluePrint Styling

Grid	span-x	prepend-x	append-x
Forms	label	text	success
Typography	large	loud	highlight

- Don't forget the "last" style at the end

XPages Setup

- **Create a custom Control for each Layout Section**
 - ◆ Header, Left SideBar, Footer, etc...
- **Create Custom Control for Master Layout**
 - ◆ This holds the section custom controls
 - ◆ Add an Editable Area for the “Main” content
- **Create a custom control for each individual “Page”**

Using with XPages

- **Create new XPage**
- **Add Master Layout Custom Control**
- **Drop Content Custom Control onto editable area.**
 - ♦ **Green Dot**

DEMO

Data Binding

- **Bind What?**
 - ◆ Notes Document
 - ◆ Notes View
- **Bind Where?**
 - ◆ XPage
 - ◆ Custom Control
 - ◆ Container Control
 - ▶ Panel
 - ▶ Repeat

External Binding

- You can compute the database
- `session.getDatabase(database.getServer(),"db.nsf")`
 - ♦ Watch Out in 8.5.1 XPages in Notes Client!
- `@Name("[CN]",@Subset(@DbName(),1))+!!db.nsf"`
 - ♦ Seems to work everywhere in 8.5.1
- External DB's - a little more work but easy to start adding new XPage Features to an existing app.
- No Need to Rip and Replace!

DEMO

Server Side JavaScript

- **Several Languages in One**
 - ♦ **JavaScript Syntax**
 - ♦ **@Formula's**
 - ♦ **Domino Backend Objects**
 - ♦ **Java Objects**

SSJS Example

- **Formula, JavaScript and Backend Objects**

```
if (@Length(key) > 15) {
  // Key MUST be a UNID
  var unid = key;
  var tDoc:NotesDocument = database.getDocumentByUNID(unid);
  var taskKey = tDoc.getItemValueString("taskKey");
  var projectKey = tDoc.getItemValueString("projectKey");
  .... more stuff
}
else {
  // Key must be an @Unique or ProjectKey
  var lookup:NotesView = database.getView("vTasks");
  var tDoc:NotesDocument = lookup.getDocumentByKey(key, true);
  var unid = tDoc.getUniversalID();
  var taskKey = tDoc.getItemValueString("taskKey");
  var projectKey = tDoc.getItemValueString("projectKey");
  .... more stuff
}
```

DEMO

Dojo

- **Built into XPages**
 - ◆ **Date Time Picker**
- **Lots of capabilities under the hood**
- **<http://www.dojotoolkit.org>**
- **AccordionContainer**
 - ◆ **Panels/Div's in collapsable sections**

Main
Link
Binding
JavaScript
Accordion
Repeat1
Repeat2
Repeat3
Tasks
Other

Setting up Dojo for AccordionContainer



```
<xp:view xmlns:xp="http://www.ibm.com/xsp/core"  
dojoParseOnLoad="true" dojoTheme="true">
```

```
<xp:this.resources>
```

```
  <xp:dojoModule name="dijit.layout.AccordionContainer">  
    </xp:dojoModule>
```

```
  <xp:dojoModule name="dijit.layout.ContentPane">  
    </xp:dojoModule>
```

```
</xp:this.resources>
```

Using AccordionContainer

```
<div dojoType="dijit.layout.AccordionContainer" style="height:
300px;">
  <div dojoType="dijit.layout.ContentPane" title="Projects">
    //content for panel 1
  </div>
  <div dojoType="dijit.layout.ContentPane" title="Tasks">
    //content for panel 2
  </div>
  <div dojoType="dijit.layout.ContentPane" title="Other">
    //Content for panel 3
  </div>
</div>
```

DEMO

Repeat Controls

- **View Content that doesn't look like a table**
- **Nested Repeats are possible.**
- **Bind to a view or JavaScript**

Name:

Height: Units: ▾

Width: Units: ▾

Visible ▾

Iteration

Bind data using:

Simple data binding JavaScript Advanced

Data Binding

Data source: ▾

Bind to: ▾

Options

Create controls at page creation

Starting index: ▾

Repeat limit: ▾

Collection name: ▾

Index name: ▾

Accessing the Data

- **Depends on what you pass in**
 - ♦ **Simple Data Binding**

Bind data using:

Simple data binding JavaScript Advanced

Data Binding

Data source:

Bind to:

- **JavaScript**
 - ♦ `rowData.getColumnValues()[1]`
 - ♦ `rowData.getColumnValues()[4].toString()`

Rendering

- **Visible means “Exists”**
- **You can't partially refresh something that doesn't exist**
 - ♦ **So use outer and inner panels**
 - ♦ **Use sessionScope or viewScope variables to control rendering**
 - ▶ **sessionScope will live longer**
 - *Remember your state through page changes*
 - ▶ **viewScope is life of the page**
 - *Resets when you come back to the page*

DEMO

The Big Finish

- **Custom Control**

- ◆ That accepts a parameter

- ▶ **That is a Server Side JavaScript OBJECT**

- *That's inside a Repeat Control*

- **Why?**

- ◆ To create a reusable element that can be fed by different data streams..

- ▶ **Tasks by Project, by Priority, by Assignee**

- ◆ DocumentCollection, ViewEntryCollection, NotesView

- ▶ **Could also be**

- *JSON*

- *Java Vector*

DEMO

Resources

- <http://www.notesin9.com>
- <http://lotusnotebook.com>

- <http://xpagesblog.com>
- <http://xpageswiki.com>
- <http://dominoextnd.blogspot.com>
- <http://xpages101.net>

- Thanks to Mark Hughes, Jeremy Hodge, and many more.

Contact Me

**How to contact me:
David Leedy
Email address**

Contact Me

- **Download the Samples:**
 - ♦ lotusnotebook.com
- **Watch the Video**
 - ♦ notesin9.com
- **Contact Me:**
 - ♦ Email: dleedy@lotusnotebook.com
 - ♦ Twitter: [@DavidLeedy](https://twitter.com/DavidLeedy)
 - ♦ Skype: [NotesIn9Guy](https://www.skype.com/people/NotesIn9Guy)