

Smarter software for a Smarter Planet.

BP207
Make your XPage Apps "Pop!" with CSS and Themes

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#### **Declan Lynch**

Lotus Notes Administrator and Developer.

Working in the IT industry for over 15 years and well known in the Lotus Community as a contributor to the open source movement with involvement in OpenNTF.org with releases like BlogSphere and the new XPages project called xTalk.

Declan is also the author of one of the first major learning resources for XPages with his 54 part 'Learning xPages' blog series.

http://www.gtzar.com/blogs/gtzar.nsf/htdocs/LearningXPages.htm



http://twitter.com/qtzar





#### **David Leedy**

Lotus Notes Developer and Administrator.

Working in the IT Industry since 1994. Primary Lotus Notes developer for a transportation company.

Created XPages Webinar for Lotus Education Online.

Producer of Notes in 9 - The original screencast dedicated specifically to all things Lotus Notes. Many of the 9 minute shows feature XPages tips and tricks.

http://www.notesin9.com

http://www.lotusnotebook.com



http://twitter.com/DavidLeedy





#### What this session is NOT.

How To Write XPages Applications.

But It Will Make Writing Them A LOT Easier



## **Agenda**

- CSS Basics
- CSS Frameworks
  - Blueprint Framework
  - IBM oneUI Framework
- Using Themes In XPages Applications
  - Creating Your Own Extendable Themes
  - Extending the Built-In Themes
  - Creating your Own Server Based Themes
- XPages on Mobile Devices



# **CSS Basics**





#### **CSS Basics**

- Cascading Style Sheets
  - Allows for separation of style from content
  - Markup Language to define the look of elements.
  - Uses a Box model
  - CSS can be used instead of tables to control the layout of your web pages.

```
p {
    color: black;
    background-color: yellow;
    font-family: "Times New Roman";
    font-size: 30px;
}
```

This is a paragraph.



## **XPages CSS Basics**

- CSS ID's
  - Used for UNIQUE elements on a web page
  - Denoted with a #

```
#myName {
  text-align: center;
  color:yellow;
}
```



#### **XPages CSS Basics**

- Watchout!
  - In XPages you can use a custom control more then once on a page
  - ID's get changed as they render to the browser
- Before



After

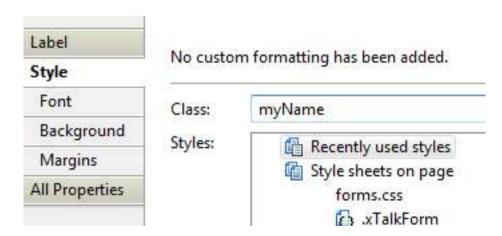
<span id="view:\_id1:myName">Label</span>



#### **XPages CSS Basics**

- CSS Class
  - Can be used multiple times on a page
  - Commonly used to style multiple elements
  - Denoted with a.

```
.myName {
  text-align: center;
  color:yellow;
}
```



<span id="view:\_id1:myName" class="myName">Label</span>





# CSS FrameWorks



## Why use a CSS FrameWork

- Speeds up Development
- Cross Browser Compatible
  - Already contains "Hacks" for certain browsers
- Helps in ensuring a common look and feel across applications
- Some, but not all, have good documentation
- Some have tools to help you build your layout.

#### Examples

Blueprint CSS	960 Grid System	jQuery UI CSS
YUI Grids CSS (Yahoo)	Elements CSS	Elastic columns
oneUI	YAML CSS Framework	And many more

#### Common Elements

- Browser Reset Code
- Grid system for Layout
- Typography/Font tools





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#### Disadvantages Of CSS Frameworks

- Your design is dependent on the framework
- You need to learn the framework
  - All frameworks are unique
- You may inherit bugs from the framework
- There may be code you will never use.
- Some frameworks might have restrictive licenses
- Not all frameworks are appropriate for XPages
  - Remember avoid id #



#### The Blueprint CSS Framework

Contains Several Files

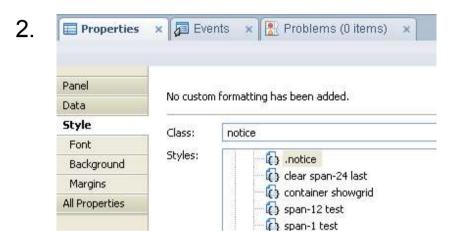
reset.css	typography.css
grid.css	print.css
ie.css	forms.css

- Comes with compressed versions
  - screen.css
    - Includes rest, grids, forms and typography
    - XPages can't use print.css because it can not specify media type.
- Create an "application.css" for custom CSS Code
- Add to pages or use a theme
  - We'll talk about Themes in a couple of minutes.



## Adding to an Individual XPage

1. 🗴 🔚 Events 💉 🚼 Problems (0 items) Properties **XPage** Resources Data Add Style Sheet... Add Script Library... Remove Style Font Name Type Style Sheet Background /screen.css Style Sheet lie.css Margins /application.css Style Sheet Resources



3. Properties × Events × Problems (0 items) ×

| Styling | disableTheme | outerStyleClass | style | styleClass | styleClass | span-6 test append-bottom last | themeId

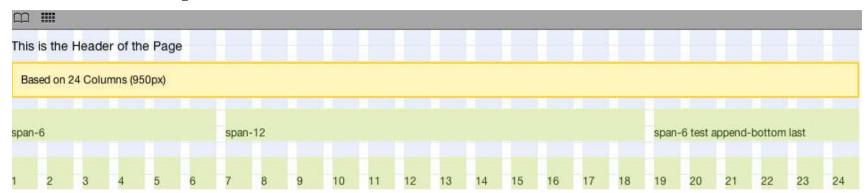


#### The Blueprint Grids

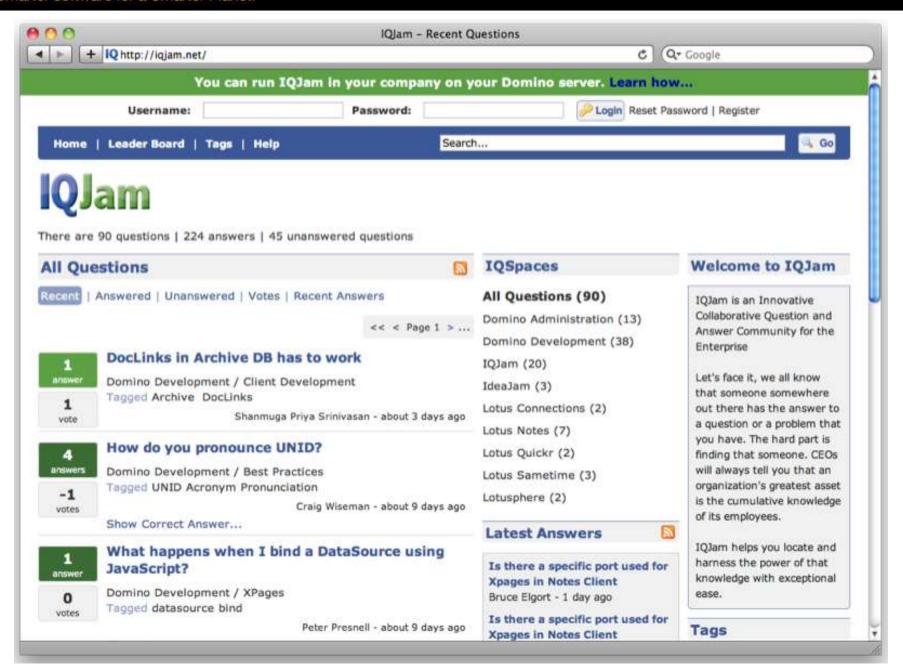
- Allows easy placement of objects on the screen
- Defaults to 950px (24 Columns)
  - If you want a thinner site then use less columns/pixels
  - total width (columns \* 40) 10
    - 20 columns = 790px
    - 22 columns = 870px
- Using the Grid inside XPages
  - Best Practice is to put each piece into a custom Control
  - Create a "container" DIV on an XPage then add your custom controls
  - Use class names on a Panel (DIV) to layout your page
    - span, append, prepend, push, pull
  - Example
    - span-6 will give you a block 6 columns wide



#### The Blueprint Grids









#### The IBM oneUl Framework

- Layout And Presentation Framework
- Used by IBM for all its modern web based products.
- Pros
  - Built-in layout features
  - Standard Look And Feel for all design elements
  - Lots of Example Apps using oneUI available on OpenNTF
- Cons
  - Not grid based.
  - Bigger framework requires more learning
- oneUI Version 2
  - Fully documented.
    - http://www-12.lotus.com/ldd/doc/oneuidoc/docpublic/index.htm
  - Comes in multiple color themes for some variation
  - Beta version already installed with Lotus Domino 8.5.1
  - 'Should' be fully incorporated into Domino 8.5.2 (not a guarantee)

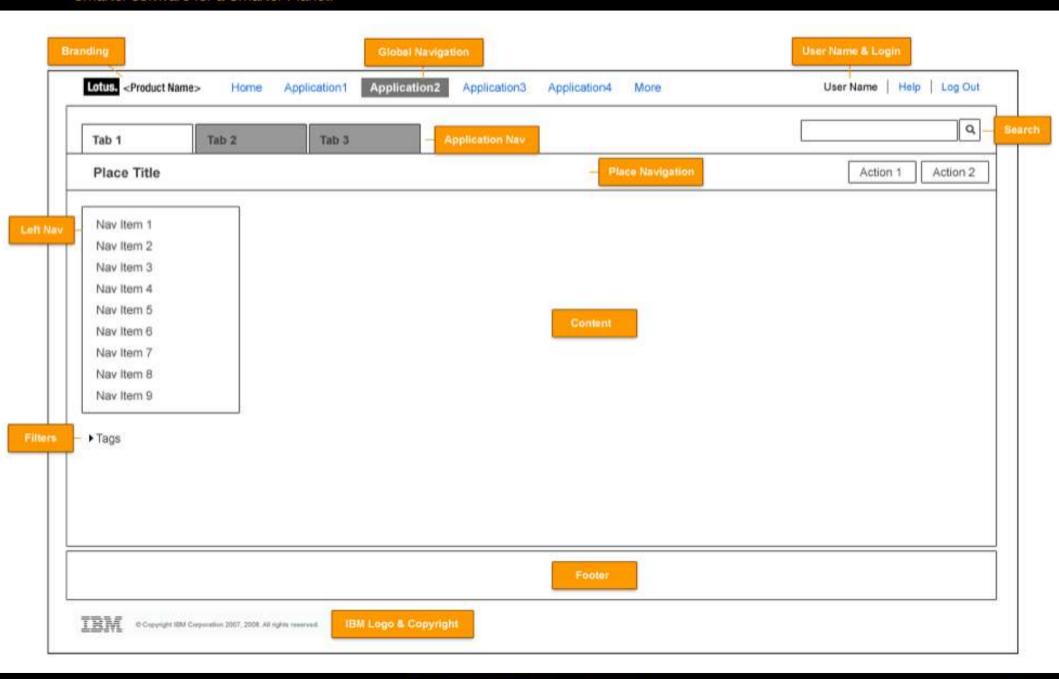




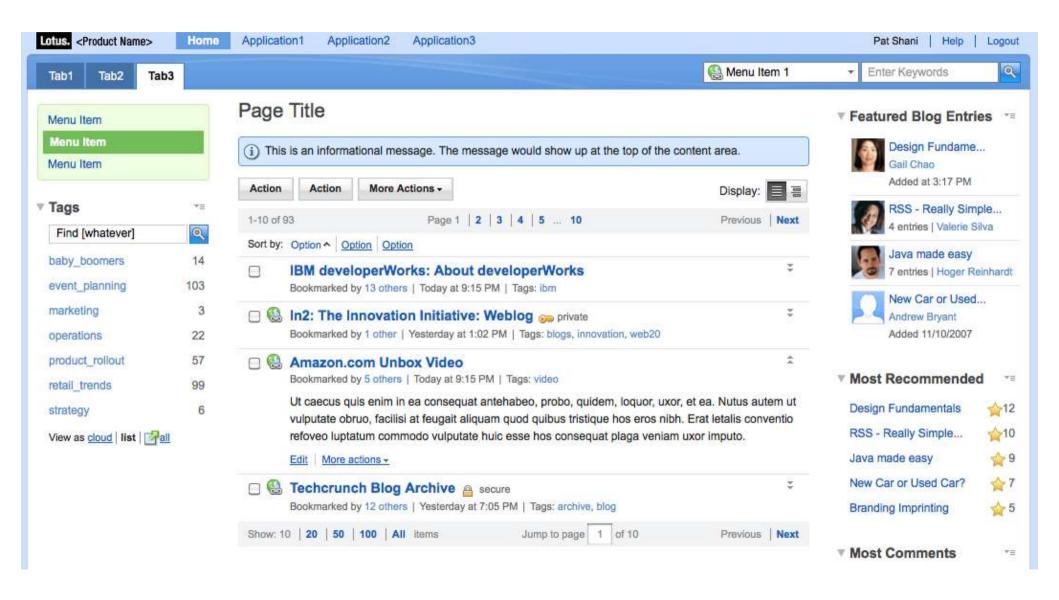
## The IBM oneUl Framework - Layout

```
<xp:panel styleClass="lotusFrame">
<xp:panel styleClass="lotusBanner">Banner Info</xp:panel>
<xp:panel styleClass="lotusTitleBar">Title Bar Info</xp:panel>
<xp:panel styleClass="lotusPlaceBar">Place Bar Info</xp:panel>
<xp:panel styleClass="lotusMain">
      <xp:panel styleClass="lotusLeftCol">Left Side Bar</xp:panel>
      <xp:panel styleClass="lotusRightCol">Right Side Bar</xp:panel>
      <xp:panel styleClass="lotusContent">Main Page Content/xp:panel>
</xp:panel>
<xp:panel styleClass="lotusFooter">Footer Information</xp:panel>
<xp:panel styleClass="lotusLegal">Legal Information</xp:panel>
</xp:panel>
```











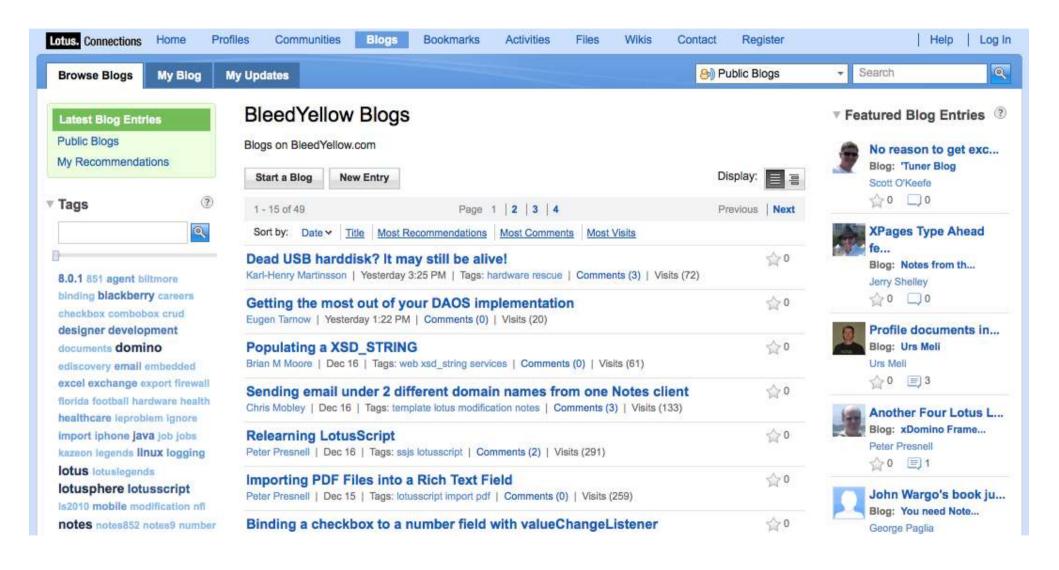
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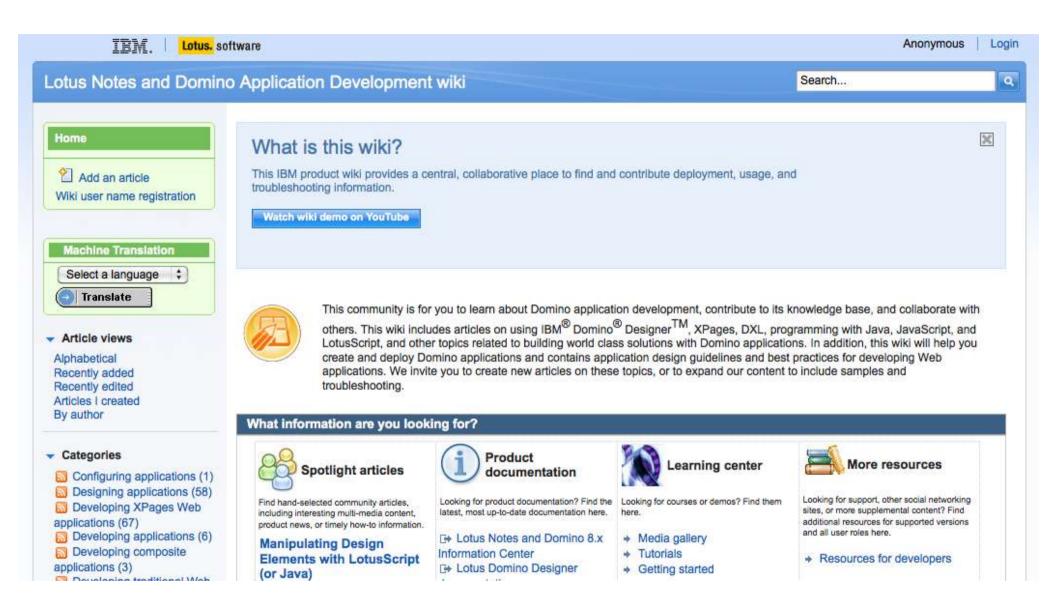
Powered By xTalk : An OpenNTF Project By Declan Lynch.





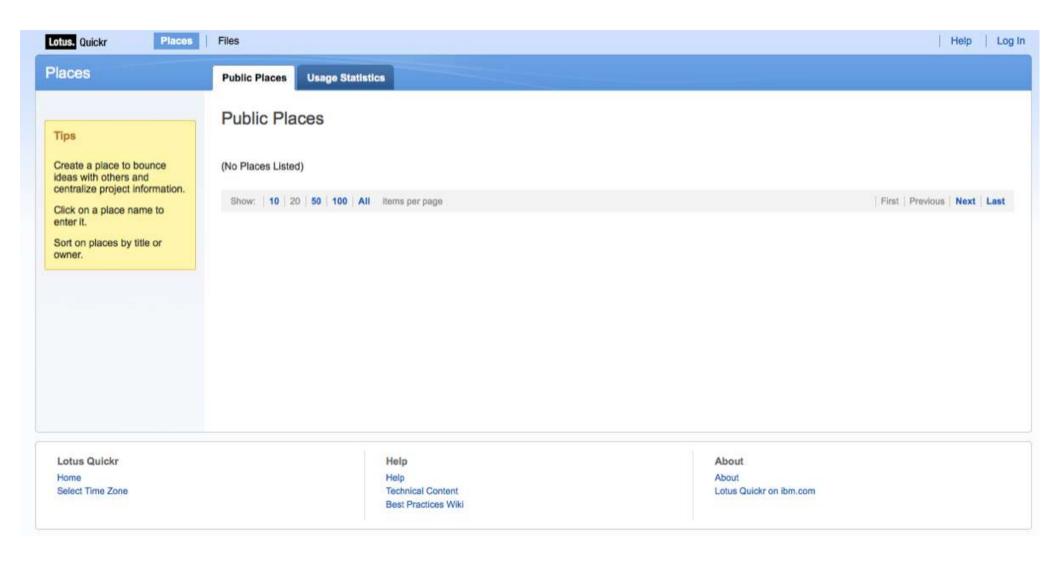














# Themes





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#### **XPages Themes**

- Single Document Containing References to all your CSS Resources
  - Resource Sections Reference the CSS Files Used
  - Control Section Define What CSS Classes Are Applied To Specific Controls
- XML Based and Easy To Learn
  - Creating A new Theme Document prefills sample Content
- Can Extend Other Themes
  - <theme extends="webstandard">
  - Will automatically include all the Resource and Control definitions from that theme
  - Three built-in themes to extend
    - webstandard
    - oneUl
    - notes



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#### **Theme Resources - The Basics**

- Can be fairly simple
  - Just reference internal CSS resources
- Or can be complex
  - Multiple CSS Resources
    - Internal
    - External
  - Specify client Side JavaScript Resources
  - Specify 'Rendered' properties on resources
    - Send certain CSS resources to certain web browsers

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



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#### **Theme Resources - Complex Themes**

- Specify If A Resource Is Only Used When Dojo Controls Are detected.
  - <resource dojoTheme="true">
- Browser / Client Detection
  - <resource rendered="#{javascript:context.getUserAgent().isIE(0,6) == true}">
  - <resource rendered="#{javascript:context.getUserAgent().isFirefox()}">
  - <resource rendered="#{javascript:context.getUserAgent().isSafari()}">
  - <resource rendered="#{javascript:context.isRunningContext('Notes')}">
- Text Direction Detection
  - <resource rendered="#{javascript:context.isDirectionRTL()}">
  - <resource rendered="#{javascript:context.isDirectionLTR()}">
- Not Just For CSS
  - <content-type>text/javascript</content-type>
- Reference Server Based / External Files
  - <href>/.ibmxspres/global/theme/oneui/iehacks.css</href>
  - <href>http://www.someserver.com/resources/application.css</href>





## **Extending The Built-In Themes**

Server Based Theme







```
<theme extends="oneui">
```

. . . . .

</theme>

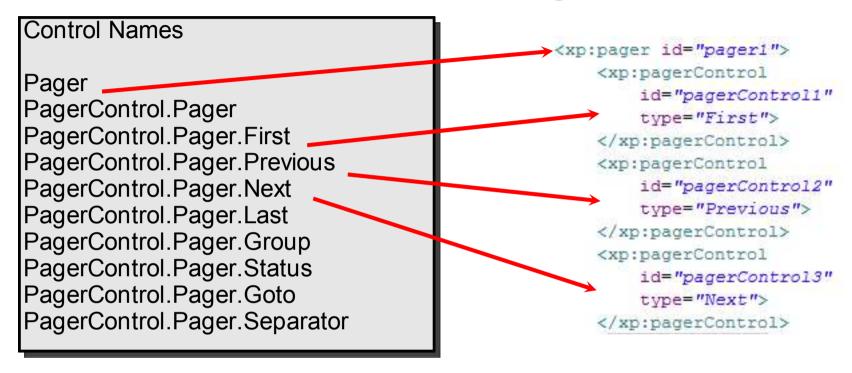


#### **Theme Controls - The Basics**

- Theme Controls are used to define default values for properties.
  - mode="concat"
    - Will append the properties onto any existing properties.
  - mode="override"
    - Will override the properties with those defined in the control.
- Theme Control Names matchup with the types on controls on pages
  - or you can create your own Theme Control names
  - and then tell it what control to apply to using the themeID property



#### **Theme Controls - The Pager Control**





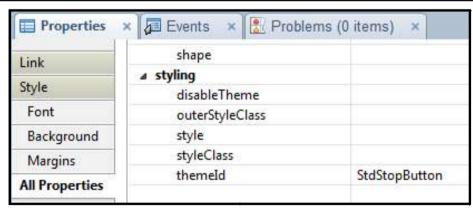
#### Theme Controls - Using ThemelD's

Standard Stop Button Cancel Operations



Standard Stop Button

Cancel Operations



<xp:link escape="true" text="Cancel Operations" id="link1" themeld="StdStopButton">
</xp:link>





#### **Theme Controls - Not Just For CSS**



<xp:label value="Label" id="label1" themeld="legalInfo"></xp:label>





#### Pros

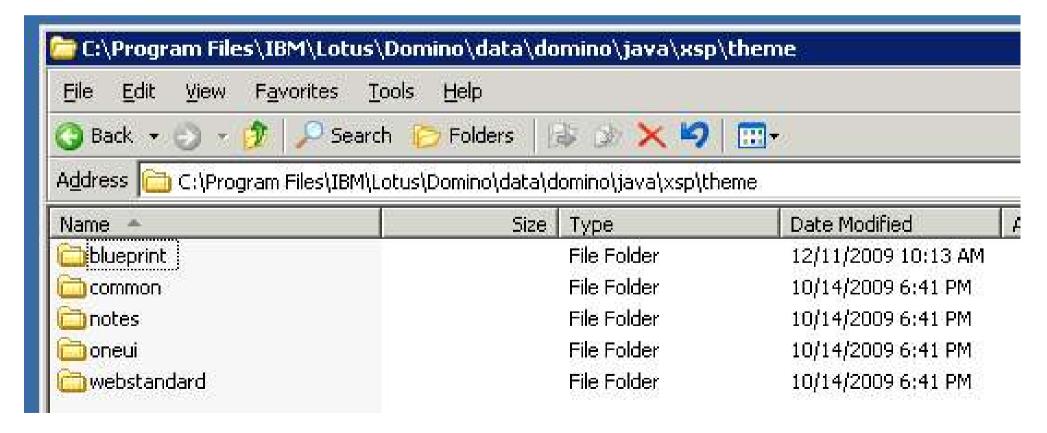
- You can then extend the server based theme
- Less files to store in the .NSF
- Will ensure everybody is using the same corporate-wide style.

#### Cons

- You need to do the procedure on all your Domino servers.
- Server based themes cannot be used by xPages in the Notes Client.
- Maintenance Nightmare if your corporate theme changes a lot.

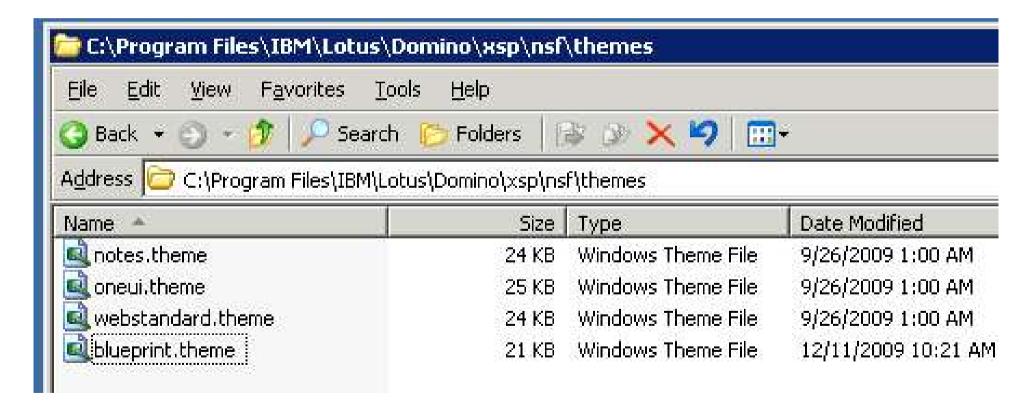


- Upload your CSS files to the Domino server.
- Existing theme resources are in the data\domino\java\xsp\theme directory.
- Create a folder to store your CSS files and other theme resources.





- Go to the Domino\xsp\nsf\themes directory
- Create a blank text file and name it after your new theme
- Make sure the file extension is .theme





- Open your new theme document in a text editor.
- Extend the existing 'webstandard' theme to automatically get all the basic xsp and dojo css resources that xPages needs.
- Add resources to reference your CSS files as required.



You can now use your server based theme in your xPage applications.

```
x application.theme
Home
1 <theme extends="blueprint">
2
     <resource>
         <content-type>text/css</content-type>
         <href>application.css</href>
       resource>
 </tneme>
```



# Mobile Devices



#### **XPages On Mobile Devices**

detecting the browser type in the theme doc

```
<resource rendered="#{javascript:context.getUserAgent().getUserAgent().match("iPhone")}">
<content-type>text/css</content-type>
<href>iPhone.css</href>
</resource>
```

- Redirecting to a different page with custom css
  - In the BeforePageLoads event :

Or a combination of both methods.



#### XPages On Webkit Devices

- Web kit Browsers
  - iPhone, Droid, Palm Pre
- Meta Tags are your friend!
- <meta name="viewport" content="width=device-width; initial-scale=1.0; maximum-scale=1.0; user-scalable=0;" />
  - No Zooming, Look more like a native app, width set to screen size
- <meta name="apple-mobile-web-app-capable" content="yes" />
  - iPhone specific hides Navigation
- <meta name="apple-mobile-web-app-status-bar-style" content="black" />
  - Apple Specific Neatens up the status bar a little.
- link href="homepageicon.png" rel="apple-touch-icon" />
  - HomePage Icon

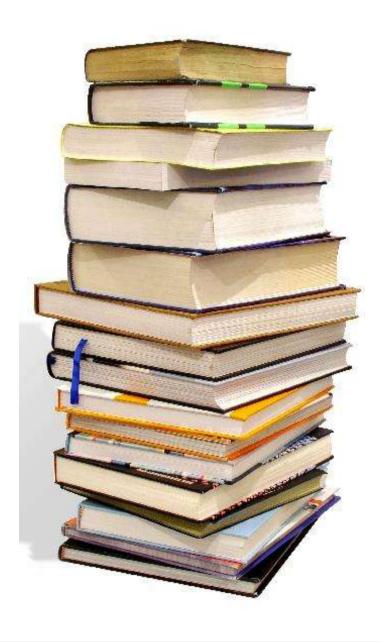




#### **Related Sessions**

AD106	XPages Just Keep Getting Better
AD107	Enhance Your Existing Applications with XPages
AD108	XPages in the IBM Lotus Notes Client - A Deep Dive!
AD109	XPages Performance and Scalability
AD110	Unleash the Power of Xpages
AD111	Harnessing the Power of Server-Side JavaScript and Other Advanced XPage Techni
SHOW112	How to Build an XPages Application from Start to Finish





## **Recommended Reading**

- Definitive CSS Book....
- Mark Hughes Website
  - http://dominoextnd.blogspot.com/
  - Lots of good iPhone information
- XPagesblog.com



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# Questions And Answers

And Don't Forgot To Fill Out

Your Session Evaluation Forms

BP207 Make your XPage Apps "Pop!" with CSS and Themes.

Declan Lynch & David Leedy





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