The Grand Tour of XPages in Notes/Domino 8.5.3 Upgrade Pack 1



Martin Donnelly Tony McGuckin

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Before We Begin...

- Please turn off:
 - Pagers
 - Cellphones
 - Anything else that buzzes, sings, screams, beeps, chirps, barks, etc.

















Agenda

• Speaker Introduction

• Why Do You Need Upgrade Packs?

• What Is Upgrade Pack 1 for Notes/Domino 8.5.3?

• Exploring Upgrade Pack 1



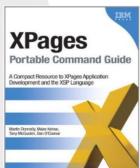


Speaker Introduction

Martin Donnelly

- Software Architect: IBM Ireland
 - IBM Lotus® Domino® Designer 8.5.x / IBM Lotus® Domino® XPages
 - IBM Lotus® Component Designer 6.0
 - JavaServer™ Faces (JSF) Tooling IBM® Rational® Application Developer
 - Java Visual Editor extensions for IBM® Rational® Application Developer
- Software Developer: Iris Associates / Lotus Development
 - IBM Lotus® Domino® Designer V4.6 to V6.01
 - IBM Lotus® 1-2-3® for Unix®,
 - LotusScript, etc.
- Author
 - Mastering XPages
 - XPages Portable Command Guide







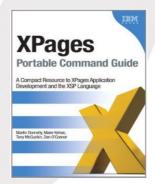


Speaker Introduction

Tony McGuckin

- Software Engineer: IBM Ireland
 - With IBM since 2006
 - XPages Runtime
 - Product & Template development
 - Customer Enablement & Proof-of-Concept development
 - Co-creator of global XPages@... Workshops
 - Lotus OneUI Adoption Workgroup
- Author
 - Mastering XPages
 - XPages PCG









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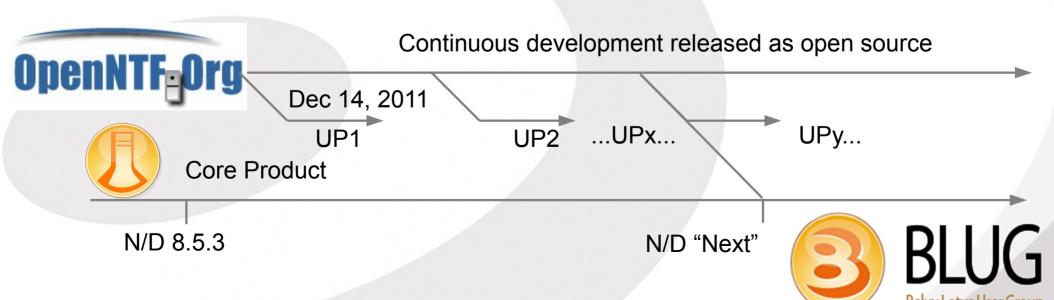
A New Development Model

- The IT Landscape is evolving quickly and we need to adapt to these changes
 - Product release cycles do not match the community expectations
 - Some Notes/Domino releases may not have an application development focus
 - We need shorter cycles and sharper focus for the app dev community
- The XPages Extension Library proved that open-sourcing the code has several benefits:
 - We can release as fast as we want, and customers can adopt it at their convenience
 - The availability of the source code makes it easier to consume, understand, and extend
- But....
 - The open source projects are not officially supported by IBM
 - can be a blocker in some organizations
 - The code is not certified with IBM quality standards
 - localization, accessibility, testing etc.



Product, Upgrade Packs and Open Source

- Code is first released on OpenNTF
 - Available early and gives full transparency on what is being done
 - Facilitates quicker user evaluation, feedback and contributions
- Pieces from OpenNTF are selected and delivered as "Upgrade Packs"
 - Upgrade Packs are supported by IBM
 - Upgrade Packs are delivered on a shorter release cycle than products
 - Upgrade Packs are integrated into the next revision of the product
 - Upgrade Packs do not modify the core base platform in any way!



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Wrap Up



What is Upgrade Pack 1?

XPages Extension Library UP1

- A set of Java plug-ins that greatly extend XPages runtime functionality
- Works on web, Notes client and mobile devices
- Installs on top of Notes/Domino 8.5.3
- Applicable to Domino, XWork Server, Notes, Domino Designer
- Cool new Domino Designer enhancements for Ext Lib controls
- A fully accessible runtime library and templates
 - A11Y certified
 - Enhanced TeamRoom and Discussion templates
- Online documentation
- Runtime is localized
- Built to IBM globalization standards
- Implemented using the XPages Extensibility API
- Officially supported by IBM
- Includes source code!
- Domino Access Services:
 - New REST APIs







The Extension Library

- What's in Extension Library UP1?
 - Over **100** new tags !!!
 - UI controls | Data Access Objects | Simple actions | Other assets ...
 - Dojo wrappers
 - iNotes controls
 - REST services
 - Mobile library
 - New @Functions
 - Predefined Managed Beans
 - Application Layout
- Get Started with XPagesExt.nsf
 - Sample application available on OpenNTF.org
 - Provides intuitive samples of almost every artifact
- Learn even more from the TeamRoom and Discussion templates
 - Features a new mobile UI



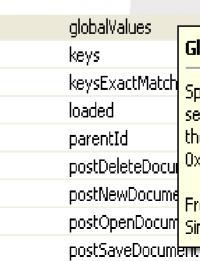
Productizing the Extension Library

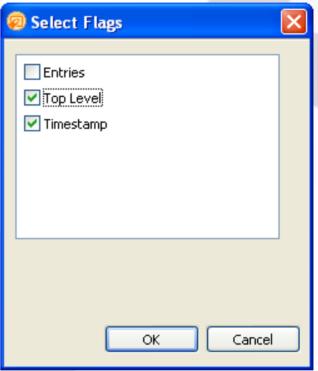
- Official support for the Extension Library starts with 8.5.3 UP1
 - "Productized" version
 - Accessible, localized, fortified, enhanced
- Future Proofing XSP Markup
 - UP1 involved a line-by-line examination of every control declaration
 - Had to be compliant with IBM product guidelines and standards
 - Breaking changes
 - Ext Lib XSP markup update released on Nov 17, 2011 (20111117-1058)
 - Applications based on Ext Lib before this date may require an upgrade
 - Typically this is just a simple property name substitution and rebuild
 - e.g. from "title" to "label"
 - We tried to minimize any *breaking* changes as much as possible
 - All the breaking changes are documented
 - Unknown property title. It is not defined on tag xe:pageTreeNode.
 - 🙆 Unknown property title. It is not defined on tag xe:pageTreeNode.
 - Unknown property title. It is not defined on tag xe:pageTreeNode.



Enhanced Domino Designer Tooling

- New customized property panels for advanced controls
 - Application Layout
 - DataView
- Design Pane visualizations for all controls
- New Property Pickers/Editors
 - Domino View Picker
 - Bitwise Option Picker
 - Regular Expression Editor
 - Currency Picker ... etc.
- Updated tooltips





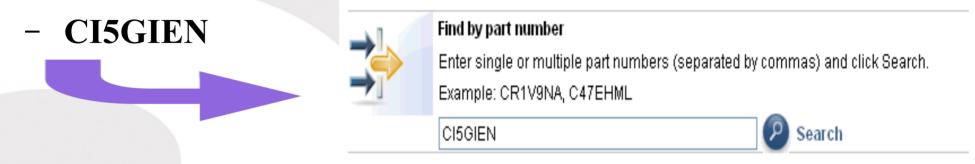
Global Values

Specifies the combination of global values returned by the service. Multiple global value constants can be combined using the bitwise OR operator (|). The global constants are: Entries 0x0001, Top Level 0x0002, Timestamp 0x0004.

From library com.ibm.xsp.extlib.library Since initial version

How do I get 8.5.3 Upgrade Pack 1?

• Customers on active maintenance can download from Passport Advantage



- IBM Business Partners can use Partnerworld Software Access Catalog
 - http://tinyurl.com/IBMPartnerWorldCatalog

• Download 1 image (~ 400 megabytes)



```
CISGIEN.zip
  client
    extlib-add-win32
      853UpgradePack1_20111208-0717.exe
    macosx
      853UpgradePack1_20111208-0717.tar
  designer
    extlib-designer-add-win32
      853UpgradePack1_20111208-0717.exe
  domino
    aix.tar
    aix65.tar
    IBMi_upgradepack.exe
    linux.tar
    sol.tar
    w32n_upgradepack.exe
    w64n upgradepackexe
    zlinux64.tar
```

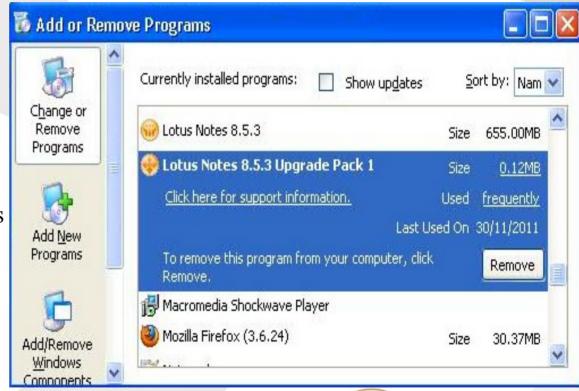
How do I install 8.5.3 Upgrade Pack 1?

- Notes/Domino Add-On Installer
 - Domino server
 - Notes client
 - Domino Designer
- All platforms supported
 - Windows ® | Mac | Unix flavors
- Upgrade Pack Uninstall
 - Platform Add/Remove Programs



- Supports Silent Install
- Supports Smart Upgrade

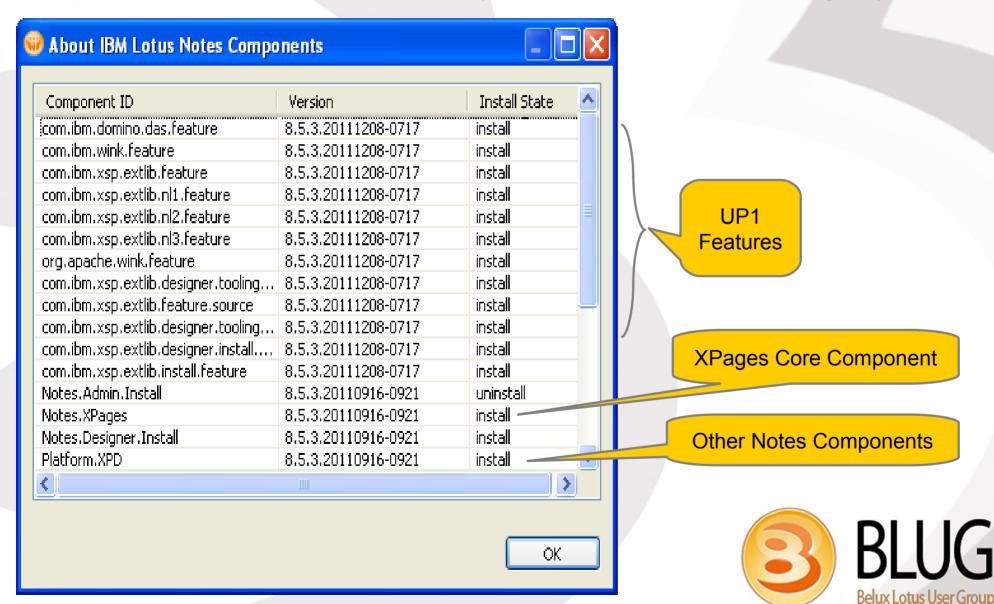




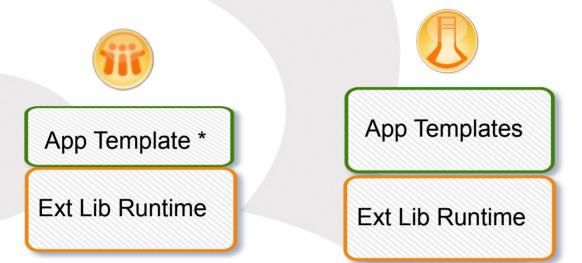


What is installed?

Help > About > Component Details (Notes Client or Domino Designer)



What is installed?





- Source Code
 - Eclipse plug-ins containing Java source code for all UP1 Extension Library modules
- Application Templates
 - teamrm8xl.ntf and discussion8xl.ntf
 - Template names have **xl** suffix and do not overwrite classic NTFs
 - * Discussion template installed with Notes client (no Teamroom)
 - DocLib 'xl' template now available for preview on OpenNTF.org

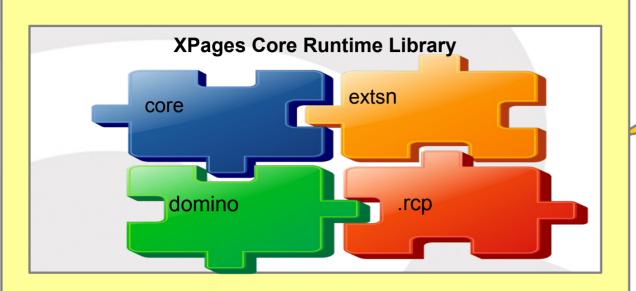


Extension Library - Installed from OpenNTF.org

Help > About > Plug-in Details (Notes Client or Domino Designer)

Si	Provider	Plug-in Name	Version	Plug-in Id 🔺	
♀ ≡	IBM	XSP Runtime Core Plug-in	8.5.3.20110915-2025	com.ibm.xsp.core	VOD
♀ Ξ	IBM	XSP Runtime Designer Plug-in	8.5.3.20110915-2025	com.ibm.xsp.designer	XSP
♀ Ξ	IBM	XPages Dojo Plugin	8.5.3.20110915-2025	com.ibm.xsp.dojo	Core
₩ 三	IBM	XSP Runtime Domino Plug-in	8.5.3.20110915-2025	com.ibm.xsp.domino	Plugir
♀ Ξ	IBM	Extended Components Library for XPages	8.5.3.20111120-2332	com.ibm.xsp.extlib	Plugii
♀ ≡	IBM	Extended Components Library for XPages Controls	8.5.3.20111120-2332	com.ibm.xsp.extlib.controls	
♀ ≡	IBM	com.ibm.xsp.extlib.controls.nl1	8.5.3.20111120-2332	com.ibm.xsp.extlib.controls.nl1	
♀ Ξ	IBM	com.ibm.xsp.extlib.controls.nl2	8.5.3.20111120-2332	com.ibm.xsp.extlib.controls.nl2	
♀ Ξ	IBM	com.ibm.xsp.extlib.controls.nl3	8.5.3.20111120-2332	com.ibm.xsp.extlib.controls.nl3	
₩ =	IBM	Extended Components Library for XPages Core	8.5.3.20111120-2332	com.ibm.xsp.extlib.core	
♀ Ξ	IBM	com.ibm.xsp.extlib.core.nl1	8.5.3.20111120-2332	com.ibm.xsp.extlib.core.nl1	
♀ ≡	IBM	com.ibm.xsp.extlib.core.nl2	8.5.3.20111120-2332	com.ibm.xsp.extlib.core.nl2	
皇三	IBM	com.ibm.xsp.extlib.core.nl3	8.5.3.20111120-2332	com.ibm.xsp.extlib.core.nl3	Evt 1:1
♀ Ξ	IBM	Domino Designer Extensions Framework Common Plug-in	8.5.3.20111120-2332	com.ibm.xsp.extlib.designer	Ext Lil
₩ =	IBM	XPages Extension Library Designer Extensions Plug-in	8.5.3.20111120-2332	com.ibm.xsp.extlib.designer.tooling	Plugin
♀ Ξ	IBM	Domino Designer XSP Properties Editor Plug-in	8.5.3.20111120-2332	com.ibm.xsp.extlib.designer.xspprops	
♀ ≡	IBM	Extended Components Library for XPages - Lotus Notes/Domino	8.5.3.20111120-2332	com.ibm.xsp.extlib.domino	
♀ ≡	IBM	com.ibm.xsp.extlib.domino.nl1	8.5.3.20111120-2332	com.ibm.xsp.extlib.domino.nl1	
♀ Ξ	IBM	com.ibm.xsp.extlib.domino.nl2	8.5.3.20111120-2332	com.ibm.xsp.extlib.domino.nl2	
♀ Ξ	IBM	com.ibm.xsp.extlib.domino.nl3	8.5.3.20111120-2332	com.ibm.xsp.extlib.domino.nl3	
♀ Ξ	IBM	Extended Components Library for XPages - Mobile device Support	8.5.3.20111120-2332	com.ibm.xsp.extlib.mobile	
皇三	IBM	com.ibm.xsp.extlib.mobile.nl1	8.5.3.20111120-2332	com.ibm.xsp.extlib.mobile.nl1	
皇王	IBM	com.ibm.xsp.extlib.mobile.nl2	8.5.3.20111120-2332	com.ibm.xsp.extlib.mobile.nl2	Ext Libx
♀ Ξ	IBM	com.ibm.xsp.extlib.mobile.nl3	8.5.3.20111120-2332	com.ibm.xsp.extlib.mobile.nl3	Plugins
皇三	IBM	Extended Components Library for XPages - OneUI Support	8.5.3.20111120-2332	com.ibm.xsp.extlib.oneui	Flugilis
皇王	IBM	com.ibm.xsp.extlib.oneui.nl1	8.5.3.20111120-2332	com.ibm.xsp.extlib.oneui.nl1	
♀ Ξ	IBM	com.ibm.xsp.extlib.oneui.nl2	8.5.3.20111120-2332	com.ibm.xsp.extlib.oneui.nl2	
♀ ≡	IBM	com.ibm.xsp.extlib.oneui.nl3	8.5.3.20111120-2332	com.ibm.xsp.extlib.oneui.nl3	
皇王	IBM	Extended Components Library for XPages Extension	8.5.3.20111120-2332	com.ibm.xsp.extlibx	
皇王	IBM	Extended Components Library for XPages Extension Core	8.5.3.20111120-2332	com.ibm.xsp.extlibx.core	
♀ ≡	IBM	Extended Components Library for XPages - OAuth Provider	8.5.3.20111120-2332	com.ibm.xsp.extlibx.oauth	PLU
皇王	IBM	Relational Database Access Capability for XPages	8.5.3.20111120-2332	com.ibm.xsp.extlibx.relational	Belux Lotus User G
₽ ≡	IBM	Derby Relational Sample	8.5.3.20111120-2332	com.ibm.xsp.extlibx.relational.derby	

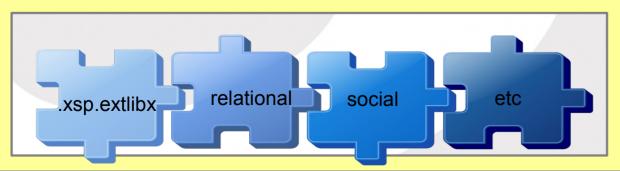
Extension Library Plug-in Model



XPages Core Runtime (ND 8.5.3)



XPages Extension
Library
(UP1 | OpenNTF.org)



XPages Experimental
Extensions
(OpenNTF.org)



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Extended Editing Context

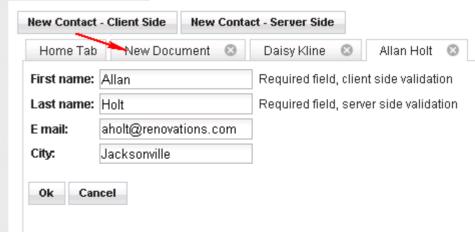
- Beyond the traditional web form/submit/navigate pattern
- Editing the data "In Context"
- Provide various flavors of dialogs

Modal Dialog User: Loretta, Cooper Edit - Modal -- Edit - Tooltip User: Shelia, Contreras Edit - Mod Edit User User: Claire, Lowery Edit - Moual User: Ricky, Harding Edit - Modal User: Gabriel, Wagner Edit - Moda First name: Loretta User: Samuel, Scott Edit - Modal Last name: Cooper User: Karen, Jordan Edit - Modal User: Pauline, Hendricks Edit - Mo E mail: lcooper@acme.com User: Peggy, Mccarthy Edit - Moda Garland User: Cornelia, Glover Edit - Moda City: User: Katheryn, Phillips Edit - Mod Cancel User: Karla, Townsend Edit - Mod User: Lula, Gamble Edit - Modal



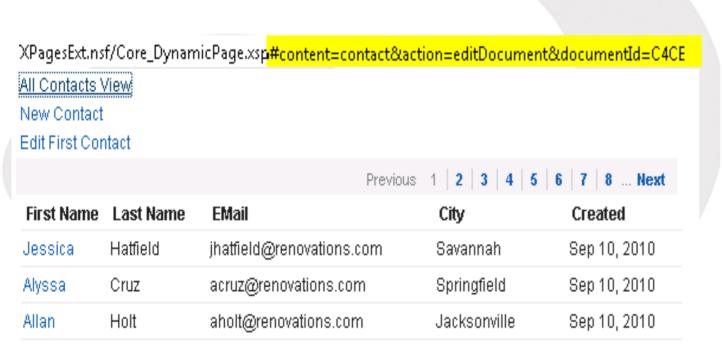


Dynamic Tabbed Interface



Dynamic Pages

- Make the content of a page dynamic
- Parts of the page are discarded/reconstructed on demand
- The user never leaves the current page
- Very efficient runtime behavior
- The context is kept using the URL hash technique
- Makes it "bookmarkable", and enables the back button

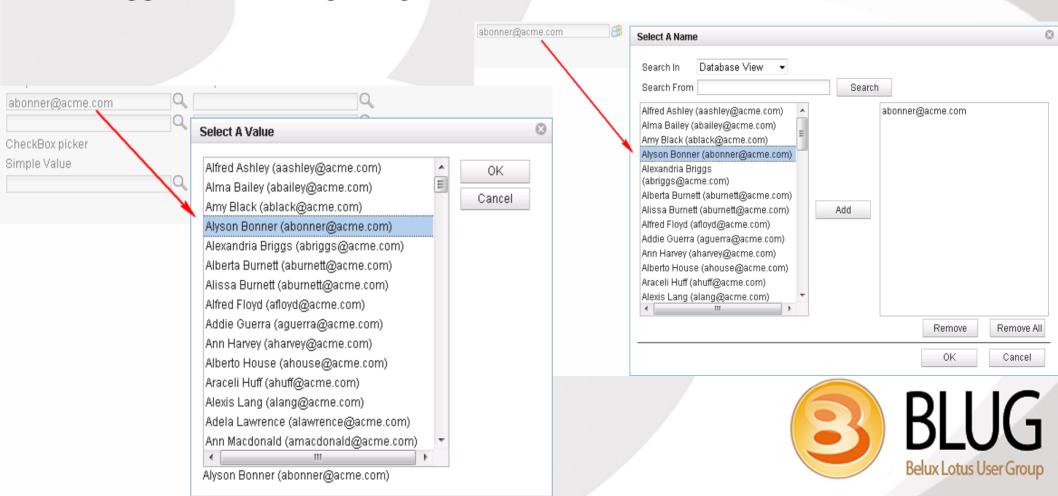






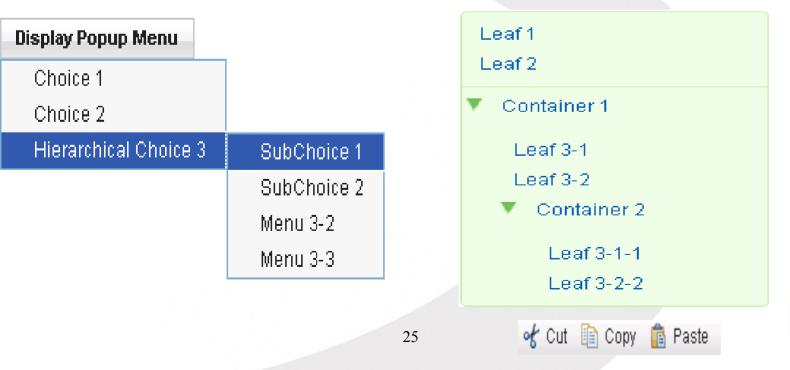
Value and Name Pickers

- Select data from any data source
- Domino view, Address Book, Managed Bean...
- Integrated with the standard TypeAhead component
- Pluggable UI for high degree of customization



Outlines/Menus

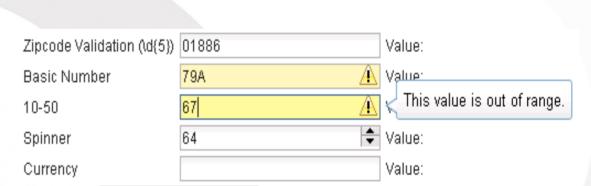
- Provide a generic way for building action bars
- Hierarchical navigators, accordions, pop-up menus, trees...
- Content can be static (defined in the page), dynamic (retrieved from a data source) or a mix of both.
- Easy mapping to actions (client and/or server side)



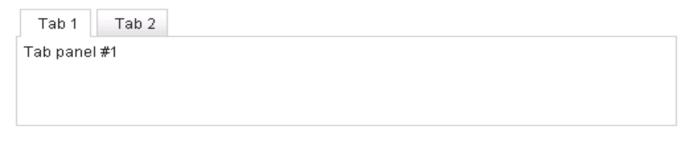


Dojo Wrappers

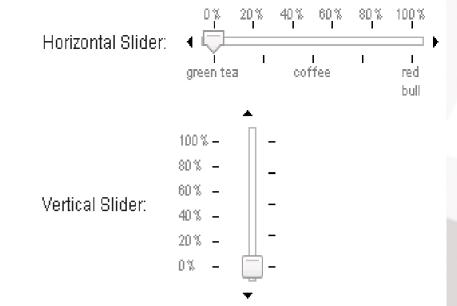
- Leveraging the Dojo form controls
- Extended set of input controls
- Spinner, sliders,...
- Dojo client side validation enabled
- New Dojo containers for high user interactivity
- Tabbed panels, layout...



Tab Container







Interactive Views

- View content rendered in a scrollable grid
- Either the Dojo grid or the iNotes virtual list, depending on the need
- iNotes virtual list supports categorization, document hierarchy...
- Dojo grid supports editing and is not tied to Views
- Data is accessed using REST services provided by the XPages
- Custom columns can be computed, and events handled
- Documents can also be updated for the column pointing to fields



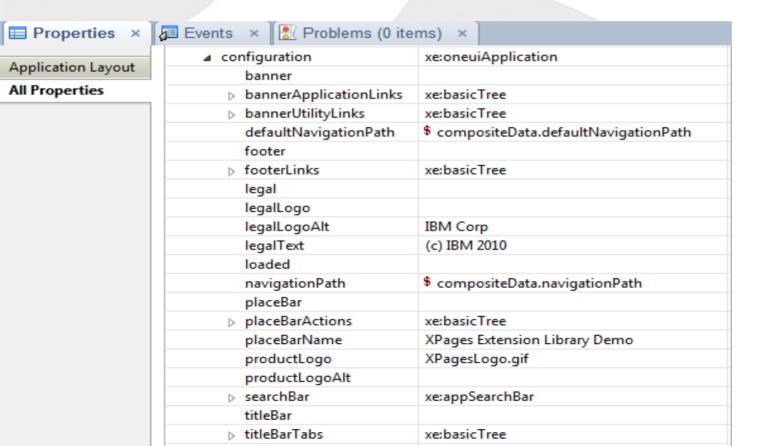
FirstName	LastName	City	EMail	ShortName	
Petra	Hayden	Coral Springs	phayden@acme.com	PHAYDEN	
Lorraine	Blevins	Norwalk	lblevins@acme.com	LBLEVINS	
Rosanna	Mccoy	Chesapeake	rmccoy@acme.com	RMCCOY	
Phoebe	Livingston	Salinas	plivingston@acme.com	PLIVINGSTON	
Jonathan	Jacobson	Oklahoma	jjacobson@acme.com	JJACOBSON	
James	Mullins	Salt Lake	jmullins@acme.com	JMULLINS	
Lorraine	Ryan	Tallahassee	Inyan@acme.com	LRYAN	
Joanna	Bentley	Columbia	jbentley@acme.com	JBENTLEY	
Casandra	Webster	Norfolk	awebster@acme.com	CWEBSTER	
Olive	Boyer	San Jose	oboyer@acme.com	OBOYER	
Vera	Ashley	Santa Clarita	vashley@acme.com	VASHLEY	





OneUI Application Layout

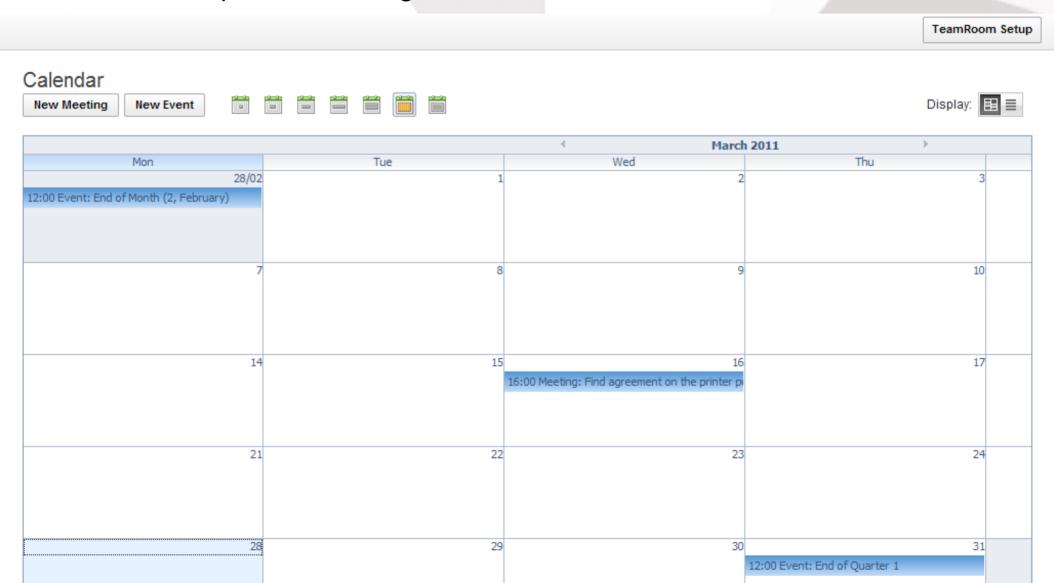
- Get a running OneUI application in less than 5 minutes!
- Fully customizable OneUI rendering
- Abstracts all the OneUI application parts
- Can even be customized by providing an inherited renderer
- Get ready for the upcoming Vulcan look and feel





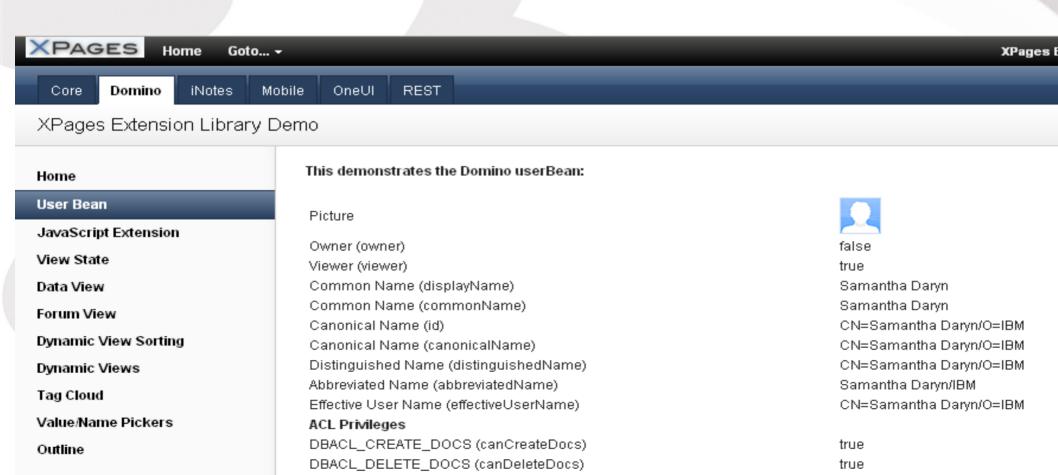
Access to Calendar Views

- Visualize Notes/Domino views through iNotes controls and REST services
- Add CRUD operations through custom forms



Predefined Managed Beans

- Get easy access to common data
- Current user name, email, etc.
- There also new @Functions ...
 - You could add your own Managed Beans and @Functions



Source Code

- Java source code for all modules provided as Eclipse plug-ins
- Source can be used to:
 - Understand fine detail of how features work
 - Customize runtime behavior *
 - Propose new features or behaviors
 - Diagnose issues
- Setting up a development environment to work with Java source code
 - Server must be started in debug mode (add entries to NOTES.INI)
 - JavaEnableDebug=1
 - JavaDebugOptions=transport=dt_socket,server=y,suspend=n,address=8000
 - Install Domino Debug Plugin into Domino Designer
 - http://tinyurl.com/XPagesDominoDebugPlugin
 - Import Java source plug-ins into Domino Designer
 - Ref Step #8 in Domino Designer install instructions
 - Set up Domino server and OSGI debug configurations
- Use Firebug or other script debuggers to work with JavaScript source
 - Firebug, Firebug Lite (XPiNC), IE Developer Toolbar etc

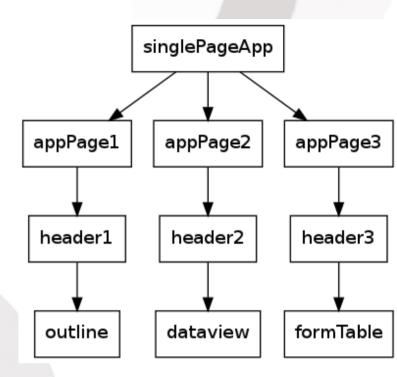


Mobile Controls

- Single-Page Application Paradigm
 - Application Pages loaded using partial refresh
 - Pages typically written as Custom Controls
 - Share Logic between Desktop/Mobile



- Themes provided for iPhone and Android in UP1
- Intention to support Blackberry in future Upgrade Pack





Mobile Controls

- Application
- Application Page
- Heading
- List
- List Item
- Switch
- Tab Bar
- Tab Bar Button

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	Title		Author 4	
=	General Query	8 Nov 2011	Ananymous	Ξ
<u>.</u>	Printer not working	3 Nov 2011	Ananymous	*
3	Making progress	9 Feb 2011	Heather Reeds/acme2	*
	Finding your IP address	9 Feb 2011	Heather Reeds/acme2	\$
	Importing Contacts	9 Feb 2011	Heather Reeds/acme2	÷
=	End of Quarter 1 (31/03/2011)	9 Feb 2011	Harry Greene/acme2	*
<u></u>	End of Month (2, February) (28/02/2011)	9 Feb 2011	Harry Greene/acme2	Ţ
	End of Month (1, January) (28/01/2011)	9 Feb 2011	Harry Greene/acme2	\$
\$	Training material at 50% complete	9 Feb 2011	Harry Greene/acme2	Ψ
副	Prepare Telecomm support training materials	9 Feb 2011	Harry Greene/acme2	-





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Wrap Up



Next Steps

- Get the 8.5.3 Upgrade Pack 1 code
 - Requires 8.5.3 base -- There's never been a better reason to upgrade !!!

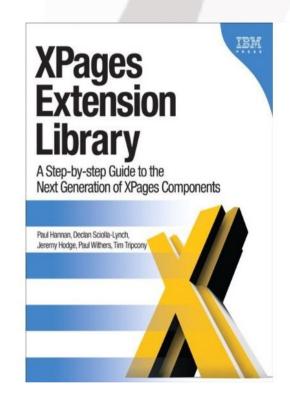


- Quick Win Apply new Teamroom and Discussion templates
 - In two easy steps!
 - File > Application > Replace Design
 - Run Agent > Upgrade Content
 - note: you only need to run agent once!
- Demo & Tutorial
 - http://www.openntf.org/blogs/openntf.nsf/d6plinks/NHEF-8MHA78
 - http://www-10.lotus.com/ldd/ddwiki.nsf/dx/XPages_Mobile_Controls_Tutorial
- For more info on Dojo mobile controls:
 - http://dojotoolkit.org/features/mobile



Enablement Materials

- Online documentation available on Domino Designer wiki
 - http://tinyurl.com/Doc4XPagesUP1
- New Extension Library Book
 - Comprehensive 600 page volume
 - IBM Press publication
 - Authored by a team of all-star XPages experts,
 Featuring contributions from key community members
 - Take full advantage of the XPages Extensibility Framework, Library & API
 - Step-by-step guide for developers of all experience levels
 - Combines reference material and practical use cases
- Estimated Availability Q2 2012
 - www.ibmpressbooks.com/bookstore/product.asp?isbn=0132901811
 - www.amazon.com/XPages-Extension-Library/dp/0132901811





Other NEW XPages Books

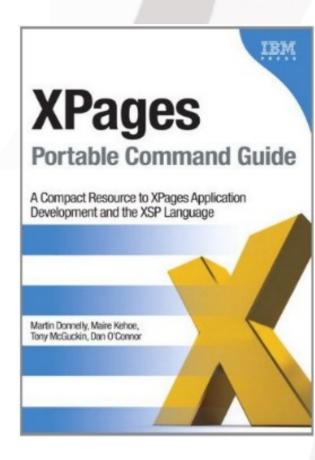
- XPages Portable Command Guide
 - Compact 300 page volume
 - IBM Press publication
 - Authored by members of XPages & Domino Designer dev teams
 - Perfect complement to the popular Mastering XPages book, helping experienced XPages developers go even further
 - Thoroughly covers XSP properties, Command Manager instructions, INI variables, OSGi console commands, debugging, logging and more.
 - Dozens of practical examples providing immediate solutions











- www.ibmpressbooks.com/bookstore/product.asp?isbn=0132943050
- www.amazon.com/XPages-Portable-Command-Guide/dp/0132943050





Before You Leave ...



- Please complete your session survey
- The Grand Tour of XPages in Notes/Domino 8.5.3 Upgrade Pack 1



Buíochas

Irish

धन्यवाद

Hindi



Russian



ขอบคุณ



Traditional Chinese



Thank You



Grazie

talian





Simplified Chinese

Danke

German



French



Korean

ありがとうございました

lananese





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