Lotus knows.
Smarter software for a Smarter Planet.

Vorstellung neuer OpenNTF Projekte basierend auf XPages und Dojo

Niklas Heidloff | IBM | Senior Software Engineer
Agenda

- OpenNTF Overview
- Discussion Template – Rich Client User Interface
- Discussion Template – Web Client User Interface
- XPages Framework
- Dojo in XPages
- Q & A
OpenNTF is devoted to ...

- Enabling groups of individuals all over the world to collaborate on IBM Lotus Notes® and Domino® applications and release them as open source
- Providing a framework for the community so that open source applications may be freely distributed, using widely accepted licensing terms
- Increasing the quality and quantity of templates, applications and samples that are shared by the community
OpenNTF in Numbers

- 15 OpenNTF Alliance members
- > 300 contributors
- > 400 projects and > 1.000 code snippets
- > 67.000 registered users
- > 125.000 downloads in 2009
- > 3.200.000 page visits in 2009

- Comparison November 2008 vs. 2009
  - 50% more page visits
  - 100% more downloads
  - 4 times more releases
- Since foundation of OpenNTF Alliance in May 2009
  - 100 legally cleared entries in Apache catalog
Governance Model

- Loose cooperation of equal members with the common goal to provide open source applications based on Lotus Notes & Domino
- Similar to the OpenAjax.Org model: As little bureaucracy as possible, but as much structure and as many rules as necessary to make code re-usable and the organization efficient
- Members are expected to contribute something (e.g. code, in kind donations, financial contributions, etc.)
IP Model

- **Outbound:** Two models
  - Apache license (version 2)
    - Maximizes the usefulness of the code to consumers
    - No obligation to donate back to the community
  - GPL licenses
- **Inbound contribution process**
  - Rights for perpetual, worldwide, non-exclusive, no-charge, royalty-free, patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the work
  - IP is owned by contributor
Value provided by OpenNTF

- Code samples for education purposes for new and old technologies
- Base projects and templates to reuse/harvest/enhance for custom applications
- Access to base Lotus Notes & Domino templates with some of them enhanced from shipping versions
- Access to a global community of like minded people
- A community of “testers” for your projects
## Catalogs of legally cleared Project Releases

<table>
<thead>
<tr>
<th>Name</th>
<th>Committed by</th>
<th>Updated</th>
<th>Rating</th>
<th>Downloads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import and Export for Domino Designer</td>
<td>Y</td>
<td>Dec 15, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
<tr>
<td>Status Updater</td>
<td>J</td>
<td>Dec 15, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
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<tr>
<td>Side Note</td>
<td>S</td>
<td>Dec 14, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
<tr>
<td>Refactor Plugin for Domino Designer</td>
<td>Y</td>
<td>Dec 14, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
<tr>
<td>Widget for Gocurrency - US Dollar to Euro Conversion</td>
<td>B</td>
<td>Dec 2, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
<tr>
<td>Widget for Gocurrency - Euro to US Dollar Conversion</td>
<td>B</td>
<td>Dec 2, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
<tr>
<td>Widget for Flightstats - Flight Status</td>
<td>A</td>
<td>Dec 2, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
<tr>
<td>Widget for Yahoo Babelfish - Text Translation</td>
<td>N</td>
<td>Dec 2, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
<tr>
<td>Attachment Manager</td>
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<td>Dec 1, 2009</td>
<td>⭐⭐⭐⭐⭐</td>
<td>more</td>
</tr>
</tbody>
</table>
Rich Client Components

- Definition: Everything that can be installed via drag & drop into Lotus Notes
- Examples: File Navigator and Widget for Twitter
Reusable Controls

- Definition: List of compilable design elements that can be copied into custom applications
- Example: Voting control

![Voting control example](image_url)
Projects

- Definition: Everything else that is not a rich client component or control
- Example: XPages Wiki
Notes/Domino Core Templates

- Lotus Notes & Domino base templates have been open sourced
  - Mail (mail85.ntf)
  - Personal Address Book (pernames.ntf)
  - TeamRoom (teamrm7.ntf)
  - Notebook (notebook8.ntf)
  - Domino Blog (dominoblog.ntf)
  - Doc Library (doclbw7.ntf)
  - Widget Catalog (toolbox.ntf)
  - Eclipse Update Site (updatesite.ntf)
- Business opportunity to extend and use templates in commercial products
Get involved

- OpenNTF success depends on contributions from the community
- Contribute code
- Provide feedback in forums, project area and blog
- Become a member
- Use code from OpenNTF
- Help in the Technical Committee
Agenda

- OpenNTF Overview
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Discussion Template

- The discussion template from Lotus Notes & Domino 8.5.1 has been extended and is available for download today
- Improved web user experience, e.g. better view navigation
- Revamped Lotus Notes client user interface that uses PIM style views and navigation
- Add on for rich client users to create topics based on context
- New features provided based on community feedback
Lotus knows.
Smarter software for a Smarter Planet.

OpenNTF Project Owners Discussion

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Topic Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/17/2009</td>
<td>3</td>
<td>Topic 1 (created by N)</td>
</tr>
<tr>
<td>07/28/2009</td>
<td>19</td>
<td>License Documentation within Projects (J)</td>
</tr>
<tr>
<td>07/24/2009</td>
<td>9</td>
<td>Draft of the new IP Policy (P)</td>
</tr>
<tr>
<td>07/24/2009</td>
<td>7</td>
<td>New governance documents (P)</td>
</tr>
<tr>
<td>07/24/2009</td>
<td>6</td>
<td>Update on the ICLA draft (F)</td>
</tr>
<tr>
<td>07/20/2009</td>
<td>6</td>
<td>Committers - What kind of paperwork do we want to require? (E)</td>
</tr>
<tr>
<td>07/20/2009</td>
<td>11</td>
<td>ICLA Draft (P)</td>
</tr>
<tr>
<td>07/16/2009</td>
<td>5</td>
<td>IPWG and TC joint call on July 17. (P)</td>
</tr>
<tr>
<td>07/16/2009</td>
<td>3</td>
<td>Results of the OpenNTF.org Steering Committee Conference Call on 7.16.2009 (J)</td>
</tr>
<tr>
<td>07/16/2009</td>
<td>2</td>
<td>The &quot;library&quot; aspect of LGPL is crucial (J)</td>
</tr>
<tr>
<td>07/15/2009</td>
<td>1</td>
<td>Proposed Resolutions for Voting by the Steering Committee on 7.16.2009 (J)</td>
</tr>
<tr>
<td>07/15/2009</td>
<td>25</td>
<td>Possible PROPOSAL for project cycles (E)</td>
</tr>
</tbody>
</table>
Implementation

- Guideline: Use the best technologies Lotus Notes & Domino provides today (8.5.1) for the specific scenarios

- Web client (template): XPages
  - Obviously XPages are THE Lotus Domino technology to build web applications

- Rich client (template): Java™ views, composite applications, XPages, 'classic' Lotus Notes application development
  - Consistent user interface with other Notes 8 style applications
  - Best possible view navigation and rich text editing
  - Reuse of existing code via composite applications

- Notes extension: Eclipse
  - Globally available in Lotus Notes
Implementation: Navigation Page

- Implemented via Java views
- Reasons
  - Consistency with other Notes 8 style applications
  - Powerful view navigation
  - Preview on the side and narrow views
- Key implementation points
  - Live names requires it's own column
  - Narrow views shouldn't show scroll bars
  - Documents shouldn't show scroll bars
  - Icons should be used in action bars
Implementation: Thread Viewer Page

- Implemented as composite application (cloned) page
- Reasons
  - Aggregation of XPage and classic Notes documents
- Key implementation points
  - Form formula decides whether to bring up this page or only the one document in the thread
Implementation: Thread Viewer Page (cont.)

- Key implementation points
  - Property broker used for inter component communication
Implementation: Thread Viewer

- Implemented via XPages
- Reasons
  - Display of the complete thread including new non persisted documents
  - Graphical flexibility
- Key implementation points
  - Component definition for property broker
  - Style sheet to wrap content to new lines
Implementation: Main Document

- Implemented via new Document Container
- Reasons
  - To leverage the publications of properties declaratively (landmarks)
- Key implementation points
  - Place holder component
  - Landmarks to publish fields
Implementation: Previewed Document

- Implemented via custom composite application component (classic Notes application development)
- Reasons
  - To open documents in preview mode on same page or to open documents in their own tabs
- Key implementation points
  - Frameset with hidden frame
    - Notes ini variable to communicate between frames
Add On: Create Topics based on Context

- Scenario: Share received email with team to gather feedback
- Any Lotus Notes document can be copied in discussion applications as topic with one click
- The list of discussion applications is stored for each user on the client
Implementation: Add On

- Implemented as Eclipse plugin
- Reasons
  - Globally available in Lotus Notes for all discussion applications
  - Integration in user preferences
- Key implementation points
  - New Java UI classes to pick Lotus Notes database
New Features

- In addition to user experience improvements the two most requested features have been implemented

Discussion Next Gen

- User profiles from other NSF
- Configurable notification emails
### User Profiles

- Can be re-used from other discussion applications

**Author Profile for N[...]M**

- **Name:** N[...]
- **Email:** email@mycompany.com
- **Phone:** 001-123-233-4444
- **Registered:** 11/06/2009
- **Main topics posted:** 1
- **Responses posted:** 3

**User Profiles**

- **Use profiles from another discussion application:** Yes
  - Define whether you want to use user profiles from another existing discussion application.
  - **Database containing user profiles:**
    - **Select Database**
      - **Database name:** d851-2.nsf
      - **Server name:** CN=nheidloff-1/O=NHheidloff
      - **Replica id:** 85257615004A9B76
      - **Profiles database URL:** http://nheidloff-1/d851-2.nsf

**Lotus Notes**

**Author's Profile**

<table>
<thead>
<tr>
<th>Name</th>
<th>N[...]M</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail Address</td>
<td><a href="mailto:email@mycompany.com">email@mycompany.com</a></td>
</tr>
<tr>
<td>Phone</td>
<td>001-123-233-4444</td>
</tr>
<tr>
<td>Role</td>
<td>Architect</td>
</tr>
<tr>
<td>Goals</td>
<td>Be happy</td>
</tr>
<tr>
<td>Other</td>
<td>You can also follow me on twitter under xyz</td>
</tr>
</tbody>
</table>

**LotusKnows.com**
Implementation: User Profiles

- Implemented via XPages and classic Lotus Notes application development
- Reasons
  - Re-use of existing code
- Key implementation points
  - Two implementations: Rich client and web client
Mail Notifications

- New interest profile settings
- Configurable notifications
- Notes links or web links

Interest Profile Preferences for Notes

Inform me of all new and modified documents:
- No

Inform me of all new and modified documents of threads I've contributed to:
- Yes

Inform me of new documents by these Authors:

Inform me of new documents in these Categories:

Inform me of new document Subjects containing these words or phrases:

Mail Notifications

Common settings:
Subject:
If a subject is entered here, the default subject is overwritten.

Insert abstracts:
Define whether to include abstracts.
- Yes

Type of links:
Define whether to include Notes links or web URLs.
- Notes Links

For Notes links:
Header:
Optionally enter the header of the notification mails here as rich text.

Footer:
Optionally enter the footer of the notification mails here as rich text.
Dear OpenNTF user,

there are new documents in the OpenNTF forum that match your interest profile.

Possible PROPOSAL for project cycles (N...)
Bearing in mind the objective of OpenNTF according to its membership charter: "to encourage recognizing the fact that use of N/D applications necessarily means institutional use, since 99...."

Proposed Resolutions for Voting by the Steering Committee on 7.16.2009 (J...)
So here are the slides that show all of the resolutions that I will be bringing up to the Steering Co feel free to contribute your ideas and thoughts - we can make more refinements ...

Can't this default to Re: [Previous Subject]? (k...)
"can't even use techniques they learned from GPL code in any application they're not plannin you learned how to write from something that was GPL'ed, you must GPL your own ...

Exactly! (N...)
"Better to be safe than sorry" is exactly the reason we resolved to have mutual exclusivity for th

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Exactly! "Better to be safe than sorry" is exactly the reason we resolved to have mutual exclusivity fo

Sincerely,

N...
Implementation: Mail Notifications

• Implemented via classic Lotus Notes application development
• Reasons
  – Scheduled server task (agent)
  – Usage of rich text in mail notifications
  – Re-use of existing code
• Key implementation points
  – LotusScript agent
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Imprvovement: Increase visible topics

- Discussion Template v8.5.x had a permanent “expanded” response hierarchy
- Very few visible topics especially compared to previous versions
- Expand and Collapse also had “non” Lotus Notes Domino meanings
Increase visible topics
Implementation: Increase visible topics

- Collapse and Expand now global collapse and expand for response hierarchies
- Uses data source property “expandLevel” (1=collapse 0 =expand)
- Expand and collapse sets property via a sessionScope variable
- Theme picks up that setting to determine style for expand collapse links
Implementation: Increase visible topics

- All data now on one row and html cleaner - uses new 8.5.1 Repeat Control header and footer facets
  - New Repeat Control facets added to XPages for 8.5.1
  - Facet for header and footer

```xml
<xp:repeat id="repeatList" value="#{javascript:dominoView}"
   var="rowData" rows="#{javascript:compositeData.rows}"
   indexVar="repeatIndex" first="#{javascript:if(sessionScope.firstPos!=null){sessionScope.firstPos}}">

   <xp:this.facets>

   <xp:text disableTheme="true" xp:key="header"
     escape="false">
     <![CDATA[<table class='xspHtmlTableView' border='0' cellspacing='0' cellpadding='0'>]]>
   </xp:text>

   <xp:text disableTheme="true" xp:key="footer"
     escape="false">
     <![CDATA[</table>]]>
   </xp:text>

   </xp:this.facets>

```
Implementation: Increase visible topics

• Response Count added as a column
  – Computed Field
  – Gets its value from NotesXspViewEntry.getDescendantCount()
  – This is from “rowData” as set on the Collection Name property of the repeat control (var rc = rowData.getDescendantCount())
Improvement: Response context

- When entering a topic or response you do not see what had been posted ahead of this
- When responding to a topic or response it is just a blank form without showing what you are responding to
Context when viewing or responding is increased

Another response

Created on Dec 2, 2009 7:54 PM by Steve  |  Topic Responses: 6

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque tellus
faucibus malesuada sed in magna. Duis sed dui nec diam tincidunt in
culposa.

Reply  Edit

Main Topic

Created on Dec 2, 2009 7:53 PM by Steve

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque tellus
faucibus malesuada sed in magna. Duis sed dui nec diam tincidunt in
culposa. Read more...

Response To main

Created on Dec 2, 2009 7:53 PM by Steve

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque tellus
faucibus malesuada sed in magna. Duis sed dui nec diam tincidunt in
culposa. Read more...

Another response

Created on Dec 2, 2009 7:54 PM by Steve

Response to Response

Created on Dec 2, 2009 7:54 PM by Steve

Another response

Created on Dec 2, 2009 7:54 PM by Steve

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque tellus
faucibus malesuada sed in magna. Duis sed dui nec diam tincidunt in
culposa.
Implementation: Response context

- Use power of XPages and have three data sources on the response thread custom control
  - 1) Main document data source
  - 2) New Response data source
  - 3) View data source listing responses in hierarchy
- Use ignoreRequestParam=true to separate “post” data from current “read” data on the new response data source
Improvement: Response context

- Add anchor html for new response form
  - Whilst XPages is cool – don't forget your normal html manners
  - Anchor html embedded above response form and link to new response with #commentForm
  - Means with large posts user does not need to scroll down to response form

```html
<a name="commentForm"></a>
<xp:table themeId="HtmlTable.form">
  <xp:tr themeId="HtmlTr.form.header">
    <xp:td themeId="HtmlTd.form.header" colspan="2">
```
Improvement: Response context

- Use repeat control to display all responses
- Link to view data source
- Use parentId property of data source (view) to bring in all responses to main topic document

<table>
<thead>
<tr>
<th>data</th>
</tr>
</thead>
<tbody>
<tr>
<td>acl</td>
</tr>
<tr>
<td>data</td>
</tr>
<tr>
<td>dominoDocument [0]</td>
</tr>
<tr>
<td>dominoView [1]</td>
</tr>
<tr>
<td>categoryFilter</td>
</tr>
<tr>
<td>databaseName</td>
</tr>
<tr>
<td>dataCache id</td>
</tr>
<tr>
<td>expandLevel</td>
</tr>
<tr>
<td>ignoreRequestParams true</td>
</tr>
<tr>
<td>keys</td>
</tr>
<tr>
<td>keysExactMatch</td>
</tr>
<tr>
<td>parentId var doc:NotesDocume...ring(&quot;mainID&quot;)</td>
</tr>
</tbody>
</table>
Improvement: Response context

- Compute Panel style to have a different style if we are at that position
  - Check id of requested document (dominoDoc) against id of row entry (rowData)
Agenda

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XPages Framework

Committed by: Steve Castledine
All contributors: Steve Castledine, Niklas Heidloff
Downloads: 938
Rating: ★★★★★
Tags: Rich client, Web client
Type: OpenNTF Projects
Last updated on: Oct 30, 2009
License: Tested platforms: Notes 8.5, Domino 8.5

Quickly create XPage applications using this framework which automatically creates the css layout for you.
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Dojo in XPages

• Dojo is open source and managed by Dojo Foundation

• Domino 8.5.1 comes with Dojo 1.3.2

• Internally used primarily for Ajax operations

• Three versions of each file
  – The gzipped file (.gz)
  – The JavaScript source file (.js)
  – The uncompressed JavaScript file (uncompressed.js)
Welcome to the Dojo Toolkit Demo Index

- **Feature Explorer**
  Comprehensive collection of small examples

- **Image Zoomer**
  Interactive Image demonstration

- **dojo.workers()**
  Meet the Dojo developers

- **Comet Survey**
  Realtime Survey and Charting

- **DojoMail**
  Mock Mailbox Application

- **dojo.moj.oe**
  FX demonstration with Drag and Drop

- **The Dojo Times**
  SVG fonts with dojox gfx

- **Flash Cards**
  Simple interactive math game

- **Create o’ Dev**
  Fun FX with various JavaScript developers

- **CastleParty**
  Showing custom styles for Dijit

- **Video Player**
  Sample Video playing with DojoX

- **FishEye**
  Demonstration of the DojoX FishEyeList widget

- **Simple Form**
  Variety of Dijit input

- **Dijit i18n**
  Internationalization and
Documentation

Quick Start Guide
Reference Guide
API Documentation

Popular Solutions
Installation and Styling
- Install and Configure Dojo
- Fade in a node
- Use dojo.query to find a specific node
- Dynamically add a CSS class to a node
- More »

Layout Widgets
- Add Tabs to your WebApp
- Create a resizable split container
- Add an Accordion Panes
- Add a Filtering Select widget
- More »

Grids and Charts
- Show data in a data grid
- Allow users to edit data in a data grid
- Create charts from data sets
- More »

Data and More
- Use the dojo.data APIs
Q & A
References

- OpenNTF: www.openntf.org
- OpenNTF blog: www.openntf.org/blogs/openntf.nsf/FullArchive
- Apache catalog: www.openntf.org/catalogs/a2cat.nsf
- Get involved: www.openntf.org/Internal/home.nsf/dx/Get_Involved
- Download Discussion Template: http://www.openntf.org/Projects/pmt.nsf/ProjectLookup/Discussion Next Gen

- Follow OpenNTF on Twitter: www.twitter.com/openntf
- YouTube videos: www.youtube.com/openntf

- Niklas Heidloff blog/twitter: www-10.lotus.com/ldd/heidloffblog.nsf
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