Release Notes for XPages Extension Library 9.0.0 (20131001)

Contents:

Introduction

This release is the third of IBM Notes Domino 9.0 versions of the XPages Extension Library (ExtLib) to OpenNTF. The primary change in this release is the removal of the XPages Social Enabler, which was a feature in the Extended Components (extlibx) of the Extlib, and its inclusion in the IBM Social SDK (http://ibmsbt.openntf.org/). This release also contains a number of changes and enhancements, and continues to match closely the XPages Extension Library that is already in IBM Notes Domino 9.0. It also includes a large number of bug fixes.

Package Description of Download

When you expand the zip encapsulating this release, **ExtensionLibraryOpenNTF-900v00 03.20131001-1400.zip**, you will see the following artifacts (Table 01).

Table 01

Artifact	Description
doclib8xl.ntf	A sample version of the Domino Doc Library template based on 8.5.3 version XPages Extension Library and the 8.5.3 core.
Domino Calendar Service.pdf	Document describing the Domino calendar service included in this release of the extension library.
Domino Mail Service.pdf	Document describing the Domino mail service included in this release of the extension library.
FirebugLiteLicense	License information for the Firebug Lite client side debugger.
ICAL4JLicense	License information for the iCalendar specification in Java application for Notes Domino.
LICENSE	Details of the Apache License governing use, reproduction and distribution of the XPages Extension Library on OpenNTF.org.
NOTICE	File containing copyright notices from the various technologies that comprise this release of the Extension Library.
readme.pdf	The document you are reading now.
SLF4JLicense	License information for the Simple Logging Facade for Java (SLF4J).
srcOpenNTF.zip	Archive file containing all the sources corresponding to the XPages Extension Library runtime (updateSiteOpenNTF.zip)

srcOpenNTF-designer.zip	Archive file containing all the sources corresponding to the Domino Designer tooling for XPages Extension Library runtime.
srcOpenNTFSamples.zip	Archive file containing source samples for services in Domino Access Services.
updateSiteOpenNTF.zip	Eclipse update site that includes all of the XPages Extension Library runtime features and plugins, including experimental plug-ins.
updateSiteOpenNTF-designer.zip	Eclipse updates site that includes all of the XPages Extension Library features and plugins, including experimental plug-ins and Domino Designer tooling plug-ins.
updateSiteOpenNTFExtended.zip	Eclipse updates site that only includes Extended Components (ExtLibX) of the XPages Extension Library runtime features and plugins and Domino Designer tooling plug-ins.
updateSiteOpenNTFSamples.zip	Eclipse updates site for the Domino Services Access sample.
XPages Extension Library - Slides.pdf	Collection of slides providing high level overview of XPages Extension Library concepts and features.
XPages Goes Relational.odp	Collection of slides covering various aspects of the experimental RDBMS data sources included in the Extension Library. Provides high level coverage of roadmap, features and limitations.
XPages-Doc.zip	HTML documentation describing the controls and complex types that comprise the 9.0 release for XPages and the XPages Extension Library. It also describes all properties and object hierarchies.
XPagesExt.nsf	The standard demonstration application covering most of the XPages Extension Library controls.
XPagesJDBC.nsf	Sample application demonstrating experimental RDBMS data sources.

Moving the XPages Social Enabler to the IBM Social SDK

The major development in this release of the XPages Extension Library is the moving of the XPages Social Enabler (the plugin com.ibm.xsp.extlibx.sbt) to its new home in the IBM Social SDK (http://ibmsbt.openntf.org/) project. The IBM Social SDK provides tools for creating applications that leverage the social-enabled IBM products such as Connections, Sametime, and SmartCloud for Social Business. The XPages Social Enabler now becomes part of this framework and making the IBM Social SDK more powerful as it already has been.

What to download

The XPages Social Enabler is now part of the main downloadable from the IBM Social SDK project. Download the "sbtsdk-1.0.0.YYYYMMDD-hhmm.zip" from release "2013MMDD-hhmm" from the OpenNTF project site for the IBM Social SDK (http://ibmsbt.openntf.org/)
Extract from this zip following...
- com.ibm.sbt.domino.updatesite.zip (which will contain the XPages Social Enabler runtime com.ibm.xsp.sbtsdk 1.0.0.YYYYMMDD-hhmm plugin) from \\sbtsdk\redist\domino
- XPages Social Enabler Demo App (xpagessbt.nsf) from \\sbtsdk\redist\domino

The updatesite zip is the important element to get your XPages Social Enabler app working with the reconfigured runtime. Use the XPages Social Enabler Demo App to verify the new configuration.

Server Deployment

Those familiar with deploying the XPages Extension Library's update site will also be able to deploy the IBM Social SDK update site with ease. And like the ExtLib deployments, it is advisable that administrators and developers deploy the same version of the IBM Social SDK to the Domino Server and Domino Designer environments so that the design-time and the server runtimes are perfectly in sync.

When this version of the XPages Extension Library Extended Components is deployed to Domino server you will see that the XPages Social Enabler plugin is no longer part of the runtime. On the Domino console run "**tell http osgi ss com.ibm.xsp.extlibx**" to verify this (see Listing 01).

Listing 01

```
> tell http osgi ss com.ibm.xsp.extlibx
11/10/2013 13:44:20   Framework is launched.
11/10/2013 13:44:20   id        State        Bundle
11/10/2013 13:44:20   25        RESOLVED     com.ibm.xsp.extlibx.controls 9.0.0.v00 03 20131010-1400
11/10/2013 13:44:20   28        <<LAZY>>     com.ibm.xsp.extlibx.core 9.0.0.v00 03 20131010-1400
11/10/2013 13:44:20   31        <<LAZY>>     com.ibm.xsp.extlibx.relational 9.0.0.v00 03 20131010-1400
11/10/2013 13:44:20   33        <<LAZY>>     com.ibm.xsp.extlibx 9.0.0.v00 03 20131010-1400
11/10/2013 13:44:20   38        RESOLVED     com.ibm.xsp.extlibx.relational.derby 9.0.0.v00 03 20131010
```

All that should appear is the RDBMS support related plugins as shown above.

Installing the update site from the IBM Social SDK will deploy the XPages Social Enabler plugin. This plugin can be deployed over the IBM Notes Domino 9.0 release and without the 9.0 versions of the XPages Extension Library releases to OpenNTF. The following steps show how the IBM Social SDK updatesite is deployed to a IBM Domino 9.0 server.

Extract the contents of the "com.ibm.sbt.domino.updatesite.zip" file to temporary location.

Verify that the Domino server has a Update Site NSF. The administrator can check the "OSGI HTTP DYNAMIC BUNDLES" variable in the server's notes.ini file. This value should be set to the Update Site NSF, for example, "OSGI HTTP DYNAMIC BUNDLES=UpdateSite1.nsf". So for this case, launch this app in the Notes client and select the "Import Local Update Site..." button and then browse to the site.xml of the extracted "com.ibm.sbt.domino.updatesite.zip" file (Fig. 01).
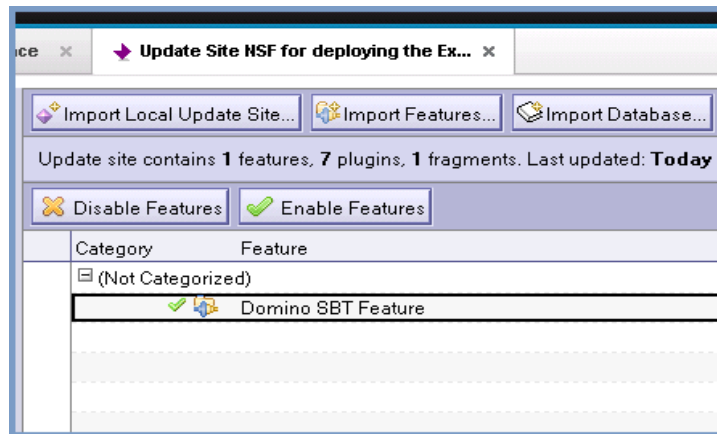
Figure 01
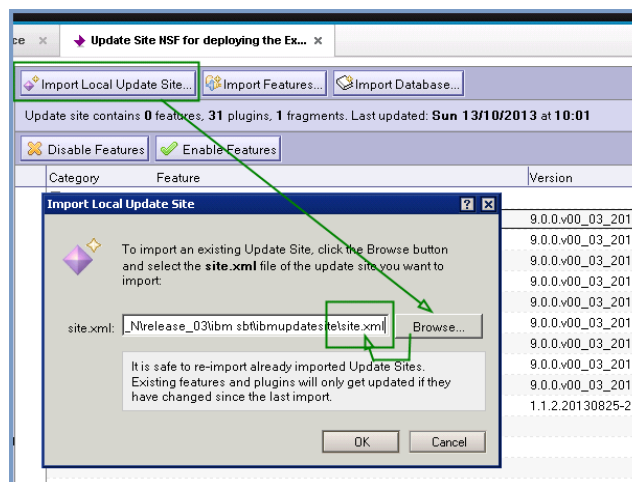
Once the import process is complete the IBM Social SDK will now appear as a document
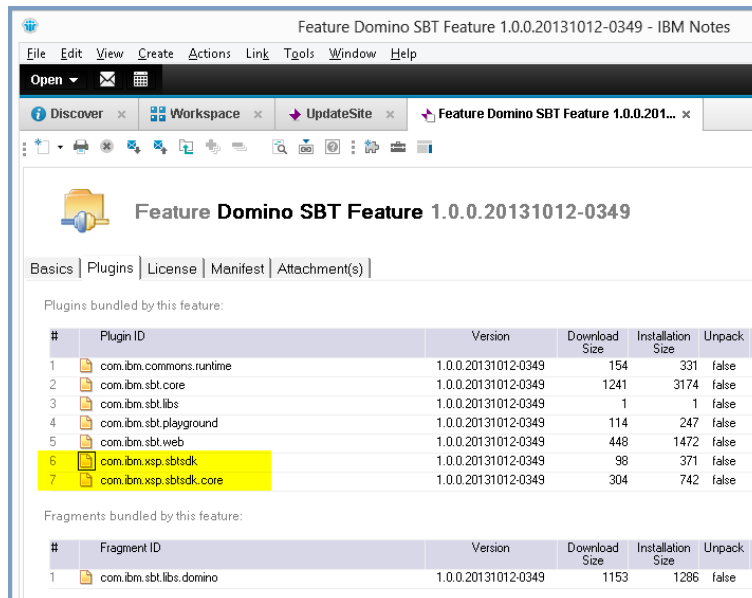
in the Update Site NSF (Fig. 02).

Figure 02

Opening this document in the Update Site NSF details the plugins to be deployed the Domino server (Fig. 03).

Figure 03

At this stage the HTTP task on the Domino server has to be restarted for the OSGi runtime to pick up the newly imported plugins. Use the command "restart task http" to make this happen without resorting to restarting the server itself.

Once the HTTP task has restarted, the Update Site NSF based plugins will be deployed in the OSGi runtime. To verify that this is so one can verify that the "com.ibm.xsp.sbtsdk" plugin is now available by running "tell http osgi ss com.ibm.xsp.sbtsdk" in the console (Listing 02).

Listing 02

```
> tell http osgi ss com.ibm.xsp.sbtsdk
[1600] 17/10/2013 03:16:44   Framework is launched.
[1600] 17/10/2013 03:16:44   id       State      Bundle
[1600] 17/10/2013 03:16:44   15       ACTIVE     com.ibm.xsp.sbtsdk.core 1.0.0.20131012-0349
[1600] 17/10/2013 03:16:44   46       ACTIVE     com.ibm.xsp.sbtsdk 1.0.0.20131012-0349
>
```

The Extended Components from this release of the XPages Extension Library can be deployed along side the XPages Social Enabler plugin from the IBM Social SDK.

Domino Designer Deployment

The Domino Designer deployment of the XPages Social Enabler from the IBM Social SDK can use the same imported updatesite from the Update Site NSF.

On Domino Designer, select from the main menu File – Application – Install Management. On an 9.0 All Client Notes installation, the "\workspace\eclipse\applications" section will appear empty apart from "User Install Site Anchor Feature" (Fig. 04).
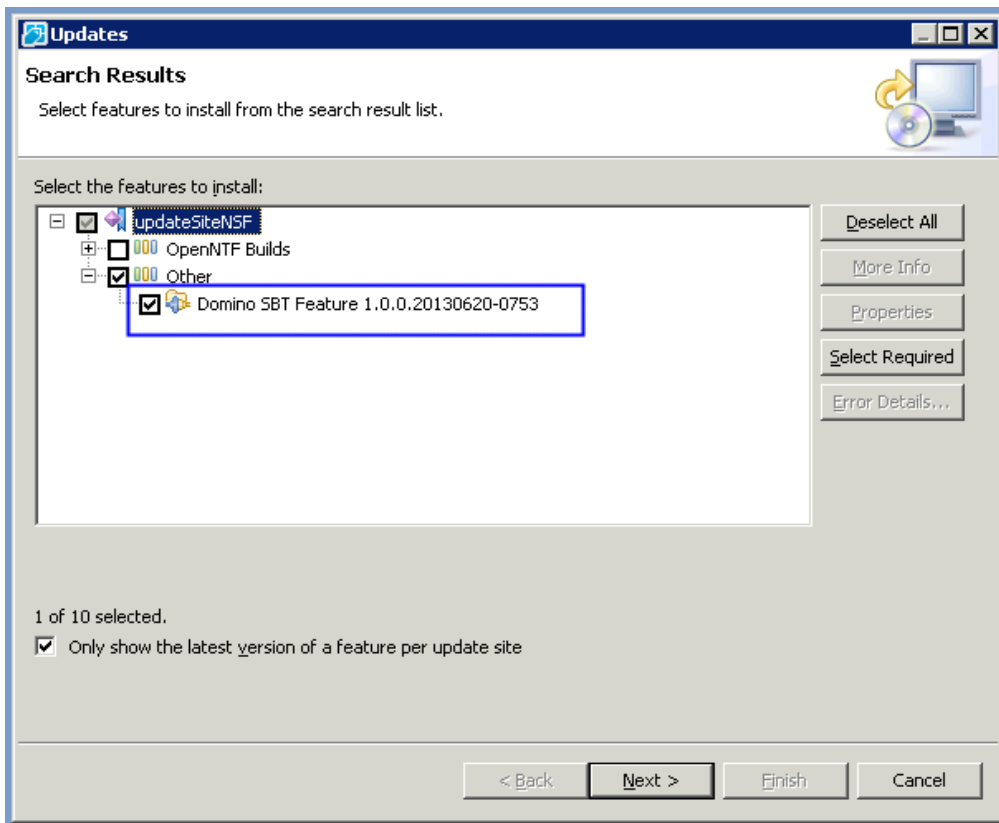
Figure 04
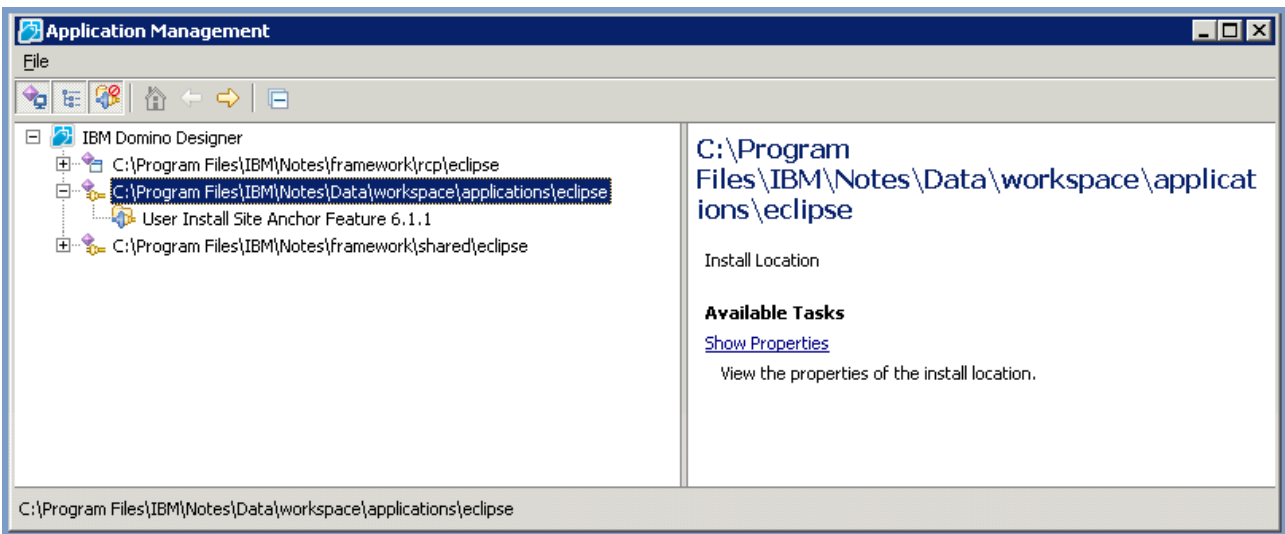
Closing this dialog, one needs to then launch the Eclipse plugin install dialog via File – Application – Install from the main menu, and click the "Add Remote Location..." the remote source to the Update Site NSF on the server using the URL to that application (Fig. 05).
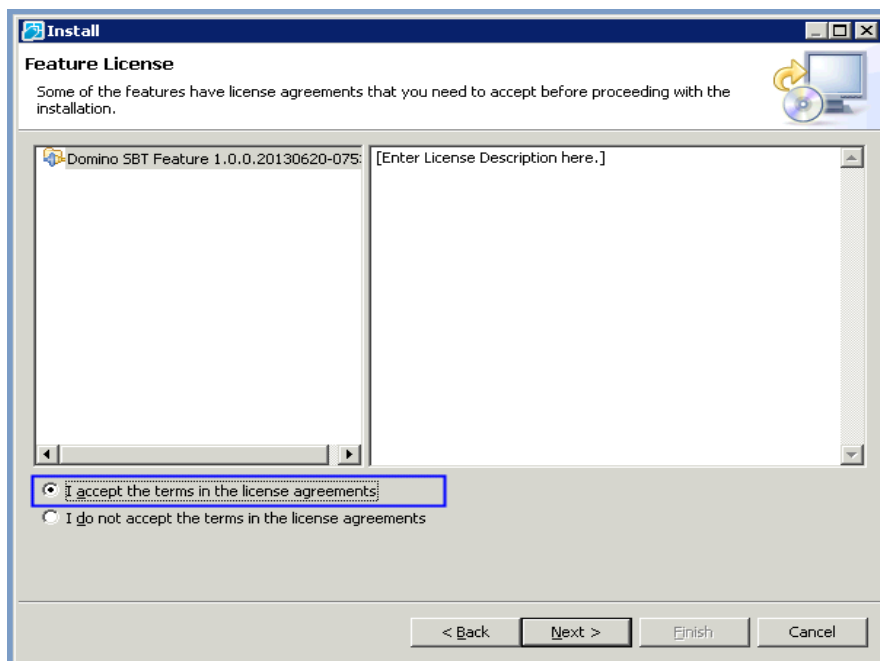
Figure 05
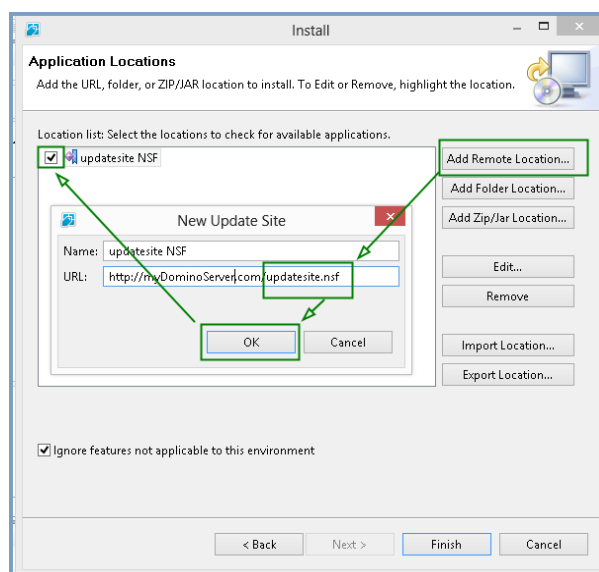
Selecting Finish will launch the Update dialog in where one selects the "Domino SBT Feature" update site (Fig. 06).
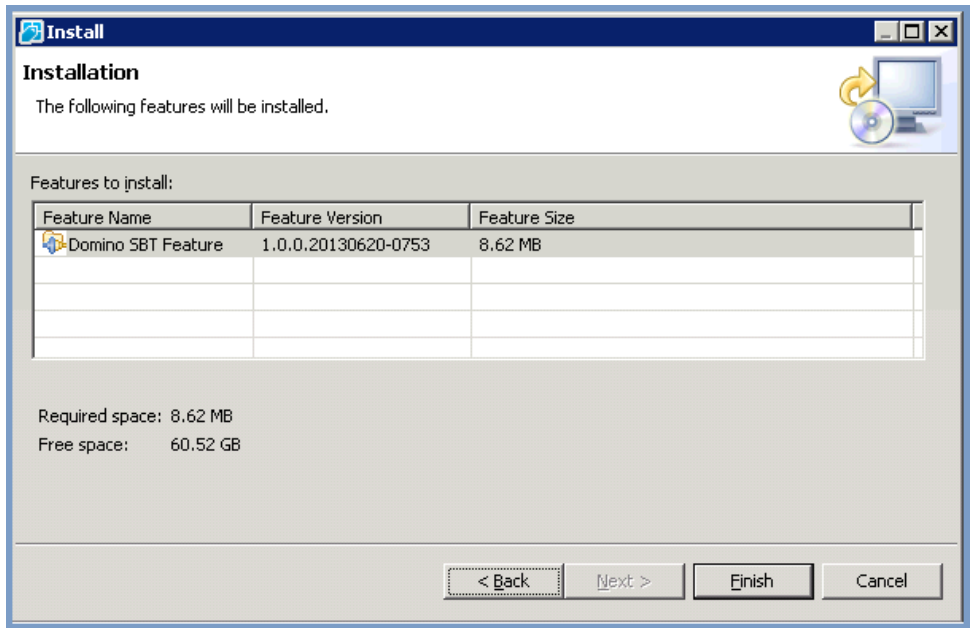
Figure 06

Selecting Next to accept the licensing (Fig. 07).
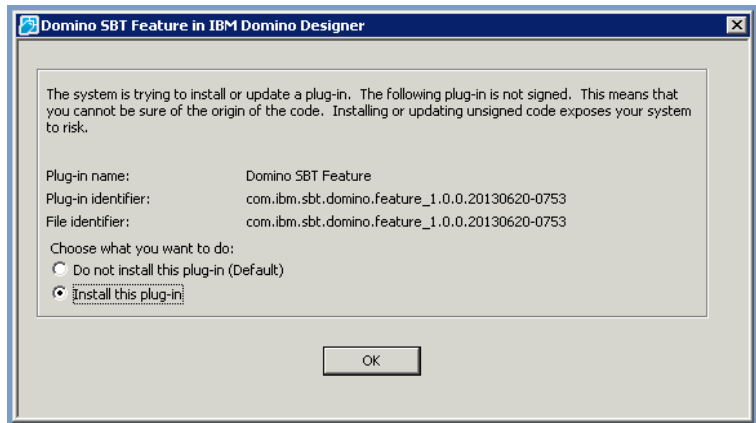
Figure 07

And selecting Finish on the following dialog begins the installation to Designer (Fig. 08).

Figure 08

During the installation a prompt will appear to authorize this unsigned installation (Fig. 09).
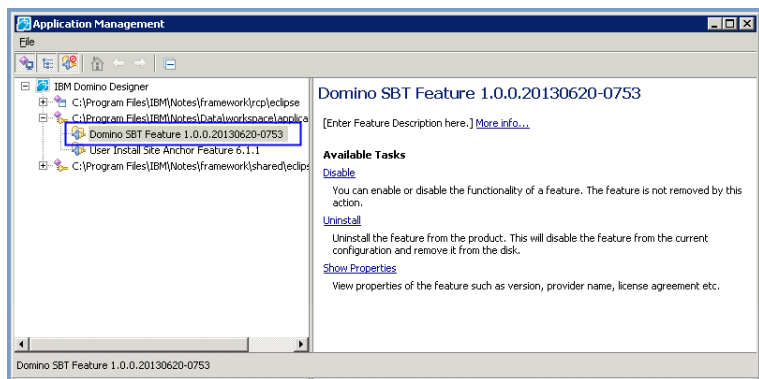
Figure 09

The installation will then complete prompting a restart of Designer and the All Client to avail of the newly provisioned plugins to the client.

Upon relaunch, from the main menu select File – Application – Install Management and verify that the Domino SBT Feature is now installed in Designer (Fig. 10).

Figure 10

How to Make your Existing XPages Social Enabled App Work with the IBM Social SDK
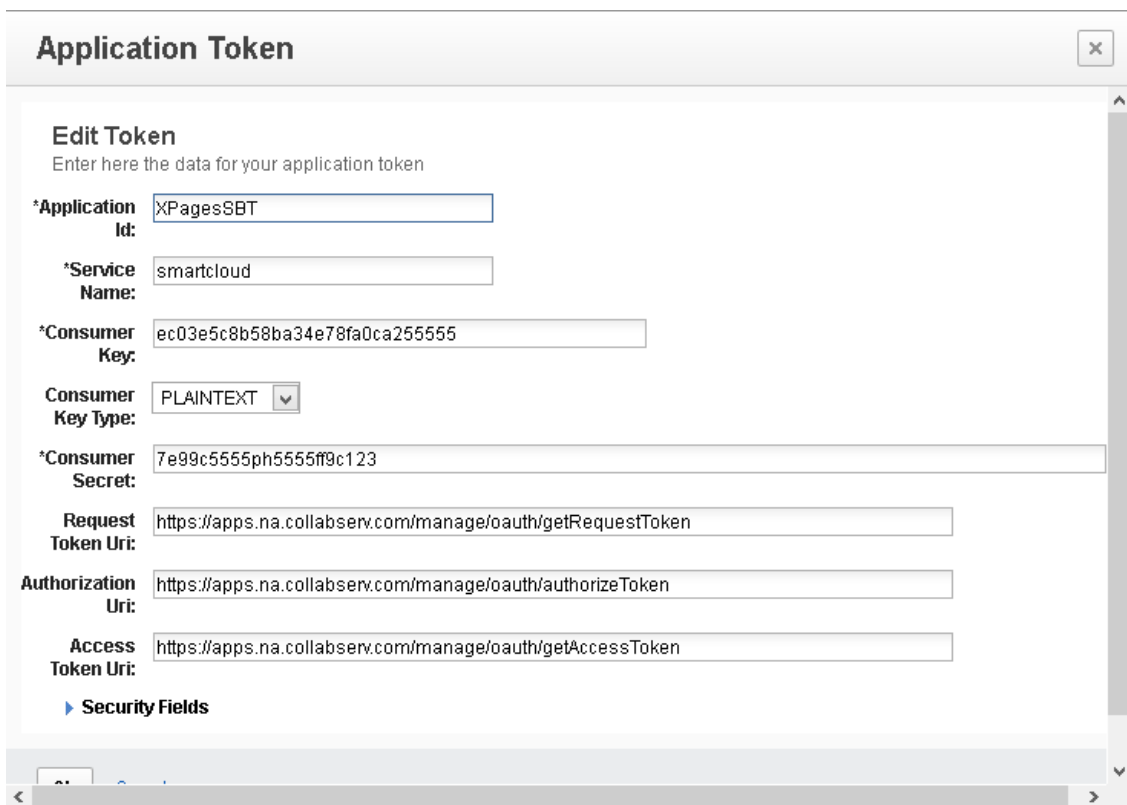
There a number of steps the developer needs to take before their application works with the IBM Social Business Toolkit runtime. The most significant change is that the application will no longer use a database built from the OAuth Token Store (websecuritystore.ntf) template as its token store. It will now use the IBM Social SDK runtime (com.ibm.sbt.security.credential.store.MemoryStore) to manage the OAuth store and dance.

The XPages Social Enabler demo application (XPagesSBT.nsf) that is shipped with the IBM Social SDK (sbtsdk-1.0.0.YYYYMMDD-HHmm.zip\ibmsdk\redist\domino) has been preconfigured to work the with this IBM Social SDK runtime. In previous releases of the XPages Extension Library to OpenNTF this application is configured to work with the runtime and an application called WebSecurityStore.nsf (created from the OAuth Token Store template, websecuritystore.ntf). When comparing the faces-config.xml files from both samples this difference is evident; Token Store managed-bean and Password managed-bean values.

As the Domino server's OAuth Token Store application is no longer used, the token credentials to various external social services are now stored in the applications faces-config.xml file. And it is here that the developer should include values for the Application Id, Service Name, OAuth Request Token URI, OAuth Authorization URI, OAuth Access Token URI, Consumer Key, Signature Method, and Consumer Secret. In the XPages Social Enabler Demo app most of these items are preconfigured and the developer will usually only need to add values for the Consumer Key and Consumer Secret.

For example, let's take the IBM Smartcloud credentials. Previously a document in the OAuth Token Store application would have contained these values (Fig. 11).

Figure 11

The same values are now represented in the faces-confg.xml file (Fig. 12)

Figure 12

```xml
      <property-name>credentialStore</property-name>
      <value>CredStore</value>
    </managed-property>
    <managed-property>
      <property-name>requestTokenURL</property-name>
      <value>https://apps.na.collabserv.com/manage/oauth/getRequestToken</value>
    </managed-property>
    <managed-property>
      <property-name>authorizationURL</property-name>
      <value>https://apps.na.collabserv.com/manage/oauth/authorizeToken</value>
    </managed-property>
    <managed-property>
      <property-name>accessTokenURL</property-name>
      <value>https://apps.na.collabserv.com/manage/oauth/getAccessToken</value>
    </managed-property>
    <managed-property>
      <property-name>consumerKey</property-name>
      <value>ec03e5c8b58ba34e78fa0ca255555</value>
    </managed-property>
    <managed-property>
      <property-name>consumerSecret</property-name>
      <value>7e99c5555ph5555ff9c123</value>
    </managed-property>
  </managed-bean>
```

Once these modification have been completed your XPages social enabled application should work as before.

What's New in REST (Domino Access Services)

Domino Access Services (DAS) is a family of REST services included with the XPages Extension Library. Some of these services are also rolled into core Domino. For example, the Domino data service has been in the core product since Domino 8.5.3 Upgrade Pack 1 and the calendar service will be included with Domino 9.0.1.

This third release of the XPages Extension Library for 9.0 includes the following REST changes:

- Many fixes to the calendar service. This version of the calendar service is essentially what we will be releasing with Domino 9.0.1, but of course, it runs on Domino 9.0. Please watch this following link on the IBM Notes and Domino Application Development wiki for complete documentation on the calendar service which will be updated post the release of IBM Notes Domino 9.0.1 (http://www-10.lotus.com/ldd/ddwiki.nsf/xpViewCategories.xsp?lookupName=API%20Documentation).

- A sample web application that uses the calendar service. The sample application is packaged as an OSGi plugin, but it is implemented in Dojo. The plugin is included in updateSiteOpenNTFSamples.zip. Once the plugin is installed on a test server, you can use it by visiting this URL -- /dasdemo/calendar/calendar.html.

- A new freebusy service. This service lets you find busy time for a given person or resource (GET /api/freebusy/busytime). It also lets you find a free room for a given time slot (GET /api/freebusy/freerooms). For more information on the freebusy service, please see the Documentation section of the XPages Extension Library forum on OpenNTF.

- Enhancements to the mail service. The mail service now includes the ability to read the user's mail quota (GET /{database}/api/mail/quota), manage mail file delegates (/{database}/api/mail/delegates), and read message in the trash (GET /{database}/api/mail/trash). For more information on the mail service, please see the Documentation section of the XPages Extension Library forum on OpenNTF.

Installation Instructions

For IBM Notes Domino 9.0, installing the OpenNTF version of the 9.0 ExtLib can be done in very much in the same way as it is for Domino 8.5.3 which is described in a dedicated article entitled "XPages Extension Library Deployment in Domino 8.5.3 and IBM XWork Server", available on the web at this URL:

http://www-10.lotus.com/ldd/ddwiki.nsf/dx/XPages Extension Library Deployment

The underlining XPages architecture has not changed between the two code streams. One difference for which administrators and developers should be mindful is that in IBM Notes Domino 9.0 the XPages Extension Library is now part of the core install and this may effect how the XPages runtime is upgraded with 9.0 Extension Library from OpenNTF. Now follows a short description of two upgrade methods. One on upgrading the Domino and Domino Designer environments using just the Extended Components features (extlibx) and another on the complete Extension Library which also includes the Extended Components. For either method the recommended way to install and deploy the XPages Extension Library is to use an application generated from the Eclipse Update Site template (updatesite.ntf).

Installing only the Extended Components Library from OpenNTF with the XPages Extension Library from IBM

It is envisioned that the most likely requirement for releases of the OpenNTF ExtLib is to install just the Extended Components along side the IBM XPages ExtLib in Domino 9.0. This will add the RDBMS feature to the XPages runtime. The version of the Extended Components Library (ExtLibX) in the first release matches closely the code of the IBM XPages Extension Library in Domino 9.0. Any dependencies between the two should resolve themselves without an issue. However this may change in subsequent releases to OpenNTF of the Extension Library as dependancies may become out of sync as new features are added. In that case the following deployment use case may not be preferable nor recommended.

In this release a new Eclipse Update Site zip file (updateSiteOpenNTFExtended.zip) has been provided to simplify the deployment of the Extended Components. The contents of this zip are imported into the Domino Server's Update Site NSF by selecting the **Import Local Update Site** button.
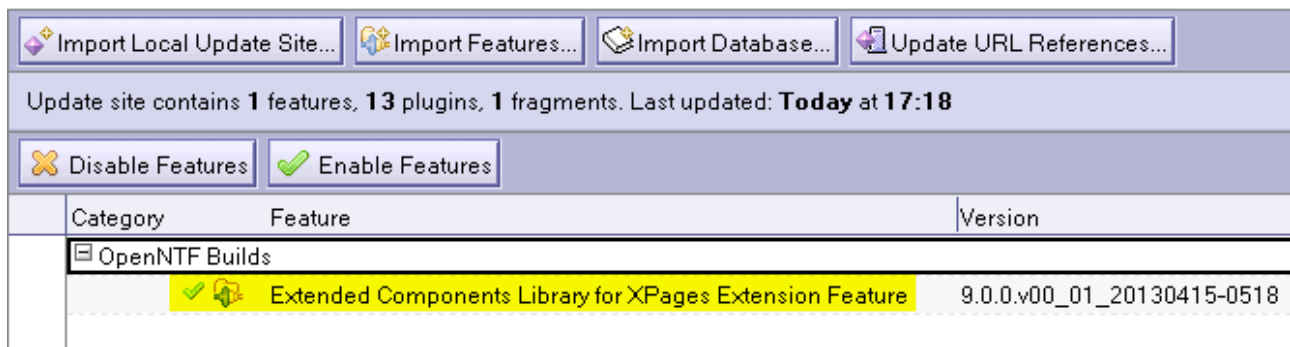
Selecting the Browse button here will launch a dialog that allows for the selection of a **site.xml** file from an Eclipse plugin project (Fig. 13).

Figure 13
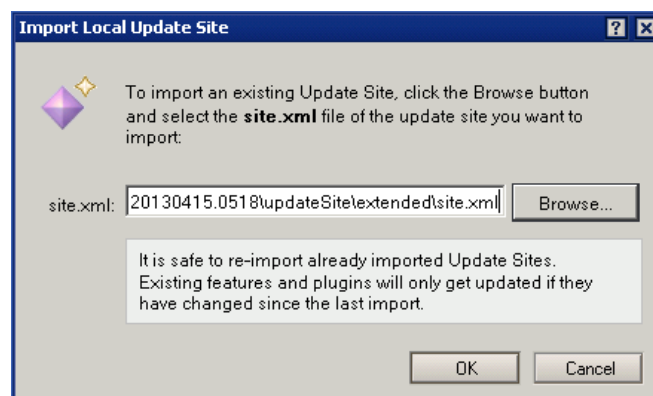
Selecting this file and pressing the **OK** button begins the import process. And the view of the update site database will be updated with a document representing the import of the plugin (Fig 14).

Figure 14

The Domino server is now ready to include this plugin as part of the runtime (the Update Site NSF must be included in the notes.ini variable OSGI HTTP DYNAMIC BUNDLES – e.g. OSGI HTTP DYNAMIC BUNDLES=updateSite1.nsf).

The HTTP task must be restarted on the Domino server for the runtime to pick up this new plugin - "restart task http" - and if successful the following message will appear in the server console stating that "...**NSF Based plugins are being installed in the OSGi runtime...**"

To further verify that the ExtLibX plugins are now running as part of the runtime, type into the console "**tell http osgi ss com.ibm.xsp.extlibx**". A list should then appear on the console detailing the deployed ExtLibX plugins on the server (Listing 03).

Listing 03
```
> tell http osgi ss com.ibm.xsp.extlibx
> tell http osgi  ss com.ibm.xsp.extlibx
17/10/2013 03:50:29   Framework is launched.
17/10/2013 03:50:29   id       State       Bundle
17/10/2013 03:50:29   27       <<LAZY>>    com.ibm.xsp.extlibx.core 9.0.0.v00 03 20131001-1400
17/10/2013 03:50:29   28       RESOLVED    com.ibm.xsp.extlibx.relational.derby 9.0.0.v00 03
20131001-
400
17/10/2013 03:50:29   33       RESOLVED    com.ibm.xsp.extlibx.controls 9.0.0.v00 03 20131001-1400
17/10/2013 03:50:29   34       ACTIVE      com.ibm.xsp.extlibx.relational 9.0.0.v00 03 20131001-1400
17/10/2013 03:50:29   41       RESOLVED    com.ibm.xsp.extlibx.oauth 9.0.0.v00 03 20131001-1400
17/10/2013 03:50:29            Master=32
17/10/2013 03:50:29   49       ACTIVE      com.ibm.xsp.extlibx 9.0.0.v00 03 20131001-1400
>
```

For Domino Designer, the developer may install the same Extended Component update site, using the same target. This can be achieved by selecting the **File > Application > Install** menu option in Domino Designer. Then from the **Install/Update** dialog, select "Search for new features to install". On the following dialog select the button to add a remote location - add the URL to the above update site NSF as shown (Fig. 15).

Figure 15
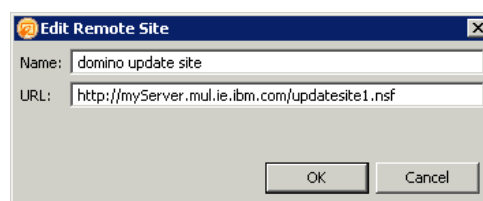
This will require Domino Designer to be restarted. Once this is completed, Domino Designer will have installed the same ExtLibX that is deployed on the server.

Installing the 9.0 XPages Extension Library from OpenNTF with the 9.0 XPages Extension Library from IBM

The 9.0 ExtLib from OpenNTF can be installed and deployed along side the version of the ExtLib installed with the IBM Notes Domino 9.0 builds. The XPages runtime will use the libraries with the latest modified date stamp, and this release of the 9.0 ExtLib to OpenNTF has a newer date stamp than that of the Gold release from IBM it will take precedence.

Again the recommended way to install the full Extension Library from OpenNTF is to use the Domino server's Update Site NSF. Select the Import Local Update Site button in this application and select **site.xml** file from an Eclipse plugin project extracted from the "updateSiteOpenNTF.zip" or "updateSiteOpenNTF-designer.zip" archive files. Pressing the **OK** button begins the import process. And the view of the update site database will be updated with a document representing the import of the plugins. The following image shows how the Update Site NSF might look like after the update site from "updateSiteOpenNTF-designer.zip" is imported (Fig. 16).

Figure 16
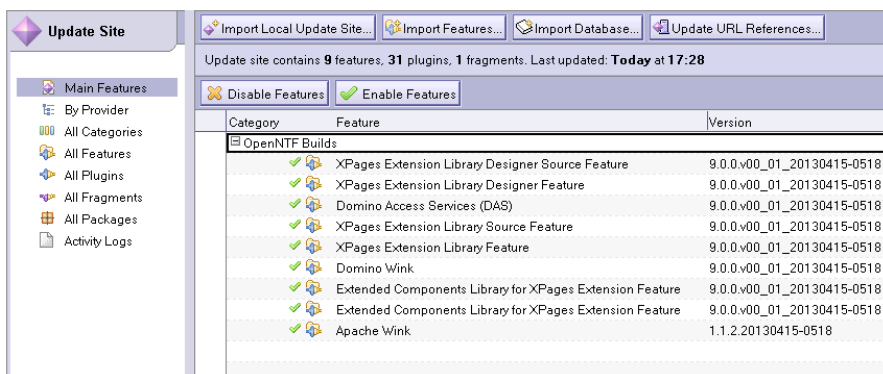
Again, the Domino server is now ready to include these plugins as part of the runtime. And it is worth noting herethe Update Site NSF must be included in the Domino server's notes.ini variable OSGI HTTP DYNAMIC BUNDLES. For example OSGI HTTP DYNAMIC BUNDLES=updateSite1.nsf.

The HTTP task must be restarted on the Domino server for the runtime to pick up these new plugins - "**restart task http**" - and if successful the following message will appear in the server console stating that "**...NSF Based plugins are being installed in the OSGi runtime...**"

To further verify that the XPages Extension Library plugins from OpenNTF are now running, type in on the server's console "**tell http osgi ss com.ibm.xsp.extlib**". A list should appear on the console detailing the deployed plugins on the server; IBM and OpenNTF plugins deployed at the same time.

One my notice the duplicate plugins, except for the version's naming convention. These however are not duplicates to the XPages runtime. The plugin with the highest version

qualifier will be the plugin which will take precedence over the other. Usually the version with the latest date stamp will have precedence, but the "v00 00 " part is also included in the comparison. To verify the version number of the XPages Extension Library used by the the runtime the developer can simply add the following computed label to a XPage (Listing 04).

Listing 04

```
    <xp:label id="label1">
        <xp:this.value>
        <![CDATA[#{javascript:var v =
com.ibm.xsp.extlib.util.ExtLibUtil.getExtLibVersion();
            return "XPages ExtLib version: "+v}]]>
        </xp:this.value>
    </xp:label>
```

This should match the newly imported ExtLib from OpenNTF (Fig. 17).

Figure 17
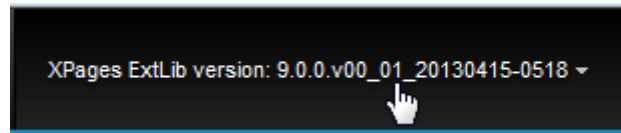
For Domino Designer, the developer may install the ExtLib update site, using the same target. This can be achieved by selecting the **File > Application > Install** menu option in Domino Designer. Then from the **Install/Update** dialog, select to "Search for new features to install". On the following dialog select the button to add a remote location - add the URL to the above update site NSF as shown (Fig. 18).

Figure 18
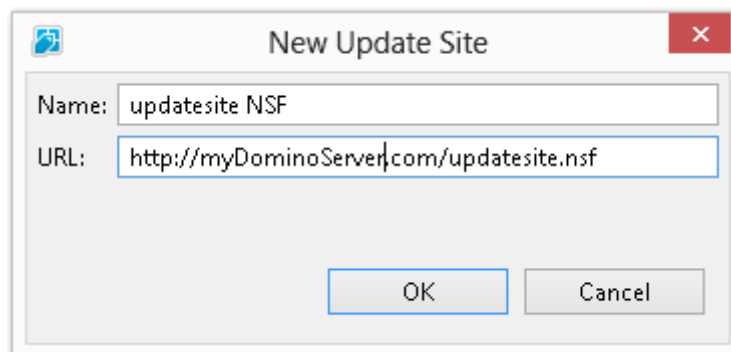
This will require Domino Designer to be restarted. Once this is completed, Domino Designer will have installed the same ExtLib that is deployed on the server.

There are other ways to install the library, like installing the updateSiteOpenNTF-designer.zip file into Designer or manually extracting the features and plugins from this zip to a physical location on the server file system (the domino\workspace\applications\eclipse sub-folder under Domino root directory).

Supported Platforms

The OpenNTF XPages Extension Library supports the same list of hardware and software configurations as IBM Notes Domino 9.0.

This particular version of the Extension Library was tested upon a number of platforms like the WebKit browsers of Chrome and Safari and a range of mobile devices, phones and tablets, namely the iOS and Android platforms.

Known Issues

Here is a list of issues which users are most likely to hit with this release of the ExtLib.

- PHAN95BM2N: IBM Sametime page isn't working as expected when using the ExtLibX on 9.0

    In the Extended Components of the 9.0 Extension Library the Sametime proxy livename widget does not support the 1.8.1 of Dojo. This issue is currently being worked upon and it is hoped that this will be addressed in the coming releases. In the meantime, it is recommended that the developer sets the Dojo version of the application to 1.7 for which the livename widget does support.

- PHAN95BMB2: IBM Connections Profiles VCard isn't working as expected

    There is an issue with the Profiles and Communities VCard for 9.0 and 8.5.3 as demonstrated in the OpenNTF ExtLibX XPagesSBT.nsf. This App is currently using obsolete code and this will be replaced by updated sample coming from Social SBT SDK and this will be integrated into the XPagesSBT demo application.

OpenNTF Feature Rename Explanation

The ExtLib is made up of a number of Eclipse features and plugins. A feature project is basically a list of plugins which can be understood as a logical separate unit. Two sets of feature projects (IBM and OpenNTF) have been created which define the same plugin set (ExtLib plugins). There has not been a change to the name of the plugins as there was no need to do so. In previous releases, the feature and plugin names started with "com.ibm.xsp.* " except for the "org.apache.wink" feature. In the 9.0 releases to OpenNTF the feature names have changed and now begin with **"org.openntf.extlib.* "** or **"org.openntf.extlibx"** in the case of the Extended Components experimental features.

The changes to the OpenNTF features names is necessary for a number of a reasons. Firstly to make a clear distinction between the features which are now part of the core IBM product as of 9.0 and what is available on OpenNTF in future releases. It also allows for the co-existence of the IBM ExtLib with a OpenNTF version in the same Notes Client or Domino server installation. At runtime only one set of the plugins will be active. The OSGi runtime loads the most recent plugins by comparing the version qualifier which includes the date stamp, so when the OpenNTF ExtLib is deployed, it will be the one used by the XPages runtime.

Additionally it allows the administrator or the developer to revert to the IBM supported version of the 9.0 XPages Extension Library at any time. The IBM XPages Development team will provide more documentation on the deployment implications around the feature rename in a wiki article that will be made available soon.

Appendix 1

Source Change Log since the 900v00 02.20130515-2200 Release
Here is a list of changes made since the release of ExtLib in IBM Notes Domino 9.0 and the changes made to the Extended Components (ExtLibX)

- LHEY99PDV3 alt text added to the collapse/expand image on the Data View
- LHEY99NK8L title property added to the expand/collapse & hide/show details on the Data View
- LHEY99GHW2 titleBarTabs on the appLayout control sets role equals to button
- LHEY99GDRE tabindex added to the twisties on the Data View
- LHEY994EL5 An accessible name has been added to the showCheckbox property on the Data View
- LHEY98ZFQ8 the correct keyboard navigation has been implemented on the navigator tree nodes
- LHEY98YJR3 For the AppLayout control all content now resides within a WAI-ARIA landmark or labelled region role
- LHEY98SE8F for the appLayout control role=application has been removed
- LHEY98MLAW The property showCheckbox on the data view has been made accessible
- LHEY98KHQP aria label added to formTable
- LHEY98CN6Z Dojo link select control has been made accessible
- LHEY97VJMN accessibility support added to the Widget Container control
- LHEY97RJ7J pager controls pagerAddRows, pagerDetail, pagerExpand, pagerSaveState, and pagerSizes have their actions set to role equals button
- LHEY97QEEE formTable has role set to form
- LHEY97QDV6 formTable control now has validation error messages for accessibility
- LHEY97JHP9 navigator control has role set to tree
- LHEY97HJYL applicationLayout control's container node has role equal to button and aria-haspopup set to true
- LHEY97GERT List elements are now properly structured on the tagCloud control for accessibility
- LHEY97GDM9 tagCloud now has correct aria labels
- LHEY97CF6U applicationLayout control now has the search button feature set the correct field association and role equal to requires for accessibility
- LHEY97CE4A applicationLayout has now multiple aria landmarks set
- LHEY97AENA each element the pagers have unique labels set
- LHEY97AEAR Data View has role set to grid for accessibility
- LHEY96ZM8Z Section control has role equal to button & disabled sections has aria-disabled equals true
- BGLN98FD3K Added aria-label property to the Dojo Link Select control
- TWET97HNNE removes duplicated ids from the div output for accessibility
- TWET97HM7Z aria labels added for input and select attributes
- TWET97HKL4 Added a css class to hide the list when empty for accessibility
- TWET979KAR Uncommented the setting of the aria-label=Calendar.
- TMGN9A6EV4 deviceBean api implementation
- PHAN984JGA Added handling for dynamic content generated by XPages that was not being picked up by web crawlers for search engines
- MKEE8YNECY The summary column on the Data View now contains a title property

- LRGU9B7BDF iPod to be recognized as mobile
- LHEY9BAHNM If UserAgent is null set a default SERVER UA
- LHEY99EEZ9 Added tabindex to the UL to enable focus for accessibility
- LHEY98ZENF Added a name on each checkbox on the valuePicker control
- LHEY97RDUB added Picker focus management
- LHEY97QME8 Added role=button in the pickers.
- LHEY97QLTS Added role=button to the Cancel link on the dialogs.
- LHEY97JDRL Added tabindex to get focusable element in the dialog
- LHEY97JDBV Fixed the role in the dialogs.
- LHEY97CCSZ Added role=button to link with href=javascript
- LHEY97AMAT Changed description for Expand\Collapse alt text.
- DCHO98MKJA Set DNT in the openntf feature properties
- BGLN98VBT4 Removing reference to not existent javascript function
- REST services: Added sites resource to freebusy service
- REST services: Add usedSize to quota representation
- REST services: New trash resource in the mail service
- REST services: Prototype password resource
- NRBY99VSC3 Fix to /api/mail resource
- BGLN97ZGTA Calendar month dropdown month Picker year Picker menu includes accessibility fixes
- BGLN99QBX9 googleSearch alt attribute fix
- BGLN99QHG7 Calendar resourced timescale strings fixed
- BGLN99REV6 Calendar broken datepick headers
- LHEY97KEXJ djextLinkSelect control accessibility fixes
- LHEY97NJQ9 djextListTextBox control now fixed for accessibility
- LHEY97VLF3 Add button role to dropdown menu
- LHEY97XJJ8 Calendar month dropdown accessibility fixes
- LHEY984EFV Google search accessibility fix
- LHEY98JLM3 DataView empty tds accessibility fixes
- QYBJ9AHCBX Calendar IE currentMonth fix
- TWET979FWF add padding to list picker for accessibility
- TWET979KEK Calendar accessibility fixes
- TWET97XJ4D datView fix keyboard focus indicator issues
- TWET97XJZA AppLayout remove redundant banner link
- TWET97XJZA Application layout remove skip to main content
- TWET97YLHE Picker dialog accessibility keyboard activation fix
- TWET98EATX data view empty space fix
- TWET98REME link select keyboard accessibility fix
- TWET98TJS8 calendar accessibility fixes
- TWETNLR3 Empty list accessibility fix
- Add DojoRendererUtil.createMap() with junit-specific implementation to avoid junit fail inconsistencies in different JVMs
- Changed extlib from using deprecated ..designer.runtime.Version class to non-deprecated ..xsp.core.Version
- junit InputReadOnlyRendererTest to verify '.ReadOnly' renderers exist
- junit: update NamingConventionTest to allow adding more rules in subclasses, and to add some default-ignored rules around complex-id naming
- junit: updates to readability of RoleAccessibilityTest fail messages
- in FormTableRenderer prevent subclass property override from writing duplicate style

attribute to HTML

- junit: in junit tests, when ConfigUtil detects bad config.propertie file, throw exception, not log Sys.out
- junit ExtlibDisplayNameDuplicateTest was wrongly checking XPages core version, not ExtlibVersion
- junit move MobilePageEditorTest to extlib.test plugin, since specific to extlib-mobile.xsp-config
- junit RenderDojoPropertyTest, improved readability of fail msgs
- junit, update SampleTestSuite comments as had renamed *AccessibilityCategoryTest to *AccessibilityTest
- LRGU9AKCD5 xe:formTable layout in mobile themes, to work with latest xe:appPage behavior
- MKEE99EMGS regression in the App Layout search box - gave a JavaScript SyntaxError
- MKEE99FDRV add support for xe:singlePageApp onResize and onOrientationChange events
- MKEE99FDRV add xe:appPage "attrs" property for mobile events
- PHAN96NEKW xe:djTimeTextBox with xe:djDateTimeConstraints failed due to visibleRange:null
- PHAN99VJY9 fix implementation of addSingleQuoteString to handle null values, and move to ExtLibRenderUtil
- PHAN99VJY9 junit update to verify null handling in addSingleQuoteString
- PHAN9A5QYM XSP.moveToMPage fixed to allow browser back button to go back to initialView
- remove empty unused raw-extlib-data.xsp-config file
- update DojoRendererUtil to use methose from 9.0 ..xsp.extsn plugin instead of re-implementing
- junit: update ExtlibPropertyDefaultValueTest to skip some non-issues in AbstractFadeEffect.duration
- junit: update junit ResponseBuffer to prevent duplicate attributes in HTML output
- junit: update junit tests since role properties were deprecated and some fails were skipped
- junit: update references to version 8.5.4, which was renamed to version 9.0.0
- PHAN98NJ9P removed square brackets array Value Picker values
- PHAN9B6BC6 fixes RTL timeout issue
- Add calendar service demo
- improve initialization of DAS services
- QPGG96UH4Q additional backslash in url dataservice
- GMAM9BAC83 fixes problem with "appPage.resetContent" property in XPages Mobile
- LHEY97NFQZ fixes search icon not visible in High Contrast Mode on application layout control
- LHEY97NFVR fixes Expand/Collapse image not visible in High Contrast Mode on navigator control
- LHEY97REX7 fixes xe:tagCloud control where it did not meet Colour Contrast minimum requirements
- LHEY97WF3V fixes xe:namePicker & xe:valuePicker where the selected item was not visible in High Contrast Mode
- LHEY97WFBE fixes the xe:widgetContainer control issue where some icons were not visible in High Contrast Mode
- LHEY99PELT fixes the Widget Container missing title attributes in OneUIv3.0.2

- TMGN98NDAB Support new xsp.theme.mobile theme setting
- TMGN9BFKT5 iOS validation error causes screen freeze during onchange event