Velocity AppXtender for IBM® Domino®

Quick Reference Guide

Version 1.0

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What is Velocity AppXtender for IBM Domino?

Velocity AppXtender is a free program allowing IBM Domino administrators and developers the ability to create branded web applications for HTML5-compliant web browsers on Android, iOS, and BlackBerry without coding or the need to open access to IBM® Notes® applications.

Velocity AppXtender for IBM Domino easily extends enterprise dynamic applications to a smart phone from an IBM Domino application—without the need for developers. IBM Domino professionals can point and click through familiar forms and fields to create custom mobile apps using a wide range of smart phone features, including phone, SMS, email and the browser.

Velocity AppXtender for IBM Domino is configured using the IBM Notes client and includes server-side code for accessing IBM Domino data and sending it to mobile devices, and a run-time program installed on the mobile device to display the user interface and controls.

When you download Velocity AppXtender for IBM Domino you will have access to the following:

» An IBM Notes application, named Appxtender.nsf.
  This should be copied to your IBM Domino server where it acts as the "middleware" between mobile devices and the existing applications that you select to mobilize. This same application is accessed to specify the location of the source databases, form layout, styles. etc.

» Custom design of the mobile app using IBM Notes forms.
  Your changes in forms and fields can be read on the smart phone Velocity application within seconds. Velocity AppXtender is based on the Velocity Mobile Platform. Velocity AppXtender reads data from the IBM Domino server and generates Velocity XML which is interpreted on the smart phone. No programming is required and no XML writing is required so the time and costs to deliver a smart phone version of an IBM Notes application are much less than any alternative approach.

» **AppXtender Features Easy-To-Use Functionality**
Simply point and click through forms and fields to create custom smart phone apps. Custom interface styles and the ability to create different layouts and add custom graphics ensure that your new mobile apps can match the look of your business identity to deliver a seamless user experience.

» **Quick-start Templates**
Get started by choosing from IBM Domino templates; Document Library, Discussion, and Address Book. (For more information, please contact Wmode's Sales Team.)

» **No Coding Involved**
Select options using IBM Notes forms and fields to create your app. Velocity guides you through the process and you can preview your work on the device or smart phone simulator at any time.

» **Designed with SOA in Mind**
Velocity apps communicate data with your existing back-office systems via XML.

» **Full smart phone Features**
Integrate a wide range of smart phone features into your app, including phone, SMS, email, and browser.

» **Integrated with Existing Security**
Integration with IBM Domino authentication means all existing security settings that you have already built into your applications come right across.

AppXtender can also be expanded to native applications on iOS, Android and BlackBerry (including BlackBerry10) using Wmode's scalable Velocity upgrade.

To find out more about Velocity, please visit www.velocity4enterprise.com

Velocity AppXtender Features

Velocity AppXtender for IBM Domino offers the following User Interface widgets:

» Carousel

» Banner

» Image Label

» Choice

» Image

» Horizontal Spacer

» Vertical Spacer

» Text

» Button

» Search View Query Box

Besides the core functionality of enabling selected views and forms to be used on mobile devices, other features which Velocity Designer for IBM Domino provides include:

» Ability to work with images. Image files are attached via an IBM Notes form with no need to use IBM Domino Designer. Images are then available for use in any application.

» Ability to apply background images to all application screens from resources stored in Graphics.

» Ability to better accommodate background images with margins on the left side of the screen.

» Ability to customize colors, fonts and text styles. Saved styles can be shared among applications.

» Caching mechanism for views. This has a significant impact on the speed of application loading.

» Optional full-text search on any view.

» Sorting mechanism to control the order of fields on a document.

» Ability to disable/enable views on the fly during development.

» Ability to automatically launch one application instead of showing the "Home" static page, which lists all applications. This is particularly useful if you only have a single application.

» Ability to create a static page for each form, view with common actions, menus, scripts; reference in dynamic screens. This reduces data sent over the wire.

» Recognize special characters and accents, and display them correctly.

» Navigate among views using automatically generated menu options, including the ability to have drill-down views.

» If a user has sufficient ACL access, the ability to edit and create new documents.

» An IBM Domino agent can be run when a document is saved on the mobile device, this is especially useful for workflow applications.

» Response documents can inherit selected values from their parent document

» Fields can be designated as e-mail, phone, SMS or browser fields. A button is shown when viewing documents which when clicked, automatically dials the number in the phone field, for example.

» A custom launch screen can be created using a combination of images and buttons, when you want to create a "home page" appearance rather than a list of available options.

SCREEN LAYOUT FEATURES

» Ability to auto expand categorized views when the view is accessed by the user. This enables faster access to data within categorized views.

» Computed Text in form layout, which can be used to display fields differently from how they are stored. Can also be used to simulate horizontal layout of fields.

» Ability to create a single, two- or three-column layout for static pages.

» Ability to add a custom image widget to a static page and assign an action to the image widget. For example, to open a view, or to open a static page, or to create a form or show field-based search form.

» Ability to specify how many lines of text you want to display. This is convenient for users using Storm devices that have tall screens. This field enables the user to see more data on the screen.

SEARCH FEATURES

» Ability to add a search to a home page of your application, thus providing the user with faster access to the search by using the Search View Query Box type of a custom widget for a static page.

» Ability to specify a custom search button that opens a form for more refined search results.

READING SOURCE DATA, CONFIGURATION FORM LAYOUT

» Flexibility in naming can be reached by using & characters. Those characters are supported in Form and Page names. URL encoding and decoding used internally. There is no need to change original IBM Notes application to accommodate VDLD.

» Attachments in rich-text fields are shown as URL links. Clicking the URL link prompts an IBM Domino login when each attachment is clicked.

» No need to re-enter choice field data. You can import directly from views used for @dblookups and @dbcolumn selections (most common IBM Notes technique).

» Ability to work with data types such as smart text and date. Smart text uses a special filter allowing you to enter only numbers, or symbols allowed when entering the phone or email.

STYLES

» Easier management of application fields. If you select to apply Style Template, selected style name is retained, so if you make changes to the Style Template and save, dependent Applications will be updated.

» Styles are referenced in noteID vs. name in order to reduce the size of XML, which reduces view loading time. Style ID is created automatically and is displayed in Styles where all styles for a given application(s) are listed in VDLD.

WORKFLOW

» Ability to add workflow buttons.

» Ability to include Velocity Link allows you to send emails from Velocity AppXtender workflow to be opened from a smart phone email. This is a key ease-of-use aspect of workflow—taking you directly to the document that you need to act on.

SYSTEM FUNCTION INTEGRATION

» Multiple system actions supported on documents

» Browser action type can be applied to a new field on the Form.

SECURITY SETUP

» Velocity's login can integrate with IBM Domino's authentication, enabling your AppXtender applications to use the user's credentials to respect database Access Control Lists, reader fields, etc.

How Does It Work?

As noted above, AppXtender can be thought of as a middleware tool built with IBM Notes. Mobile devices will interact with the AppXtender NSF on your IBM Domino server, but the content that is presented on that device will come from one or more separate IBM Notes applications on the same server. Instructions on how to build an application are included below, but we want to share some concepts with you before you start.

AppXtender presents the IBM Notes design elements of a traditional application to a mobile browser by taking those elements and generating corresponding XML that the mobile browser can read. This is done by advising AppXtender about the Forms, Views, Fields, Agents and other design elements that make up your application, by creating documents in the AppXtender application database that reference those design elements. Each time you create or edit a document and save it in AppXtender, an agent is run that generates and stores the XML. Be aware of this, as you might notice a small delay when saving a document while working with AppXtender. Depending on the location of your server, you may find that working with a local replica of AppXtender provides better performance.

Please consider the amount of content that may be displayed on a mobile browser. Once you include more than 4 columns from a view it is likely that your user experience will degrade. Similarly, with fields, adding more than 15 fields to a form, or several rich text fields will also degrade the user experience. If you have never built an application for a mobile device before, take the time to consider what fields are necessary and any that may be excluded in order to make the form useful for your users.

Starting Velocity AppXtender

1. Launch a copy of Velocity AppXtender application (NSF file) from your IBM Notes Workspace.

2. The Velocity AppXtender starts.

The left pane lists all elements to build your application. The right pane displays details of what you select in the left page. However, when the Velocity AppXtender application starts, the right pane displays all the elements found in the application. You can see all information about the application at this time. Once an element is selected from the left pane, the right pane displays the list of all relevant documents in the database. For example if you click Applications on the left hand pane, the right hand pane will show all Application documents that exist in the database.

Building your first Mobile Application

The following sections will instruct you on how to setup and configure a mobile application using AppXtender. Generally speaking the application is built using a drill-down process, beginning with the top level Configuration Profile, adding a new application, setting up views, creating forms and adding fields to the forms.

Configuration Profile

BASIC

Click the "Configuration Profile" link from the left hand navigator.

Configuration Profile contains information about default configuration settings, graphics, styles, and caching policy. Changing settings affects all the applications within the Velocity AppXtender application.

The following page is the screen capture of Configuration Profile. Configuration Profile is intended to control your general settings.

» The AppXtender NSF should be placed in the Velocity folder off the main data directory on the Domino server (the Database Path, Name field will be computed when the Configuration Profile is saved)

» Note: In order to apply IBM Domino security to your applications you must ensure the "No Login Required" checkbox is de-selected.

APPLICATION IN CONFIGURATION PROFILE

The second tab from the top on the Configuration Profile allows you to browse/edit the main screen (first view you see when you start Velocity application) graphics and style resources. It also allows you to assign images to be displayed on the first screen which opens on the smart phone and for Velocity AppXtender application desktop icons (ribbon icons).

(see Velocity AppXtender Features for more details)

SETTING DESKTOP ICONS

In Main Screen Graphics, Style, you can specify Startup Icon. In Velocity AppXtender, you can specify up to four icons to be used. There is a default icon which will be on the desktop if you do not specify other icons to use. Rollover icon is useful when you have more than one application in the desktop. When Velocity application icon is not selected, rollover icon is used; when the icon is selected, the default icon is used. The Updated Icon is only used if Push Workflow is used in the application, to (optionally) notify someone that an item needs their approval. There are updated and rollover updated icons.

NAVIGATION

Use this configuration feature if you want to launch just one application when Velocity application starts. By default, if you are using the Velocity AppXtender Samples application, this feature is not used and all three applications are displayed.

The Navigation tab allows you to select the application (IBM Domino template) to run when you select the desktop icon. In this case, only one application opens and you cannot go to the main page where you could select one of the three applications to run.

CACHING

A cache is a temporary collection of data (XML pages, images, text resources, and scripts) duplicating original data stored on the web server. The original data is expensive to fetch, due to a slow memory access time and data traffic, relative to the cost of reading the data from the cache. Thus, cache is a temporary storage area where frequently accessed data such as views and resources (images, text resources, and scripts) can be stored for rapid access. Once the data is stored in the cache, the cached copy can be quickly accessed, rather than re-fetching the original data from the web server, so that the average access time is lower.

Applications

SELECTING AN APPLICATION

On the left pane of the **Velocity Designer**, under **Core Elements**, select **Applications**.

CREATE AN APPLICATION DOCUMENT

Click **New Application.**

APPLICATION TABS

Any application contains the following tabs where you can configure the selected or new application:

- » Application Info
- » Views
- » Graphics, Styles
- » Custom Text

- » Caching
- » Can restrict access using *IBM Domino* Directory
- » Control over order and titles for displaying applications

Click on the **Views** tab

VIEWS TAB

Click **New View** button

» Assign the view a unique name

» Select the application for the view (this will usually be the name of the application you just created)

» Note that the source application must be on the same IBM Domino server as the AppXtender configuration database.

» Select the NSF to associate the view with

» Select the view from the NSF you want to use

» Select the columns you wish to display

» There are many optional features you can utilize to customize the view (Refer to Velocity AppXtender Full Guide for more information)

» Click on the Forms tab of the view document

FORMS TAB

Forms define how document data is displayed when a view entry is clicked. One or more are required; create one for each form in the view's selection formula. Click on the **New Form** button

FORM INFO

» Setup form to be used with view

» Select Database (this will usually be the name of the view you just created)

» Select the Form you want to use from the NSF

» Provide a description for the form

» Click Save & Close button

» You are now back in the View

» Click on the Forms tab and double click the Form you just saved to open it

» Click Edit

» Click on the Fields Tab

FIELDS TAB

» The Fields tab displays what information is to be retrieved from the data-base, and specifies how to display the found data.

» Click New Field button

» Select the Field Name from the drop-down list

» Provide a Label for the field

» Complete the other options for the new field and then click OK

» Continue to add new fields as required.

» Click Save & Close

» If prompted Save the View page

FORM ACTIONS TAB

» You can specify actions to occur when the user clicks a custom button. Options allow you to specify field changes, mail to send, date stamps and control the visibility of the button.

» Also allows you to include Post-Save Action to run agent.

FORM ADVANCED TAB

» You can inherit values from parent—both default values, which are visible when the new form is created; and values computed when saved.

» You can run an IBM Domino agent in the source database after saving. This is useful , for example, for updating status in workflows.

» You can add a button which opens a related document. The related document must be accessible in a view which has already been configured, and can be referenced via a lookup using a value in the current document as the key.

(Refer to Velocity AppXtender Full Guide for more information)

Your Mobile Application

Below are samples of what your application will look like:
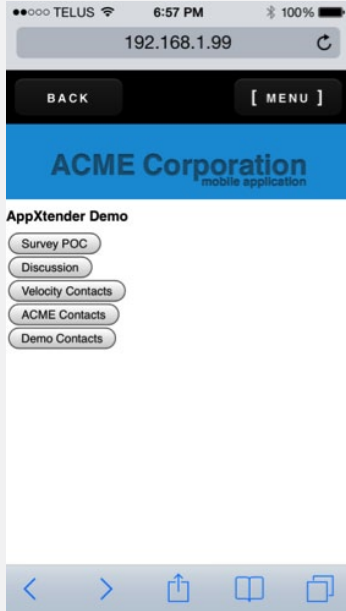
This is the Main Menu that lists all applications available to the user.

This is an application menu that will list all views that you have made available.

This is a view. Note the limited screen real estate.

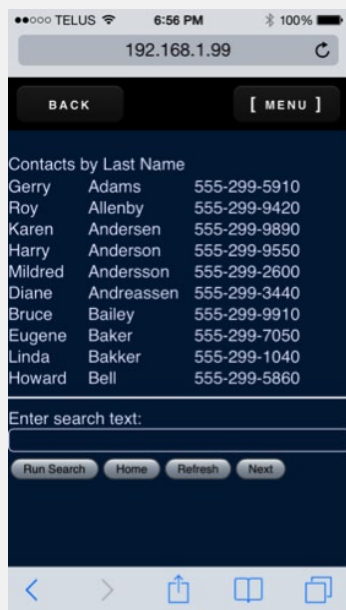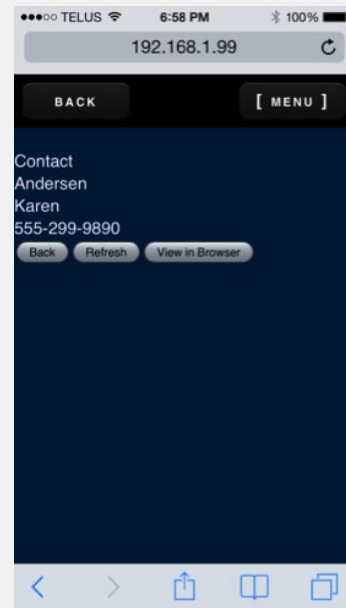This is a form. AppXtender provides the ability to show or hide field labels and place automation on field contents such as click-to-call on phone numbers.

Contact Information

AppXtender is supported and maintained by Wmode's partner Brytek Systems Inc.

ABOUT BRYTEK

Established in 2009, Brytek Systems Inc. is a small professional services and information technology consulting firm providing Enterprise Collaboration and Project Management expertise to its clients. Brytek listens to their customers and takes the time to focus on the needs of the business, setting technology aside for a moment, to create solutions that are more about business value than the latest trend. Brytek's consultants have given presentations at international conferences on topics including business collaboration, use of mobility solutions and building social applications. For more information, please visit www.brytek.ca

Brytek Systems Inc.

www.brytek.ca

Graham Acres   **Chris Coals**
graham.acres@brytek.ca   chris.coals@brytek.ca
604-916-7526
Twitter: @gacres99

AppXtender also integrates with full native clients for iOS, Android and BlackBerry (BB10 and older). Please contact Wmode Inc. for access and licensing details. Features include offline access, advanced caching and extended device API integration.

ABOUT WMODE ENTERPRISE SOLUTIONS

Wmode Enterprise Solutions specializes in mobile solutions and services facilitating the use of connected devices in workforce procedures and customer/citizen engagement. As a Wmode business line, Enterprise Solutions offers a suite of platforms and managed services allowing companies to deploy and manage scalable web, mobile and native applications, or content management systems to their customers or employees.

For more info on Wmode Enterprise Solutions, please visit enterprise.wmode.com and follow us on Twitter: @WmodeEnterprise.

 Powering Connected Devices

www.wmode.com

Trevor Nimegeers
trevor.nimegeers@wmode.com
Twitter: @trevornim

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