

NextAge Open Source Application

A Sample Application demonstrating most of NextAge's Open Source classes and code



NextAge Consulting

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Table of Contents

[Table of Contents](#)

[BSD 3 License](#)

[NextAge Consulting - Pete Halsted](#)

[General Information](#)

[Classes](#)

[BallonTip](#)

[BrowseFormManager](#)

[Business Rules](#)

[Child Manager](#)

[DefaultManager](#)

[Global Variable Class](#)

[QueryByExample](#)

[Security](#)

[Control Templates](#)

[Fix Control Z](#)

[NextAgeOpenSourceProcedures](#)

[DoubleQuote](#)

[FormatDate](#)

[FormatName](#)

[FormatPhone](#)

[NumberToWords](#)

[PKFetch](#)

[SetWinAlwaysOnTop](#)

[SQLFormattedDate](#)

[TableToFile](#)

[Trace](#)

[WindowTitle](#)

[Window Templates](#)

[BaseWindow](#)

[BaseForm](#)

[Windows](#)

[FRM_Product](#)

[IBRW_Customers](#)

[IBRW_Products](#)

[IBRW_SecurityDetail](#)

[IBRW_SystemLog](#)

[IBRW_User](#)

[IFRM_Customer](#)

[Win_About](#)

[Win_MainMenu](#)

[Database Tables](#)

[BaseOptions](#)

[Users](#)

[Product](#)

[Product](#)

[Queries](#)

[QRY_SecurityCategoryCategories](#)

[QRY_BusinessRulesCategories](#)

[QRY_SecurityDetailCategories](#)

[QRY_SecurityCategories](#)

[QRY_ActiveUsers](#)

[Change Log](#)

[1.0 - January 16, 2013](#)

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NextAge Consulting - Pete Halsted

Pete Halsted has been developing custom business management applications for small to medium-sized companies, since 1987. His focus is on client/server, distributed and cloud based development utilizing WinDev, WebDev, and PostgreSQL. Pete is a Clarion Certified Developer with 25 years in the industry, has spoken at several Developers conferences, and provided Developer training and mentoring on a one on one basis. He has served companies both large and small as Project Manager, Lead Architect, Lead Developer and Chief Technology Officer. Pete tours the country full-time by motor home with his wife and dog, enjoying the freedom provided by cloud based technologies. Pete is available for Project Management, Custom Design, Development, Training, and Speaking assignments. For more information please visit www.thenextage.com or follow his blog at www.thenextage.com/wordpress

General Information

The NextAge Open Source Application is meant as a “teaching” tool to provide sample code and a testing bed for all of NextAge’s open source classes and code. Along with using our Open Source classes, there is a collection of miscellaneous code and procedures that may be useful, but are not something appropriate to be put into a class. This document is meant to give a general overview of the application and attempt to document some of the code that is not part of one of the Open Source classes. Readers of my blog should also recognize some code from previous articles, as generally I have used this application as my testbed when writing. As with all of our Open Source projects you are welcome to use what suits you and ignore what doesn’t!

Classes

BallonTip

Creates Popup Balloon tips on controls, used by the Business Rules class but can be used standalone as well. See separate documentation.

BrowseFormManager

Manages several interfaces of Browse and Form combinations, see separate documentation.

Business Rules

Business Rules Manager Class, see separate documentation.

Child Manager

A subclass of the BrowseFormManager used for child tables.

DefaultManager

Stores and retrieves default settings from either the registry or database. See separate documentation.

Global Variable Class

Not so much as class as a container for global variables. Very handy to hold those global variables that we use in nearly every project. This way the class can be shared via the SCM instead of the variables being defined and maintained in every project. Also intellisense works well with Glo.

QueryByExample

Provides a Query By Example interface for browses, see separate documentation.

Security

Used for checking security, see separate documentation.

SystemLogClass

Used to log error and debug information in a database table. See separate documentation.

Control Templates

Not documented in the separate class documents.

Fix Control Z

- Changes the behaviour of Control Z.
 - The default WX behaviour for Control Z is to just undo the last character. This presents a bit of a challenge for the user if they make a change that fails validation, and they don't have a way to "get back" to the original value.
 - With template in place, Control Z restores a field to the value from the "linked" variable (normally the file)
- Button is placed "off" the screen, it can not be hidden because WX disables the hot key if the button is invisible.
 - Set Anchoring so the button stays off the screen as the screen is resized.
- Easy method to use, is to include in a Base Window Template for all "form" windows of your application.

NextAgeOpenSourceProcedures

A collection of global procedures we use in most of our applications, but not things that belong in a class

DoubleQuote

Replaces all the single quotes in a string with two single quotes, useful when passing a string to a SQL procedure or CSV file where a single quote inside the string could cause a malformed string.

FormatDate

Formats a Date and Time field to a user readable formation. If no time is provided then just date is formatted.

FormatName

Combines or breaks apart first name and last name into full name.

FormatPhone

Formats and standardizes phone numbers

NumberToWords

Converts a numeric amount into words for checks

PKFetch

When using HReadSeekFirst if an exact match is not found, the next closest record will be in the buffer. PKFetch performs the HReadSeekFirst and clears the buffer if a match is not found so require less exception code after Primary Key fetches.

SetWinAlwaysOnTop

Use an API call to set a Window as always on Top

SQLFormattedDate

Returns a date in a format acceptable to SQL Server, has optional parameter to add maximum time to the date.

TableToFile

wLanguage does not have a table to file function to move all the values from the current record of a table control to their linked variables. This provides that functionality.

Trace

Overloads the WLanguage Trace function. GLO.Debug determines the action. This is a handy function that lets you include trace statements in your code and then turn all of them off or on via the global variable.

- GLO.Debug = 0
 - Nothing Happens
- GLO.Debug = 1
 - Uses the WLanguage Trace function prefixing the passed in text with the current window name
- GLO.Debug = 2
 - Uses the SysLog class to record the information in the System Log table.

WindowTitle

Concatenates the Window Name into the Window Title bar as “[Window-Name] Existing Title”. Very helpful for support as screen shots etc. will contain the actual name of the window in question.

Window Templates

BaseWindow

The basic window template, most of the other window templates are based on this template. Which means changing the logo, or background will affect all the other templates and windows.

BaseForm

Window Template used for separate forms. Has Business Rule Editor, and Save Cancel buttons already populated.

Windows

Not documented in the separate class documents.

FRM_Product

The separate form for editing a Product record that is managed by the Browse Form Manager on IBRW_Products. Also shows the use of the SQL Advanced QBE with Timed Loading.

IBRW_Customers

Sample browse to maintain a customer table. It uses the tabbed interface of the Browse Form Manager Class

IBRW_Products

Sample browse to edit a Product table. It uses the Browse Form Manager in Separate Browse/Form Mode. Notice this is a multiselect table and can manage several forms at one time. This window also shows using the SQL Advanced with Timer version of QBE.

IBRW_SecurityDetail

Maintains the security detail table. Uses the BrowseFormManager in Edit in Place mode.

IBRW_SystemLog

Browses the system log table, showing errors and debug messages. Uses the QueryByExample Class, and shows using the BrowseFormManager in PeekABoo mode without actually allowing edits or hiding the form. Uses the security class to determine if the user can view records for all users, and makes conditional settings of QueryByExample accordingly.

IBRW_User

Maintains the user table. Uses the BrowseForm Manager in PeekABoo Mode, as well as the ChildManager to edit the security categories. Uses the SecurityCheckForm method of the security class determine if Add, Change, and Deletes are allowed. Also uses the Business Rule manager to both make the User Name required and validation code to check for duplicate user names.

IFRM_Customer

Internal window used as the form as part of the tabbed interface of IBRW_Customers

Win_About

About / Splash screen, loaded as part of the Initialization code of the main window. It uses OpenChild so that it runs independent of the application, there are two parameters, the application name/version and how many seconds the windows should stay open. You will naturally want to adjust this window for your needs.

Win_MainMenu

The main menu of the application, there is code in the initialization process to handle logins and initialization of the classes that require the current user. It shows the use of the Ribbon bar control, and some special techniques we use to have optional debug settings and our logo show lightly through the browses, etc. The business rule editor is being used in Field level security mode to control the security of the ribbon buttons. Notice the initialization of the Business Rule editor button and security is handled slightly different on this window, since the current user is not know when the window is first opened.

Database Tables

BaseOptions

Used to store general information and configuration for an application. Such as the current database version, so it can be checked against the application version number and trigger and update. Generally this table only has one record in it, but we have used in in a SAAS type of environment where each client's configuration was stored in a different BaseOptions record.

Users

Not actually required by the security class, but naturally a user table has to be maintained for security.

Product

Demonstration table

Product

Demonstration table

Queries

QRY_SecurityCategoryCategories

Distinct Categories from the Security Category table, used by QRY_SecurityCategories.

QRY_BusinessRulesCategories

Distinct Categories from the Business Rules table, used by QRY_SecurityCategories.

QRY_SecurityDetailCategories

Distinct Categories from the Security Detail table, used by QRY_SecurityCategories.

QRY_SecurityCategories

A Union query combining QRY_SecurityCategoryCategories, QRY_BusinessRulesCategories and QRY_SecurityDetailCategories. Used by category combo of the Business Rule Editor window, and the User/Security Forms.

QRY_ActiveUsers

Qry that shows only active users, used by the Login Window.

Change Log

1.0 - January 16, 2013

Initial Release