

MBS Xojo (Real Studio) Web Starter Kit

Version 1.2, © 2012-2014 by Christian Schmitz, Monkeybread Software

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About the MBS Xojo (Real Studio) Web Starter Kit

Our Kit provides you with a start project for your own Web projects.

Features

- Database Support including REALSQLDatabase, MySQLCommunityServer, CubeSQLServer and SQLDatabaseMBS.
- Simple User Management for Admins and normal users.
- Login Panel
- Auto login, so people don't need to login each time.
- Collects Exceptions and JavaScript Errors in database and displays them to Admin.
- Allows logging to text file and database and displaying them.
- SQL Console with download of database and query result as CSV file.
- Session management for admin to see what users do.
- Chat Window
- Creates Backup of database.
- Object browser and memory statistics
- Messages for Admins to/from users.
- File Browser
- Shows how to cache images/files to save memory.
- and much more...

About Database Access

Database Support included for REALSQLDatabase and MySQLCommunityServer plugin from Real Software. Also you can use CubeSQLServer Plugin from sqlabs. And you can use MBS SQL Plugin for connecting to various servers. Example code is included for using SQLite and MySQL using SQLDatabaseMBS class.

See Database Module for constants to turn on/off the database access using various ways. By default UseRealSQLDatabase is true to use a local database.

You can turn UseRealSQLDatabase to false and instead set UseCubeSQLServer, UseMySQLDatabase or UseMBSSQLDatabase to true. Check in the Open methods there that the connection strings, usernames and passwords are correct.

Version History

Tip: If you want to update your existing code with new release, you'd best compare projects with Arbed (<http://www.tempel.org/Arbed>) and copy modifications to new project.

1.2, beta

- Added helper functions for WebPopupMenu
- Fixed some back buttons.
- Added low level exception/signal handling classes from Bug Reporter Kit.
- Changed code because some App.File* functions which are not available in newer Xojo versions.
- Renamed Hash Function to not conflict with hash function in other Web components.

1.1, 1st October 2013

- Added Web Signature Kit project.
- Commented out Print commands. They are useful in standalone, but cause problems in cgi mode.
- Improved code to handle database. Now the app launches when no database is found.
- Added WebLoadBalancing example code
- Added System Information page.

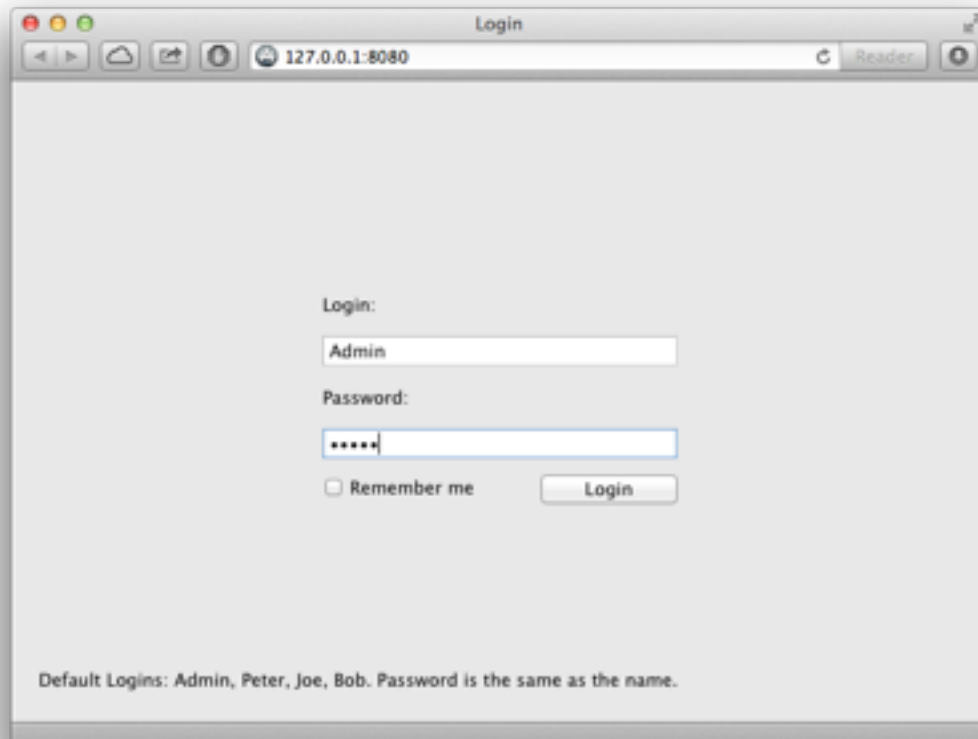
1.0, first release

Web App Tips

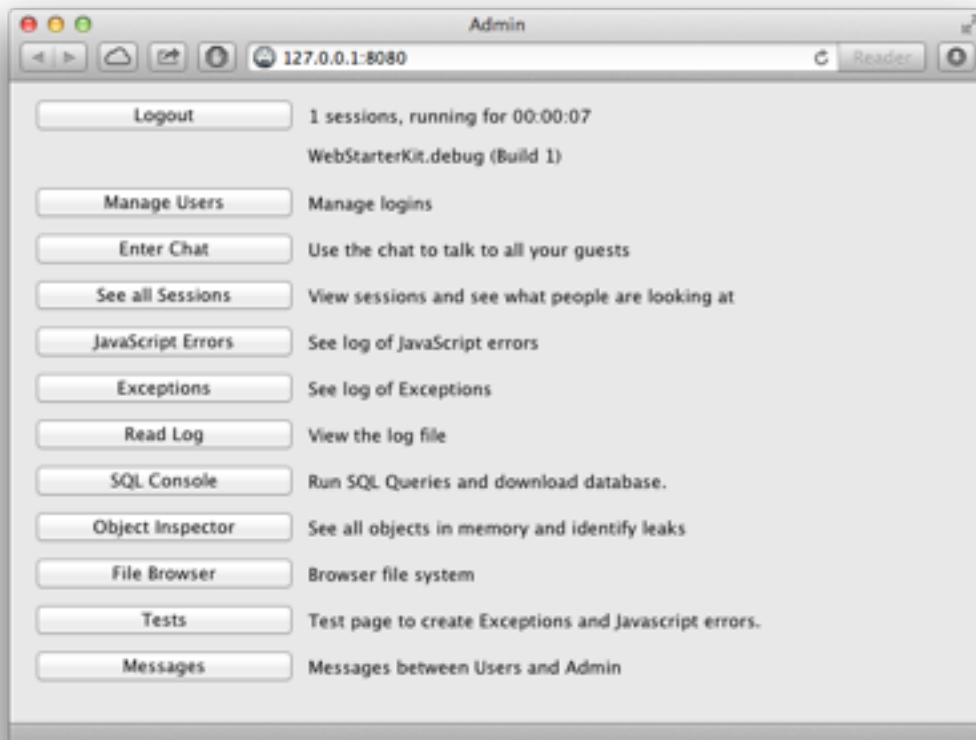
- Use Prepared Statements for Database Access. Never pass data from outside app directly to SQL engine. There may be an SQL injection.
- Don't show database errors to user. They may learn how your database is organized.
- In buttons only visible for admin, verify if user is admin. Hackers may have injected an event for an invisible button.
- Always check database.error in your code.
- Don't store passwords in clear text. Also use salted hashes.
- Don't store clear text in cookies. Always some random ID with data in database.
- Make sure via .htaccess on server that people can't download application, config file or plugin libraries.

Screenshots

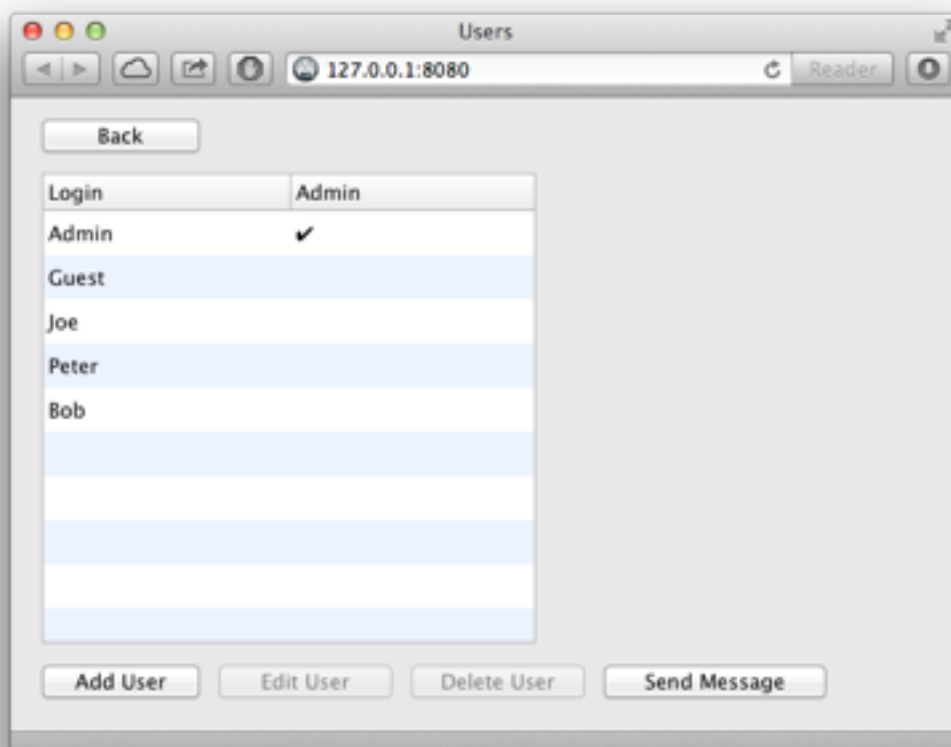
The login page:



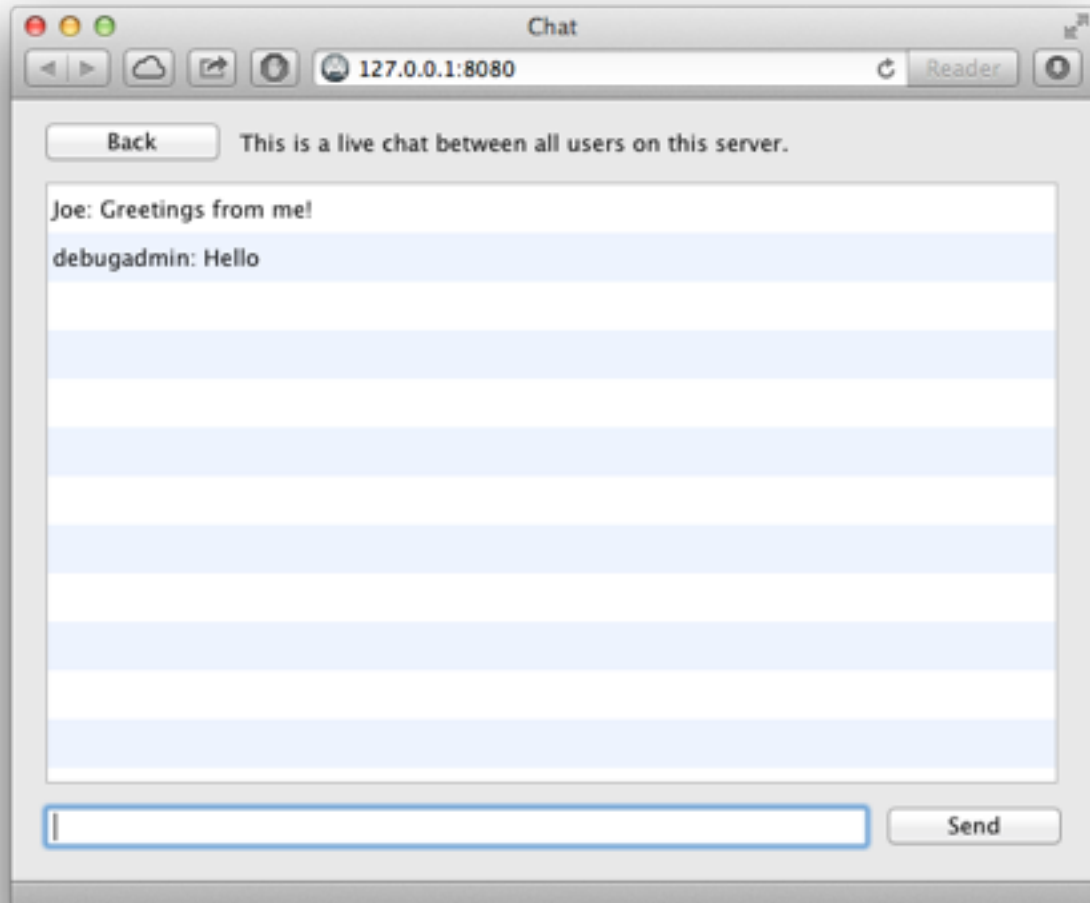
After login as admin you see this page with your control options:



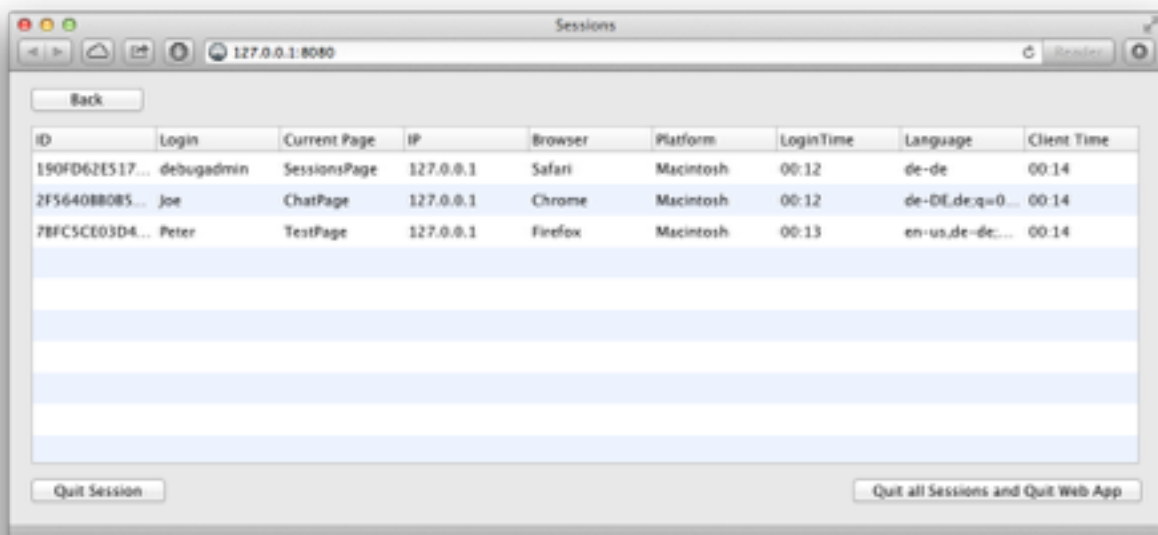
The user management page:



We have a chat system ready for you:



You can see all sessions currently active in our sessions page:



The admin can review all javascript errors the user saw:

The screenshot shows a web application window titled "JavaScriptErrors". It has a navigation bar with "Back" and "Update" buttons, and a search bar. Below is a table with columns: Timestamp, Login, Page, Error Message, User Details, IP, Browser, and Platform. Two entries are shown. The first entry is selected, and its details are shown in a panel below the table. The error message is "Unhandled NilObjectException" and the user details are "Clicked wrong butto...".

Timestamp	Login	Page	Error Message	User Details	IP	Browser	Platform
08.02.1...	Peter	TestPage	Unhandled NilObjectException	Clicked wrong butto...	127.0.0.1	Firefox	Macintosh
08.02.1...	Joe	TestPage	Could not execute r...	Just a test	127.0.0.1	Chrome	Macintosh

Unhandled NilObjectException
Message:
Stack:
RaiseExceptionClass
RaiseNilObjectException
TestPage.TestPage.NilObjectExceptionButton_Action
%<TestPage.TestPage>o<WebButton>
Delegate.IM_Invoke%<WebButton>
AddHandler.Stub.28%
WebButton._ExecuteEvent%<WebButton>sA1v
WebControl._ExecuteEvent%<WebButton>sA1v

Clicked wrong button. Help?

2 of 2 entries shown.

and see all exceptions:

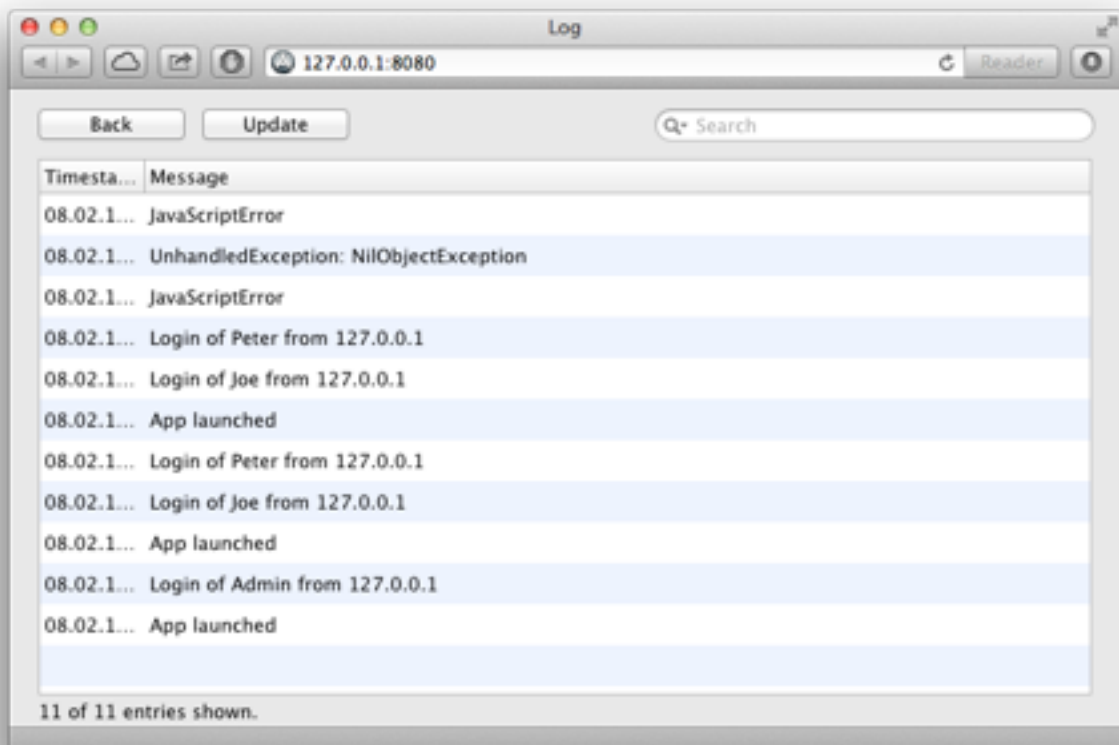
The screenshot shows a web application window titled "Exceptions". It has a navigation bar with "Back" and "Update" buttons, and a search bar. Below is a table with columns: Times..., Login, Page, Type, Error Message, Number, Function, IP, Browser, and Platform. One entry is shown. The entry is selected, and its details are shown in a panel below the table. The error message is "RaiseExceptionClass" and the function is "TestPage.TestPage.NilObjectExceptionButton_Action%<TestPage.TestPage>o<WebButton>".

Times...	Login	Page	Type	Error Message	Number	Function	IP	Browser	Platform
08.02...	Peter	TestP...	NilOb...		0	TestPage.TestPag...	127.0...	Firefox	Macin...

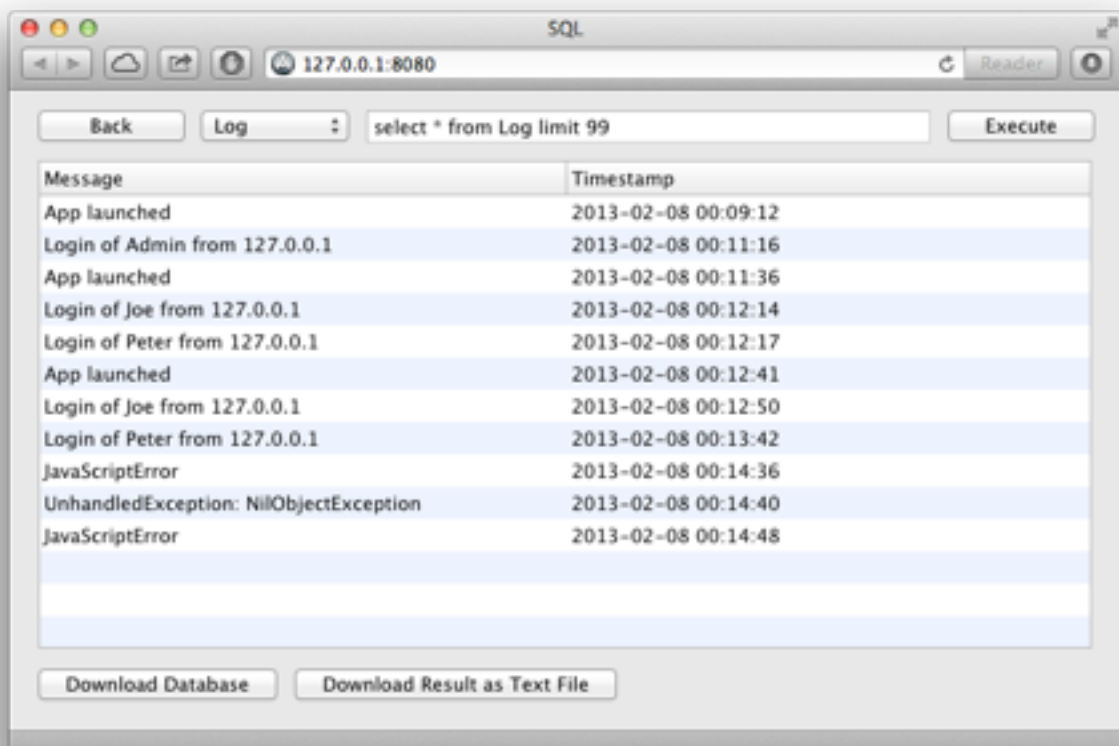
RaiseExceptionClass
RaiseNilObjectException
TestPage.TestPage.NilObjectExceptionButton_Action%<TestPage.TestPage>o<WebButton>
Delegate.IM_Invoke%<WebButton>
AddHandler.Stub.28%
WebButton._ExecuteEvent%<WebButton>sA1v

1 of 1 entries shown.

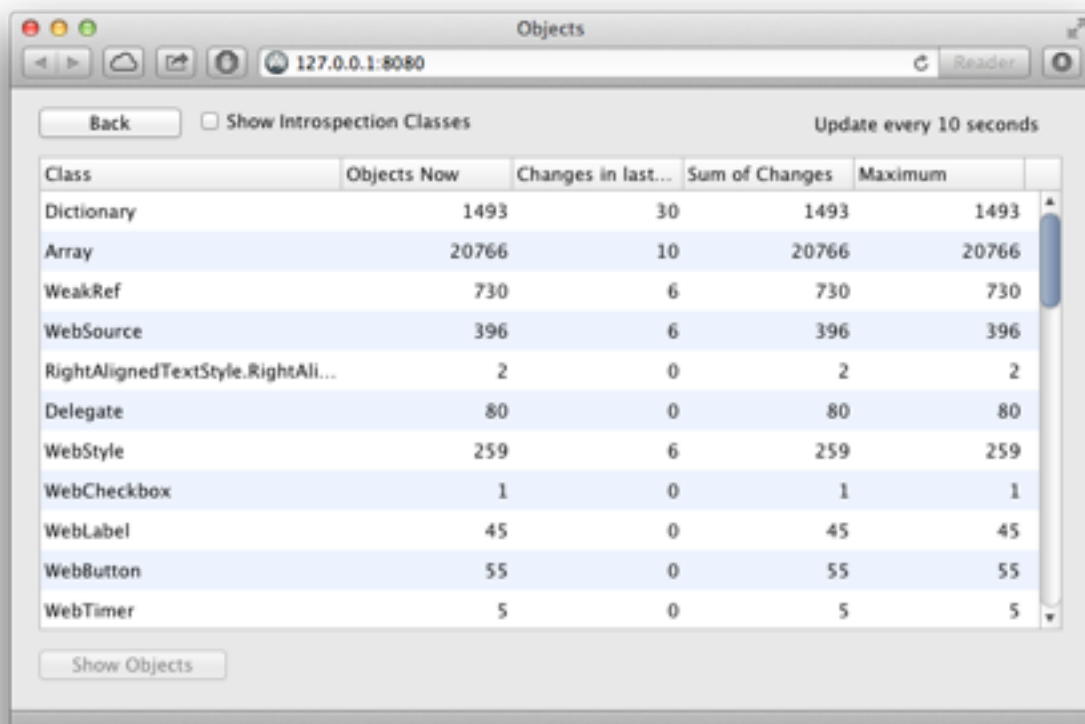
You can read the log entries in the database:



And use the SQL console to browse the database and export results:



The object inspector shows you what objects are in memory:

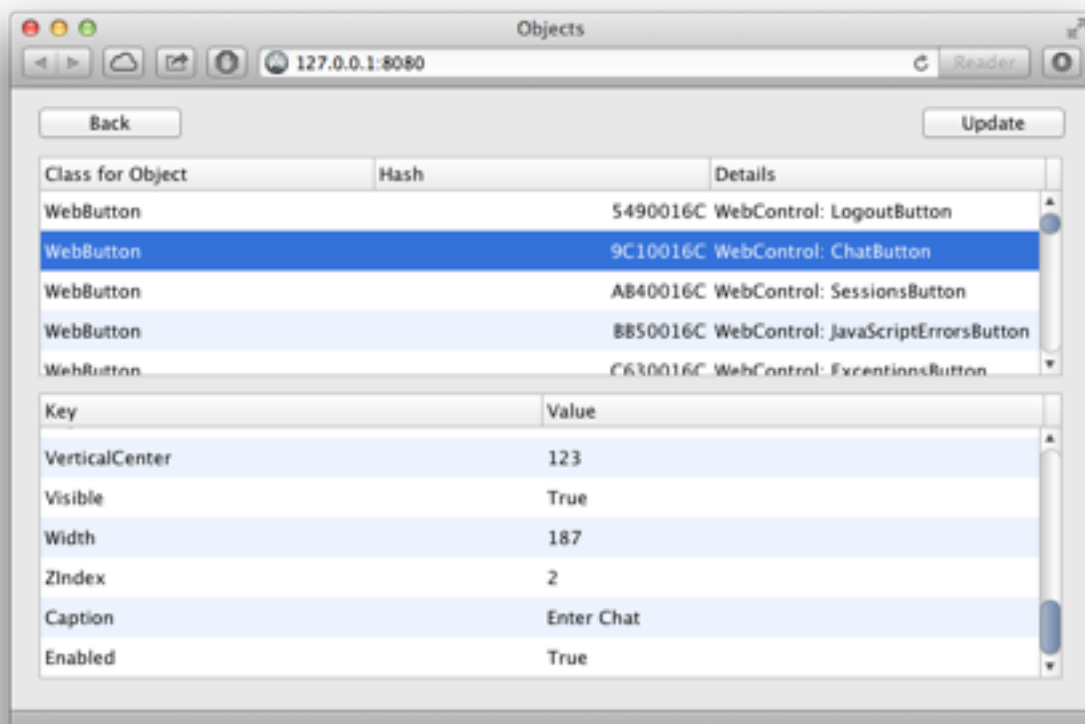


The screenshot shows a web browser window titled 'Objects' with a URL bar displaying '127.0.0.1:8080'. Below the address bar, there is a 'Back' button, a checkbox for 'Show Introspection Classes', and a 'Reader' button. A status bar at the top right indicates 'Update every 10 seconds'. The main content is a table with the following data:

Class	Objects Now	Changes in last...	Sum of Changes	Maximum
Dictionary	1493	30	1493	1493
Array	20766	10	20766	20766
WeakRef	730	6	730	730
WebSource	396	6	396	396
RightAlignedTextStyle.RightAli...	2	0	2	2
Delegate	80	0	80	80
WebStyle	259	6	259	259
WebCheckbox	1	0	1	1
WebLabel	45	0	45	45
WebButton	55	0	55	55
WebTimer	5	0	5	5

At the bottom of the window, there is a 'Show Objects' button.

with details on each object:

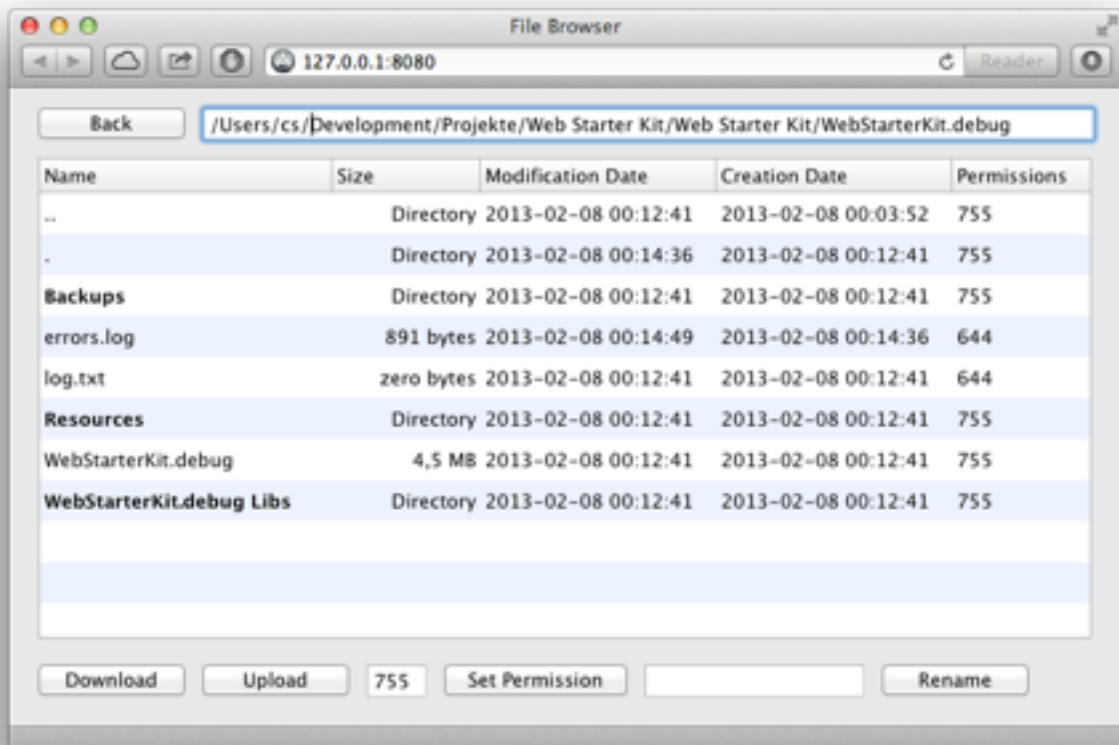


The screenshot shows the same 'Objects' window, but with the 'Details' tab selected. The 'WebButton' object with hash '9C10016C' is highlighted. The details are as follows:

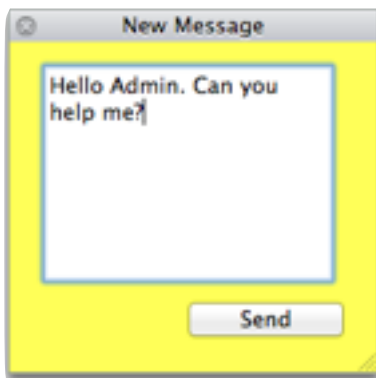
Class for Object	Hash	Details
WebButton	5490016C	WebControl: LogoutButton
WebButton	9C10016C	WebControl: ChatButton
WebButton	AB40016C	WebControl: SessionsButton
WebButton	8B50016C	WebControl: JavaScriptErrorsButton
WebButton	C630016C	WebControl: ExceptionsButton

Key	Value
VerticalCenter	123
Visible	True
Width	187
ZIndex	2
Caption	Enter Chat
Enabled	True

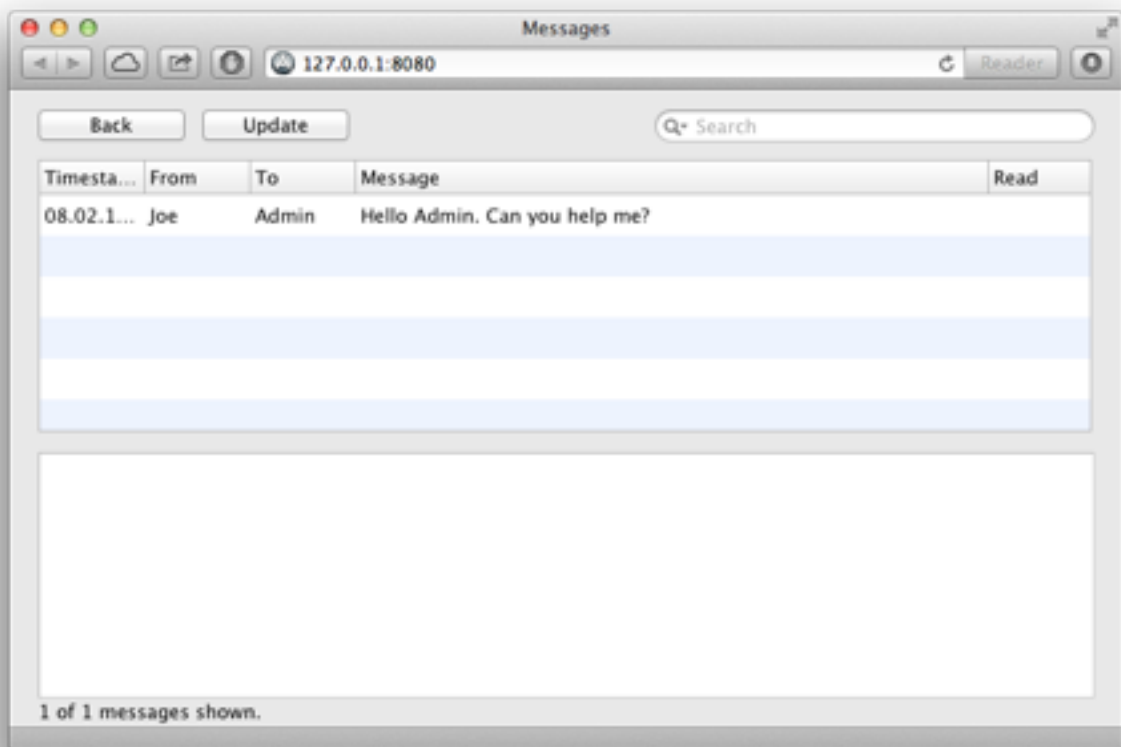
The File browser shows files on the server and allows you to upload, download and change permissions:



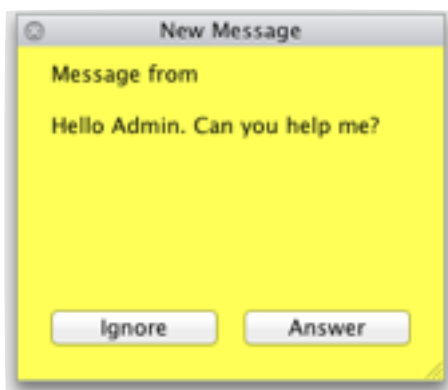
On the messages system, users can send messages with a little panel:



And as Admin you can see those messages on the messages page:



And as admin the messages pop up and you can answer them:



Installation

Please build the project and install like any normal web app on your server.

On the Server, make the folder writeable, so we can write our log files.

The webstarterkit.cgi and the WebStarterKit files should have executable flag set (chmod 755). Config and database files must be writable.

Demo

The demo web app can be seen here:

<http://webapps.monkeybreadsoftware.de/WebStarterKit/webstarterkit.cgi>

The database is a memory copy and reset everytime the web app restarts (after all sessions ended). You are not allowed to drop tables or delete/modify the admin user.

Requirements

You need Real Studio 2012r1 or newer.
Works also with Xojo 2013r1 or newer.

We recommend you get a Complete license for the MBS Xojo (Real Studio) Plugins.
Some plugins are required like the Util plugin. Also recommended are the Linux plugin, Mac OS X plugin and Win plugin.

License

Summary:

- You may use Web Starter Kit only with one licensed Xojo (Real Studio) installation.
- You agree not to share the Web Starter Kit or use someone else's Web Starter Kit copy.
- You can of course use parts or all of the code in your own products.

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Christian Schmitz Software GmbH does not charge royalties or deployment fees for Xojo (Real Studio) applications.

Access to updates is included for one year. After that time you can order an update or keep using the old version you have.

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