

WebXone Development Guide

(2015-06-24)

AthTek Software

<http://www.athtek.com>

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1. Overview

WebXone is a RIA-oriented (Rich Internet Applications) rapid development platform. It is a new generation of Web application which combines the best UI of Desktop application, the popularity and fast, lost-cost deployment of Web application and, real-time of interactive multimedia communication. It applies WebXone and can use common desktop application tools such as Delphi/CBuilder/VC to rapidly develop application system which is suitable for network.

WebXone is based on mature development platforms such as Delphi/CBuilder/VC, and compatible with all the VCL controls, and use unified system interface. It can quickly build a Web application system which can run efficiently.

WebXone enables Web development fast and efficient and enables web applications to run fast!

1.1 Objectives

It enables users to apply Delphi/CBuilder/VC to achieve B/S programming easily.

1.2 Features

- Apply programming tools such as Delphi/CBuilder/VC to develop web applications directly.
- Compatible with all the VCL controls of Delphi/CBuilder;
- Support transform from C/S programs to B/S programs;
- High running efficiency which rivals C/S programs;
- Easy and quick Web deploying method;
- Compatible with all the mainstream browsers including IE(IE6~IE11), Chrome, FireFox, Safari, Opera, etc

2. Instructions

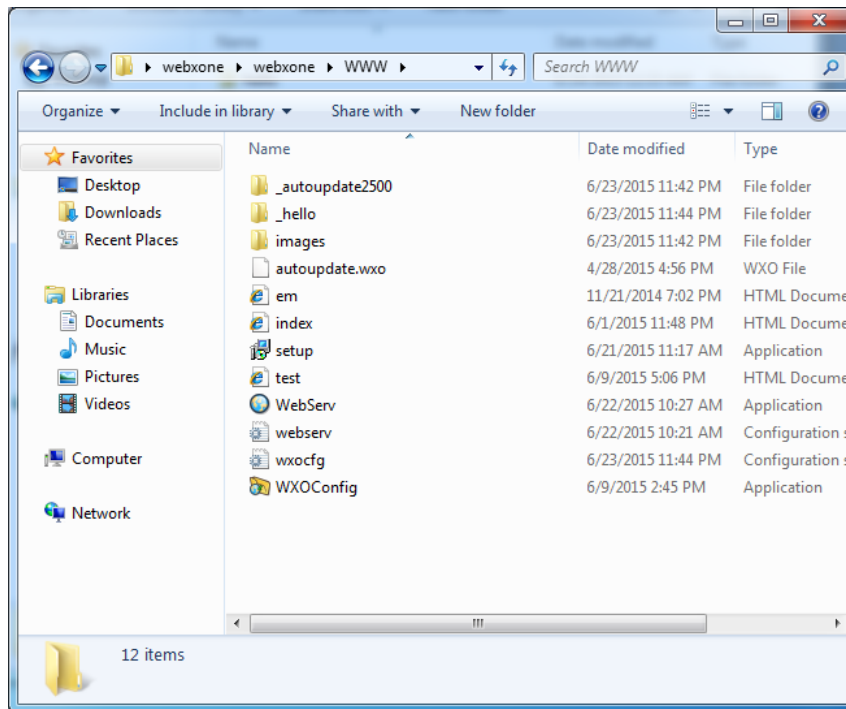
2.1 Deploy environment of the Web server

- (1) Download SDK.

SDK download: <http://www.cocodex.com/download-free/webxone.zip>

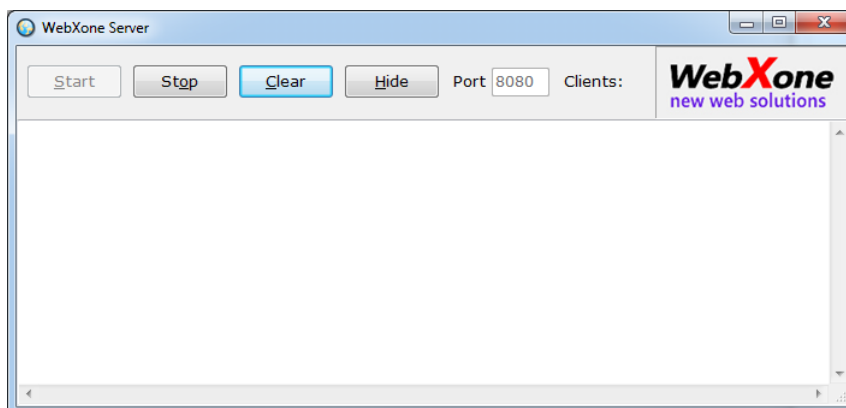
- (2) Decompression and copy

Decompress webxone.zip, and enter WWW directory, as shown below.



(3) Run web server program

Run web server program "WebServ.exe" in WWW directory, as shown below.

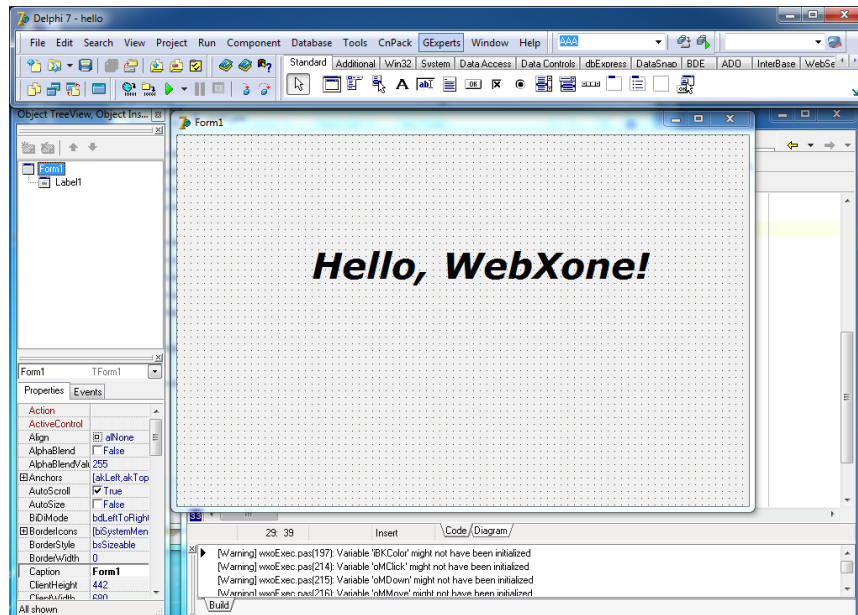


2.2 Create a WebXone application with Delphi.

Take Delphi7 as an example

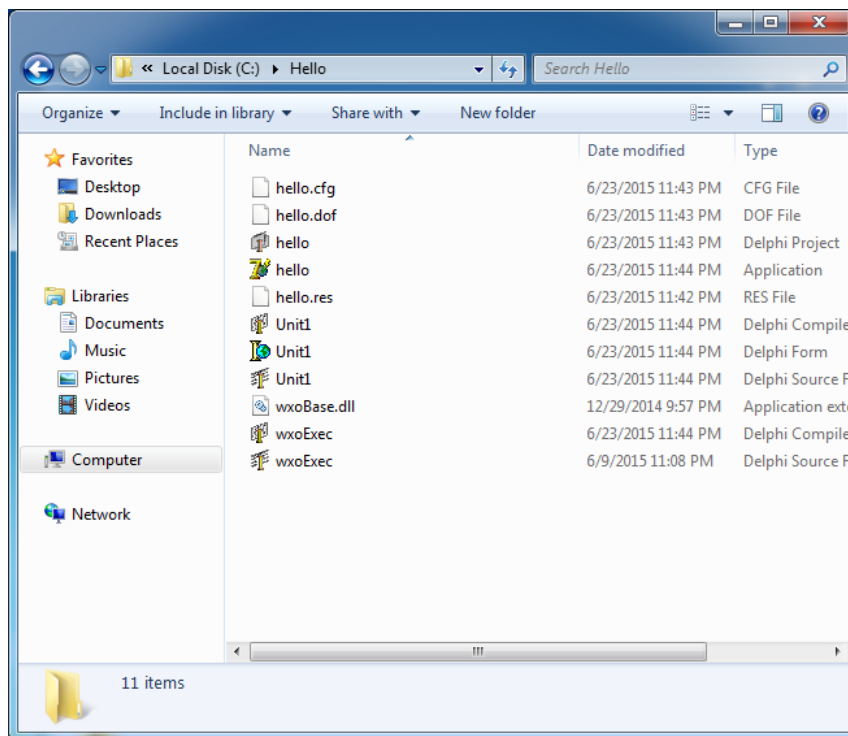
(1) New a common Delphi application

New an application, then put Label1 in form1 , and set the "Caption" as "Hello,WebXone!". Then save the project as "hello.dpr" and the file directory is C:\hello

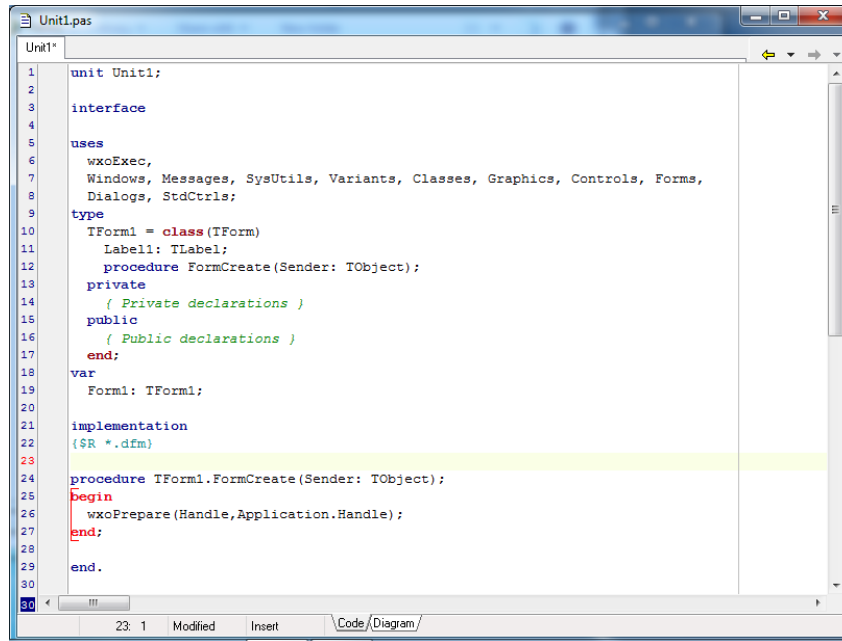


(2) Convert to WebXone application

Copy “wxoExec.pas” and “wxoBase.dll” in the “demos\public” directory of WebXone SDK to C:\hello\, as shown below.



Add references to wxoExec in unit1.pas , as shown below.



Then add wxoPrepare in the OnCreate procedure such as

```
procedure TForm1.FormCreate(Sender: TObject);
begin
  wxoPrepare(Handle, Application.Handle);
end;
```

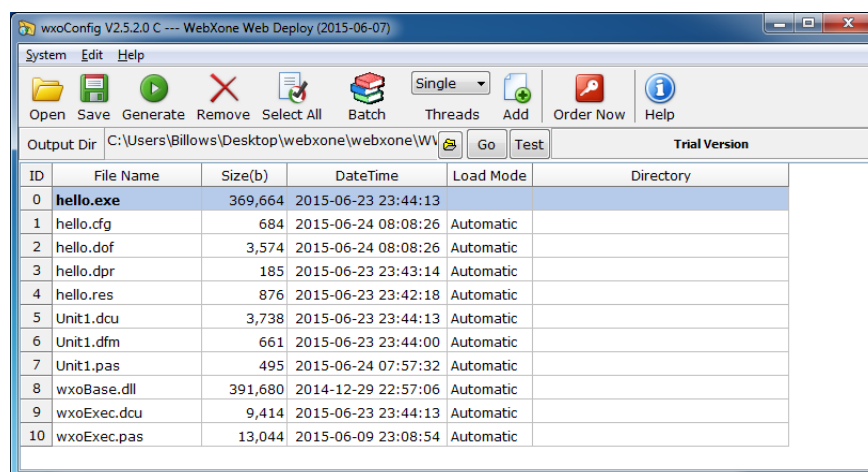
Then compile to EXE.

(3) Deploy to server

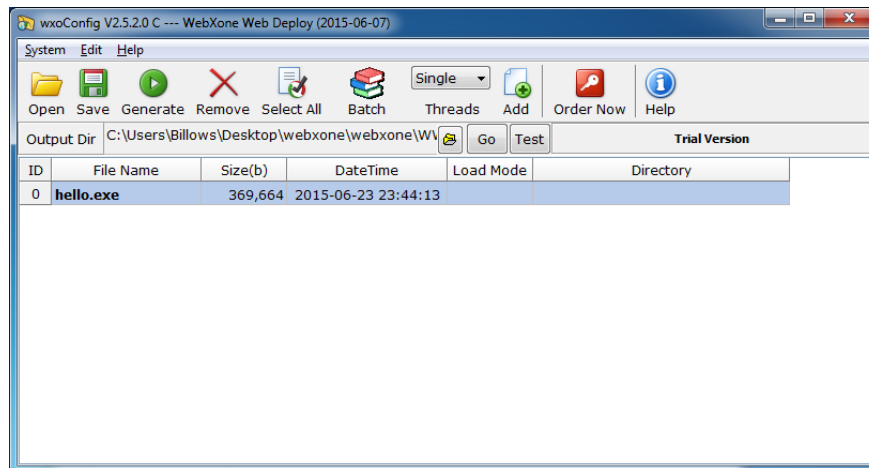
Run WXOConfig.exe in "WWW" directory in WebXone SDK

Choose output directory as C:\WWW.

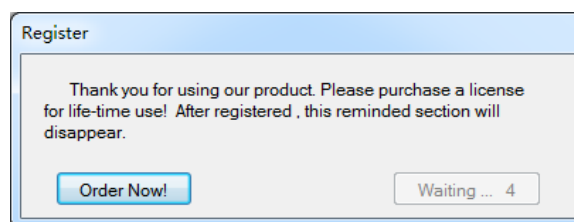
Open C:\hello\hello.exe, as shown in the picture



Selection menu: Edit->Select All, then: Edit->Remove, as shown in the picture



Then the menu is generated, a dialog box pops up, as shown below.



This is the dialog box for registration, and ignore it, wait for 5 seconds and click Continue. Now the deployment is finished.

2.3 Web access

Open IE, and input the following in the address bar

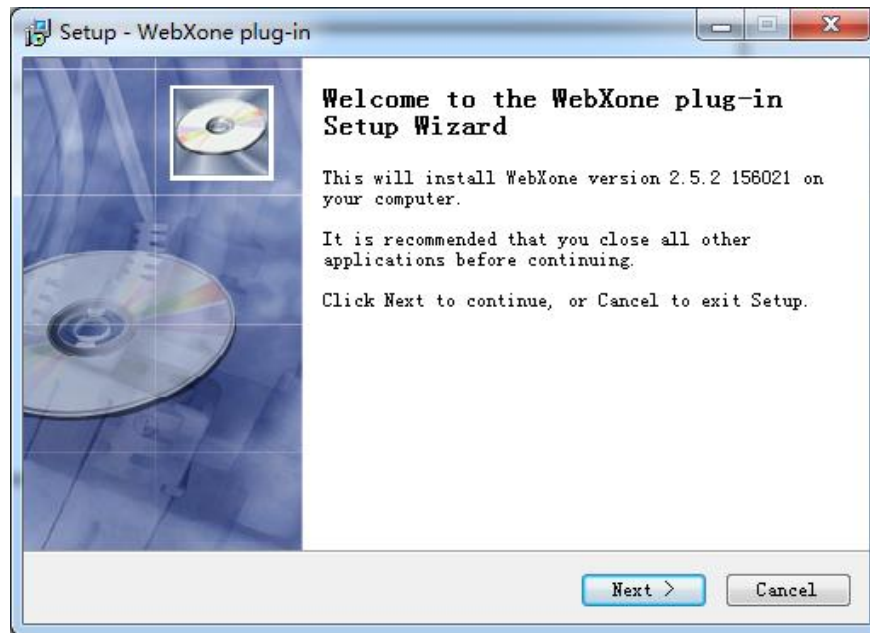
<http://localhost:8080/index.htm?hello>

Note : the port is 8080

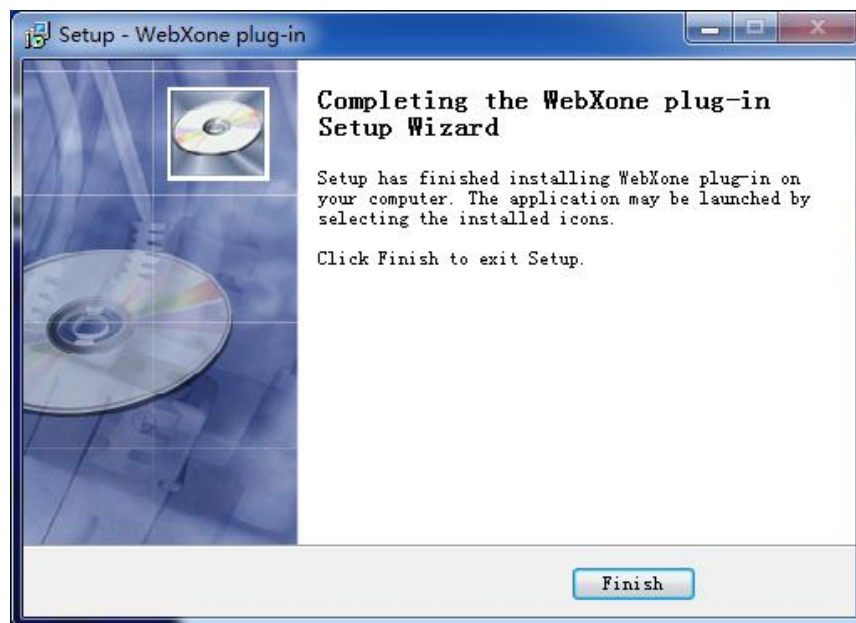
Now the installation interface of WebXone plug-in is supposed to appear.

Click "Download" download setup.exe and run it.

Click "Run"

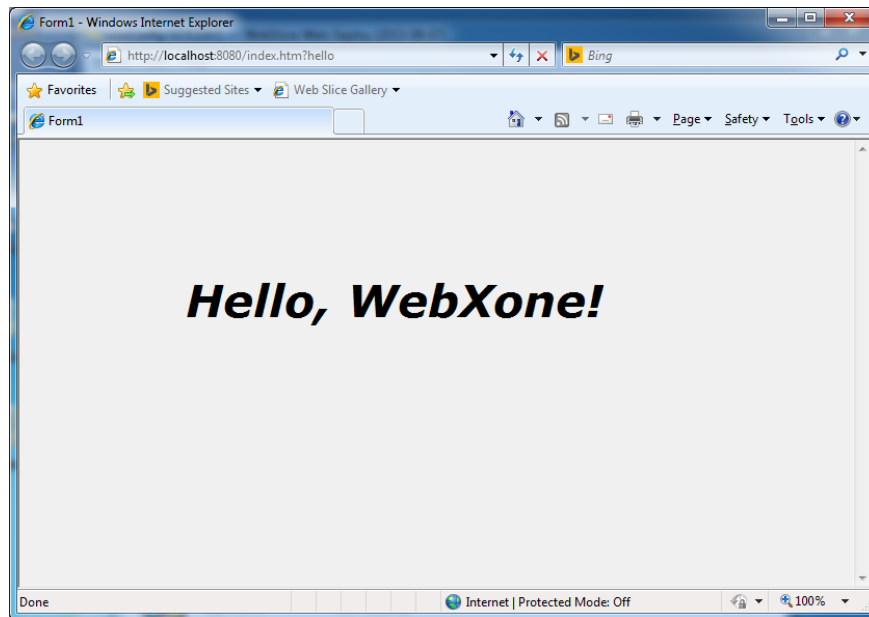


Click "Next"



Installation is finished, click "Finish", and refresh the page.

Now the program "Hello, WebXone!" written just now can be seen, as shown below



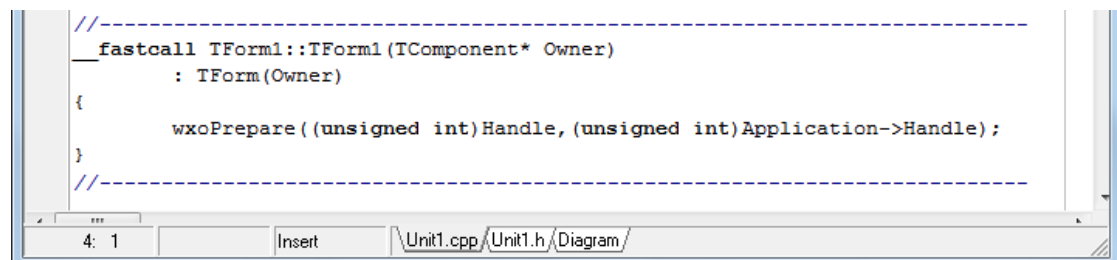
2.4 Apply C++ Builder to develop WebXone application

Take C++ Builder6 as an example to introduce the development process

- 1、 Run C++ Builder6 , menu File → New → Application, create an application and add a Label control. Set the caption as "Hello,World!". Save the file as unit1.cpp, the name of the project is cb.dpr;
- 2、 Copy wxoExec.cpp and wxoBase.dll in the public directory of WebXone SDK to the directory which cb.dpr is in.
- 3、 Menu :Project → Add to project, choose wxoExec.cpp;
Add references #include "wxoExec.cpp" in unit1.cpp
- 4、 Add codes in the OnCreate event

wxoPrepare((unsigned int)Handle,(unsigned int)Application->Handle);

As shown in the picture



The compile to exe. (flash across by F9 is normal)

- 5、 For further package deployment, please refer to relevant part in 2.2.

3. Support of the relevant system

3.1 the support of browsers

Support all browsers such as IE, Chrome, FireFox, Safari, Opera, etc.

3.2 the support of the client-side operating system

The client support Window 2000/Win 2003/Win Xp/Win7 32/Win7 64/Win8

Now the client does not support OS X、Linux and Android.

note: Win7/Win8 non-administrator users should close UAC.

3.3 support of development tools

Support Delphi (Delphi 5 ~ XE8)

Support C++Builder (CB 6 ~ XE8)

Support Visual C++

Delphi are recommended.

3.4 support of the server operating system

Server operating system supports all the operating systems including Windows, Linux, iOS.

3.5 support of the server service programs

The server support all the service programs including IIS, Apache and othe. The customized WebServ in the above document can be replaced.

3.6 Support of the database.

Support all the database systems.

3.7 Support of the middleware

Support alll the middlewares including RTC, RO.

4. Frequently asked questions

Can registered user have access to further update?

Answer: it's a lifetime license.

- **Is mobile platform enabled on client-side?**

Answer: no

- **Does the further update have a product support mobile platform?**

Answer: We are developing a new product name DeoWeb. The specific content and time is to be determined.

- **Can it be deployed in Linux server?**

Answer: Yes! WebXone site can be deployed in Linux server.

- **Does it support hundreds of people or more online together?**

Answer: Yes! Someone has developed a system supporting tens of thousands of clients based on WebXone.

- **Why does load fail and there is 126 error?**

Answer: Because some attached file are used in the application (such as DLL), but it does not exist on the client-side and requires to add this file when users package using WXOConfig.

- **How to package many files by WXOConfig (including some configuration files and dynamic link library) ?**

Answer: Copy WebXone application as well as other relevant files (such as configuration files,dll,etc) to a void directory and open the application(wox or exe) by WXOConfig, and generate it directly.

Note: Output directory is supposed to be web directory

- **How to pass parameters by URL?**

Answer: You can pass parameters by URL string.

Just an example

www.xxxxxxx.com/index.htm?id=ggg&&abcde.

The website will open the “ggg” application. The program can get URL string by `_wxoGetUrl` and parse it in the program.

Note:

1. “id=” is necessary!
2. Separator is “&&”

- **If the application is large, will run-up time be long because client-side has to load the application every time?**

Answer: The Intelligent compression loading mechanism WebXone applies load compressed programs and compresses it automatically when client-side have access to it for the first time. Afterwards if client-side has access to it, client-side compares the local files with server-side files automatically. If server-side files are not updated, there is no second upload.

- **Can WebXone have access to local port, and how about operating serial port or printer**

Answer: You can operate the local port including serial port, parallel port, USB, printer, etc.

- **How to amend page title?**

Answer: Through `wxoSetTitle`. Please see demo: Functions

- **How to close the page?**

Answer: Through `wxoClose`. Please see demo: Functions

- **Is MDI supported?**

Answer: Yes. Please see demo: MDI

- **How to shorten URL?**

Answer: If the application name is `default.wxo` or `default.exe` ,“?” as well as the following application name are not required to be added after employment and WebXOne web application can be visited directly, such as `http://www.athtek.com/webxone/demos.html`. If you want to shorten it further, you can have access to it through the configuration of IIS and Apache like `http://www.athtek.com/webxone/demo/`.

- **Is it supported to customize directory installation?**

Answer: Yes.

- **Is it supported to customize relevant information of setup.exe?**

Answer: Yes. The ordered users can get source code of setup.exe (inno setup), and can amend information such as the names of the plug-ins, developers, version number, etc. by yourself.

5. Recent update

2015-06-24 version 2.5.2.0

- 1 Support thread count when loading ...;
- 2 Add batch mode. it can speed up loading
- 3 Add wxoRunJS to run JavaScript in application;
- 4 Add wxoGetUrl/wxoShowModal/wxoMessageDlg/...
- 5 Some bug fixes

2013-11-01 version 2.4.0.0

- 1 Add the ability to implant EXE directly, and compatible with all the VCL controls completely (highly recommended).
- 2 Add the ability to support MDI.
- 3 Add the ability to exit automatically for W XO in exceptions (mainly aim at some browsers for the minority)
- 4 Update setup.exe, solve the problem of forgetting to exit the browser when updating.

2013-05-23 version 2.3.6.0

- 1 Add the ability to deal with exceptions when exit and compatible with VCL controls better.
- 2 Add the ability to run JavaScript.
- 3 Add the ability to deal with main window such as OnClose.
- 4 Add digital signature.
- 5 Solve the problem of 360 reporting virus.
- 6 Solve the bug that it is easily blocked when using FireFox.
- 7 Apply "MD5+size of the file+time" for duplication check and it is more stable.

2012-12-18 version 2.3.0.2

- 1 Compatible with all the mainstream browsers including IE, Chrome, FireFox, Safari and Opera;
- 2 Add the ability to embed automatically of non-main windows.
- 3 Cancel the registration restriction and all developers have free access to it and have no restrictions.
- 4 Add the lightweight server program WebServ to debug systems fast.
- 5 Add the attachment loading mode and add the "load not update" mode on the basis of original model;
- 6 Redesign wxoUnit, and make it more convenient and quick for transition from ordinary procedure to WebXone.
- 7 Apply MD5 to update verification and it is more scientific than the original size+time.

2012-06-20 version 2.2

1. Apply modular construction, and the system can be updated gradually.
2. Amend the loading directory to solve the requests of Oracle have for directories.

2012-03-27 version 2.1

1. Have free access to single W XO mode.
2. Have free access to applications which have less than 5 attached files.
3. Amend the registration mode and users can release applications for infinite times and development and deployment don not bind to computers.
4. Support customized installation interface (index.html source codes are supported)

2012-03-19 version 2.0

1. Add multi-annexfile deployment.
2. Add the ability to compressing load and increase the loading speed greatly.
3. Apply the intelligent loading technique and decrease the loading time for the second load to almost 0;
4. Test the third party control (such as cxGrid) further.

2011-12-10 Version 1.1

1. Add the demo such as Hello,World!
2. Solve the bug that directory can be generated.
3. Solve some unsuccessful LoadLibray bugs.

2011-11-21 Version 1.0

Achieve WebXone 1.0, and users can apply tools like Delphi generate web applications.

6. Protocol

An application including many files at one time can be released.

- Support multi file intelligent compress deployment
- Deploy package operation(WXOConfig.exe) can run in many computers;
- Have free access to the Delphi source code and controls of WebServ.exe;
- Have free access to innosetup-format source code of setup.exe;
- Have free access to one set of CRM source code;

An:

1. Win7 non-admin users close UAC

Input the following directly in operation:

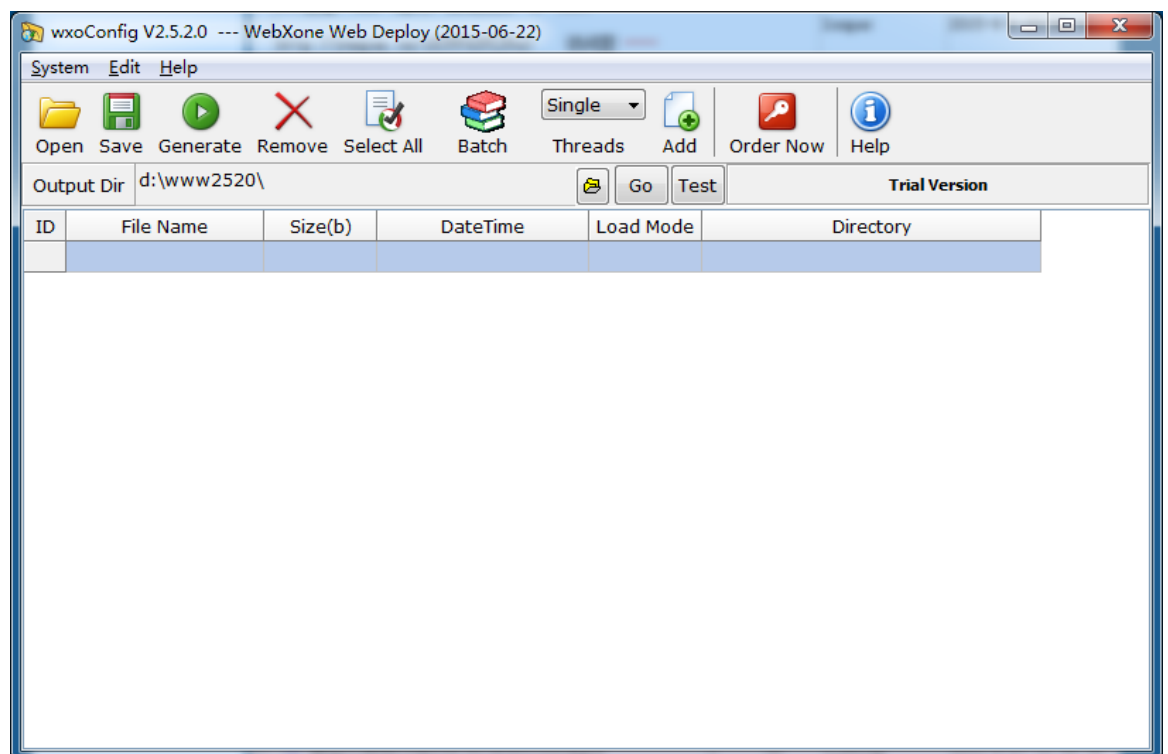
"C:\Windows\System32\UserAccountControlSettings.exe". The settings for UAC pops up directly and then choose "Never Notify". Some users are supposed to restart the computers.

2. Introduction of WebXone deploy tool: WXOConfig

WXOConfig is a tool to package and deploy WebXone application (processed .exe files) and it's attached files.

Basic operations:

- (1) Preparations: New a directory and copy all application files into the new directory;
- (2) * Execute WXOConfig.exe;



- (3) Choose the "Output Dir" you plan to output to including the directory "index.htm", "WebServ.exe" and "setup.exe";
- (4) * Choose the WebXone processed .exe file;
- (5) Manage attached files: Menu "Edit"--->"Delete" to delete the chosen attached files;
- (6) Configure attached files' mode: Menu "Edit"--->"Set current file Load" To configure the current attached files;
- (7) Choose load thread count: single ~ 5 threads;

- (8) Choose package mode : batch or not;
- (9) * Package and deploy: Menu "Generate" to finish.

*** Required!**