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Embedding Chrome in your C# App using CefSharp

**Robin Rodricks**

2 Sep 2016

[CPOL](#)

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Learn how to integrate the CefSharp open-source web browser into a C# WinForms app

Introduction

Ever tried to integrate a reliable and fast web browser in your app only to jump through hoops trying?

In this tip, you will learn how easy it is to integrate the fantastic [CefSharp](#) web browser component (based on [Chromium](#)) into your C# app.

You can then use this web browser:

- To give users an integrated browsing experience
- To add embedded UI programmed in HTML/JavaScript
- For web automation

CefSharp is reliable, fast, fully open-source and does not need any extra dependencies to be installed by end users (except VC++ Runtime 2013).

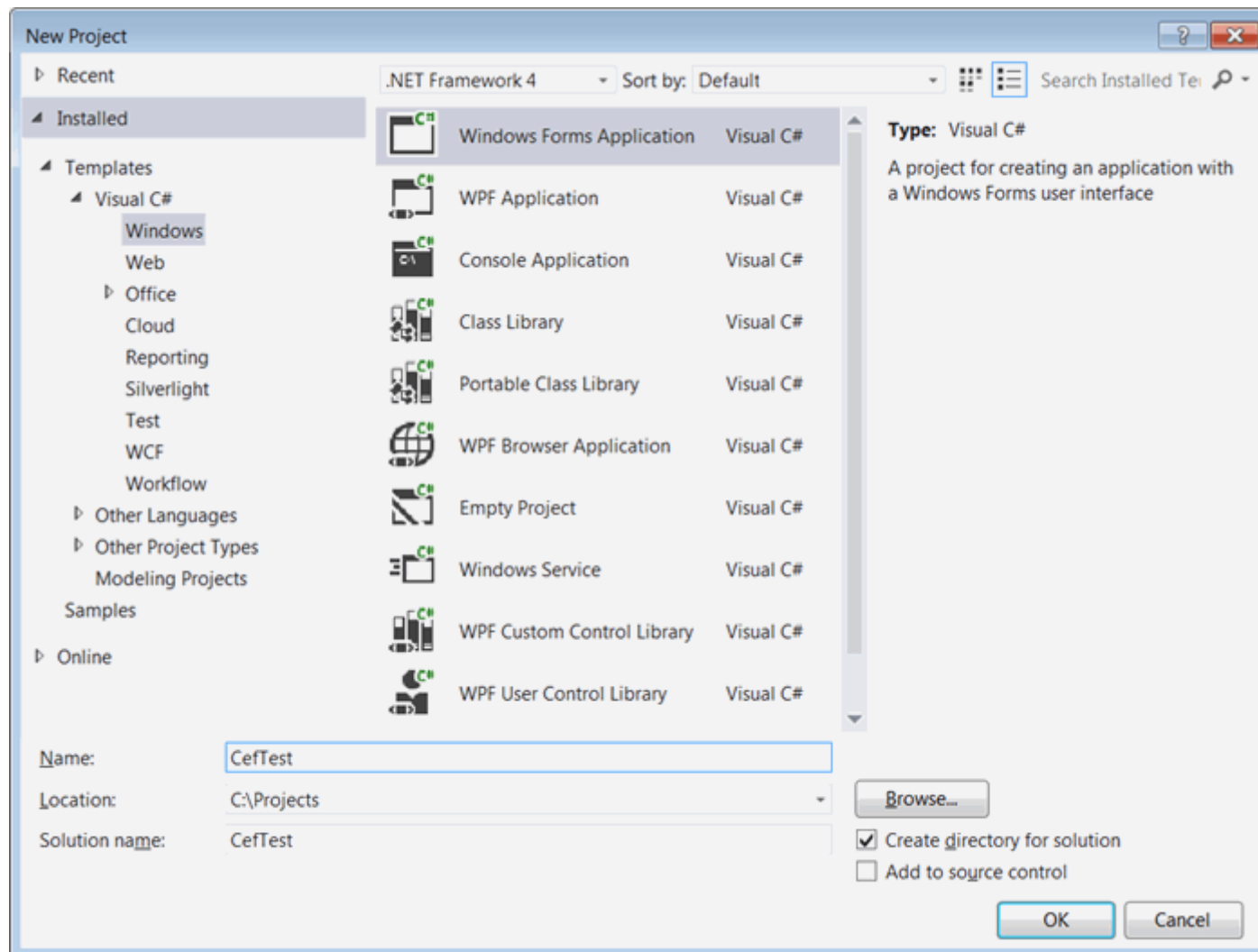
In this guide, we will use a WinForms project but CefSharp works equally well with WPF projects.

Getting Started

Follow these steps to quickly get started with CefSharp.

Project

1. Create a Windows Forms Application (C#) project with .NET 4.5.2
2. Name your project (e.g. "CefTest")



DLLs (NuGet Method)

3A) If you use [NuGet](#), you can just grab [CefSharp.WinForms](#) from the NuGet repository, and skip the manual method below.

3B) If you used NuGet, navigate to **SOLUTION > Configuration Manager** and set your project to x86 or x64 since AnyCPU is not currently supported.

DLLs (Manual Method)

PLEASE SKIP THIS SECTION IF YOU USED NUGET!

3A) Download the CefSharp binaries and unzip them.



CefSharp v51 x86 (for 32-bit apps)



CefSharp v51 x64 (for 64-bit apps)

3B) Right click your project & click "Add Reference", then "Browse".

3C) Select these DLLs:

- *CefSharp.dll*
- *CefSharp.Core.dll*
- *CefSharp.WinForms.dll*

3D) Select all the files in the ZIP:

3E) Copy those files into your Project's *Debug* folder (inside *Bin*):

Code

4. Right click your main form and select "View Code".

5. Add the following code:

Copy this into your **import** section:

C#

Copy Code

```
using CefSharp;  
using CefSharp.WinForms;
```

Copy this into your code section:

C#

Copy Code

```
public ChromiumWebBrowser browser;  
public void InitBrowser(){  
    Cef.Initialize(new CefSettings());  
    browser = new ChromiumWebBrowser ("www.google.com");  
    this.Controls.Add(browser);  
    browser.Dock = DockStyle.Fill;  
}
```

Call **InitBrowser()** just after the call to **InitializeComponent()**:

C#

Copy Code

```
InitBrowser()
```

Your code should finally look like this:

Run!

6. Press F5 and you will see the Google homepage!

Troubleshooting



An unhandled exception of type 'System.IO.FileNotFoundException' occurred in browser.exe
Additional information: Could not load file or assembly 'CefSharp.Core.dll' or one of its dependencies.

If you get this error, ensure you have **Visual C++ 2013 Redistributable** installed.



An unhandled exception of type 'System.BadImageFormatException' occurred in browser.exe
Additional information: Could not load file or assembly 'CefSharp.Core, Version=43.0.0.0, Culture=neutral,

If you get this error, it means you are on a 64-bit PC and your app is built in AnyCPU mode. You need to change this to x86 or x64 mode:

1. Open the **Solution Explorer** panel
2. Right click your project > **Project Properties**
3. Click on the **Build** tab
4. Change **Platform target** to **x86 or x64**

Full Featured Browsers

If you are looking for a full-featured browser project, then check out these **open source browsers built with CefSharp in C#**.

WebExpress

WPF. Address Bar with Suggestions, Multiple tabs, Downloads, Bookmarks, History.

<screenshot not provided by author>

SharpBrowser

Windows Forms. Address Bar, Multiple tabs, Downloads.

History

- V1.0 - Published the article on Nov 23rd, 2015
- V1.1 - Added troubleshooting guide on Nov 25th, 2015
- V1.2 - Added NuGet guide and VS project ZIP on Nov 26th, 2015
- V1.3 - Added troubleshooting tip for 64-bit PCs on Aug 6th 2016
- V1.4 - Updated to CefSharp v51, and .NET 4.5.2 on Aug 28th 2016
- V1.6 - Added SharpBrowser and WebExpress projects on Sep 2th 2016

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Thank you

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12-Jun-21 1:33

What is Cef

FatihTAN

21-Oct-19 2:36

Re: What is Cef

Prashant. B. Chavan

30-Oct-19 3:05

I am trying in vs2015 Community it is not showing properly

Member 14549619

5-Sep-19 0:50

after setup getting error

sandipbh

8-Jul-19 3:35

Simply does not work

JohnHolliday

21-Dec-18 12:44

can not run

Member 11497050

7-Nov-17 9:18

Is there any alternative of webkitSpeechRecognition? its not working.

Dilip Mevada

12-Oct-17 2:02

How to enable microphone? in cefsharp for c# or vb.net

Member 12851601

20-Aug-17 4:53

App is not getting open in Client System

Member 13102140

11-Jul-17 4:23

App run but nothing

dovper

26-Apr-17 4:08

How to open multiple ChromiumWebBrowsers?

LiQuick

24-Jan-17 21:38

How to disabled update information?

Augustyniak

8-Jan-17 3:53

Use cefSharp in an ASP MVC App

Hedi Sangoku

8-Nov-16 10:00

Installed using Nuget but getting error

ehsan_kayani1986

26-Oct-16 21:15

Re: Installed using Nuget but getting error

ehsan_kayani1986

27-Oct-16 1:52


Resizing issue

Schubbard

31-Aug-16 0:27

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31-Aug-16 2:29

 [Re: Resizing issue](#)  Robin Rodricks

2-Sep-16 19:54

 [Re: Resizing issue](#)  Schubbard


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