

How to Install TraceLab and Build your first Component in Visual Studios

Prerequisite: Have a Windows Operating System. If your computer is not already in Windows, this can be done a couple of ways.

1. VirtualBox <https://www.virtualbox.org/> (free)
2. Bootcamp <https://support.apple.com/boot-camp> (free)
3. Parallels <https://www.parallels.com/> (\$79.99)

Part 1: Installing TraceLab

Step 1: Go to <https://github.com/CoEST/TraceLab> or Google 'GitHub TraceLab'

Step 2: Scroll down to the files and select "OldTraceLabInstaller" (in yellow)

TraceLab - Software Traceability Instrument to Facilitate and Empower Traceability Research and Technology Transfer

13 commits

6 branches

0 releases

3 contributors

GPL-3.0

Branch: master

New pull request

Find file

Clone or download

omarzohdi Updated Documentation

Latest commit a9c74bd on Oct 17, 2016

Main

Updated Documentation

a year ago

LICENSE

Initial commit

4 years ago

OldTraceLabInstaller

Create OldTraceLabInstaller

a year ago

README.md

Update README.md

3 years ago

Step 3: Open up the link located on the second line (in yellow)

CoEST / TraceLab

Watch 15 Star 15 Fork 14

Code Issues 9 Pull requests 0 Projects 0 Wiki Insights

Branch: master TraceLab / OldTraceLabInstaller Find file Copy path

JaneClevelandHuang Create OldTraceLabInstaller f53ebc3 on Jun 8, 2016

1 contributor

5 lines (3 sloc) 186 Bytes Raw Blame History

```
1 You can download the previous TraceLab installer from here:
2 https://www.dropbox.com/sh/s06a7cvmdoo305/AACvPa3bLC00Yj8zTaLw5N0ga?dl=0
3
4 No key required. Just download. Click.... and go!
```


Step 4: Click on download in the Dropbox page, and wait for the file to be downloaded

TraceLab Installer.msi Sign in Download ...

Comments

Write a comment

Post a comment to start a discussion.
@Mention someone to notify them.



.msi files can't be previewed
TraceLab Installer.msi · 71.26 MB

Download

Step 5: After it is done, open up the download wizard and follow the instructions

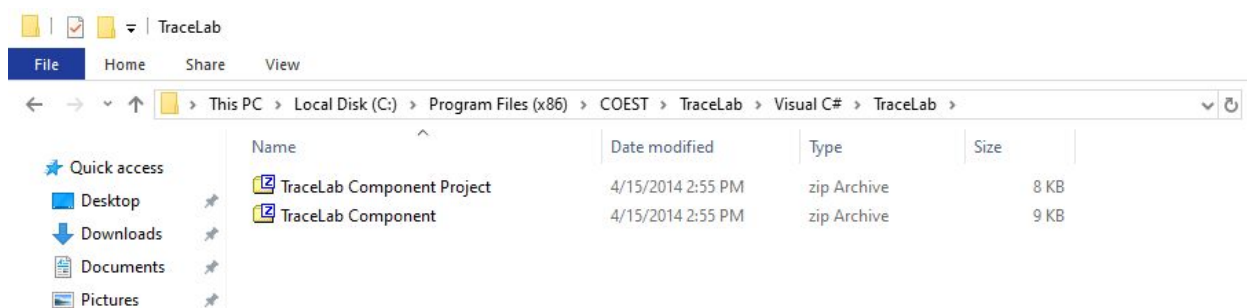
TraceLab is now installed!



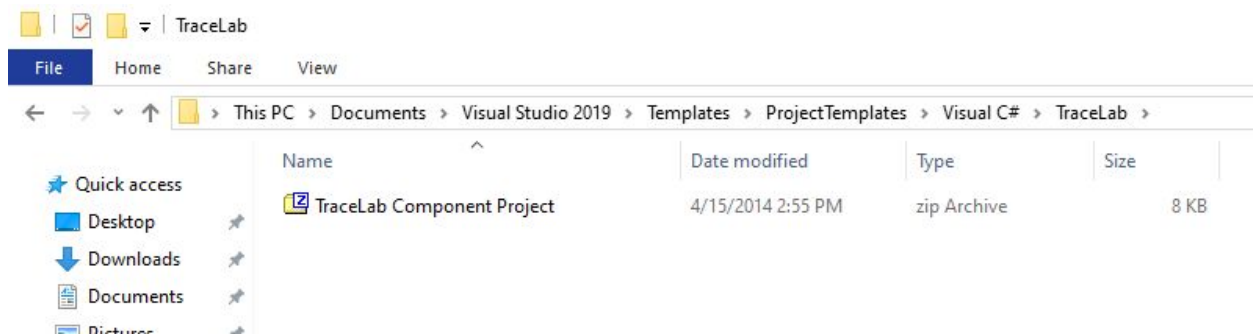
Part 2: Building a Component

Prerequisite: Install Visual Studio IDE <https://visualstudio.microsoft.com/vs/> (Community 2019 is the free tier)

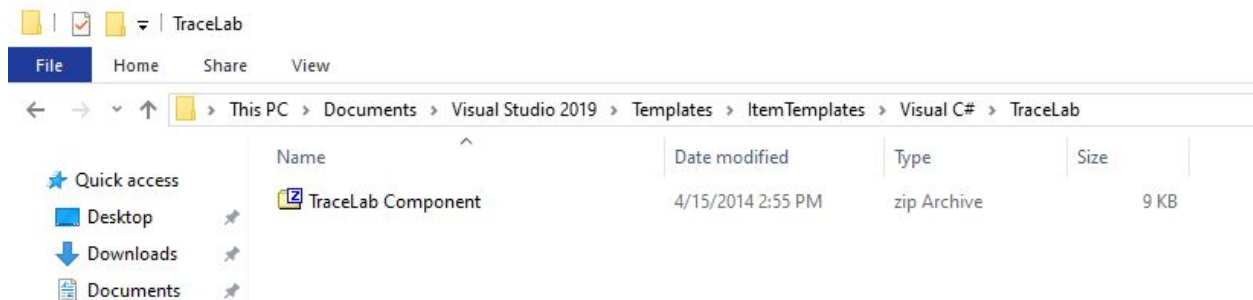
Step 1: Once Visual Studio is installed we need to rearrange some files, the location may vary depending on where it was installed but you'll need to Navigate to `.../COEST/TraceLab/Visual C#/TraceLab` (highlighted in blue)



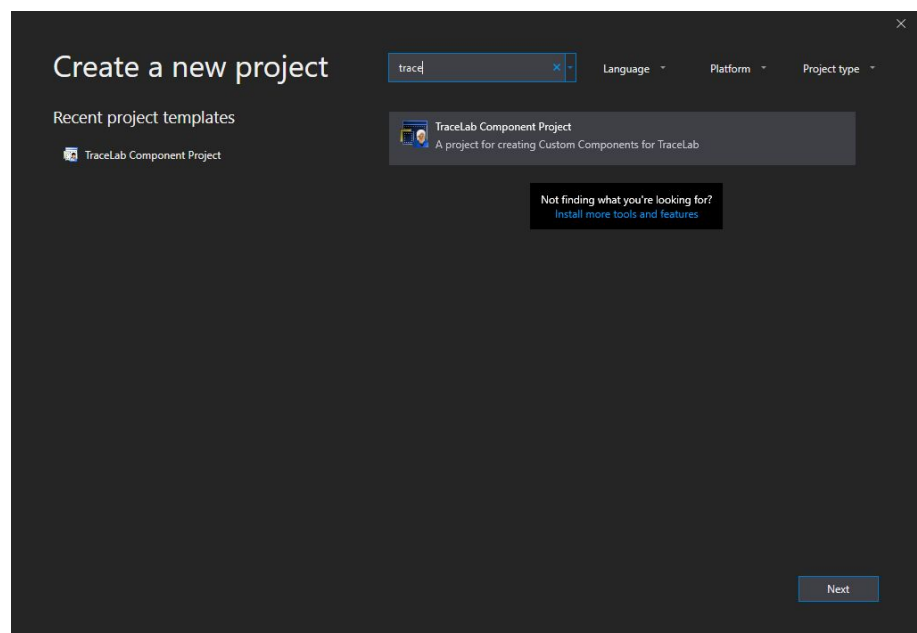
Step 2: Now navigate in your files to ...\\Visual Studio 2019\\Templates\\ProjectTemplates\\Visual C#\\TraceLab\\TraceLab Component Project.zip and Copy and Paste the TraceLab Component Project.zip here.



Step 3: Now navigate to ...\\Visual Studio 2019\\Templates\\ItemTemplates and PASTE the same Visual C# folder here.



Step 4: Open the Visual Studio IDE, go to **File -> New Project**. A screen pops up and under Visual C# there should now be a TraceLab option under C#. Select **TraceLab Component Project**, hit next, name your component, and click **Create**.



Configure your new project

TraceLab Component Project

Project name
MyFirstComponent

Location
C:\Users\anton\source\repos

Solution name ⓘ
MyFirstComponent

☐ Place solution and project in the same directory

Back Create

Step 5: The next step will have to be done **every time** you're creating a new component.

- a) Locate your TraceLabSDK location, this should be under
... \COEST\TraceLab\lib\TraceLabSDK.dll
- b) Locate your TraceLabSDK.Types location, this should be under
... \COEST\TraceLab\Types\TraceLabSDK.Types.dll
- c) Set your Output Directory to be wherever on your computer
... \TraceLab\Components is, this will have to be typed or pasted and will not
show up under Browse

Form1

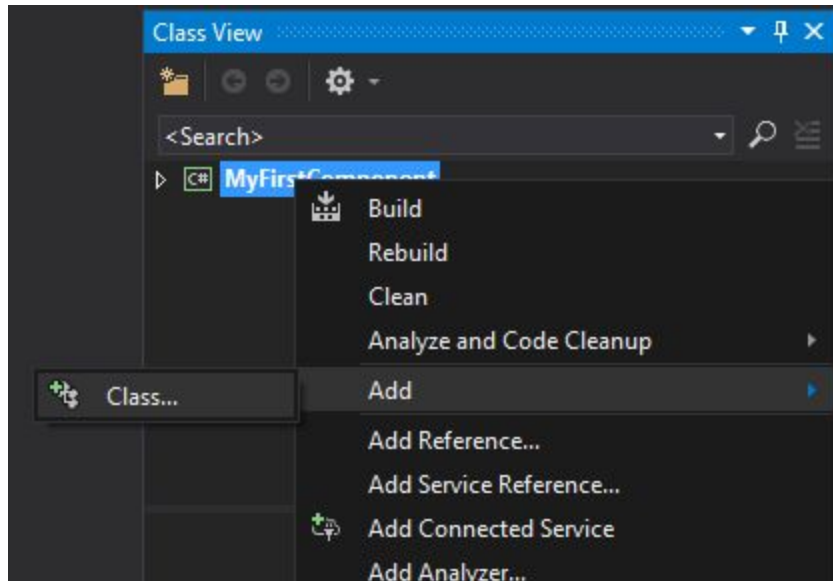
Project Setup

TraceLabSDK Location
C:\Program Files (x86)\COEST\TraceLab\lib\TraceLabSDK.dll Browse...

TraceLabSDK.Types Location
C:\Program Files (x86)\COEST\TraceLab\Types\TraceLabSDK.Types.dll Browse...

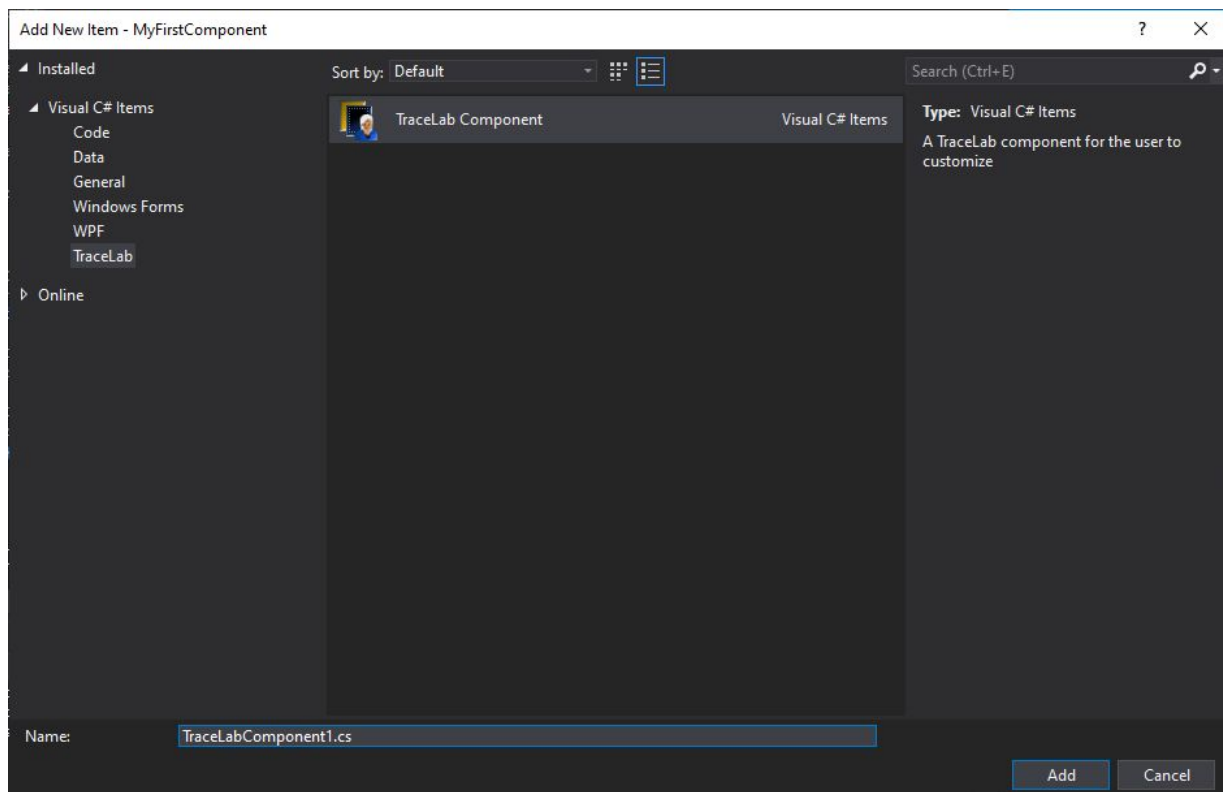
Output Directory
C:\Users\anton\Documents\TraceLab\Components Browse...

Ok

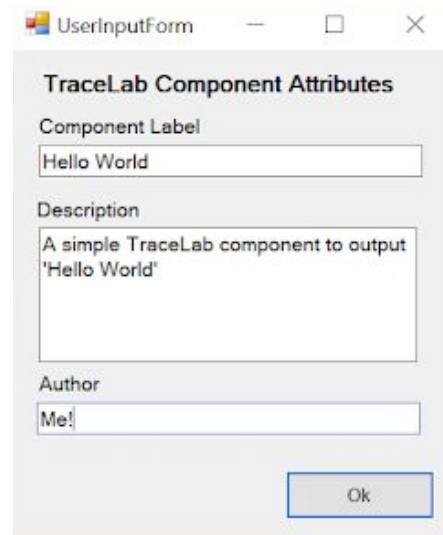


Step 6: A loading screen will appear while your component is being created. Once it is made, go over to Class View, **right click** on MyFirstComponent, go down to Add, and click Class

Step 7: A new window appears, under Visual C# Items, select TraceLab, click TraceLab Component, name your Class, then click Add.

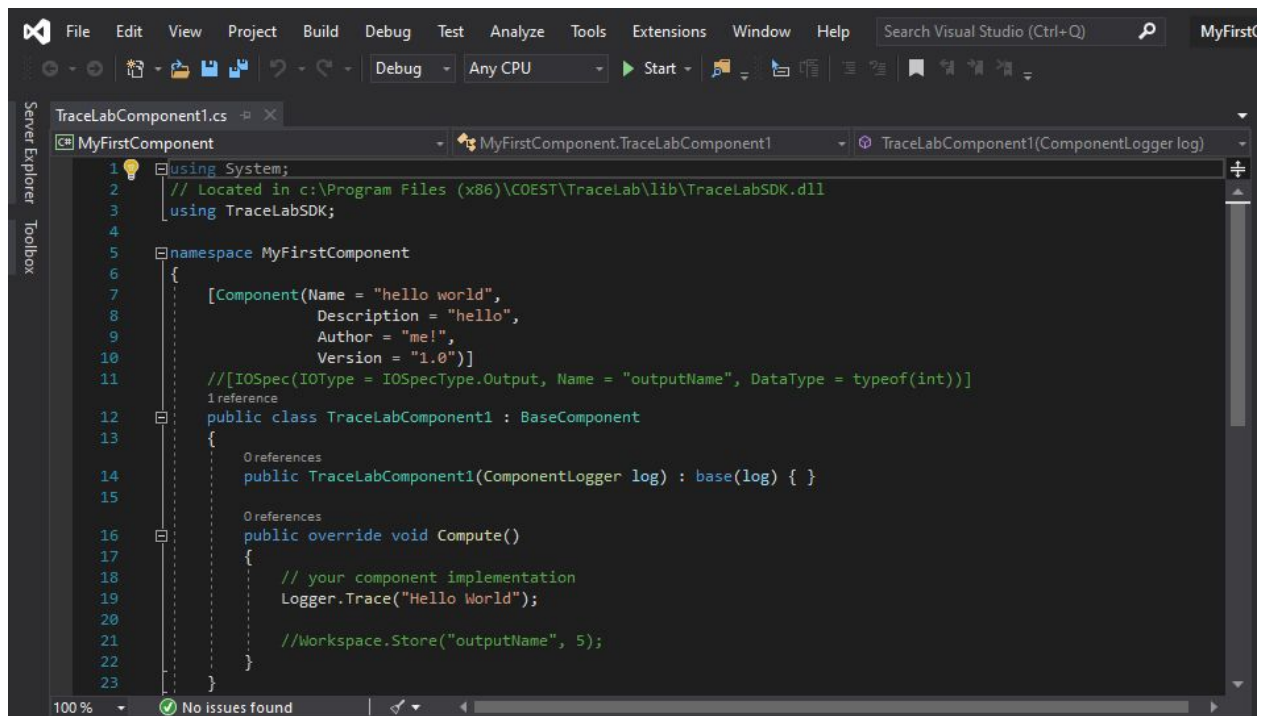


Step 8: A UserImportForm appears, giving you the option to fill out the following information, click Ok.



The image shows a Windows dialog box titled "UserInputForm". It contains a section titled "TraceLab Component Attributes". Inside this section, there are three input fields: "Component Label" with the text "Hello World", "Description" with the text "A simple TraceLab component to output 'Hello World'", and "Author" with the text "Me!". At the bottom right of the dialog is an "Ok" button.

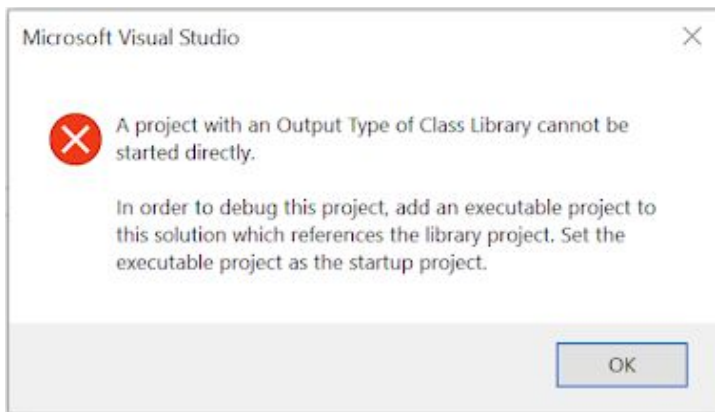
Step 9: Congrats! Your first TraceLab Component is created! Just a few more steps. Click the green start arrow in the menu bar.



The image shows the Visual Studio code editor with the file "TraceLabComponent1.cs" open. The code is as follows:

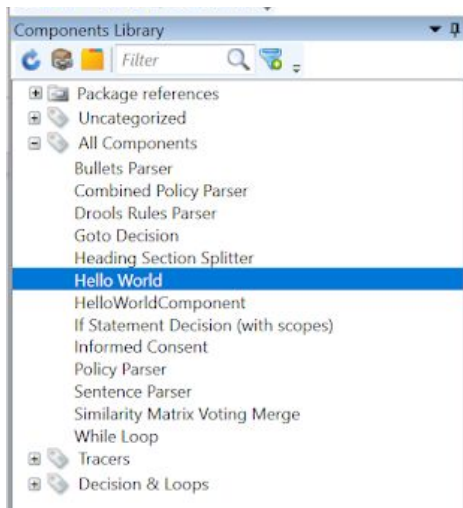
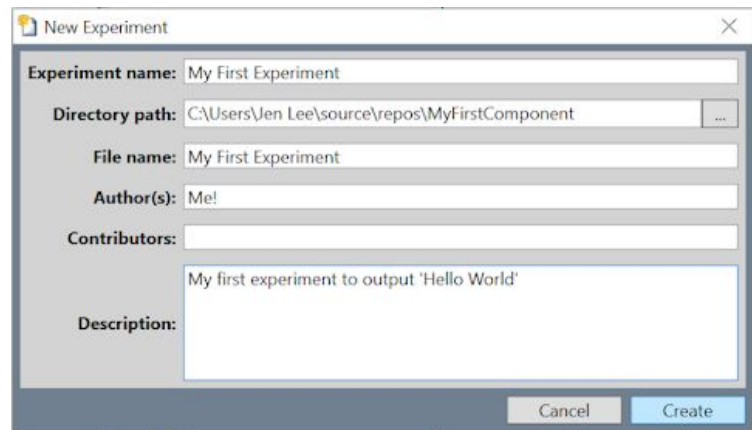
```
1 using System;
2 // Located in c:\Program Files (x86)\COEST\TraceLab\lib\TraceLabSDK.dll
3 using TraceLabSDK;
4
5 namespace MyFirstComponent
6 {
7     [Component(Name = "hello world",
8               Description = "hello",
9               Author = "me!",
10              Version = "1.0")]
11     //[[IOSpec(IOType = IOSpecType.Output, Name = "outputName", DataType = typeof(int))]
12     public class TraceLabComponent1 : BaseComponent
13     {
14         //References
15         public TraceLabComponent1(ComponentLogger log) : base(log) { }
16
17         //References
18         public override void Compute()
19         {
20             // your component implementation
21             Logger.Trace("Hello World");
22
23             //Workspace.Store("outputName", 5);
24         }
25     }
26 }
```

The status bar at the bottom indicates "100 % No issues found".



Step 10: You will receive this warning, but don't worry about it. This just means that the component cannot run in Visual Studio, but it should now be created in TraceLab

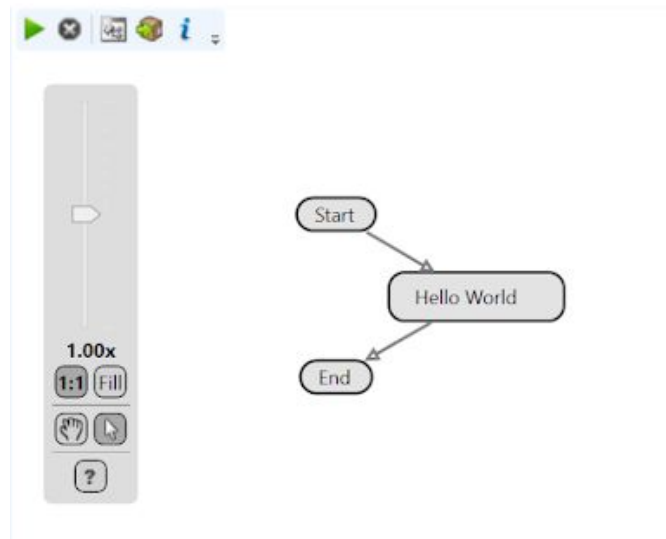
Step 11: Open TraceLab and create a New Experiment (in the top left corner). Fill out the form to create a New Experiment and click Create



Step 12: Our new component should appear in the Components Library. It will have the same name as the Component Label you chose in Step 8. If not, take the following steps:

- a) Click the blue refresh arrow
- b) If it still isn't there, your component was not saved to correct Output Directory in Step 5. Search in your files for `MyFirstComponent.dll` and move it into `...\TraceLab\Components`
- c) Click the blue refresh arrow again

Step 13: Drag your new component into the experiment window on the right. Drag the arrow from Start to your component and the arrow from your component to End before clicking the green Run arrow.



Congrats! You should now see a new message saying 'Hello World' in the Output window and have successfully created your first experiment!

Severity	Source	Message
Info	TraceLab.TraceLabApplication	Reading components from: C:\Program Files (x86)\COEST\TraceLab\Components\
Info	TraceLab.TraceLabApplication	Reading components from: C:\Users\Jen Lee\Documents\TraceLab\Components\
Trace	Hello World	Hello World