

# 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.

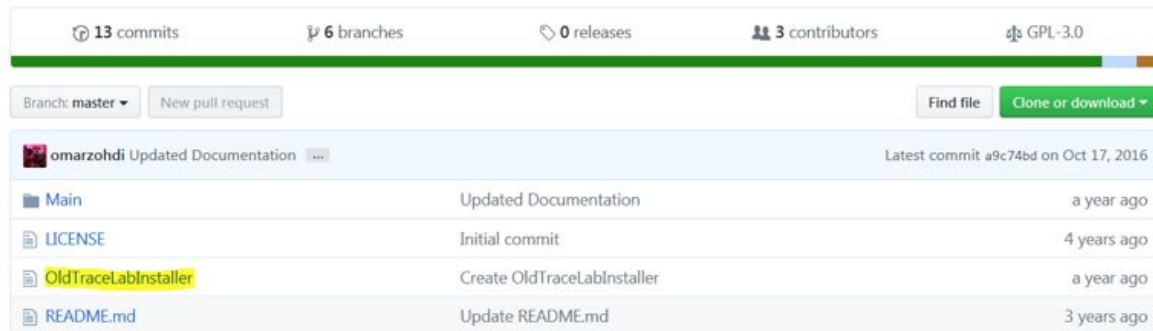
1. VirtualBox <https://www.virtualbox.org/> (free)
2. Bootcamp <https://support.apple.com/boot-camp> (free)
3. Parallels <https://www.parallels.com/> (\$79.99)

## 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



Branch: master | New pull request | Find file | Clone or download

File	Commit Message	Time
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

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Branch: master TraceLab / OldTraceLabInstaller Find file Copy path

JaneClevelandHuang Create OldTraceLabInstaller #53ebc3 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/s06a7cvvmdoo305/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

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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

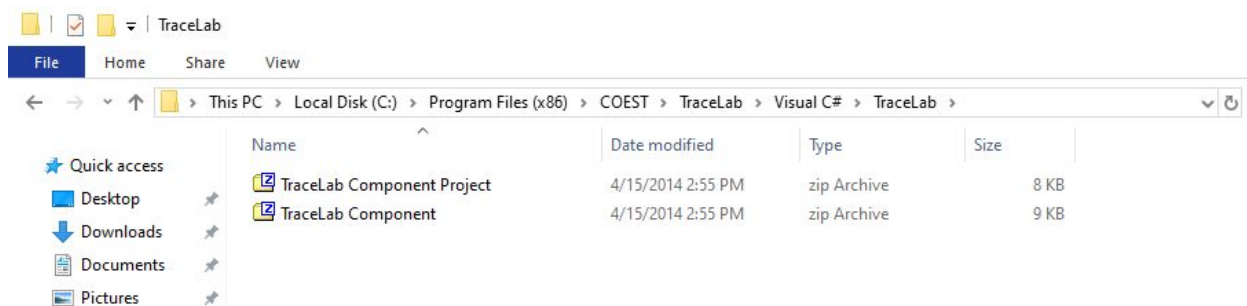
**TraceLab is now installed!**



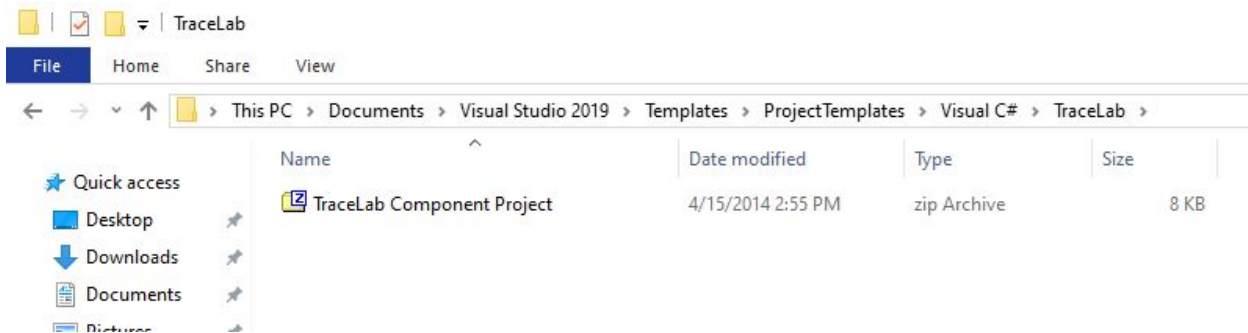
## Part 2: Building a Component

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

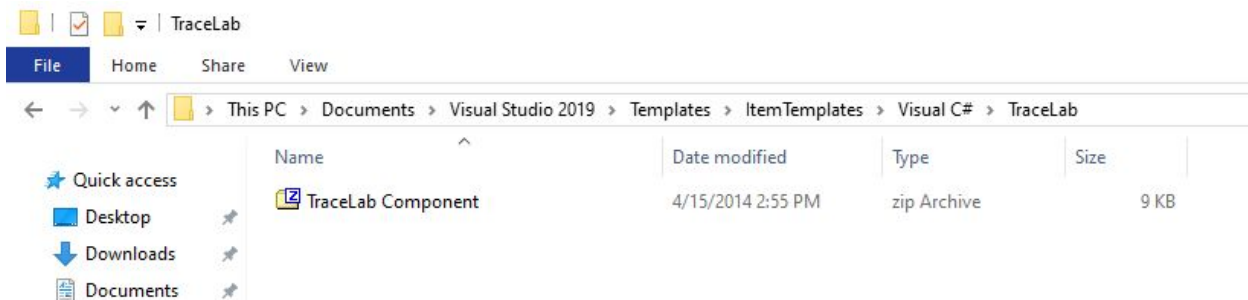
**Step 1:** Once Visual Studio is installed we need to rearrange some files, the location may vary depending on where it was installed but you'll need to Navigate to `.../COEST/TraceLab/Visual C#/TraceLab` (highlighted in blue)



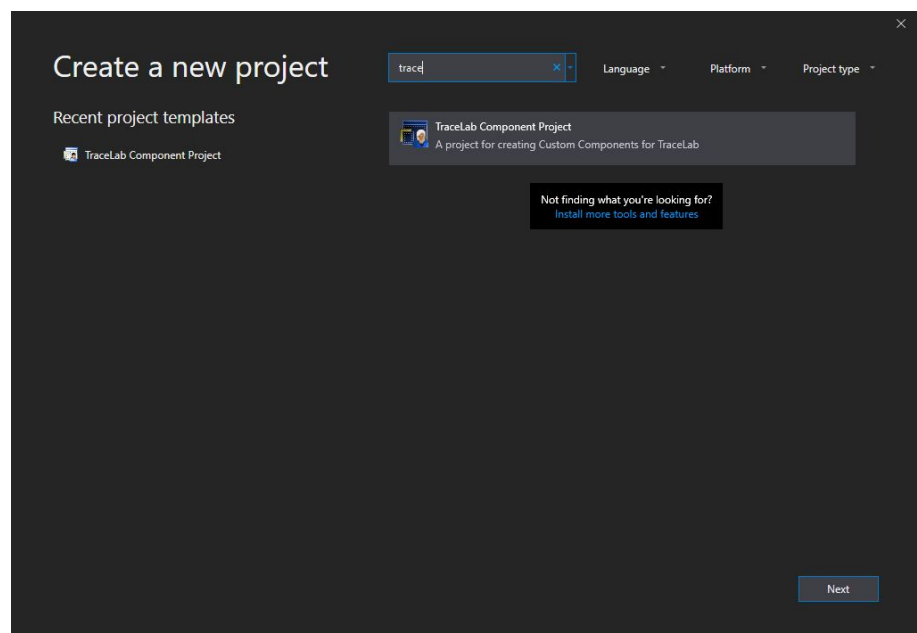
**Step 2:** Now navigate in your files to ...\Visual Studio 2019\Templates\ProjectTemplates\Visual C#\TraceLab\TraceLab Component Project.zip and Copy and Paste the TraceLab Component Project.zip here.

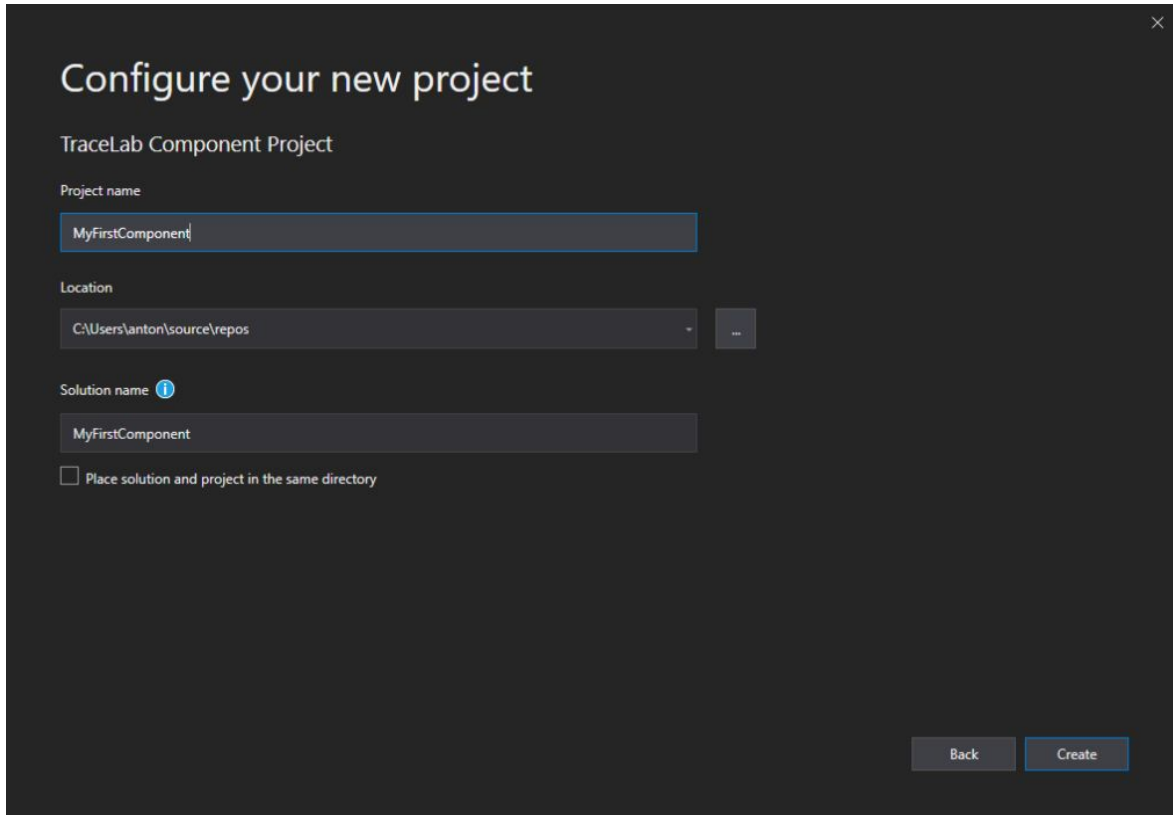


**Step 3:** Now navigate to ...\Visual Studio 2019\Templates\ItemTemplates and PASTE the same Visual C# folder here.



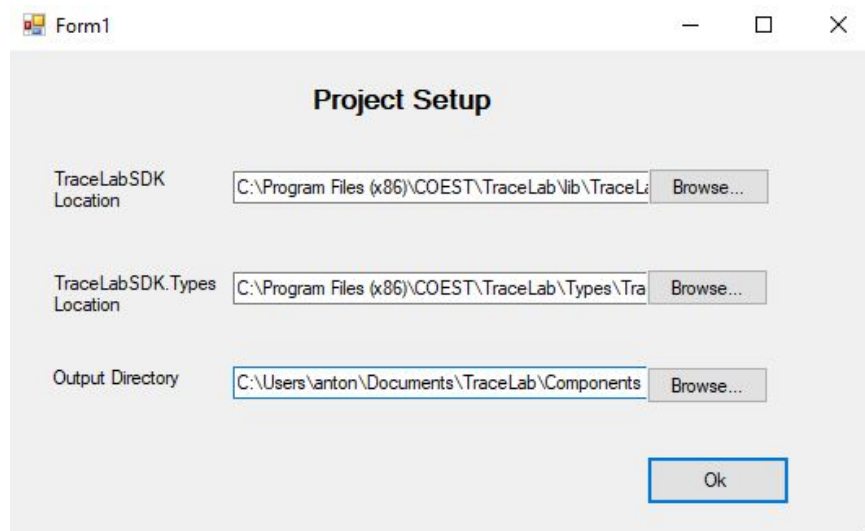
**Step 4:** Open the Visual Studio IDE, go to **File -> New Project**. A screen pops up and under Visual C# there should now be a TraceLab option under C#. Select **TraceLab Component Project**, hit next, name your component, and click **Create**.

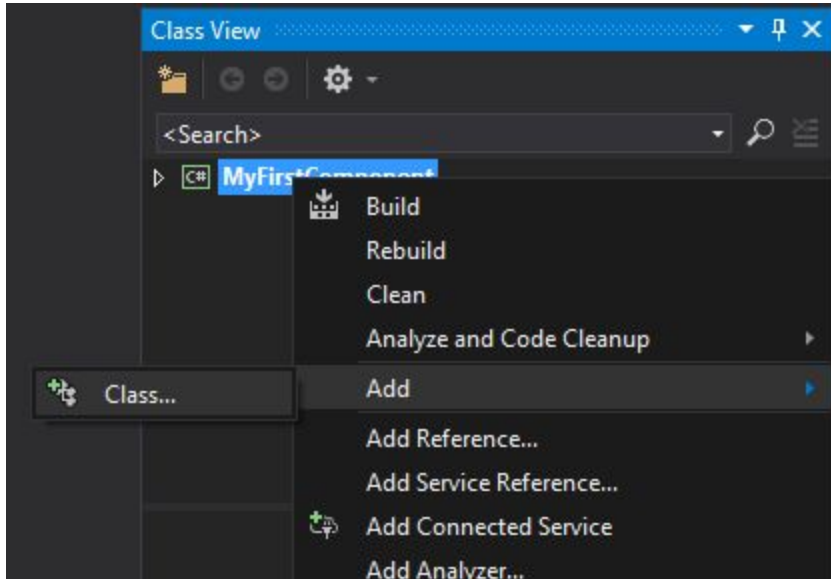




**Step 5:** The next step will have to be done **every time** you're creating a new component.

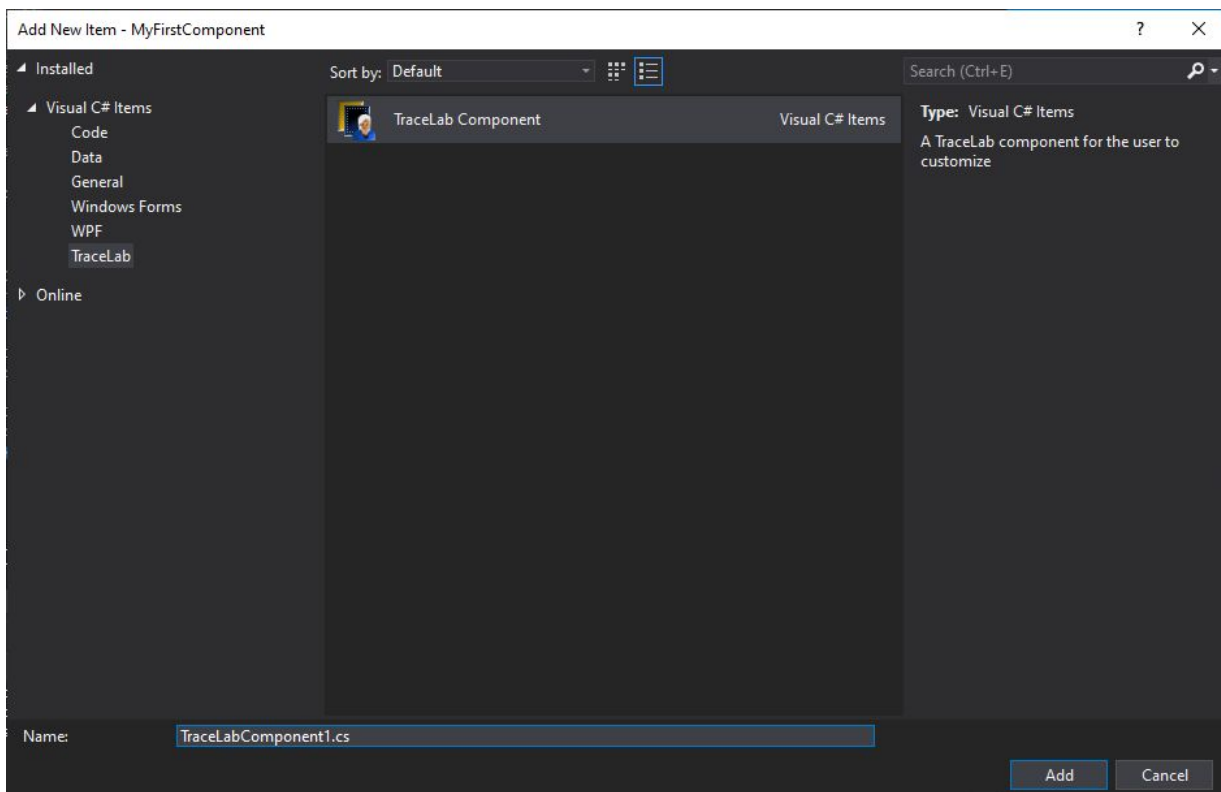
- a) Locate your TraceLabSDK location, this should be under  
... \COEST\TraceLab\lib\TraceLabSDK.dll
- b) Locate your TraceLabSDK.Types location, this should be under  
... \COEST\TraceLab\Types\TraceLabSDK.Types.dll
- c) Set your Output Directory to be wherever on your computer  
... \TraceLab\Components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



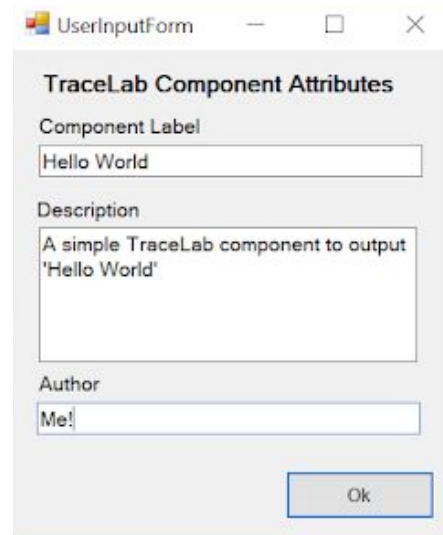


**Step 6:** A loading screen will appear while your component is being created. Once it is made, go over to Class View, **right click** on MyFirstComponent, go down to Add, and click Class

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

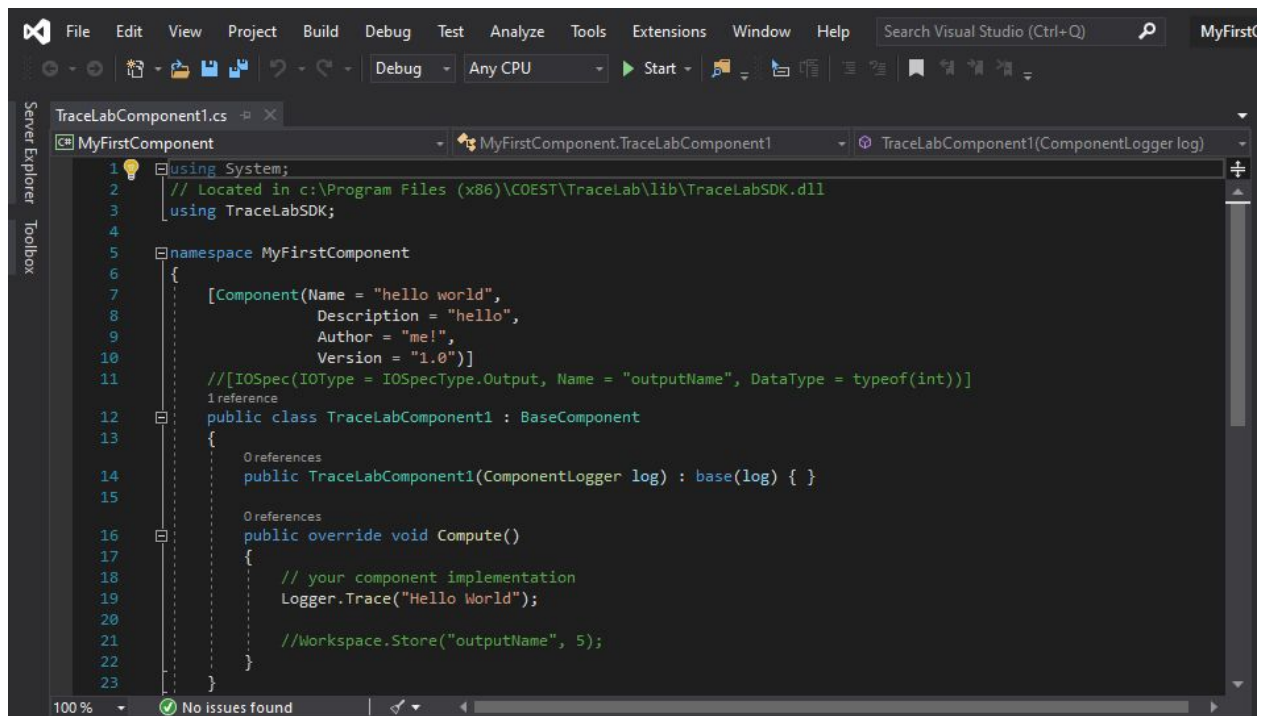


**Step 8:** A UserImportForm appears, giving you the option to fill out the following information, click Ok.

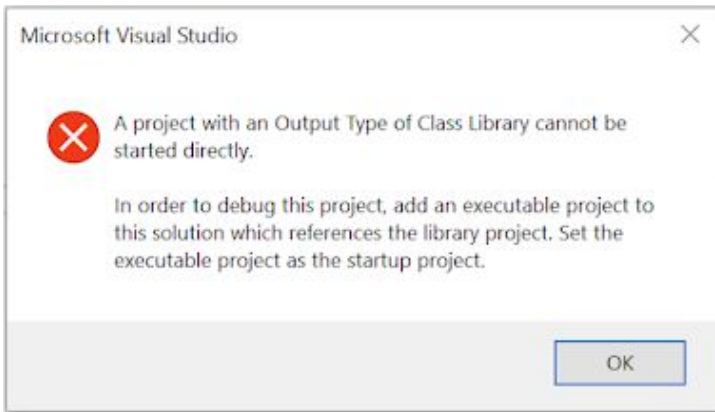


The image shows a dialog box titled "UserInputForm" with the subtitle "TraceLab Component Attributes". It contains three text input fields: "Component Label" with the text "Hello World", "Description" with the text "A simple TraceLab component to output 'Hello World'", and "Author" with the text "Me!". An "Ok" button is located at the bottom right of the dialog.

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

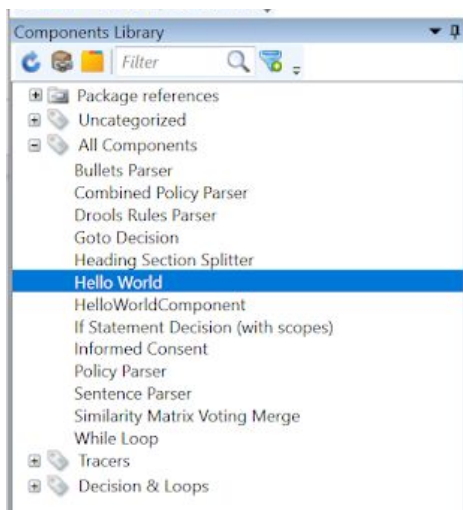
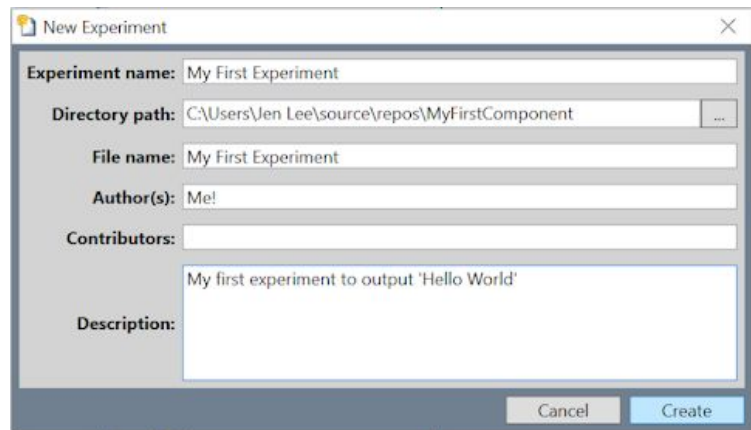


```
1 using System;
2 // Located in c:\Program Files (x86)\COEST\TraceLab\lib\TraceLabSDK.dll
3 using TraceLabSDK;
4
5 namespace MyFirstComponent
6 {
7     [Component(Name = "hello world",
8               Description = "hello",
9               Author = "me!",
10              Version = "1.0")]
11     //[[IOSpec(IOType = IOSpecType.Output, Name = "outputName", DataType = typeof(int))]
12     public class TraceLabComponent1 : BaseComponent
13     {
14         0 references
15         public TraceLabComponent1(ComponentLogger log) : base(log) { }
16
17         0 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 }
```



**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:

- Click the blue refresh arrow
- 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`
- Click the blue refresh arrow again



