

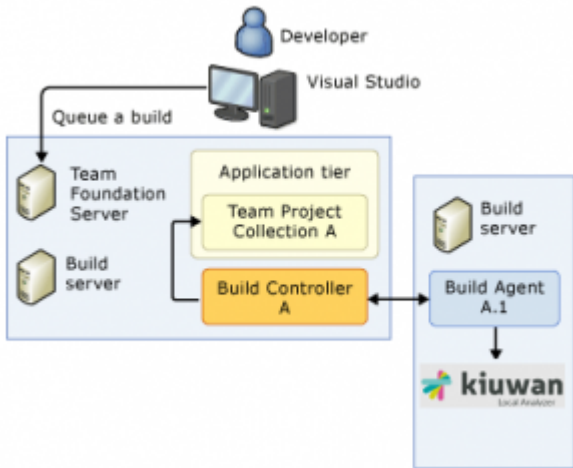
Continuous Inspection with Team Foundation Server

This guide will show you how to integrate Kiuwan inspections in your software development cycle using Team Foundation Server.

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Requirements

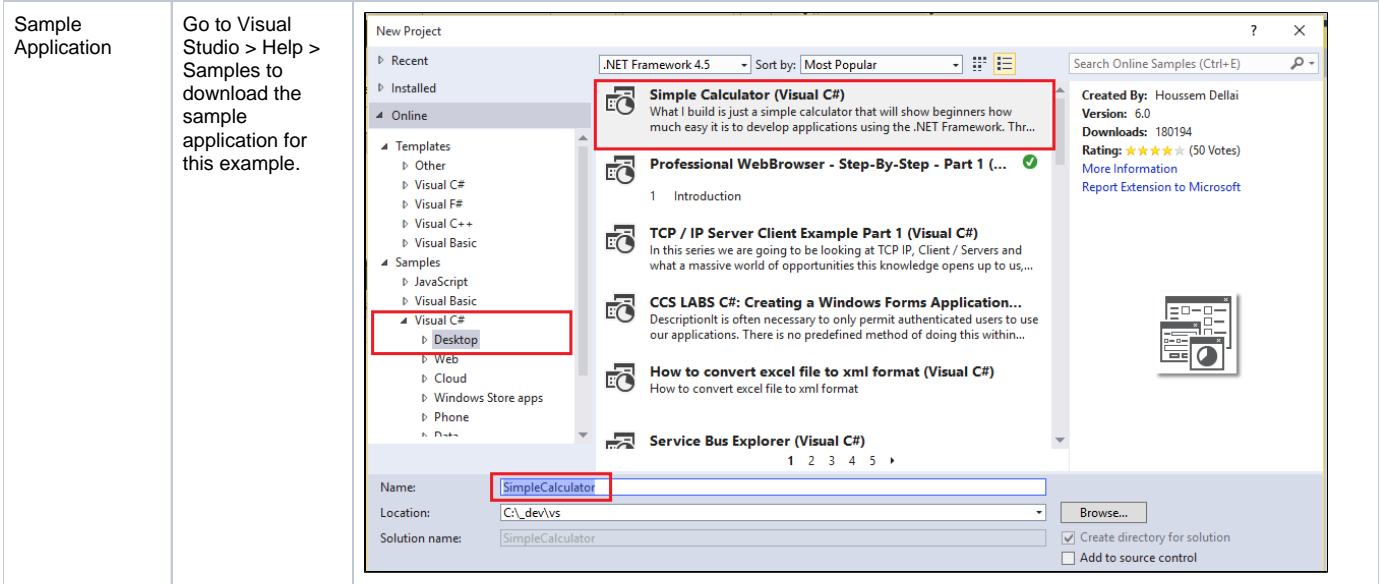
Requirement	Description	Image
Visual Studio 2013 and Team Foundation Server 2013	Both installed "on-premises".	
Kiuwan Local Analyzer	<p>Installed on every machine where a TFS Build Agent is installed.</p> <p>Log into your Kiuwan Account via the KLA to ensure a working connection.</p> <p>Your credentials will be saved in a cipher form for subsequent analysis when they are run from the command line interface as well.</p> <p>Assuming kiuwan has been installed in c:\, we need to create a small script that will be invoked from the TFS build agent.</p>	 <p>The diagram illustrates the integration of Kiuwan Local Analyzer (KLA) with the TFS Build system. A Developer uses Visual Studio to 'Queue a build'. This triggers the TFS Build system, which includes the Team Foundation Server, a Build server, and an Application tier containing the Team Project Collection A and the Build Controller A. The Build Controller A then interacts with a Build Agent A.1, which is shown running the Kiuwan Local Analyzer. The Kiuwan logo is also present at the bottom of the Build Agent A.1 box.</p>

```
@echo off
::
tfs2kiuwan
.cmd
:: script
to launch
kiuwan
analysis
from team
foundation
server
build.
::
-----
-----
-----
-----
-----
-----
-----
setlocal

set
KIUWAN_HOM
E=C:
\KiuwanLocalAnalyzer
set
KIUWAN=%
KIUWAN_HOM
E%
\bin\agent
.cmd

%KIUWAN% -
c -n "%
TF_BUILD_B
UILDDEFINI
TIONNAME%"
-l "%
TF_BUILD_B
UILDNUMBER
%" -s "%
TF_BUILD_S
OURCESDIRE
CTORY%"

endlocal
```

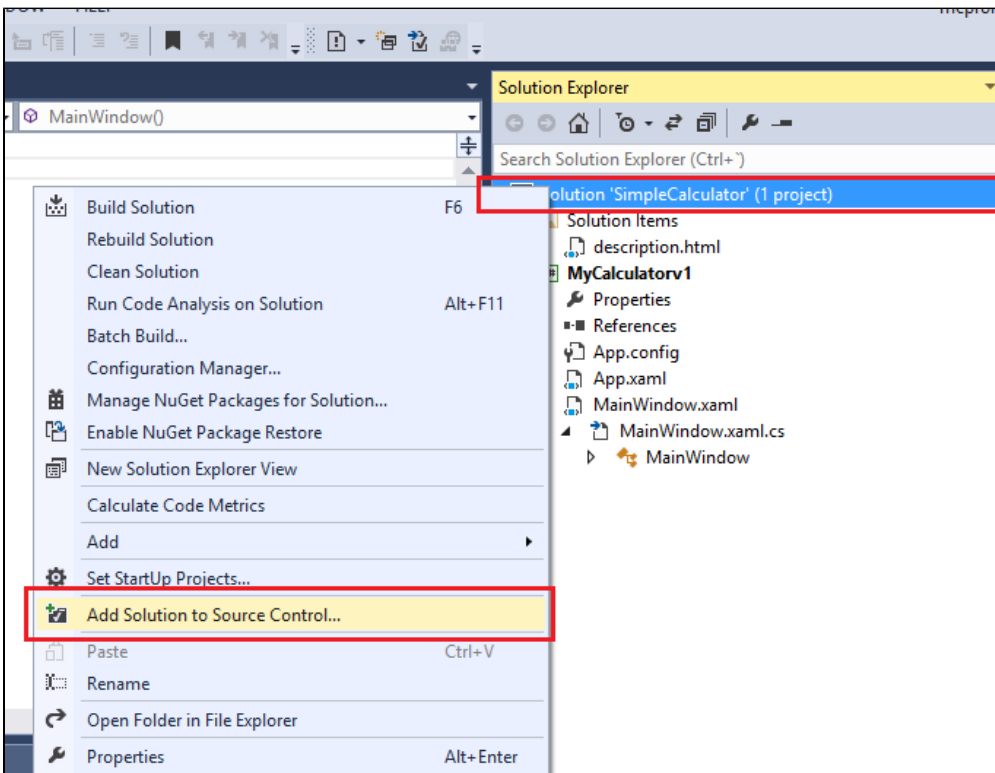


1. Download sample application

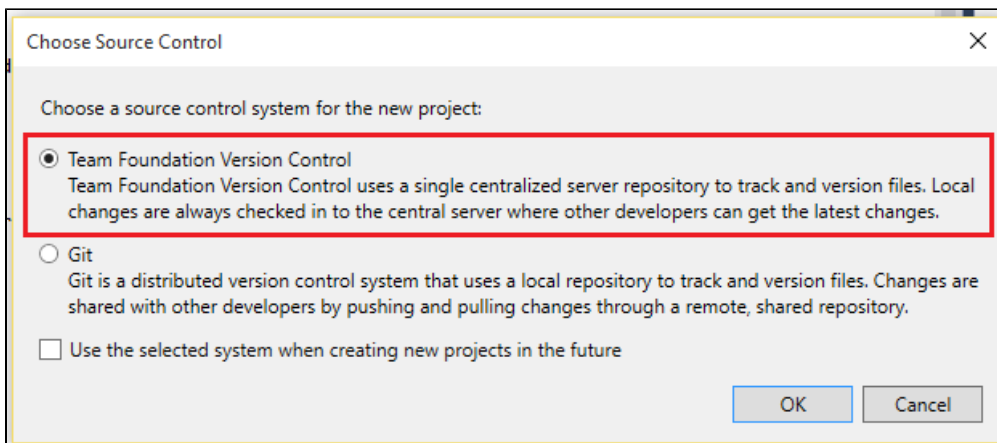
Download the sample application as described in the requirements.

2. Add the application to Source Control

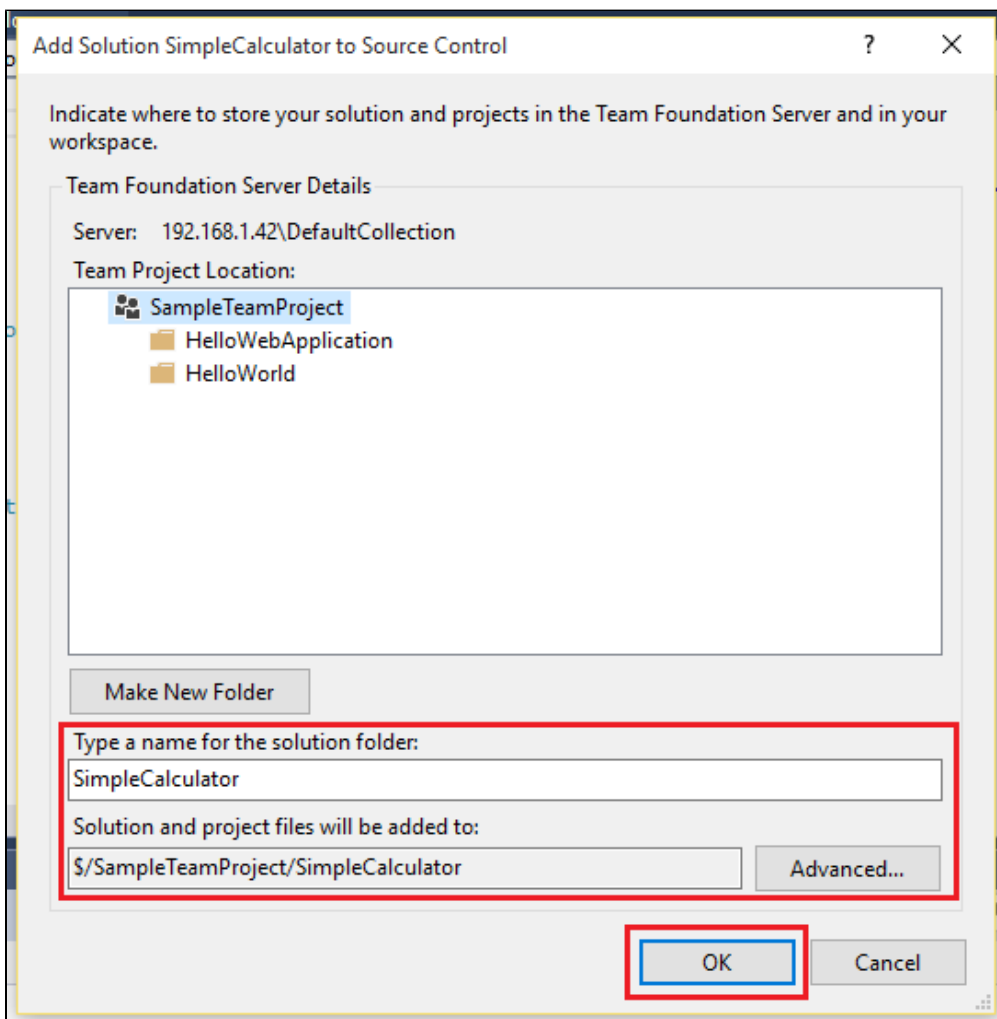
In **Solution Explorer**, right-click on the **SimpleCalculator** solution. Then go to **Add Solution to Source Control**.



A new dialog appears: **Choose Source Control** backend. Select **Team Foundation Version Control**.



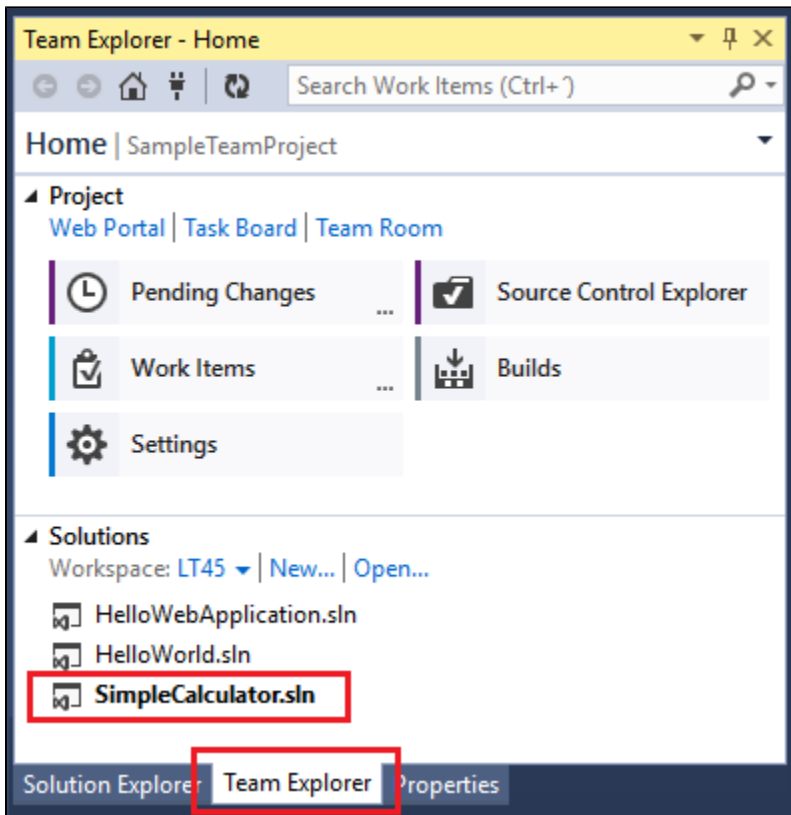
Finally, select a **TeamProject** where to place this project and create the solution folder.



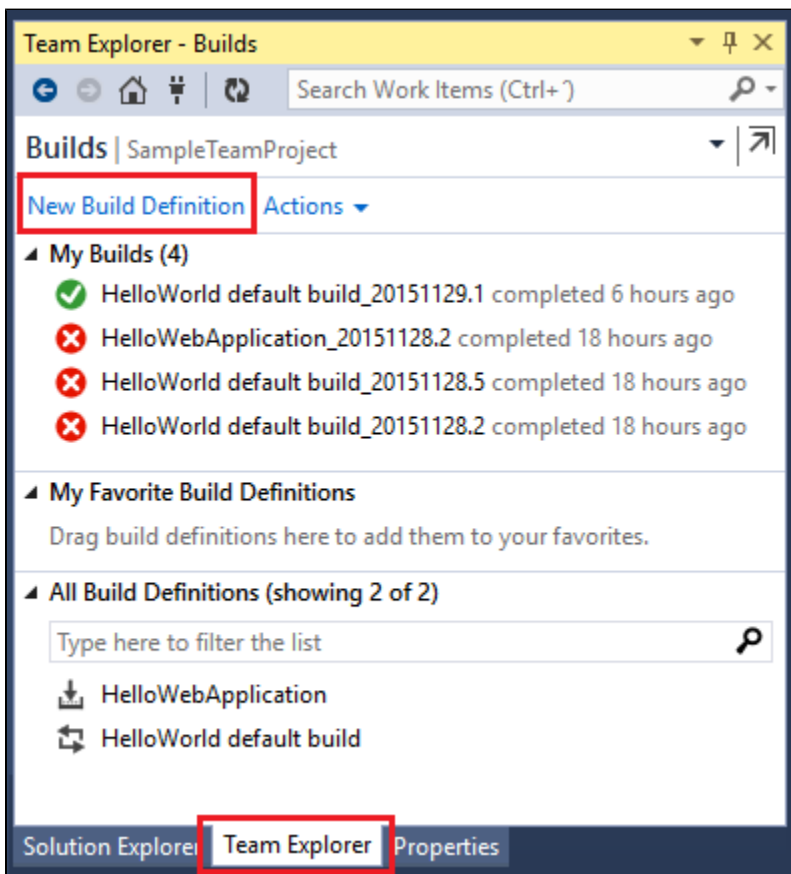
3. Build definition

Once the solution is created in TFS, define a new build process for the solution.

Open the **Team Explorer** tab.



Double click on **Builds** and select **New build definition**.



Below, the images of the dialog boxes to configure the build definition:

Build Explorer - SampleTeamProject MyCalculatorv1 SimpleCalculator - X MainWindow.xaml.cs Simple Calculator << ▾

General

Build definition name: SimpleCalculator

Trigger

Source Settings

Build Defaults

Process

Retention Policy

Description (optional):

Run Kiwan inspection each check-in.
- Build definition name will be used as kiwan application name
- Build number will be used as analysis label.

Queue processing:

☒ Enabled
Requests queued by users or triggered by the system will be added to the queue and be started in priority order.

☐ Paused
Requests queued by users or triggered by the system will be added to the queue but will not start unless the build administrator forces them to start.

☐ Disabled

Build Explorer - SampleTeamProject MyCalculatorv1 SimpleCalculator - X MainWindow.xaml.cs Simple Calculator << ▾

General

Trigger

Source Settings

Build Defaults

Process

Retention Policy

Select one of the following triggers:

☐ Manual - Check-ins do not trigger a new build

☒ Continuous Integration - Build each check-in

☐ Rolling builds - accumulate check-ins until the prior build finishes

☐ Build no more often than every minutes.

☐ Gated Check-in - accept check-ins only if the submitted changes merge and build successfully

☐ Merge and build up to submissions.

Build Explorer - SampleTeamProject MyCalculatorv1 SimpleCalculator - X MainWindow.xaml.cs Simple Calculator << ▾

General

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Specify the build controller and staging location for this build definition. These selections may be modified by the person queuing the build.

Build controller: win7en32 - Controller

Description:

Staging location:

☒ This build does not copy output files to a drop folder

☐ Copy build output to the following drop folder (UNC path, such as \\server\share):

☐ Copy build output to the server

SimpleCalculator - X Build Explorer - SampleTeamProject MyCalculatorv1 MainWindow.xaml.cs Simple Calculator << ▾

General

Trigger

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Retention Policy

Team Foundation Build uses a build process template defined by a Windows Workflow (XAML) file. The behavior of this template can be customized by setting the build process parameters provided by the selected template.

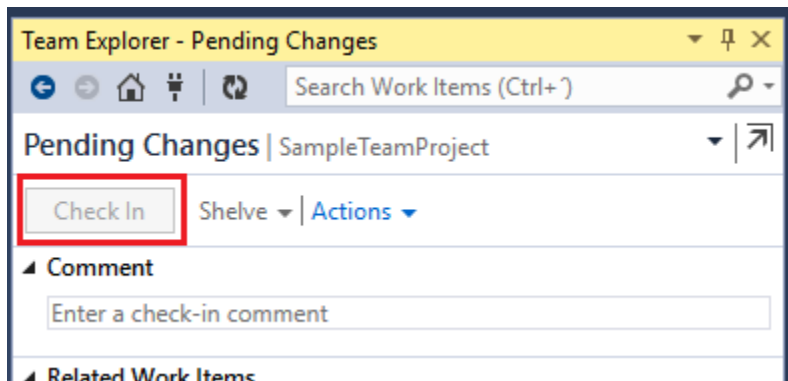
Build process template: Default Template [Show details](#)

Build process parameters:

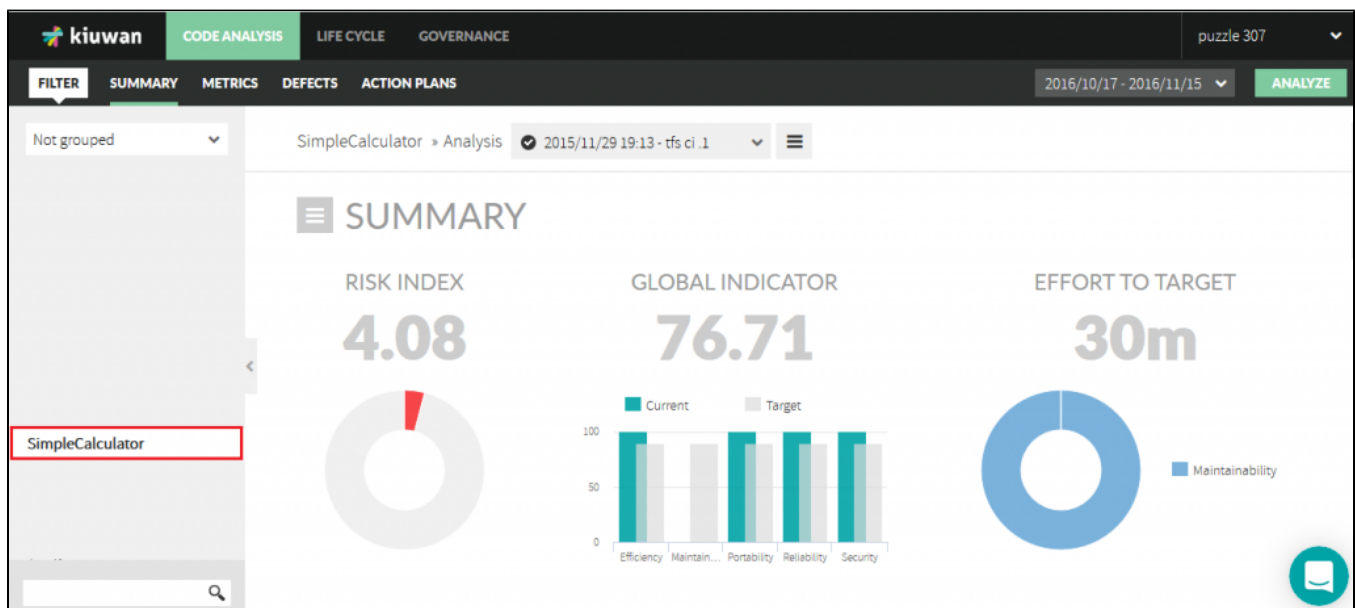
> 1. TF Version Control	
v 2. Build	
1. Projects	\$/SampleTeamProject/SimpleCalculator/SimpleCalculator.sln
2. Configurations	
3. Clean build	True
4. Output location	SingleFolder
v 5. Advanced	
MSBuild arguments	
MSBuild platform	Auto
Perform code analysis	AsConfigured
Post-build script arguments	SimpleCalculator
Post-build script path	C:\scripts\tfs2kiwan.cmd
Pre-build script arguments	
Path to publish symbols	
v 5. Advanced	
> Agent settings	
Use agent where Name= and Tags= (MatchExactly)	
Build number format	tfs ci \$(Rev:.r)
Create work item on failure	True
Update work items with build number	True

4. Commit the changes and get the analysis results in Kiuwan

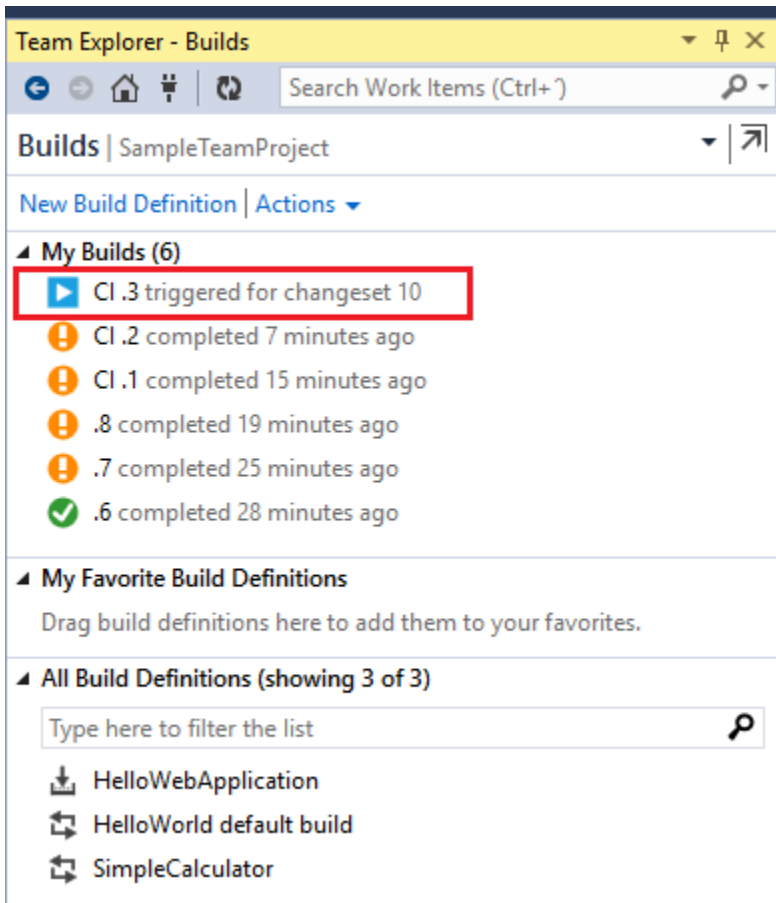
Commit the changes to the repository. A new build will be automatically triggered.



Login to kiuwan.com to see the results for your application analysis.

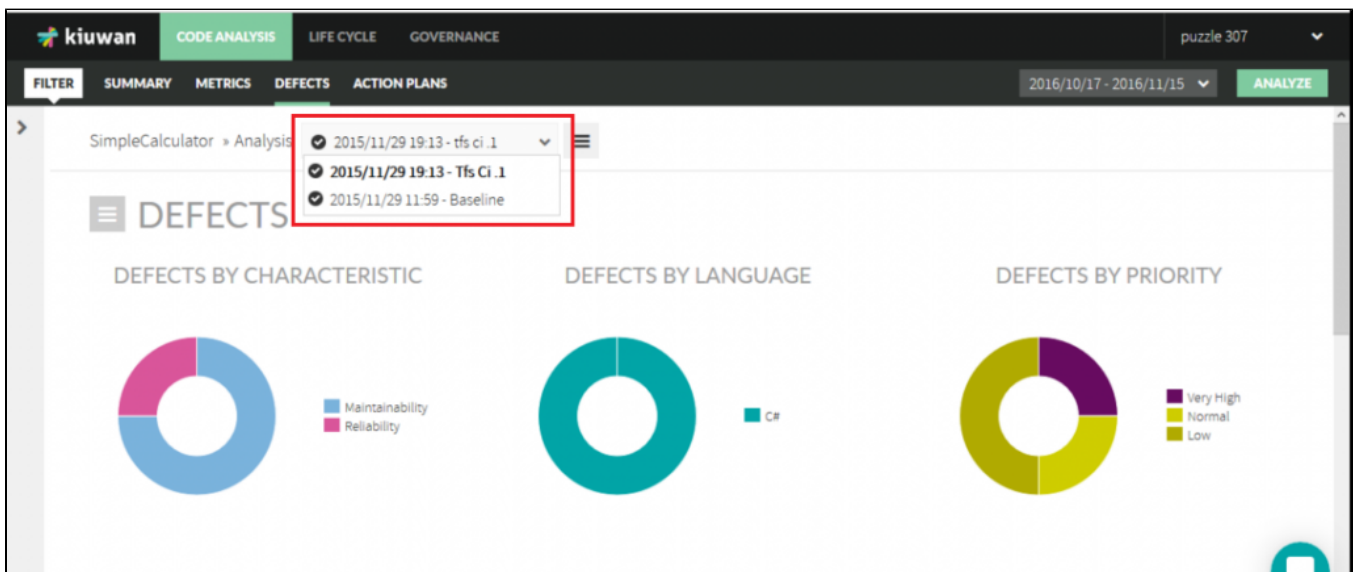


For each commit in the repository, a new build and analysis will be run automatically:

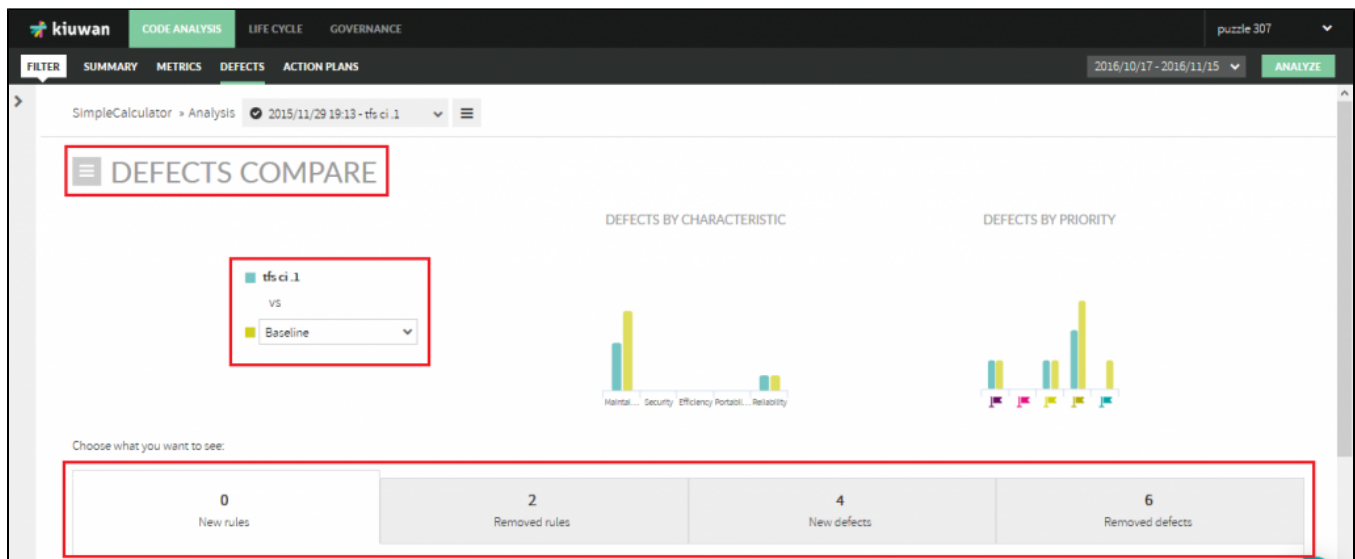


5. Compare each commit against the previous

Each analysis will generate a new version in Kiuwan. You can see all the builds in the **Analysis** drop-down list:



Click **Compare** to see a defect comparison between both analyses.



Now you have a continuous analysis of all your builds in Kiuwan.