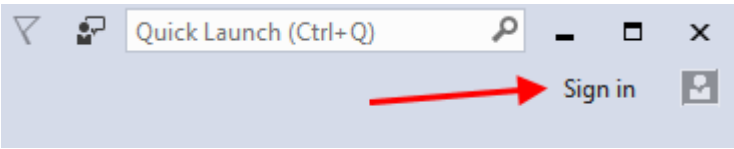
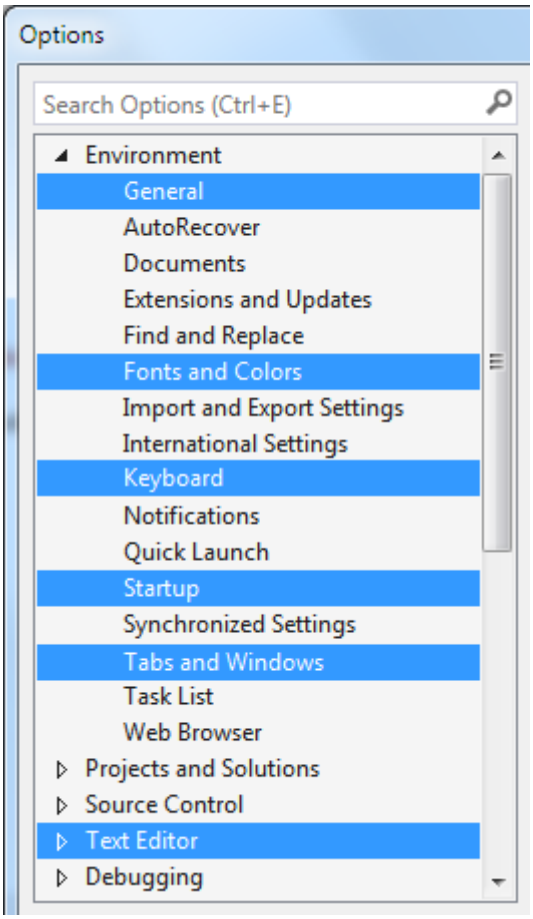
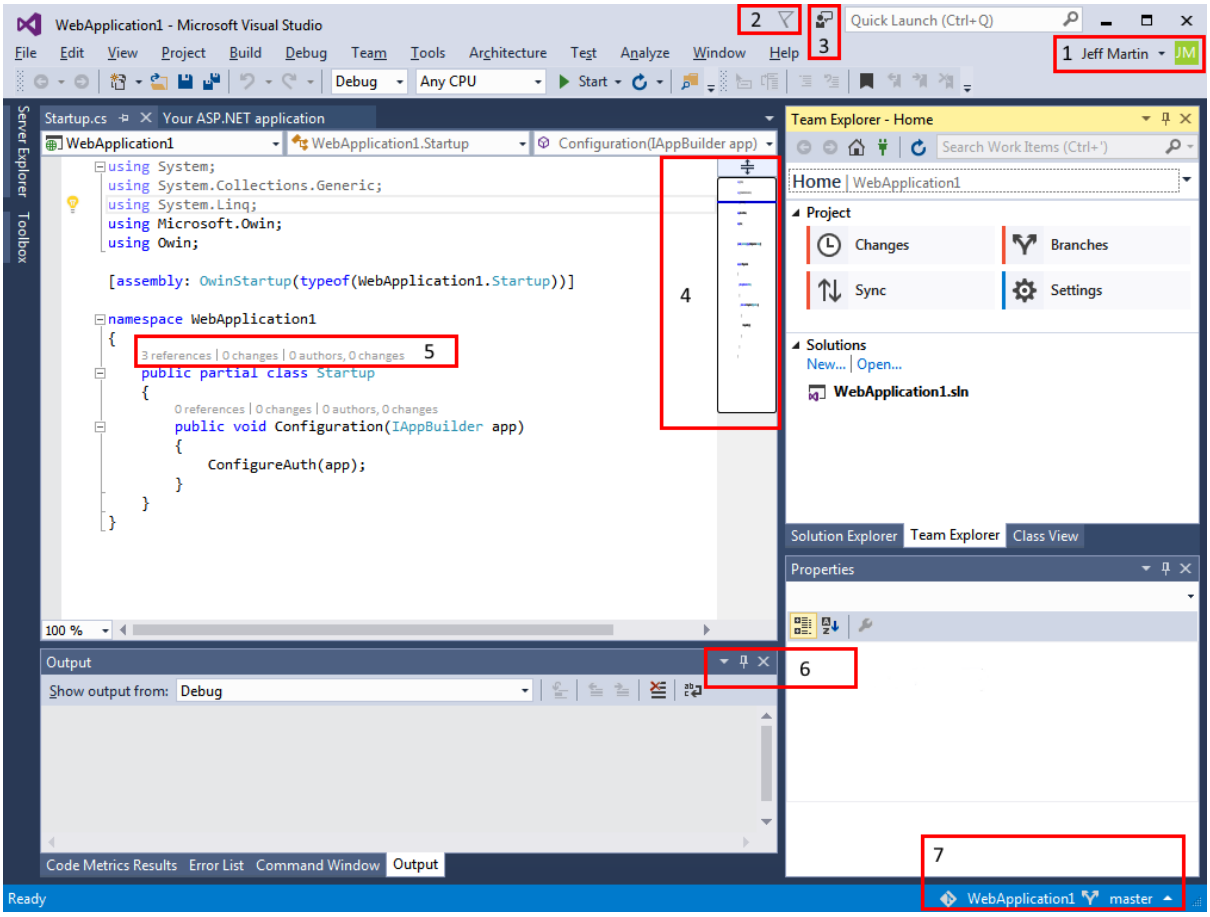
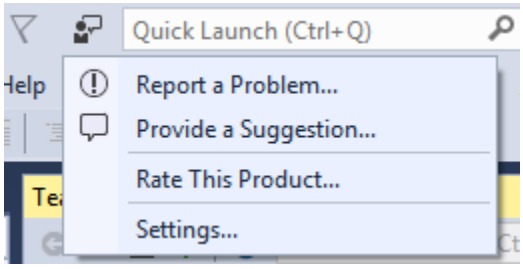
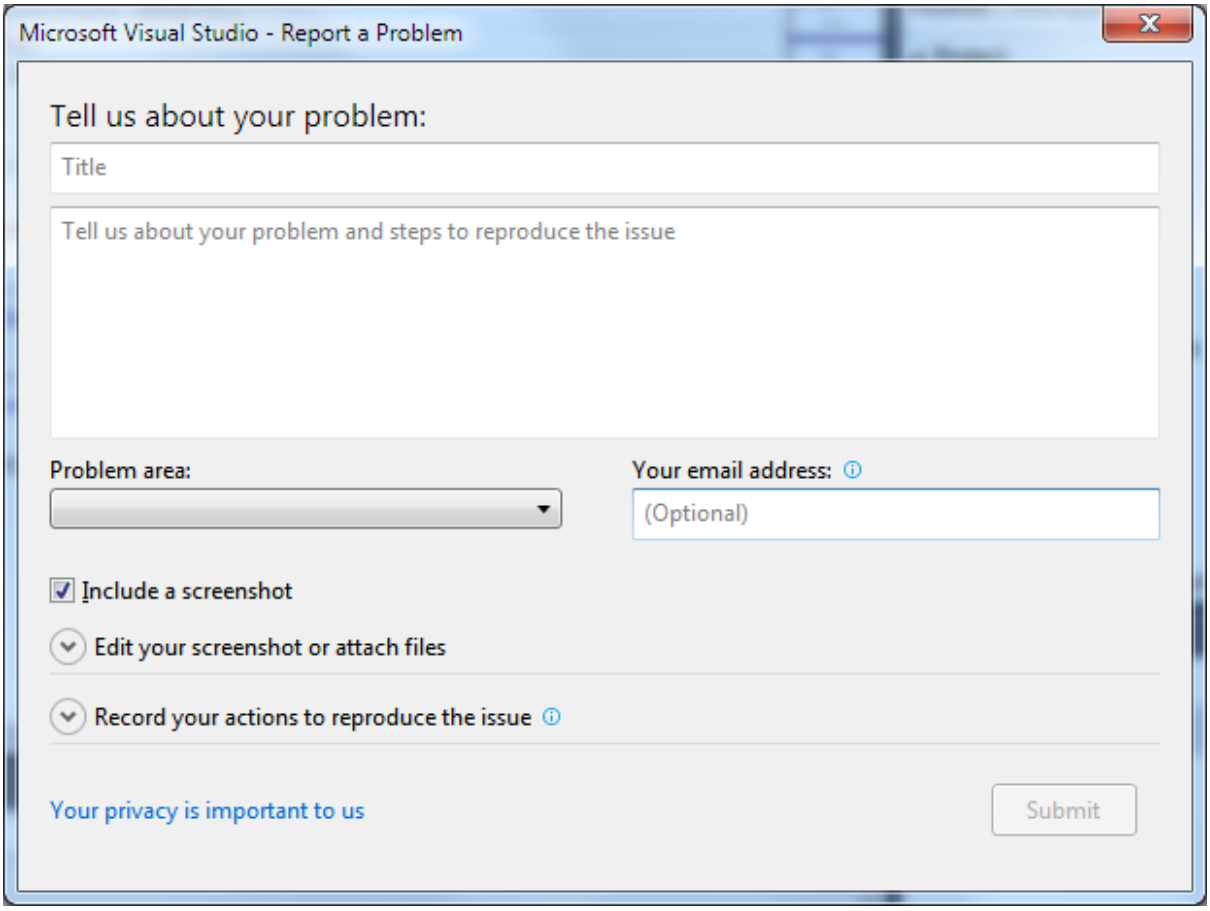
# Chapter 1: Exploring Visual Studio 2015

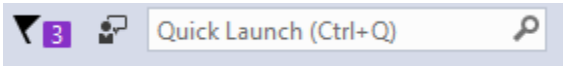


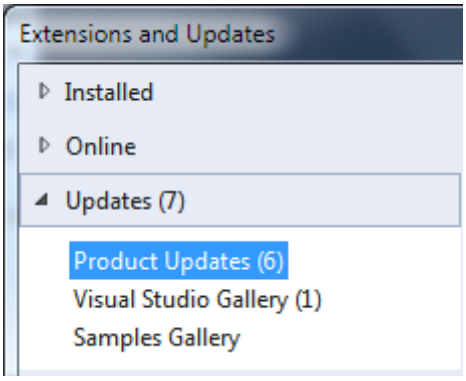



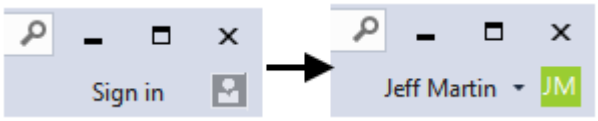

WebApplication1 - Microsoft Visual Studio
File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help
Quick Launch (Ctrl+Q)
1 Jeff Martin
2
3
Debug
Any CPU
Start
Startup.cs
Your ASP.NET application
WebApplication1
WebApplication1.Startup
Configuration(IAppBuilder app)
using System;
using System.Collections.Generic;
using System.Linq;
using Microsoft.Owin;
using Owin;
[assembly: OwinStartup(typeof(WebApplication1.Startup))]
namespace WebApplication1
{
3 references | 0 changes | 0 authors, 0 changes
public partial class Startup
{
0 references | 0 changes | 0 authors, 0 changes
public void Configuration(IAppBuilder app)
{
ConfigureAuth(app);
}
}
}
4
5
100 %
Output
Show output from: Debug
6
Code Metrics Results
Error List
Command Window
Output
Team Explorer - Home
Search Work Items (Ctrl+')
Home | WebApplication1
Project
Changes
Branches
Sync
Settings
Solutions
New... | Open...
WebApplication1.sln
Solution Explorer
Team Explorer
Class View
Properties
7
Ready
WebApplication1
master
Server Explorer
Toolbox

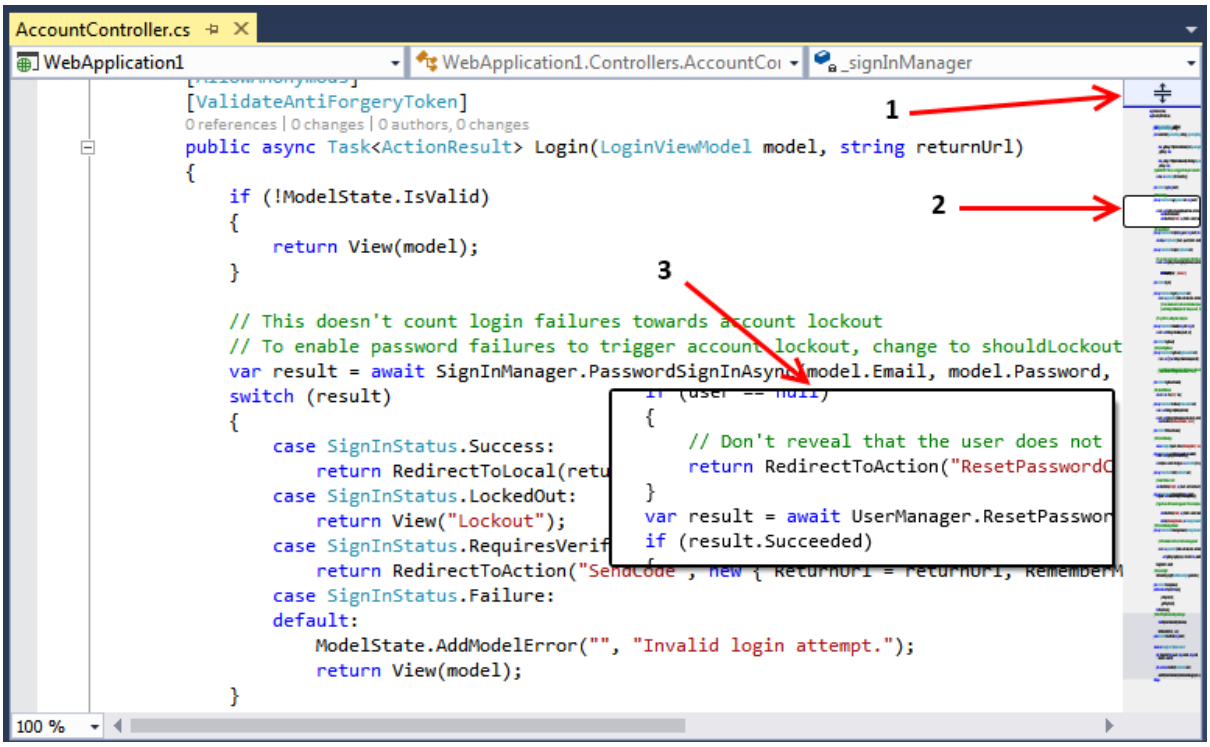

Quick Launch (Ctrl+Q)
Report a Problem...
Provide a Suggestion...
Rate This Product...
Settings...

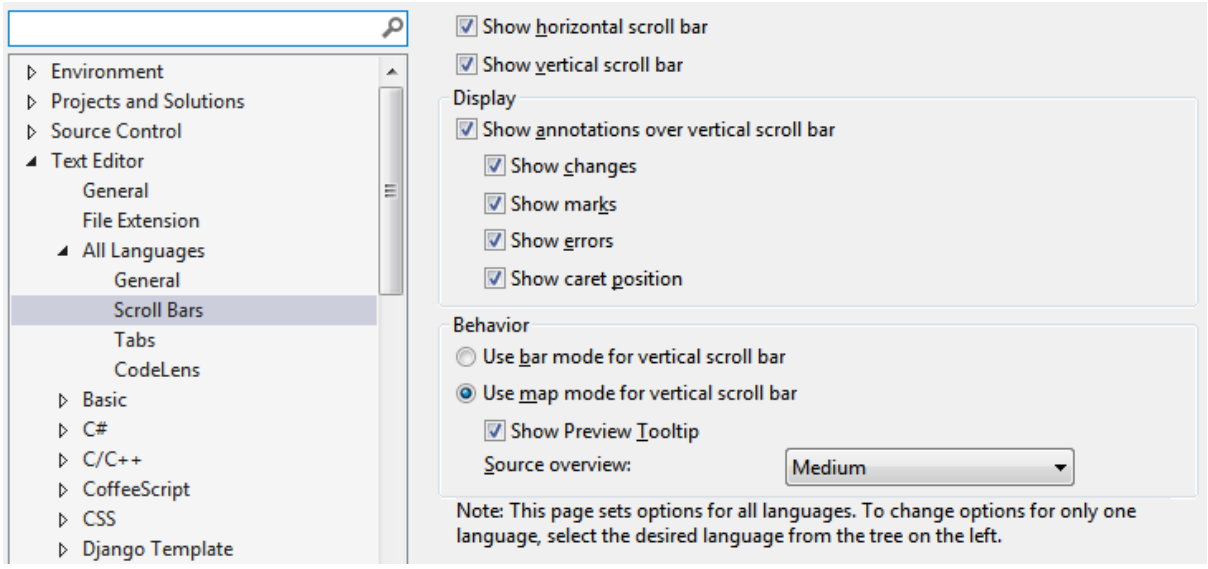

Microsoft Visual Studio - Report a Problem
Tell us about your problem:
Title
Tell us about your problem and steps to reproduce the issue
Problem area:
Your email address:
(Optional)
Include a screenshot
Edit your screenshot or attach files
Record your actions to reproduce the issue
Your privacy is important to us
Submit

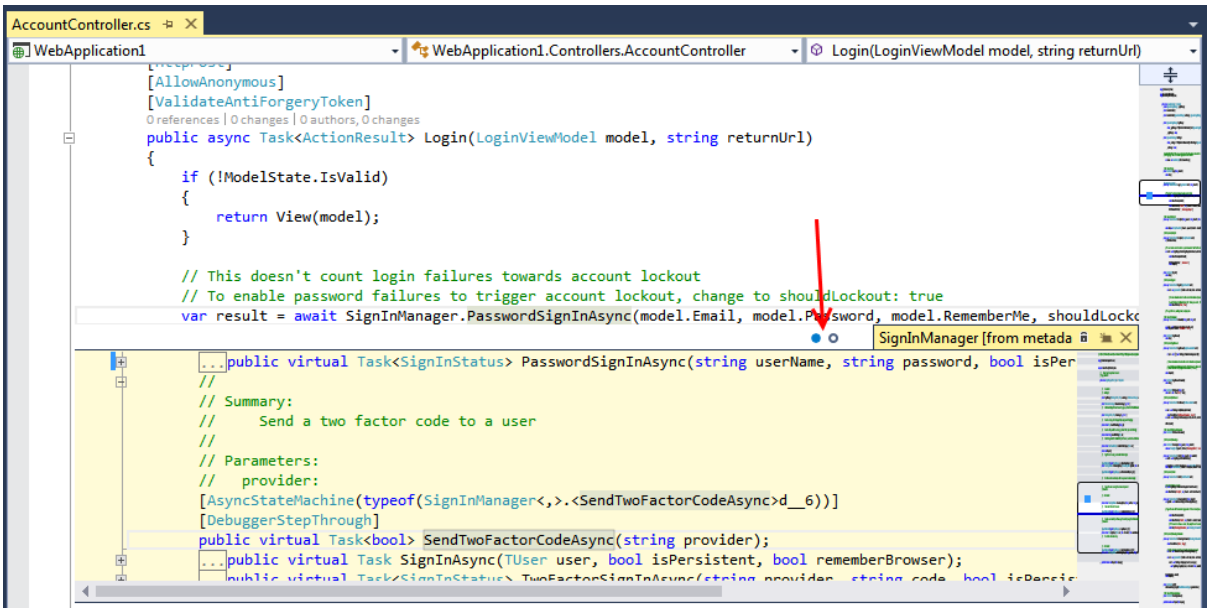

3
Quick Launch (Ctrl+Q)


Extensions and Updates
Installed
Online
Updates (7)
Product Updates (6)
Visual Studio Gallery (1)
Samples Gallery


Sign in
Jeff Martin
JM

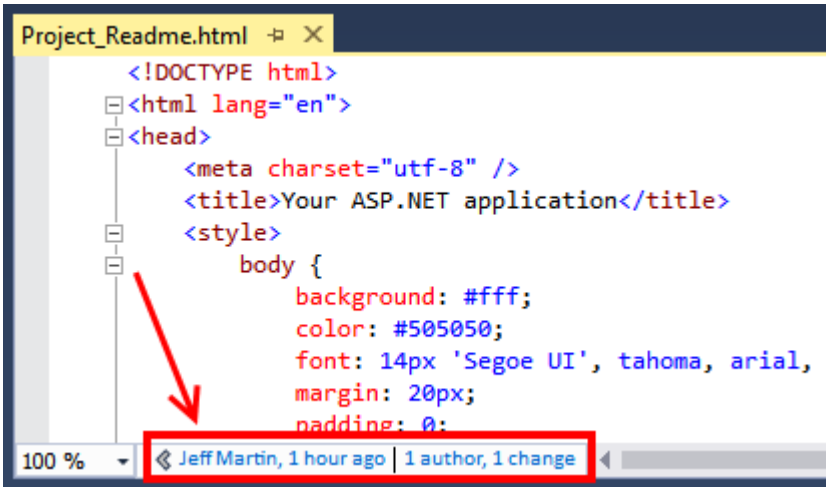

AccountController.cs
WebApplication1
WebApplication1.Controllers.AccountCo
_signInManager
1
2
3
[ValidateAntiForgeryToken]
0 references | 0 changes | 0 authors, 0 changes
public async Task<ActionResult> Login(LoginViewModel model, string returnUrl)
{
if (!ModelState.IsValid)
{
return View(model);
}
// This doesn't count login failures towards account lockout
// To enable password failures to trigger account lockout, change to shouldLockout
var result = await SignInManager.PasswordSignInAsync(model.Email, model.Password,
switch (result)
{
case SignInStatus.Success:
case SignInStatus.LockedOut:
return View("Lockout");
case SignInStatus.RequiresVerif
case SignInStatus.Failure:
default:
ModelState.AddModelError("", "Invalid login attempt.");
return View(model);
}
{
// Don't reveal that the user does not
}
var result = await UserManager.ResetPasswor
if (result.Succeeded)
100 %

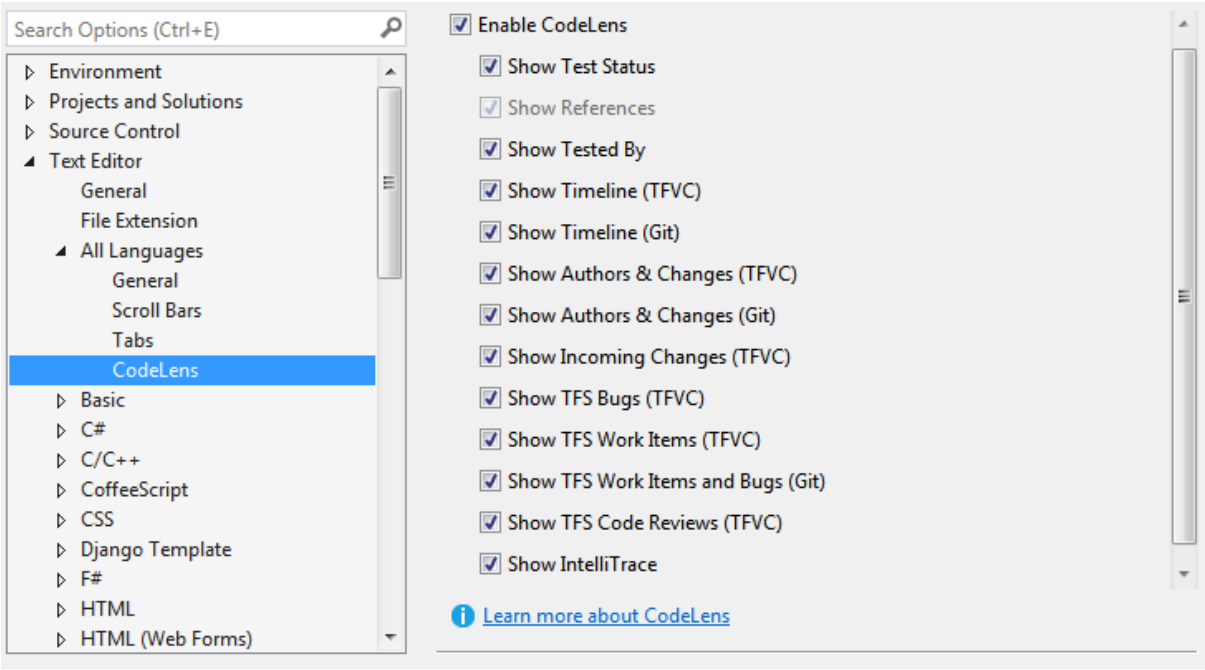

Environment
Projects and Solutions
Source Control
Text Editor
General
File Extension
All Languages
General
Scroll Bars
Tabs
CodeLens
Basic
C#
C/C++
CoffeeScript
CSS
Django Template
Show horizontal scroll bar
Show vertical scroll bar
Display
Show annotations over vertical scroll bar
Show changes
Show marks
Show errors
Show caret position
Behavior
Use bar mode for vertical scroll bar
Use map mode for vertical scroll bar
Show Preview Tooltip
Source overview:
Medium
Note: This page sets options for all languages. To change options for only one language, select the desired language from the tree on the left.

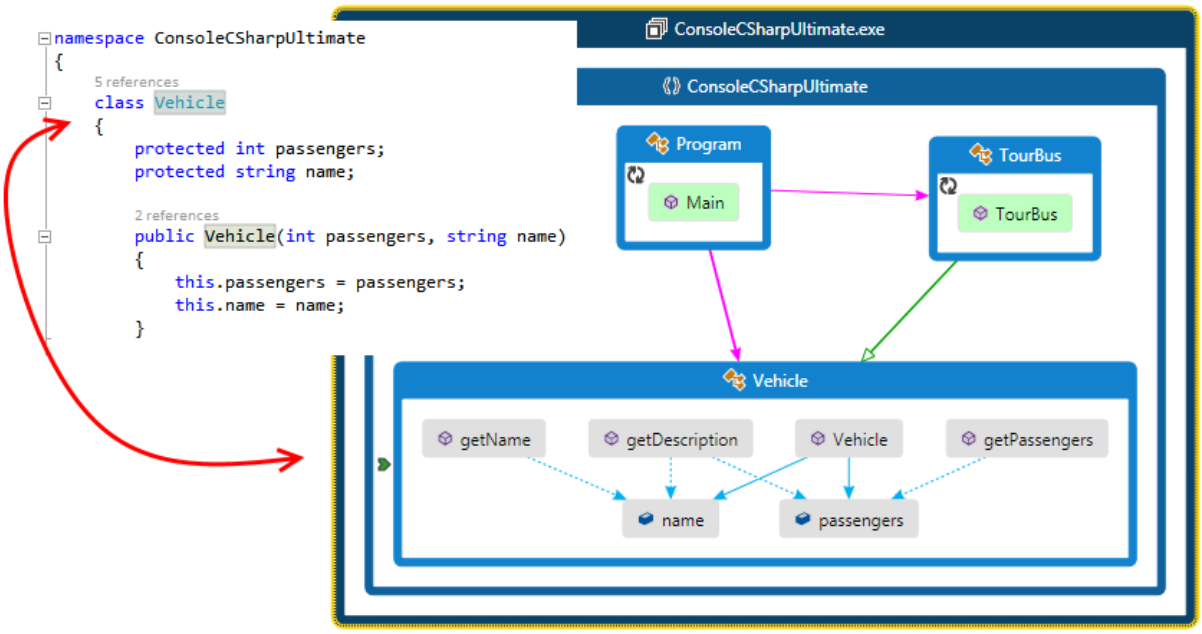

AccountController.cs
WebApplication1
WebApplication1.Controllers.AccountController
Login(LoginViewModel model, string returnUrl)
[AllowAnonymous]
[ValidateAntiForgeryToken]
0 references | 0 changes | 0 authors, 0 changes
public async Task<ActionResult> Login(LoginViewModel model, string returnUrl)
{
if (!ModelState.IsValid)
{
return View(model);
}
// This doesn't count login failures towards account lockout
// To enable password failures to trigger account lockout, change to shouldLockout: true
var result = await SignInManager.PasswordSignInAsync(model.Email, model.Password, model.RememberMe, shouldLockc
SignInManager [from metada
public virtual Task<SignInStatus> PasswordSignInAsync(string userName, string password, bool isPer
//
// Summary:
// Send a two factor code to a user
//
// Parameters:
// provider:
[AsyncStateMachine(typeof(SignInManager<,>.<SendTwoFactorCodeAsync>d__6))]
[DebuggerStepThrough]
public virtual Task<bool> SendTwoFactorCodeAsync(string provider);
public virtual Task SignInAsync(TUser user, bool isPersistent, bool rememberBrowser);

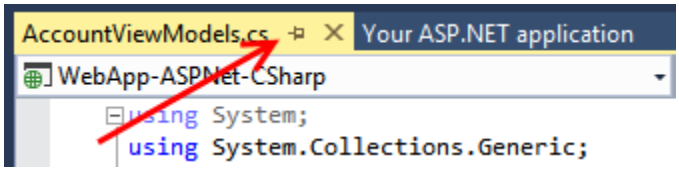
```
// Models returned by MeController actions.
2 references | Jeff Martin, Less than 5 minutes ago | 1 author, 1 change
public class GetViewModel
{
    // Formerly hometown
    1 reference | Jeff Martin, Less than 5 minutes ago | 1 author, 1 change
    public string PlaceOfBirth { get; set; }
}
```

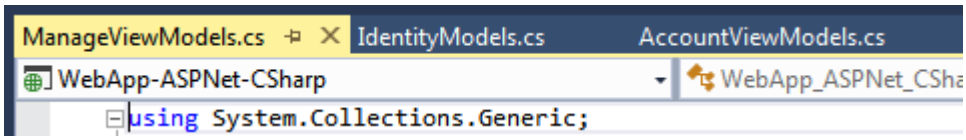
```
// 2dels returned b5MeController acti7s.
2 references | Jeff Martin, Less than 5 minutes ago | 1 author, 1 change
public class GetViewModel
```

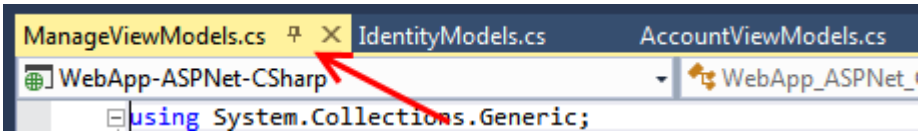


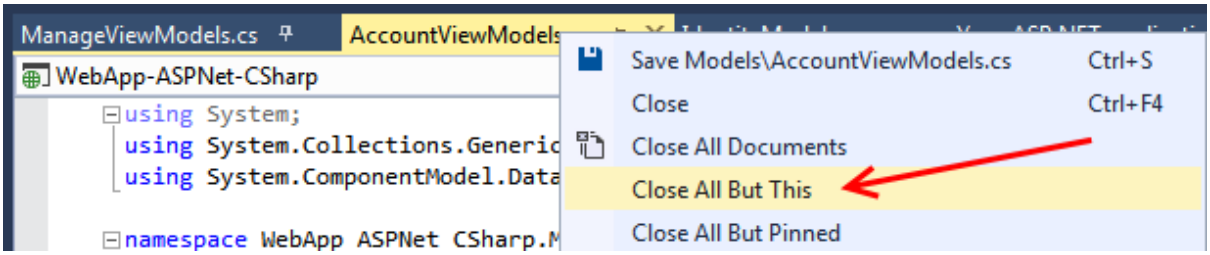

Search Options (Ctrl+E)
Environment
Projects and Solutions
Source Control
Text Editor
General
File Extension
All Languages
General
Scroll Bars
Tabs
CodeLens
Basic
C#
C/C++
CoffeeScript
CSS
Django Template
F#
HTML
HTML (Web Forms)
Enable CodeLens
Show Test Status
Show References
Show Tested By
Show Timeline (TFVC)
Show Timeline (Git)
Show Authors & Changes (TFVC)
Show Authors & Changes (Git)
Show Incoming Changes (TFVC)
Show TFS Bugs (TFVC)
Show TFS Work Items (TFVC)
Show TFS Work Items and Bugs (Git)
Show TFS Code Reviews (TFVC)
Show IntelliTrace
Learn more about CodeLens

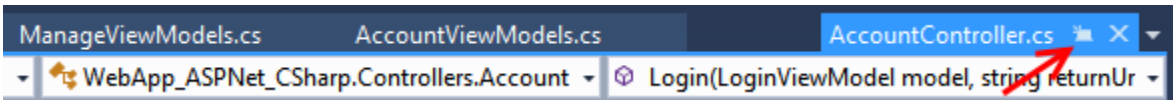

namespace ConsoleCSharpUltimate
{
5 references
class Vehicle
{
protected int passengers;
protected string name;
2 references
public Vehicle(int passengers, string name)
{
this.passengers = passengers;
this.name = name;
}
ConsoleCSharpUltimate.exe
ConsoleCSharpUltimate
Program
Main
TourBus
TourBus
Vehicle
getName
getDescription
Vehicle
getPassengers
name
passengers

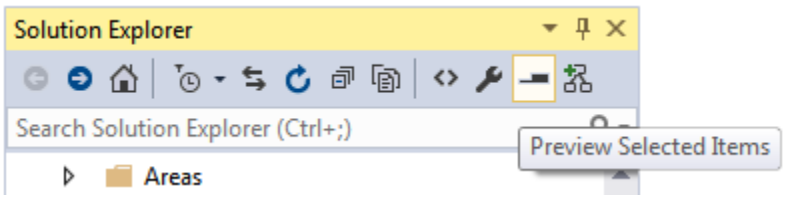

AccountViewModels.cs
Your ASP.NET application
WebApp-ASPNet-CSharp
using System;
using System.Collections.Generic;

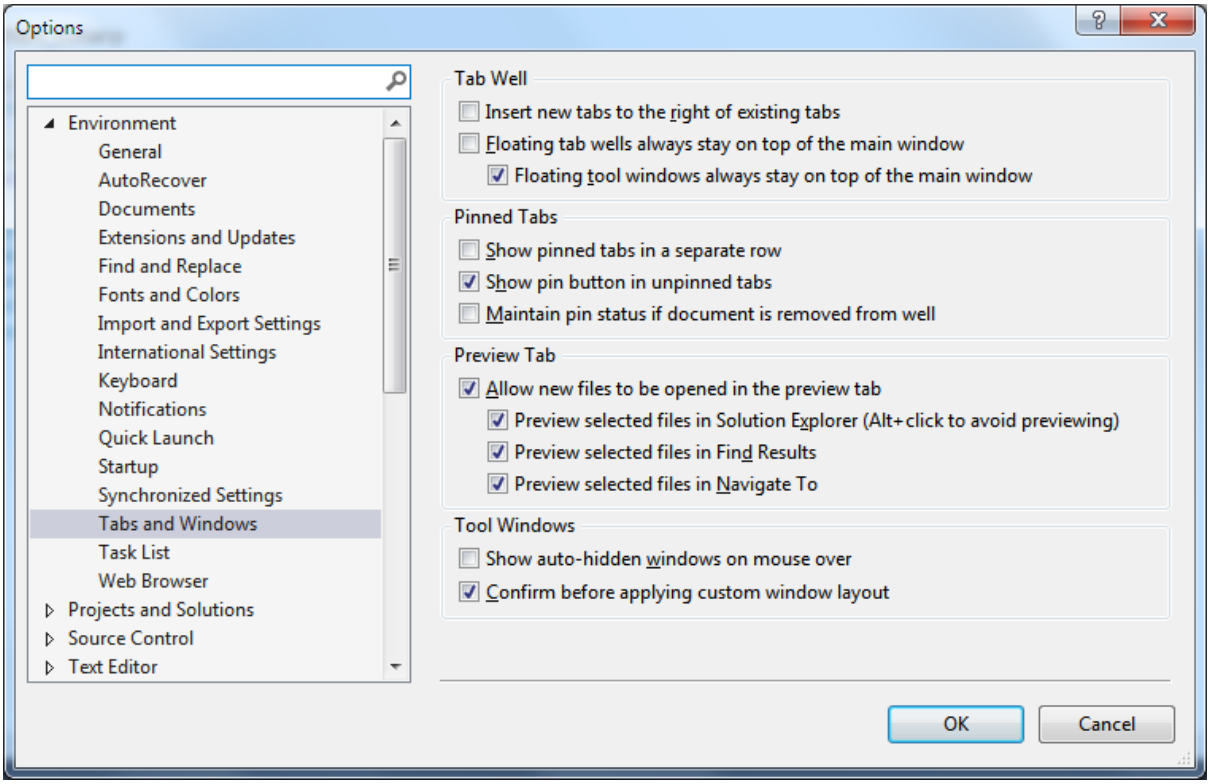

ManageViewModels.cs
IdentityModels.cs
AccountViewModels.cs
WebApp-ASPNet-CSharp
using System.Collections.Generic;

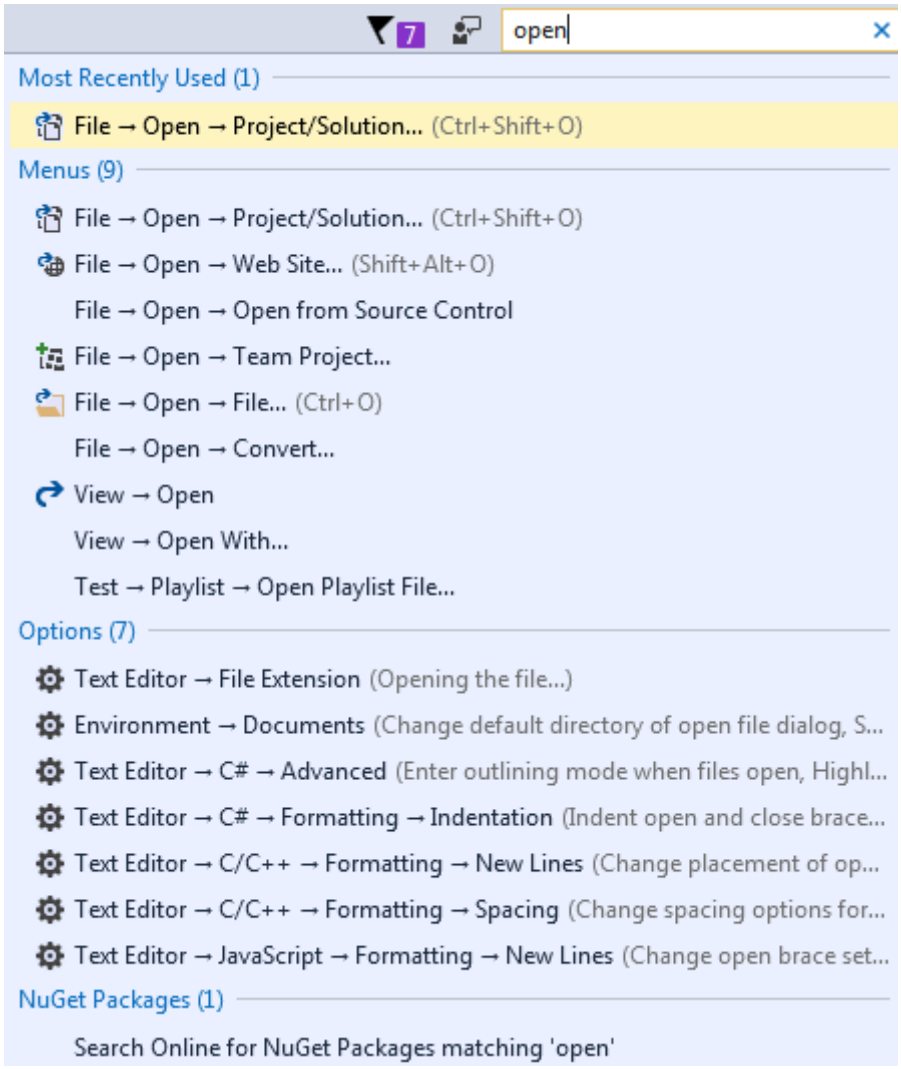

ManageViewModels.cs
IdentityModels.cs
AccountViewModels.cs
WebApp-ASPNet-CSharp
using System.Collections.Generic;

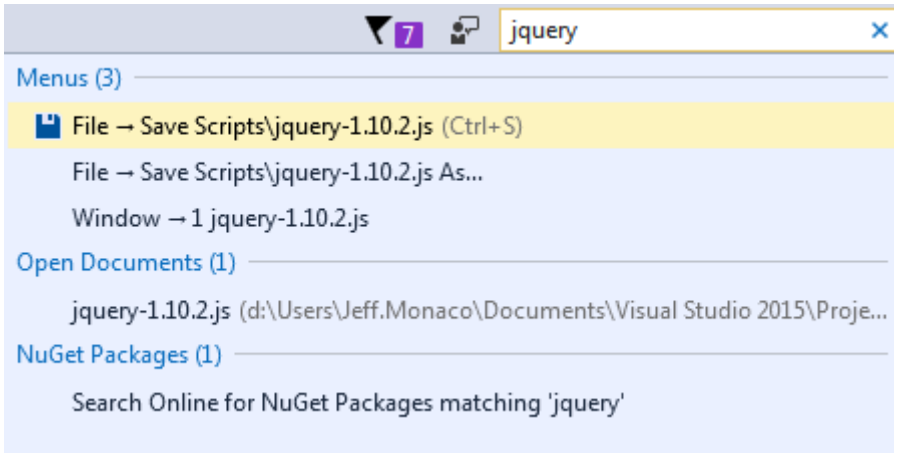

ManageViewModels.cs
WebApp-ASPNet-CSharp
using System;
using System.Collections.Generic
using System.ComponentModel.Data
namespace WebApp_ASPNet_CSharp.M
Save Models\AccountViewModels.cs Ctrl+S
Close Ctrl+F4
Close All Documents
Close All But This
Close All But Pinned

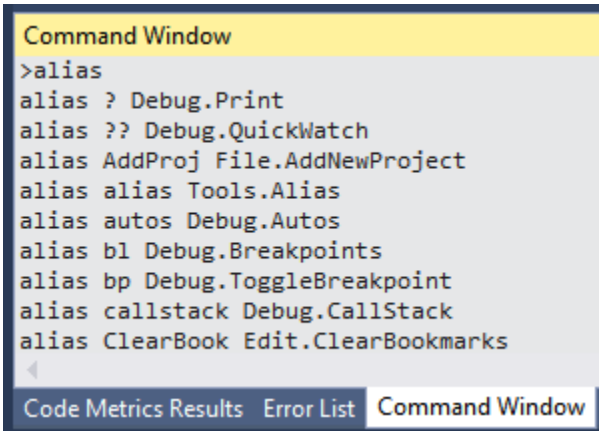

ManageViewModels.cs
AccountViewModels.cs
AccountController.cs
WebApp_ASPNet_CSharp.Controllers.Account
Login(LoginViewModel model, string returnUr

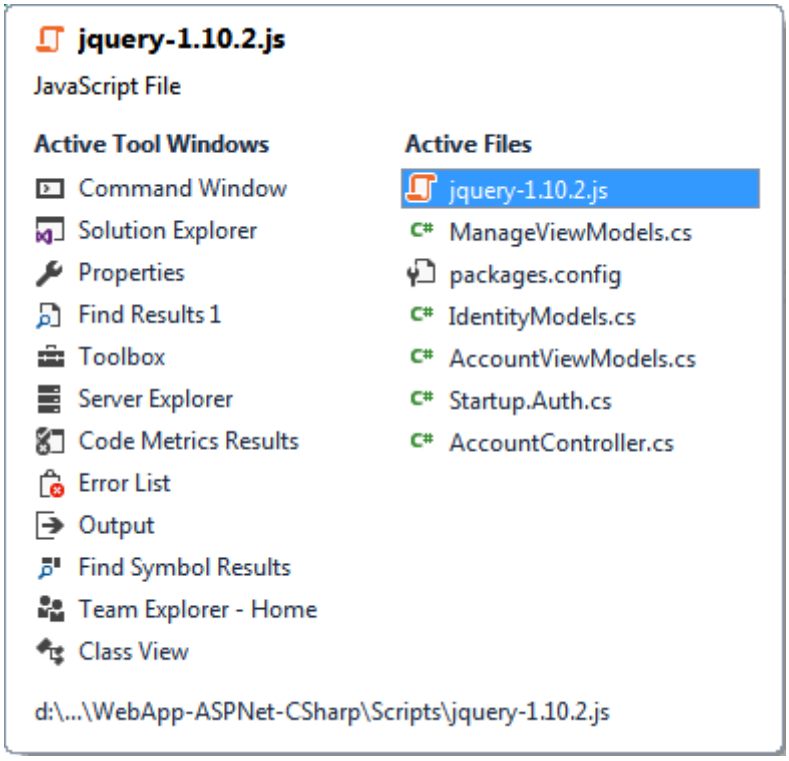

Solution Explorer
Search Solution Explorer (Ctrl+;)
Preview Selected Items
Areas

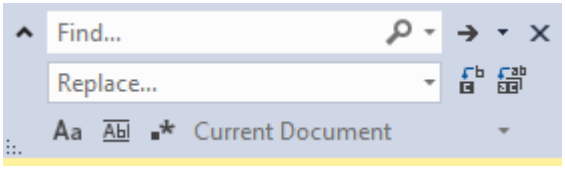

Options
Environment
General
AutoRecover
Documents
Extensions and Updates
Find and Replace
Fonts and Colors
Import and Export Settings
International Settings
Keyboard
Notifications
Quick Launch
Startup
Synchronized Settings
Tabs and Windows
Task List
Web Browser
Projects and Solutions
Source Control
Text Editor
Tab Well
Insert new tabs to the right of existing tabs
Floating tab wells always stay on top of the main window
Floating tool windows always stay on top of the main window
Pinned Tabs
Show pinned tabs in a separate row
Show pin button in unpinned tabs
Maintain pin status if document is removed from well
Preview Tab
Allow new files to be opened in the preview tab
Preview selected files in Solution Explorer (Alt+click to avoid previewing)
Preview selected files in Find Results
Preview selected files in Navigate To
Tool Windows
Show auto-hidden windows on mouse over
Confirm before applying custom window layout
OK
Cancel

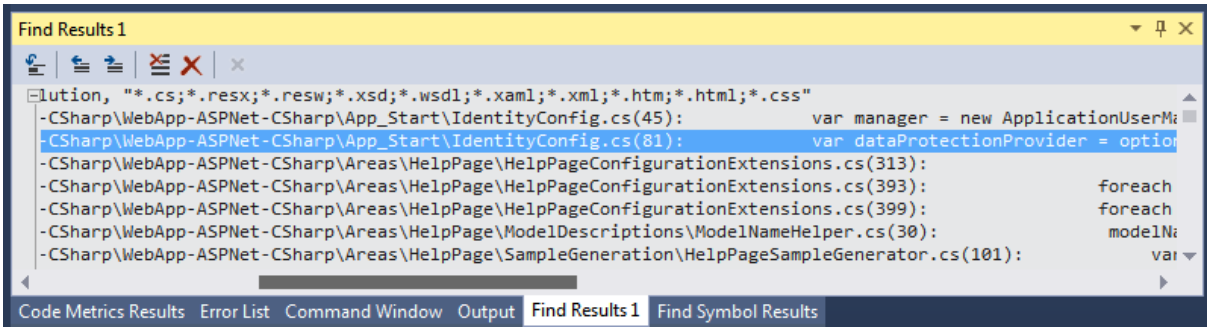

7
open
Most Recently Used (1)
File → Open → Project/Solution... (Ctrl+Shift+O)
Menus (9)
File → Open → Project/Solution... (Ctrl+Shift+O)
File → Open → Web Site... (Shift+Alt+O)
File → Open → Open from Source Control
File → Open → Team Project...
File → Open → File... (Ctrl+O)
File → Open → Convert...
View → Open
View → Open With...
Test → Playlist → Open Playlist File...
Options (7)
Text Editor → File Extension (Opening the file...)
Environment → Documents (Change default directory of open file dialog, S...
Text Editor → C# → Advanced (Enter outlining mode when files open, Highl...
Text Editor → C# → Formatting → Indentation (Indent open and close brace...
Text Editor → C/C++ → Formatting → New Lines (Change placement of op...
Text Editor → C/C++ → Formatting → Spacing (Change spacing options for...
Text Editor → JavaScript → Formatting → New Lines (Change open brace set...
NuGet Packages (1)
Search Online for NuGet Packages matching 'open'

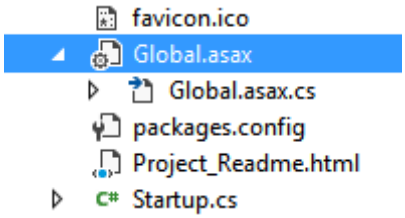

7
jquery
Menus (3)
File → Save Scripts\jquery-1.10.2.js (Ctrl+S)
File → Save Scripts\jquery-1.10.2.js As...
Window → 1 jquery-1.10.2.js
Open Documents (1)
jquery-1.10.2.js (d:\Users\Jeff.Monaco\Documents\Visual Studio 2015\Proje...
NuGet Packages (1)
Search Online for NuGet Packages matching 'jquery'

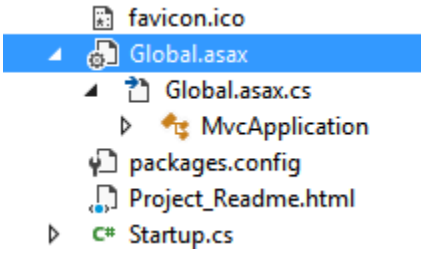

Command Window
>alias
alias ? Debug.Print
alias ?? Debug.QuickWatch
alias AddProj File.AddNewProject
alias alias Tools.Alias
alias autos Debug.Autos
alias bl Debug.Breakpoints
alias bp Debug.ToggleBreakpoint
alias callstack Debug.CallStack
alias ClearBook Edit.ClearBookmarks
Code Metrics Results
Error List
Command Window

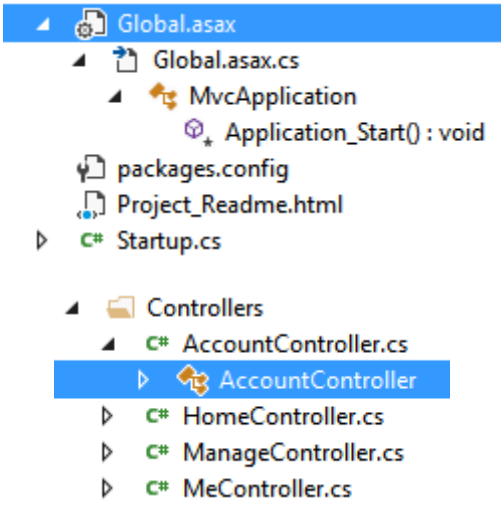

jquery-1.10.2.js
JavaScript File
Active Tool Windows
Command Window
Solution Explorer
Properties
Find Results 1
Toolbox
Server Explorer
Code Metrics Results
Error List
Output
Find Symbol Results
Team Explorer - Home
Class View
Active Files
jquery-1.10.2.js
ManageViewModels.cs
packages.config
IdentityModels.cs
AccountViewModels.cs
Startup.Auth.cs
AccountController.cs
d:\...\WebApp-ASPNet-CSharp\Scripts\jquery-1.10.2.js

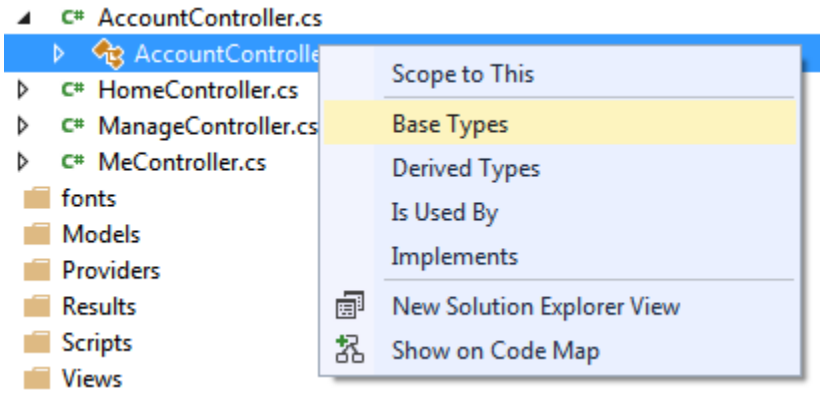

Find...
Replace...
Aa
Abl
Current Document

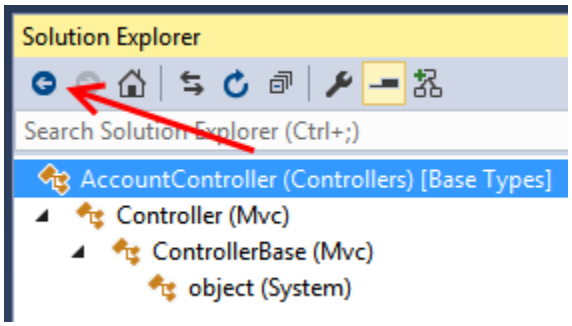

Find Results 1
lution, "*.cs;*.resx;*.resw;*.xsd;*.wsdl;*.xaml;*.xml;*.htm;*.html;*.css"
-CSharp\WebApp-ASPNet-CSharp\App_Start\IdentityConfig.cs(45): var manager = new ApplicationUserMa
-CSharp\WebApp-ASPNet-CSharp\App_Start\IdentityConfig.cs(81): var dataProtectionProvider = optio
-CSharp\WebApp-ASPNet-CSharp\Areas\HelpPage\HelpPageConfigurationExtensions.cs(313):
-CSharp\WebApp-ASPNet-CSharp\Areas\HelpPage\HelpPageConfigurationExtensions.cs(393): foreach
-CSharp\WebApp-ASPNet-CSharp\Areas\HelpPage\HelpPageConfigurationExtensions.cs(399): foreach
-CSharp\WebApp-ASPNet-CSharp\Areas\HelpPage\ModelDescriptions\ModelNameHelper.cs(30): modelNa
-CSharp\WebApp-ASPNet-CSharp\Areas\HelpPage\SampleGeneration\HelpPageSampleGenerator.cs(101): var
Code Metrics Results
Error List
Command Window
Output
Find Results 1
Find Symbol Results

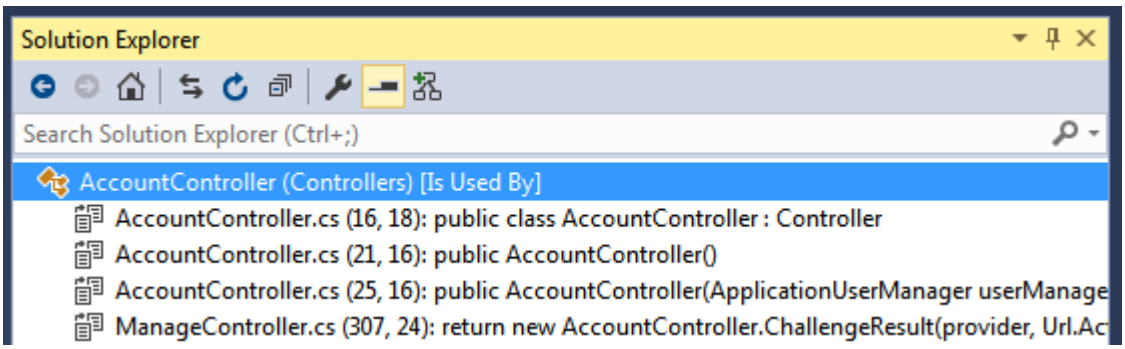

favicon.ico
Global.asax
Global.asax.cs
packages.config
Project_Readme.html
Startup.cs

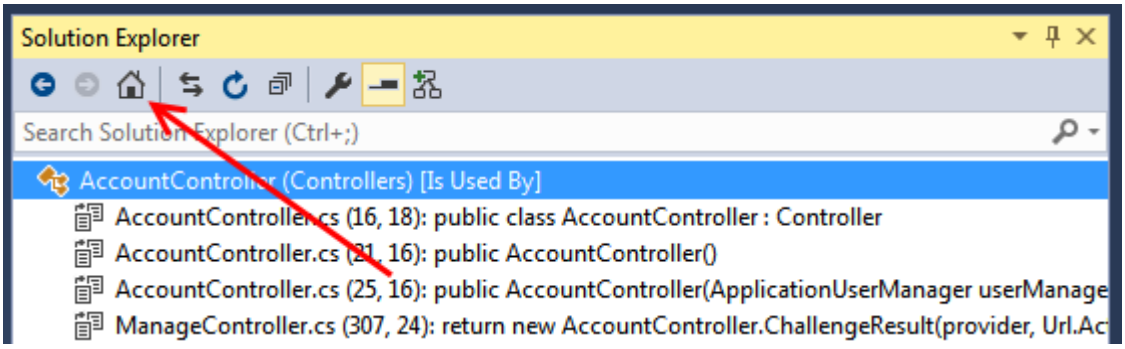

favicon.ico
Global.asax
Global.asax.cs
MvcApplication
packages.config
Project_Readme.html
Startup.cs

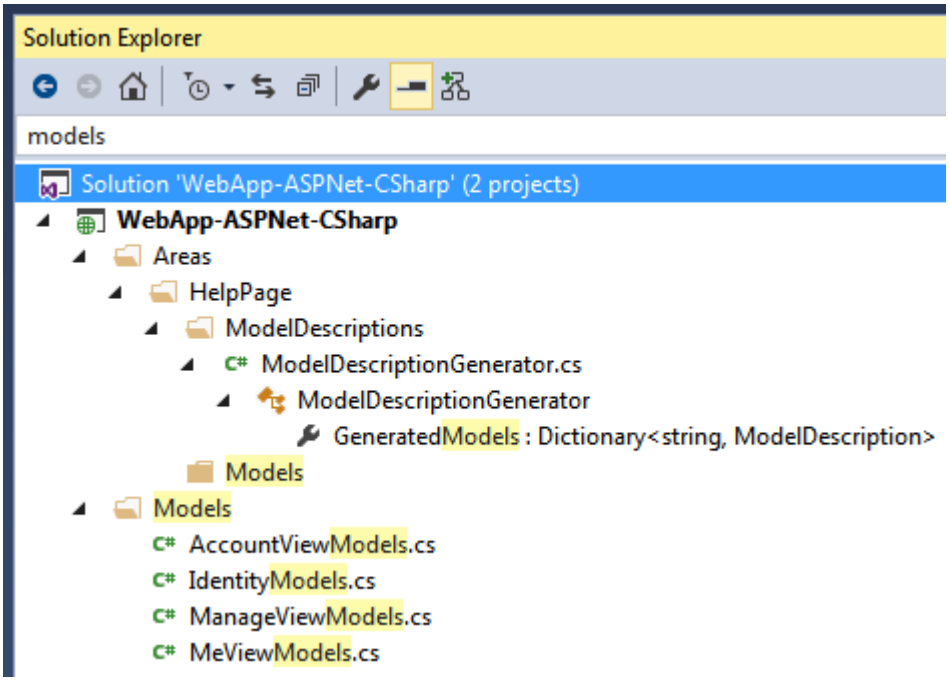

Global.asax
Global.asax.cs
MvcApplication
Application_Start() : void
packages.config
Project_Readme.html
Startup.cs
Controllers
AccountController.cs
AccountController
HomeController.cs
ManageController.cs
MeController.cs

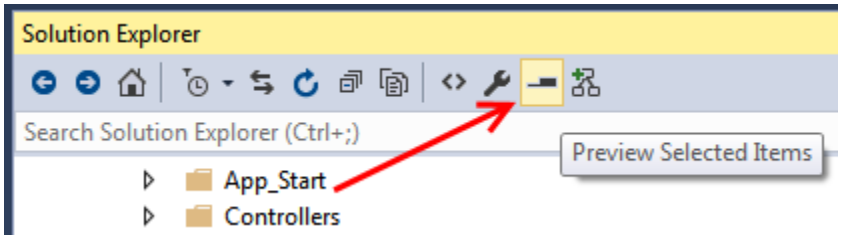

AccountController.cs
AccountControlle
HomeController.cs
ManageController.cs
MeController.cs
fonts
Models
Providers
Results
Scripts
Views
Scope to This
Base Types
Derived Types
Is Used By
Implements
New Solution Explorer View
Show on Code Map


Solution Explorer
Search Solution Explorer (Ctrl+;)
AccountController (Controllers) [Base Types]
Controller (Mvc)
ControllerBase (Mvc)
object (System)

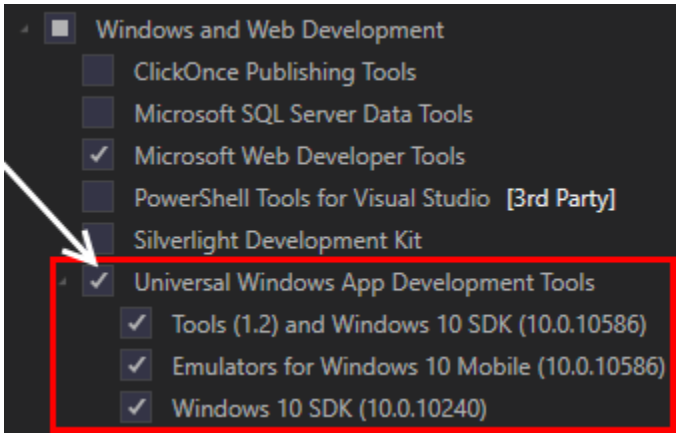

Solution Explorer
Search Solution Explorer (Ctrl+;)
AccountController (Controllers) [Is Used By]
AccountController.cs (16, 18): public class AccountController : Controller
AccountController.cs (21, 16): public AccountController()
AccountController.cs (25, 16): public AccountController(ApplicationUserManager userManage
ManageController.cs (307, 24): return new AccountController.ChallengeResult(provider, Url.Ac

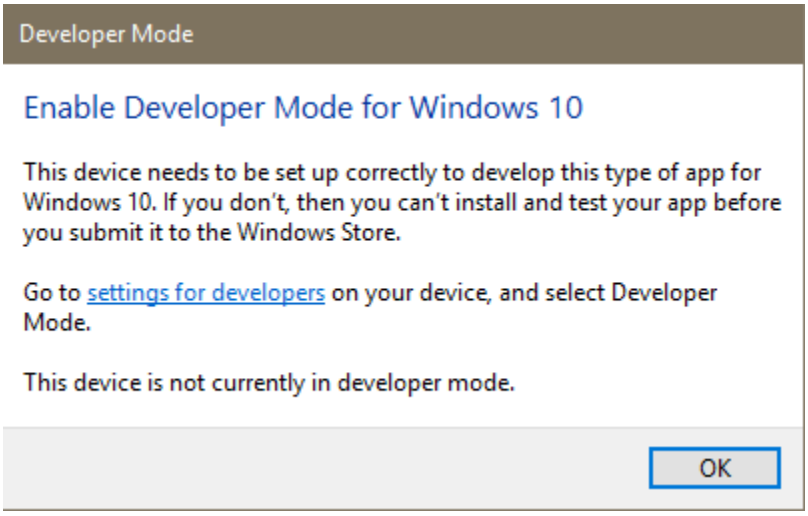

Solution Explorer
Search Solution Explorer (Ctrl+;)
AccountController (Controllers) [Is Used By]
AccountController.cs (16, 18): public class AccountController : Controller
AccountController.cs (21, 16): public AccountController()
AccountController.cs (25, 16): public AccountController(ApplicationUserManager userManage
ManageController.cs (307, 24): return new AccountController.ChallengeResult(provider, Url.Ac

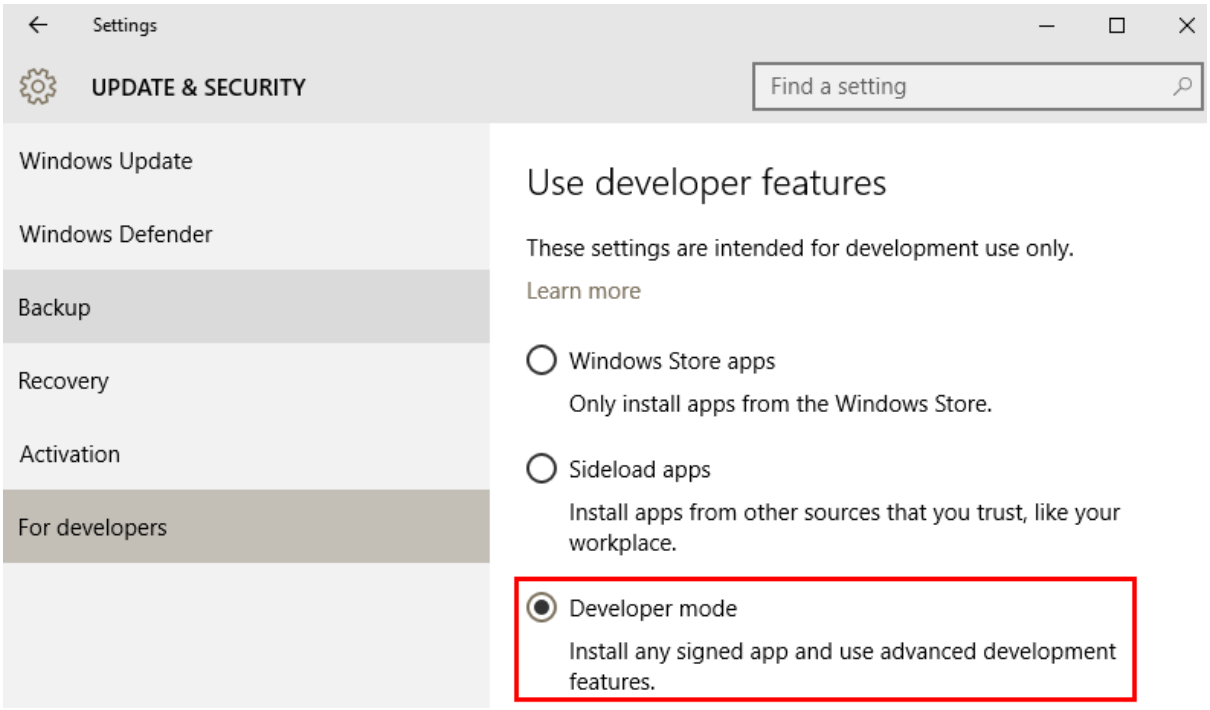

Solution Explorer
models
Solution 'WebApp-ASPNet-CSharp' (2 projects)
WebApp-ASPNet-CSharp
Areas
HelpPage
ModelDescriptions
ModelDescriptionGenerator.cs
ModelDescriptionGenerator
GeneratedModels : Dictionary<string, ModelDescription>
Models
Models
AccountViewModels.cs
IdentityModels.cs
ManageViewModels.cs
MeViewModels.cs

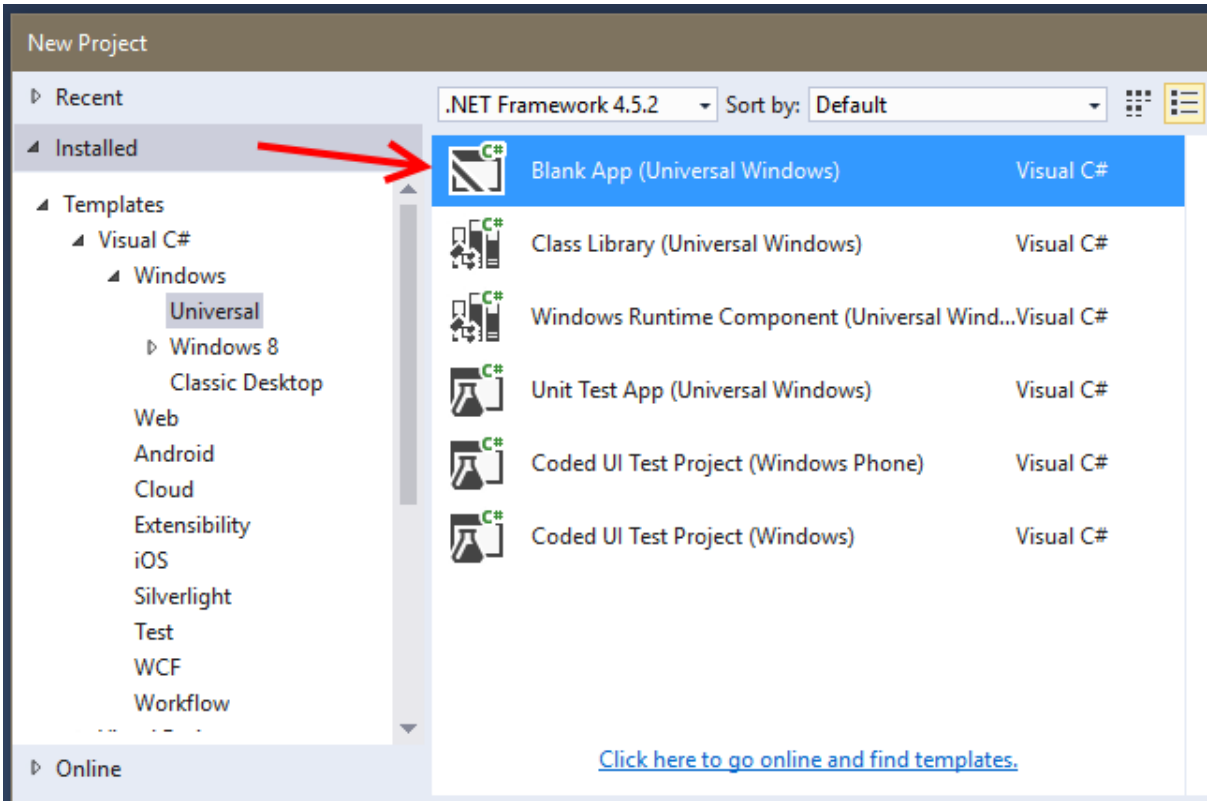

Solution Explorer
Search Solution Explorer (Ctrl+;)
Preview Selected Items
App_Start
Controllers

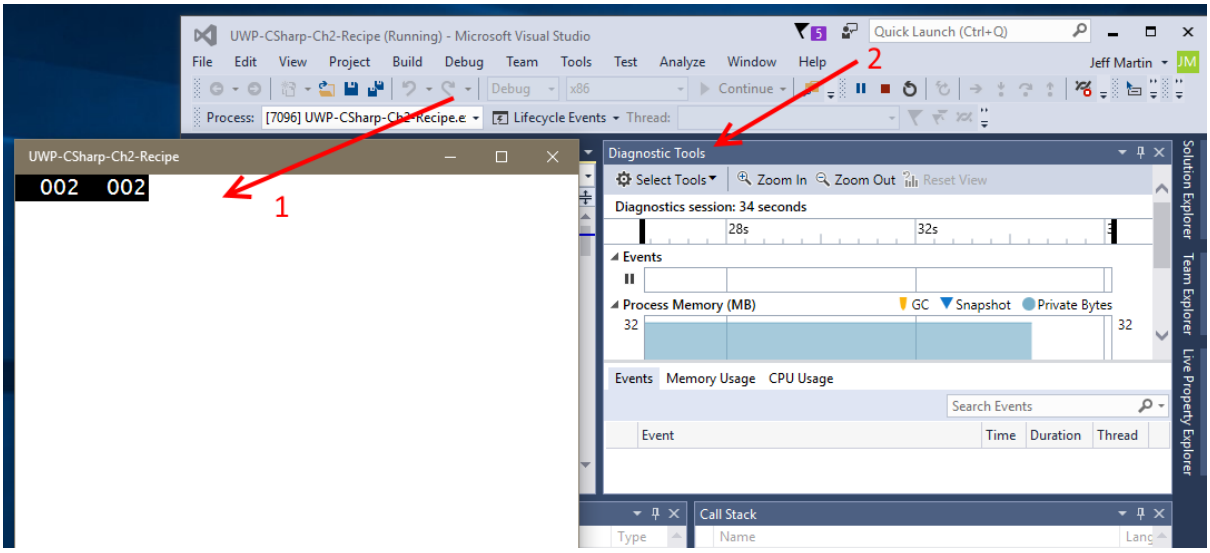
# Chapter 2: Getting Started with Universal Windows Platform Apps

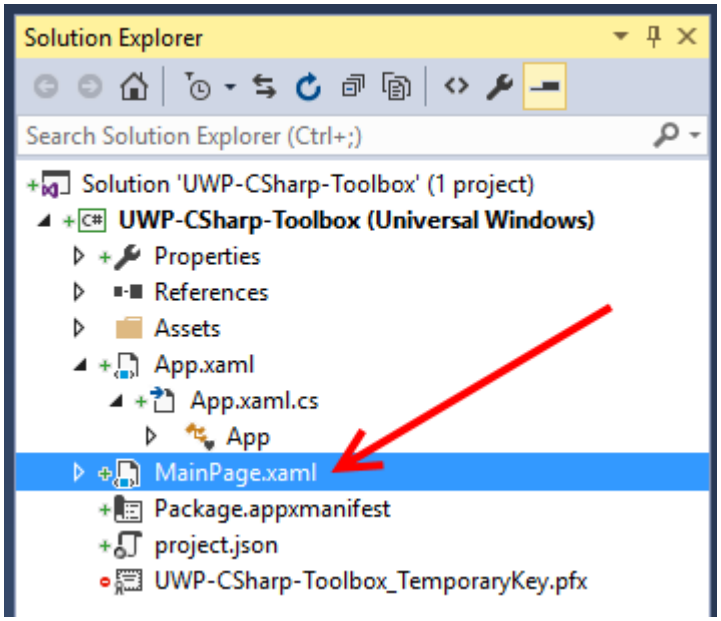


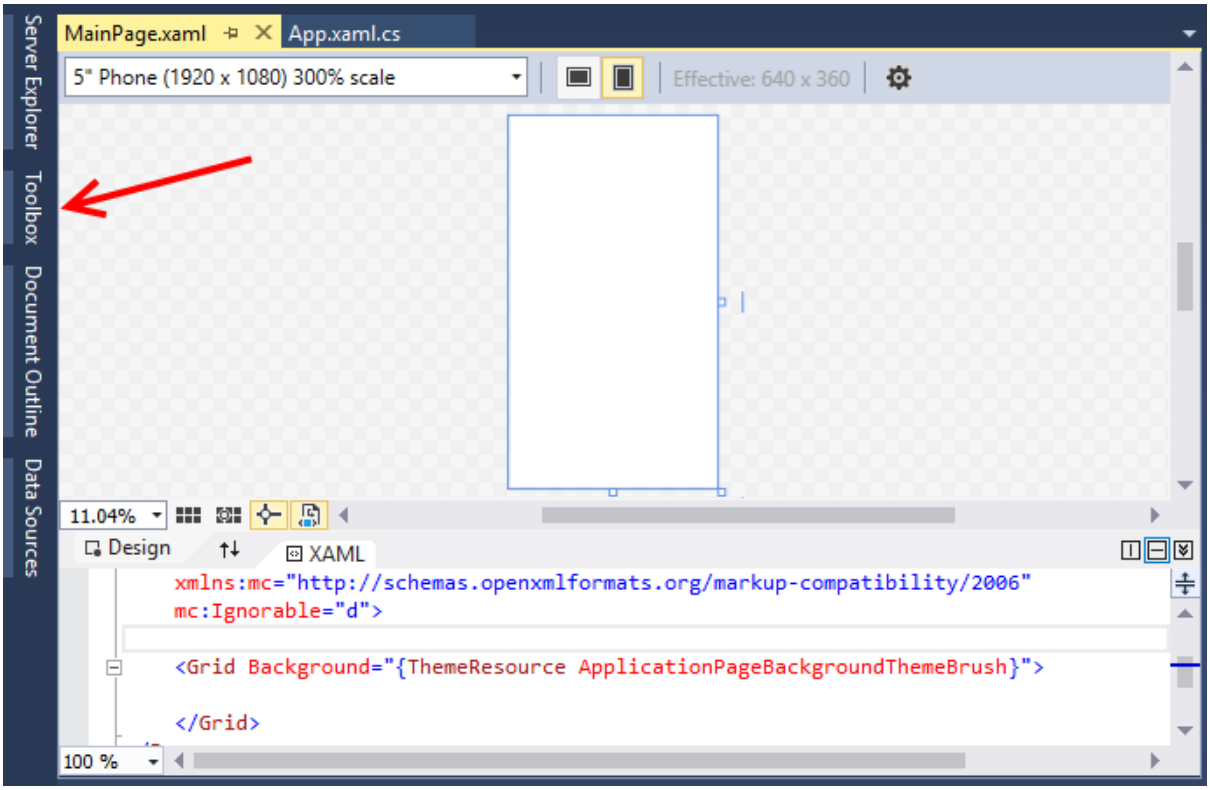



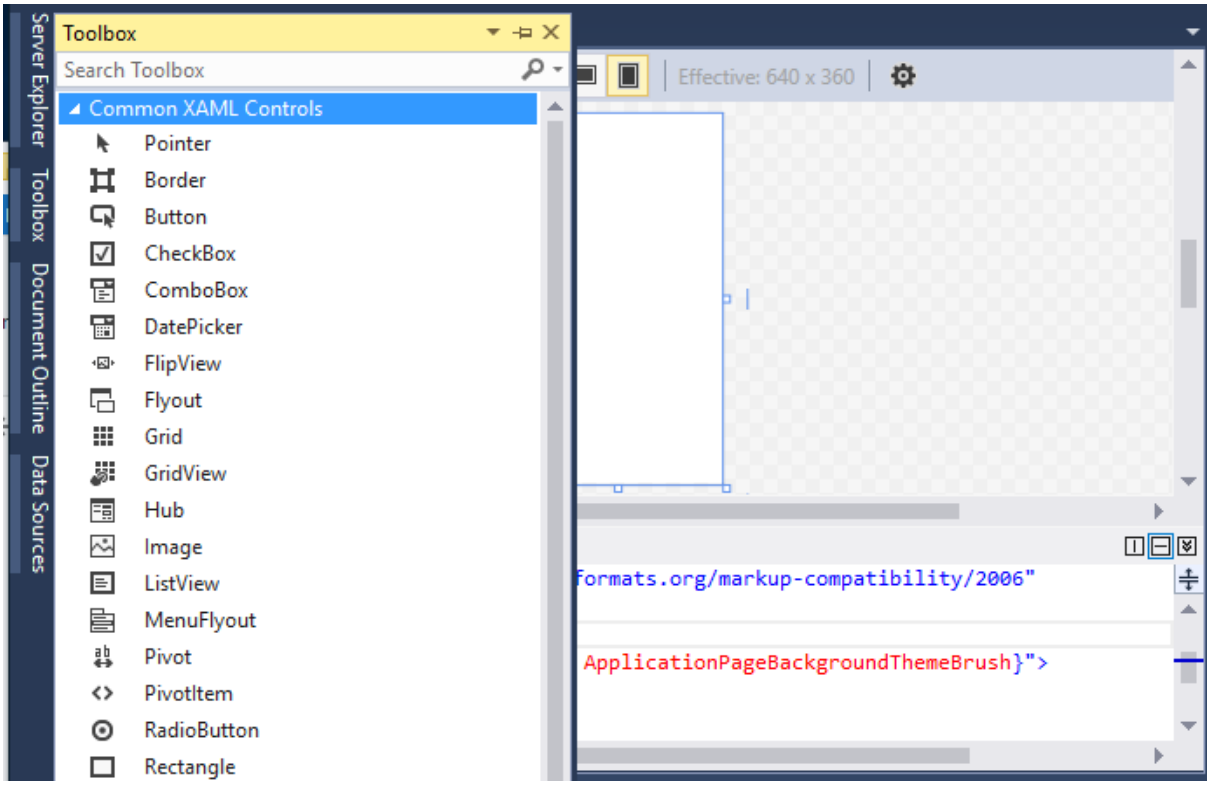

Settings
UPDATE & SECURITY
Find a setting
Windows Update
Windows Defender
Backup
Recovery
Activation
For developers
Use developer features
These settings are intended for development use only.
Learn more
Windows Store apps
Only install apps from the Windows Store.
Sideload apps
Install apps from other sources that you trust, like your workplace.
Developer mode
Install any signed app and use advanced development features.

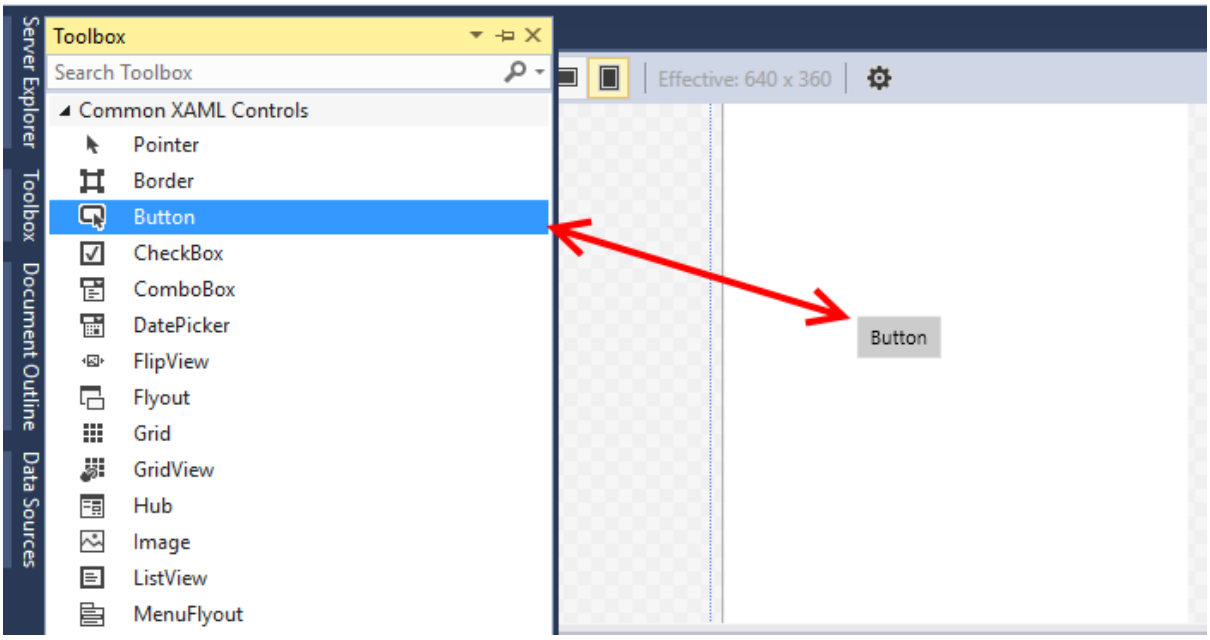

New Project
Recent
Installed
Templates
Visual C#
Windows
Universal
Windows 8
Classic Desktop
Web
Android
Cloud
Extensibility
iOS
Silverlight
Test
WCF
Workflow
Online
.NET Framework 4.5.2
Sort by:
Default
Blank App (Universal Windows)
Visual C#
Class Library (Universal Windows)
Visual C#
Windows Runtime Component (Universal Wind...
Visual C#
Unit Test App (Universal Windows)
Visual C#
Coded UI Test Project (Windows Phone)
Visual C#
Coded UI Test Project (Windows)
Visual C#
Click here to go online and find templates.

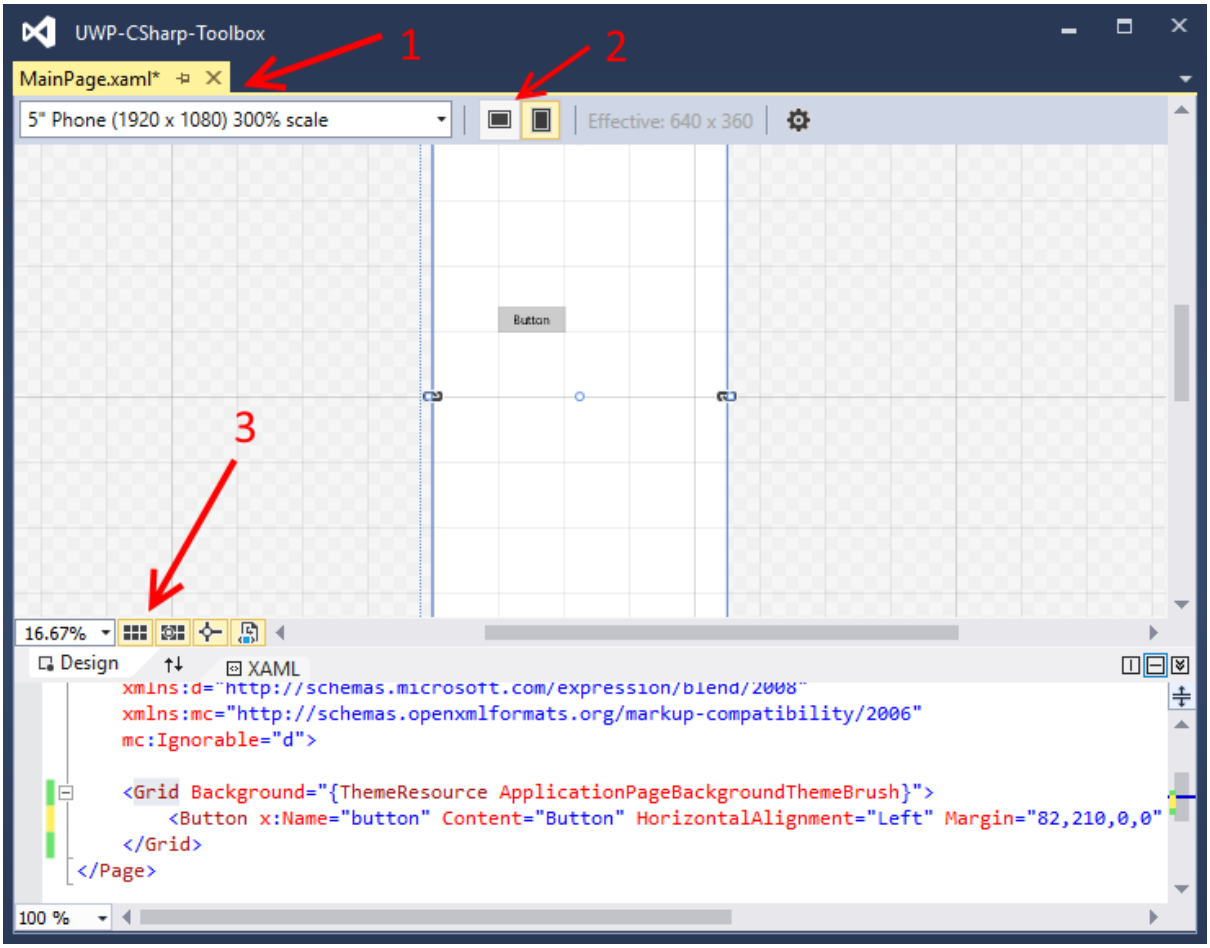

UWP-CSharp-Ch2-Recipe (Running) - Microsoft Visual Studio
Quick Launch (Ctrl+Q)
File Edit View Project Build Debug Team Tools Test Analyze Window Help
Jeff Martin
Debug
x86
Continue
Process:
Lifecycle Events
Thread:
UWP-CSharp-Ch2-Recipe
002 002
1
2
Diagnostic Tools
Select Tools
Zoom In
Zoom Out
Reset View
Diagnostics session: 34 seconds
28s
32s
Events
Process Memory (MB)
GC
Snapshot
Private Bytes
32
32
Events
Memory Usage
CPU Usage
Search Events
Event
Time
Duration
Thread
Call Stack
Type
Name
Solution Explorer
Team Explorer
Live Property Explorer

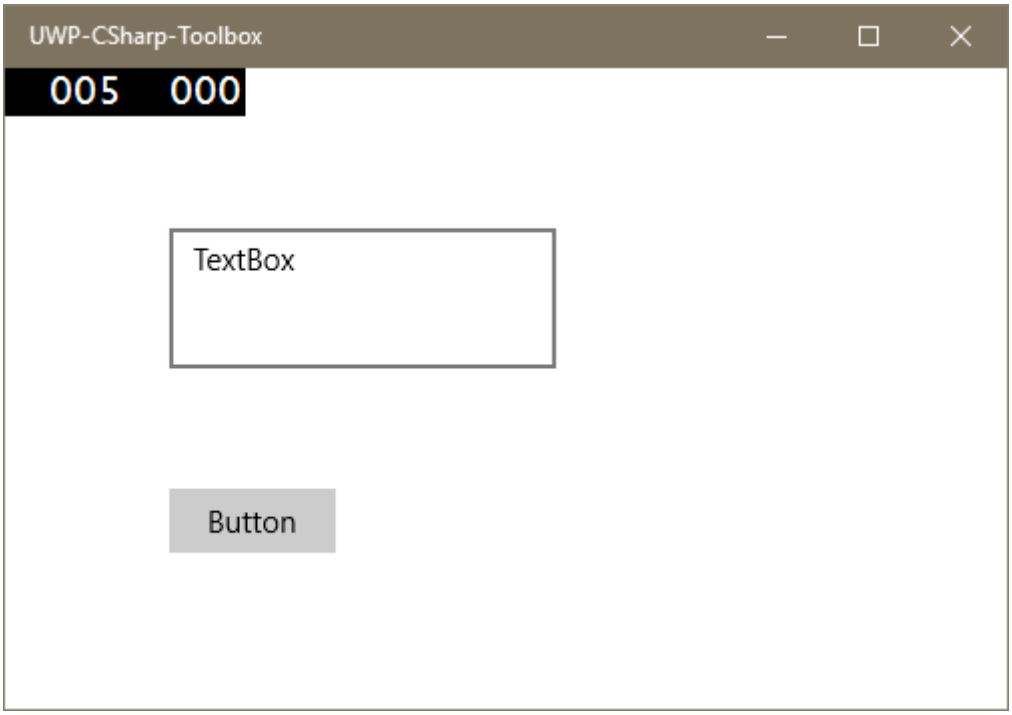

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'UWP-CSharp-Toolbox' (1 project)
UWP-CSharp-Toolbox (Universal Windows)
Properties
References
Assets
App.xaml
App.xaml.cs
App
MainPage.xaml
Package.appxmanifest
project.json
UWP-CSharp-Toolbox_TemporaryKey.pfx

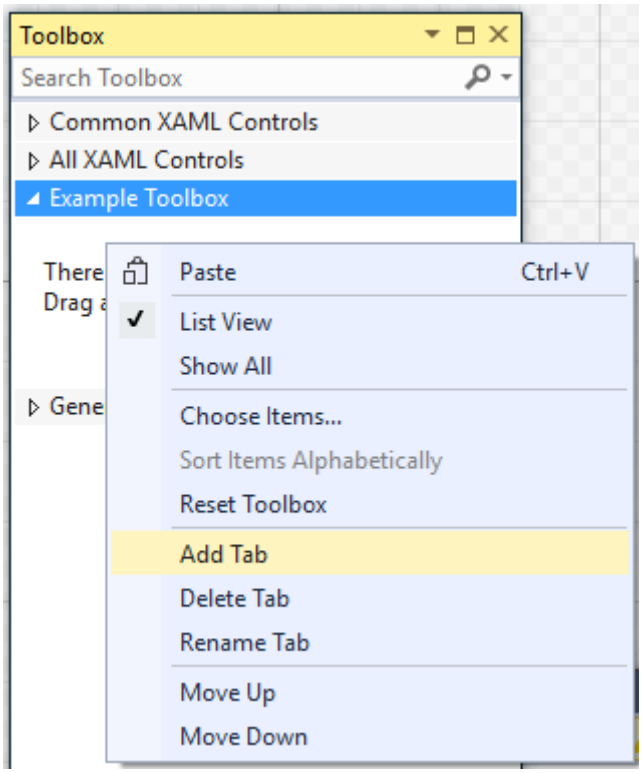

Server Explorer
Toolbox
Document Outline
Data Sources
MainPage.xaml
App.xaml.cs
5" Phone (1920 x 1080) 300% scale
Effective: 640 x 360
11.04%
Design
XAML
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
mc:Ignorable="d">
<Grid Background="{ThemeResource ApplicationPageBackgroundThemeBrush}">
</Grid>
100 %

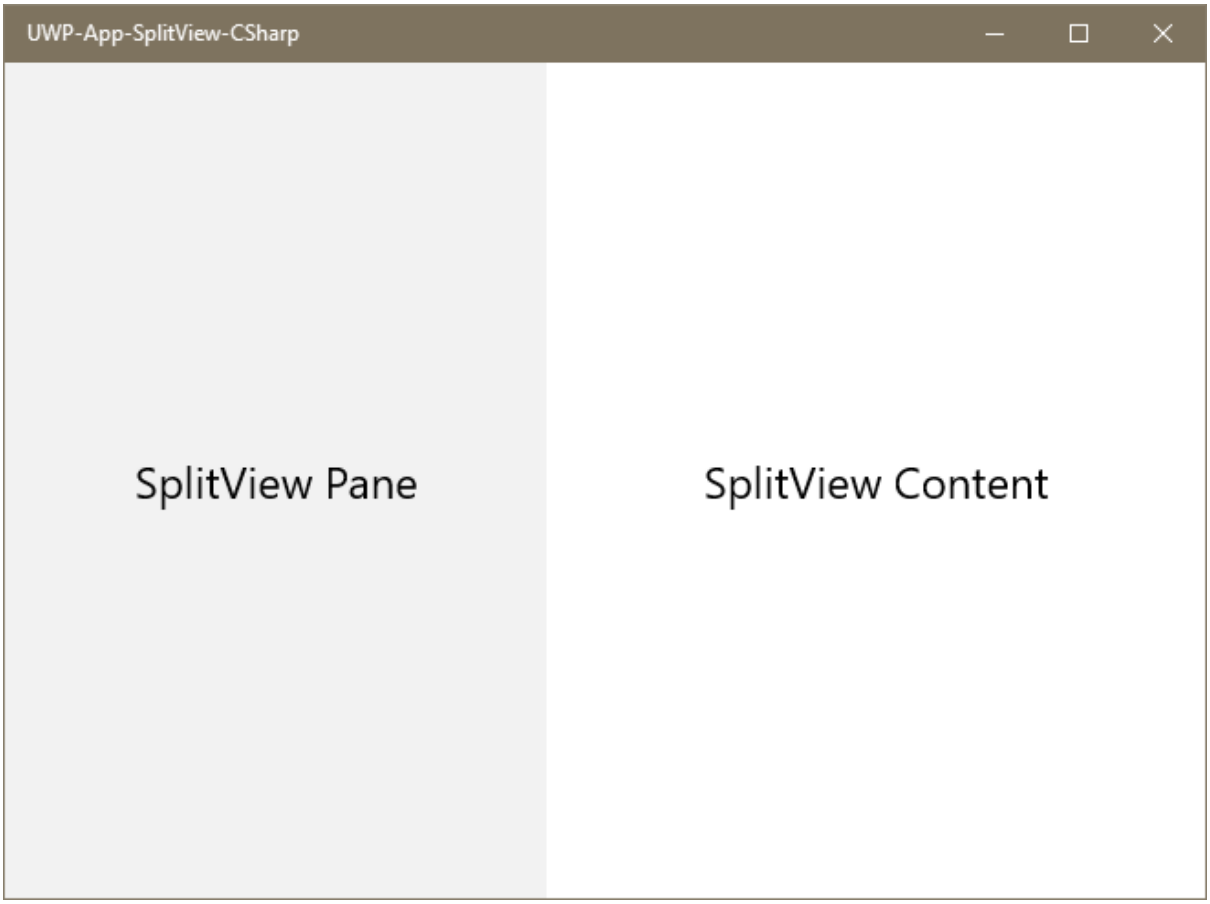

Server Explorer
Toolbox
Document Outline
Data Sources
Toolbox
Search Toolbox
Common XAML Controls
Pointer
Border
Button
CheckBox
ComboBox
DatePicker
FlipView
Flyout
Grid
GridView
Hub
Image
ListView
MenuFlyout
Pivot
PivotItem
RadioButton
Rectangle
Effective: 640 x 360
formats.org/markup-compatibility/2006"
ApplicationPageBackgroundThemeBrush}">


Server Explorer
Toolbox
Document Outline
Data Sources
Toolbox
Search Toolbox
Common XAML Controls
Pointer
Border
Button
CheckBox
ComboBox
DatePicker
FlipView
Flyout
Grid
GridView
Hub
Image
ListView
MenuFlyout
Effective: 640 x 360
Button

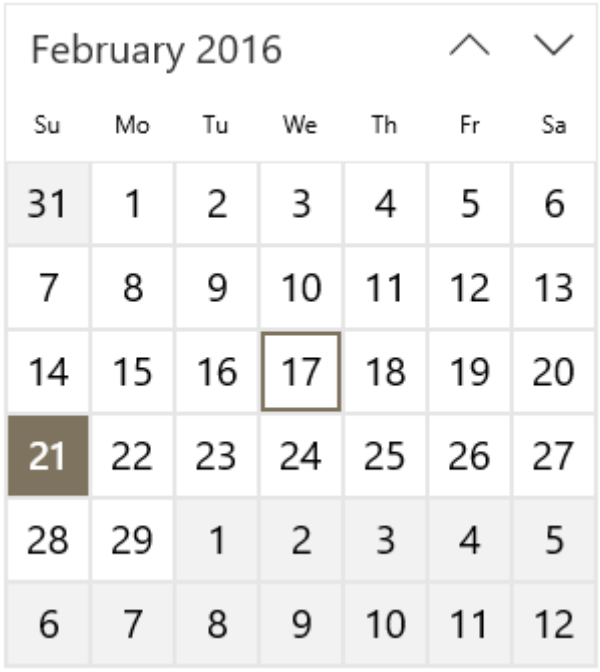

UWP-CSharp-Toolbox
MainPage.xaml*
1
2
5" Phone (1920 x 1080) 300% scale
Effective: 640 x 360
Button
3
16.67%
Design
XAML
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
mc:Ignorable="d">
<Grid Background="{ThemeResource ApplicationPageBackgroundThemeBrush}">
<Button x:Name="button" Content="Button" HorizontalAlignment="Left" Margin="82,210,0,0"
</Grid>
</Page>
100 %


UWP-CSharp-Toolbox
005 000
TextBox
Button


Toolbox
Search Toolbox
Common XAML Controls
All XAML Controls
Example Toolbox
There
Drag
Gene
Paste
Ctrl+V
List View
Show All
Choose Items...
Sort Items Alphabetically
Reset Toolbox
Add Tab
Delete Tab
Rename Tab
Move Up
Move Down

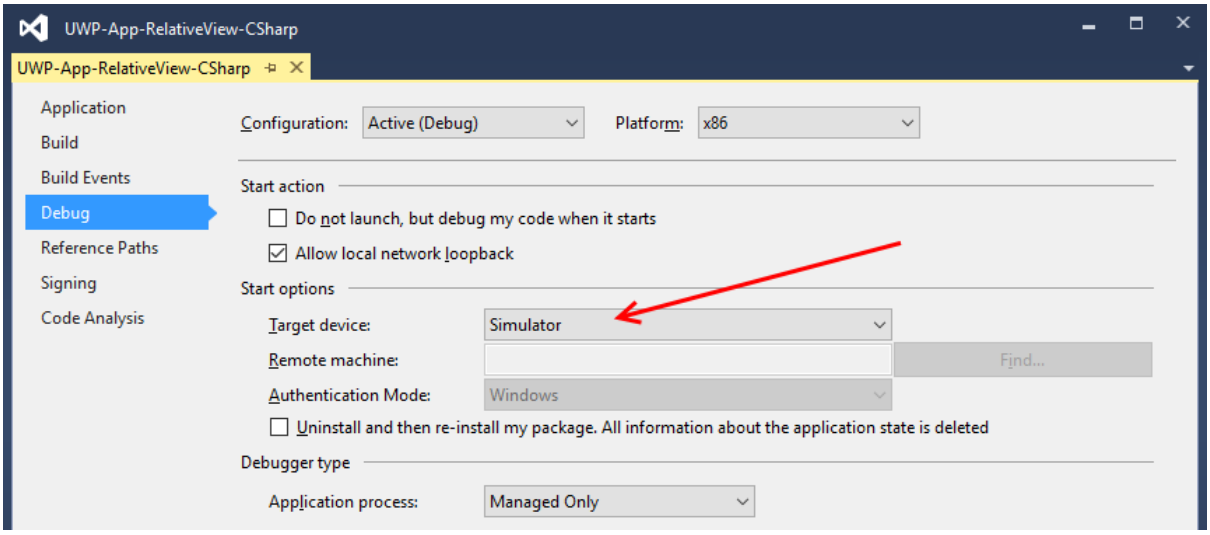

UWP-App-SplitView-CSharp
SplitView Pane
SplitView Content

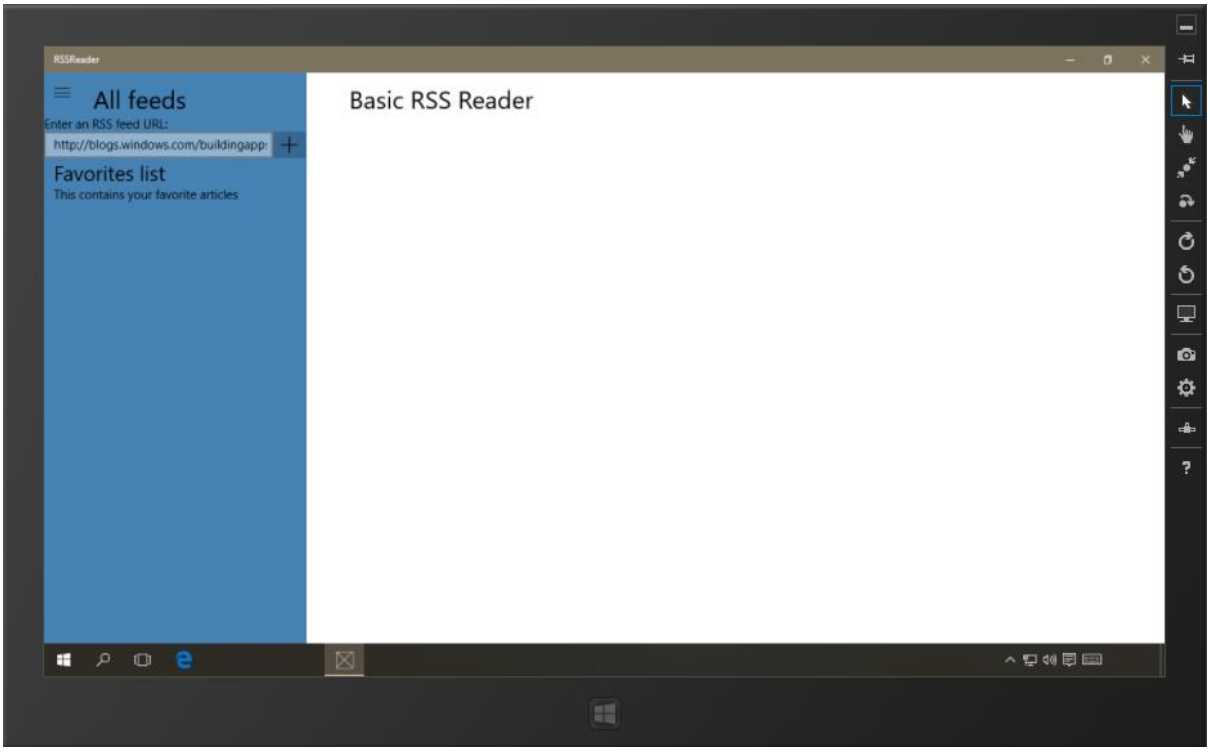
UWP-App-RelativeView-CSharp
Left Button
Right
Aenean ullamcorper velit at
accumsan euismod. In gravida

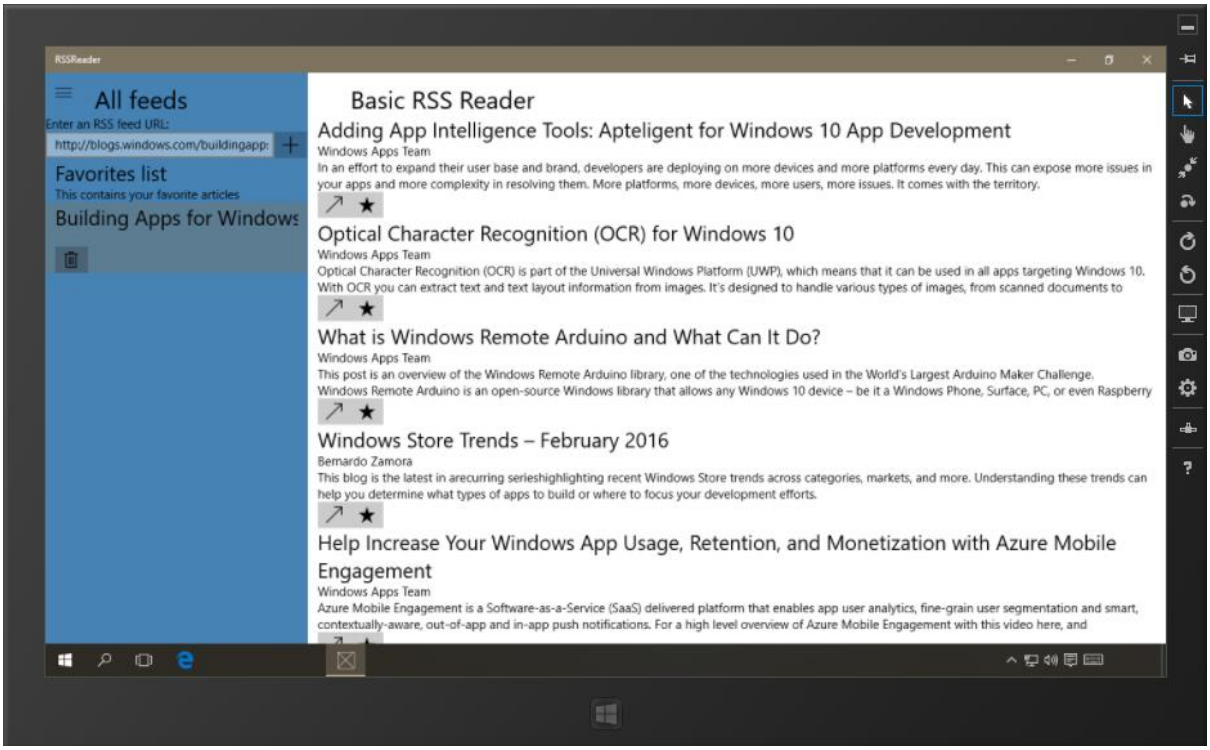

February 2016
Su Mo Tu We Th Fr Sa
31 1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 1 2 3 4 5
6 7 8 9 10 11 12

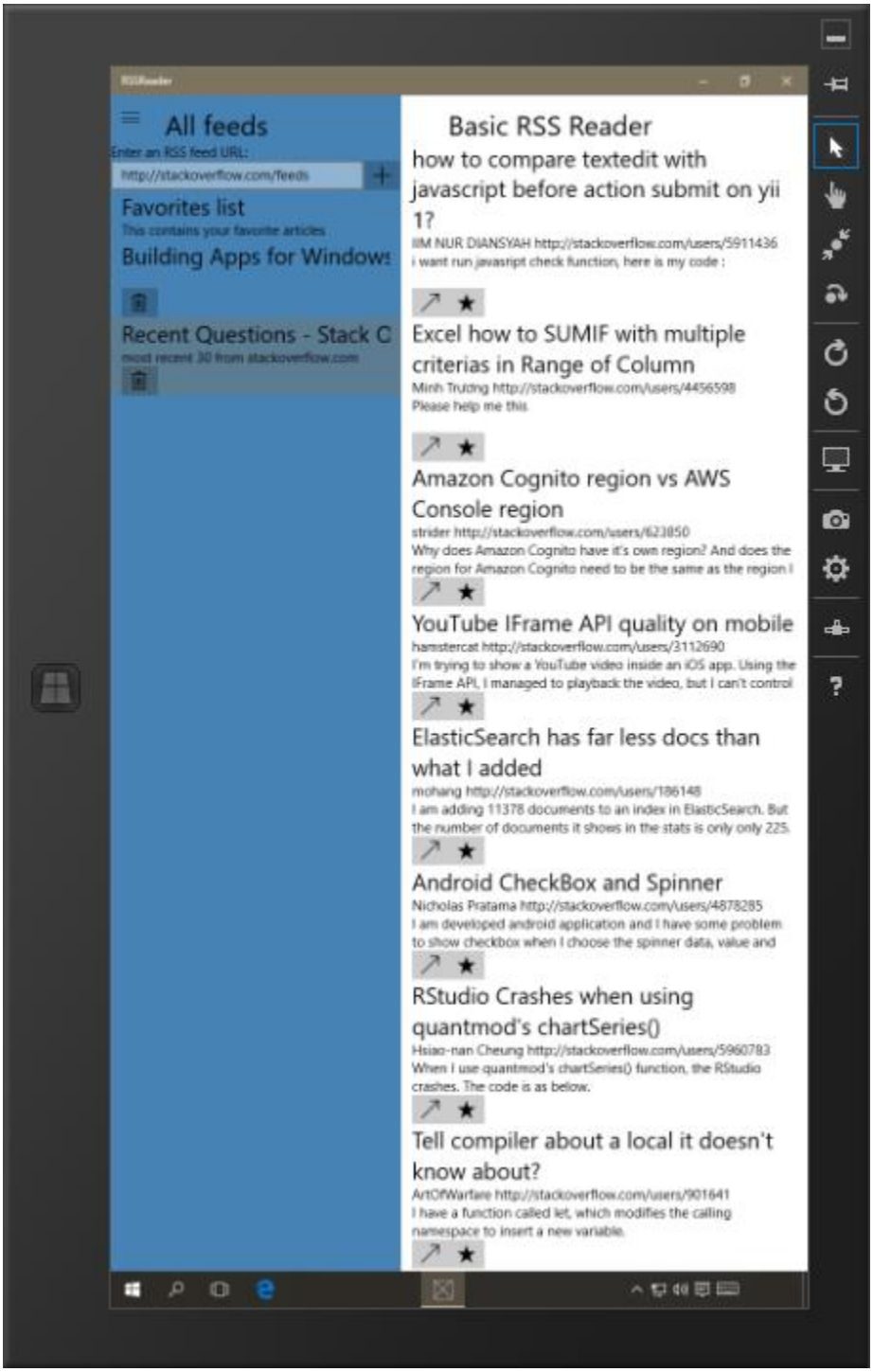
select a date

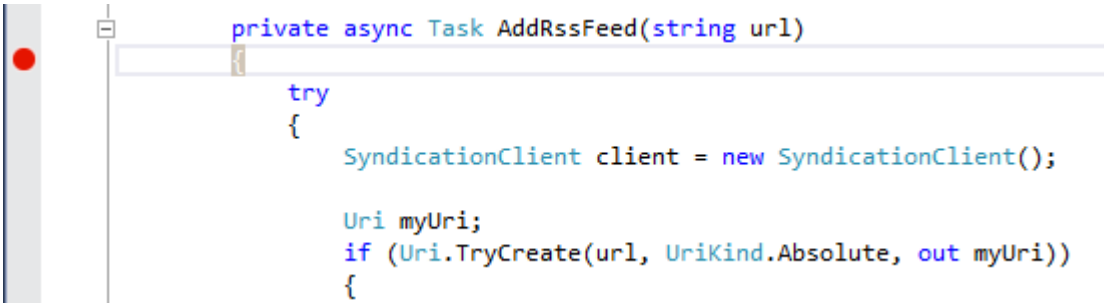
00:00
00:00

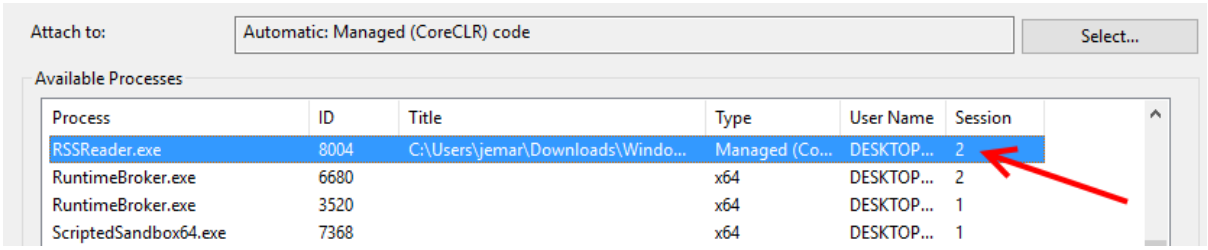

UWP-App-RelativeView-CSharp
UWP-App-RelativeView-CSharp
Application
Build
Build Events
Debug
Reference Paths
Signing
Code Analysis
Configuration: Active (Debug)
Platform: x86
Start action
Do not launch, but debug my code when it starts
Allow local network loopback
Start options
Target device: Simulator
Remote machine:
Find...
Authentication Mode: Windows
Uninstall and then re-install my package. All information about the application state is deleted
Debugger type
Application process: Managed Only

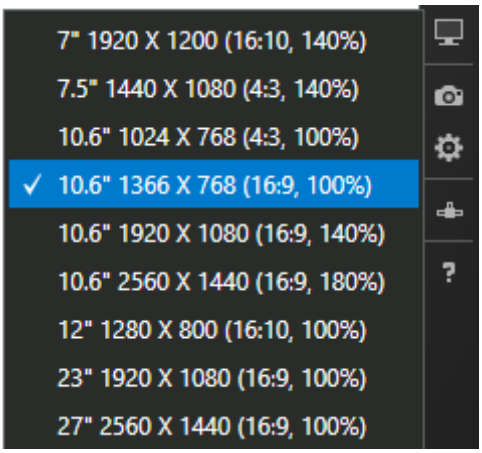

RSSReader
All feeds
Enter an RSS feed URL:
http://blogs.windows.com/buildingapp:
Favorites list
This contains your favorite articles
Basic RSS Reader

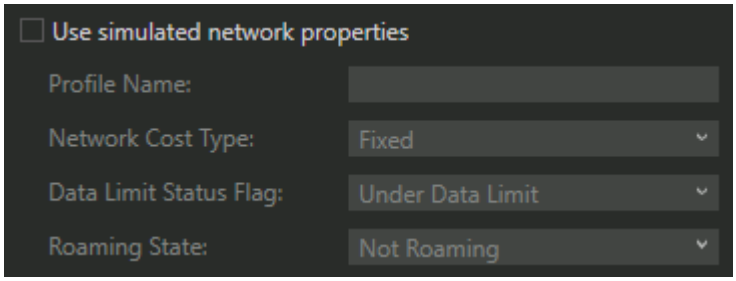

RSSReader
All feeds
Enter an RSS feed URL:
http://blogs.windows.com/buildingapp:
Favorites list
This contains your favorite articles
Building Apps for Windows
Basic RSS Reader
Adding App Intelligence Tools: Apteligent for Windows 10 App Development
Windows Apps Team
In an effort to expand their user base and brand, developers are deploying on more devices and more platforms every day. This can expose more issues in your apps and more complexity in resolving them. More platforms, more devices, more users, more issues. It comes with the territory.
Optical Character Recognition (OCR) for Windows 10
Windows Apps Team
Optical Character Recognition (OCR) is part of the Universal Windows Platform (UWP), which means that it can be used in all apps targeting Windows 10. With OCR you can extract text and text layout information from images. It's designed to handle various types of images, from scanned documents to
What is Windows Remote Arduino and What Can It Do?
Windows Apps Team
This post is an overview of the Windows Remote Arduino library, one of the technologies used in the World's Largest Arduino Maker Challenge. Windows Remote Arduino is an open-source Windows library that allows any Windows 10 device – be it a Windows Phone, Surface, PC, or even Raspberry
Windows Store Trends – February 2016
Bernardo Zamora
This blog is the latest in arecurring serieshighlighting recent Windows Store trends across categories, markets, and more. Understanding these trends can help you determine what types of apps to build or where to focus your development efforts.
Help Increase Your Windows App Usage, Retention, and Monetization with Azure Mobile Engagement
Windows Apps Team
Azure Mobile Engagement is a Software-as-a-Service (SaaS) delivered platform that enables app user analytics, fine-grain user segmentation and smart, contextually-aware, out-of-app and in-app push notifications. For a high level overview of Azure Mobile Engagement with this video here, and

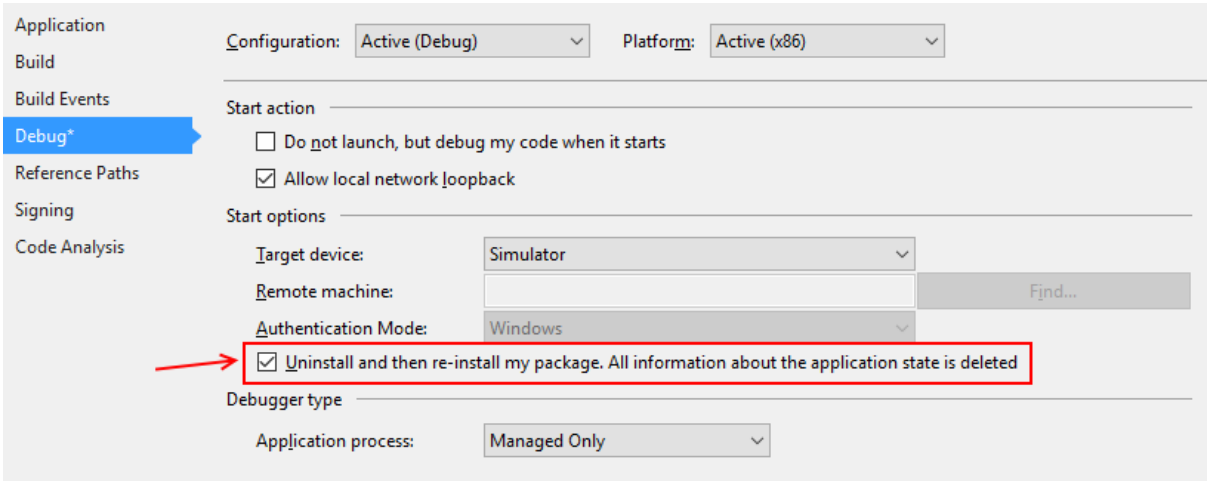

All feeds
Enter an RSS feed URL:
http://stackoverflow.com/feeds
Favorites list
This contains your favorite articles
Building Apps for Windows
Recent Questions - Stack C
most recent 30 from stackoverflow.com
Basic RSS Reader
how to compare textedit with javascript before action submit on yii 1?
IIM NUR DIANSYAH http://stackoverflow.com/users/5911436
i want run javasript check function, here is my code :
Excel how to SUMIF with multiple criterias in Range of Column
Minh Trường http://stackoverflow.com/users/4456598
Please help me this
Amazon Cognito region vs AWS Console region
strider http://stackoverflow.com/users/623850
Why does Amazon Cognito have it's own region? And does the region for Amazon Cognito need to be the same as the region I
YouTube IFrame API quality on mobile
hamstercat http://stackoverflow.com/users/3112690
I'm trying to show a YouTube video inside an iOS app. Using the iFrame API, I managed to playback the video, but I can't control
ElasticSearch has far less docs than what I added
mohang http://stackoverflow.com/users/186148
I am adding 11378 documents to an index in ElasticSearch. But the number of documents it shows in the stats is only only 225.
Android CheckBox and Spinner
Nicholas Pratama http://stackoverflow.com/users/4878285
I am developed android application and I have some problem to show checkbox when I choose the spinner data, value and
RStudio Crashes when using quantmod's chartSeries()
Hsiao-nan Cheung http://stackoverflow.com/users/5960783
When I use quantmod's chartSeries() function, the RStudio crashes. The code is as below.
Tell compiler about a local it doesn't know about?
ArtOfWarfare http://stackoverflow.com/users/901641
I have a function called let, which modifies the calling namespace to insert a new variable.

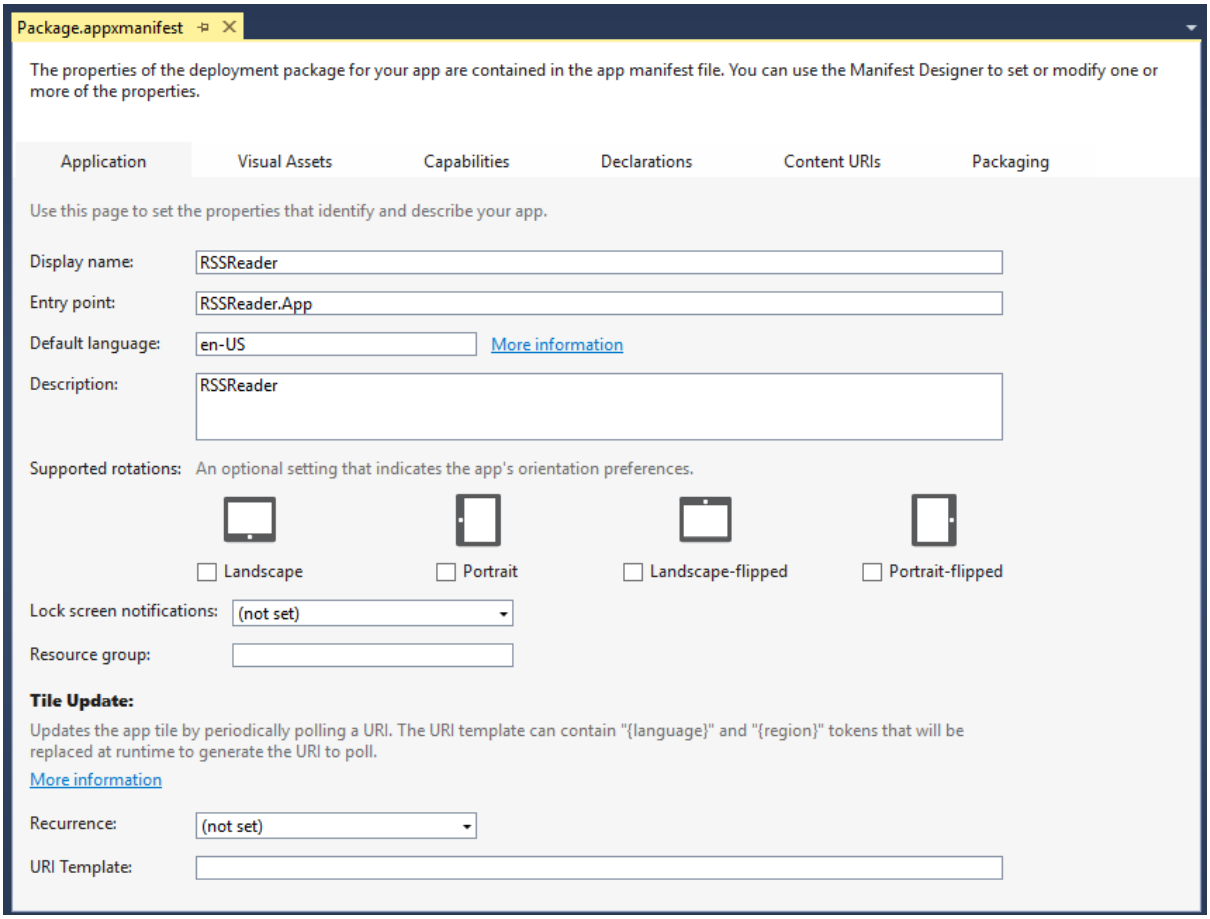

private async Task AddRssFeed(string url)
{
try
{
SyndicationClient client = new SyndicationClient();
Uri myUri;
if (Uri.TryCreate(url, UriKind.Absolute, out myUri))
{

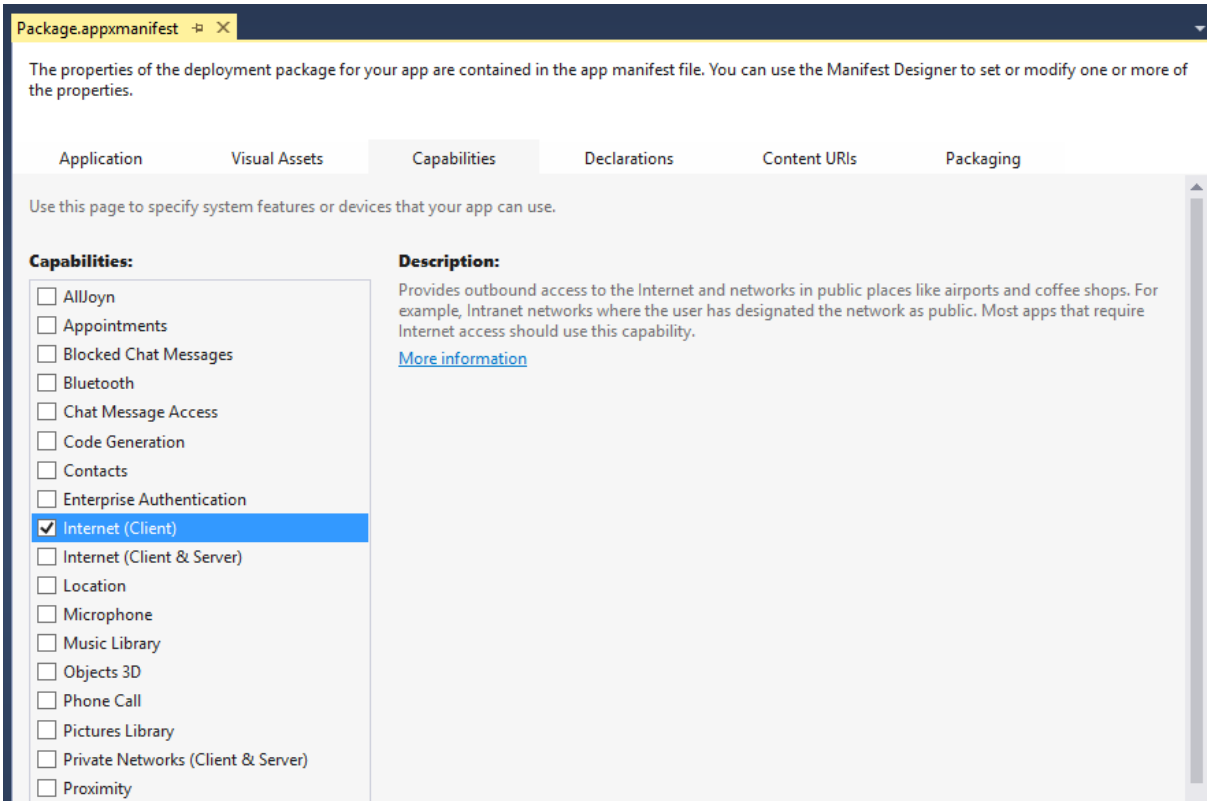

Attach to:
Automatic: Managed (CoreCLR) code
Select...
Available Processes
Process
ID
Title
Type
User Name
Session
RSSReader.exe
8004
C:\Users\jemar\Downloads\Windo...
Managed (Co...
DESKTOP...
2
RuntimeBroker.exe
6680
x64
DESKTOP...
2
RuntimeBroker.exe
3520
x64
DESKTOP...
1
ScriptedSandbox64.exe
7368
x64
DESKTOP...
1

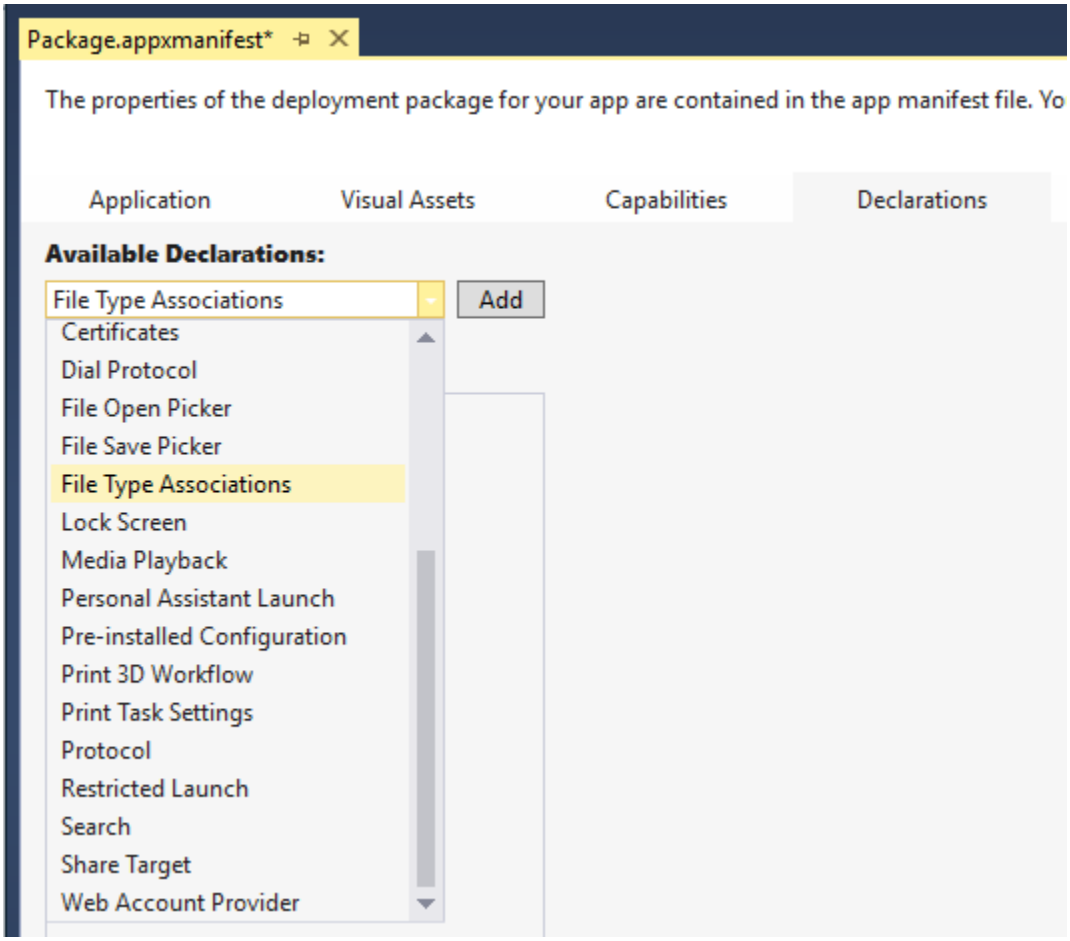

7" 1920 X 1200 (16:10, 140%)
7.5" 1440 X 1080 (4:3, 140%)
10.6" 1024 X 768 (4:3, 100%)
✓ 10.6" 1366 X 768 (16:9, 100%)
10.6" 1920 X 1080 (16:9, 140%)
10.6" 2560 X 1440 (16:9, 180%)
12" 1280 X 800 (16:10, 100%)
23" 1920 X 1080 (16:9, 100%)
27" 2560 X 1440 (16:9, 100%)

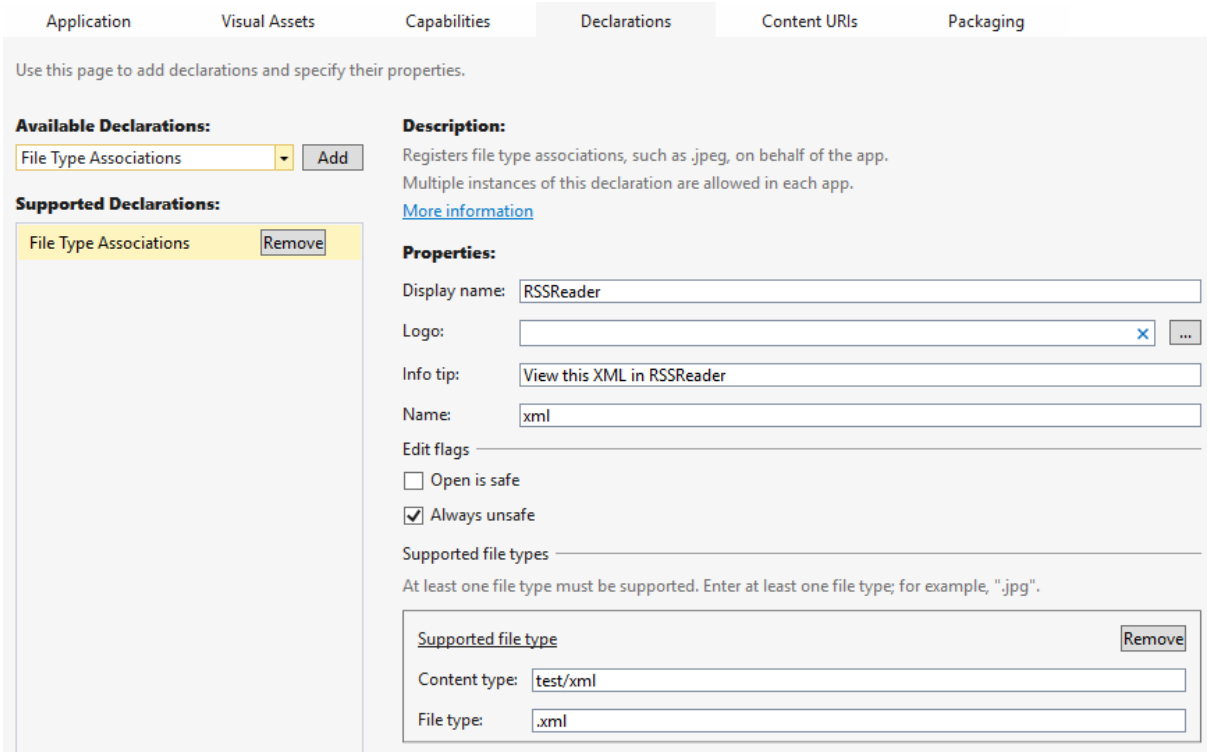

Use simulated network properties
Profile Name:
Network Cost Type:
Fixed
Data Limit Status Flag:
Under Data Limit
Roaming State:
Not Roaming

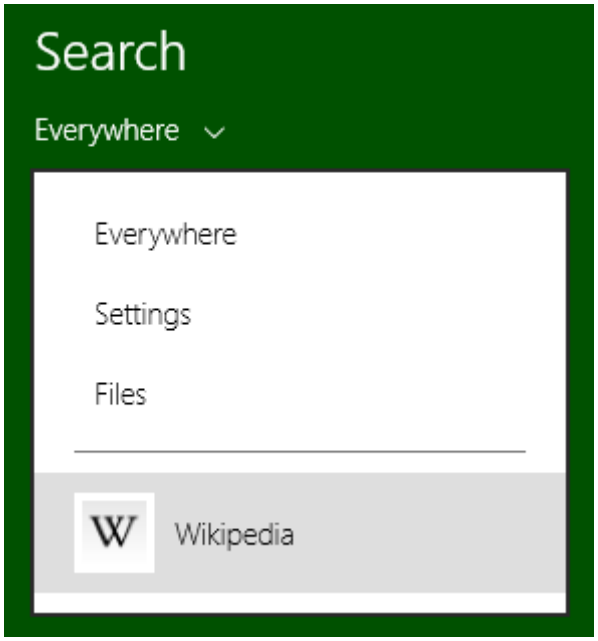

Application
Build
Build Events
Debug*
Reference Paths
Signing
Code Analysis
Configuration: Active (Debug)
Platform: Active (x86)
Start action
Do not launch, but debug my code when it starts
Allow local network loopback
Start options
Target device: Simulator
Remote machine:
Find...
Authentication Mode: Windows
Uninstall and then re-install my package. All information about the application state is deleted
Debugger type
Application process: Managed Only


Package.appxmanifest
The properties of the deployment package for your app are contained in the app manifest file. You can use the Manifest Designer to set or modify one or more of the properties.
Application
Visual Assets
Capabilities
Declarations
Content URIs
Packaging
Use this page to set the properties that identify and describe your app.
Display name:
RSSReader
Entry point:
RSSReader.App
Default language:
en-US
More information
Description:
RSSReader
Supported rotations:
An optional setting that indicates the app's orientation preferences.
Landscape
Portrait
Landscape-flipped
Portrait-flipped
Lock screen notifications:
(not set)
Resource group:
Tile Update:
Updates the app tile by periodically polling a URI. The URI template can contain "{language}" and "{region}" tokens that will be replaced at runtime to generate the URI to poll.
More information
Recurrence:
(not set)
URI Template:


Package.appxmanifest
The properties of the deployment package for your app are contained in the app manifest file. You can use the Manifest Designer to set or modify one or more of the properties.
Application
Visual Assets
Capabilities
Declarations
Content URIs
Packaging
Use this page to specify system features or devices that your app can use.
Capabilities:
AllJoyn
Appointments
Blocked Chat Messages
Bluetooth
Chat Message Access
Code Generation
Contacts
Enterprise Authentication
Internet (Client)
Internet (Client & Server)
Location
Microphone
Music Library
Objects 3D
Phone Call
Pictures Library
Private Networks (Client & Server)
Proximity
Description:
Provides outbound access to the Internet and networks in public places like airports and coffee shops. For example, Intranet networks where the user has designated the network as public. Most apps that require Internet access should use this capability.
More information


Package.appxmanifest*
The properties of the deployment package for your app are contained in the app manifest file. Yo
Application
Visual Assets
Capabilities
Declarations
Available Declarations:
File Type Associations
Add
Certificates
Dial Protocol
File Open Picker
File Save Picker
File Type Associations
Lock Screen
Media Playback
Personal Assistant Launch
Pre-installed Configuration
Print 3D Workflow
Print Task Settings
Protocol
Restricted Launch
Search
Share Target
Web Account Provider


Application
Visual Assets
Capabilities
Declarations
Content URIs
Packaging
Use this page to add declarations and specify their properties.
Available Declarations:
File Type Associations
Add
Supported Declarations:
File Type Associations
Remove
Description:
Registers file type associations, such as .jpeg, on behalf of the app.
Multiple instances of this declaration are allowed in each app.
More information
Properties:
Display name:
RSSReader
Logo:
...
Info tip:
View this XML in RSSReader
Name:
xml
Edit flags
Open is safe
Always unsafe
Supported file types
At least one file type must be supported. Enter at least one file type; for example, ".jpg".
Supported file type
Remove
Content type:
test/xml
File type:
.xml




Analysis Target

Change Target

Startup Project

RSSReader

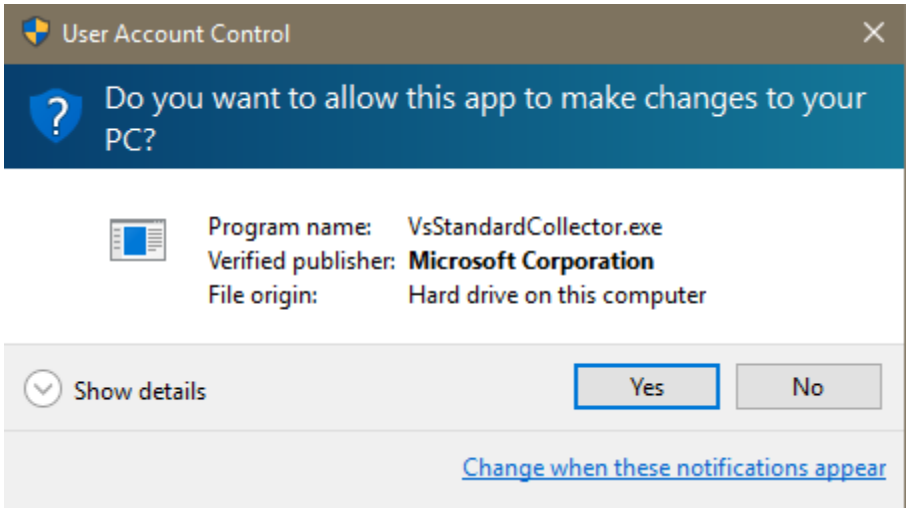
Solution configuration is set to Debug. Switch to a Release configuration for more accurate results.

Available Tools

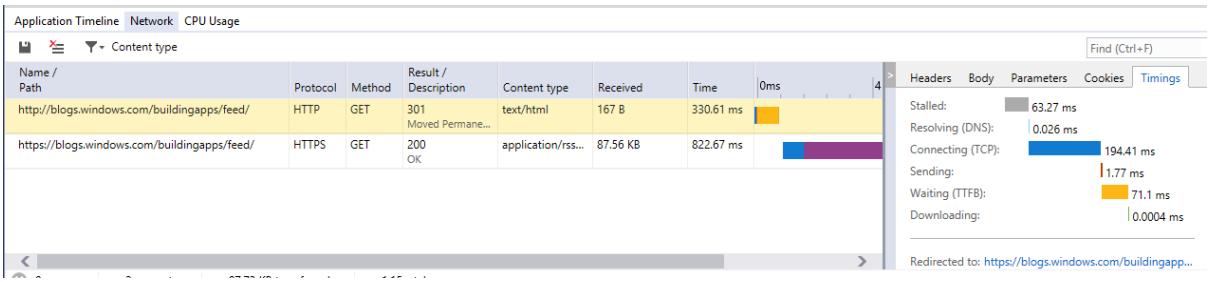
Show all tools

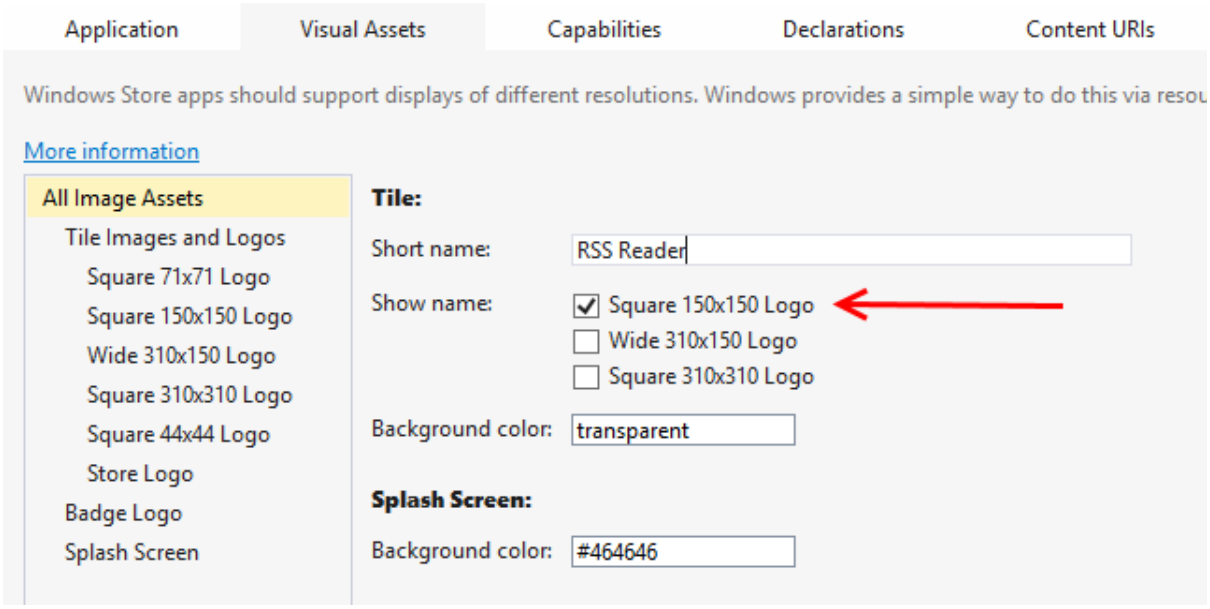
- Application Timeline
  Examine where time is spent in your application. Useful when troubleshooting issues like low frame rate
- CPU Usage
  See where the CPU is spending time executing your code. Useful when the CPU is the performance bottleneck
- Memory Usage
  Investigate application memory to find issues such as memory leaks
- CPU Sampling
  Examine which native and managed functions are using the CPU most frequently
- GPU Usage
  Examine GPU usage in your DirectX application. Useful to determine whether the CPU or GPU is the performance bottleneck
- Network
  Examine information about each network operation in your application, including HTTP request and response headers, payloads, cookies, timing data and more

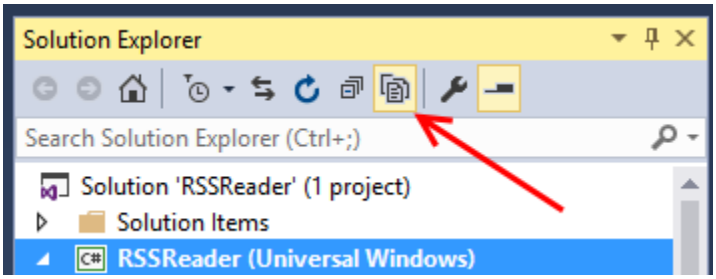
Start

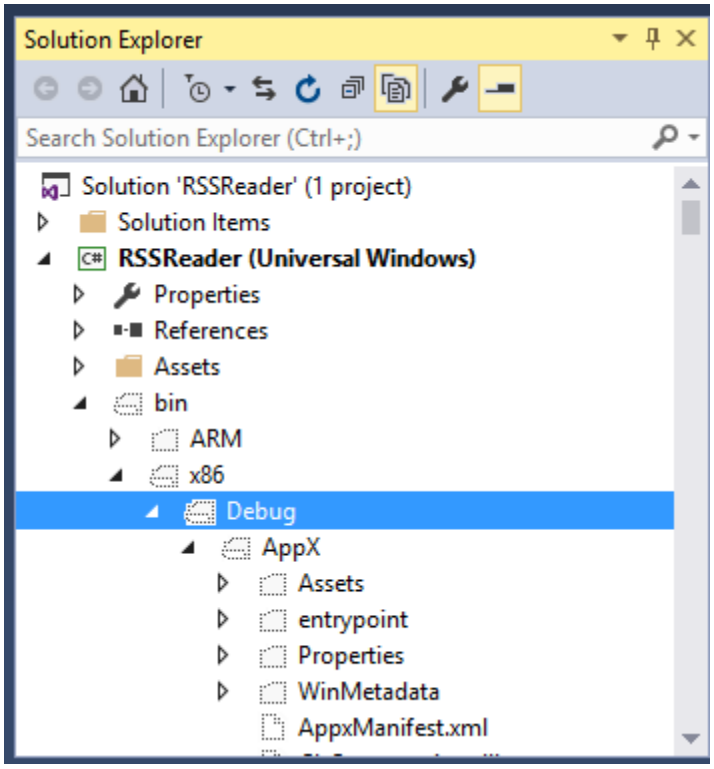

User Account Control
Do you want to allow this app to make changes to your PC?
Program name: VsStandardCollector.exe
Verified publisher: Microsoft Corporation
File origin: Hard drive on this computer
Show details
Yes
No
Change when these notifications appear

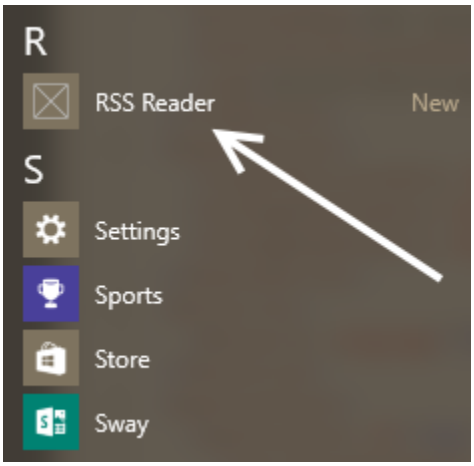
Diagnostics session: 43.577 seconds
App lifecycle mark
User mark
10s
20s
30s
40s
UI thread utilization (%)
Parsing
Layout
Render
I/O
App Code
Xaml Other
100
Visual throughput (FPS)
Composition Thread
UI Thread
60
30
CPU (% of all processors) (% of all processors)
Process CPU Usage
0
Application Timeline
Network
CPU Usage
Timeline details
Sort by:
Start time
Event name
Application Startup
Disk (dll)
Disk (winmd)
Parsing (app)
Window Resized
Page Load (FeedsArticlesVi...
Parsing (FeedsArticlesView)
2.4 s
0.32 ms [40 KB]
16.81 ms [3.99 MB]
0.17 ms [22 KB]
3.69 ms (0.64 ms)
1.09 s
0.45 ms [127.5 KB]
0.47 ms [47 KB]
0.3 ms [49 KB]
1.39 ms [119.5 KB]
691.92 ms
115.92 ms [19]
0.22 ms [26.5 KB]
Selection duration:
43.57 s
Start time:
0 s
UI thread summary:
4%
5%
5%
82%

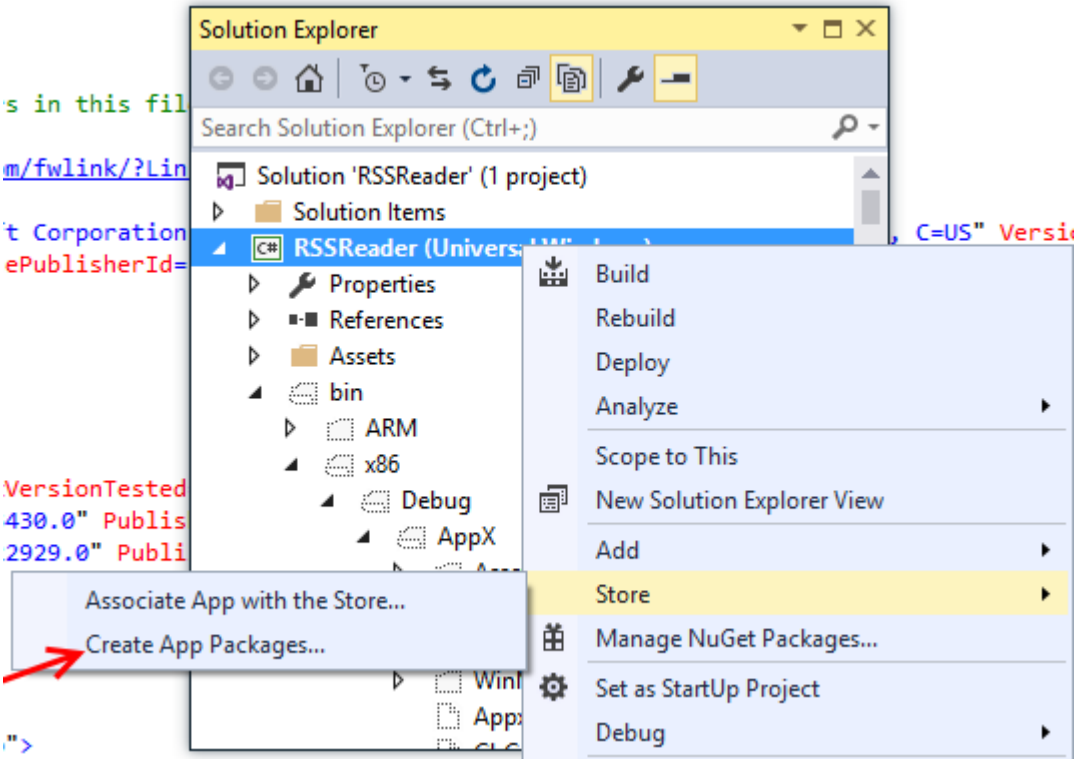

Application Timeline
Network
CPU Usage
Content type
Find (Ctrl+F)
Name / Path
Protocol
Method
Result / Description
Content type
Received
Time
0ms
http://blogs.windows.com/buildingapps/feed/
HTTP
GET
301
Moved Permane...
text/html
167 B
330.61 ms
https://blogs.windows.com/buildingapps/feed/
HTTPS
GET
200
OK
application/rss...
87.56 KB
822.67 ms
Headers
Body
Parameters
Cookies
Timings
Stalled:
63.27 ms
Resolving (DNS):
0.026 ms
Connecting (TCP):
194.41 ms
Sending:
1.77 ms
Waiting (TTFB):
71.1 ms
Downloading:
0.0004 ms
Redirected to: https://blogs.windows.com/buildingapp...

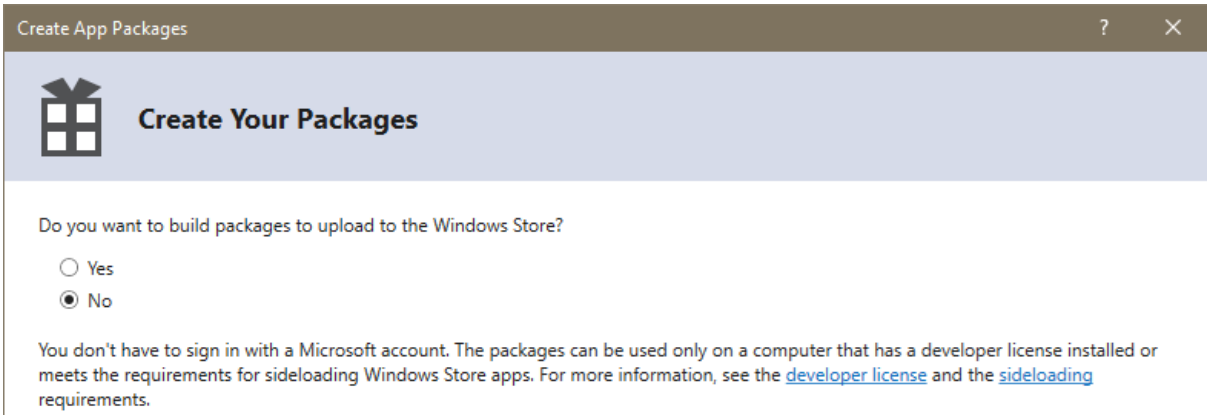

Application
Visual Assets
Capabilities
Declarations
Content URIs
Windows Store apps should support displays of different resolutions. Windows provides a simple way to do this via resou
More information
All Image Assets
Tile Images and Logos
Square 71x71 Logo
Square 150x150 Logo
Wide 310x150 Logo
Square 310x310 Logo
Square 44x44 Logo
Store Logo
Badge Logo
Splash Screen
Tile:
Short name:
RSS Reader
Show name:
Square 150x150 Logo
Wide 310x150 Logo
Square 310x310 Logo
Background color:
transparent
Splash Screen:
Background color:
#464646

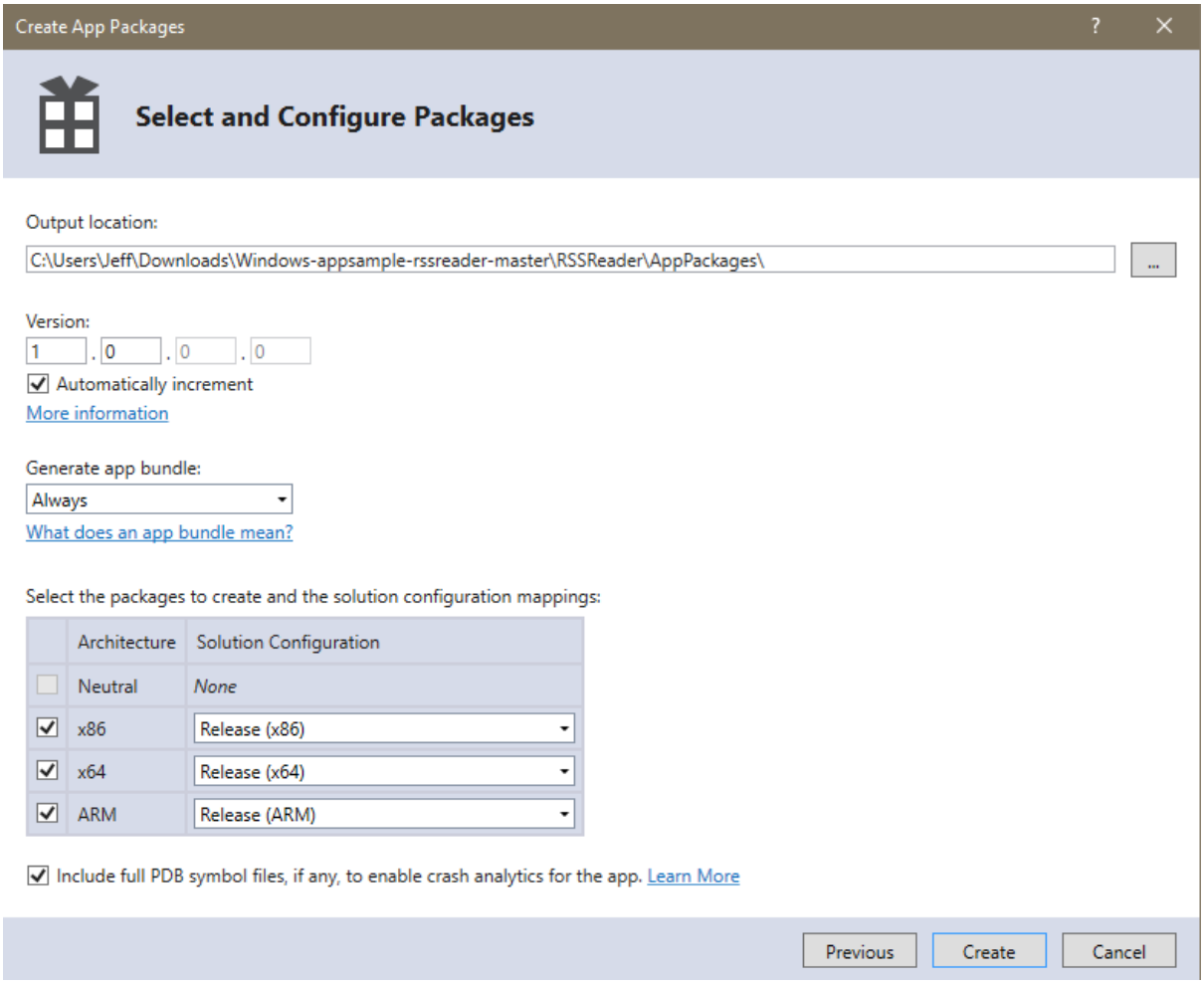

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'RSSReader' (1 project)
Solution Items
RSSReader (Universal Windows)

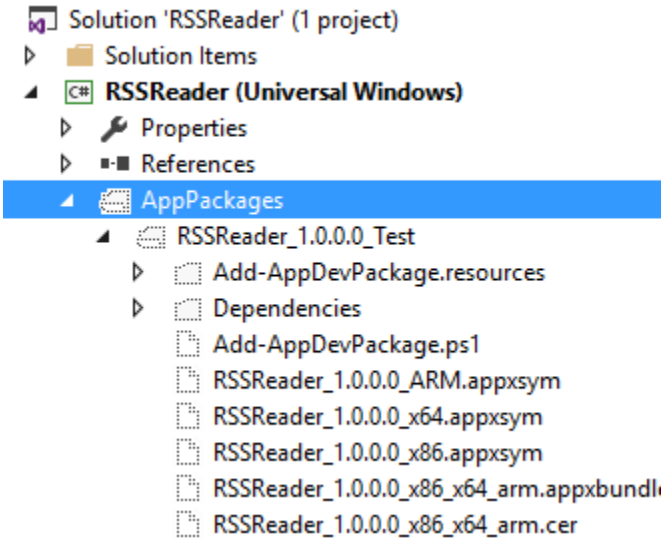

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'RSSReader' (1 project)
Solution Items
RSSReader (Universal Windows)
Properties
References
Assets
bin
ARM
x86
Debug
AppX
Assets
entrypoint
Properties
WinMetadata
AppxManifest.xml

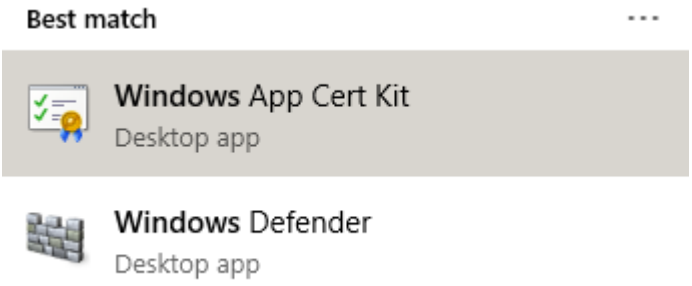

R
RSS Reader
New
S
Settings
Sports
Store
Sway

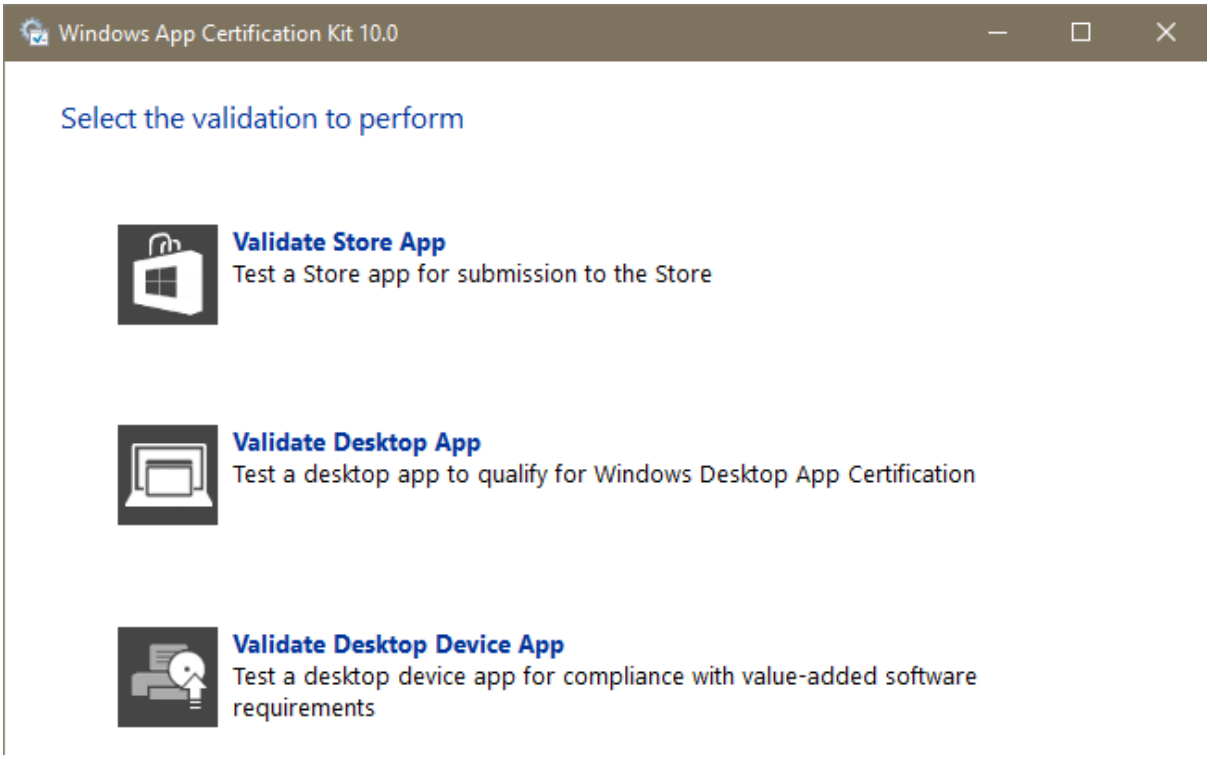

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'RSSReader' (1 project)
Solution Items
RSSReader (Universal Windows)
Properties
References
Assets
bin
ARM
x86
Debug
AppX
Build
Rebuild
Deploy
Analyze
Scope to This
New Solution Explorer View
Add
Store
Manage NuGet Packages...
Set as StartUp Project
Debug
Associate App with the Store...
Create App Packages...

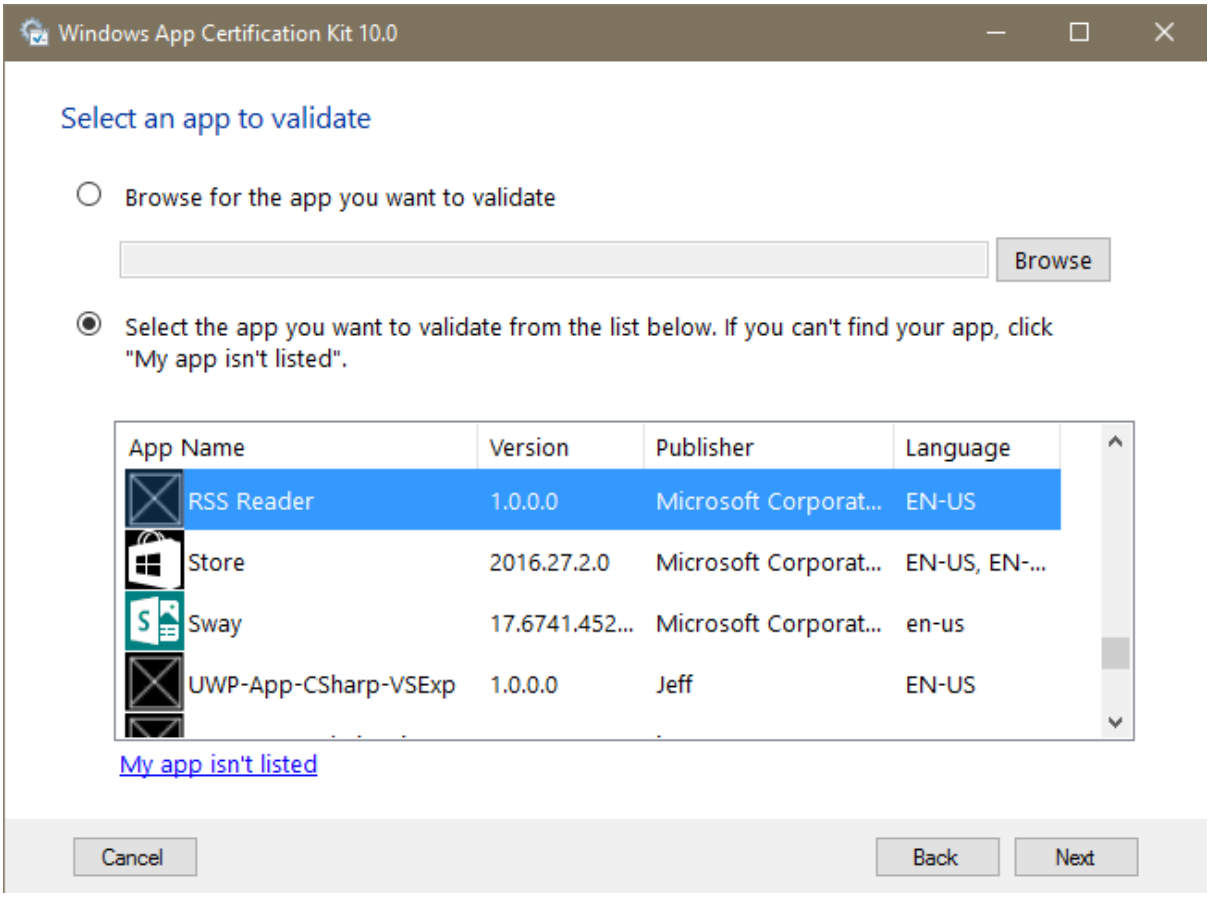

Create App Packages
Create Your Packages
Do you want to build packages to upload to the Windows Store?
Yes
No
You don't have to sign in with a Microsoft account. The packages can be used only on a computer that has a developer license installed or meets the requirements for sideloading Windows Store apps. For more information, see the developer license and the sideloading requirements.

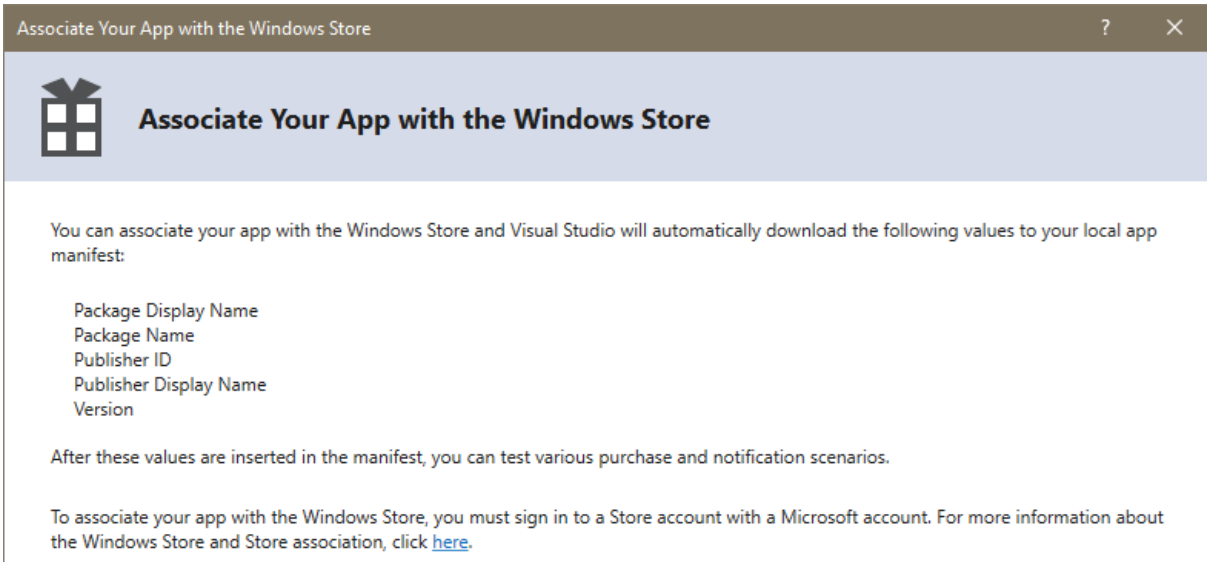

Create App Packages
Select and Configure Packages
Output location:
C:\Users\Jeff\Downloads\Windows-appsample-rssreader-master\RSSReader\AppPackages\
...
Version:
1 . 0 . 0 . 0
Automatically increment
More information
Generate app bundle:
Always
What does an app bundle mean?
Select the packages to create and the solution configuration mappings:
Architecture
Solution Configuration
Neutral
None
x86
Release (x86)
x64
Release (x64)
ARM
Release (ARM)
Include full PDB symbol files, if any, to enable crash analytics for the app. Learn More
Previous
Create
Cancel

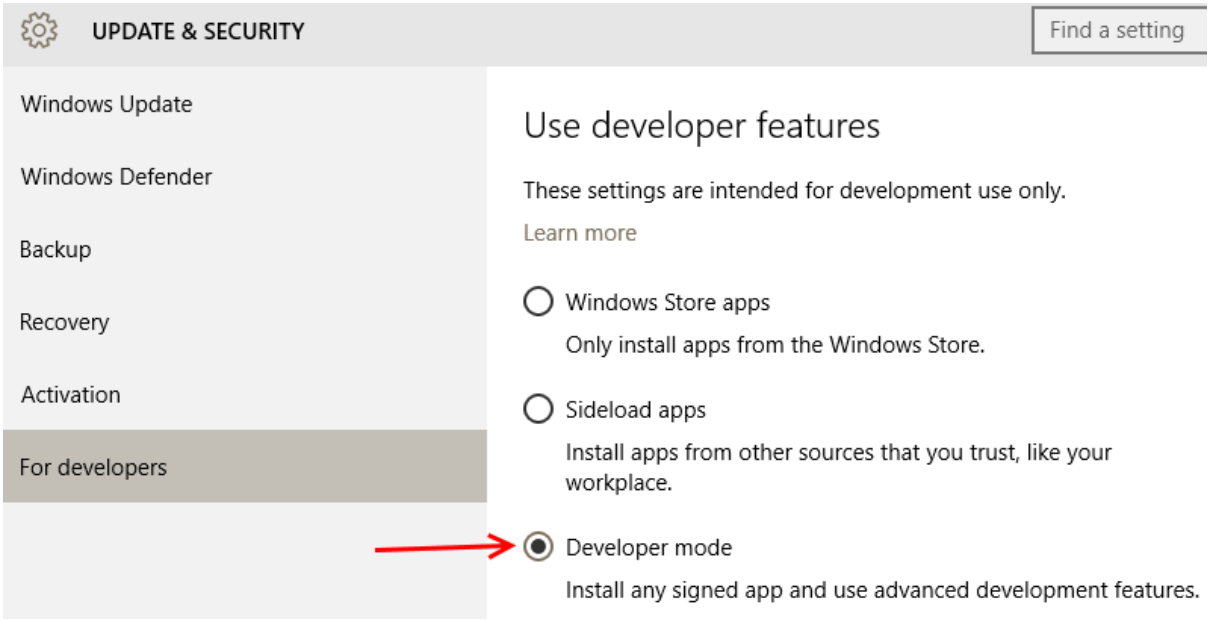

Solution 'RSSReader' (1 project)
Solution Items
RSSReader (Universal Windows)
Properties
References
AppPackages
RSSReader_1.0.0.0_Test
Add-AppDevPackage.resources
Dependencies
Add-AppDevPackage.ps1
RSSReader_1.0.0.0_ARM.appxsym
RSSReader_1.0.0.0_x64.appxsym
RSSReader_1.0.0.0_x86.appxsym
RSSReader_1.0.0.0_x86_x64_arm.appxbundl
RSSReader_1.0.0.0_x86_x64_arm.cer

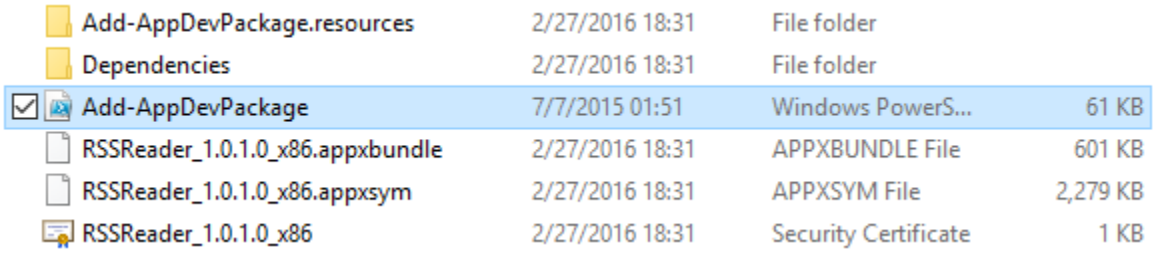

Best match
Windows App Cert Kit
Desktop app
Windows Defender
Desktop app

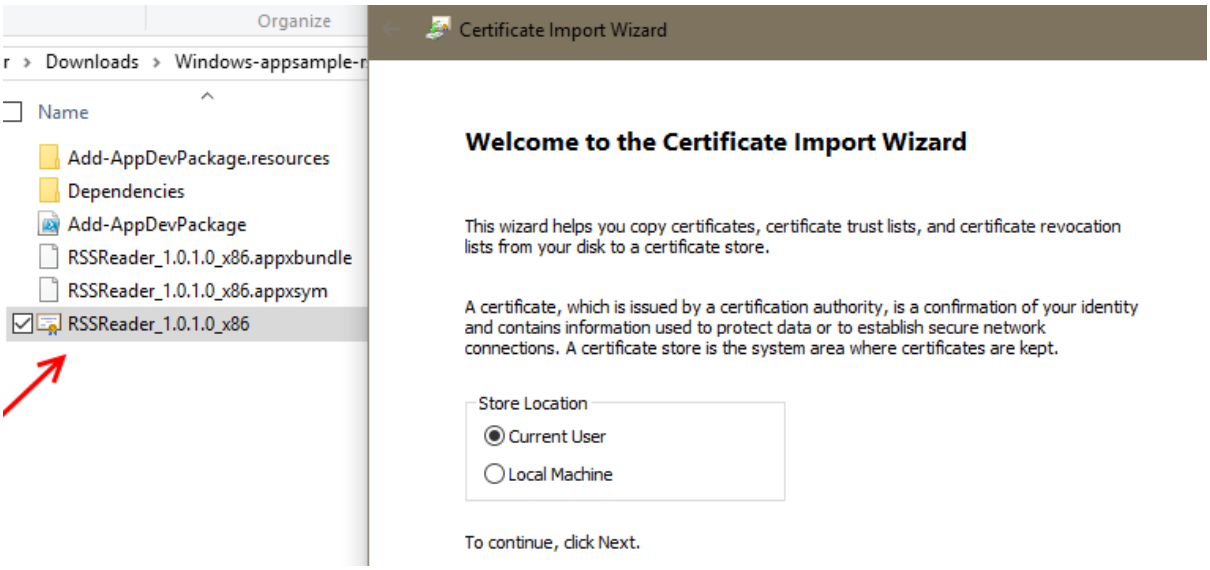

Windows App Certification Kit 10.0
Select the validation to perform
Validate Store App
Test a Store app for submission to the Store
Validate Desktop App
Test a desktop app to qualify for Windows Desktop App Certification
Validate Desktop Device App
Test a desktop device app for compliance with value-added software requirements

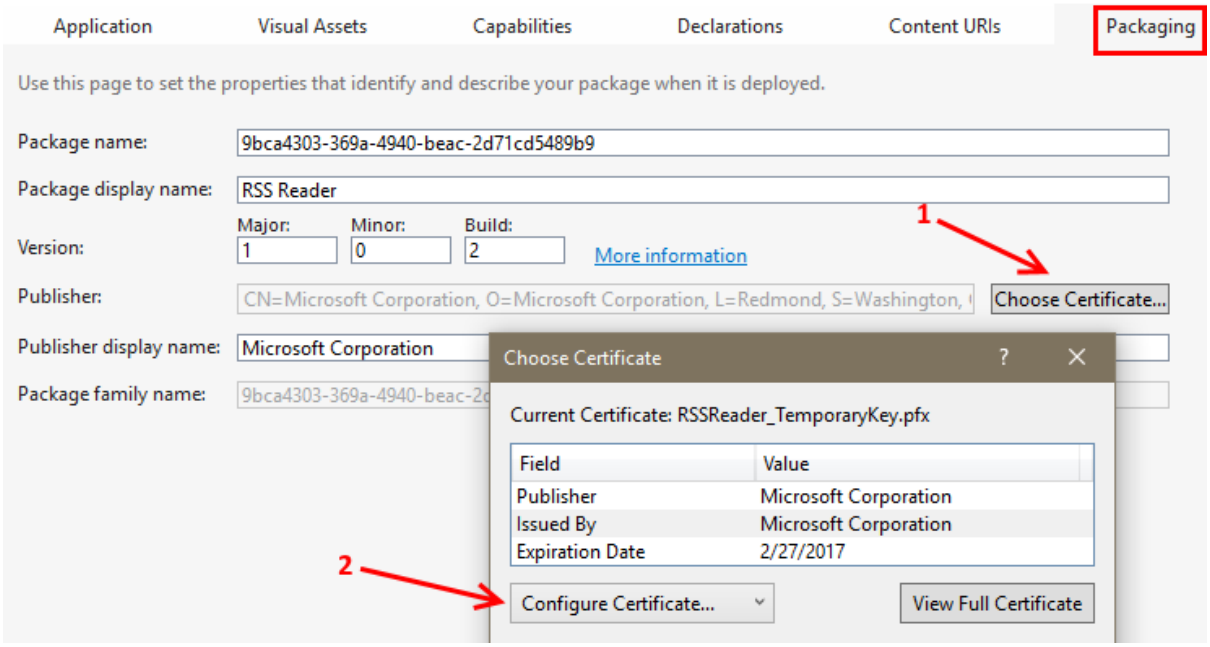

Windows App Certification Kit 10.0
Select an app to validate
Browse for the app you want to validate
Browse
Select the app you want to validate from the list below. If you can't find your app, click "My app isn't listed".
App Name
Version
Publisher
Language
RSS Reader
1.0.0.0
Microsoft Corporat...
EN-US
Store
2016.27.2.0
Microsoft Corporat...
EN-US, EN-...
Sway
17.6741.452...
Microsoft Corporat...
en-us
UWP-App-CSharp-VSExp
1.0.0.0
Jeff
EN-US
My app isn't listed
Cancel
Back
Next


Associate Your App with the Windows Store
Associate Your App with the Windows Store
You can associate your app with the Windows Store and Visual Studio will automatically download the following values to your local app manifest:
Package Display Name
Package Name
Publisher ID
Publisher Display Name
Version
After these values are inserted in the manifest, you can test various purchase and notification scenarios.
To associate your app with the Windows Store, you must sign in to a Store account with a Microsoft account. For more information about the Windows Store and Store association, click here.

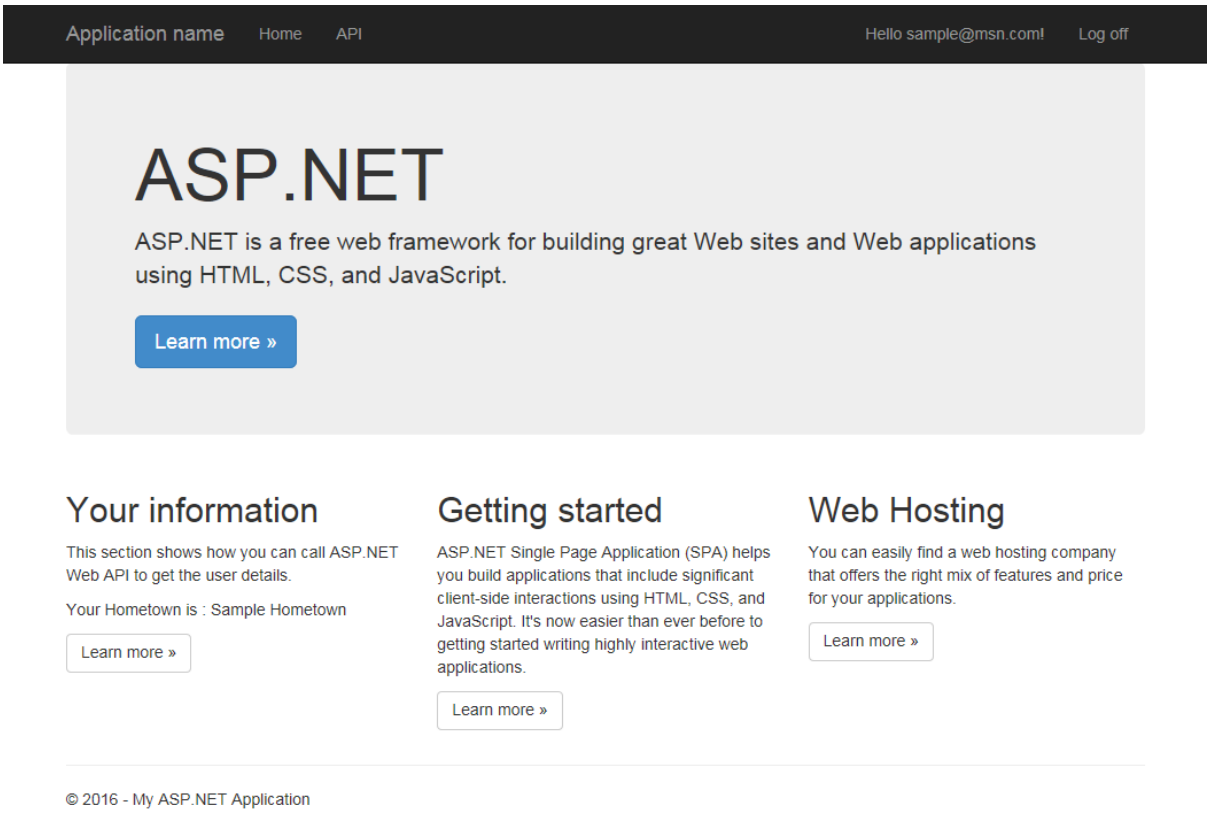

UPDATE & SECURITY
Find a setting
Windows Update
Windows Defender
Backup
Recovery
Activation
For developers
Use developer features
These settings are intended for development use only.
Learn more
Windows Store apps
Only install apps from the Windows Store.
Sideload apps
Install apps from other sources that you trust, like your workplace.
Developer mode
Install any signed app and use advanced development features.

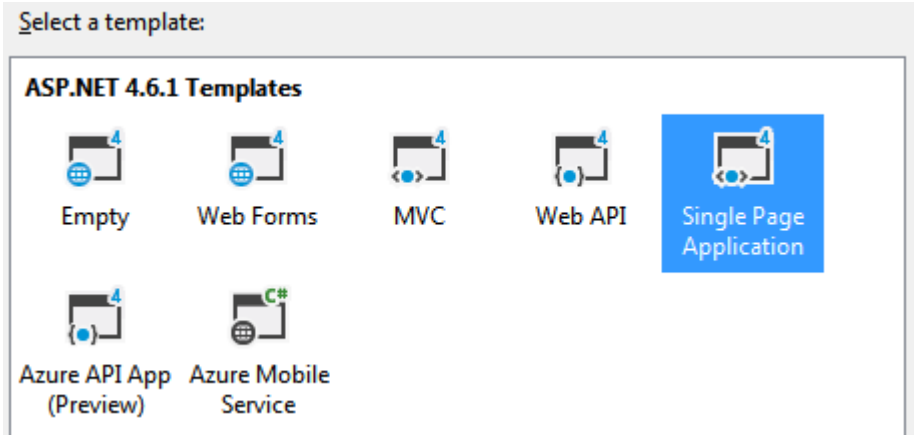

Add-AppDevPackage.resources 2/27/2016 18:31 File folder
Dependencies 2/27/2016 18:31 File folder
Add-AppDevPackage 7/7/2015 01:51 Windows PowerS... 61 KB
RSSReader_1.0.1.0_x86.appxbundle 2/27/2016 18:31 APPXBUNDLE File 601 KB
RSSReader_1.0.1.0_x86.appxsym 2/27/2016 18:31 APPXSYM File 2,279 KB
RSSReader_1.0.1.0_x86 2/27/2016 18:31 Security Certificate 1 KB

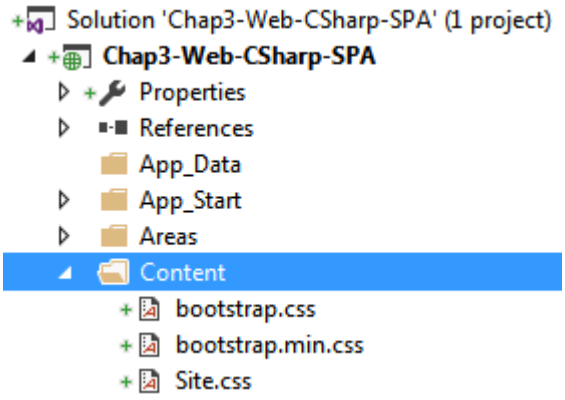

Organize
r › Downloads › Windows-appsample-r
Name
Add-AppDevPackage.resources
Dependencies
Add-AppDevPackage
RSSReader_1.0.1.0_x86.appxbundle
RSSReader_1.0.1.0_x86.appxsym
RSSReader_1.0.1.0_x86
Certificate Import Wizard
Welcome to the Certificate Import Wizard
This wizard helps you copy certificates, certificate trust lists, and certificate revocation lists from your disk to a certificate store.
A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.
Store Location
Current User
Local Machine
To continue, click Next.

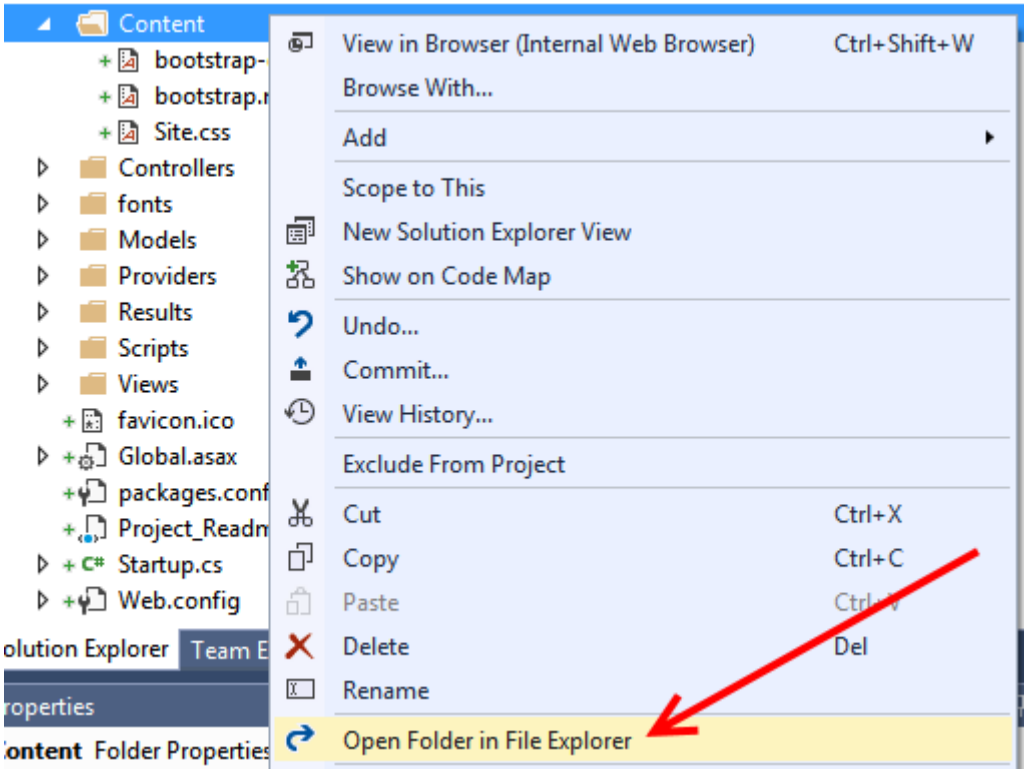

Application
Visual Assets
Capabilities
Declarations
Content URIs
Packaging
Use this page to set the properties that identify and describe your package when it is deployed.
Package name:
9bca4303-369a-4940-beac-2d71cd5489b9
Package display name:
RSS Reader
Version:
Major:
Minor:
Build:
1
0
2
More information
Publisher:
CN=Microsoft Corporation, O=Microsoft Corporation, L=Redmond, S=Washington,
Choose Certificate...
Publisher display name:
Microsoft Corporation
Package family name:
9bca4303-369a-4940-beac-2d
1
Choose Certificate
Current Certificate: RSSReader_TemporaryKey.pfx
Field
Value
Publisher
Microsoft Corporation
Issued By
Microsoft Corporation
Expiration Date
2/27/2017
2
Configure Certificate...
View Full Certificate

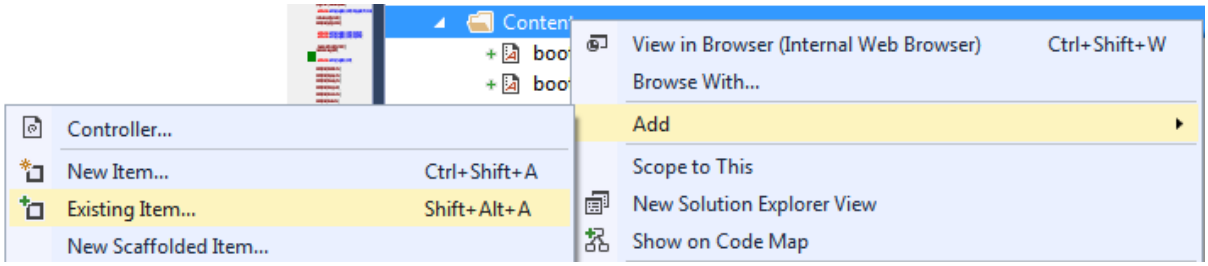
# Chapter 3: Web Development

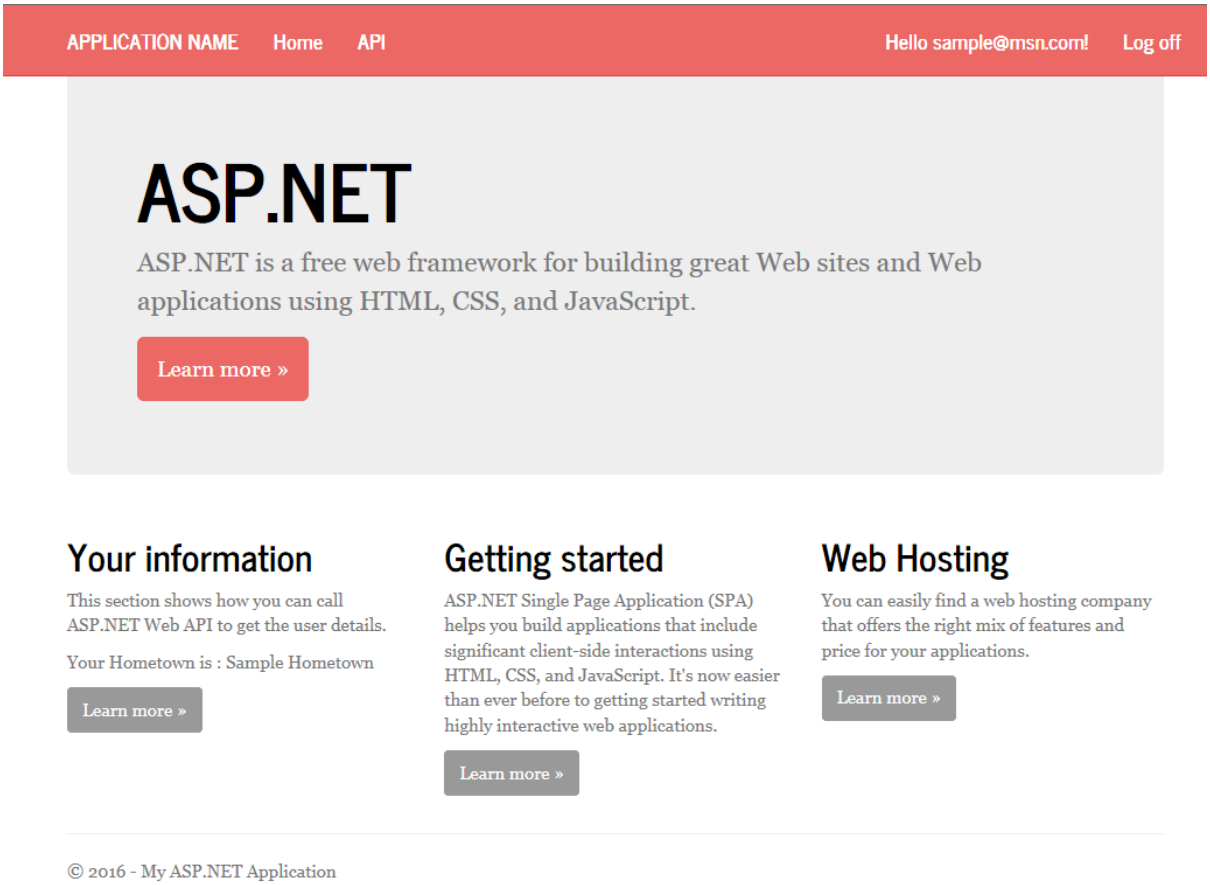


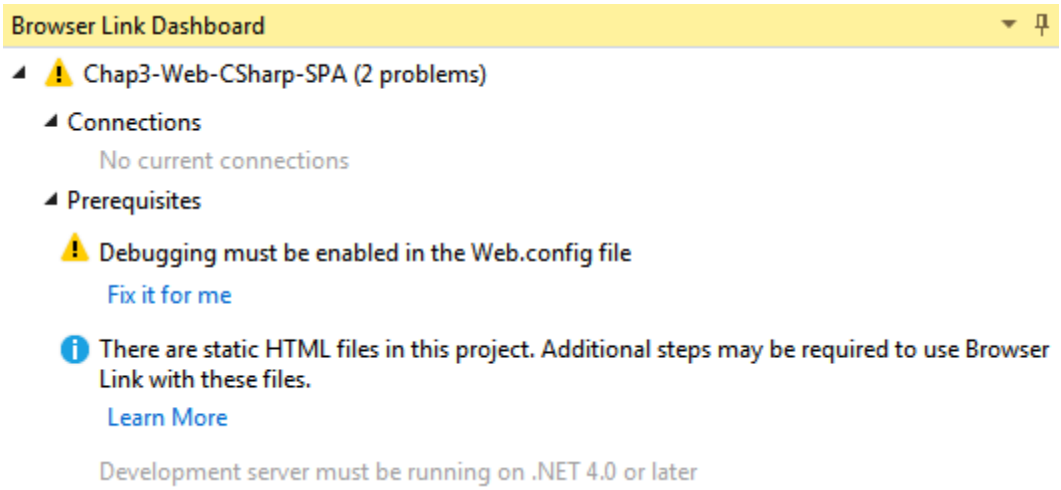

Select a template:
ASP.NET 4.6.1 Templates
Empty
Web Forms
MVC
Web API
Single Page Application
Azure API App (Preview)
Azure Mobile Service


Solution 'Chap3-Web-CSharp-SPA' (1 project)
Chap3-Web-CSharp-SPA
Properties
References
App_Data
App_Start
Areas
Content
bootstrap.css
bootstrap.min.css
Site.css

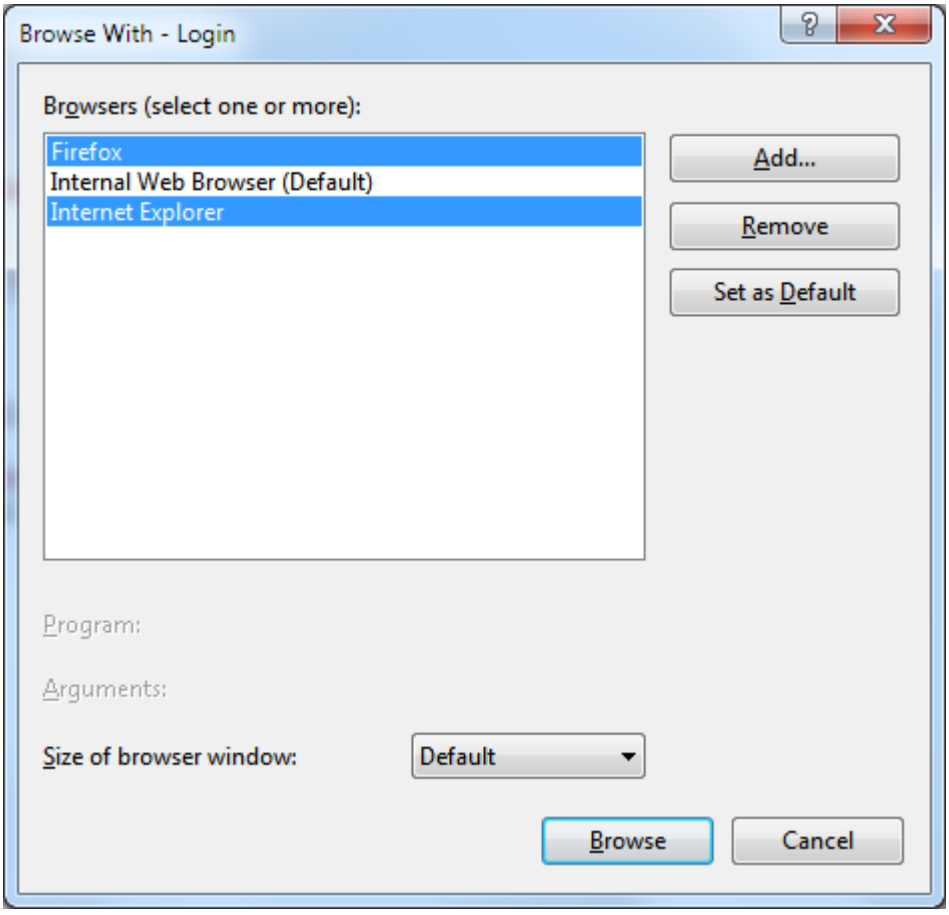

Content
bootstrap-
bootstrap.
Site.css
Controllers
fonts
Models
Providers
Results
Scripts
Views
favicon.ico
Global.asax
packages.conf
Project_Readm
Startup.cs
Web.config
olution Explorer
Team E
roperties
ontent Folder Properties
View in Browser (Internal Web Browser) Ctrl+Shift+W
Browse With...
Add
Scope to This
New Solution Explorer View
Show on Code Map
Undo...
Commit...
View History...
Exclude From Project
Cut Ctrl+X
Copy Ctrl+C
Paste
Delete Del
Rename
Open Folder in File Explorer


Content
View in Browser (Internal Web Browser) Ctrl+Shift+W
Browse With...
Add
Scope to This
New Solution Explorer View
Show on Code Map
Controller...
New Item... Ctrl+Shift+A
Existing Item... Shift+Alt+A
New Scaffolded Item...

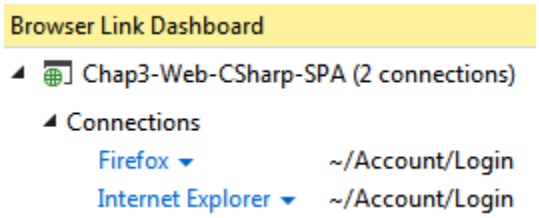

APPLICATION NAME
Home
API
Hello sample@msn.com!
Log off
ASP.NET
ASP.NET is a free web framework for building great Web sites and Web applications using HTML, CSS, and JavaScript.
Learn more »
Your information
This section shows how you can call ASP.NET Web API to get the user details.
Your Hometown is : Sample Hometown
Learn more »
Getting started
ASP.NET Single Page Application (SPA) helps you build applications that include significant client-side interactions using HTML, CSS, and JavaScript. It's now easier than ever before to getting started writing highly interactive web applications.
Learn more »
Web Hosting
You can easily find a web hosting company that offers the right mix of features and price for your applications.
Learn more »
© 2016 - My ASP.NET Application



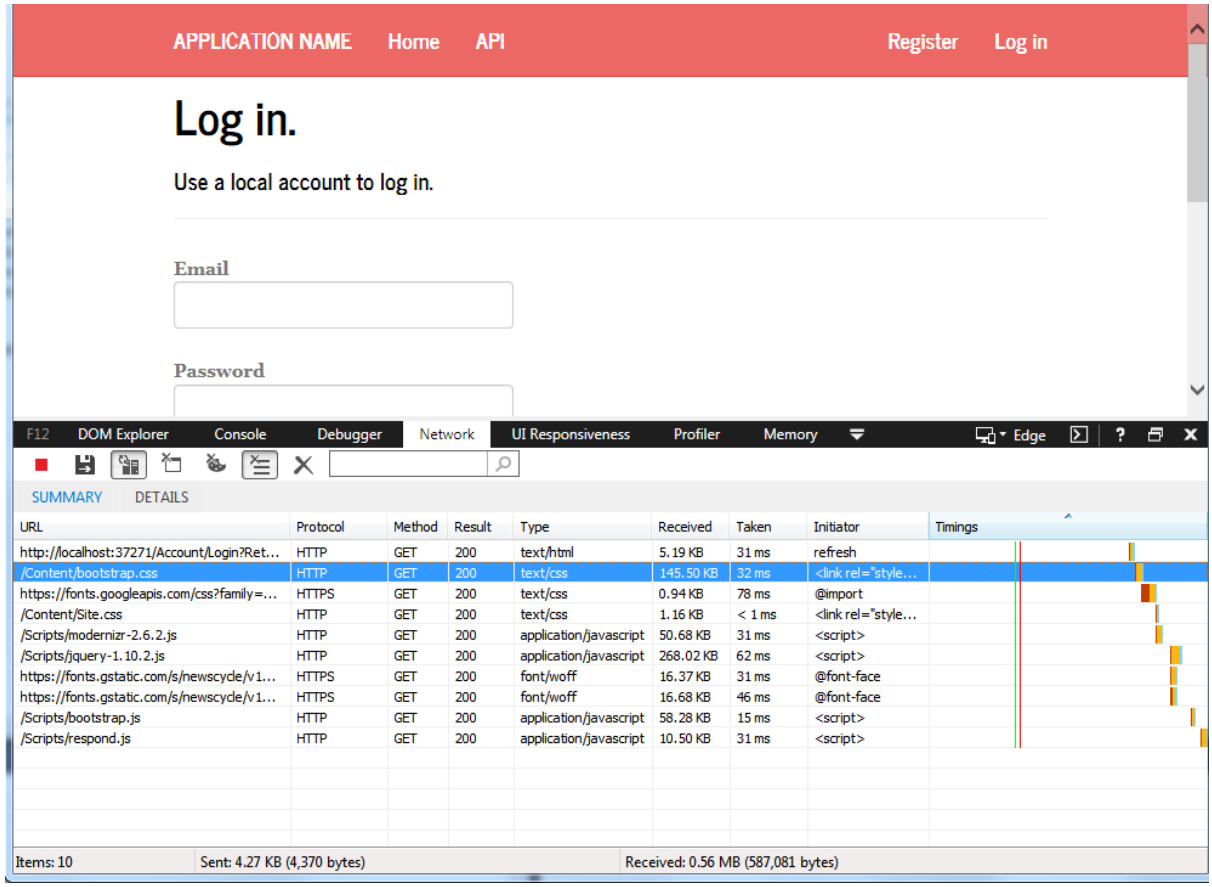

```
<system.web>
  <authentication mode="None" />
  <compilation debug="true" targetFramework="4.6.1" />
  <httpRuntime targetFramework="4.6.1" />
</system.web>
```


Browse With - Login
Browsers (select one or more):
Firefox
Internal Web Browser (Default)
Internet Explorer
Add...
Remove
Set as Default
Program:
Arguments:
Size of browser window:
Default
Browse
Cancel

Start
Refresh Linked Browsers
Ctrl+Alt+Enter
Browser Link Dashboard
Enable Browser Link
Enable CSS Auto-Sync

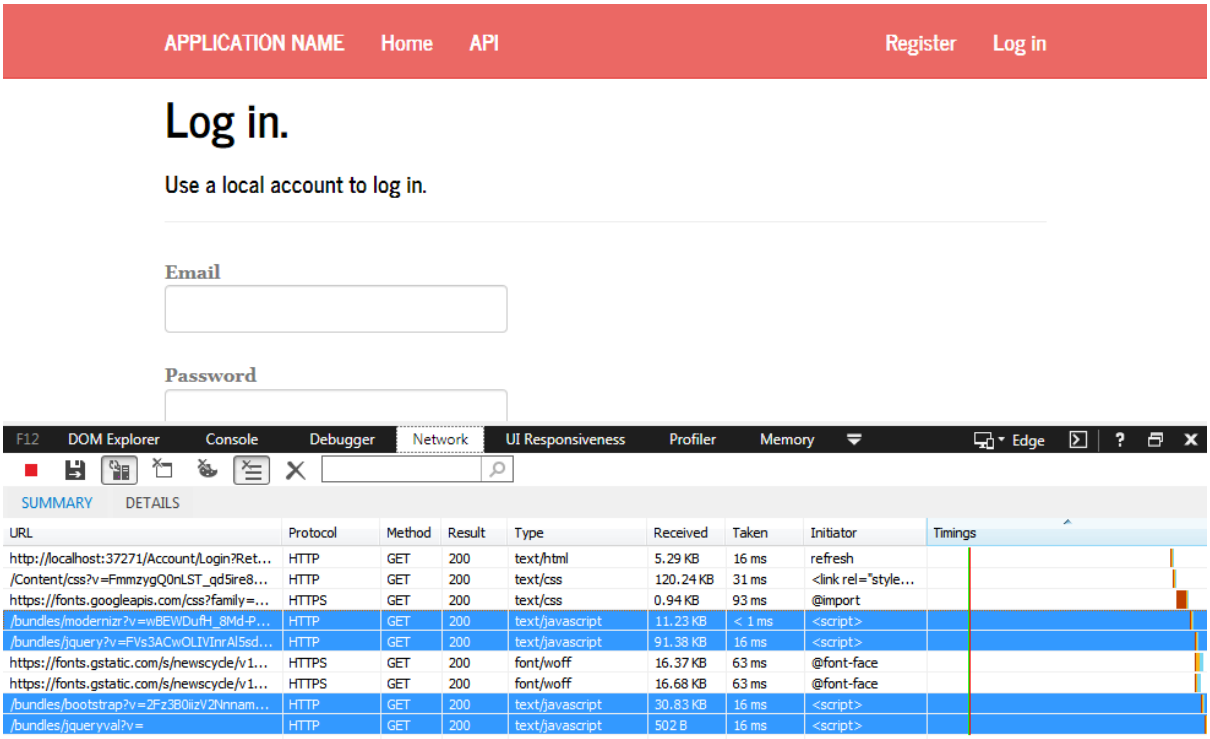


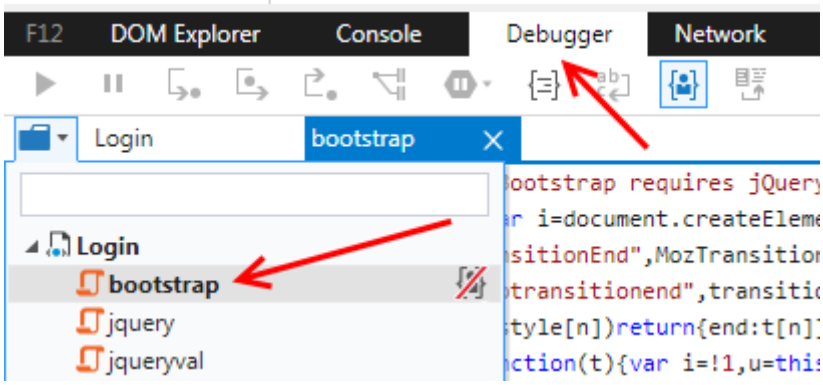

```
114 <!-- Visual Studio Browser Link -->
115 <script type="application/json" id="__browserLink_initializationData">
116     {"appName":"Internet Explorer","requestId":"3e376790c15f4444a269eaffe04924c5"}
117 </script>
118 <script type="text/javascript"
    src="http://localhost:41536/8b5640adb8fa4911ab06925c0943fa8c/browserLink"
    async="async"></script>
119 <!-- End Browser Link -->
120
121 </body>
122 </html>
123
```




```
bundles.Add(new ScriptBundle("~/bundles/bootstrap").Include(
    "~/Scripts/bootstrap.js",
    "~/Scripts/respond.js"));
```

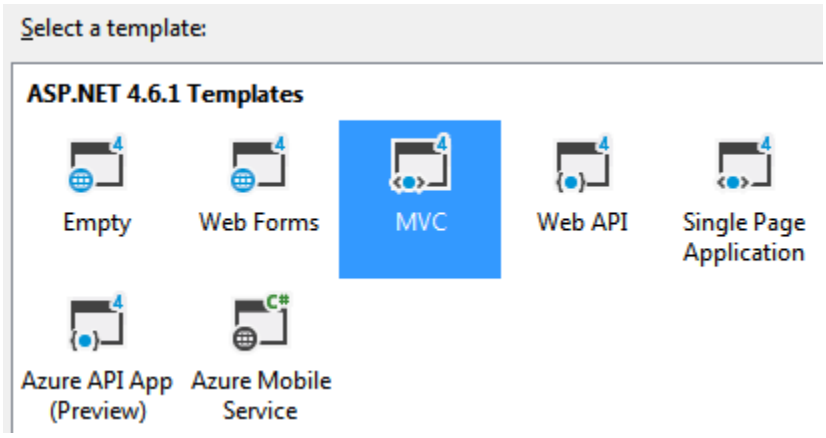
```
protected void Application_Start()
{
    AreaRegistration.RegisterAllAreas();
    GlobalConfiguration.Configure(WebApiConfig.Register);
    FilterConfig.RegisterGlobalFilters(GlobalFilters.Filters);
    RouteConfig.RegisterRoutes(RouteTable.Routes);
    BundleConfig.RegisterBundles(BundleTable.Bundles);

    // When true, enable Bundles regardless of Debug mode
    BundleTable.EnableOptimizations = true;
}
```

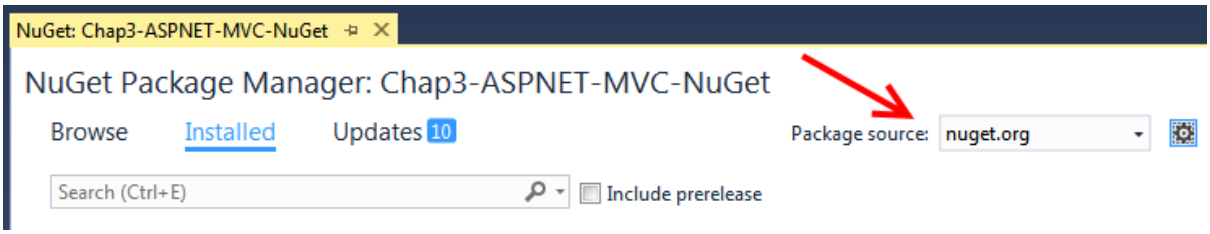


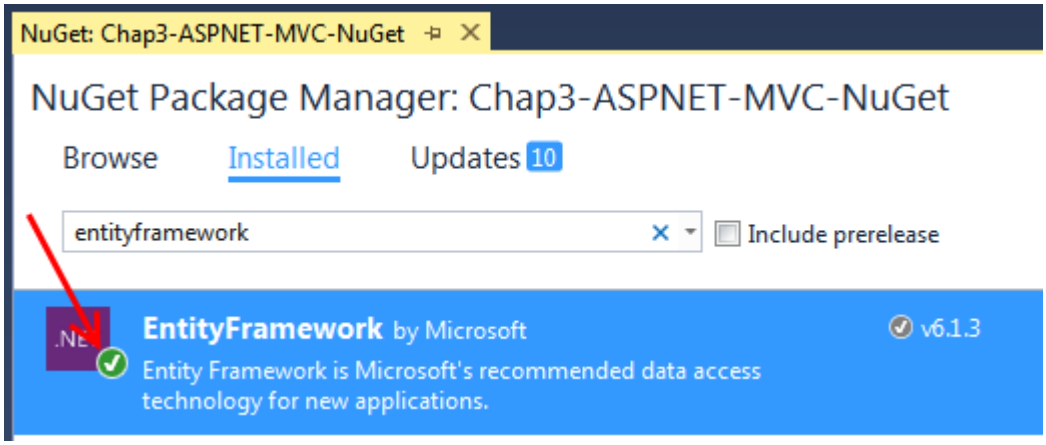


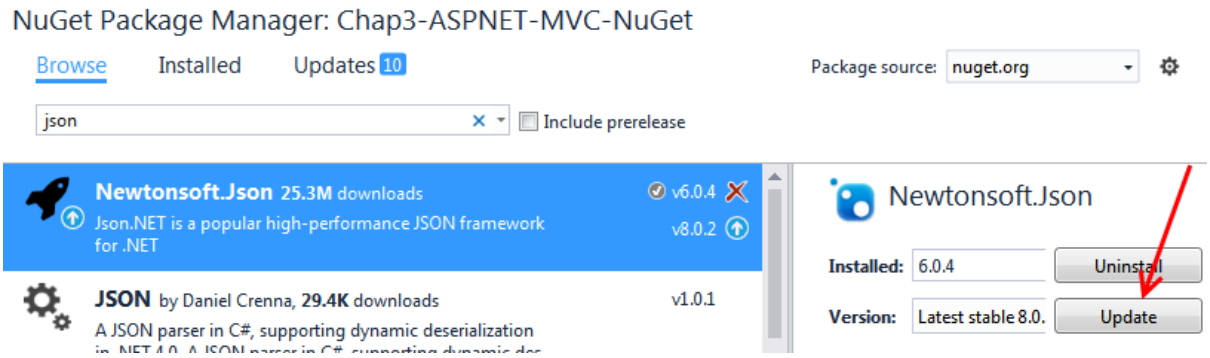

Login bootstrap

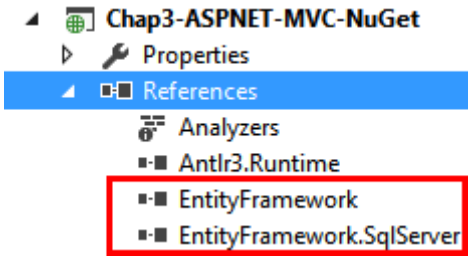
```
1 if(!jQuery)throw new Error("Bootstrap requires jQuery");+function(n)
  {"use strict";function t(){var i=document.createElement("bootstrap"),t=
  {WebkitTransition:"webkitTransitionEnd",MozTransition:"transitionend",
  OTransition:"oTransitionEnd otransitionend",transition:"transitionend"}
  ,n;for(n in t)if(void 0!==i.style[n])return{end:t[n]}}
  n.fn.emulateTransitionEnd=function(t){var i=!1,u=this,r;n(this).one
  (n.support.transition.end,function(){i=!0});return r=function(){i||n(u)
  .trigger(n.support.transition.end)},setTimeout(r,t),this};n(function()
  {n.support.transition=t()})}(window.jQuery);+function(n){"use strict";
  var i='[data-dismiss="alert"]',t=function(t){n(t).on("click",i,
  this.close)},r;t.prototype.close=function(t){function f(){i.trigger
  ("closed.bs.alert").remove()}var u=n(this),r=u.attr("data-target"),i;r|
```

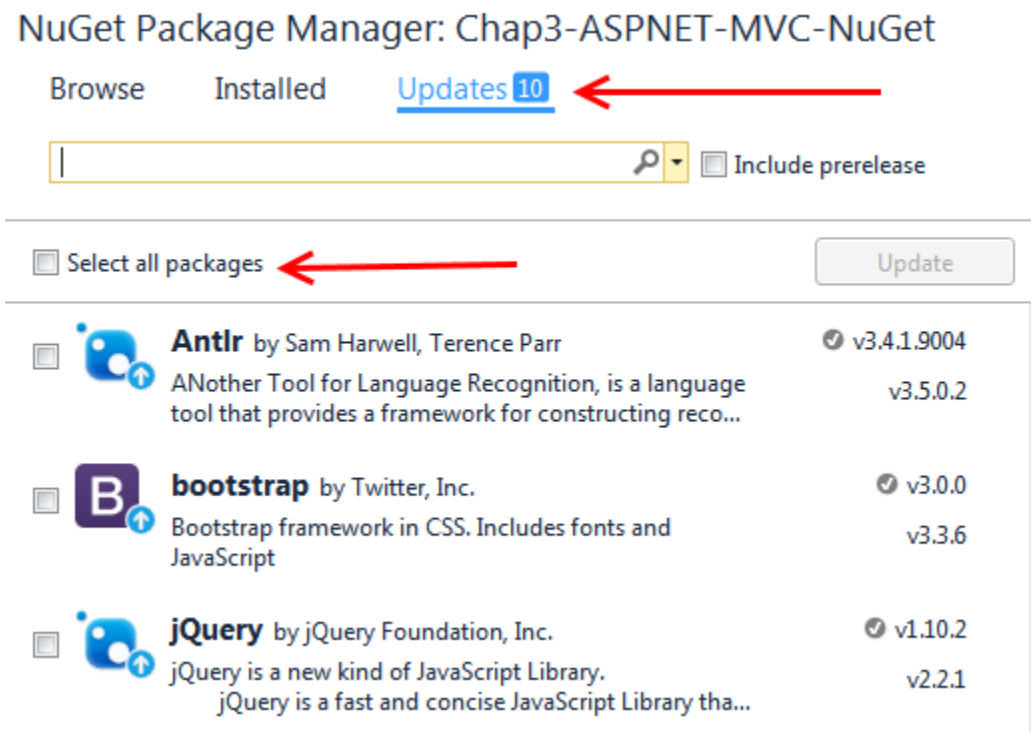

Select a template:
ASP.NET 4.6.1 Templates
Empty
Web Forms
MVC
Web API
Single Page Application
Azure API App (Preview)
Azure Mobile Service

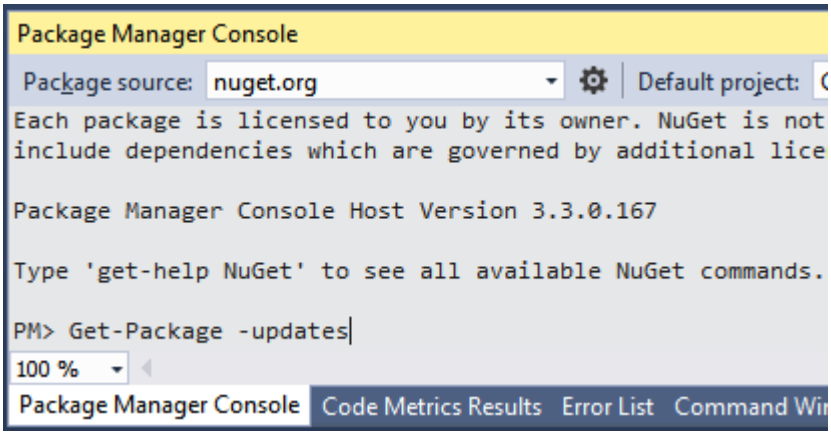

NuGet: Chap3-ASPNET-MVC-NuGet
NuGet Package Manager: Chap3-ASPNET-MVC-NuGet
Browse
Installed
Updates 10
Package source:
nuget.org
Search (Ctrl+E)
Include prerelease

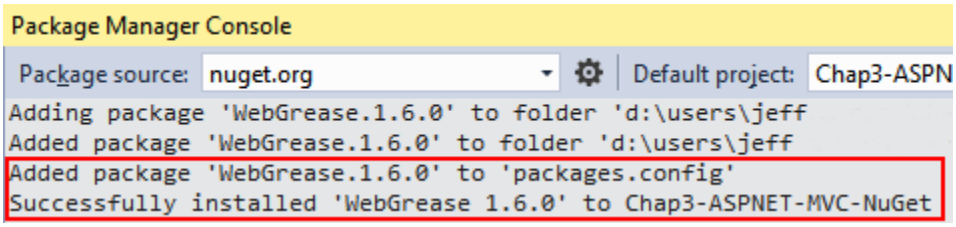

NuGet: Chap3-ASPNET-MVC-NuGet
NuGet Package Manager: Chap3-ASPNET-MVC-NuGet
Browse
Installed
Updates 10
entityframework
Include prerelease
EntityFramework by Microsoft
v6.1.3
Entity Framework is Microsoft's recommended data access technology for new applications.

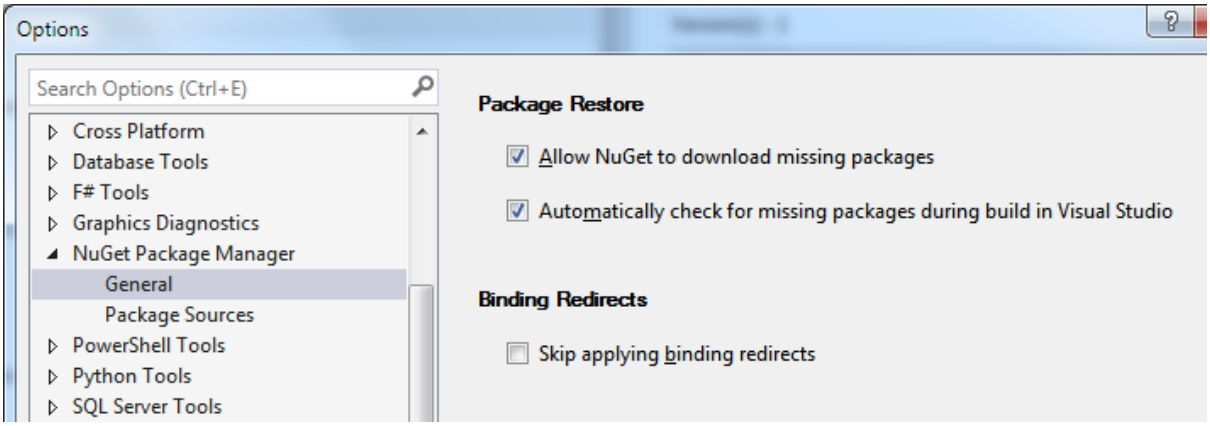

NuGet Package Manager: Chap3-ASPNET-MVC-NuGet
Browse
Installed
Updates 10
Package source: nuget.org
json
Include prerelease
Newtonsoft.Json 25.3M downloads
Json.NET is a popular high-performance JSON framework for .NET
v6.0.4
v8.0.2
JSON by Daniel Crenna, 29.4K downloads
A JSON parser in C#, supporting dynamic deserialization
v1.0.1
Newtonsoft.Json
Installed: 6.0.4
Uninstall
Version: Latest stable 8.0.
Update

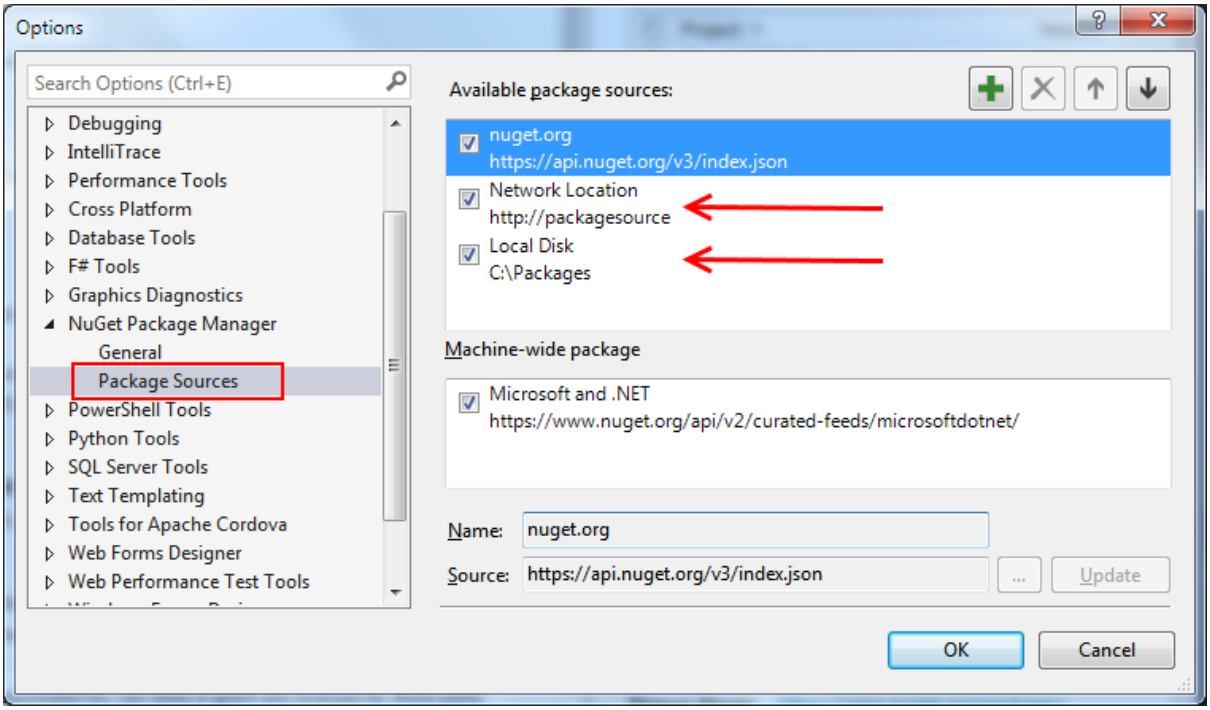

Chap3-ASPNET-MVC-NuGet
Properties
References
Analyzers
Antlr3.Runtime
EntityFramework
EntityFramework.SqlServer

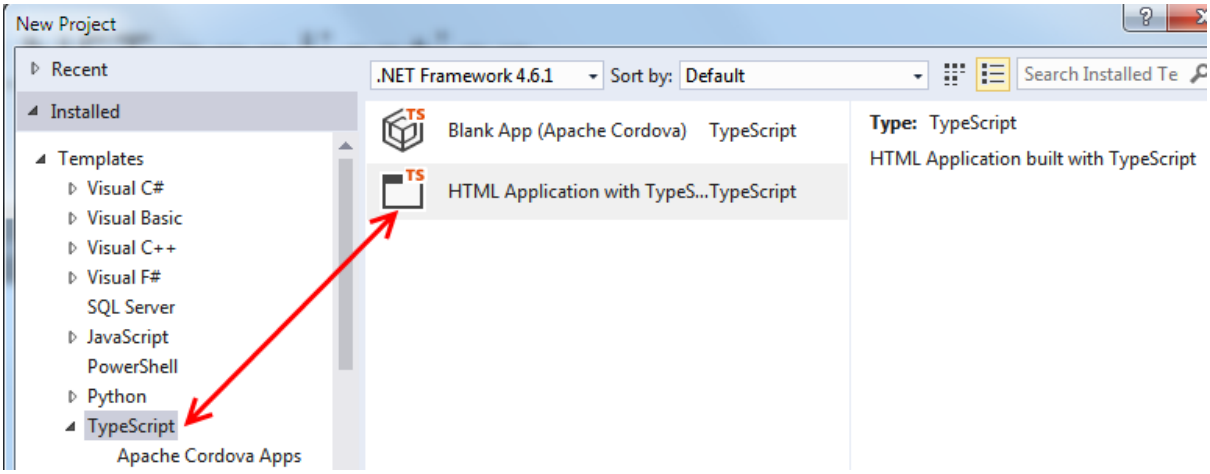

NuGet Package Manager: Chap3-ASPNET-MVC-NuGet
Browse
Installed
Updates 10
Include prerelease
Select all packages
Update
Antlr by Sam Harwell, Terence Parr
ANother Tool for Language Recognition, is a language tool that provides a framework for constructing reco...
v3.4.1.9004
v3.5.0.2
bootstrap by Twitter, Inc.
Bootstrap framework in CSS. Includes fonts and JavaScript
v3.0.0
v3.3.6
jQuery by jQuery Foundation, Inc.
jQuery is a new kind of JavaScript Library.
jQuery is a fast and concise JavaScript Library tha...
v1.10.2
v2.2.1

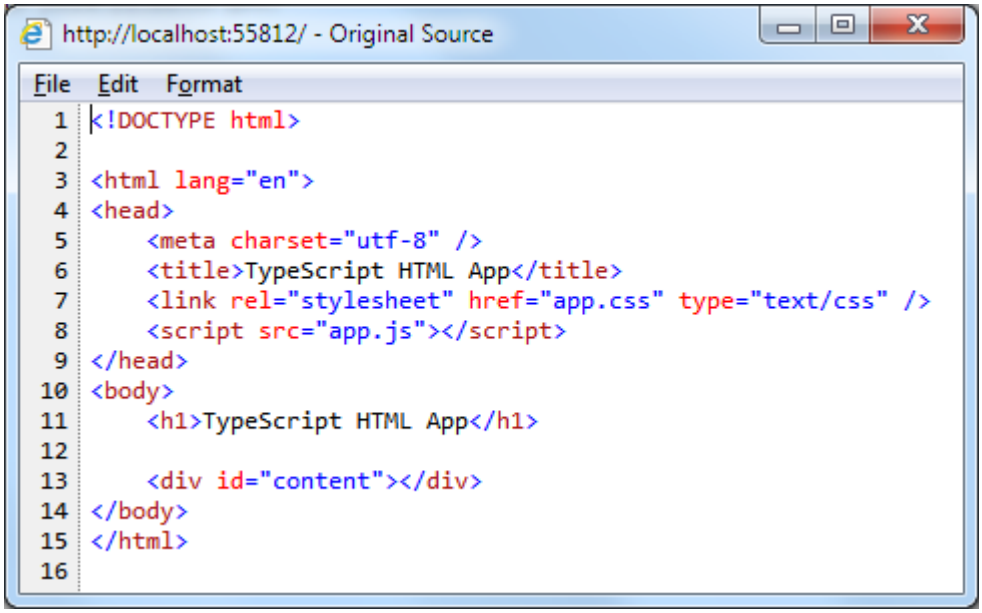

Package Manager Console
Package source: nuget.org
Default project:
Each package is licensed to you by its owner. NuGet is not
include dependencies which are governed by additional lice
Package Manager Console Host Version 3.3.0.167
Type 'get-help NuGet' to see all available NuGet commands.
PM> Get-Package -updates
100 %
Package Manager Console
Code Metrics Results
Error List
Command Wi

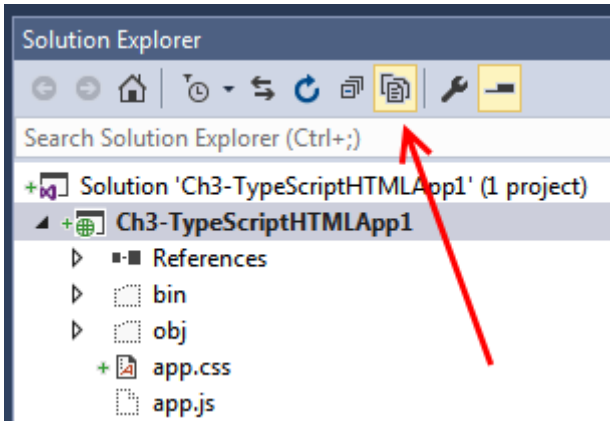

Package Manager Console
Package source: nuget.org
Default project: Chap3-ASPN
Adding package 'WebGrease.1.6.0' to folder 'd:\users\jeff
Added package 'WebGrease.1.6.0' to folder 'd:\users\jeff
Added package 'WebGrease.1.6.0' to 'packages.config'
Successfully installed 'WebGrease 1.6.0' to Chap3-ASPNET-MVC-NuGet

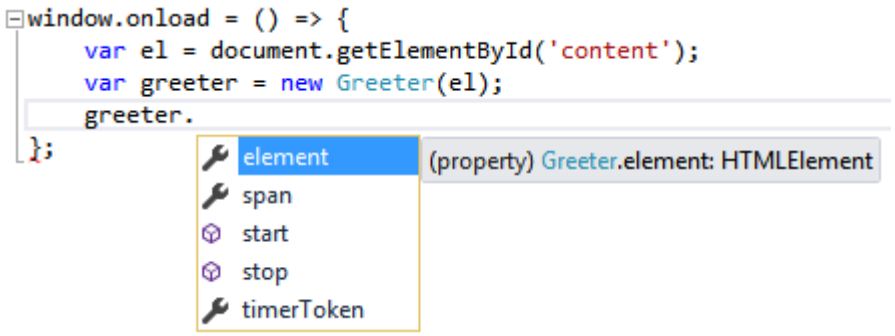

Options
Search Options (Ctrl+E)
Cross Platform
Database Tools
F# Tools
Graphics Diagnostics
NuGet Package Manager
General
Package Sources
PowerShell Tools
Python Tools
SQL Server Tools
Package Restore
Allow NuGet to download missing packages
Automatically check for missing packages during build in Visual Studio
Binding Redirects
Skip applying binding redirects

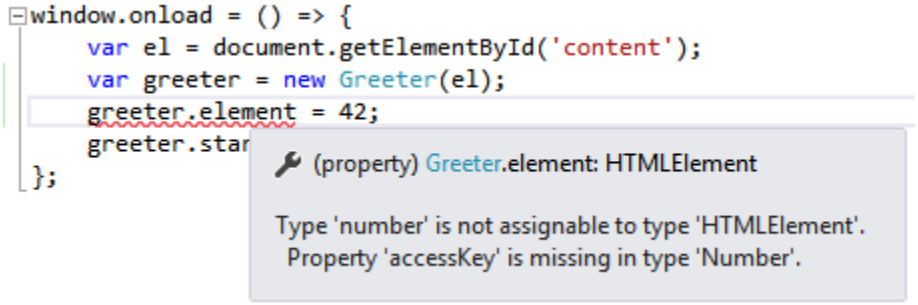

Options
Search Options (Ctrl+E)
Debugging
IntelliTrace
Performance Tools
Cross Platform
Database Tools
F# Tools
Graphics Diagnostics
NuGet Package Manager
General
Package Sources
PowerShell Tools
Python Tools
SQL Server Tools
Text Templating
Tools for Apache Cordova
Web Forms Designer
Web Performance Test Tools
Available package sources:
nuget.org
https://api.nuget.org/v3/index.json
Network Location
http://packagesource
Local Disk
C:\Packages
Machine-wide package
Microsoft and .NET
https://www.nuget.org/api/v2/curated-feeds/microsoftdotnet/
Name:
nuget.org
Source:
https://api.nuget.org/v3/index.json
...
Update
OK
Cancel

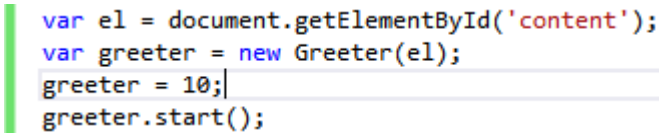

New Project
Recent
Installed
Templates
Visual C#
Visual Basic
Visual C++
Visual F#
SQL Server
JavaScript
PowerShell
Python
TypeScript
Apache Cordova Apps
.NET Framework 4.6.1
Sort by:
Default
Search Installed Te
Blank App (Apache Cordova) TypeScript
HTML Application with TypeS...TypeScript
Type: TypeScript
HTML Application built with TypeScript

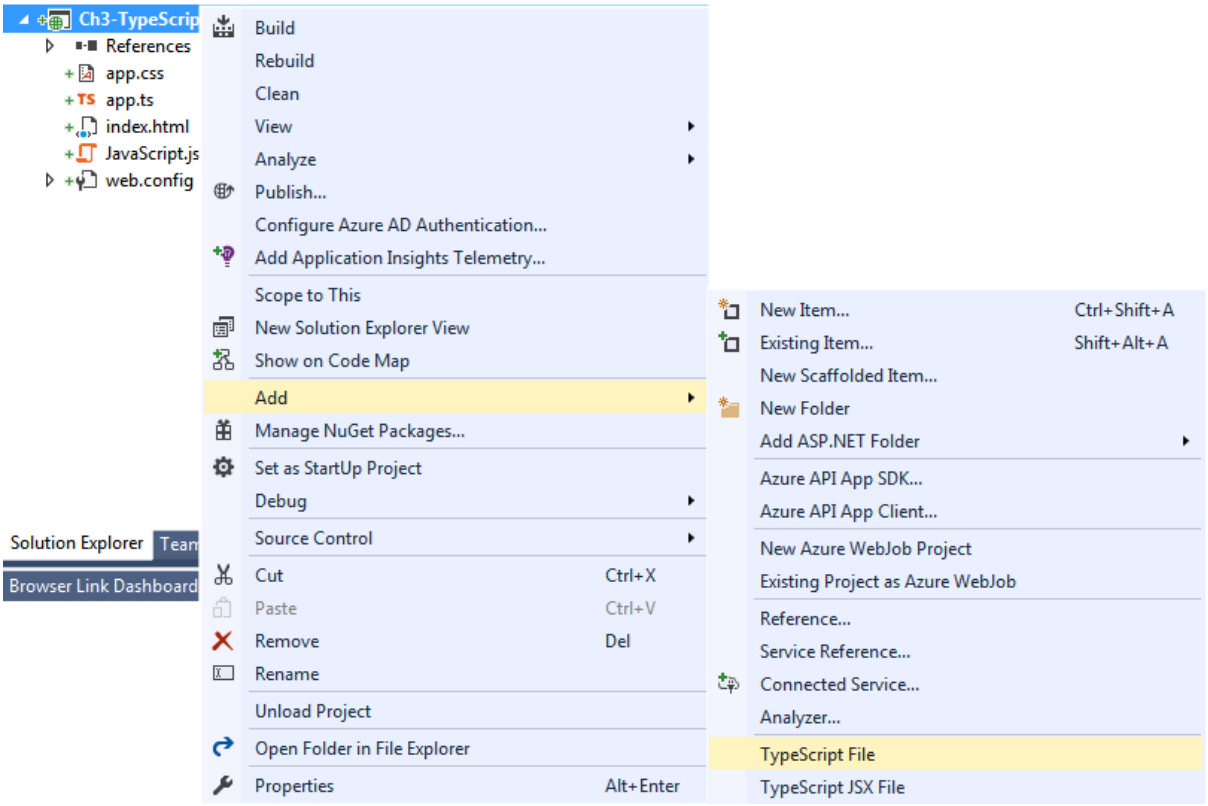

http://localhost:55812/ - Original Source
File Edit Format
1 <!DOCTYPE html>
2
3 <html lang="en">
4 <head>
5 <meta charset="utf-8" />
6 <title>TypeScript HTML App</title>
7 <link rel="stylesheet" href="app.css" type="text/css" />
8 <script src="app.js"></script>
9 </head>
10 <body>
11 <h1>TypeScript HTML App</h1>
12
13 
14 </body>
15 </html>
16

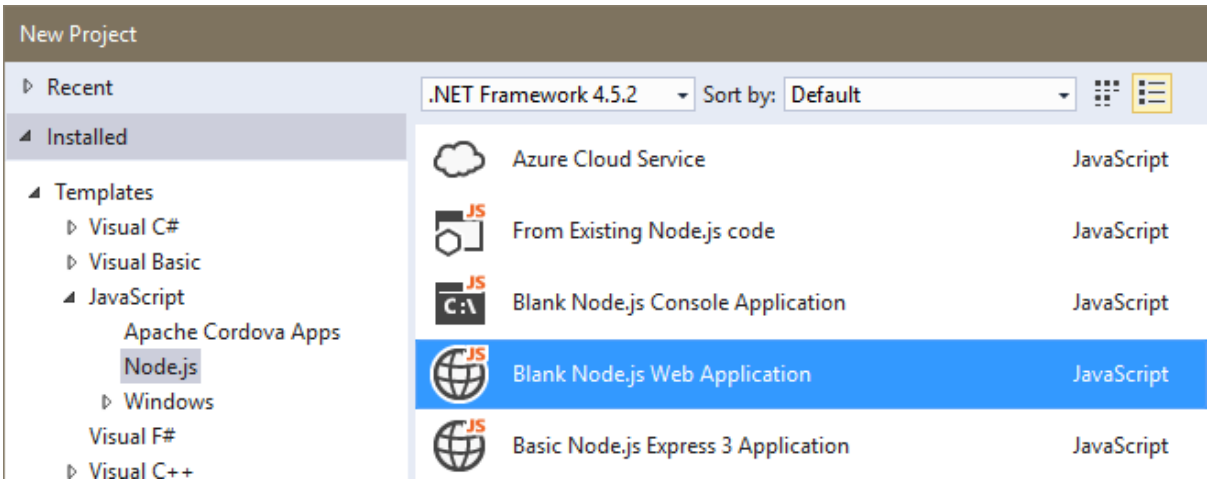

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Ch3-TypeScriptHTMLApp1' (1 project)
Ch3-TypeScriptHTMLApp1
References
bin
obj
app.css
app.js

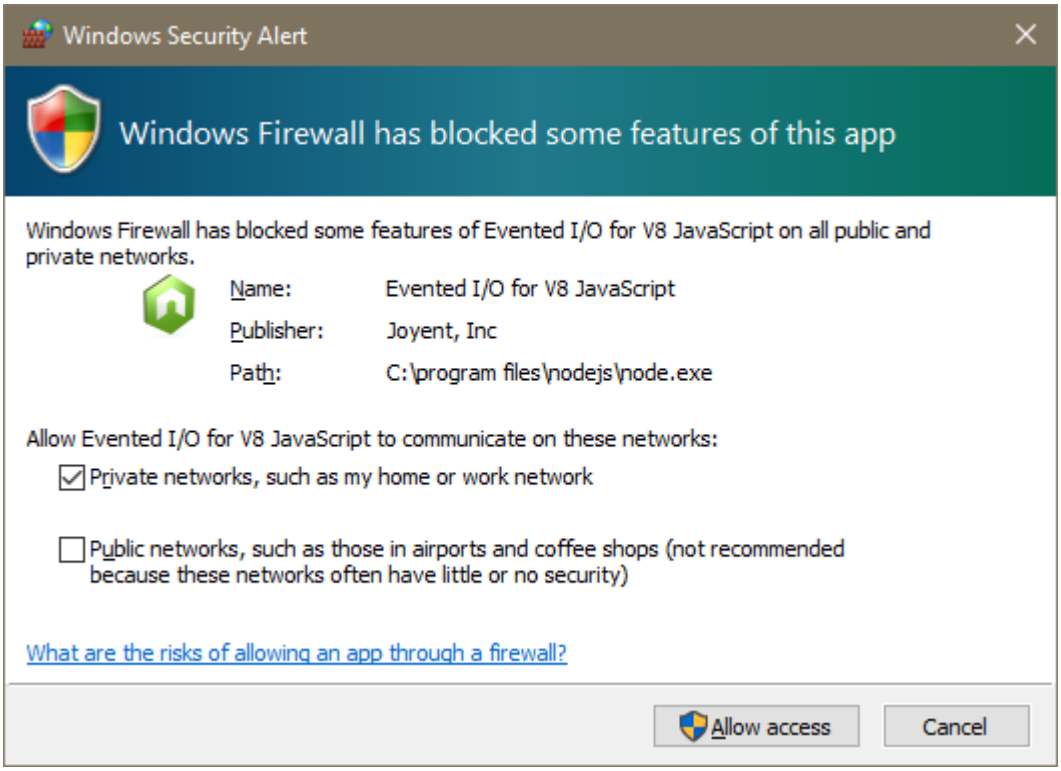

window.onload = () => {
var el = document.getElementById('content');
var greeter = new Greeter(el);
greeter.
};
element
span
start
stop
timerToken
(property) Greeter.element: HTMLElement

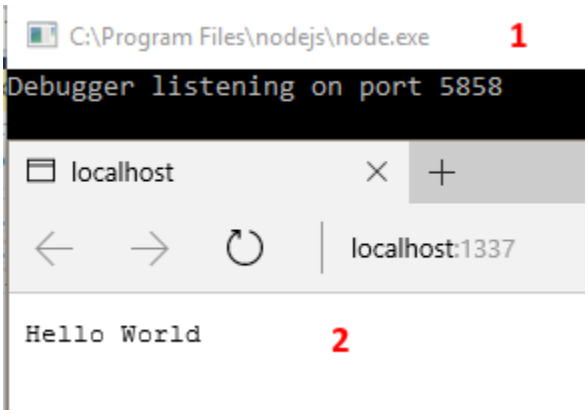

window.onload = () => {
var el = document.getElementById('content');
var greeter = new Greeter(el);
greeter.element = 42;
greeter.star
};
(property) Greeter.element: HTMLElement
Type 'number' is not assignable to type 'HTMLElement'.
Property 'accessKey' is missing in type 'Number'.

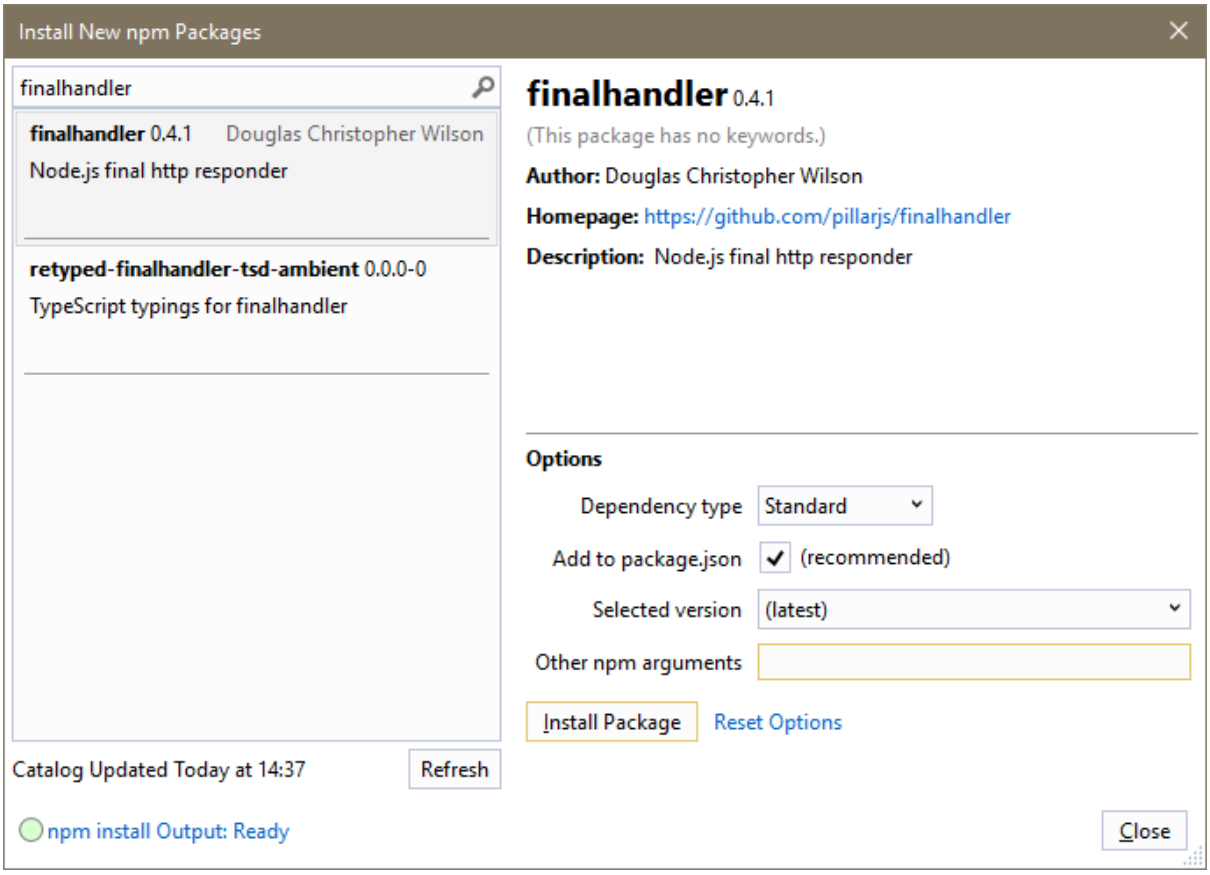

var el = document.getElementById('content');
var greeter = new Greeter(el);
greeter = 10;
greeter.start();

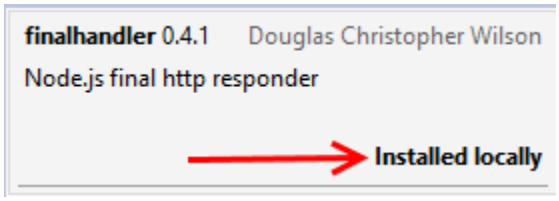

Ch3-TypeScrip
References
app.css
app.ts
index.html
JavaScript.js
web.config
Solution Explorer
Team
Browser Link Dashboard
Build
Rebuild
Clean
View
Analyze
Publish...
Configure Azure AD Authentication...
Add Application Insights Telemetry...
Scope to This
New Solution Explorer View
Show on Code Map
Add
Manage NuGet Packages...
Set as StartUp Project
Debug
Source Control
Cut Ctrl+X
Paste Ctrl+V
Remove Del
Rename
Unload Project
Open Folder in File Explorer
Properties Alt+Enter
New Item... Ctrl+Shift+A
Existing Item... Shift+Alt+A
New Scaffolded Item...
New Folder
Add ASP.NET Folder
Azure API App SDK...
Azure API App Client...
New Azure WebJob Project
Existing Project as Azure WebJob
Reference...
Service Reference...
Connected Service...
Analyzer...
TypeScript File
TypeScript JSX File

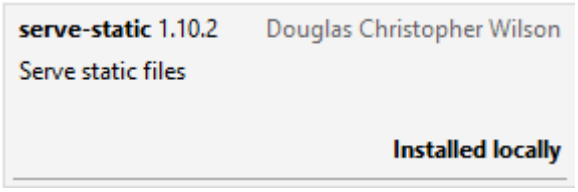

New Project
Recent
Installed
Templates
Visual C#
Visual Basic
JavaScript
Apache Cordova Apps
Node.js
Windows
Visual F#
Visual C++
.NET Framework 4.5.2
Sort by:
Default
Azure Cloud Service JavaScript
From Existing Node.js code JavaScript
Blank Node.js Console Application JavaScript
Blank Node.js Web Application JavaScript
Basic Node.js Express 3 Application JavaScript

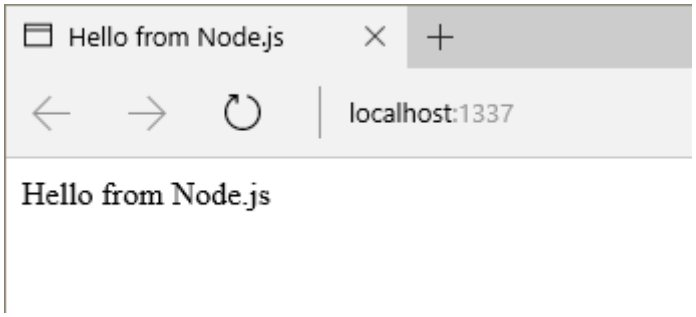

Windows Security Alert
Windows Firewall has blocked some features of this app
Windows Firewall has blocked some features of Evented I/O for V8 JavaScript on all public and private networks.
Name: Evented I/O for V8 JavaScript
Publisher: Joyent, Inc
Path: C:\program files\nodejs\node.exe
Allow Evented I/O for V8 JavaScript to communicate on these networks:
Private networks, such as my home or work network
Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)
What are the risks of allowing an app through a firewall?
Allow access
Cancel


C:\Program Files\nodejs\node.exe
1
Debugger listening on port 5858
localhost
localhost:1337
Hello World
2

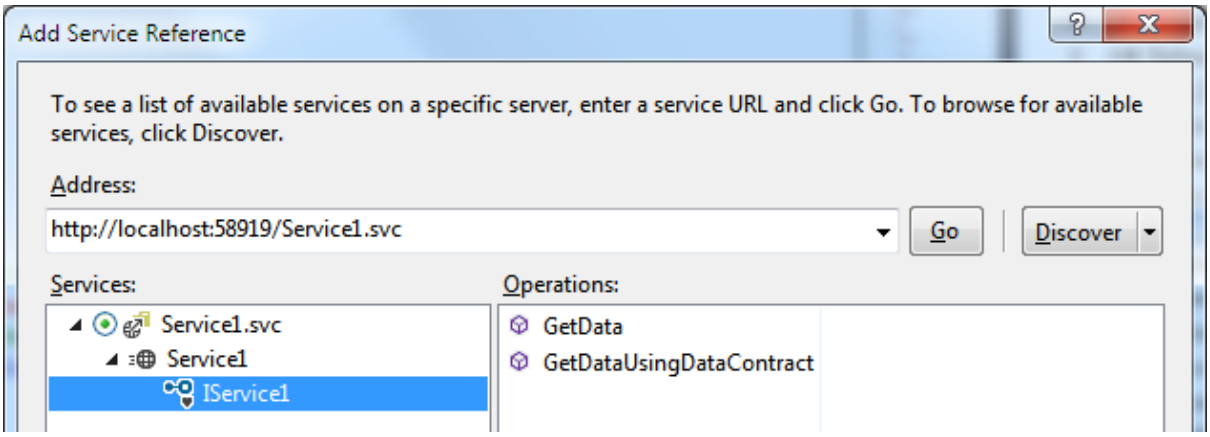

Install New npm Packages
finalhandler
finalhandler 0.4.1 Douglas Christopher Wilson
Node.js final http responder
retyped-finalhandler-tsd-ambient 0.0.0-0
TypeScript typings for finalhandler
Catalog Updated Today at 14:37
Refresh
npm install Output: Ready
finalhandler 0.4.1
(This package has no keywords.)
Author: Douglas Christopher Wilson
Homepage: https://github.com/pillarjs/finalhandler
Description: Node.js final http responder
Options
Dependency type
Standard
Add to package.json
(recommended)
Selected version
(latest)
Other npm arguments
Install Package
Reset Options
Close

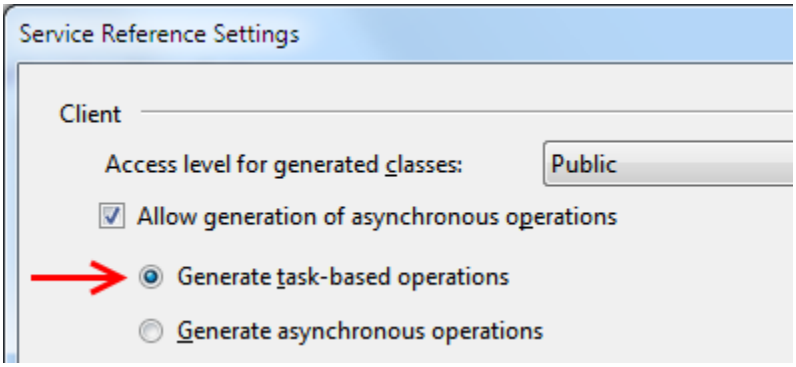

finalhandler 0.4.1 Douglas Christopher Wilson
Node.js final http responder
Installed locally


serve-static 1.10.2 Douglas Christopher Wilson
Serve static files
Installed locally


Hello from Node.js
localhost:1337
Hello from Node.js

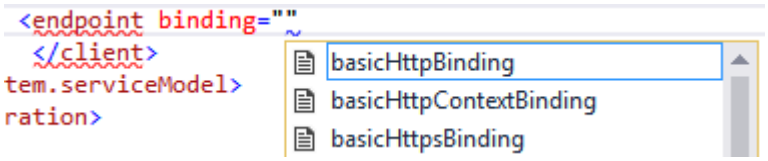
# Chapter 4: .NET Framework Development

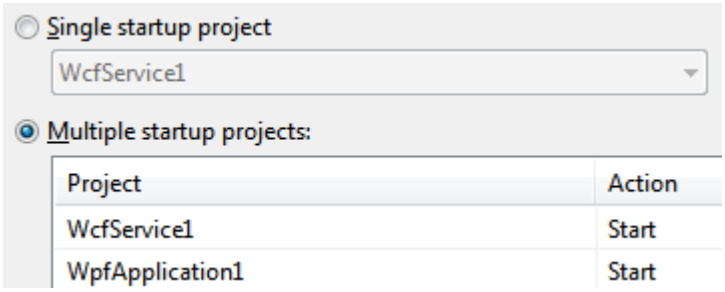


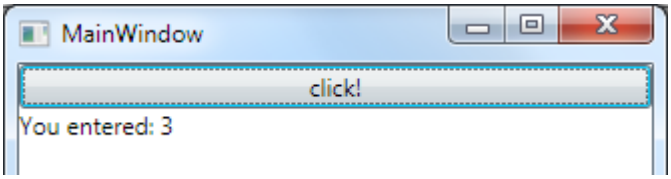



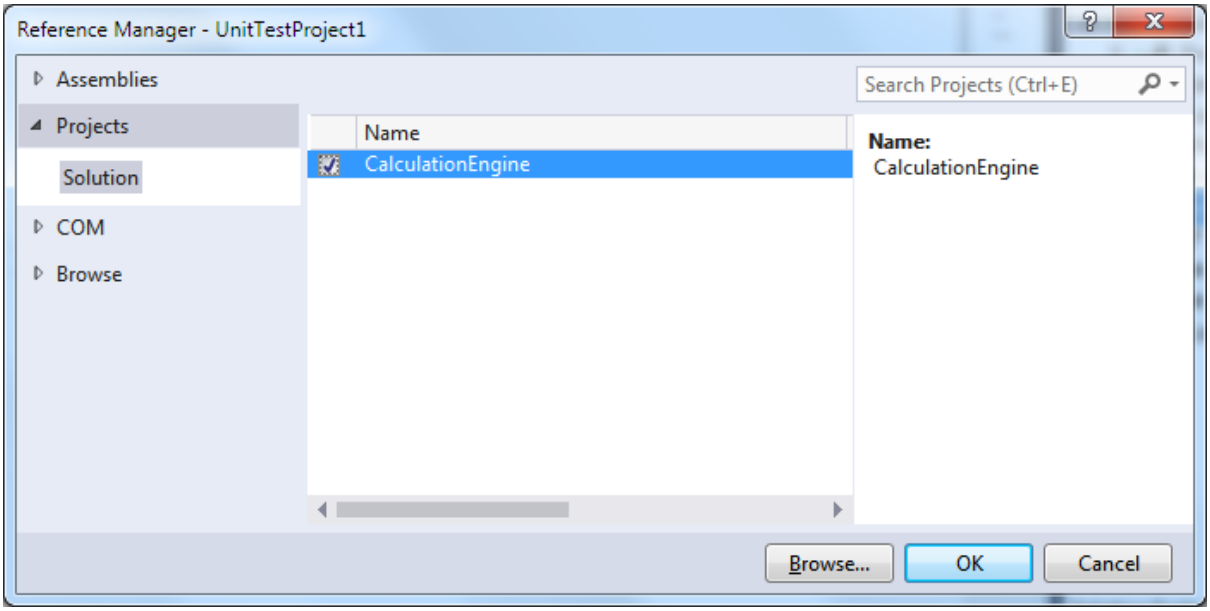

```
<client>
    <endpoint address="http://localhost:58919/Service1.svc" binding="basicHttpBinding"
        bindingConfiguration="BasicHttpBinding_IService1" contract="ServiceReference1.
        name="BasicHttpBinding_IService1" />
</client>
```

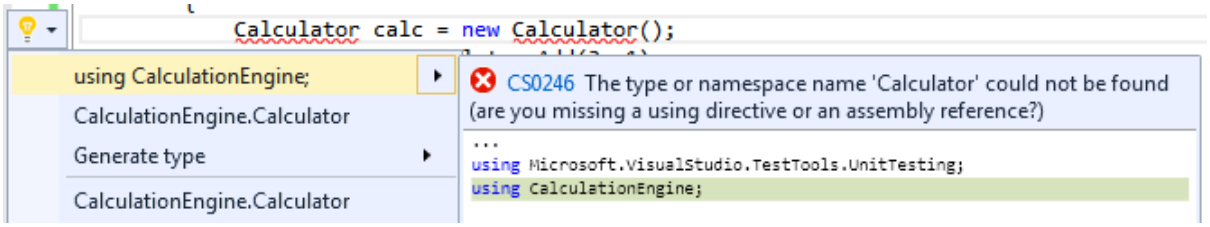
Optional string attribute. This attribute uniquely identifies an endpoint for a given contract.


<endpoint binding=""
</client>
tem.serviceModel>
ration>
basicHttpBinding
basicHttpContextBinding
basicHttpsBinding


Single startup project
WcfService1
Multiple startup projects:
Project
Action
WcfService1
Start
WpfApplication1
Start


MainWindow
click!
You entered: 3


Reference Manager - UnitTestProject1
Assemblies
Projects
Solution
COM
Browse
Search Projects (Ctrl+E)
Name
CalculationEngine
Name:
CalculationEngine
Browse...
OK
Cancel


Calculator calc = new Calculator();
using CalculationEngine;
CalculationEngine.Calculator
Generate type
CalculationEngine.Calculator
CS0246 The type or namespace name 'Calculator' could not be found
(are you missing a using directive or an assembly reference?)
...
using Microsoft.VisualStudio.TestTools.UnitTesting;
using CalculationEngine;

TestAdd

Source: CalculatorTests.cs line 12

Test Failed - TestAdd

**Message: Test method UnitTestProject1.CalculatorTests.TestAdd threw exception: System.NotImplementedException: The method or operation is not implemented.**

Elapsed time: 58 ms

StackTrace:

Calculator.Add(Int32 v1, Int32 v2)

CalculatorTests.TestAdd()

**CalculatorTests** (2)

TestAdd 7 ms

TestMultiply < 1 ms

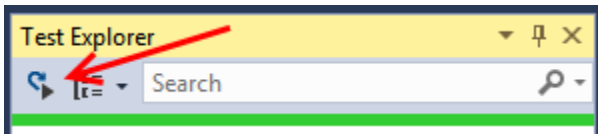
---

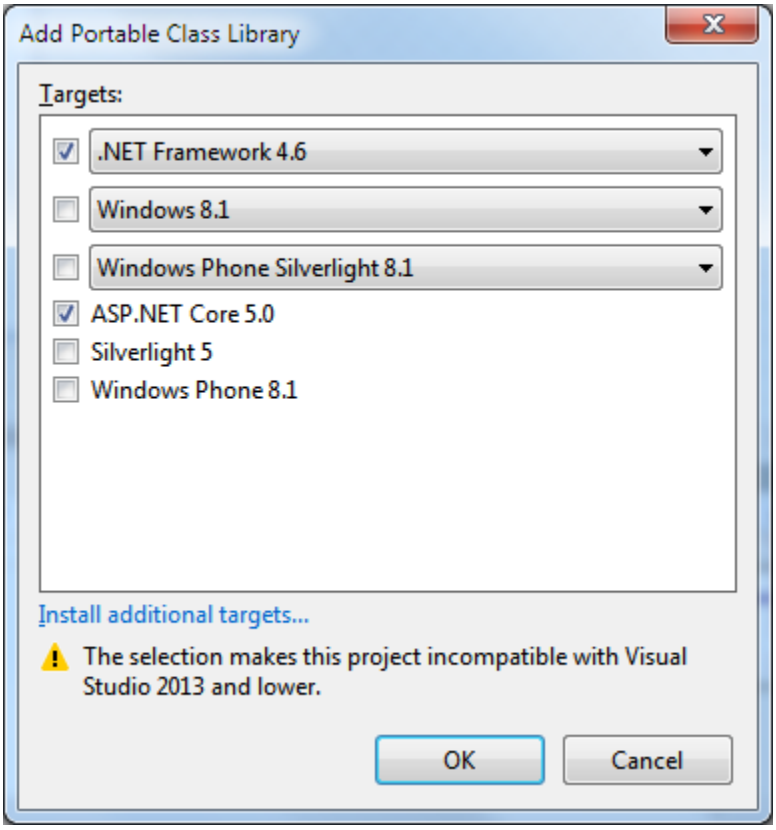
TestAdd

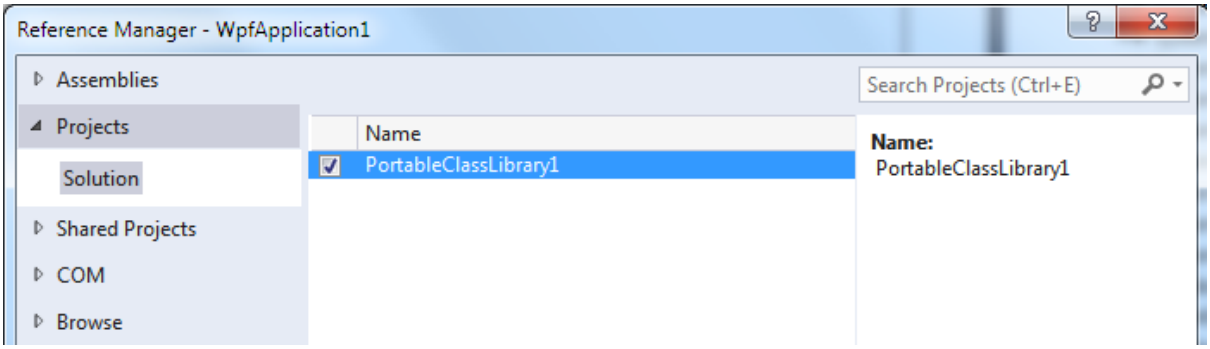
Source: CalculatorTests.cs line 12

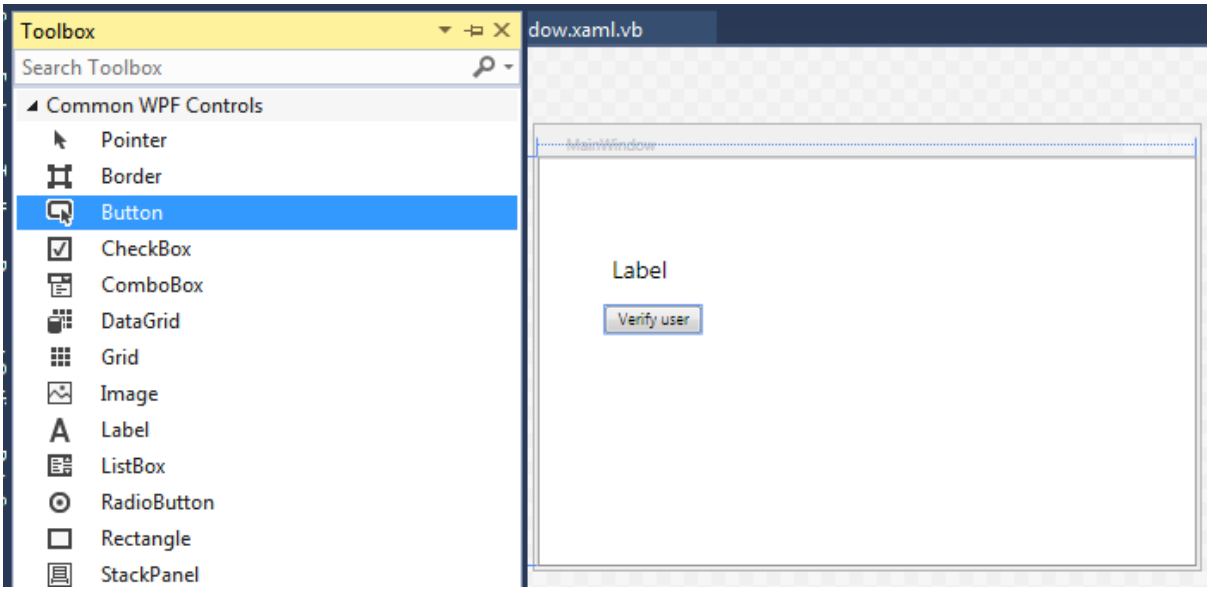
Test Passed - TestAdd

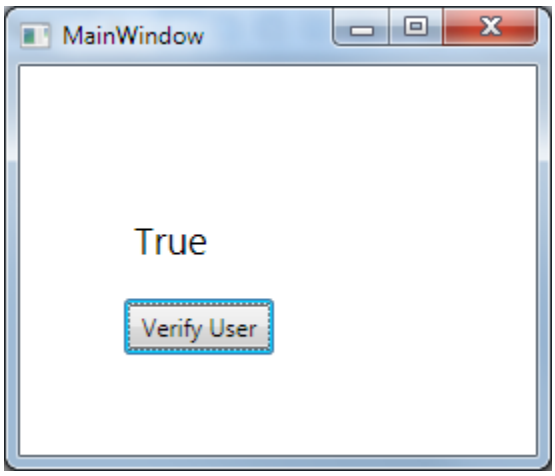
Elapsed time: 7 ms

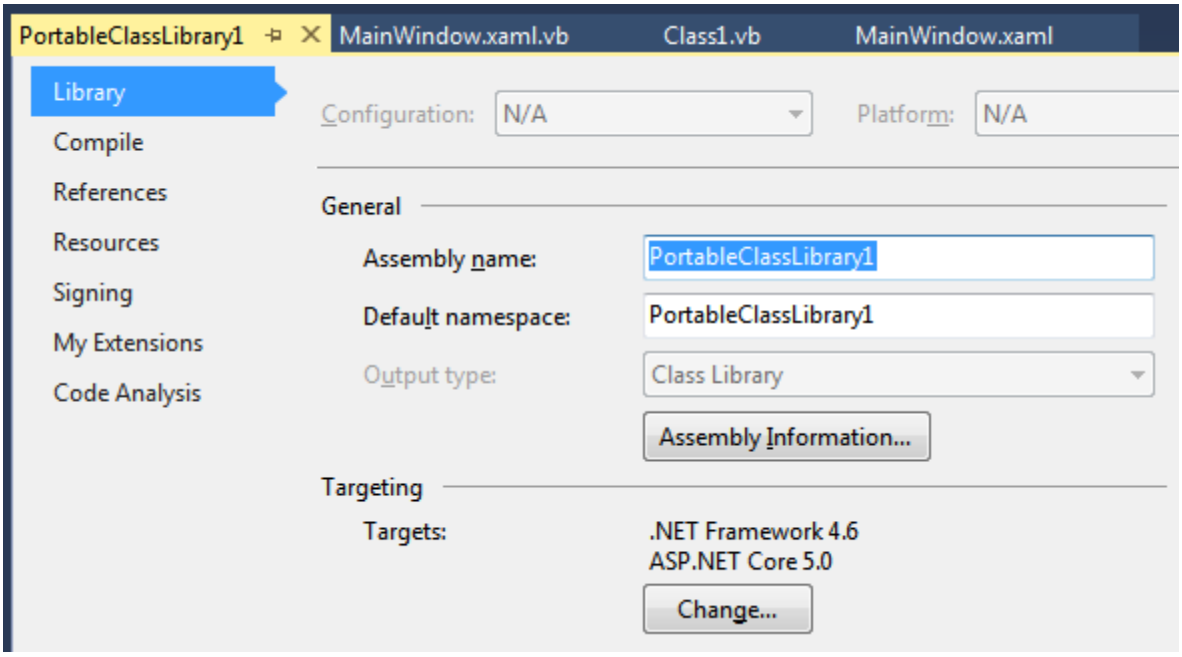


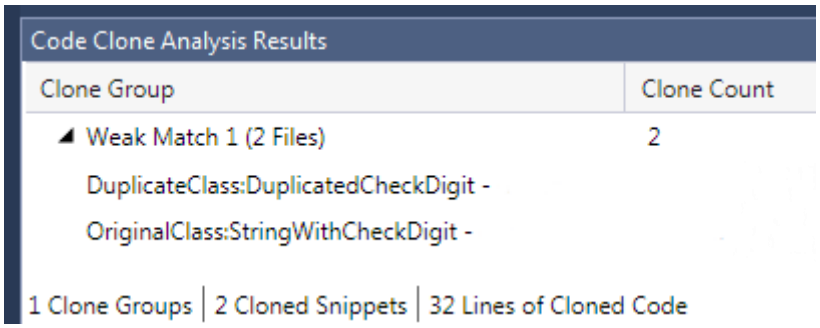

Add Portable Class Library
Targets:
.NET Framework 4.6
Windows 8.1
Windows Phone Silverlight 8.1
ASP.NET Core 5.0
Silverlight 5
Windows Phone 8.1
Install additional targets...
The selection makes this project incompatible with Visual Studio 2013 and lower.
OK
Cancel

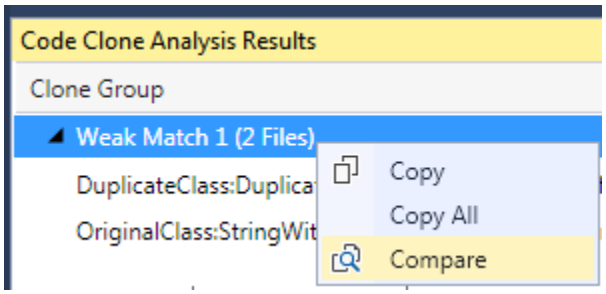

Reference Manager - WpfApplication1
Assemblies
Projects
Solution
Shared Projects
COM
Browse
Search Projects (Ctrl+E)
Name
PortableClassLibrary1
Name:
PortableClassLibrary1

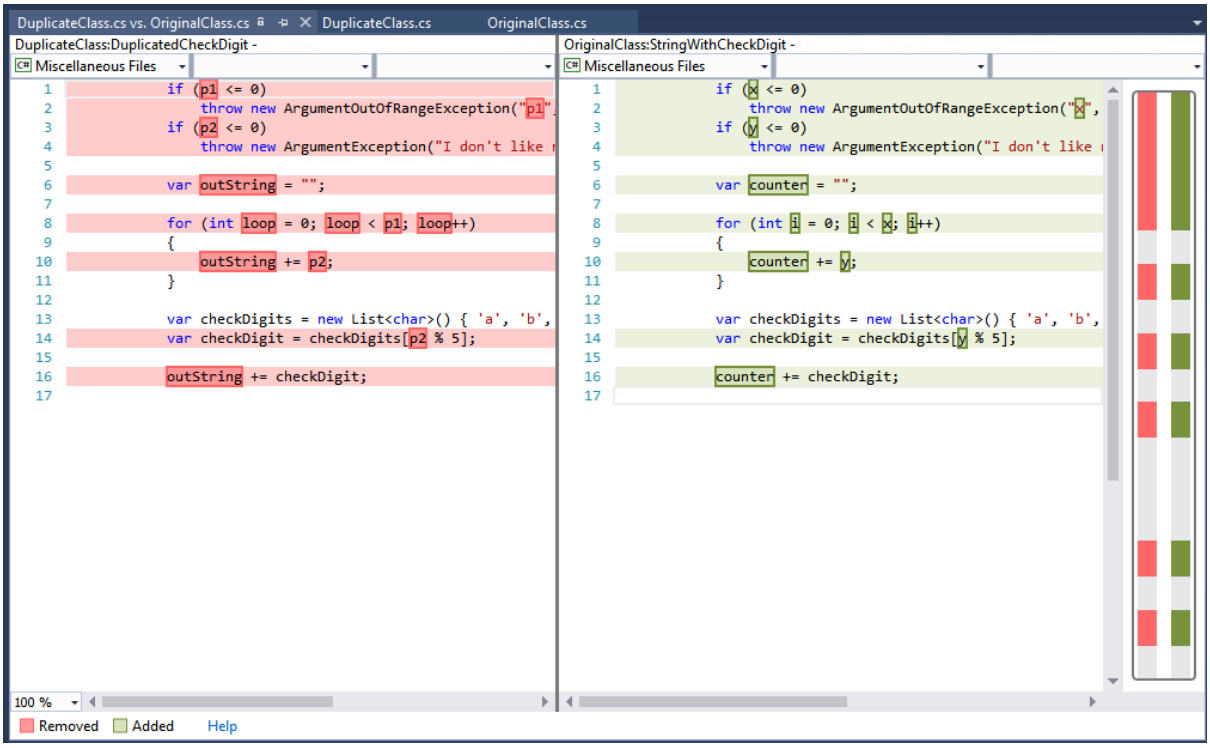

Toolbox
Search Toolbox
Common WPF Controls
Pointer
Border
Button
CheckBox
ComboBox
DataGrid
Grid
Image
Label
ListBox
RadioButton
Rectangle
StackPanel
dow.xaml.vb
Label
Verify user

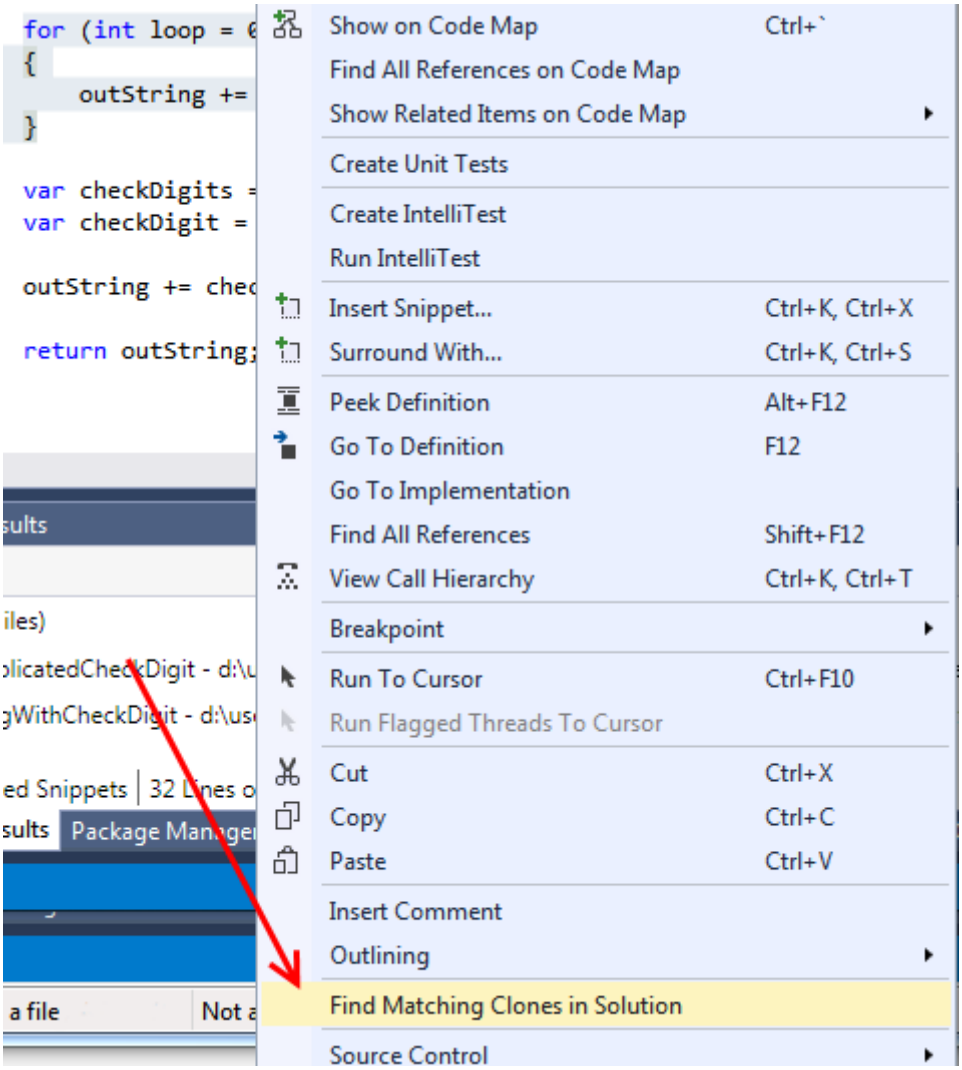

MainWindow
True
Verify User

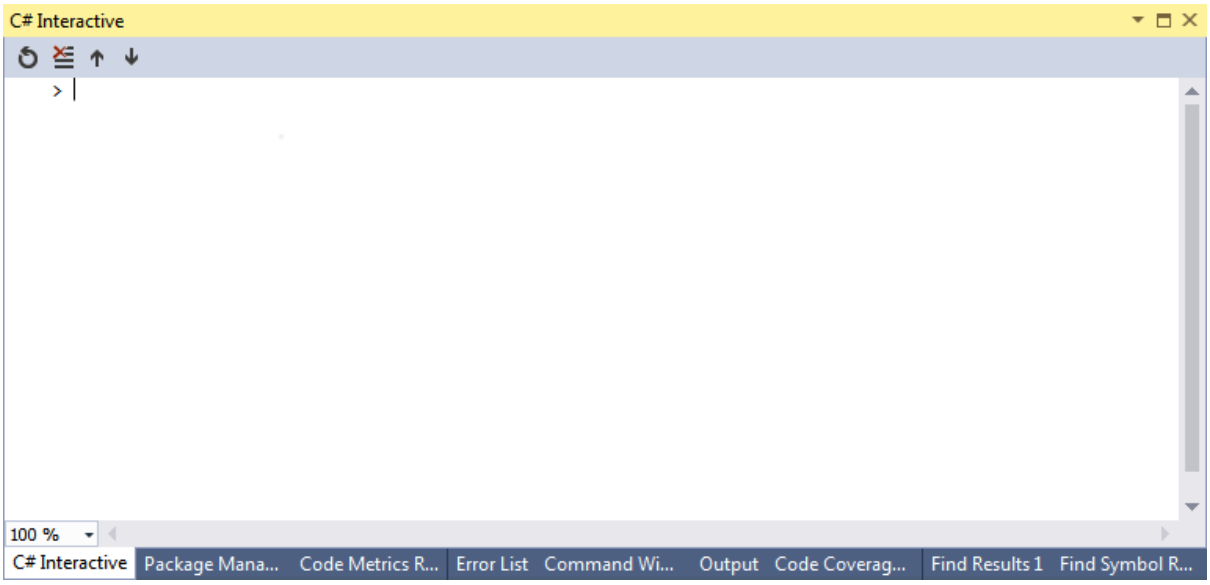

PortableClassLibrary1
MainWindow.xaml.vb
Class1.vb
MainWindow.xaml
Library
Compile
References
Resources
Signing
My Extensions
Code Analysis
Configuration: N/A
Platform: N/A
General
Assembly name: PortableClassLibrary1
Default namespace: PortableClassLibrary1
Output type: Class Library
Assembly Information...
Targeting
Targets: .NET Framework 4.6
ASP.NET Core 5.0
Change...

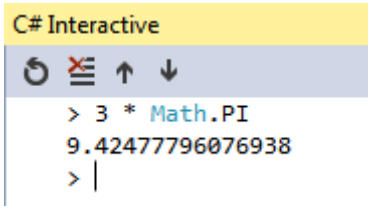

Code Clone Analysis Results
Clone Group
Clone Count
Weak Match 1 (2 Files)
2
DuplicateClass:DuplicatedCheckDigit -
OriginalClass:StringWithCheckDigit -
1 Clone Groups
2 Cloned Snippets
32 Lines of Cloned Code

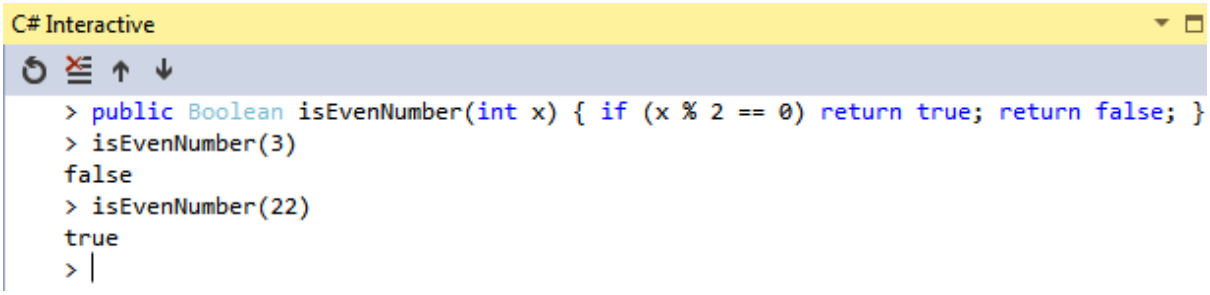

Code Clone Analysis Results
Clone Group
Weak Match 1 (2 Files)
DuplicateClass:Duplica
OriginalClass:StringWit
Copy
Copy All
Compare

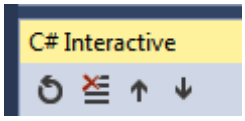

DuplicateClass.cs vs. OriginalClass.cs
DuplicateClass.cs
OriginalClass.cs
DuplicateClass:DuplicatedCheckDigit -
Miscellaneous Files
if (p1 <= 0)
throw new ArgumentOutOfRangeException("p1"
if (p2 <= 0)
throw new ArgumentException("I don't like
var outString = "";
for (int loop = 0; loop < p1; loop++)
{
outString += p2;
}
var checkDigits = new List<char>() { 'a', 'b',
var checkDigit = checkDigits[p2 % 5];
outString += checkDigit;
OriginalClass:StringWithCheckDigit -
Miscellaneous Files
if (x <= 0)
throw new ArgumentOutOfRangeException("x",
if (y <= 0)
throw new ArgumentException("I don't like
var counter = "";
for (int i = 0; i < x; i++)
{
counter += y;
}
var checkDigits = new List<char>() { 'a', 'b',
var checkDigit = checkDigits[y % 5];
counter += checkDigit;
100 %
Removed
Added
Help

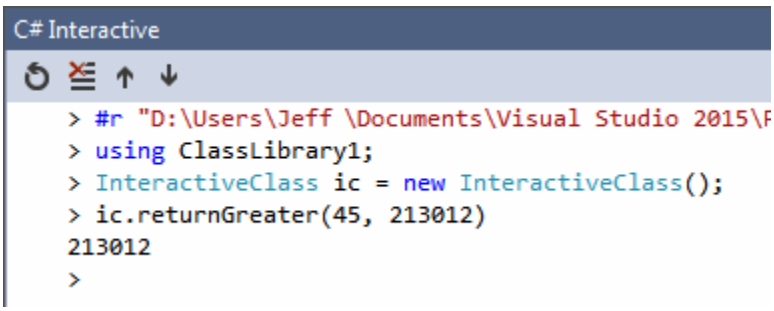

for (int loop = 0
{
outString +=
}
var checkDigits =
var checkDigit =
outString += chec
return outString;
sults
iles)
licatedCheckDigit - d:\u
gWithCheckDigit - d:\us
ed Snippets | 32 Lines o
sults
Package Manage
a file
Not a
Show on Code Map Ctrl+`
Find All References on Code Map
Show Related Items on Code Map
Create Unit Tests
Create IntelliTest
Run IntelliTest
Insert Snippet... Ctrl+K, Ctrl+X
Surround With... Ctrl+K, Ctrl+S
Peek Definition Alt+F12
Go To Definition F12
Go To Implementation
Find All References Shift+F12
View Call Hierarchy Ctrl+K, Ctrl+T
Breakpoint
Run To Cursor Ctrl+F10
Run Flagged Threads To Cursor
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Insert Comment
Outlining
Find Matching Clones in Solution
Source Control

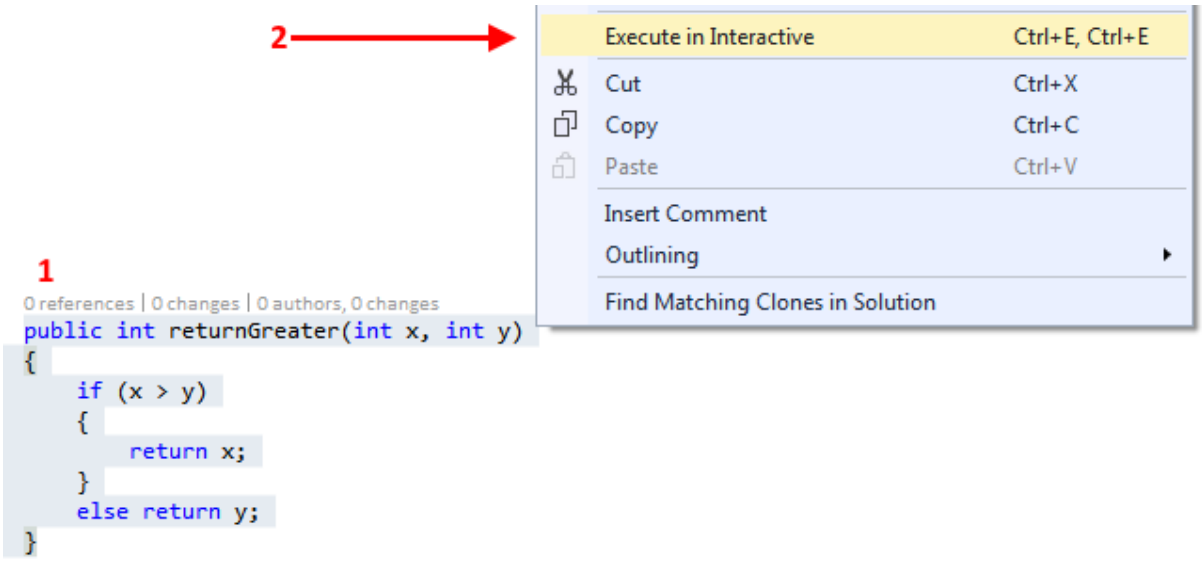

C# Interactive
>
100 %
C# Interactive
Package Mana...
Code Metrics R...
Error List
Command Wi...
Output
Code Coverag...
Find Results 1
Find Symbol R...

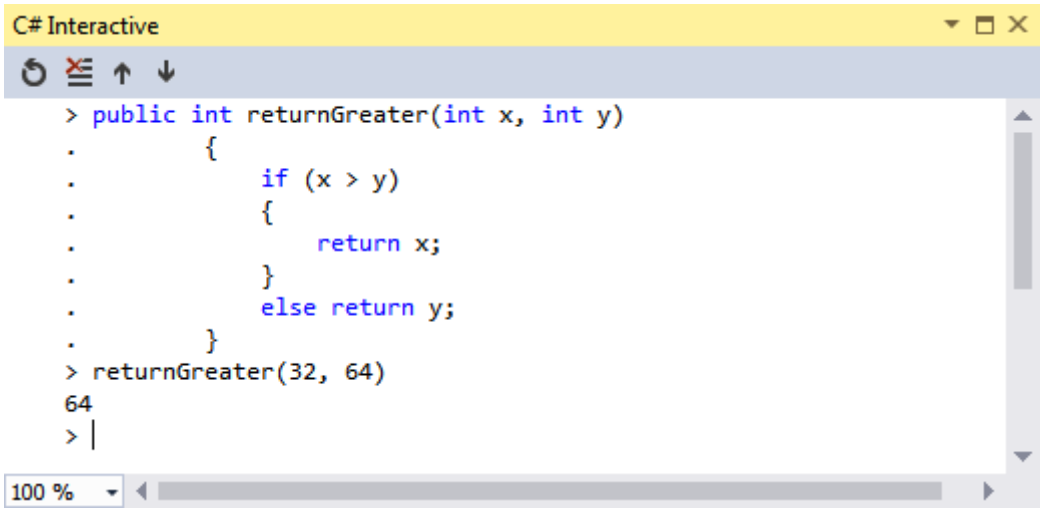

C# Interactive
> 3 * Math.PI
9.42477796076938
>


C# Interactive
> public Boolean isEvenNumber(int x) { if (x % 2 == 0) return true; return false; }
> isEvenNumber(3)
false
> isEvenNumber(22)
true
>

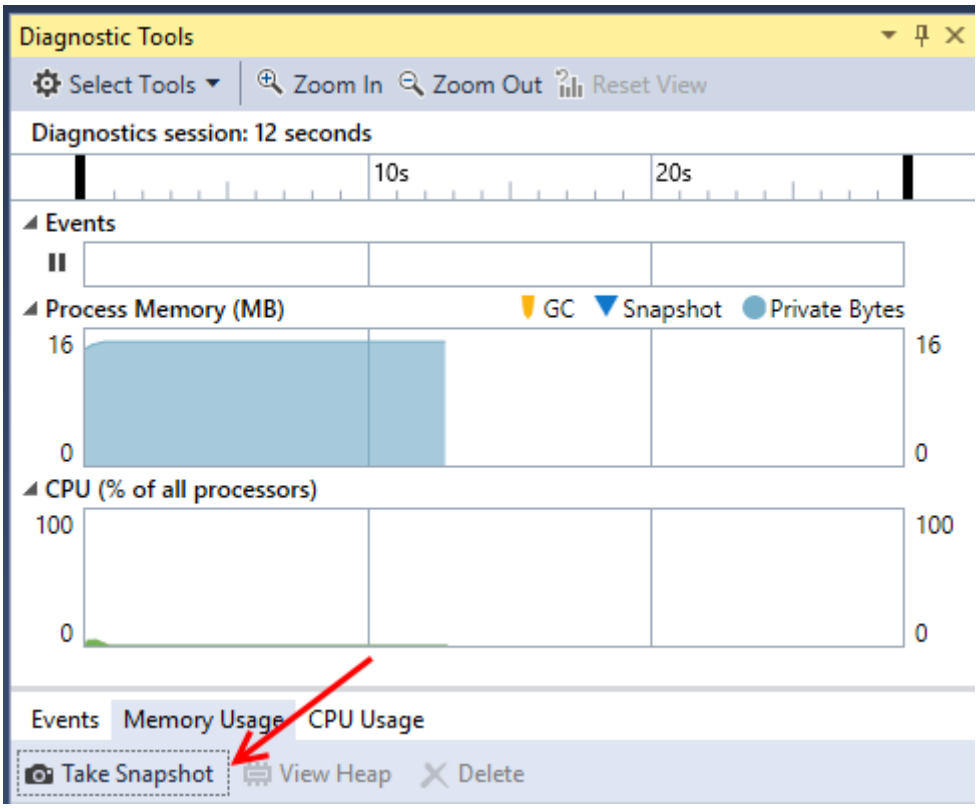

C# Interactive

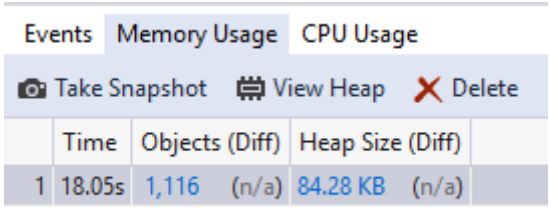

C# Interactive
> #r "D:\Users\Jeff \Documents\Visual Studio 2015\P
> using ClassLibrary1;
> InteractiveClass ic = new InteractiveClass();
> ic.returnGreater(45, 213012)
213012
>


2
Execute in Interactive Ctrl+E, Ctrl+E
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Insert Comment
Outlining
Find Matching Clones in Solution
1
0 references | 0 changes | 0 authors, 0 changes
public int returnGreater(int x, int y)
{
if (x > y)
{
return x;
}
else return y;
}

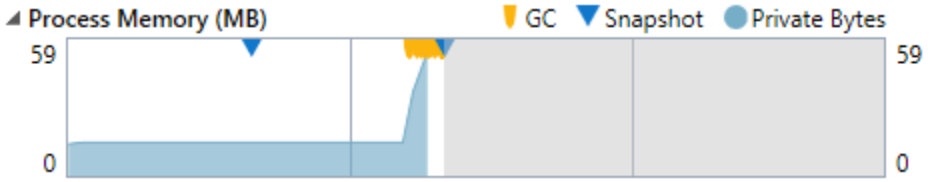

C# Interactive
> public int returnGreater(int x, int y)
.         {
.             if (x > y)
.             {
.                 return x;
.             }
.             else return y;
.         }
> returnGreater(32, 64)
64
>
100 %

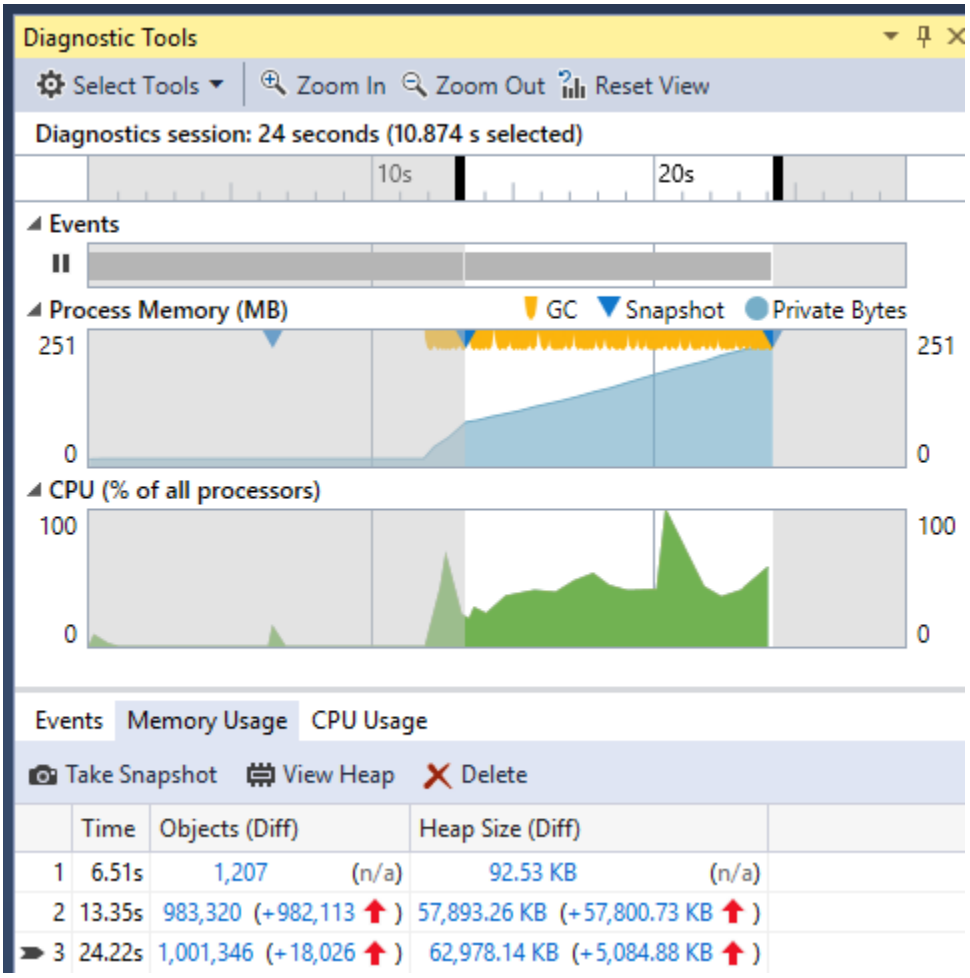
# Chapter 5: Debugging Your .NET Application

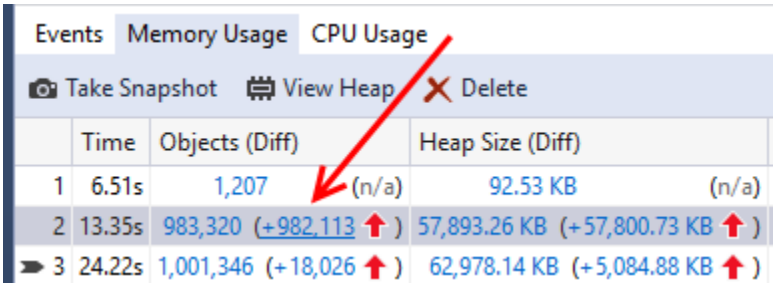


```
        static void Main(string[] args)
        {
            Console.WriteLine("Ready to create strings");
            Console.ReadKey(true);
            List<string> results = makeStrings();
            Console.WriteLine("Ready to Hash " + results.Count() + " strings ");
            List<string> strings = hashStrings(results);
            Console.ReadKey(true);
        }
```




Diagnostic Tools
Select Tools
Zoom In
Zoom Out
Reset View
Diagnostics session: 24 seconds (10.874 s selected)
10s
20s
Events
Process Memory (MB)
GC
Snapshot
Private Bytes
251
0
CPU (% of all processors)
100
0
Events
Memory Usage
CPU Usage
Take Snapshot
View Heap
Delete
Time
Objects (Diff)
Heap Size (Diff)
1 6.51s 1,207 (n/a) 92.53 KB (n/a)
2 13.35s 983,320 (+982,113) 57,893.26 KB (+57,800.73 KB)
3 24.22s 1,001,346 (+18,026) 62,978.14 KB (+5,084.88 KB)


Events
Memory Usage
CPU Usage
Take Snapshot
View Heap
Delete
Time
Objects (Diff)
Heap Size (Diff)
1 6.51s 1,207 (n/a) 92.53 KB (n/a)
2 13.35s 983,320 (+982,113) 57,893.26 KB (+57,800.73 KB)
3 24.22s 1,001,346 (+18,026) 62,978.14 KB (+5,084.88 KB)

Snapshot #2 Heap Ch5-DiagnosticTools.vshost.exe (20.34s)

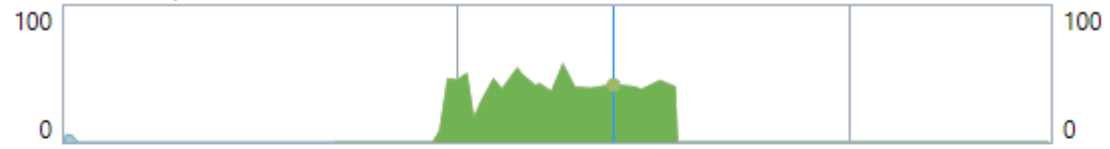
**Managed Memory (Ch5-DiagnosticTools.vshost.exe)** Compare to: Snapshot #1

| Object Type | Count Diff. | Size Diff. (Bytes) | Inclusive Size Diff. (Bytes) | Count | Size (Bytes) | In |
|---|---|---|---|---|---|---|
| List<String> | +1 | +59,167,808 | +59,167,808 | 1 | 59,167,808 | |
| Icon | 0 | 0 | 0 | 2 | 10,244 | |
| Hashtable | +26 | +5,412 | +15,320 | 46 | 7,980 | |
| FactoryRecord | +114 | +6,384 | +6,720 | 114 | 6,384 | |
| RuntimeType | +51 | +1,508 | +1,508 | 123 | 4,080 | |
| CultureData | 0 | 0 | 0 | 3 | 2,032 | |
| RuntimeType+RuntimeTypeCache | +2 | +1,716 | +2,024 | 2 | 1,716 | |
| Dictionary<String, UriParser> | +2 | +1,304 | +1,304 | 2 | 1,304 | |
| ConfigurationProperty | +19 | +1,064 | +3,308 | 19 | 1,064 | |
| ArrayList | +25 | +1,028 | +4,244 | 25 | 1,028 | |
| AppDomainSetup | 0 | -296 | -296 | 1 | 956 | |
| SectionXmlInfo | +14 | +896 | +896 | 14 | 896 | |
| StreamWriter | 0 | 0 | 0 | 1 | 872 | |

Paths to Root | Referenced Types

| Object Type | Reference Count Diff. | Reference Count |
|---|---|---|
| ◢ List<String> | | |
| List<String> [Strong Handle] | +1 | 1 |

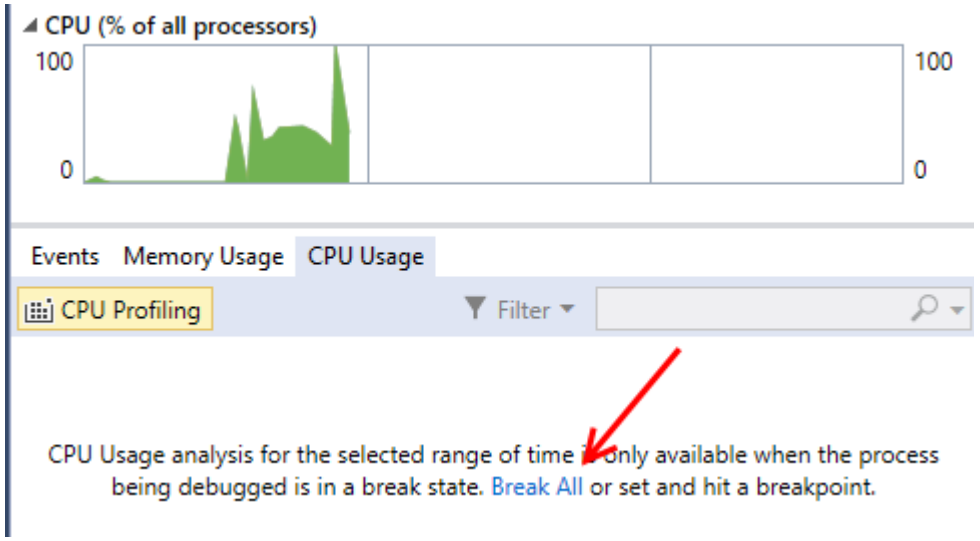
◢ CPU (% of all processors)

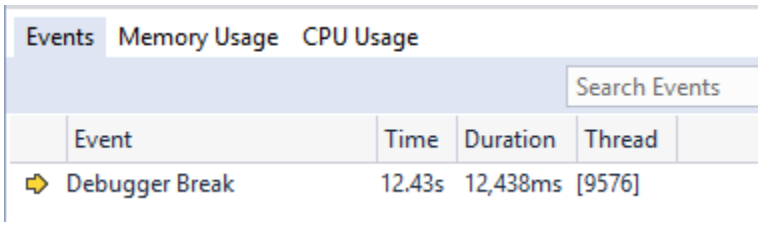


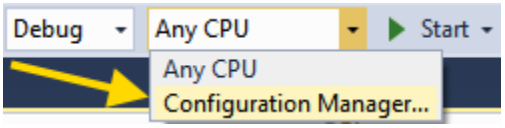

Events | Memory Usage | CPU Usage

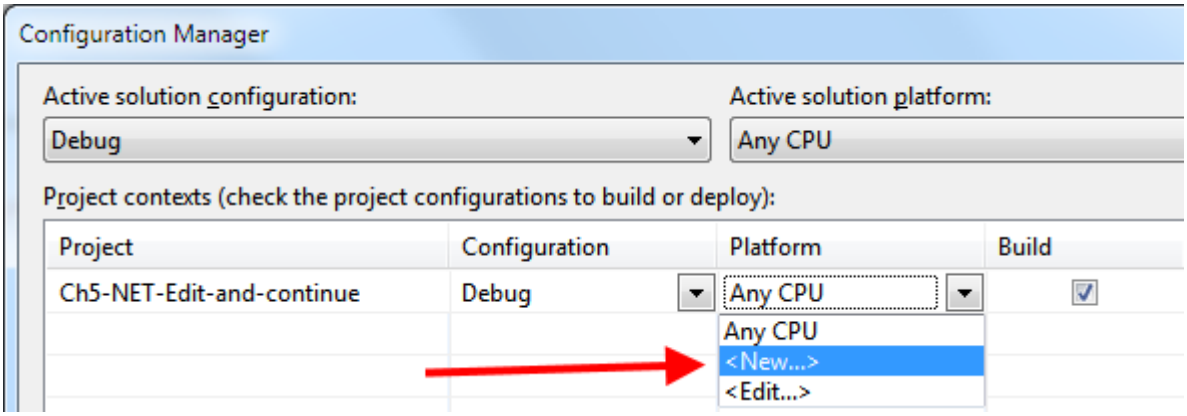
CPU Profiling | Filter

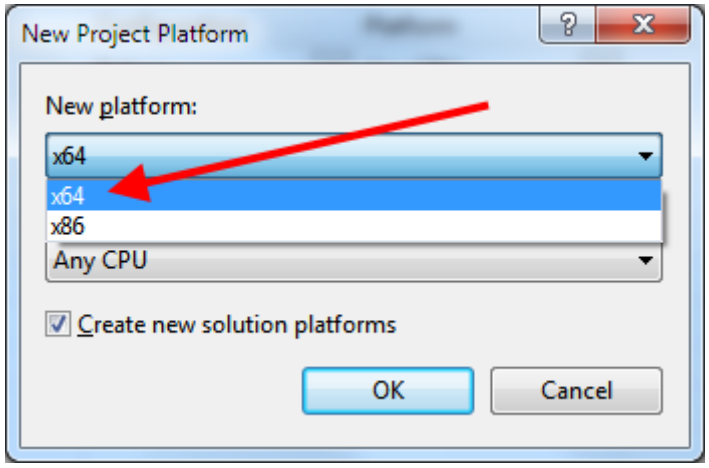
| Function Name | Total CPU (%) | Self CPU (%) | To |
|---|---|---|---|
| ◢ Ch5-DiagnosticTools.vshost.exe (PID: 8000) | 100.00 % | 0.00 % | |
| ◢ [External Code] | 100.00 % | 11.89 % | |
| ◢ Ch5_DiagnosticTools.Diagnostic::Main | 88.11 % | 0.00 % | |
| ▷ Ch5_DiagnosticTools.Diagnostic::hashStrings | 79.10 % | 2.44 % | |
| ▷ Ch5_DiagnosticTools.Diagnostic::makeStrings | 8.04 % | 0.16 % | |
| [External Code] | 0.98 % | 0.98 % | |


CPU (% of all processors)
100
0
100
0
Events
Memory Usage
CPU Usage
CPU Profiling
Filter
CPU Usage analysis for the selected range of time is only available when the process being debugged is in a break state. Break All or set and hit a breakpoint.

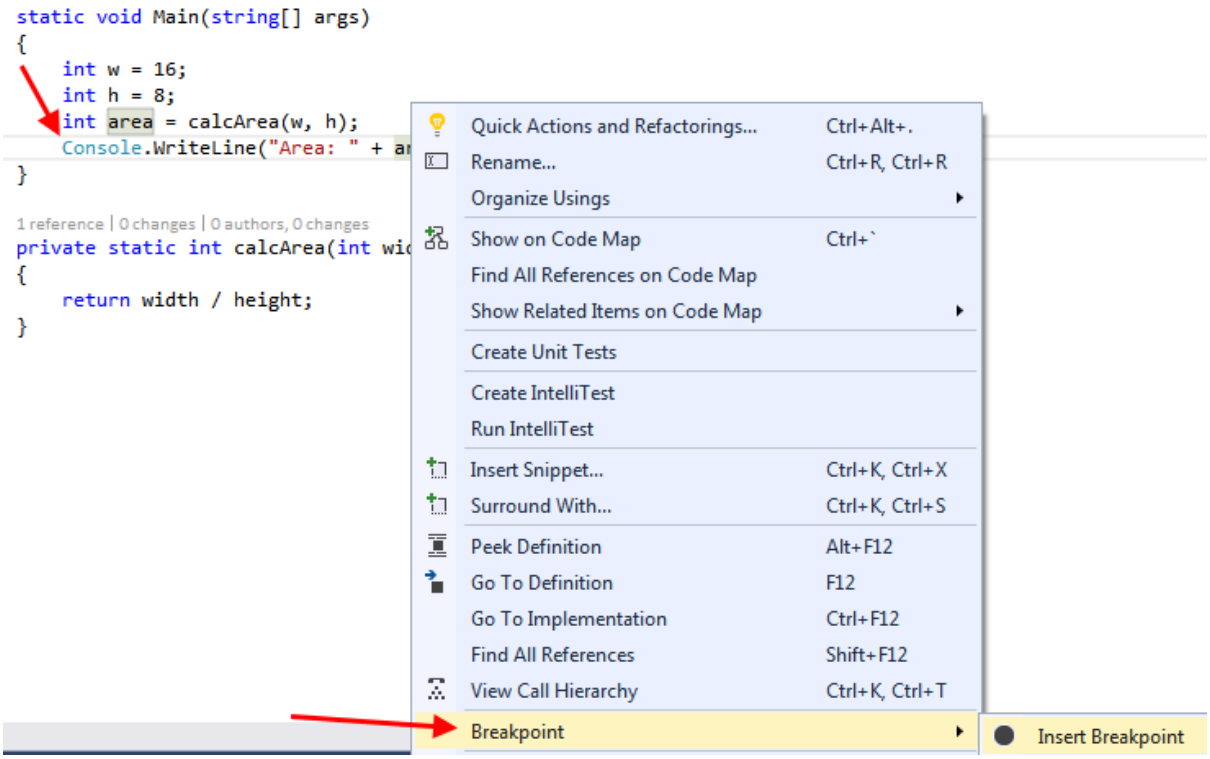

Events
Memory Usage
CPU Usage
Search Events
Event
Time
Duration
Thread
Debugger Break
12.43s
12,438ms
[9576]

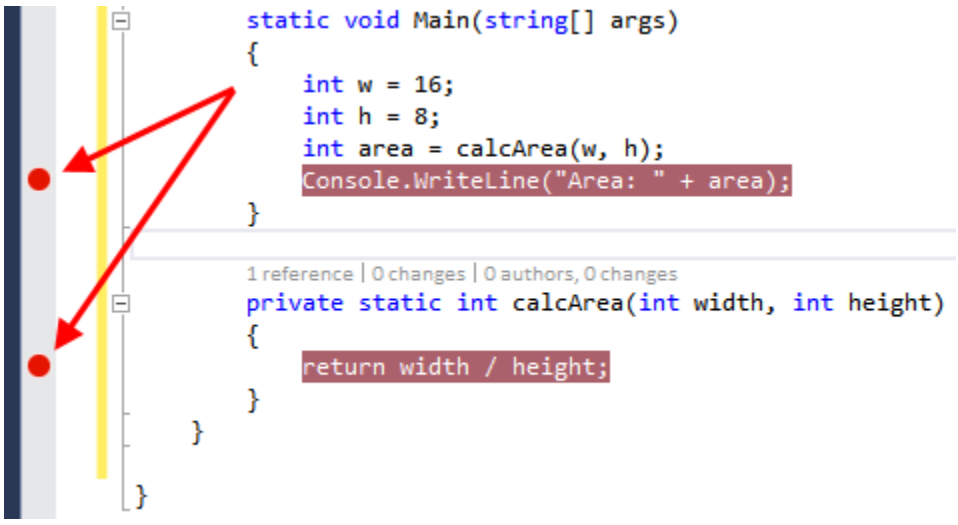

Debug
Any CPU
Start
Any CPU
Configuration Manager...

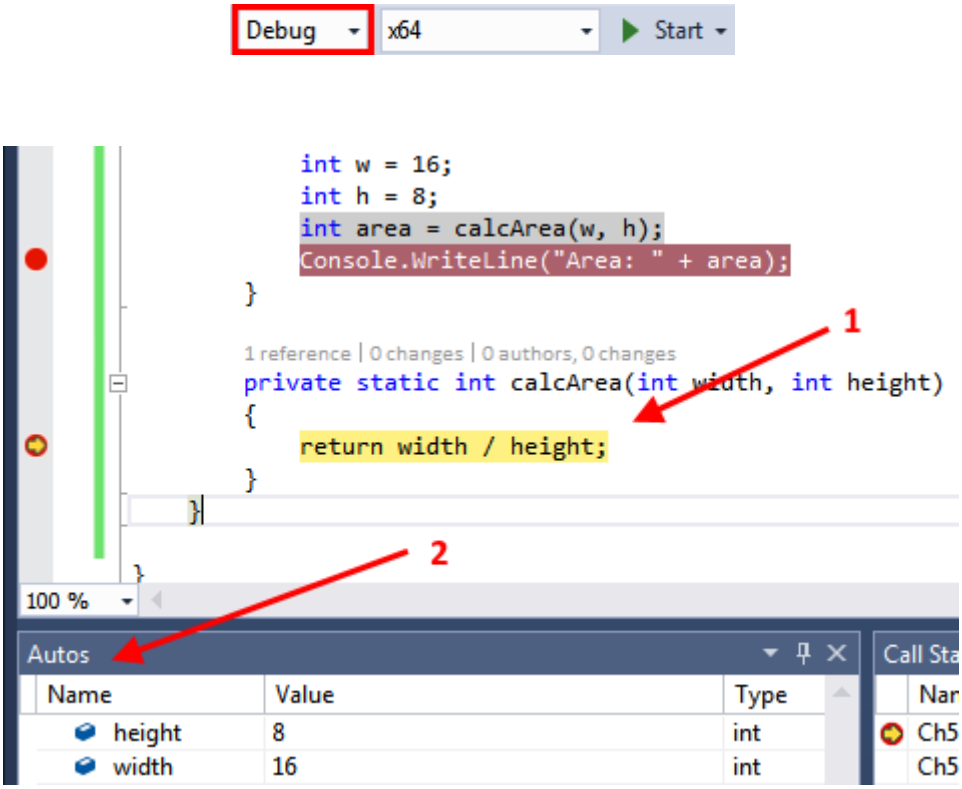

Configuration Manager
Active solution configuration:
Debug
Active solution platform:
Any CPU
Project contexts (check the project configurations to build or deploy):
Project
Configuration
Platform
Build
Ch5-NET-Edit-and-continue
Debug
Any CPU
Any CPU
<New...>
<Edit...>

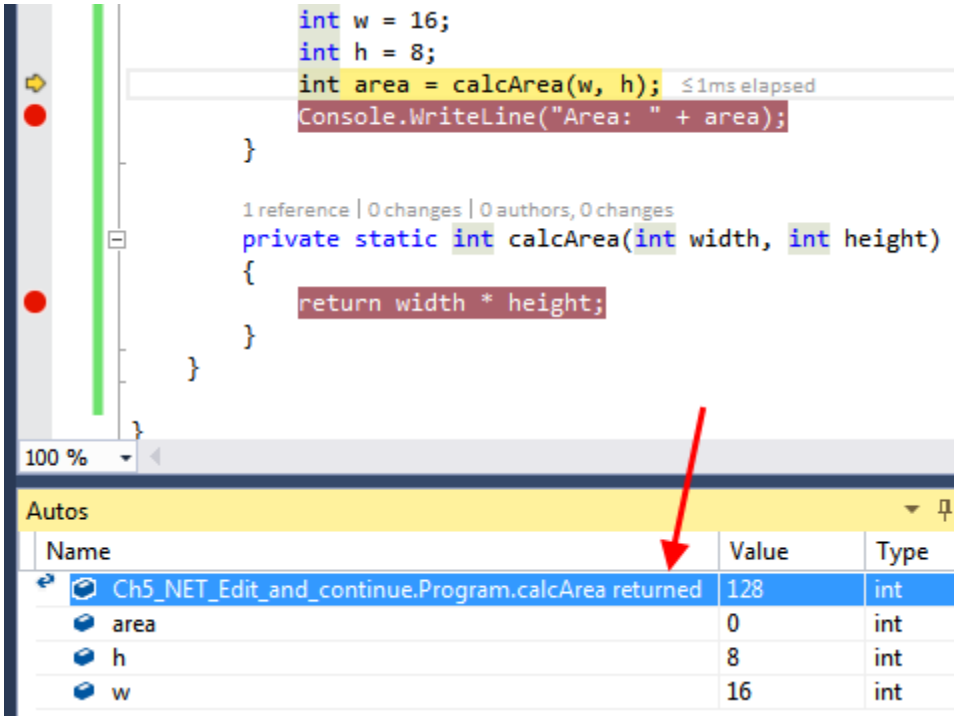

New Project Platform
New platform:
x64
x64
x86
Any CPU
Create new solution platforms
OK
Cancel

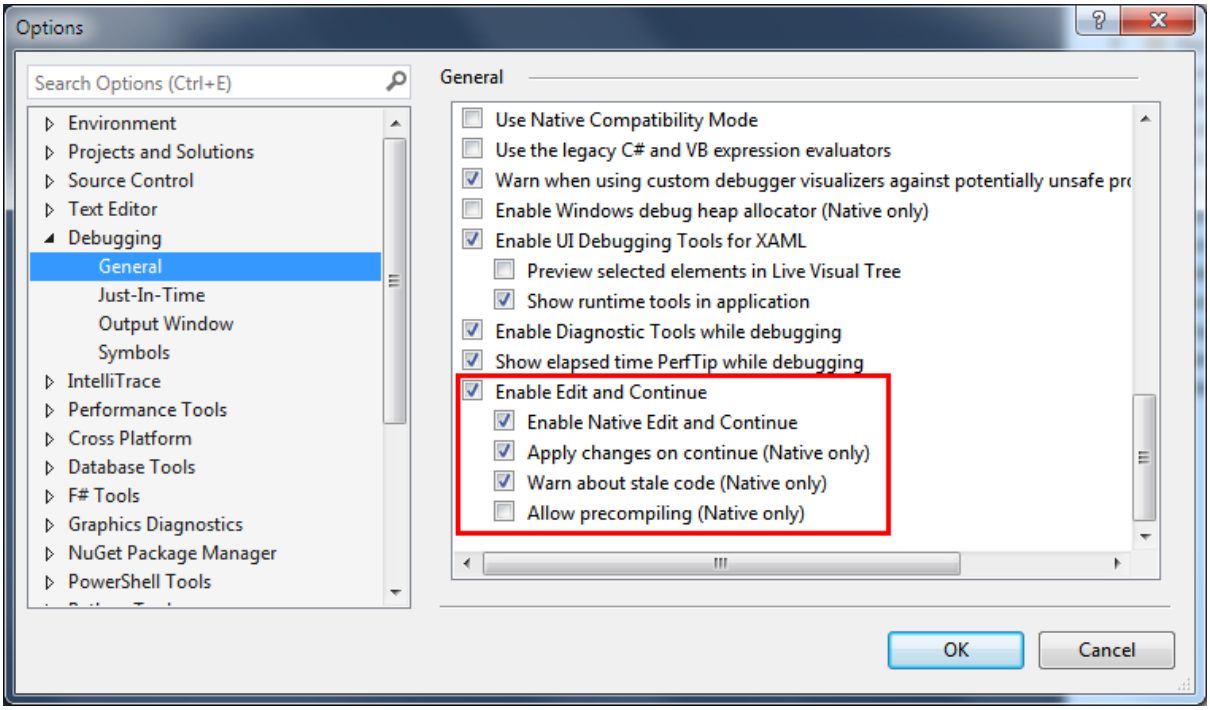
Debug
x64
Start

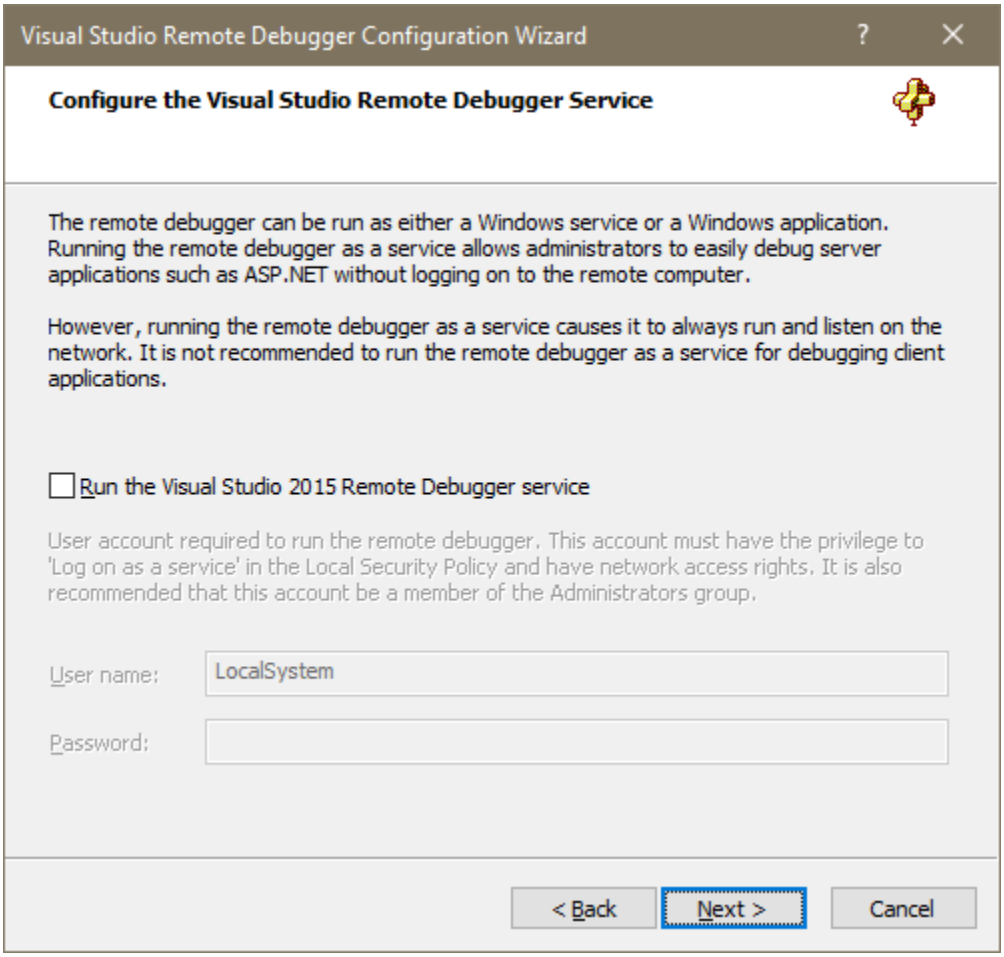

static void Main(string[] args)
{
int w = 16;
int h = 8;
int area = calcArea(w, h);
Console.WriteLine("Area: " + ar
}
1 reference | 0 changes | 0 authors, 0 changes
private static int calcArea(int wi
{
return width / height;
}
Quick Actions and Refactorings... Ctrl+Alt+.
Rename... Ctrl+R, Ctrl+R
Organize Usings
Show on Code Map Ctrl+`
Find All References on Code Map
Show Related Items on Code Map
Create Unit Tests
Create IntelliTest
Run IntelliTest
Insert Snippet... Ctrl+K, Ctrl+X
Surround With... Ctrl+K, Ctrl+S
Peek Definition Alt+F12
Go To Definition F12
Go To Implementation Ctrl+F12
Find All References Shift+F12
View Call Hierarchy Ctrl+K, Ctrl+T
Breakpoint
Insert Breakpoint

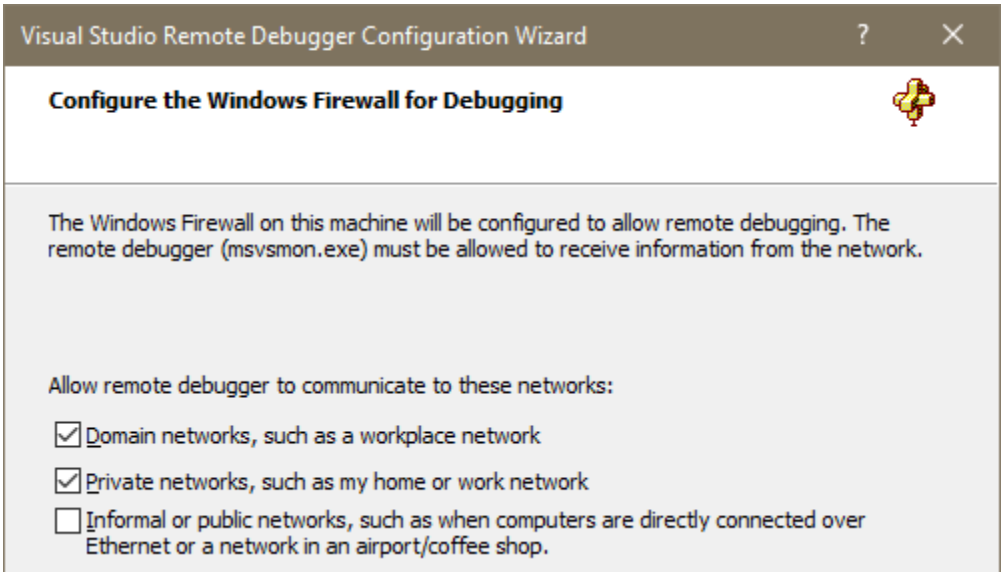

static void Main(string[] args)
{
int w = 16;
int h = 8;
int area = calcArea(w, h);
Console.WriteLine("Area: " + area);
}
1 reference | 0 changes | 0 authors, 0 changes
private static int calcArea(int width, int height)
{
return width / height;
}
}
}

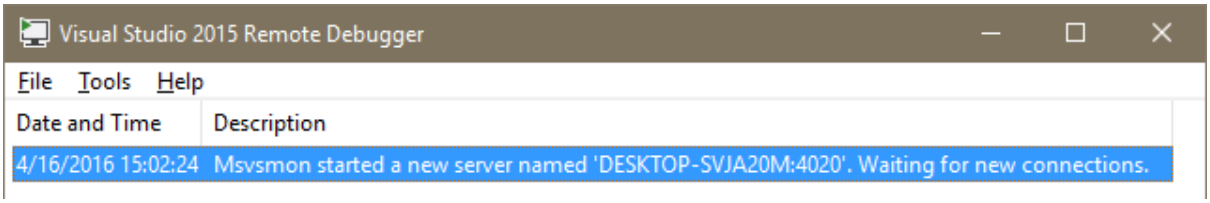

Debug
x64
Start
int w = 16;
int h = 8;
int area = calcArea(w, h);
Console.WriteLine("Area: " + area);
}
1 reference | 0 changes | 0 authors, 0 changes
private static int calcArea(int width, int height)
{
return width / height;
}
}
}
1
2
100 %
Autos
Name
Value
Type
height
8
int
width
16
int
Call Sta
Nar
Ch5
Ch5

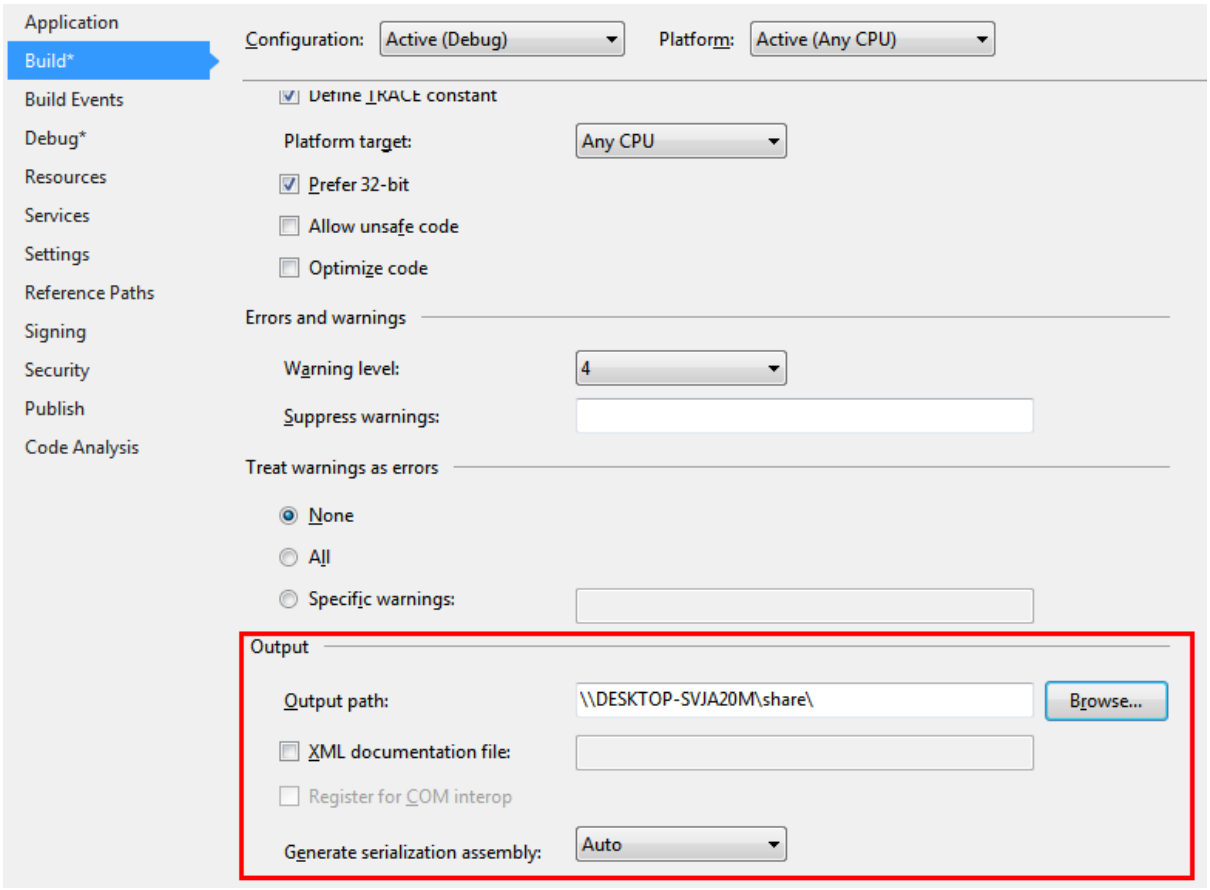

int w = 16;
int h = 8;
int area = calcArea(w, h); ≤1ms elapsed
Console.WriteLine("Area: " + area);
}
1 reference | 0 changes | 0 authors, 0 changes
private static int calcArea(int width, int height)
{
return width * height;
}
}
}
100 %
Autos
Name
Value
Type
Ch5_NET_Edit_and_continue.Program.calcArea returned
128
int
area
0
int
h
8
int
w
16
int

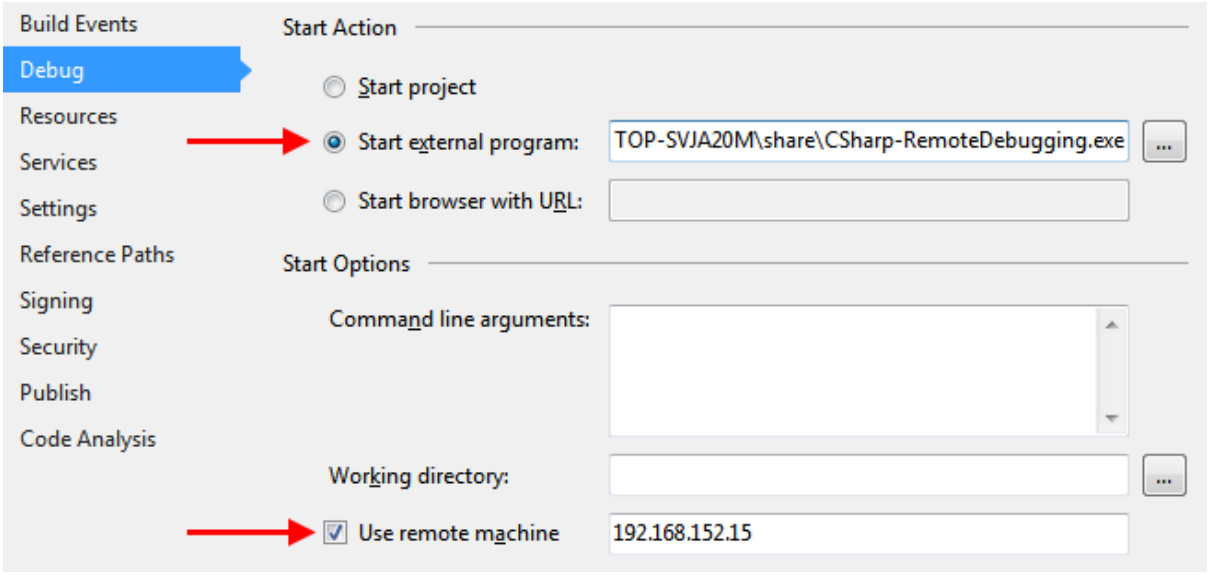

Options
Search Options (Ctrl+E)
Environment
Projects and Solutions
Source Control
Text Editor
Debugging
General
Just-In-Time
Output Window
Symbols
IntelliTrace
Performance Tools
Cross Platform
Database Tools
F# Tools
Graphics Diagnostics
NuGet Package Manager
PowerShell Tools
General
Use Native Compatibility Mode
Use the legacy C# and VB expression evaluators
Warn when using custom debugger visualizers against potentially unsafe pr
Enable Windows debug heap allocator (Native only)
Enable UI Debugging Tools for XAML
Preview selected elements in Live Visual Tree
Show runtime tools in application
Enable Diagnostic Tools while debugging
Show elapsed time PerfTip while debugging
Enable Edit and Continue
Enable Native Edit and Continue
Apply changes on continue (Native only)
Warn about stale code (Native only)
Allow precompiling (Native only)
OK
Cancel

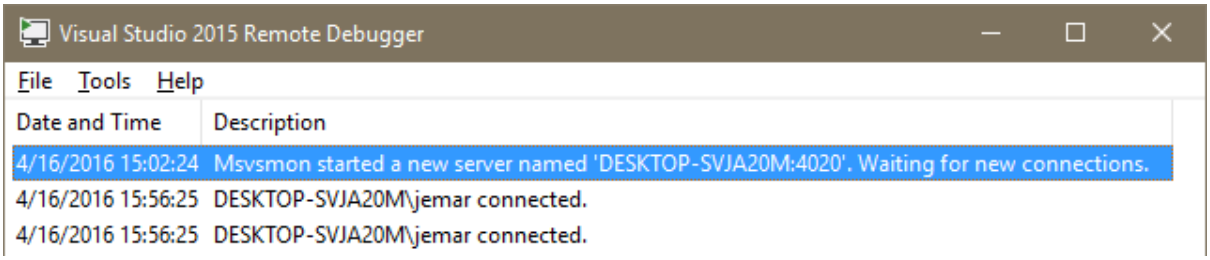

Visual Studio Remote Debugger Configuration Wizard
Configure the Visual Studio Remote Debugger Service
The remote debugger can be run as either a Windows service or a Windows application. Running the remote debugger as a service allows administrators to easily debug server applications such as ASP.NET without logging on to the remote computer.
However, running the remote debugger as a service causes it to always run and listen on the network. It is not recommended to run the remote debugger as a service for debugging client applications.
Run the Visual Studio 2015 Remote Debugger service
User account required to run the remote debugger. This account must have the privilege to 'Log on as a service' in the Local Security Policy and have network access rights. It is also recommended that this account be a member of the Administrators group.
User name:
LocalSystem
Password:
< Back
Next >
Cancel

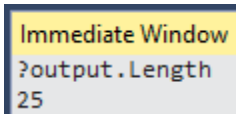

Visual Studio Remote Debugger Configuration Wizard
Configure the Windows Firewall for Debugging
The Windows Firewall on this machine will be configured to allow remote debugging. The remote debugger (msvsmon.exe) must be allowed to receive information from the network.
Allow remote debugger to communicate to these networks:
Domain networks, such as a workplace network
Private networks, such as my home or work network
Informal or public networks, such as when computers are directly connected over Ethernet or a network in an airport/coffee shop.

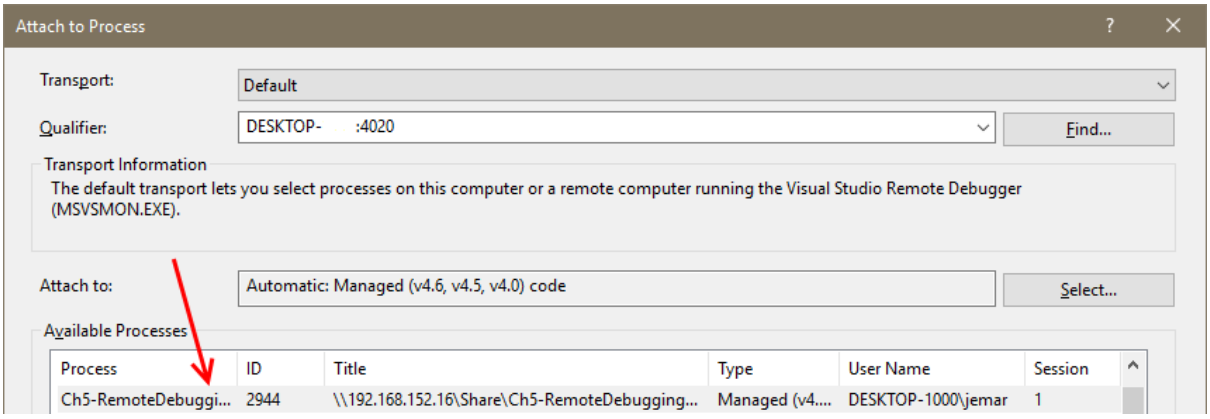

Visual Studio 2015 Remote Debugger
File Tools Help
Date and Time
Description
4/16/2016 15:02:24
Msvsmon started a new server named 'DESKTOP-SVJA20M:4020'. Waiting for new connections.

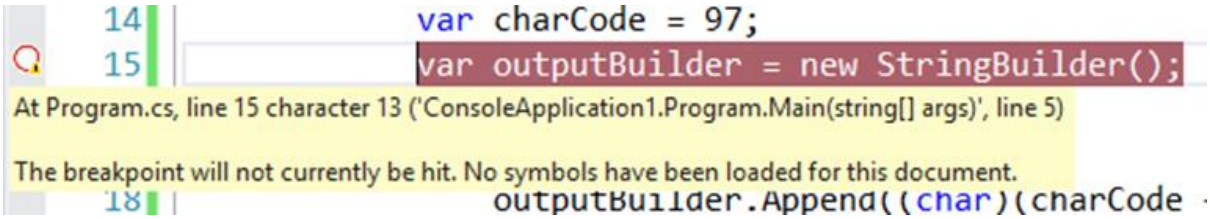

Application
Build*
Build Events
Debug*
Resources
Services
Settings
Reference Paths
Signing
Security
Publish
Code Analysis
Configuration: Active (Debug)
Platform: Active (Any CPU)
Define TRACE constant
Platform target: Any CPU
Prefer 32-bit
Allow unsafe code
Optimize code
Errors and warnings
Warning level: 4
Suppress warnings:
Treat warnings as errors
None
All
Specific warnings:
Output
Output path: \\DESKTOP-SVJA20M\share\
Browse...
XML documentation file:
Register for COM interop
Generate serialization assembly: Auto

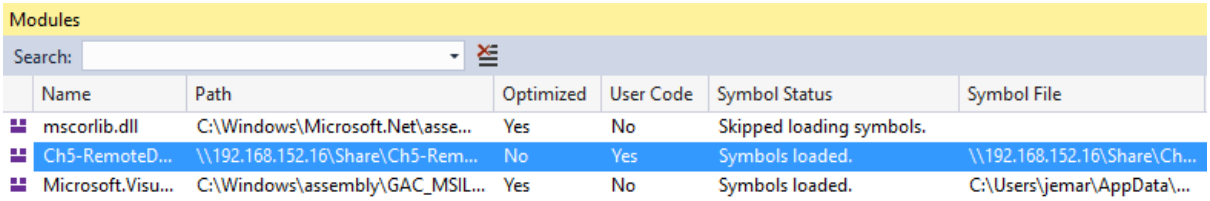

Build Events
Debug
Resources
Services
Settings
Reference Paths
Signing
Security
Publish
Code Analysis
Start Action
Start project
Start external program:
TOP-SVJA20M\share\CSharp-RemoteDebugging.exe
Start browser with URL:
Start Options
Command line arguments:
Working directory:
Use remote machine
192.168.152.15

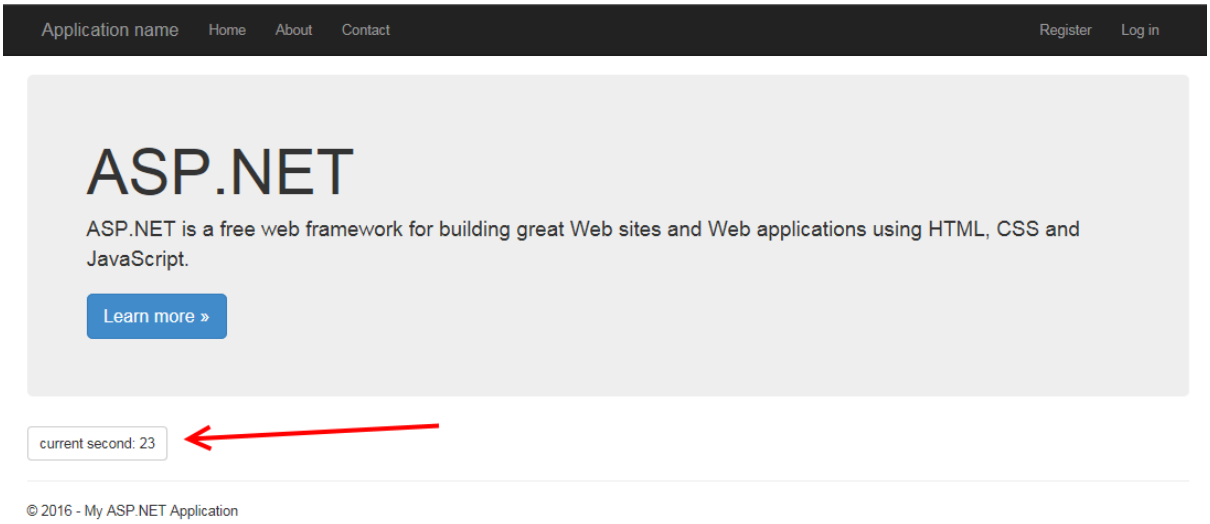

Visual Studio 2015 Remote Debugger
File Tools Help
Date and Time
Description
4/16/2016 15:02:24 Msvsmon started a new server named 'DESKTOP-SVJA20M:4020'. Waiting for new connections.
4/16/2016 15:56:25 DESKTOP-SVJA20M\jemar connected.
4/16/2016 15:56:25 DESKTOP-SVJA20M\jemar connected.

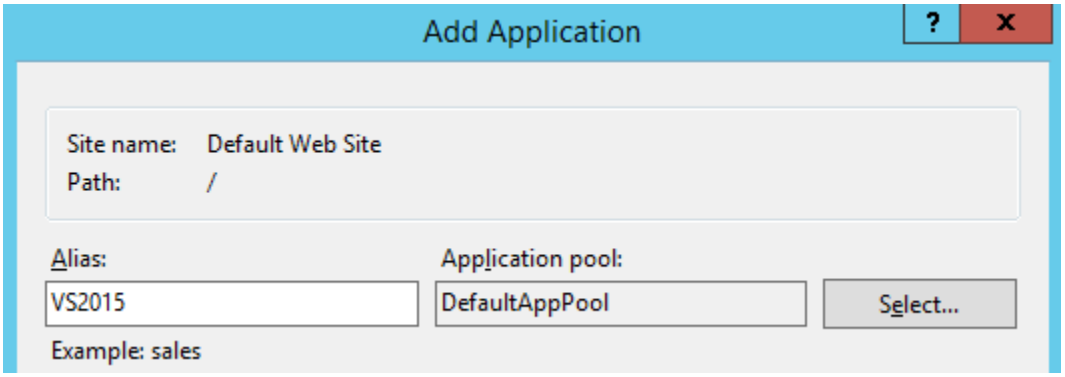

Immediate Window
?output.Length
25

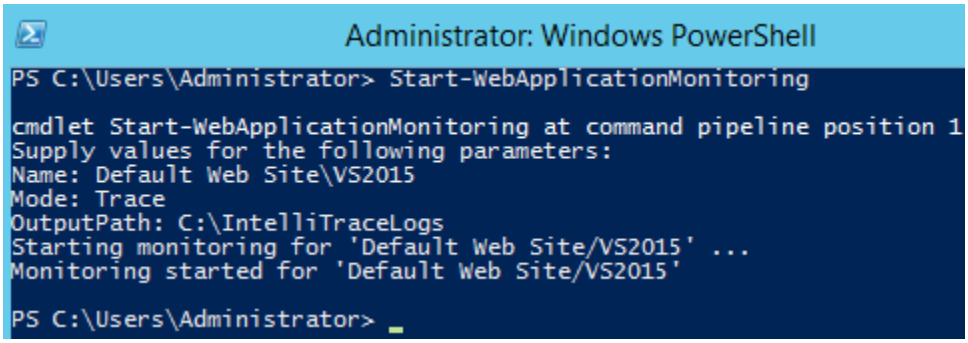

Attach to Process
Transport:
Default
Qualifier:
DESKTOP- :4020
Find...
Transport Information
The default transport lets you select processes on this computer or a remote computer running the Visual Studio Remote Debugger (MSVSMON.EXE).
Attach to:
Automatic: Managed (v4.6, v4.5, v4.0) code
Select...
Available Processes
Process
ID
Title
Type
User Name
Session
Ch5-RemoteDebuggi...
2944
\\192.168.152.16\Share\Ch5-RemoteDebugging...
Managed (v4....
DESKTOP-1000\jemar
1


14
var charCode = 97;
15
var outputBuilder = new StringBuilder();
At Program.cs, line 15 character 13 ('ConsoleApplication1.Program.Main(string[] args)', line 5)
The breakpoint will not currently be hit. No symbols have been loaded for this document.
18
outputBuilder.Append((char)(charCode


Modules
Search:
Name
Path
Optimized
User Code
Symbol Status
Symbol File
mscorlib.dll
C:\Windows\Microsoft.Net\asse...
Yes
No
Skipped loading symbols.
Ch5-RemoteD...
\\192.168.152.16\Share\Ch5-Rem...
No
Yes
Symbols loaded.
\\192.168.152.16\Share\Ch...
Microsoft.Visu...
C:\Windows\assembly\GAC_MSIL...
Yes
No
Symbols loaded.
C:\Users\jemar\AppData\...


Application name
Home
About
Contact
Register
Log in
ASP.NET
ASP.NET is a free web framework for building great Web sites and Web applications using HTML, CSS and JavaScript.
Learn more »
current second: 23
© 2016 - My ASP.NET Application


Add Application
Site name: Default Web Site
Path: /
Alias:
VS2015
Example: sales
Application pool:
DefaultAppPool
Select...


Administrator: Windows PowerShell
PS C:\Users\Administrator> Start-WebApplicationMonitoring
cmdlet Start-WebApplicationMonitoring at command pipeline position 1
Supply values for the following parameters:
Name: Default Web Site\VS2015
Mode: Trace
OutputPath: C:\IntelliTraceLogs
Starting monitoring for 'Default Web Site/VS2015' ...
Monitoring started for 'Default Web Site/VS2015'
PS C:\Users\Administrator>

```
PS C:\Users\Administrator> Checkpoint-WebApplicationMonitoring

cmdlet Checkpoint-WebApplicationMonitoring at command pipeline position 1
Supply values for the following parameters:
Name: Default Web Site/VS2015
Creating checkpoint for 'Default Web Site/VS2015'.  This may take a few minutes ...
Monitoring checkpointed for 'Default Web Site/VS2015'

Monitoring results are available:
C:\IntelliTraceLogs\w3wp_000006b0_160417_121852_160417_123040.iTrace

PS C:\Users\Administrator> Stop-WebApplicationMonitoring -all
Stopping monitoring for all web applications.  This may take a few minutes ...
Monitoring stopped for all web applications

Monitoring results are available:
C:\IntelliTraceLogs\w3wp_000006b0_160417_121852.iTrace

PS C:\Users\Administrator>
```

Solution1 - w3wp_000006b0_160417_121852.iTrace IntelliTrace File

w3wp_000006b0_1604...e IntelliTrace File

**IntelliTrace Summary**

Logging started on 4/17/2016 12:28 (UTC-04:00)

▾ Exception Data

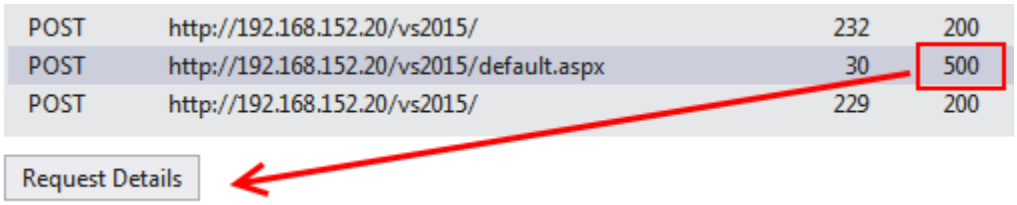
▴ Web Requests

Search

| Method | Target URL | Time Taken (ms) | Status | Session | Client IP | User Agent |
|---|---|---|---|---|---|---|
| POST | http://192.168.152.20/vs2015/default.aspx | 33 | 500 | 1 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/ | 235 | 200 | 0 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/default.aspx | 40 | 200 | 1 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/ | 42 | 200 | 0 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/default.aspx | 31 | 500 | 1 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/ | 233 | 200 | 0 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/default.aspx | 30 | 500 | 1 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/ | 231 | 200 | 0 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/default.aspx | 30 | 500 | 1 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/ | 231 | 200 | 0 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/default.aspx | 31 | 500 | 1 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/ | 232 | 200 | 0 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/default.aspx | 30 | 500 | 1 | 192.168.152.13 | Mozilla/5.0 (Windows N... |
| POST | http://192.168.152.20/vs2015/ | 229 | 200 | 0 | 192.168.152.13 | Mozilla/5.0 (Windows N... |

Request Details

▾ System Info




**http://192.168.152.20/vs2015/default.aspx**

Details:

| | | | |
|---|---|---|---|
| Time Taken: | 30 | Method: | POST |
| Client IP: | 192.168.152.13 | Id: | 1 |
| Target URL: | http://192.168.152.20/vs2015/default.aspx | User Agent: | Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/51.0.2685.0 Safari/537.36 |
| Status: | 500 | End Time: | 4/17/2016 12:29 (UTC-04:00) |

Request Events:

All categories

Search

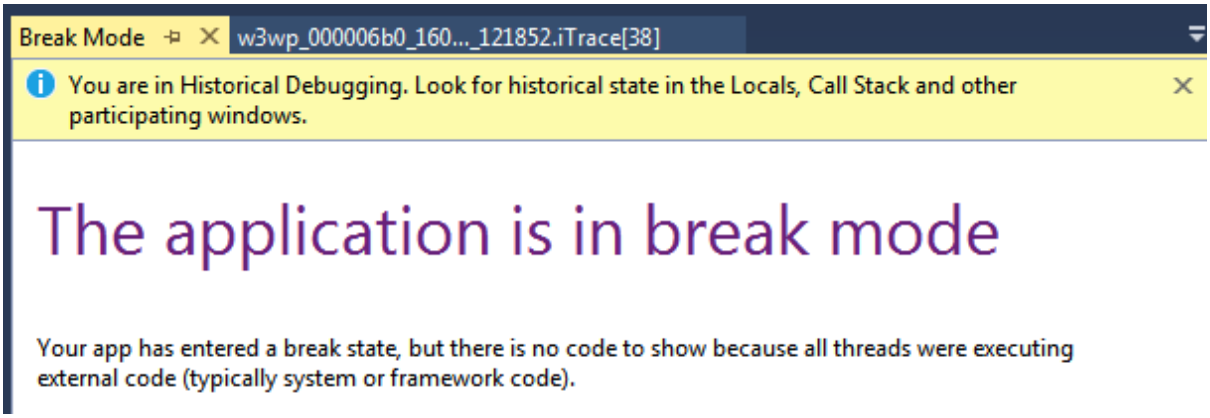
- **ASP.NET:** Page Post Back "/vs2015/"
- **Gesture:** Clicked "current second: 47" (Button)
- **Exception:** Exception thrown: 'System.ApplicationException' in Ch5-VB-IntelliTrace-WebForms.dll ("Even second click triggered exception")

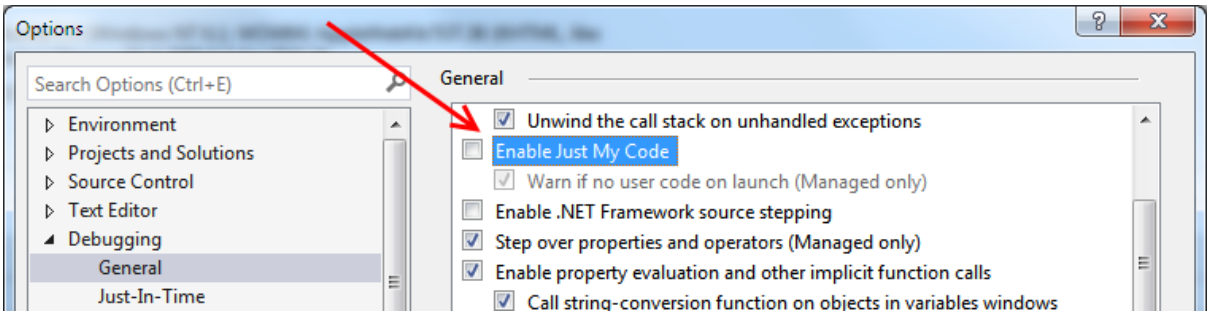
  Exception thrown: 'System.ApplicationException' in Ch5-VB-IntelliTrace-WebForms.dll ("Even second click triggered exception")

  **Time:** 4/17/2016 12:29 (UTC-04:00)
  **Thread: [2780]**
- **Exception:** Exception caught: 'System.ApplicationException' in ("Even second click triggered exception")
- **Exception:** Exception thrown: 'System.Web.HttpUnhandledException' in System.Web.dll ("null")
- **Exception:** Exception caught: 'System.Web.HttpUnhandledException' in ("null")
- **Exception:** Exception thrown: 'System.Web.HttpUnhandledException' in ("null")
- **Exception:** Exception caught: 'System.Web.HttpUnhandledException' in ("null")

Debug This Event

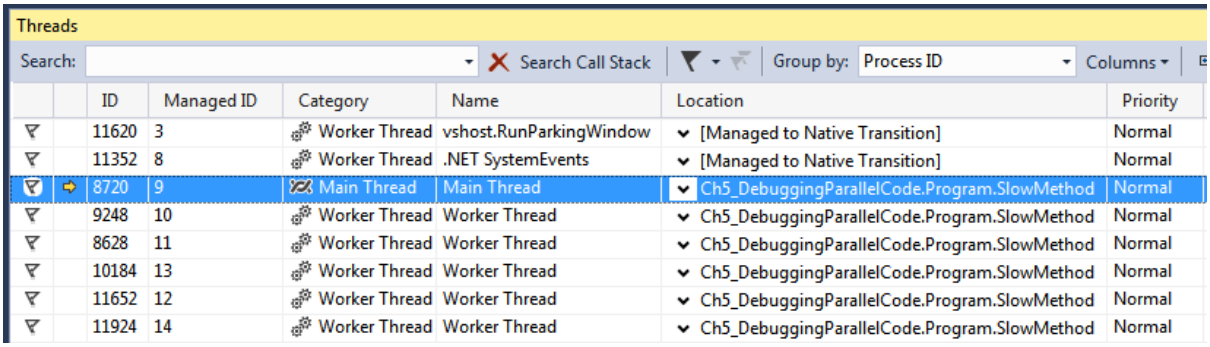
```
    Protected Sub ClickMe_Click(sender As Object, e As EventArgs)
        Dim second As Integer = DateTime.Now.Second
        If (second Mod 2 = 0) Then
            Throw New ApplicationException("Even second click triggered exception")
        Else
            ClickMe.Text = "current second: " & second.ToString()
        End If
    End Sub

End Class
```

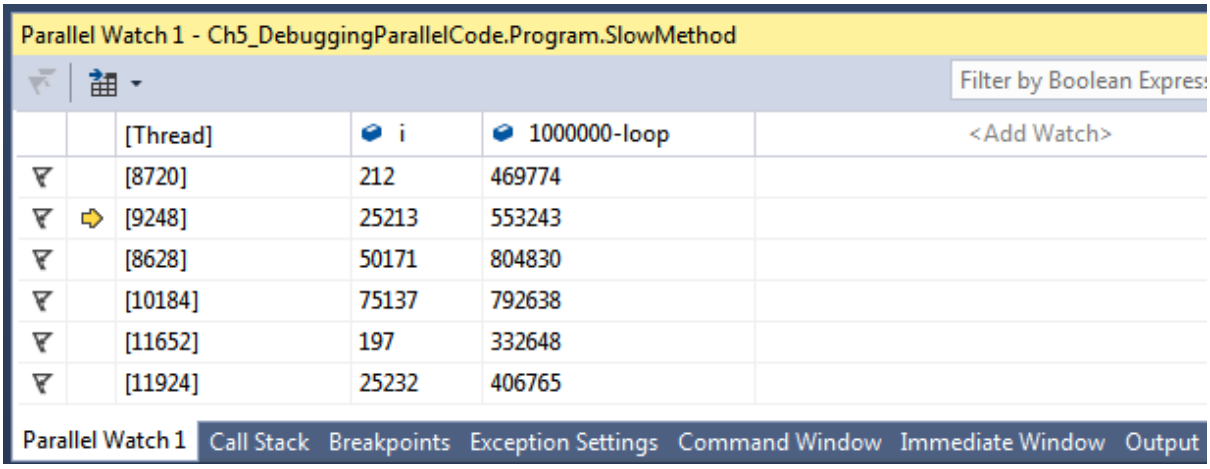


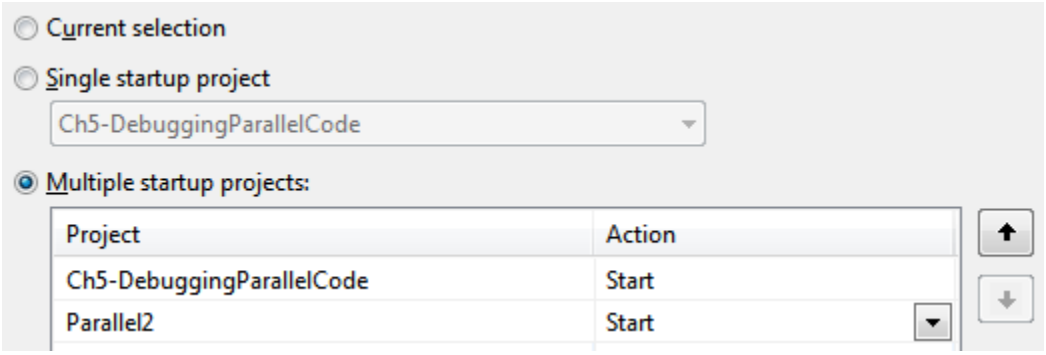



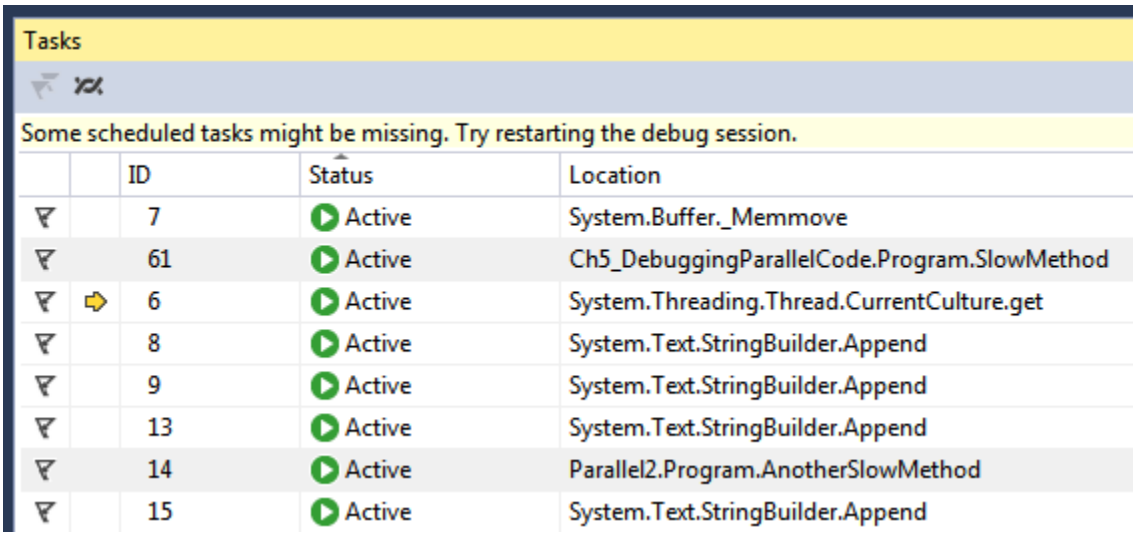
```
1 reference | 0 changes | 0 authors, 0 changes
private static void SlowMethod(int i)
{
    var total = 0;
    for (int loop = 0; loop < 1000000; loop++)
    {
        total += loop;
        total /= i;
    }
```

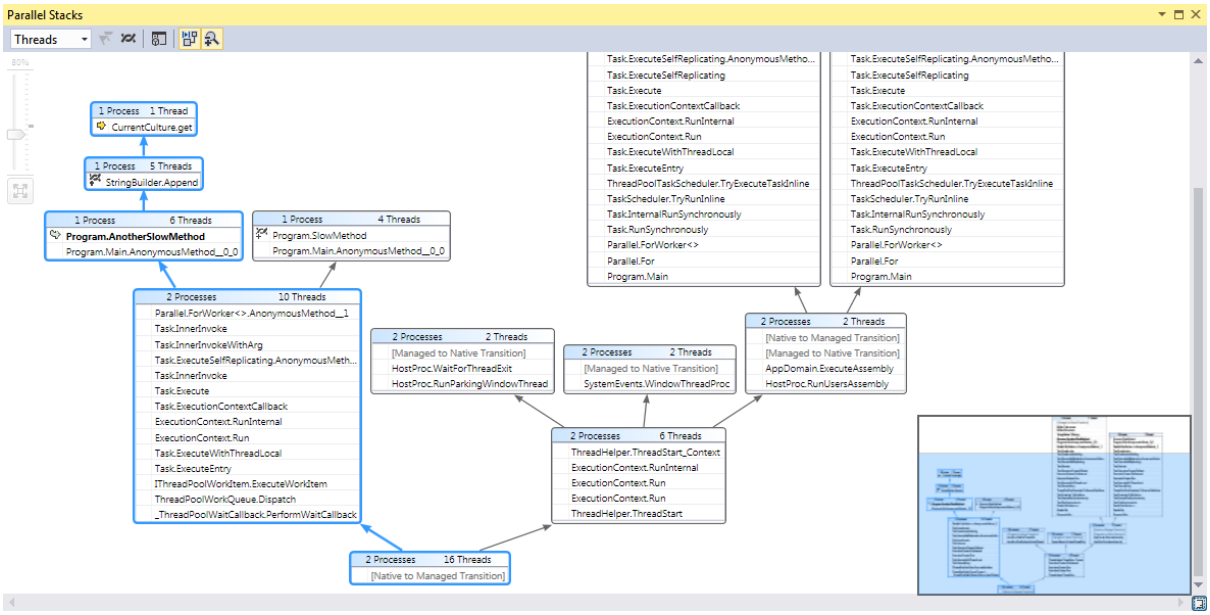
i 212

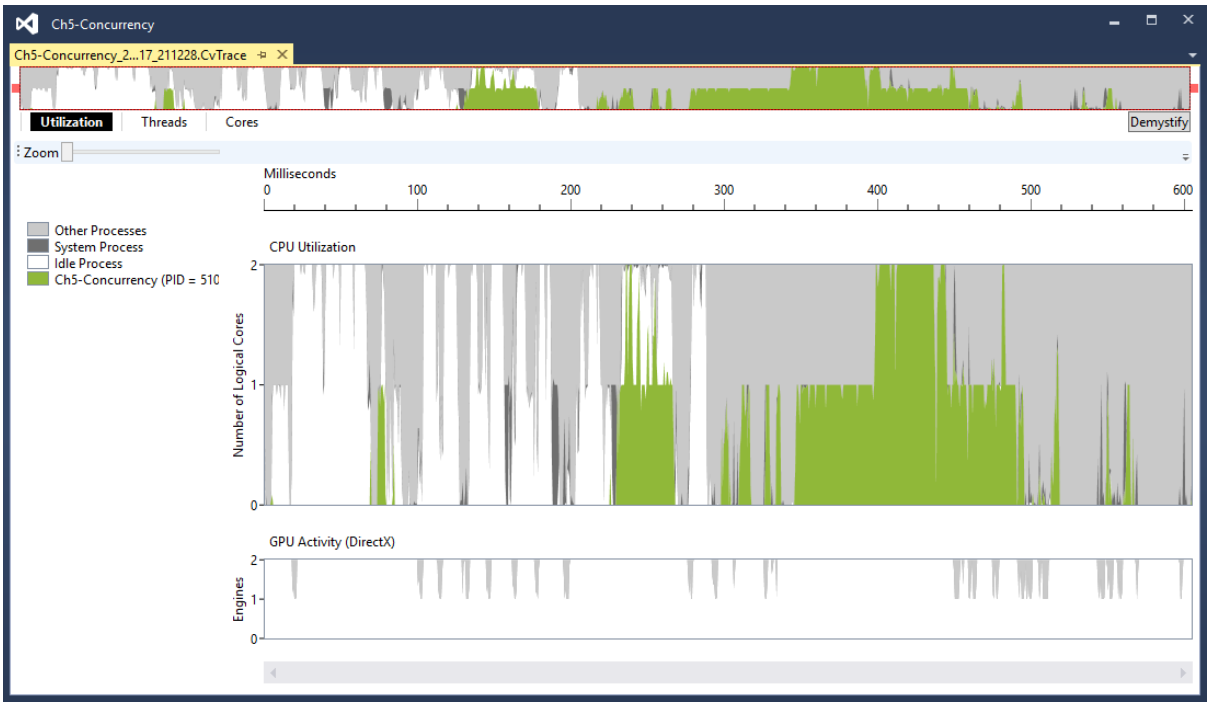


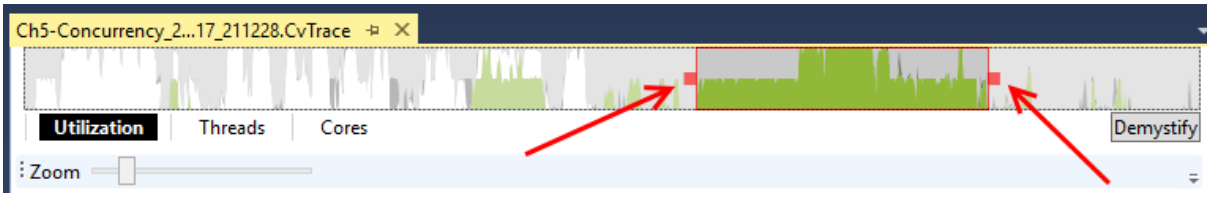



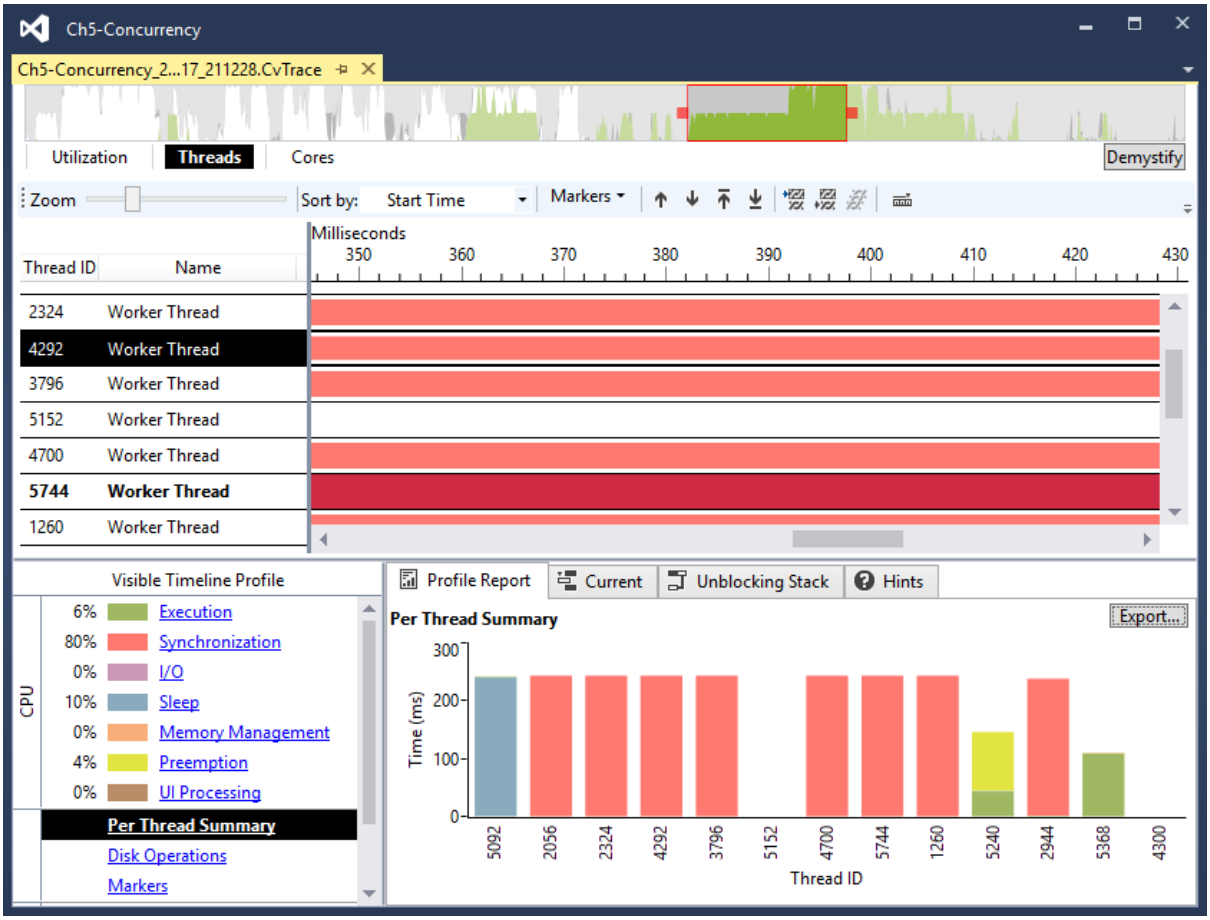

Current selection
Single startup project
Ch5-DebuggingParallelCode
Multiple startup projects:
Project
Action
Ch5-DebuggingParallelCode
Start
Parallel2
Start

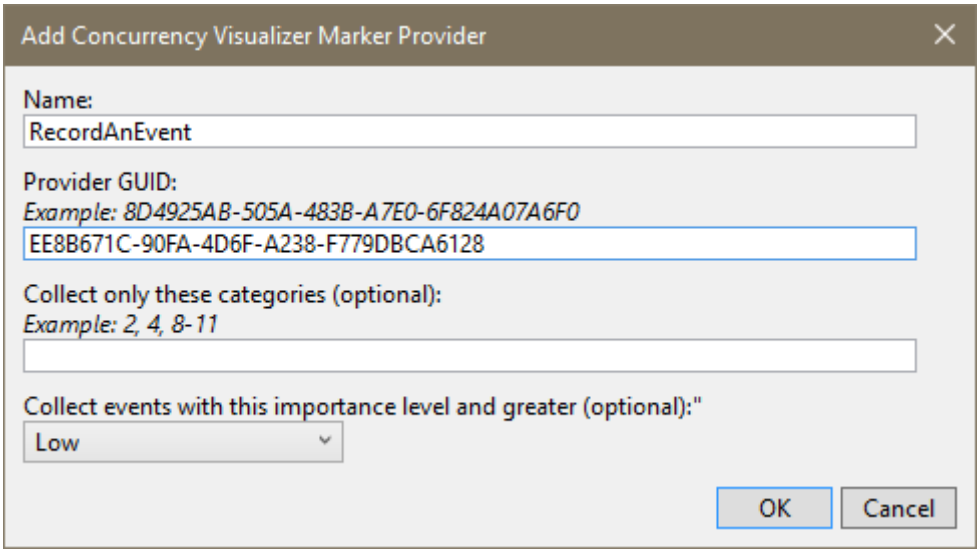

Tasks
Some scheduled tasks might be missing. Try restarting the debug session.
ID
Status
Location
7
Active
System.Buffer._Memmove
61
Active
Ch5_DebuggingParallelCode.Program.SlowMethod
6
Active
System.Threading.Thread.CurrentCulture.get
8
Active
System.Text.StringBuilder.Append
9
Active
System.Text.StringBuilder.Append
13
Active
System.Text.StringBuilder.Append
14
Active
Parallel2.Program.AnotherSlowMethod
15
Active
System.Text.StringBuilder.Append

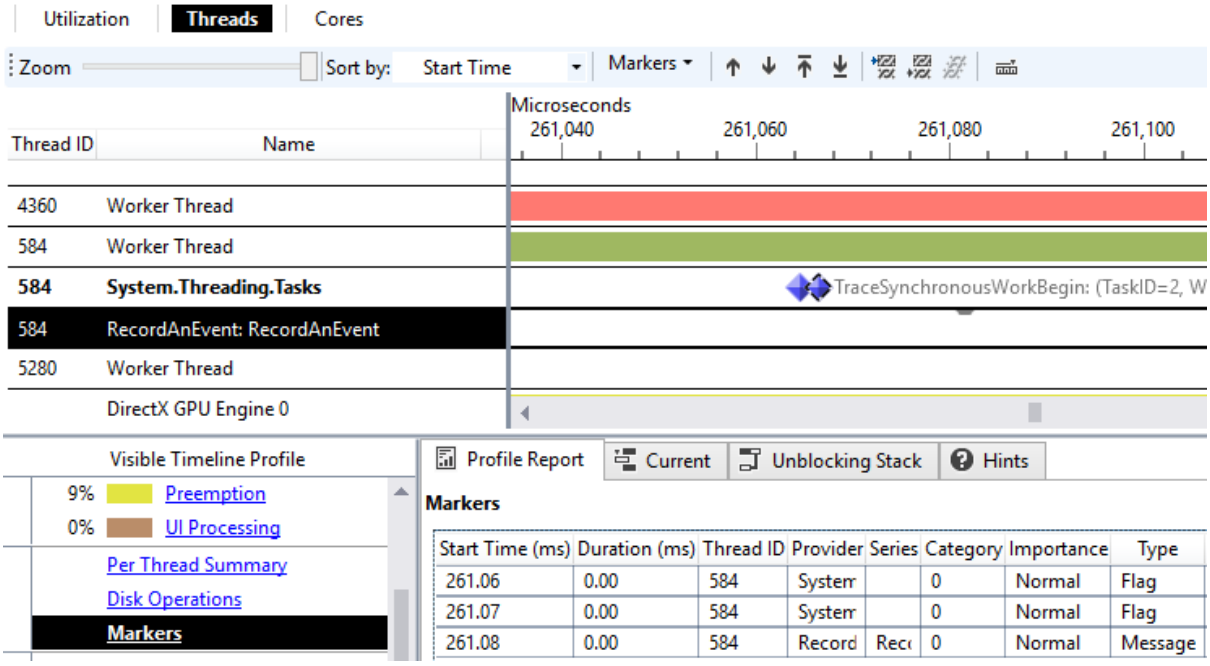

Parallel Stacks
Threads
1 Process 1 Thread
CurrentCulture.get
1 Process 5 Threads
StringBuilder.Append
1 Process 6 Threads
Program.AnotherSlowMethod
Program.Main.AnonymousMethod__0_0
1 Process 4 Threads
Program.SlowMethod
Program.Main.AnonymousMethod__0_0
2 Processes 10 Threads
Parallel.ForWorker<>.AnonymousMethod__1
Task.InnerInvoke
Task.InnerInvokeWithArg
Task.ExecuteSelfReplicating.AnonymousMeth...
Task.InnerInvoke
Task.Execute
Task.ExecutionContextCallback
ExecutionContext.RunInternal
ExecutionContext.Run
Task.ExecuteWithThreadLocal
Task.ExecuteEntry
IThreadPoolWorkItem.ExecuteWorkItem
ThreadPoolWorkQueue.Dispatch
_ThreadPoolWaitCallback.PerformWaitCallback
2 Processes 16 Threads
[Native to Managed Transition]
2 Processes 2 Threads
[Managed to Native Transition]
HostProc.WaitForThreadExit
HostProc.RunParkingWindowThread
2 Processes 2 Threads
[Managed to Native Transition]
SystemEvents.WindowThreadProc
2 Processes 2 Threads
[Native to Managed Transition]
[Managed to Native Transition]
AppDomain.ExecuteAssembly
HostProc.RunUsersAssembly
2 Processes 6 Threads
ThreadHelper.ThreadStart_Context
ExecutionContext.RunInternal
ExecutionContext.Run
ExecutionContext.Run
ThreadHelper.ThreadStart
Task.ExecuteSelfReplicating.AnonymousMetho...
Task.ExecuteSelfReplicating
Task.Execute
Task.ExecutionContextCallback
ExecutionContext.RunInternal
ExecutionContext.Run
Task.ExecuteWithThreadLocal
Task.ExecuteEntry
ThreadPoolTaskScheduler.TryExecuteTaskInline
TaskScheduler.TryRunInline
Task.InternalRunSynchronously
Task.RunSynchronously
Parallel.ForWorker<>
Parallel.For
Program.Main


Ch5-Concurrency
Ch5-Concurrency_2...17_211228.CvTrace
Utilization
Threads
Cores
Demystify
Zoom
Milliseconds
0
100
200
300
400
500
600
Other Processes
System Process
Idle Process
Ch5-Concurrency (PID = 510
CPU Utilization
Number of Logical Cores
2
1
0
GPU Activity (DirectX)
Engines
2
1
0


Ch5-Concurrency_2...17_211228.CvTrace
Utilization
Threads
Cores
Demystify
Zoom


Ch5-Concurrency
Ch5-Concurrency_2...17_211228.CvTrace
Utilization
Threads
Cores
Demystify
Zoom
Sort by:
Start Time
Markers
Milliseconds
350
360
370
380
390
400
410
420
430
Thread ID
Name
2324 Worker Thread
4292 Worker Thread
3796 Worker Thread
5152 Worker Thread
4700 Worker Thread
5744 Worker Thread
1260 Worker Thread
Visible Timeline Profile
CPU
6% Execution
80% Synchronization
0% I/O
10% Sleep
0% Memory Management
4% Preemption
0% UI Processing
Per Thread Summary
Disk Operations
Markers
Profile Report
Current
Unblocking Stack
Hints
Per Thread Summary
Export...
Time (ms)
300
200
100
0
5092
2056
2324
4292
3796
5152
4700
5744
1260
5240
2944
5368
4300
Thread ID


Add Concurrency Visualizer Marker Provider
Name:
RecordAnEvent
Provider GUID:
Example: 8D4925AB-505A-483B-A7E0-6F824A07A6F0
EE8B671C-90FA-4D6F-A238-F779DBCA6128
Collect only these categories (optional):
Example: 2, 4, 8-11
Collect events with this importance level and greater (optional):"
Low
OK
Cancel


Utilization
Threads
Cores
Zoom
Sort by:
Start Time
Markers
Microseconds
261,040
261,060
261,080
261,100
Thread ID
Name
4360
Worker Thread
584
Worker Thread
584
System.Threading.Tasks
TraceSynchronousWorkBegin: (TaskID=2, W
584
RecordAnEvent: RecordAnEvent
5280
Worker Thread
DirectX GPU Engine 0
Visible Timeline Profile
9%
Preemption
0%
UI Processing
Per Thread Summary
Disk Operations
Markers
Profile Report
Current
Unblocking Stack
Hints
Markers
Start Time (ms)
Duration (ms)
Thread ID
Provider
Series
Category
Importance
Type
261.06
0.00
584
Systen
0
Normal
Flag
261.07
0.00
584
Systen
0
Normal
Flag
261.08
0.00
584
Record
Rec
0
Normal
Message

# Chapter 6: Asynchrony in .NET

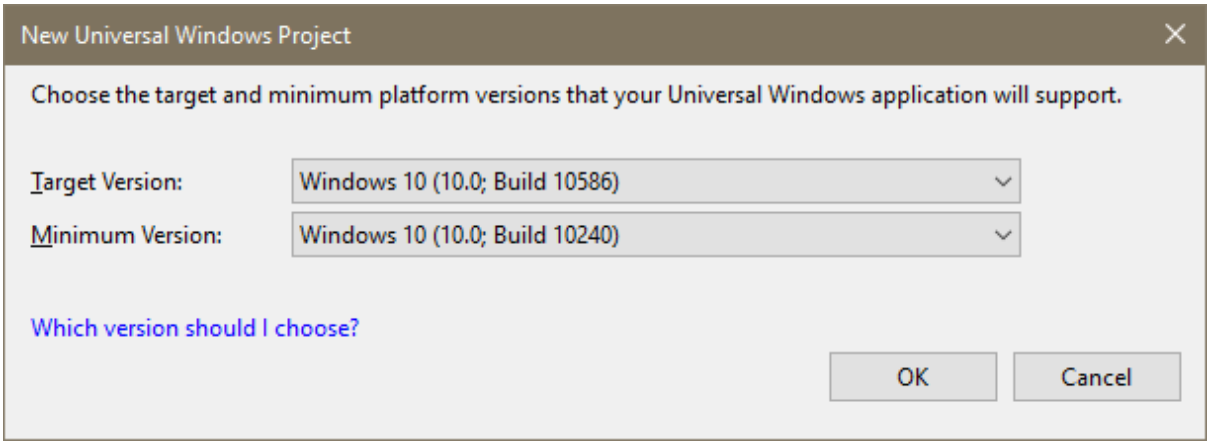
```
Title: Ars Technica [http://arstechnica.com]
   Post: When the next Twitterbot loses it, remember that its tweets are protected[http://arstechnica.com/
16/04/when-the-next-twitterbot-loses-it-remember-that-its-tweets-are-protected/]
   Date: 4/23/2016 10:30:14
---------
Title: Engadget RSS Feed [http://www.engadget.com/rss.xml]
   Post: Recommended Reading: Is Instagram ruining our vacations?[http://www.engadget.com/2016/04/23/recom
-4-23-16/]
   Date: 4/23/2016 10:00:00
---------
Title: WIRED [http://www.wired.com]
   Post: Ratchet and Clank Remakes Itself, Yet Refines Nothing[http://www.wired.com/2016/04/ratchet-clank-
kes/]
   Date: 4/23/2016 07:00:57
---------
Title: APOD [http://antwrp.gsfc.nasa.gov/]
   Post: Milky Way in Moonlight[http://antwrp.gsfc.nasa.gov/apod/astropix.html]
   Date: 1/1/0001 00:00:00
---------
Title: APOD [http://antwrp.gsfc.nasa.gov/]
   Post: NGC 7635: The Bubble Nebula[http://antwrp.gsfc.nasa.gov/apod/ap160422.html]
   Date: 1/1/0001 00:00:00
---------
Total Time: 00:00:01.0305328
```

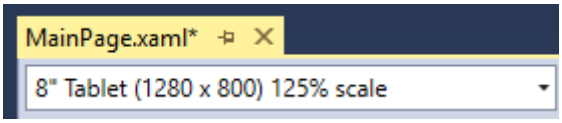
```
var feeds = await Task.WhenAll(from url in feedUrls select ReadFe
// parse feed(s)
var items = fro
            fro
```

The 'await' operator can only be used within an async method.

Show potential fixes (Ctrl+.)

```
Title: Ars Technica [http://arstechnica.com]
   Post: When the next Twitterbot loses it, remember that its tweets are protected[http://ars
16/04/when-the-next-twitterbot-loses-it-remember-that-its-tweets-are-protected/]
   Date: 4/23/2016 10:30:14
---------
Title: Engadget RSS Feed [http://www.engadget.com/rss.xml]
   Post: Recommended Reading: Is Instagram ruining our vacations?[http://www.engadget.com/201
-4-23-16/]
   Date: 4/23/2016 10:00:00
---------
Title: WIRED [http://www.wired.com]
   Post: Ratchet and Clank Remakes Itself, Yet Refines Nothing[http://www.wired.com/2016/04/r
kes/]
   Date: 4/23/2016 07:00:57
---------
Title: APOD [http://antwrp.gsfc.nasa.gov/]
   Post: Milky Way in Moonlight[http://antwrp.gsfc.nasa.gov/apod/astropix.html]
   Date: 1/1/0001 00:00:00
---------
Title: APOD [http://antwrp.gsfc.nasa.gov/]
   Post: NGC 7635: The Bubble Nebula[http://antwrp.gsfc.nasa.gov/apod/ap160422.html]
   Date: 1/1/0001 00:00:00
---------
Total Time: 00:00:00.7234464
```



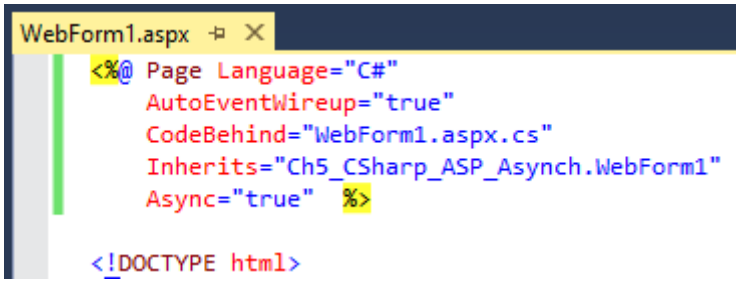
Load Feeds

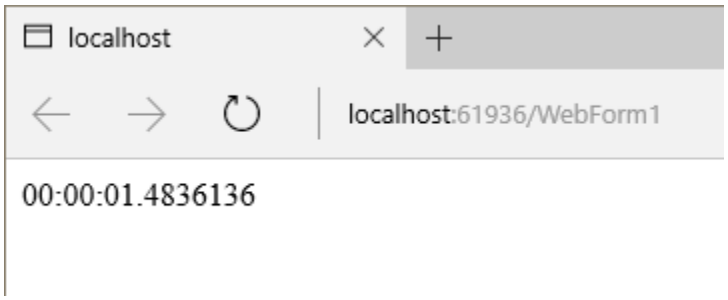
00:00:00.5987504

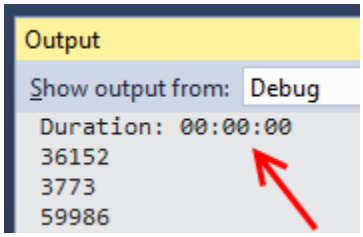
Engadget RSS Feed
http://www.engadget.com/rss.xml
Roku's $50 Streaming Stick makes 1080p set-top boxes obsolete
http://www.engadget.com/2016/04/23/roku-stick-review-2016/
4/23/2016 13:00:00

APOD
http://antwrp.gsfc.nasa.gov/
Milky Way in Moonlight
http://antwrp.gsfc.nasa.gov/apod/astropix.html
1/1/0001 00:00:00

Ars Technica
http://arstechnica.com
Alice Isn't Dead review: Gorgeously eerie work from the creators of Nigh
http://arstechnica.com/the-multiverse/2016/04/alice-isnt-dead-review-n
4/23/2016 11:25:43

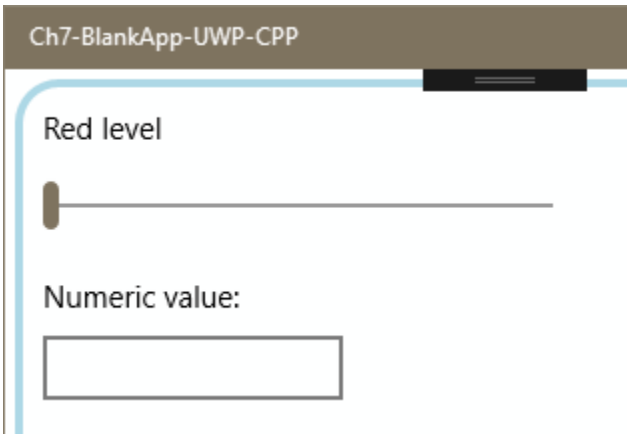

WebForm1.aspx
<%@ Page Language="C#"
AutoEventWireup="true"
CodeBehind="WebForm1.aspx.cs"
Inherits="Ch5_CSharp_ASP_Asynch.WebForm1"
Async="true" %>
<!DOCTYPE html>

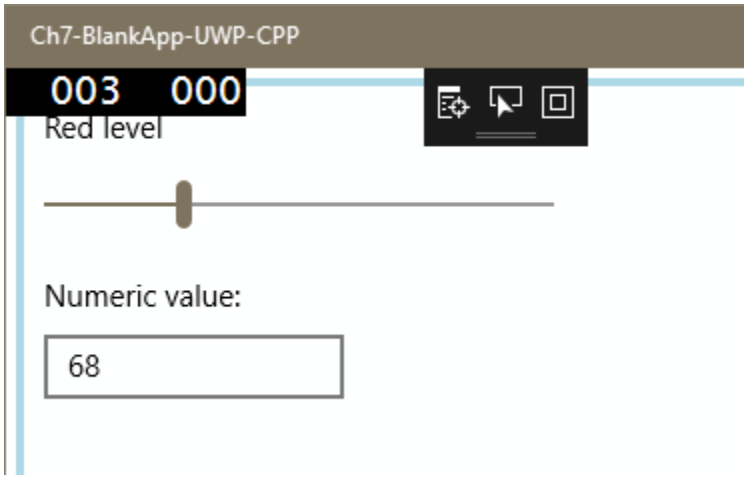

localhost
localhost:61936/WebForm1
00:00:01.4836136

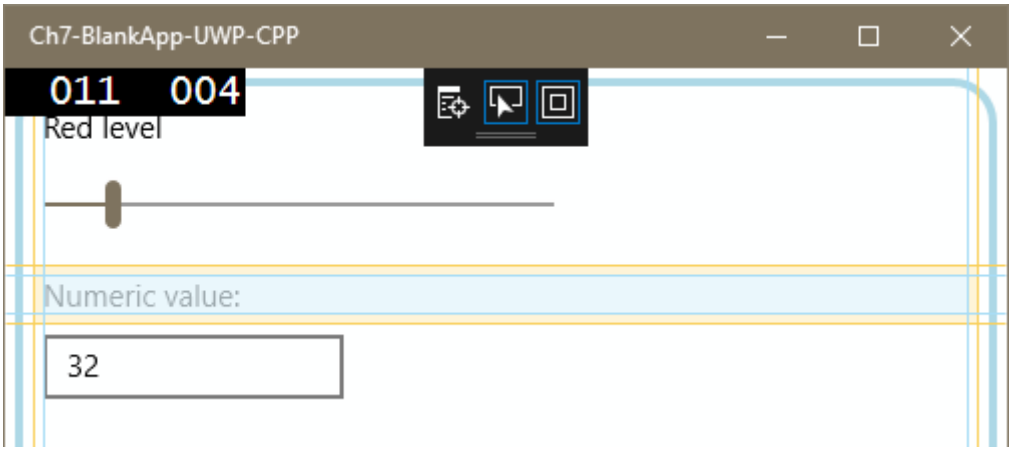

Output
Show output from: Debug
Duration: 00:00:00
36152
3773
59986

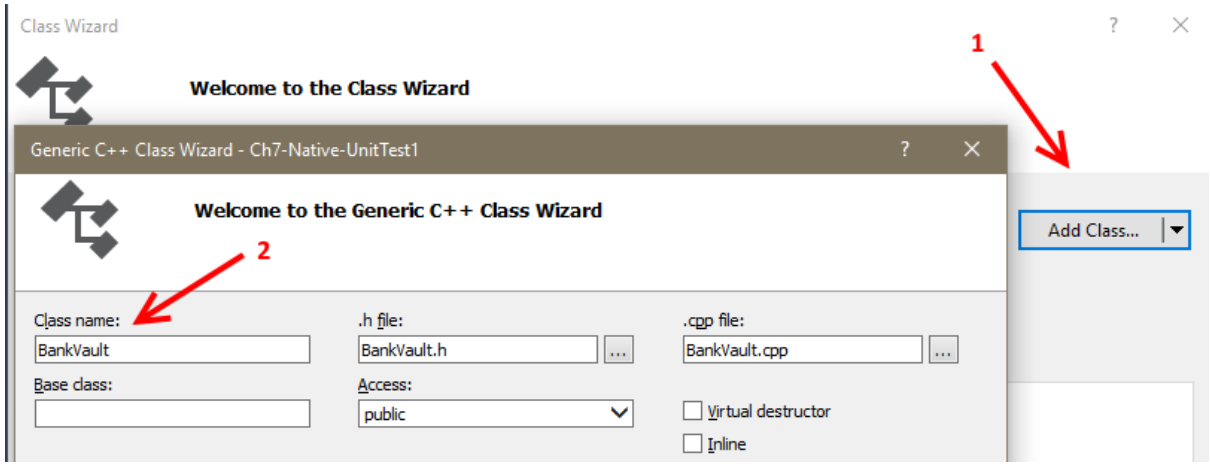
```
zikoshzhj893498shfvWg==
Tw==
waiting for the queue to flush
Uw==
Sw==
SA==
SQ==
SA==
Sg==
OA==
Wg==
Mw==
OQ==
OQ==
NA==
OA==
Uw==
SA==
Rg==
Vg==
press any key
```

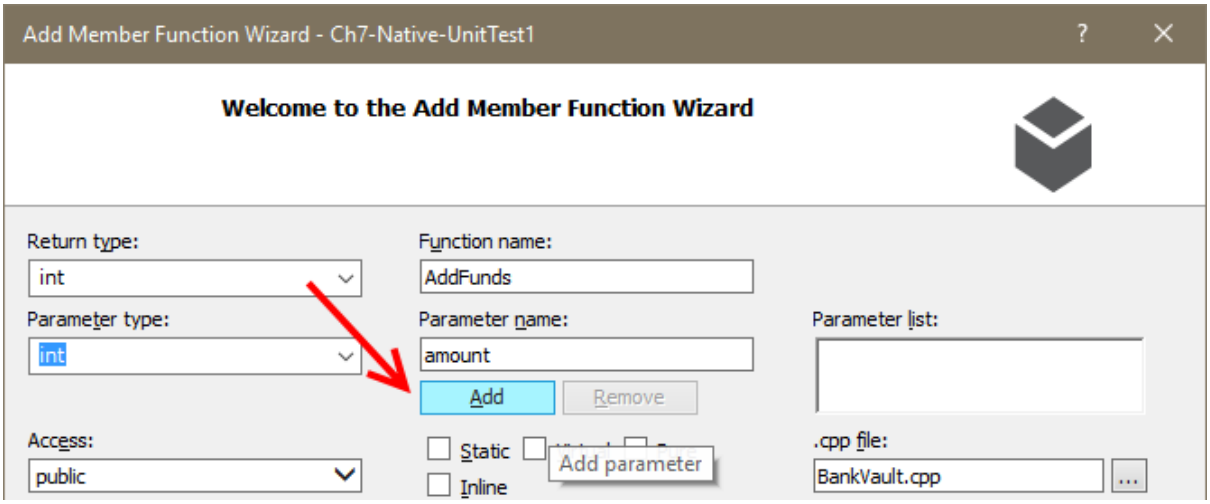
# Chapter 7: Unwrapping C++ Development

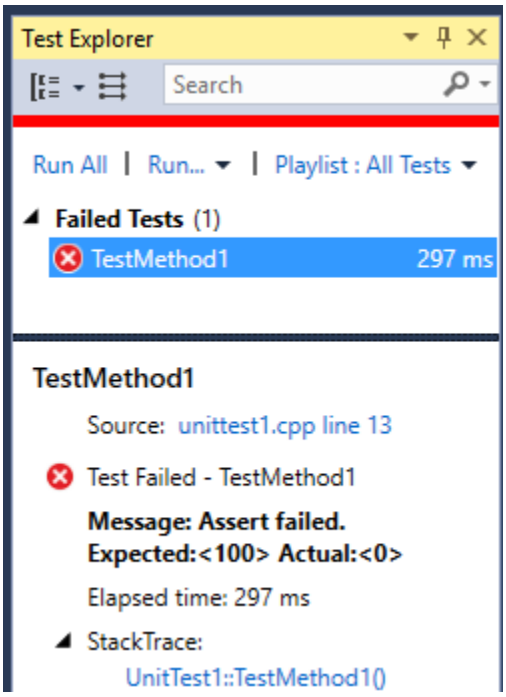


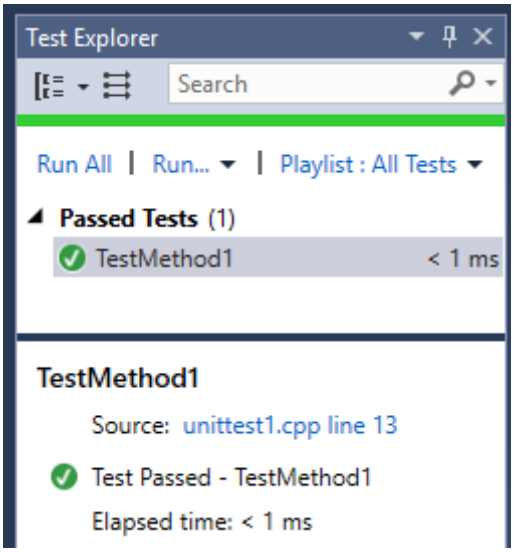



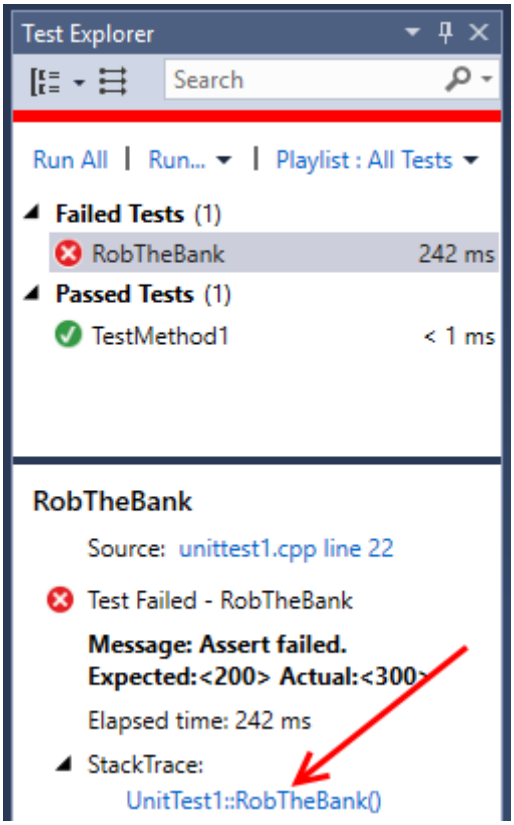

Ch7-BlankApp-UWP-CPP
011 004
Red level
Numeric value:
32

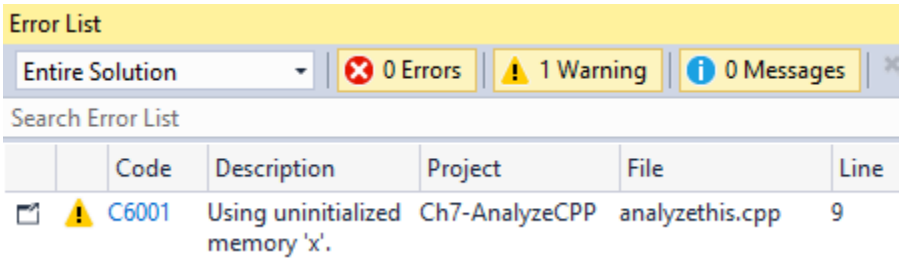

Class Wizard
Welcome to the Class Wizard
1
Generic C++ Class Wizard - Ch7-Native-UnitTest1
Welcome to the Generic C++ Class Wizard
2
Add Class...
Class name:
BankVault
.h file:
BankVault.h
.cpp file:
BankVault.cpp
Base class:
Access:
public
Virtual destructor
Inline

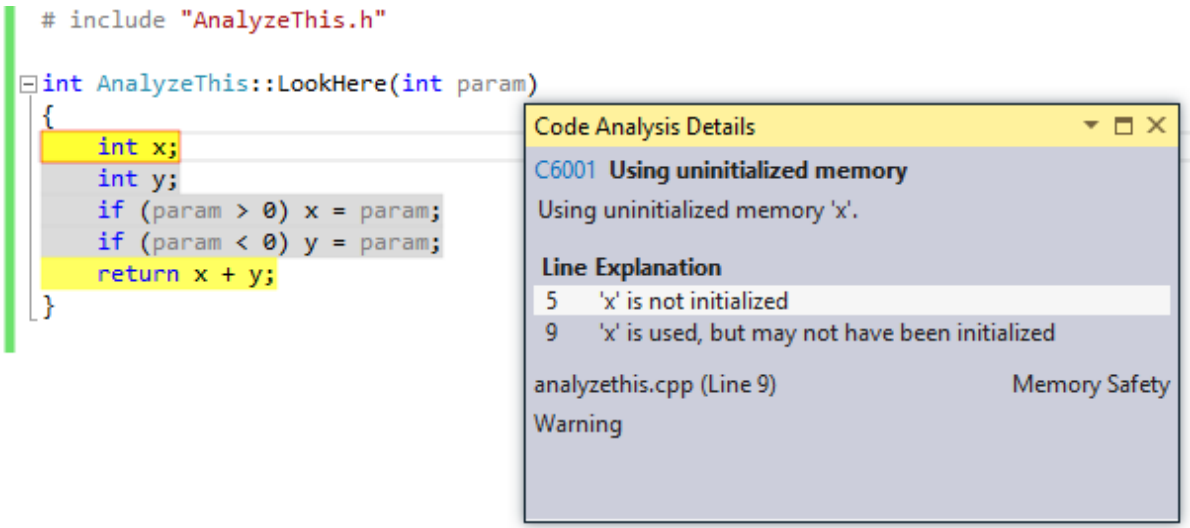

Add Member Function Wizard - Ch7-Native-UnitTest1
Welcome to the Add Member Function Wizard
Return type:
int
Function name:
AddFunds
Parameter type:
int
Parameter name:
amount
Parameter list:
Add
Remove
Access:
public
Static
Inline
Add parameter
.cpp file:
BankVault.cpp

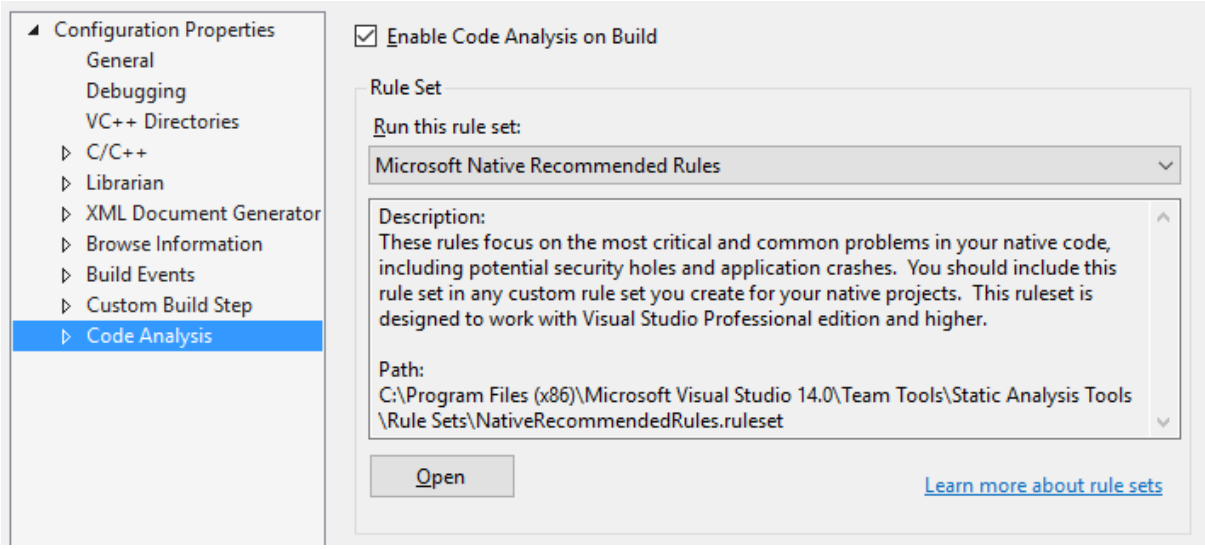

Test Explorer
Search
Run All | Run... | Playlist : All Tests
Failed Tests (1)
TestMethod1 297 ms
TestMethod1
Source: unittest1.cpp line 13
Test Failed - TestMethod1
Message: Assert failed.
Expected:<100> Actual:<0>
Elapsed time: 297 ms
StackTrace:
UnitTest1::TestMethod1()

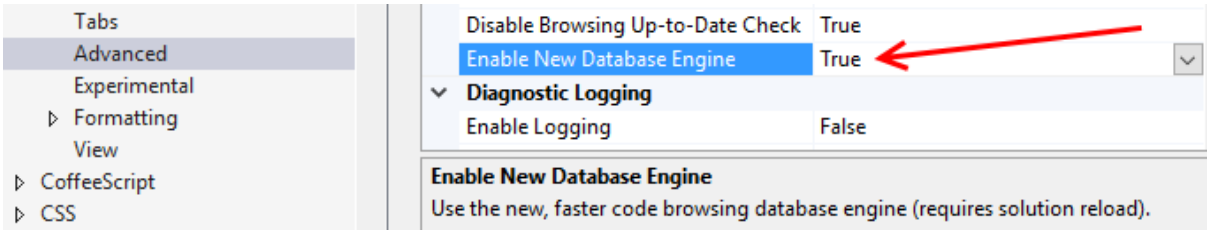

Test Explorer
Search
Run All | Run... | Playlist : All Tests
Passed Tests (1)
TestMethod1 < 1 ms
TestMethod1
Source: unittest1.cpp line 13
Test Passed - TestMethod1
Elapsed time: < 1 ms

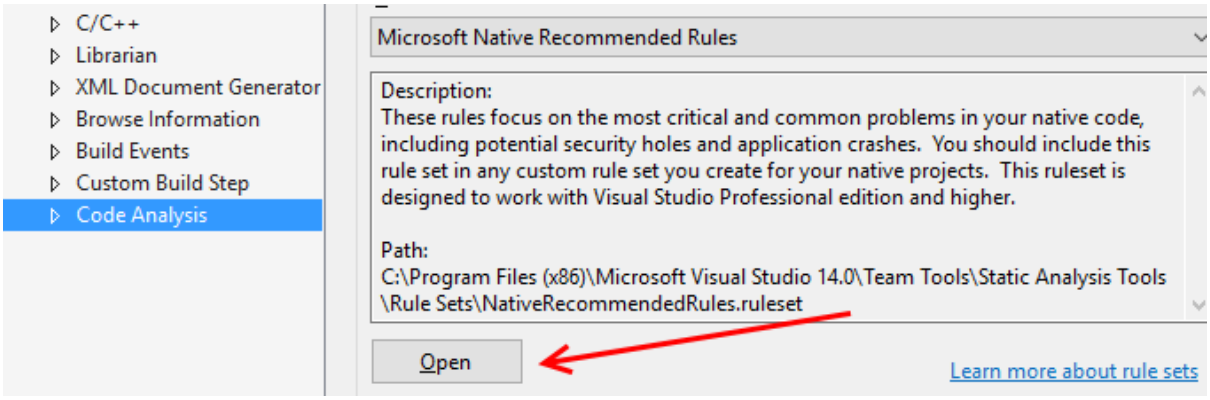

Test Explorer
Search
Run All | Run... | Playlist : All Tests
Failed Tests (1)
RobTheBank 242 ms
Passed Tests (1)
TestMethod1 < 1 ms
RobTheBank
Source: unittest1.cpp line 22
Test Failed - RobTheBank
Message: Assert failed.
Expected:<200> Actual:<300>
Elapsed time: 242 ms
StackTrace:
UnitTest1::RobTheBank()

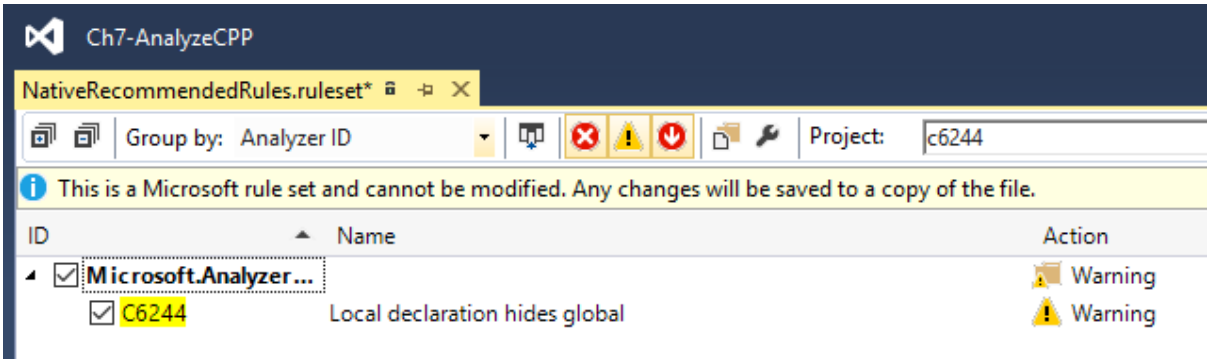

Error List
Entire Solution
0 Errors
1 Warning
0 Messages
Search Error List
Code
Description
Project
File
Line
C6001
Using uninitialized memory 'x'.
Ch7-AnalyzeCPP
analyzethis.cpp
9

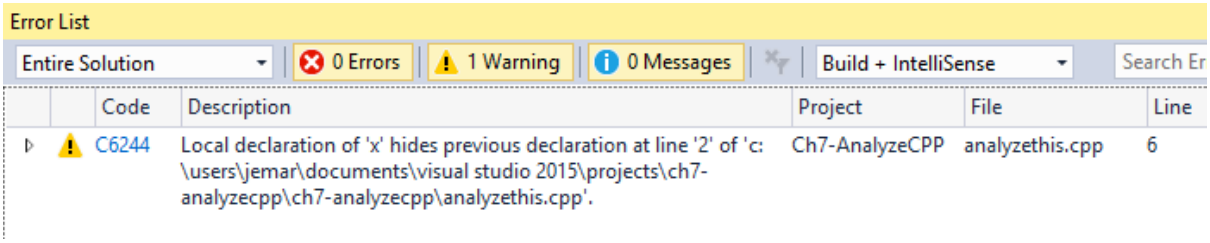

# include "AnalyzeThis.h"
int AnalyzeThis::LookHere(int param)
{
int x;
int y;
if (param > 0) x = param;
if (param < 0) y = param;
return x + y;
}
Code Analysis Details
C6001 Using uninitialized memory
Using uninitialized memory 'x'.
Line Explanation
5 'x' is not initialized
9 'x' is used, but may not have been initialized
analyzethis.cpp (Line 9)
Memory Safety
Warning

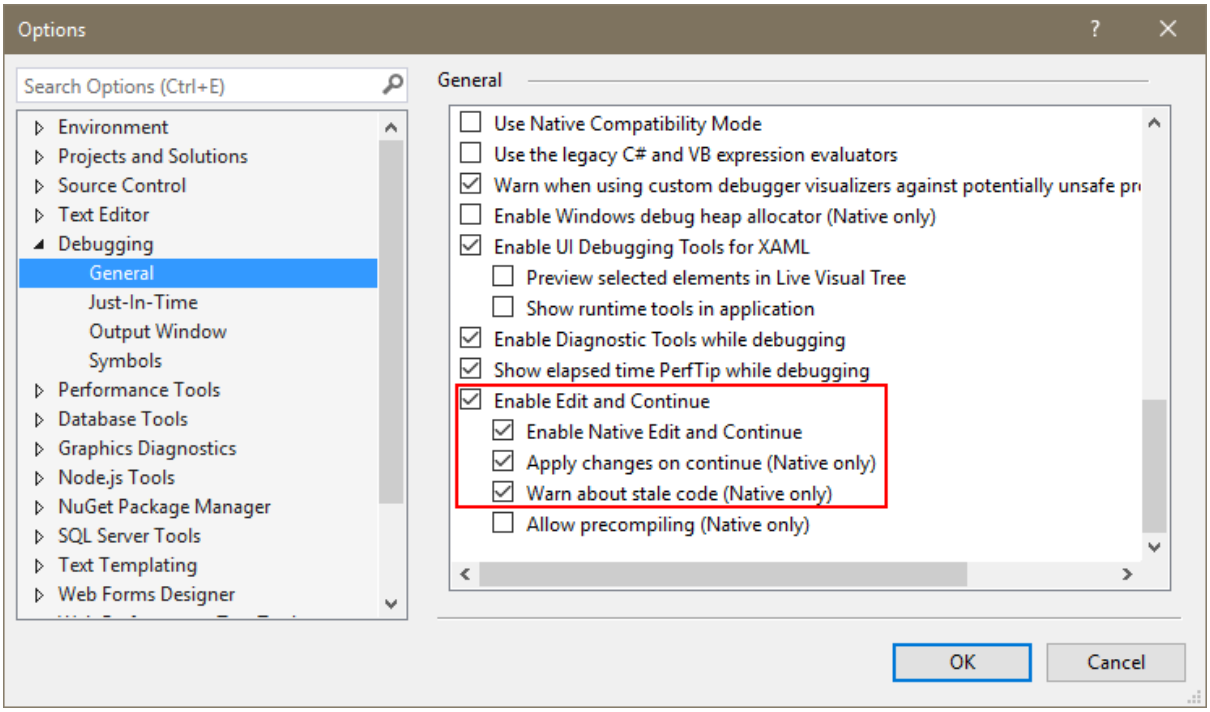

Configuration Properties
General
Debugging
VC++ Directories
C/C++
Librarian
XML Document Generator
Browse Information
Build Events
Custom Build Step
Code Analysis
Enable Code Analysis on Build
Rule Set
Run this rule set:
Microsoft Native Recommended Rules
Description:
These rules focus on the most critical and common problems in your native code, including potential security holes and application crashes. You should include this rule set in any custom rule set you create for your native projects. This ruleset is designed to work with Visual Studio Professional edition and higher.
Path:
C:\Program Files (x86)\Microsoft Visual Studio 14.0\Team Tools\Static Analysis Tools \Rule Sets\NativeRecommendedRules.ruleset
Open
Learn more about rule sets


Tabs
Advanced
Experimental
Formatting
View
CoffeeScript
CSS
Disable Browsing Up-to-Date Check
True
Enable New Database Engine
True
Diagnostic Logging
Enable Logging
False
Enable New Database Engine
Use the new, faster code browsing database engine (requires solution reload).

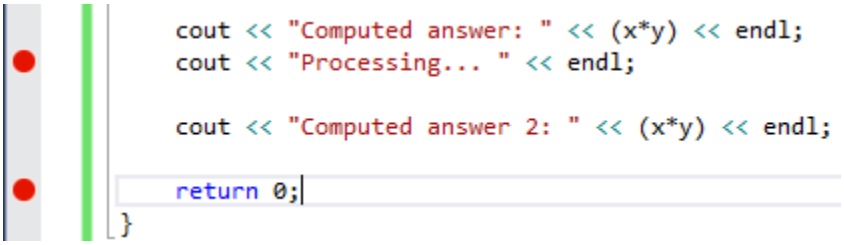

C/C++
Librarian
XML Document Generator
Browse Information
Build Events
Custom Build Step
Code Analysis
Microsoft Native Recommended Rules
Description:
These rules focus on the most critical and common problems in your native code, including potential security holes and application crashes. You should include this rule set in any custom rule set you create for your native projects. This ruleset is designed to work with Visual Studio Professional edition and higher.
Path:
C:\Program Files (x86)\Microsoft Visual Studio 14.0\Team Tools\Static Analysis Tools \Rule Sets\NativeRecommendedRules.ruleset
Open
Learn more about rule sets


Ch7-AnalyzeCPP
NativeRecommendedRules.ruleset*
Group by: Analyzer ID
Project: c6244
This is a Microsoft rule set and cannot be modified. Any changes will be saved to a copy of the file.
ID
Name
Action
Microsoft.Analyzer...
Warning
C6244
Local declaration hides global
Warning

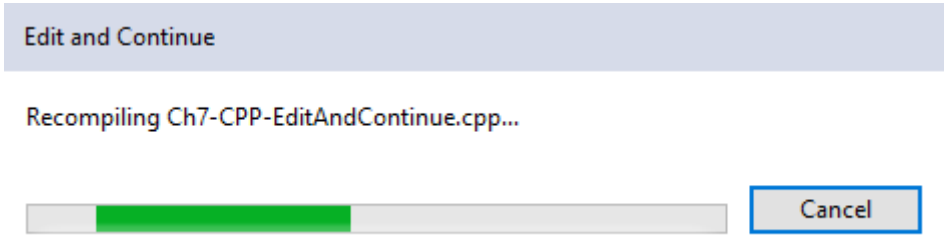

Error List
Entire Solution
0 Errors
1 Warning
0 Messages
Build + IntelliSense
Search Er
Code
Description
Project
File
Line
C6244
Local declaration of 'x' hides previous declaration at line '2' of 'c:\users\jemar\documents\visual studio 2015\projects\ch7-analyzecpp\ch7-analyzecpp\analyzethis.cpp'.
Ch7-AnalyzeCPP
analyzethis.cpp
6

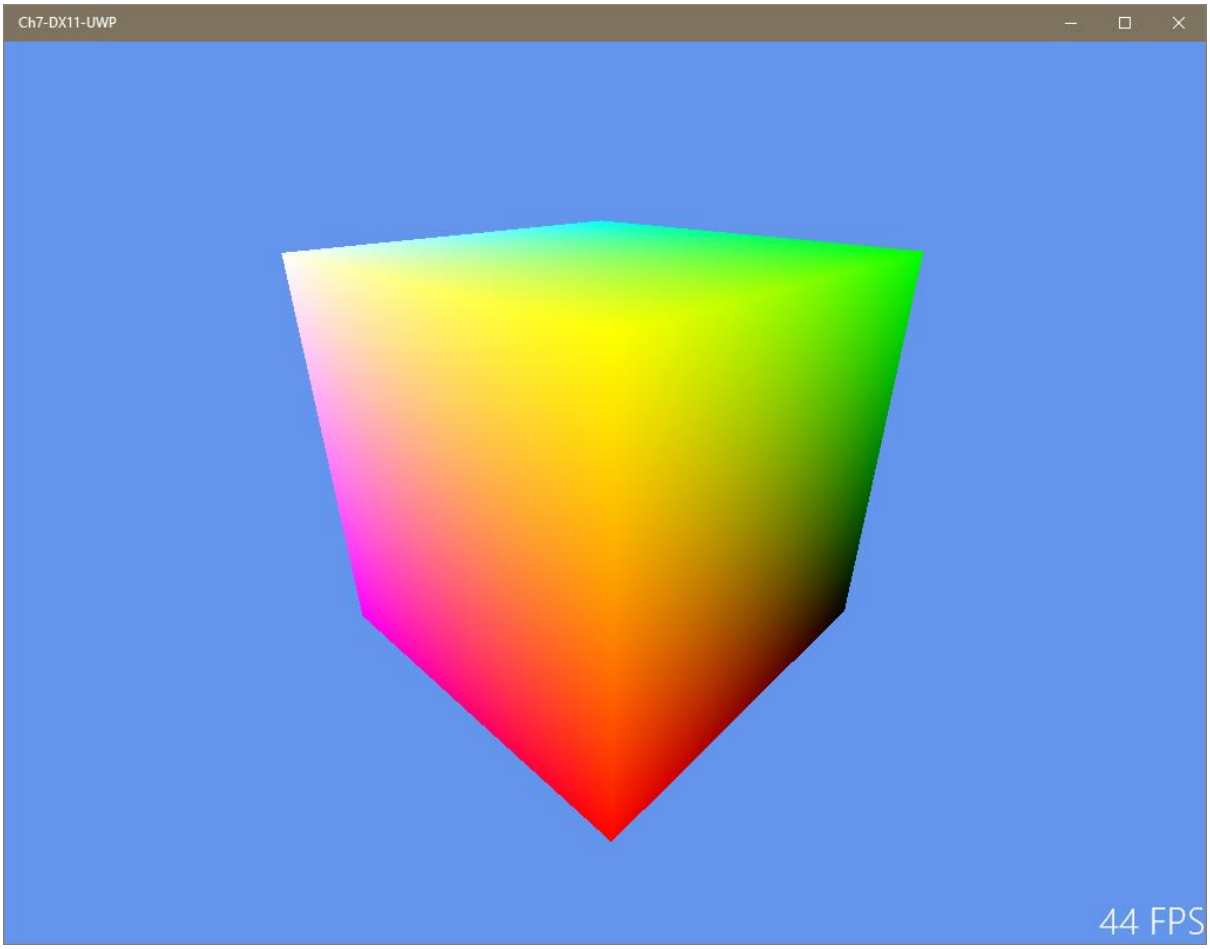

Options
Search Options (Ctrl+E)
Environment
Projects and Solutions
Source Control
Text Editor
Debugging
General
Just-In-Time
Output Window
Symbols
Performance Tools
Database Tools
Graphics Diagnostics
Node.js Tools
NuGet Package Manager
SQL Server Tools
Text Templating
Web Forms Designer
General
Use Native Compatibility Mode
Use the legacy C# and VB expression evaluators
Warn when using custom debugger visualizers against potentially unsafe pr
Enable Windows debug heap allocator (Native only)
Enable UI Debugging Tools for XAML
Preview selected elements in Live Visual Tree
Show runtime tools in application
Enable Diagnostic Tools while debugging
Show elapsed time PerfTip while debugging
Enable Edit and Continue
Enable Native Edit and Continue
Apply changes on continue (Native only)
Warn about stale code (Native only)
Allow precompiling (Native only)
OK
Cancel

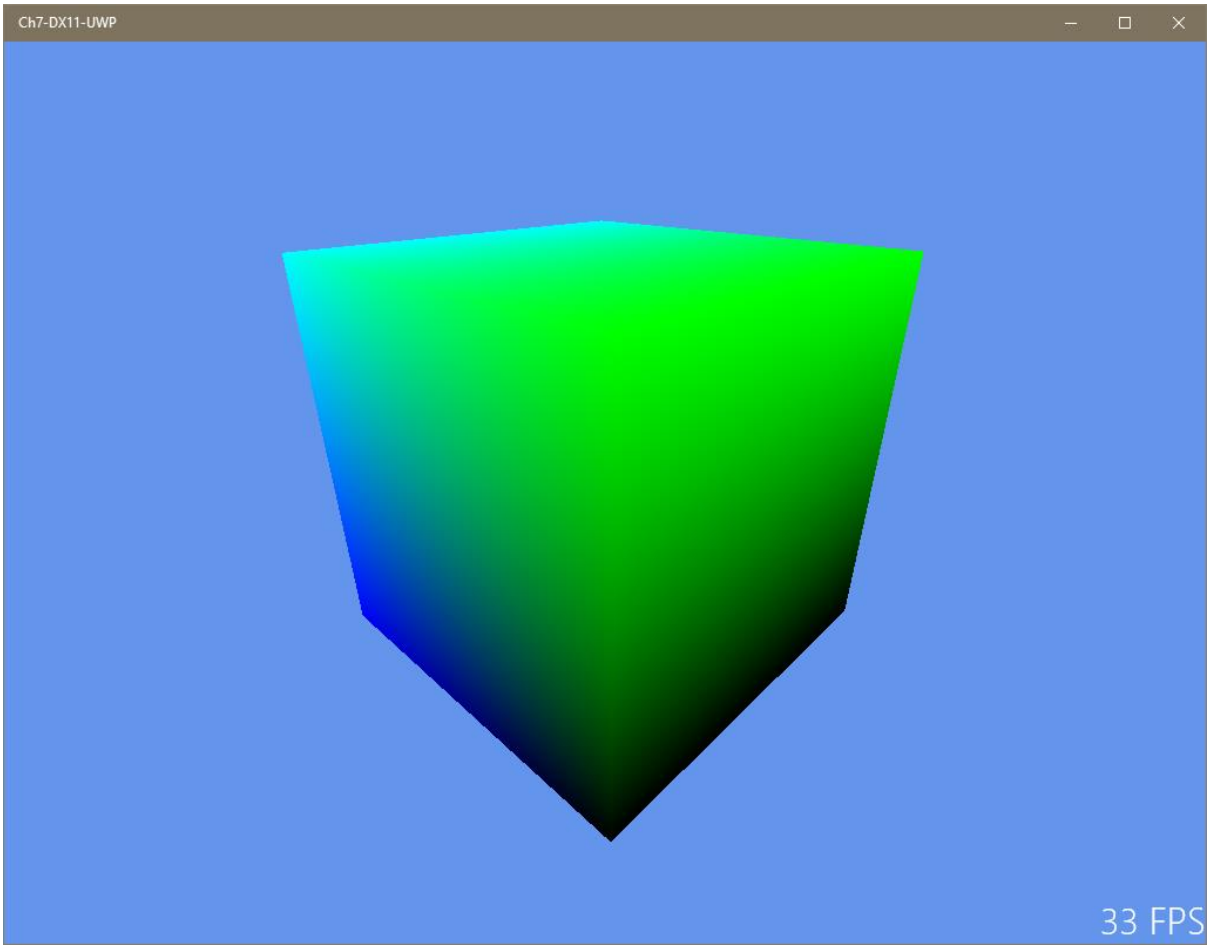
Debug
x64
Local Windows Debugger

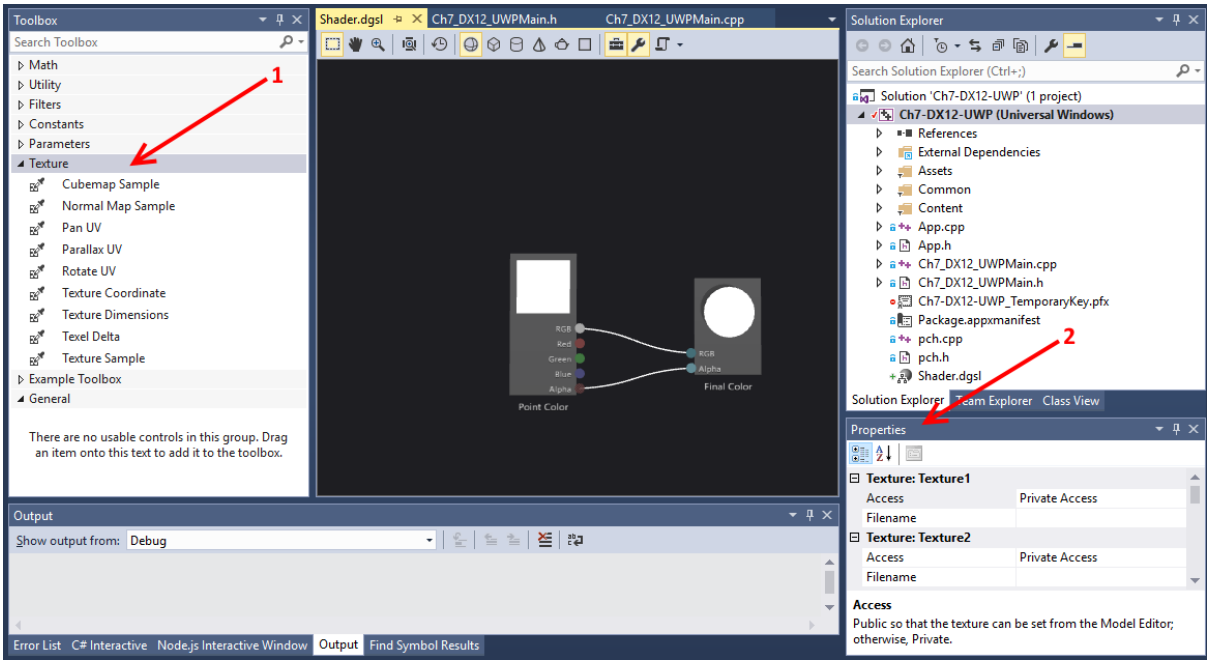

cout << "Computed answer: " << (x*y) << endl;
cout << "Processing... " << endl;
cout << "Computed answer 2: " << (x*y) << endl;
return 0;
}

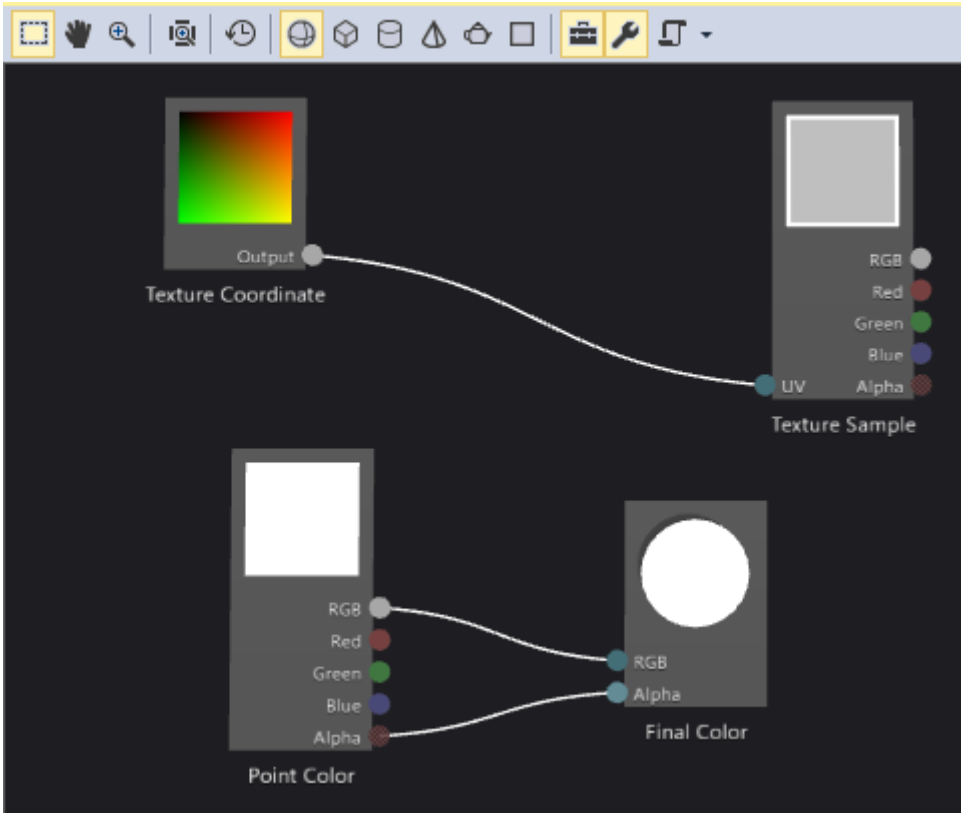
```
    cout << "Computed answer: " << (x*y) << endl;
    cout << "Processing... " << endl;
    y = 8;
    cout << "Computed answer 2: " << (x*y) << endl;

    return 0;
}
```

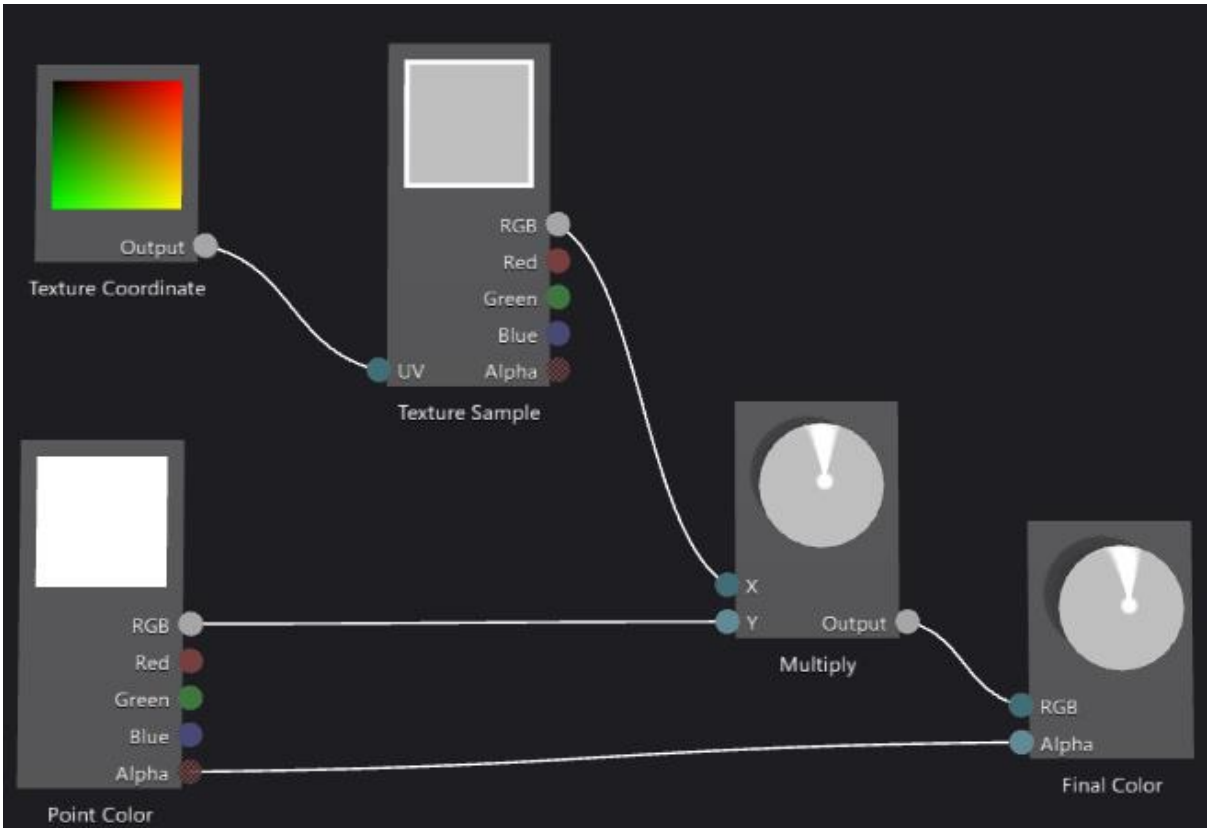


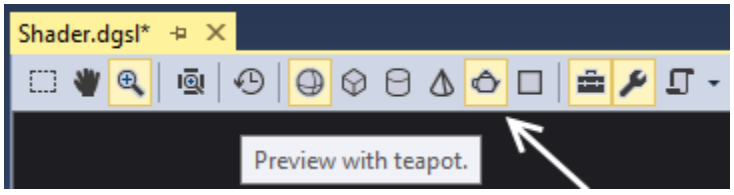

Ch7-DX11-UWP
44 FPS

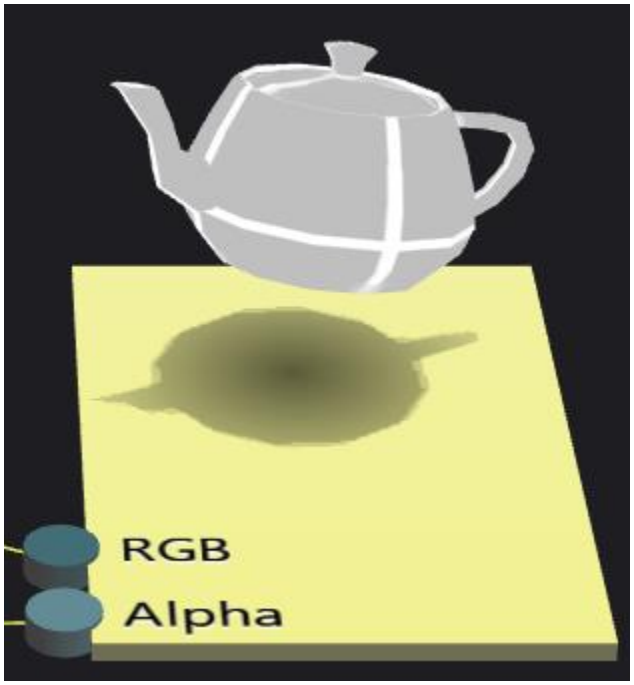

Ch7-DX11-UWP
33 FPS

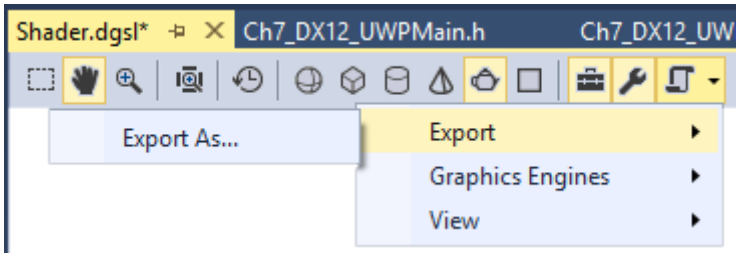

Toolbox
Search Toolbox
Math
Utility
Filters
Constants
Parameters
Texture
Cubemap Sample
Normal Map Sample
Pan UV
Parallax UV
Rotate UV
Texture Coordinate
Texture Dimensions
Texel Delta
Texture Sample
Example Toolbox
General
There are no usable controls in this group. Drag an item onto this text to add it to the toolbox.
1
Shader.dgsl
Ch7_DX12_UWPMain.h
Ch7_DX12_UWPMain.cpp
RGB
Red
Green
Blue
Alpha
Point Color
RGB
Alpha
Final Color
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Ch7-DX12-UWP' (1 project)
Ch7-DX12-UWP (Universal Windows)
References
External Dependencies
Assets
Common
Content
App.cpp
App.h
Ch7_DX12_UWPMain.cpp
Ch7_DX12_UWPMain.h
Ch7-DX12-UWP_TemporaryKey.pfx
Package.appxmanifest
pch.cpp
pch.h
Shader.dgsl
Solution Explorer
Team Explorer
Class View
2
Properties
Texture: Texture1
Access
Private Access
Filename
Texture: Texture2
Access
Private Access
Filename
Access
Public so that the texture can be set from the Model Editor; otherwise, Private.
Output
Show output from:
Debug
Error List
C# Interactive
Node.js Interactive Window
Output
Find Symbol Results

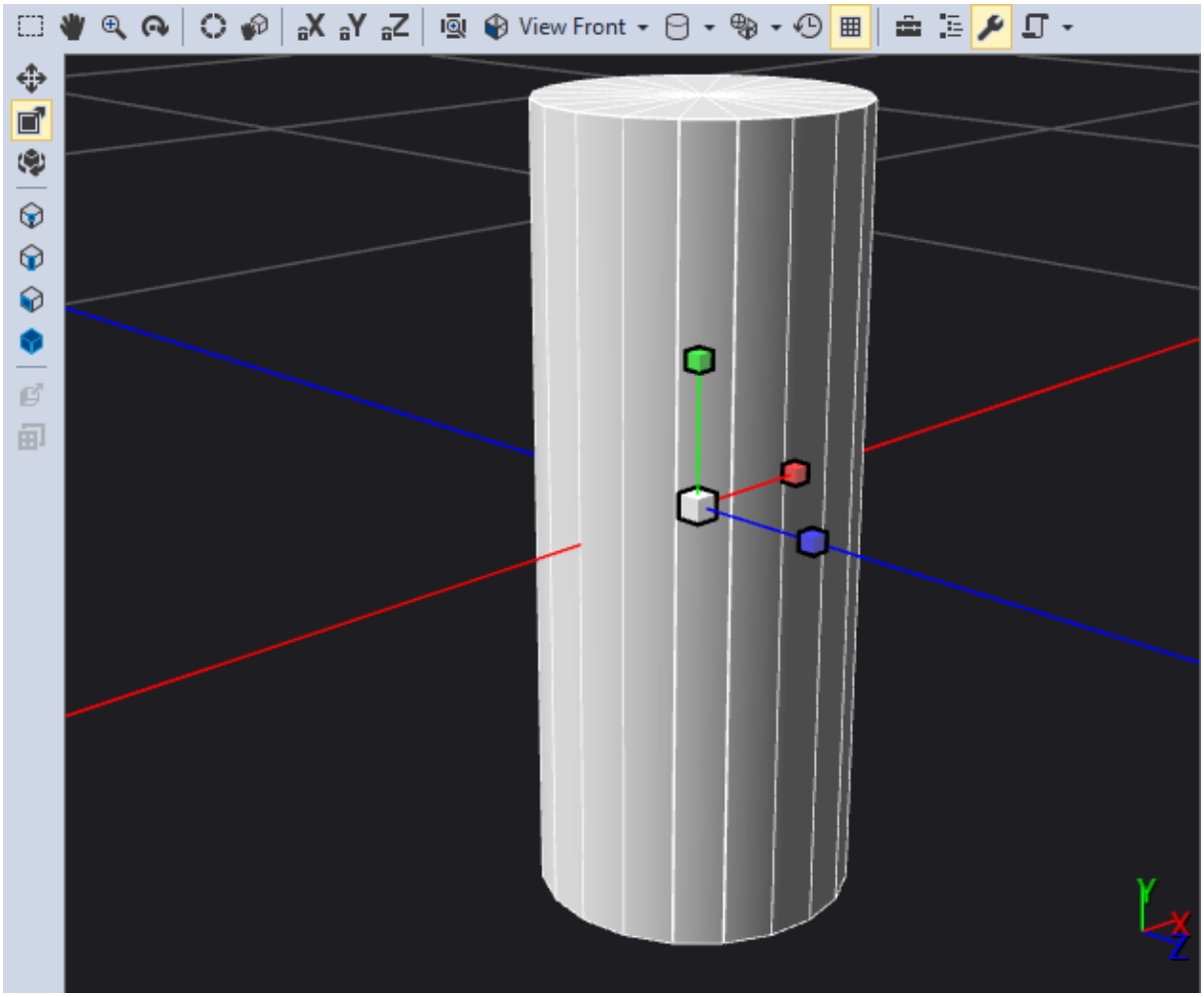

Output
Texture Coordinate
RGB
Red
Green
Blue
UV
Alpha
Texture Sample
RGB
Red
Green
Blue
Alpha
Point Color
RGB
Alpha
Final Color

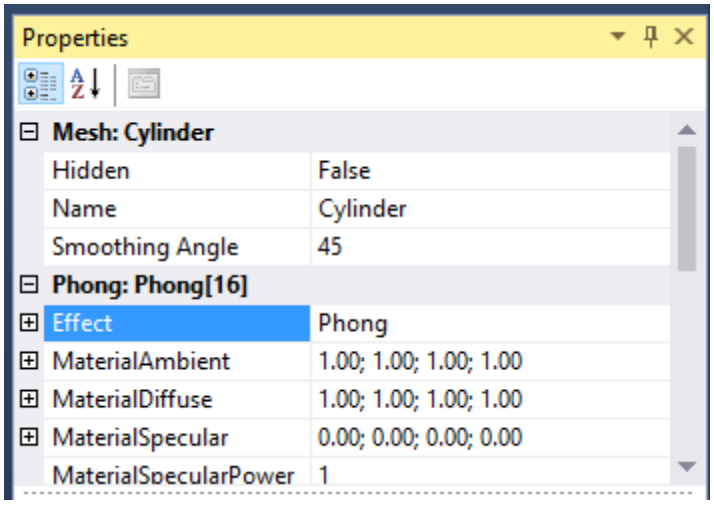

Output
Texture Coordinate
RGB
Red
Green
Blue
UV
Alpha
Texture Sample
RGB
Red
Green
Blue
Alpha
Point Color
X
Y
Output
Multiply
RGB
Alpha
Final Color

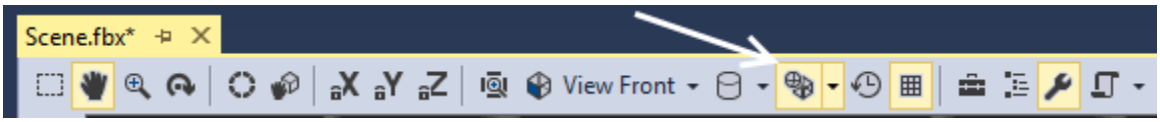

Shader.dgsl*
Preview with teapot.

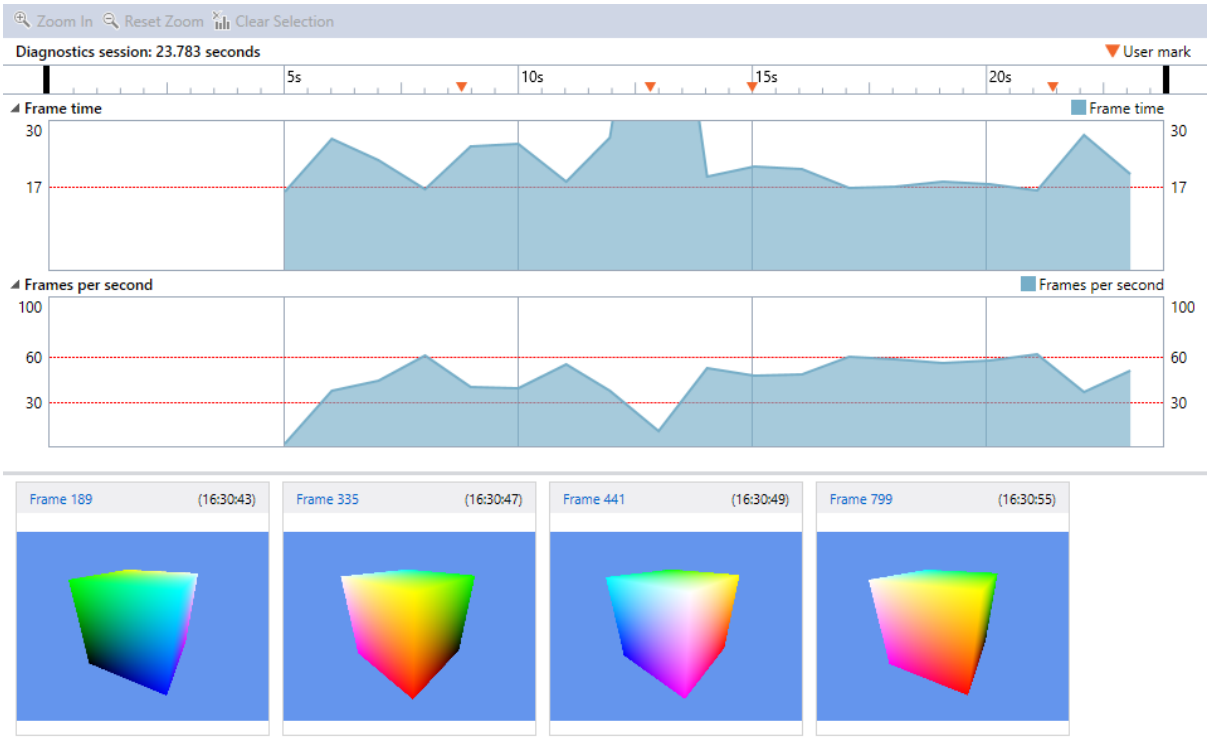

RGB
Alpha

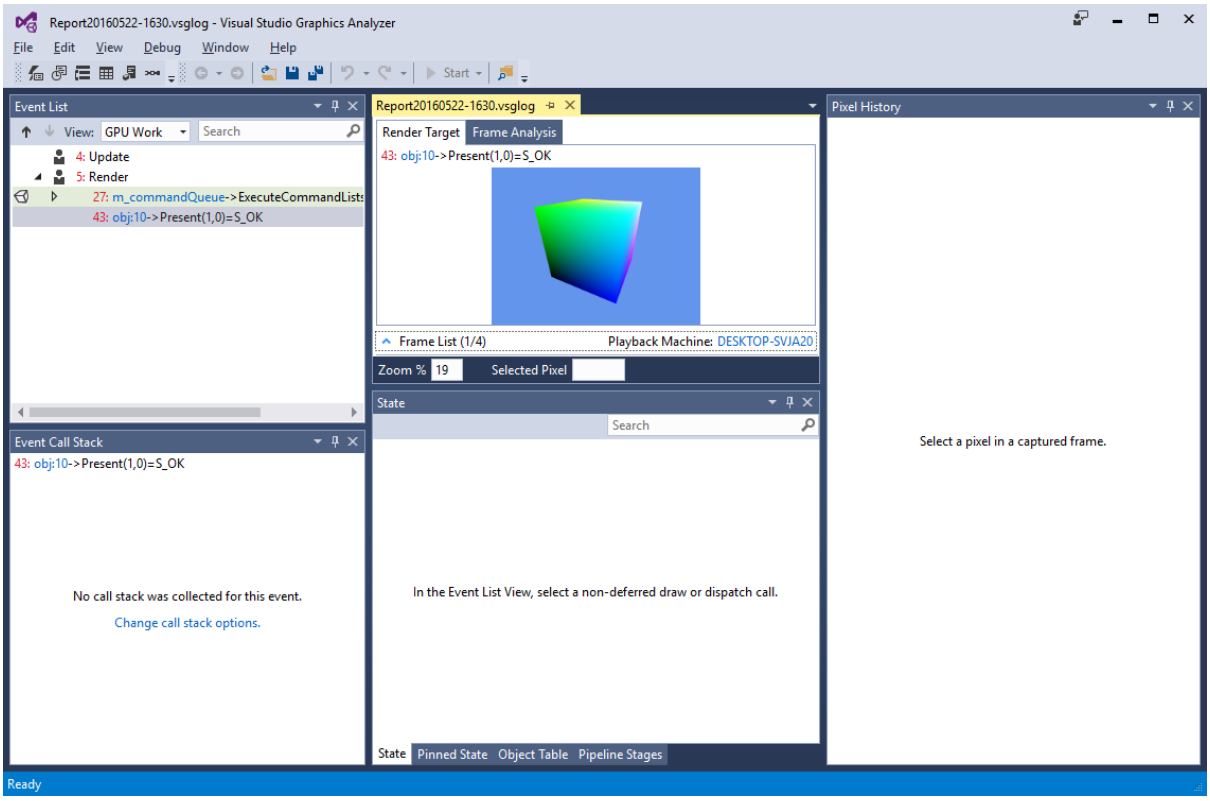

Shader.dgsl*
Ch7_DX12_UWPMain.h
Ch7_DX12_UW
Export As...
Export
Graphics Engines
View

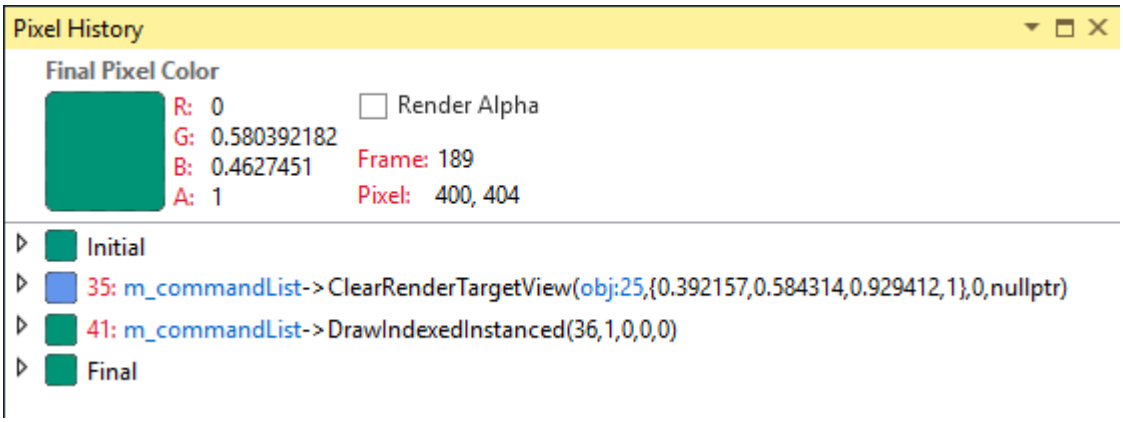

View Front
Y
X
Z

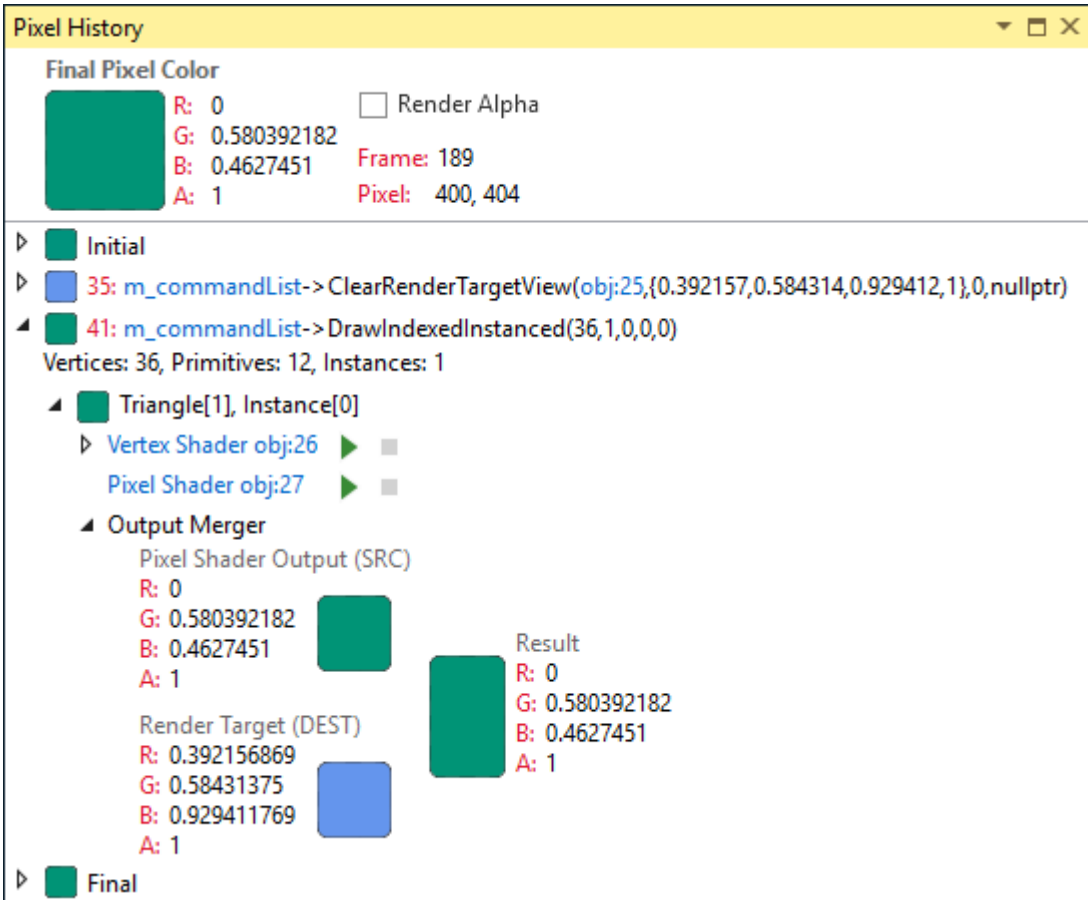

Properties
Mesh: Cylinder
Hidden
False
Name
Cylinder
Smoothing Angle
45
Phong: Phong[16]
Effect
Phong
MaterialAmbient
1.00; 1.00; 1.00; 1.00
MaterialDiffuse
1.00; 1.00; 1.00; 1.00
MaterialSpecular
0.00; 0.00; 0.00; 0.00
MaterialSpecularPower
1

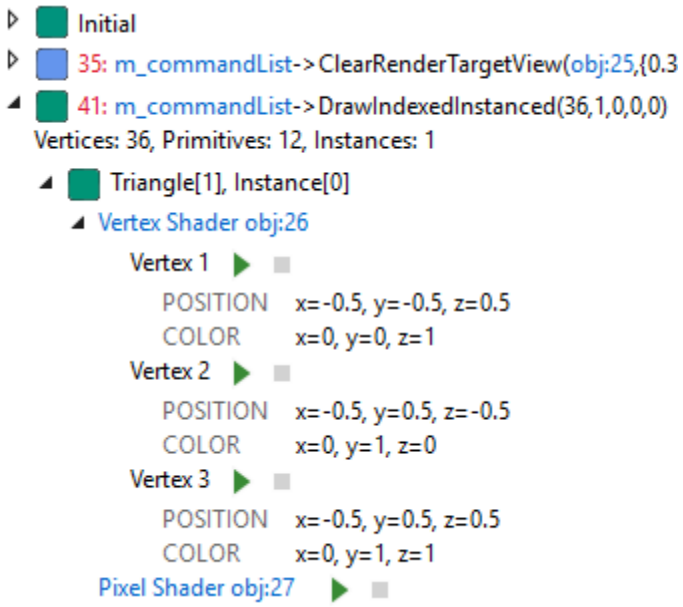

Scene.fbx*
View Front

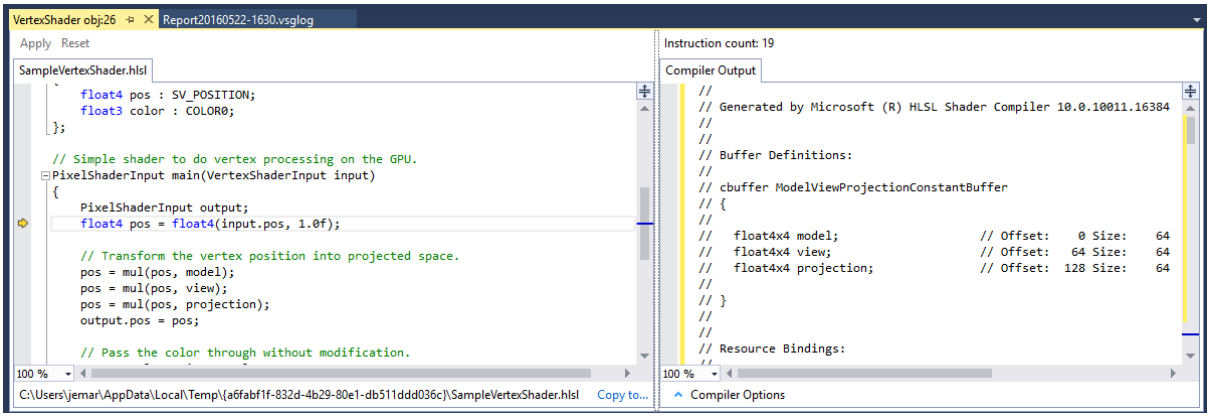

Zoom In
Reset Zoom
Clear Selection
Diagnostics session: 23.783 seconds
User mark
5s
10s
15s
20s
Frame time
Frame time
30
17
30
17
Frames per second
Frames per second
100
60
30
100
60
30
Frame 189
(16:30:43)
Frame 335
(16:30:47)
Frame 441
(16:30:49)
Frame 799
(16:30:55)

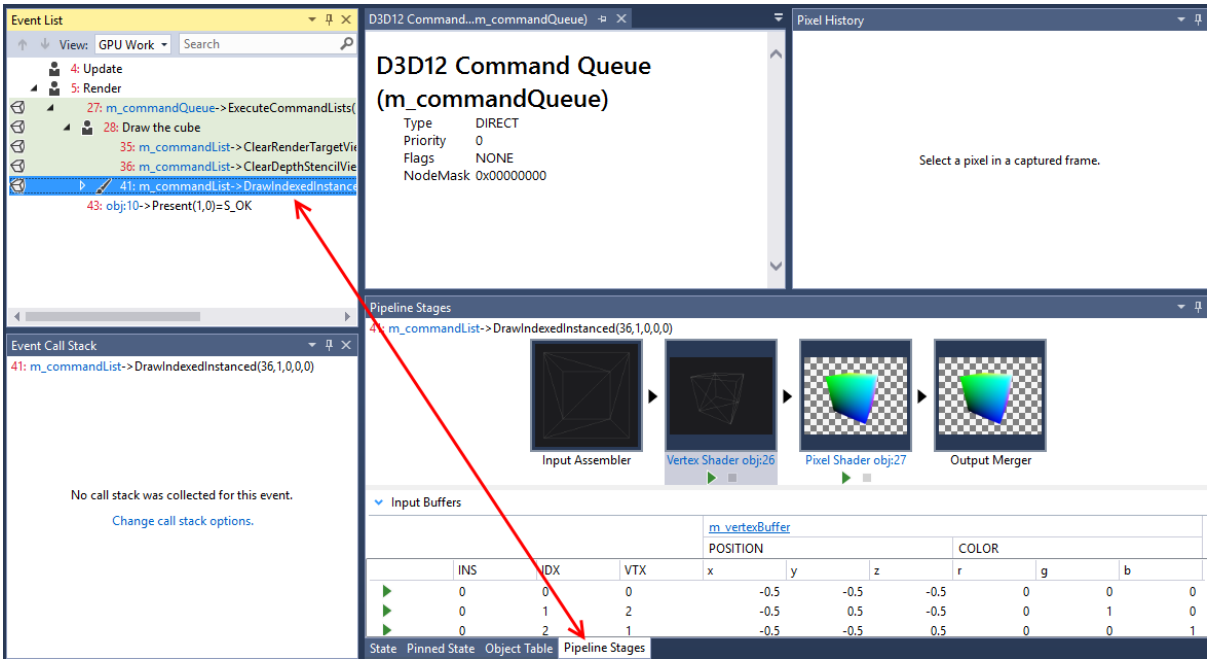

Report20160522-1630.vsglog - Visual Studio Graphics Analyzer
File Edit View Debug Window Help
Start
Event List
View: GPU Work
Search
4: Update
5: Render
27: m_commandQueue->ExecuteCommandLists
43: obj:10->Present(1,0)=S_OK
Report20160522-1630.vsglog
Render Target
Frame Analysis
43: obj:10->Present(1,0)=S_OK
Frame List (1/4)
Playback Machine: DESKTOP-SVJA20
Zoom % 19
Selected Pixel
Pixel History
Select a pixel in a captured frame.
Event Call Stack
43: obj:10->Present(1,0)=S_OK
No call stack was collected for this event.
Change call stack options.
State
Search
In the Event List View, select a non-deferred draw or dispatch call.
State
Pinned State
Object Table
Pipeline Stages
Ready


Pixel History
Final Pixel Color
R: 0
G: 0.580392182
B: 0.4627451
A: 1
Render Alpha
Frame: 189
Pixel: 400, 404
Initial
35: m_commandList->ClearRenderTargetView(obj:25,{0.392157,0.584314,0.929412,1},0,nullptr)
41: m_commandList->DrawIndexedInstanced(36,1,0,0,0)
Final

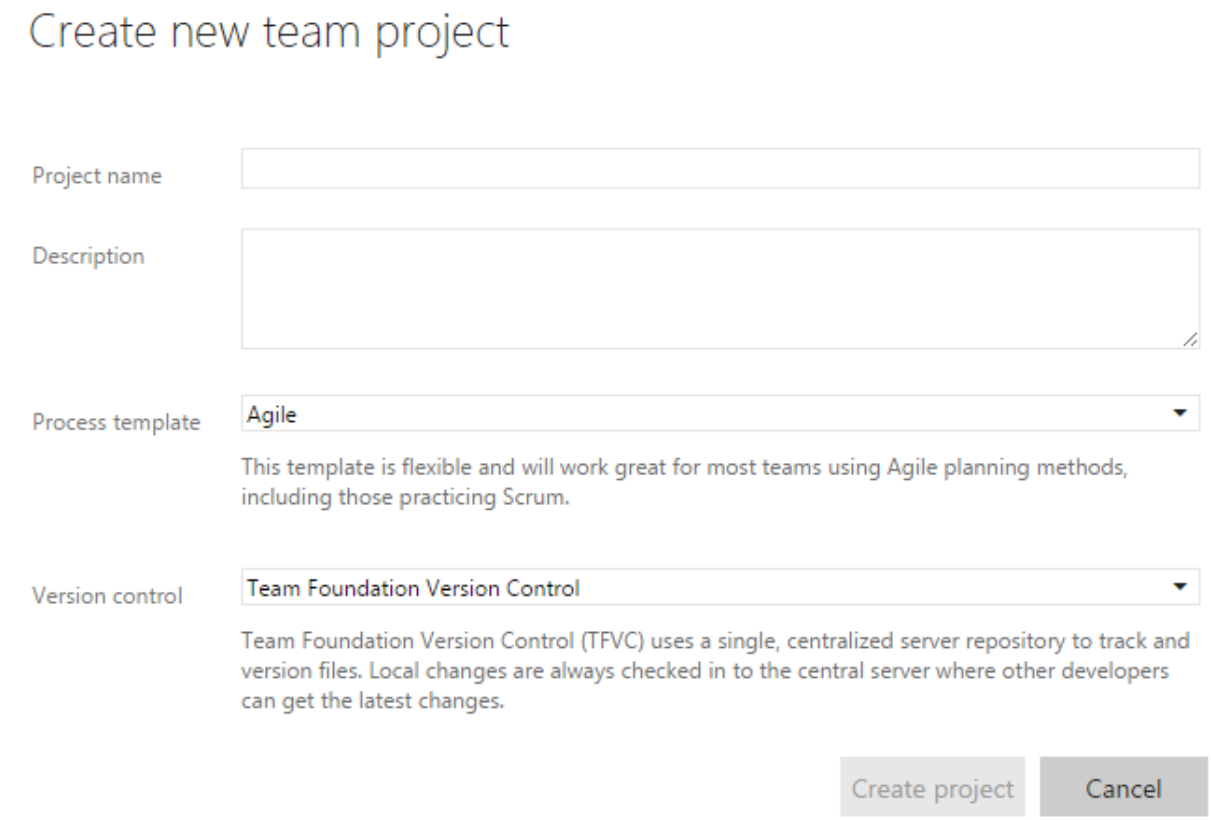

Pixel History
Final Pixel Color
R: 0
G: 0.580392182
B: 0.4627451
A: 1
Render Alpha
Frame: 189
Pixel: 400, 404
Initial
35: m_commandList->ClearRenderTargetView(obj:25,{0.392157,0.584314,0.929412,1},0,nullptr)
41: m_commandList->DrawIndexedInstanced(36,1,0,0,0)
Vertices: 36, Primitives: 12, Instances: 1
Triangle[1], Instance[0]
Vertex Shader obj:26
Pixel Shader obj:27
Output Merger
Pixel Shader Output (SRC)
R: 0
G: 0.580392182
B: 0.4627451
A: 1
Render Target (DEST)
R: 0.392156869
G: 0.58431375
B: 0.929411769
A: 1
Result
R: 0
G: 0.580392182
B: 0.4627451
A: 1
Final

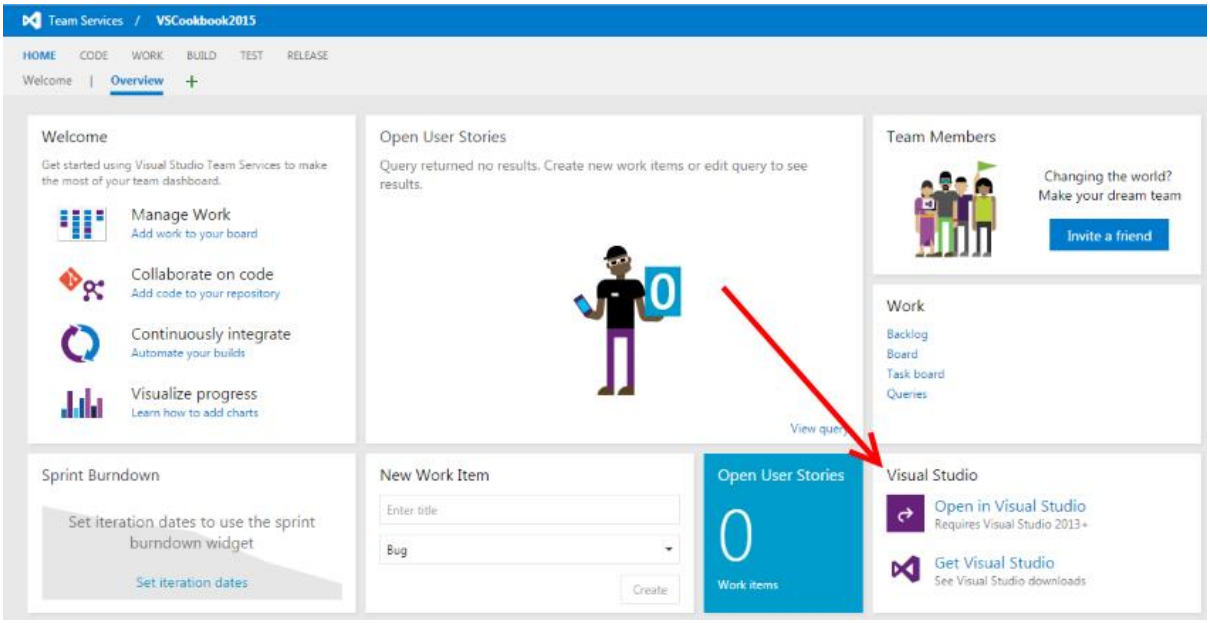

Initial
35: m_commandList->ClearRenderTargetView(obj:25,{0.3
41: m_commandList->DrawIndexedInstanced(36,1,0,0,0)
Vertices: 36, Primitives: 12, Instances: 1
Triangle[1], Instance[0]
Vertex Shader obj:26
Vertex 1
POSITION x=-0.5, y=-0.5, z=0.5
COLOR x=0, y=0, z=1
Vertex 2
POSITION x=-0.5, y=0.5, z=-0.5
COLOR x=0, y=1, z=0
Vertex 3
POSITION x=-0.5, y=0.5, z=0.5
COLOR x=0, y=1, z=1
Pixel Shader obj:27

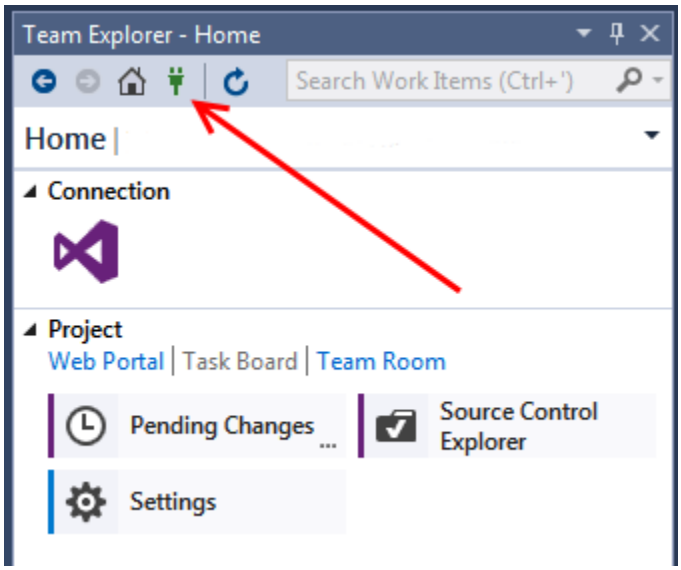

VertexShader obj:26
Report20160522-1630.vsglog
Apply
Reset
SampleVertexShader.hlsl
float4 pos : SV_POSITION;
float3 color : COLOR0;
};
// Simple shader to do vertex processing on the GPU.
PixelShaderInput main(VertexShaderInput input)
{
PixelShaderInput output;
float4 pos = float4(input.pos, 1.0f);
// Transform the vertex position into projected space.
pos = mul(pos, model);
pos = mul(pos, view);
pos = mul(pos, projection);
output.pos = pos;
// Pass the color through without modification.
100 %
C:\Users\jemar\AppData\Local\Temp\{a6fabf1f-832d-4b29-80e1-db511ddd036c}\SampleVertexShader.hlsl
Copy to...
Instruction count: 19
Compiler Output
//
// Generated by Microsoft (R) HLSL Shader Compiler 10.0.10011.16384
//
//
// Buffer Definitions:
//
// cbuffer ModelViewProjectionConstantBuffer
// {
//
// float4x4 model; // Offset: 0 Size: 64
// float4x4 view; // Offset: 64 Size: 64
// float4x4 projection; // Offset: 128 Size: 64
//
// }
//
//
// Resource Bindings:
100 %
Compiler Options

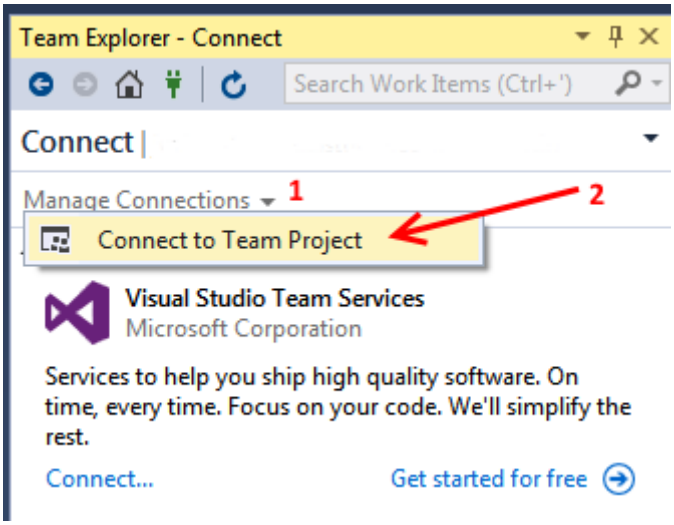

Event List
View: GPU Work
Search
4: Update
5: Render
27: m_commandQueue->ExecuteCommandLists(
28: Draw the cube
35: m_commandList->ClearRenderTargetVie
36: m_commandList->ClearDepthStencilVie
41: m_commandList->DrawIndexedInstanc
43: obj:10->Present(1,0)=S_OK
Event Call Stack
41: m_commandList->DrawIndexedInstanced(36,1,0,0,0)
No call stack was collected for this event.
Change call stack options.
D3D12 Command...m_commandQueue)
D3D12 Command Queue (m_commandQueue)
Type DIRECT
Priority 0
Flags NONE
NodeMask 0x00000000
Pixel History
Select a pixel in a captured frame.
Pipeline Stages
41: m_commandList->DrawIndexedInstanced(36,1,0,0,0)
Input Assembler
Vertex Shader obj:26
Pixel Shader obj:27
Output Merger
Input Buffers
m_vertexBuffer
POSITION
COLOR
INS IDX VTX x y z r g b
0 0 0 -0.5 -0.5 -0.5 0 0 0
0 1 2 -0.5 0.5 -0.5 0 1 0
0 2 1 -0.5 -0.5 0.5 0 0 1
State
Pinned State
Object Table
Pipeline Stages

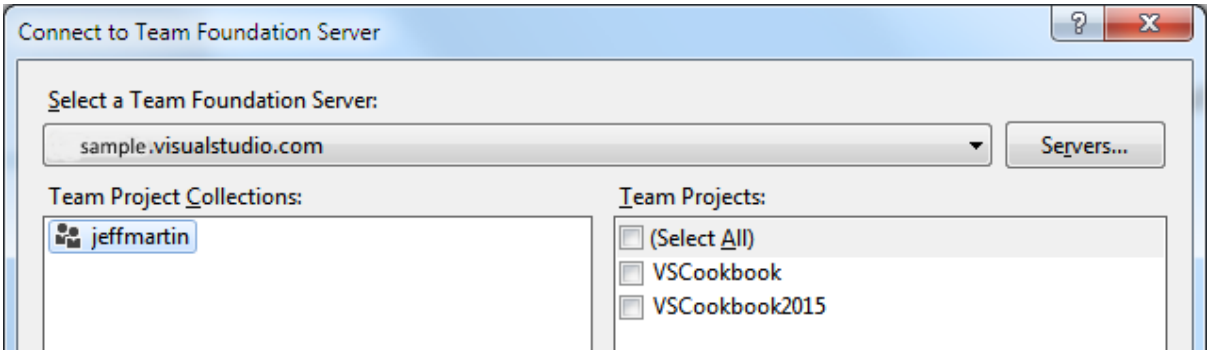
# Chapter 8: Working with Team Foundation Server 2015

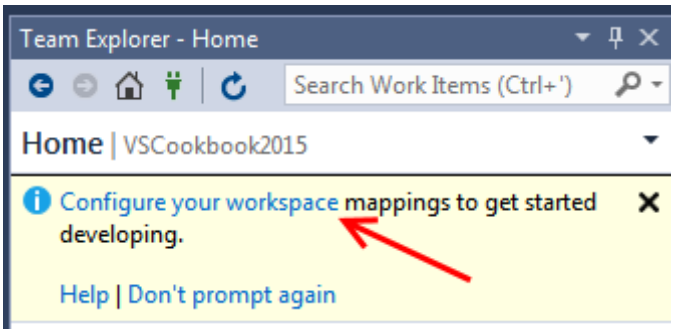


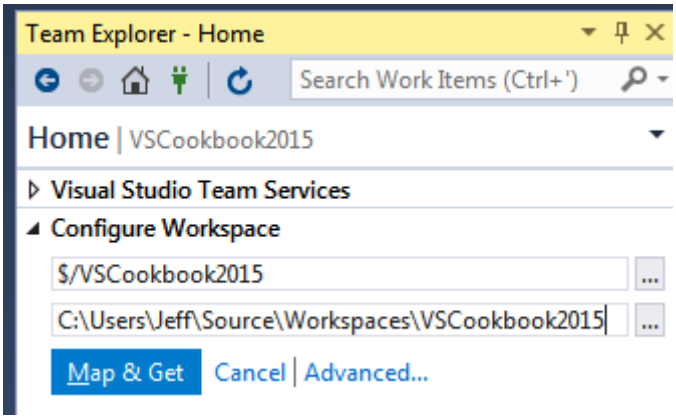

Team Services / VSCookbook2015
HOME CODE WORK BUILD TEST RELEASE
Welcome | Overview +
Welcome
Get started using Visual Studio Team Services to make the most of your team dashboard.
Manage Work
Add work to your board
Collaborate on code
Add code to your repository
Continuously integrate
Automate your builds
Visualize progress
Learn how to add charts
Open User Stories
Query returned no results. Create new work items or edit query to see results.
0
View query
Team Members
Changing the world? Make your dream team
Invite a friend
Work
Backlog
Board
Task board
Queries
Sprint Burndown
Set iteration dates to use the sprint burndown widget
Set iteration dates
New Work Item
Enter title
Bug
Create
Open User Stories
0
Work items
Visual Studio
Open in Visual Studio
Requires Visual Studio 2013+
Get Visual Studio
See Visual Studio downloads

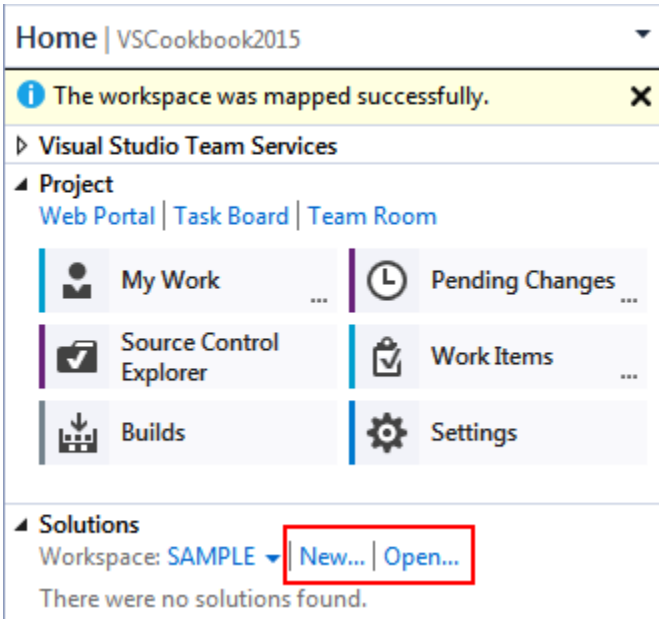

Team Explorer - Home
Search Work Items (Ctrl+')
Home |
Connection
Project
Web Portal | Task Board | Team Room
Pending Changes ...
Source Control Explorer
Settings

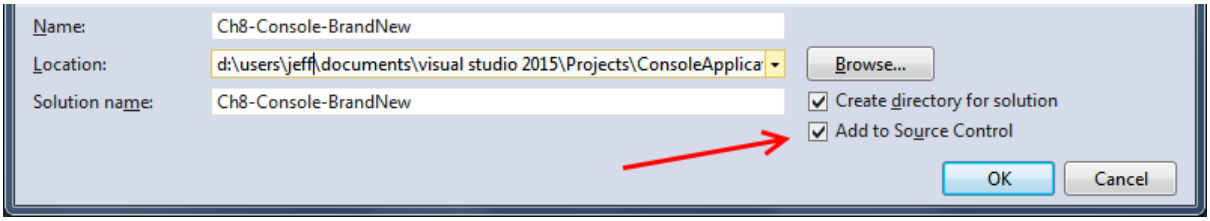

Team Explorer - Connect
Search Work Items (Ctrl+')
Connect |
Manage Connections
1
2
Connect to Team Project
Visual Studio Team Services
Microsoft Corporation
Services to help you ship high quality software. On time, every time. Focus on your code. We'll simplify the rest.
Connect...
Get started for free

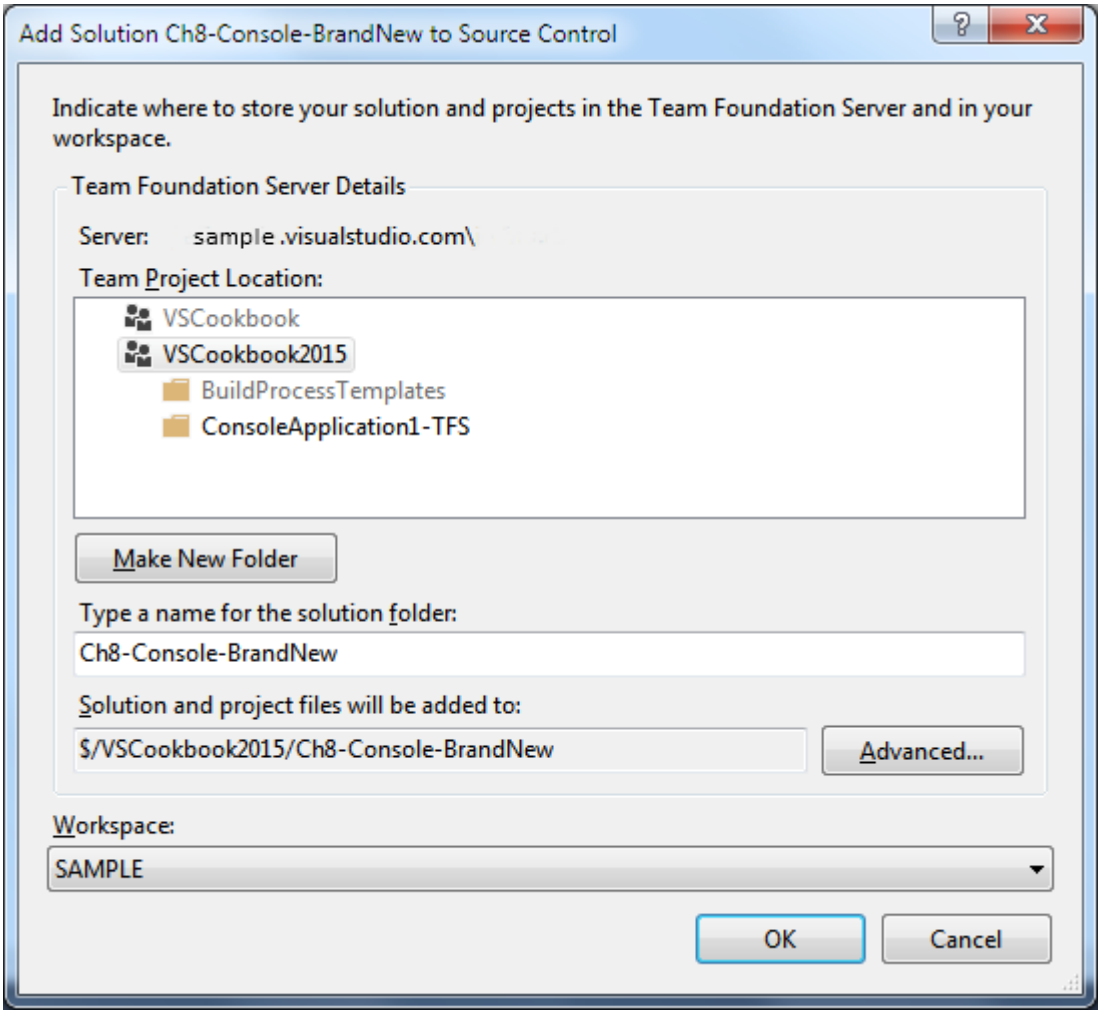

Connect to Team Foundation Server
Select a Team Foundation Server:
sample.visualstudio.com
Servers...
Team Project Collections:
jeffmartin
Team Projects:
(Select All)
VSCookbook
VSCookbook2015

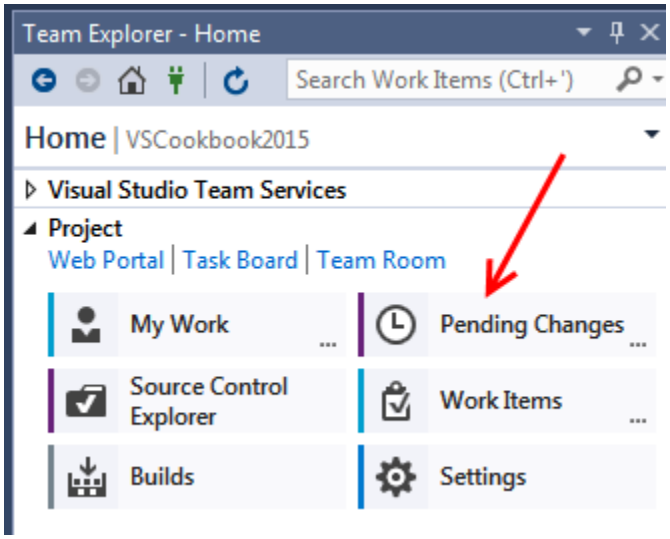

Team Explorer - Home
Search Work Items (Ctrl+')
Home | VSCookbook2015
Configure your workspace mappings to get started developing.
Help | Don't prompt again

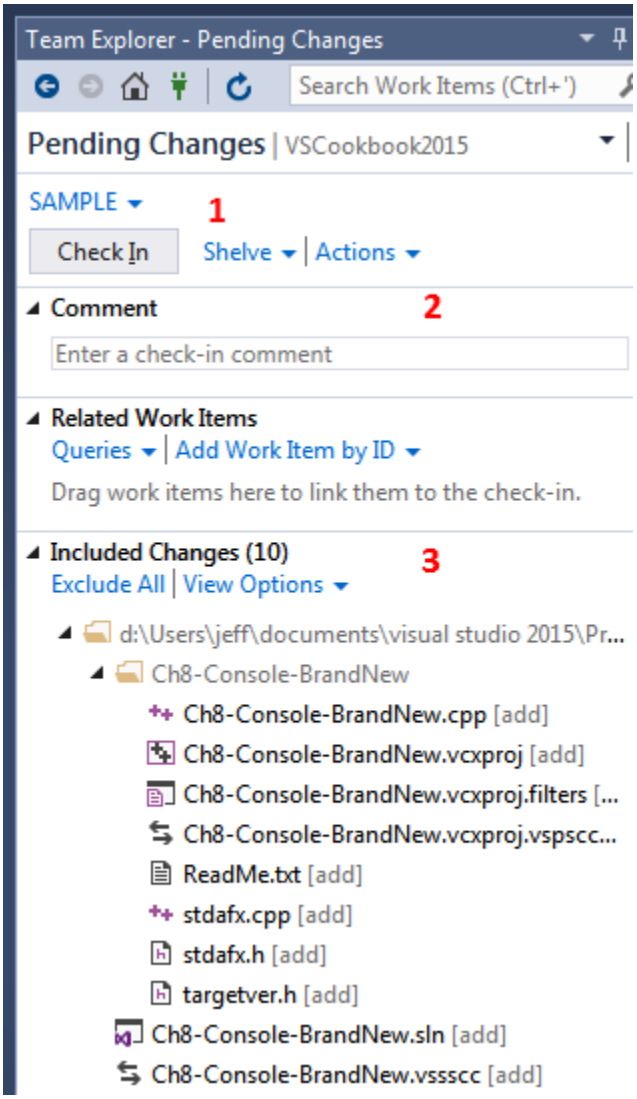

Team Explorer - Home
Search Work Items (Ctrl+')
Home | VSCookbook2015
Visual Studio Team Services
Configure Workspace
$/VSCookbook2015
C:\Users\Jeff\Source\Workspaces\VSCookbook2015
Map & Get
Cancel
Advanced...

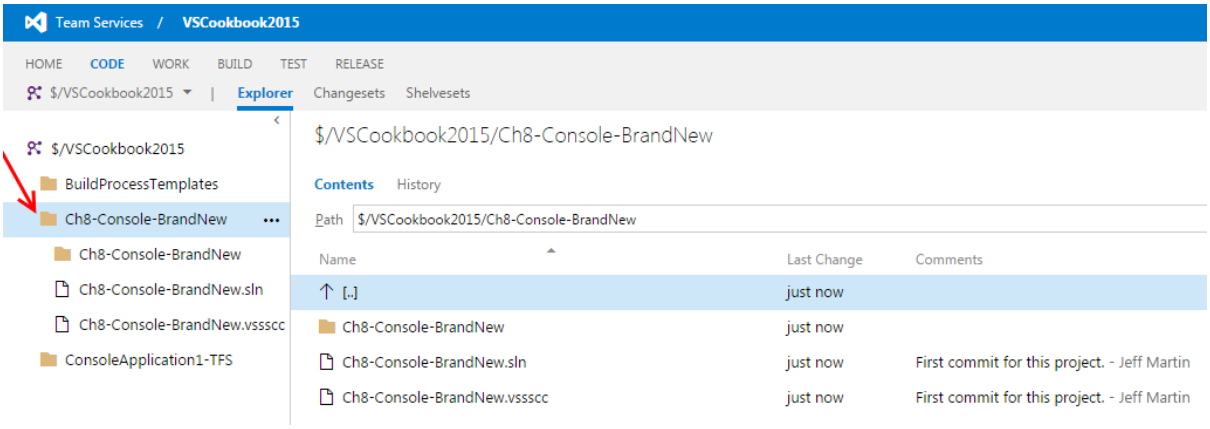

Home | VSCookbook2015
The workspace was mapped successfully.
Visual Studio Team Services
Project
Web Portal | Task Board | Team Room
My Work
Pending Changes
Source Control Explorer
Work Items
Builds
Settings
Solutions
Workspace: SAMPLE
New...
Open...
There were no solutions found.

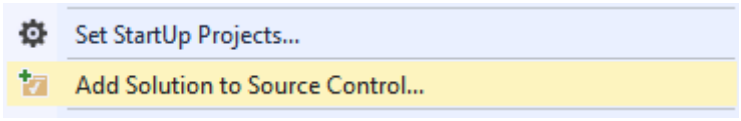

Name:
Ch8-Console-BrandNew
Location:
d:\users\jeff\documents\visual studio 2015\Projects\ConsoleApplica
Browse...
Solution name:
Ch8-Console-BrandNew
Create directory for solution
Add to Source Control
OK
Cancel

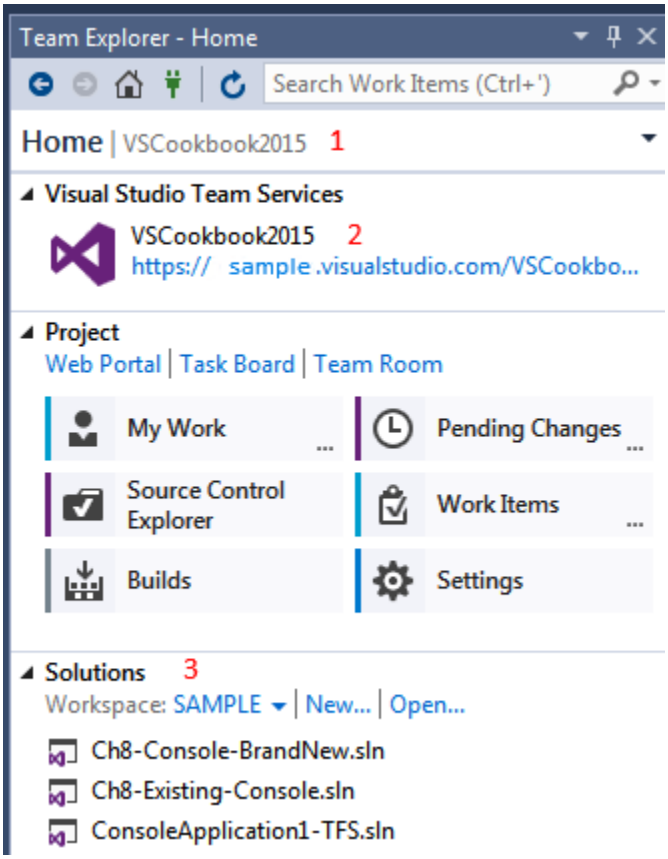

Add Solution Ch8-Console-BrandNew to Source Control
Indicate where to store your solution and projects in the Team Foundation Server and in your workspace.
Team Foundation Server Details
Server: sample .visualstudio.com\
Team Project Location:
VSCookbook
VSCookbook2015
BuildProcessTemplates
ConsoleApplication1-TFS
Make New Folder
Type a name for the solution folder:
Ch8-Console-BrandNew
Solution and project files will be added to:
$/VSCookbook2015/Ch8-Console-BrandNew
Advanced...
Workspace:
SAMPLE
OK
Cancel

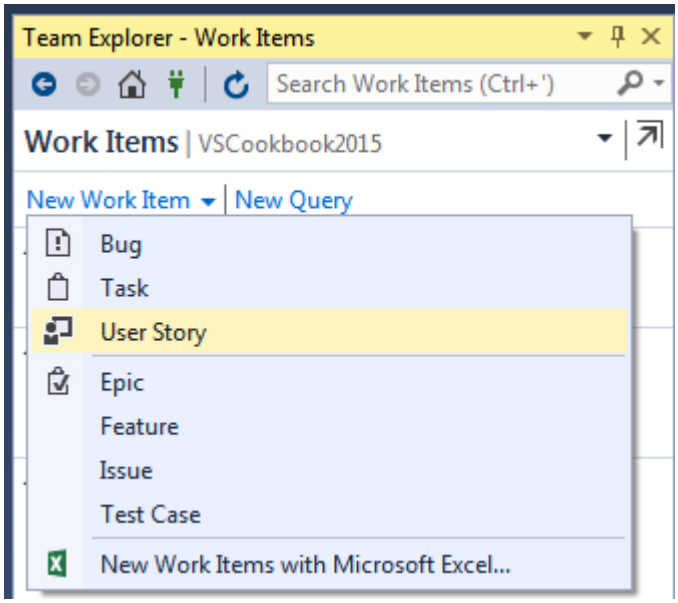

Team Explorer - Home
Search Work Items (Ctrl+')
Home | VSCookbook2015
Visual Studio Team Services
Project
Web Portal | Task Board | Team Room
My Work
Pending Changes
Source Control Explorer
Work Items
Builds
Settings

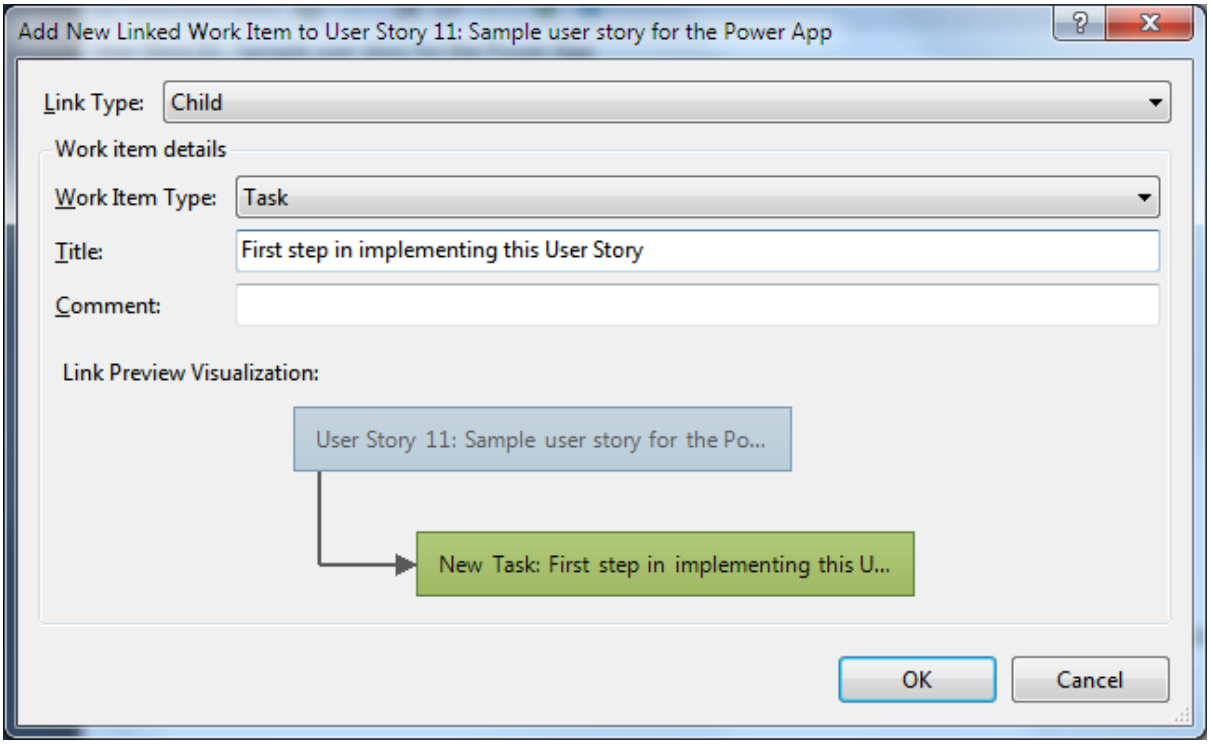

Team Explorer - Pending Changes
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
SAMPLE
1
Check In
Shelve | Actions
Comment
2
Enter a check-in comment
Related Work Items
Queries | Add Work Item by ID
Drag work items here to link them to the check-in.
Included Changes (10)
3
Exclude All | View Options
d:\Users\jeff\documents\visual studio 2015\Pr...
Ch8-Console-BrandNew
Ch8-Console-BrandNew.cpp [add]
Ch8-Console-BrandNew.vcxproj [add]
Ch8-Console-BrandNew.vcxproj.filters [...
Ch8-Console-BrandNew.vcxproj.vspscc...
ReadMe.txt [add]
stdafx.cpp [add]
stdafx.h [add]
targetver.h [add]
Ch8-Console-BrandNew.sln [add]
Ch8-Console-BrandNew.vssscc [add]

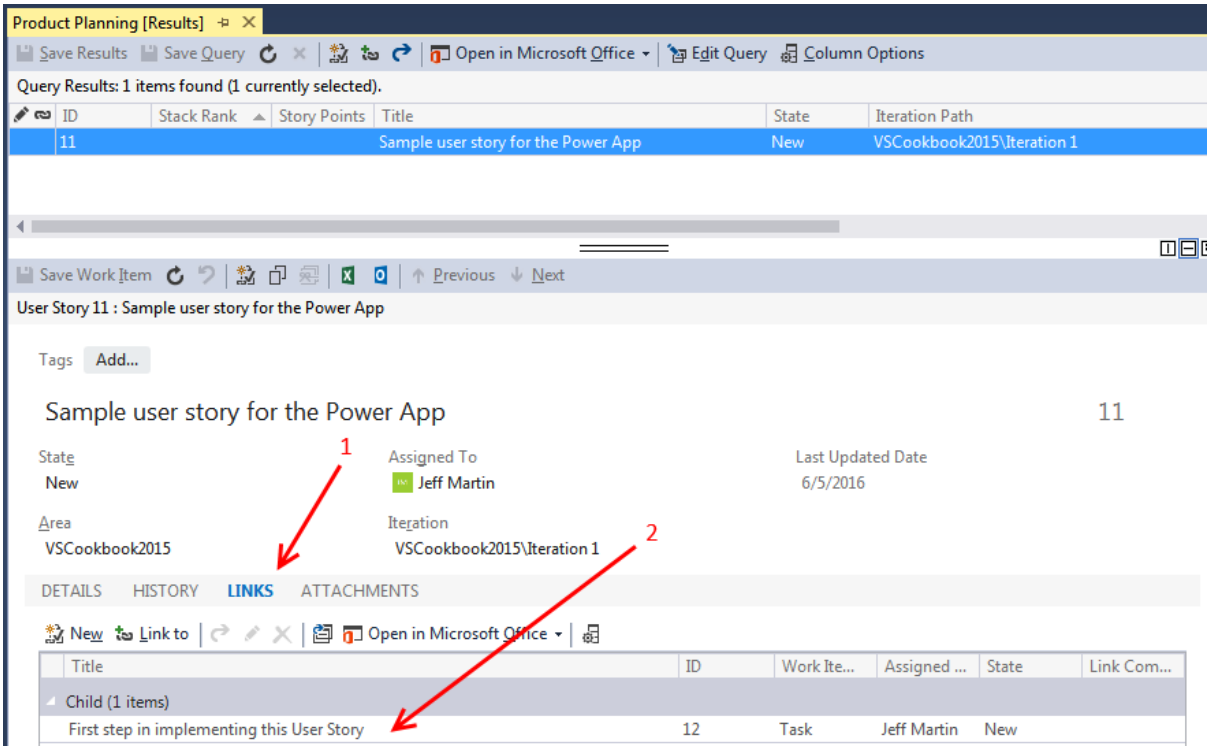

Team Services / VSCookbook2015
HOME CODE WORK BUILD TEST RELEASE
$/VSCookbook2015 | Explorer Changesets Shelvesets
$/VSCookbook2015
BuildProcessTemplates
Ch8-Console-BrandNew
Ch8-Console-BrandNew
Ch8-Console-BrandNew.sln
Ch8-Console-BrandNew.vssscc
ConsoleApplication1-TFS
$/VSCookbook2015/Ch8-Console-BrandNew
Contents History
Path $/VSCookbook2015/Ch8-Console-BrandNew
Name Last Change Comments
[..] just now
Ch8-Console-BrandNew just now
Ch8-Console-BrandNew.sln just now First commit for this project. - Jeff Martin
Ch8-Console-BrandNew.vssscc just now First commit for this project. - Jeff Martin

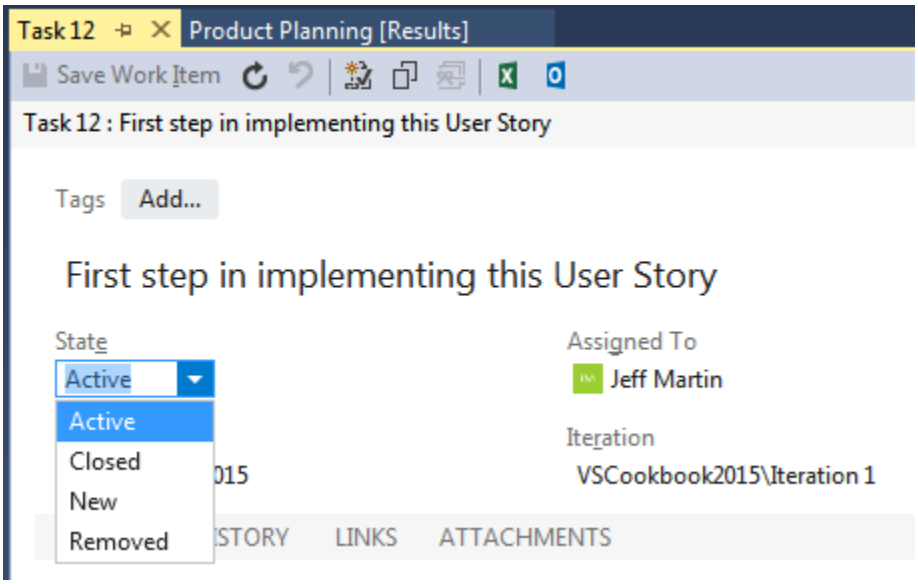

Set StartUp Projects...
Add Solution to Source Control...

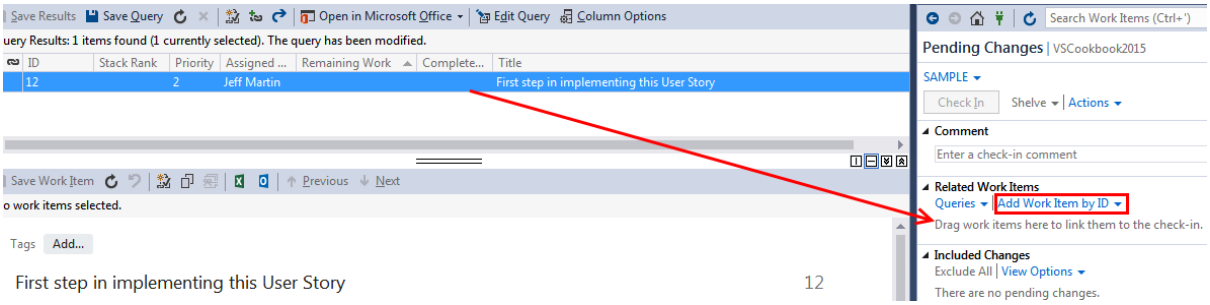

Team Explorer - Home
Search Work Items (Ctrl+')
Home | VSCookbook2015 1
Visual Studio Team Services
VSCookbook2015 2
https:// sample .visualstudio.com/VSCookbo...
Project
Web Portal | Task Board | Team Room
My Work
Pending Changes
Source Control Explorer
Work Items
Builds
Settings
Solutions 3
Workspace: SAMPLE | New... | Open...
Ch8-Console-BrandNew.sln
Ch8-Existing-Console.sln
ConsoleApplication1-TFS.sln

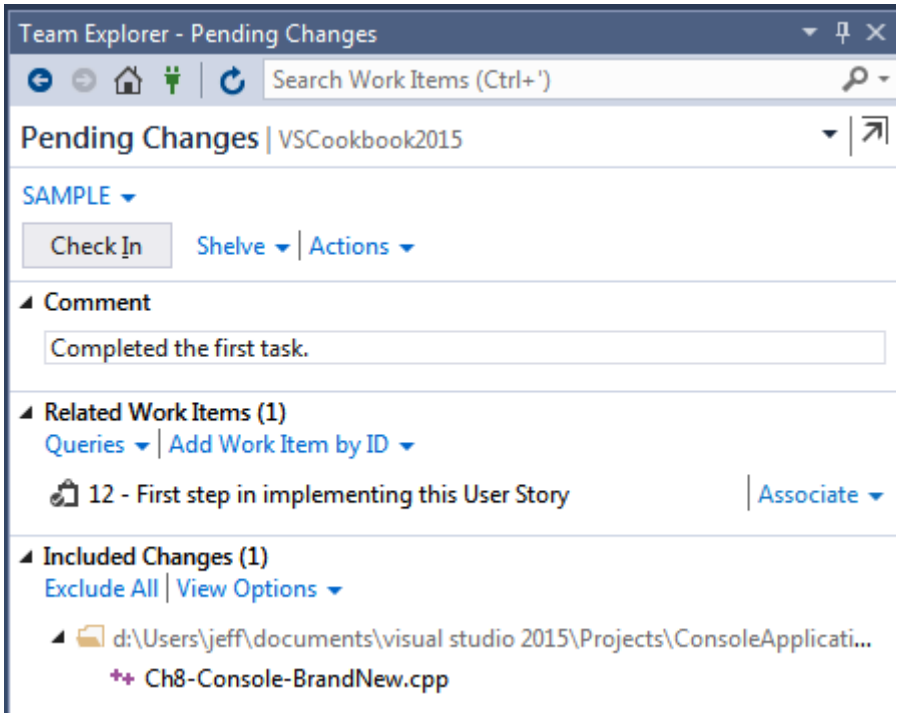

Team Explorer - Work Items
Search Work Items (Ctrl+')
Work Items | VSCookbook2015
New Work Item
New Query
Bug
Task
User Story
Epic
Feature
Issue
Test Case
New Work Items with Microsoft Excel...

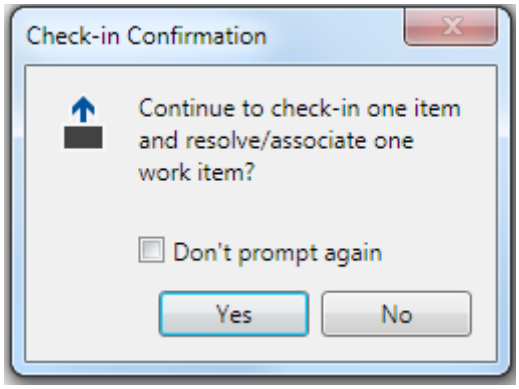

Add New Linked Work Item to User Story 11: Sample user story for the Power App
Link Type:
Child
Work item details
Work Item Type:
Task
Title:
First step in implementing this User Story
Comment:
Link Preview Visualization:
User Story 11: Sample user story for the Po...
New Task: First step in implementing this U...
OK
Cancel

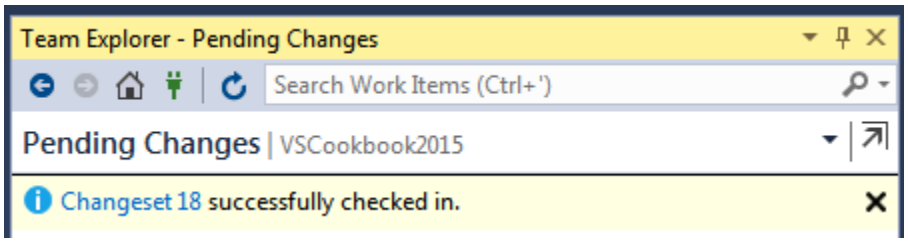

Product Planning [Results]
Save Results
Save Query
Open in Microsoft Office
Edit Query
Column Options
Query Results: 1 items found (1 currently selected).
ID
Stack Rank
Story Points
Title
State
Iteration Path
11
Sample user story for the Power App
New
VSCookbook2015\Iteration 1
Save Work Item
Previous
Next
User Story 11 : Sample user story for the Power App
Tags
Add...
Sample user story for the Power App
11
State
New
Assigned To
Jeff Martin
Last Updated Date
6/5/2016
Area
VSCookbook2015
Iteration
VSCookbook2015\Iteration 1
1
2
DETAILS
HISTORY
LINKS
ATTACHMENTS
New
Link to
Open in Microsoft Office
Title
ID
Work Ite...
Assigned ...
State
Link Com...
Child (1 items)
First step in implementing this User Story
12
Task
Jeff Martin
New

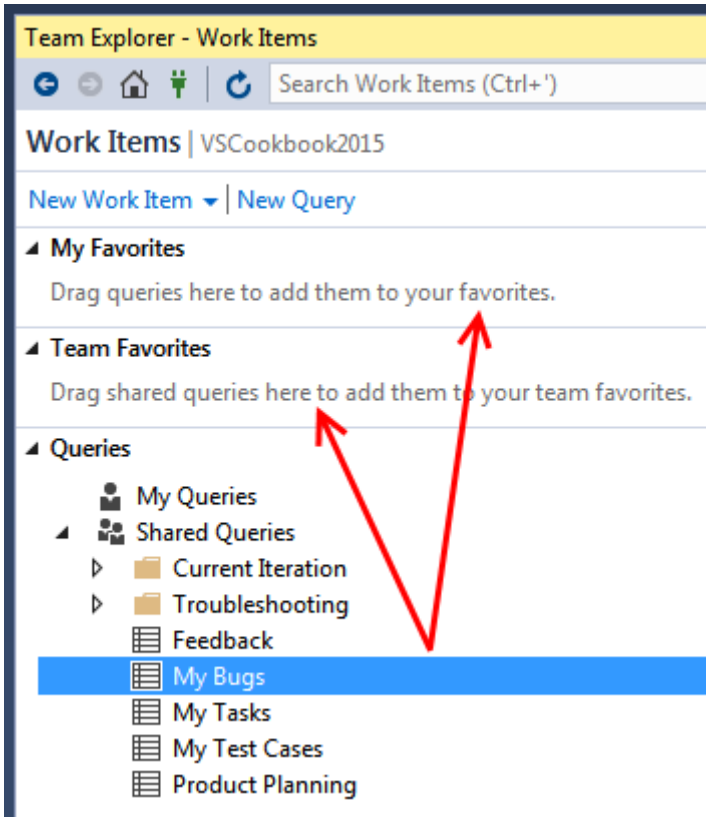

Task 12
Product Planning [Results]
Save Work Item
Task 12 : First step in implementing this User Story
Tags
Add...
First step in implementing this User Story
State
Active
Active
Closed
New
Removed
Assigned To
Jeff Martin
Iteration
VSCookbook2015\Iteration 1
LINKS
ATTACHMENTS

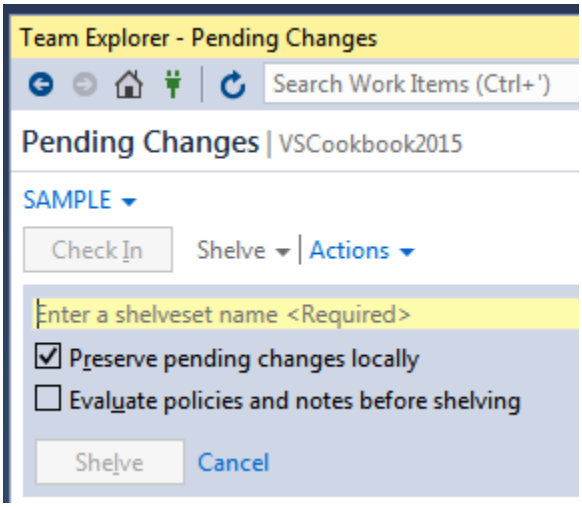

Save Results
Save Query
Open in Microsoft Office
Edit Query
Column Options
uery Results: 1 items found (1 currently selected). The query has been modified.
ID
Stack Rank
Priority
Assigned ...
Remaining Work
Complete...
Title
12
2
Jeff Martin
First step in implementing this User Story
Save Work Item
Previous
Next
o work items selected.
Tags
Add...
First step in implementing this User Story
12
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
SAMPLE
Check In
Shelve
Actions
Comment
Enter a check-in comment
Related Work Items
Queries
Add Work Item by ID
Drag work items here to link them to the check-in.
Included Changes
Exclude All | View Options
There are no pending changes.

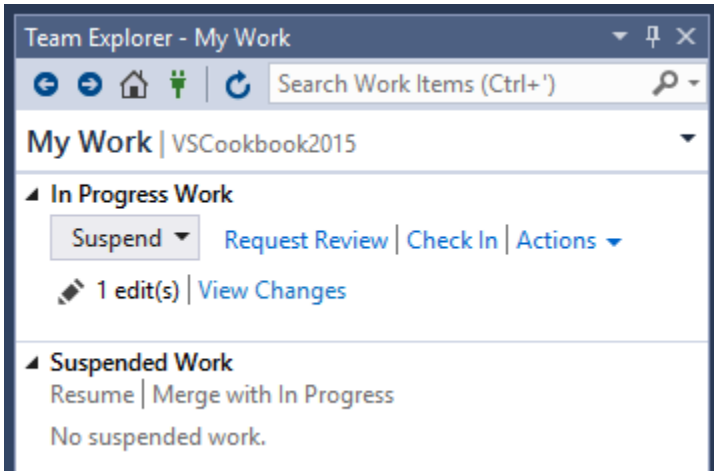

Team Explorer - Pending Changes
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
SAMPLE
Check In
Shelve
Actions
Comment
Completed the first task.
Related Work Items (1)
Queries
Add Work Item by ID
12 - First step in implementing this User Story
Associate
Included Changes (1)
Exclude All | View Options
d:\Users\jeff\documents\visual studio 2015\Projects\ConsoleApplicati...
Ch8-Console-BrandNew.cpp

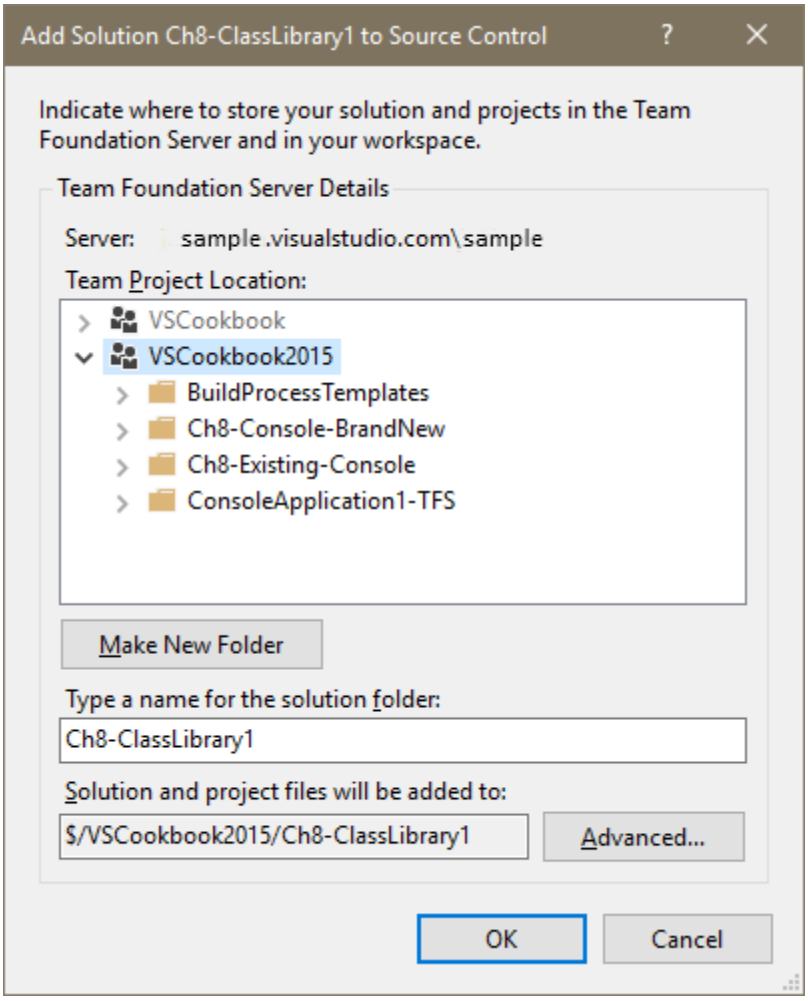

Check-in Confirmation
Continue to check-in one item and resolve/associate one work item?
Don't prompt again
Yes
No

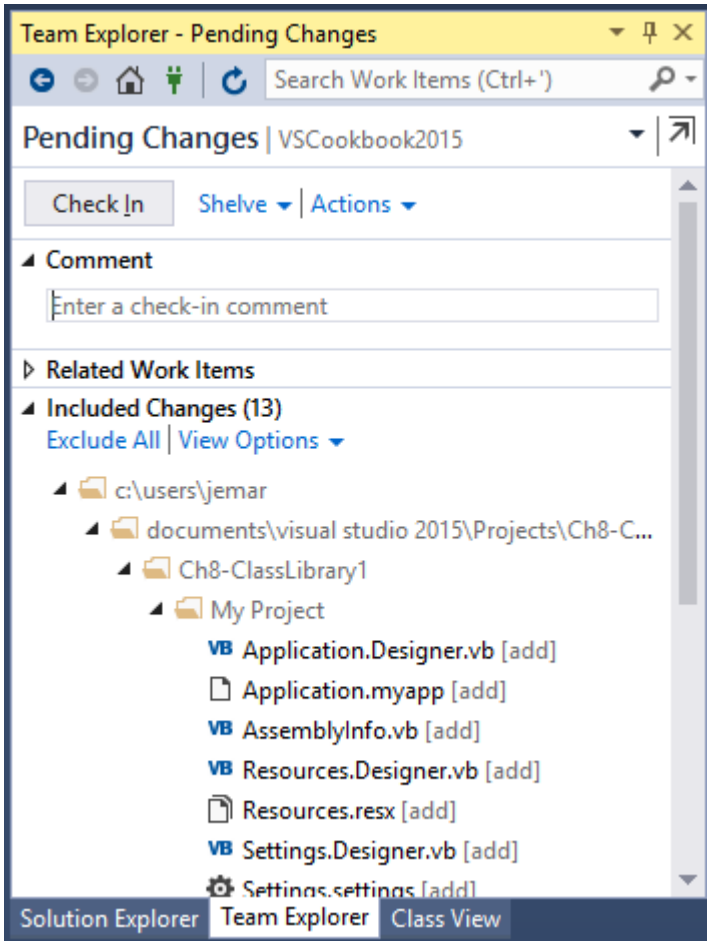

Team Explorer - Pending Changes
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
Changeset 18 successfully checked in.

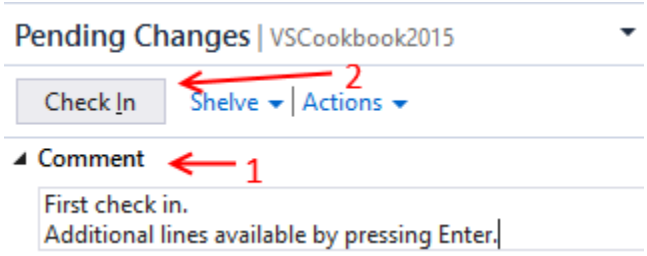

Team Explorer - Work Items
Search Work Items (Ctrl+')
Work Items | VSCookbook2015
New Work Item | New Query
My Favorites
Drag queries here to add them to your favorites.
Team Favorites
Drag shared queries here to add them to your team favorites.
Queries
My Queries
Shared Queries
Current Iteration
Troubleshooting
Feedback
My Bugs
My Tasks
My Test Cases
Product Planning

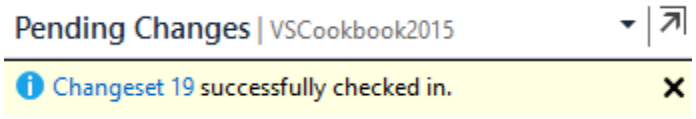

Team Explorer - Pending Changes
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
SAMPLE
Check In
Shelve | Actions
Enter a shelveset name <Required>
Preserve pending changes locally
Evaluate policies and notes before shelving
Shelve
Cancel

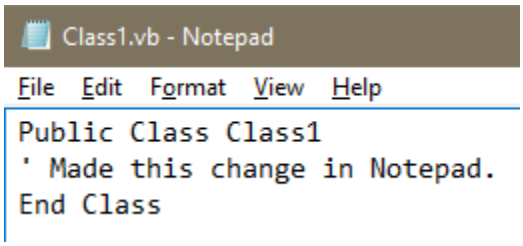

Team Explorer - My Work
Search Work Items (Ctrl+')
My Work | VSCookbook2015
In Progress Work
Suspend
Request Review | Check In | Actions
1 edit(s) | View Changes
Suspended Work
Resume | Merge with In Progress
No suspended work.

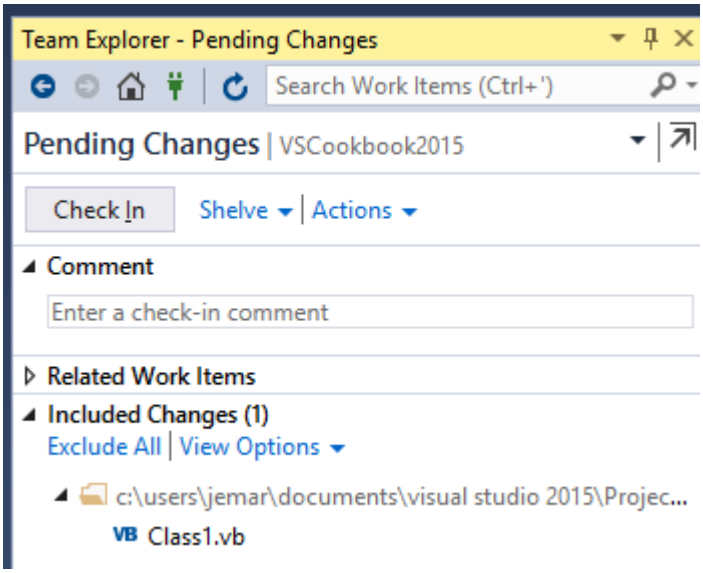

Add Solution Ch8-ClassLibrary1 to Source Control
Indicate where to store your solution and projects in the Team Foundation Server and in your workspace.
Team Foundation Server Details
Server: sample.visualstudio.com\sample
Team Project Location:
VSCookbook
VSCookbook2015
BuildProcessTemplates
Ch8-Console-BrandNew
Ch8-Existing-Console
ConsoleApplication1-TFS
Make New Folder
Type a name for the solution folder:
Ch8-ClassLibrary1
Solution and project files will be added to:
$/VSCookbook2015/Ch8-ClassLibrary1
Advanced...
OK
Cancel

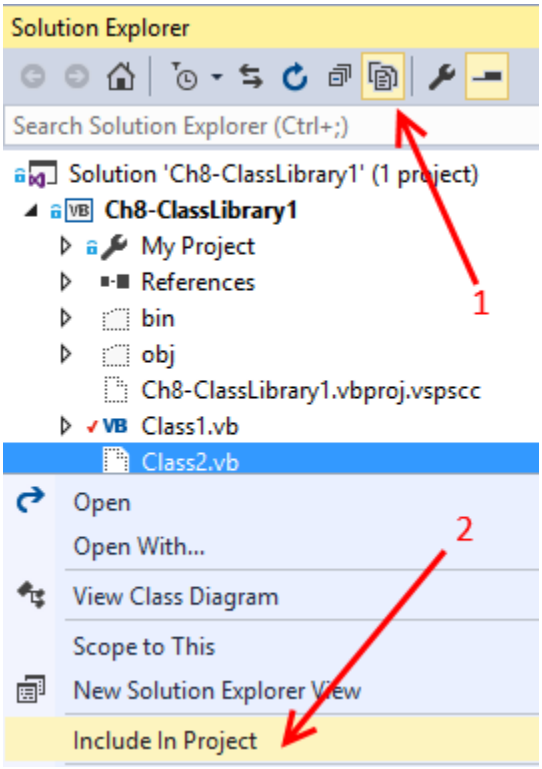

Team Explorer - Pending Changes
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
Check In
Shelve
Actions
Comment
Enter a check-in comment
Related Work Items
Included Changes (13)
Exclude All | View Options
c:\users\jemar
documents\visual studio 2015\Projects\Ch8-C...
Ch8-ClassLibrary1
My Project
Application.Designer.vb [add]
Application.myapp [add]
AssemblyInfo.vb [add]
Resources.Designer.vb [add]
Resources.resx [add]
Settings.Designer.vb [add]
Solution Explorer
Team Explorer
Class View

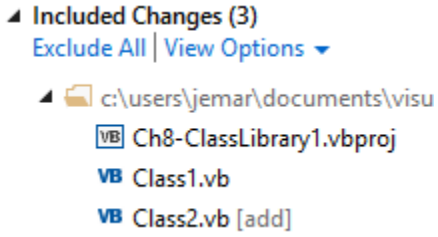

Pending Changes | VSCookbook2015
Check In
2
Shelve
Actions
Comment
1
First check in.
Additional lines available by pressing Enter.

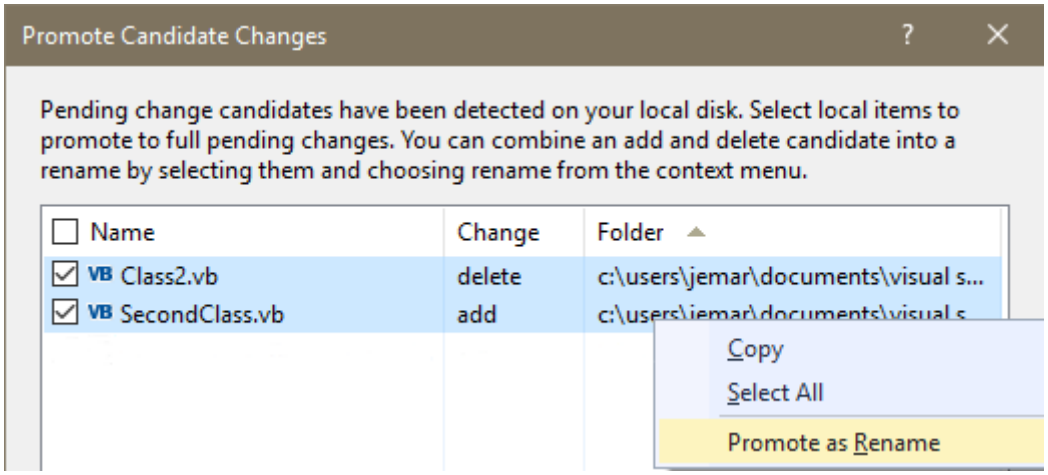

Pending Changes | VSCookbook2015
Changeset 19 successfully checked in.

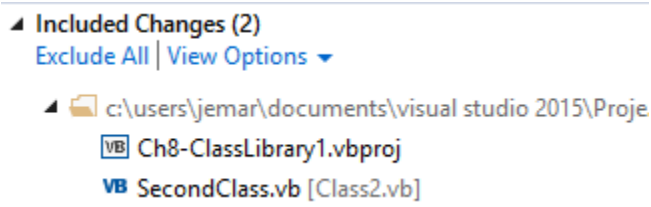

Class1.vb - Notepad
File Edit Format View Help
Public Class Class1
' Made this change in Notepad.
End Class

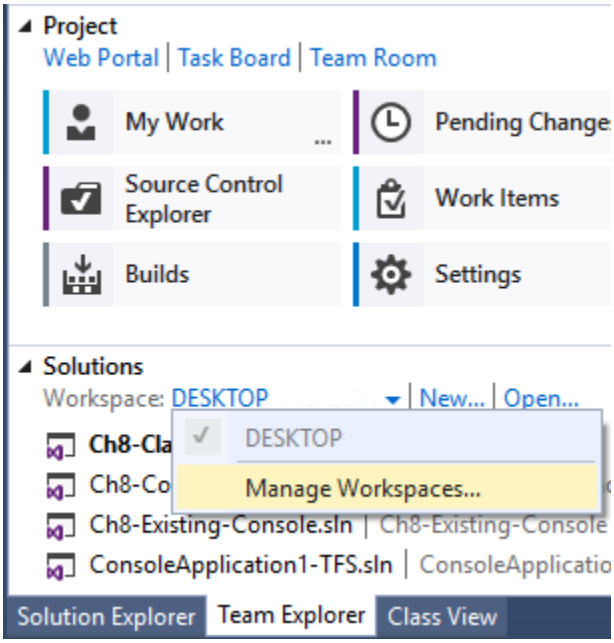

Team Explorer - Pending Changes
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
Check In
Shelve
Actions
Comment
Enter a check-in comment
Related Work Items
Included Changes (1)
Exclude All | View Options
c:\users\jemar\documents\visual studio 2015\Projec...
Class1.vb

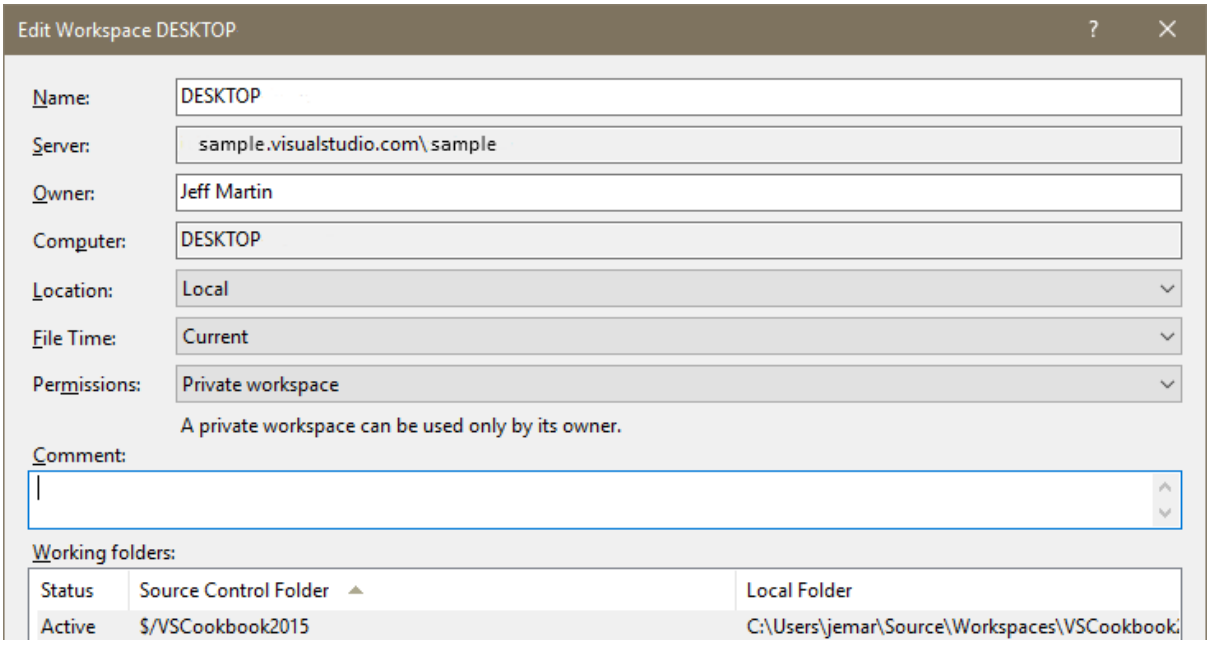

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Ch8-ClassLibrary1' (1 project)
Ch8-ClassLibrary1
My Project
References
bin
obj
Ch8-ClassLibrary1.vbproj.vspscc
Class1.vb
Class2.vb
Open
Open With...
View Class Diagram
Scope to This
New Solution Explorer View
Include In Project
1
2

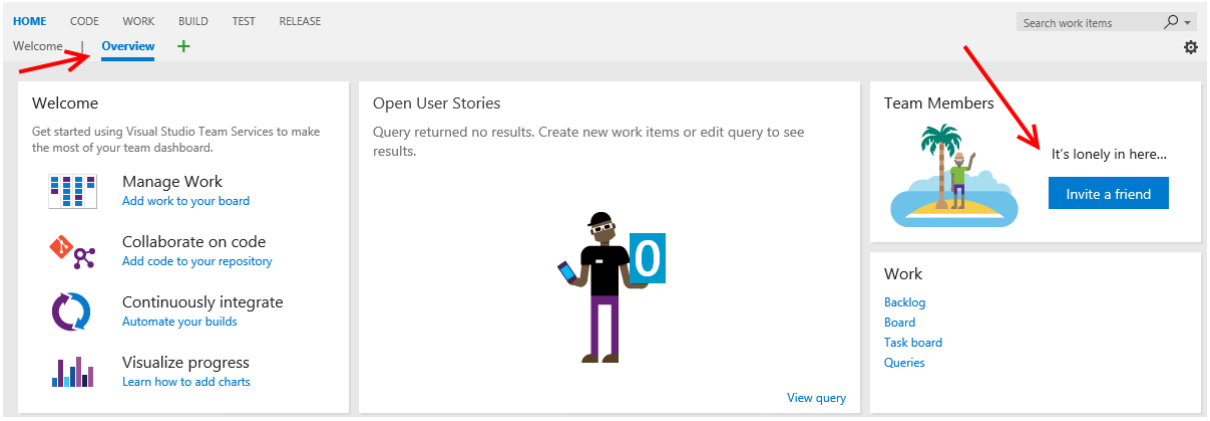

Included Changes (3)
Exclude All | View Options
c:\users\jemar\documents\visu
Ch8-ClassLibrary1.vbproj
Class1.vb
Class2.vb [add]

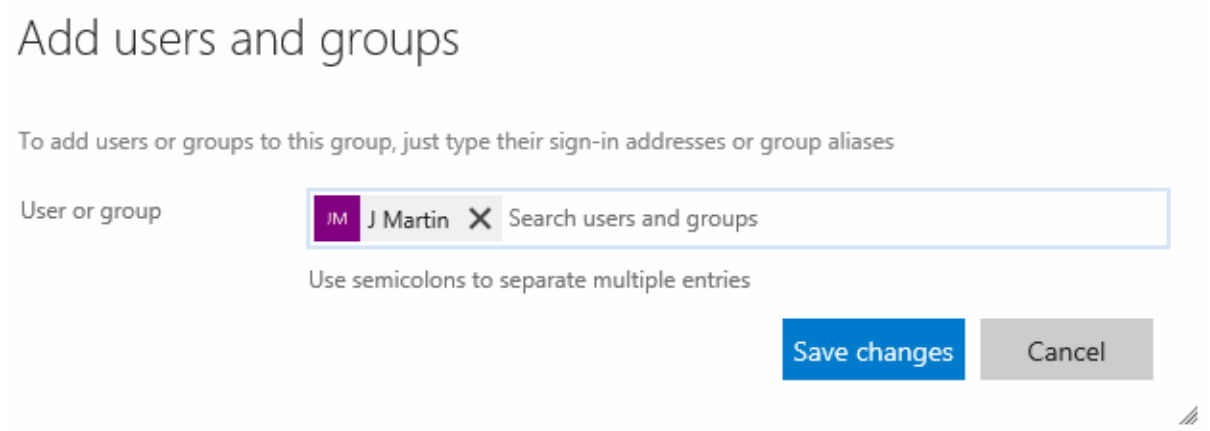

Promote Candidate Changes
Pending change candidates have been detected on your local disk. Select local items to promote to full pending changes. You can combine an add and delete candidate into a rename by selecting them and choosing rename from the context menu.
Name
Change
Folder
Class2.vb
delete
c:\users\jemar\documents\visual s...
SecondClass.vb
add
Copy
Select All
Promote as Rename

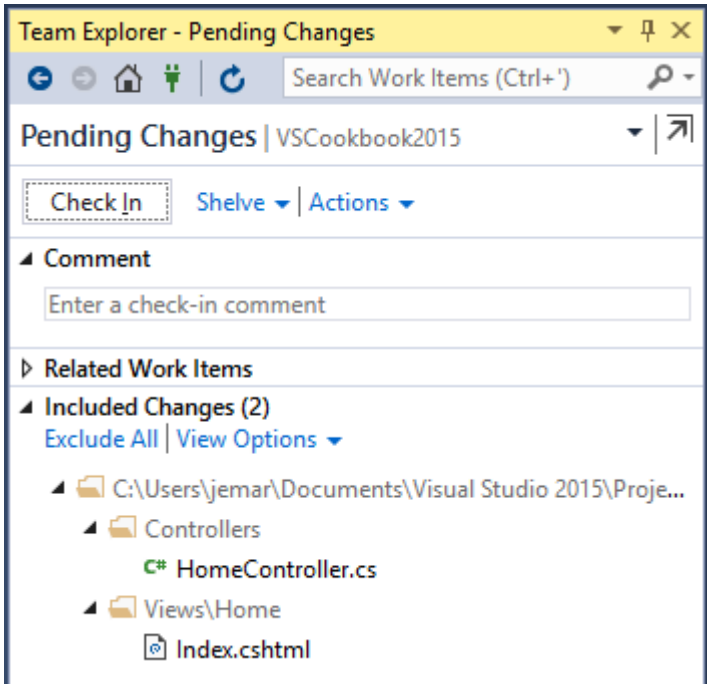

Included Changes (2)
Exclude All | View Options
c:\users\jemar\documents\visual studio 2015\Proje
Ch8-ClassLibrary1.vbproj
SecondClass.vb [Class2.vb]

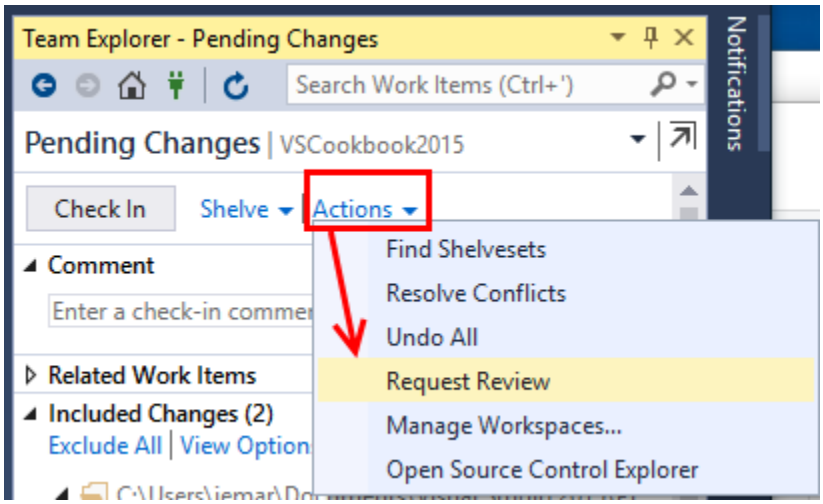

Project
Web Portal | Task Board | Team Room
My Work
Pending Change
Source Control Explorer
Work Items
Builds
Settings
Solutions
Workspace: DESKTOP
New... | Open...
DESKTOP
Manage Workspaces...
Ch8-Existing-Console.sln | Ch8-Existing-Console
ConsoleApplication1-TFS.sln | ConsoleApplicatio
Solution Explorer
Team Explorer
Class View

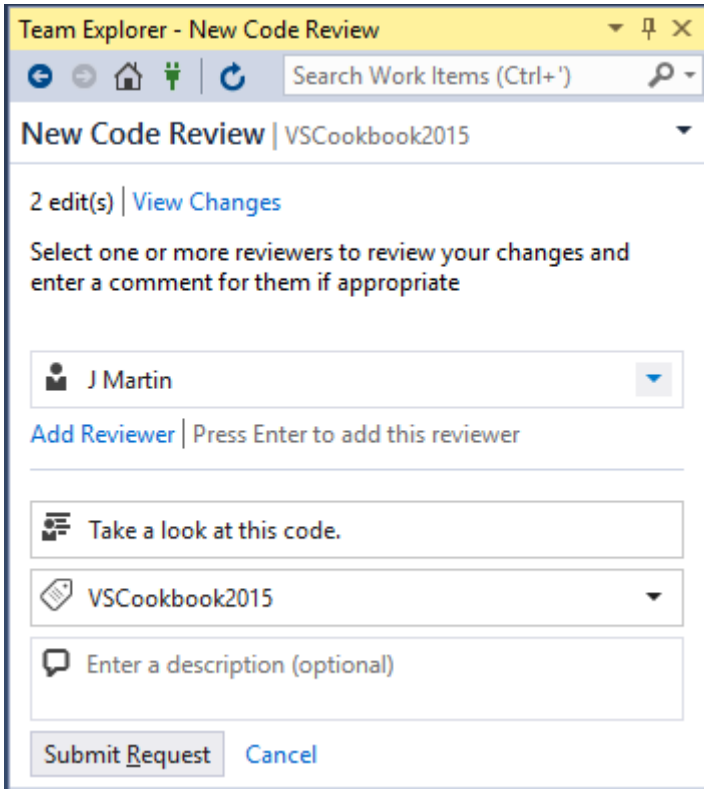

Edit Workspace DESKTOP
Name: DESKTOP
Server: sample.visualstudio.com\ sample
Owner: Jeff Martin
Computer: DESKTOP
Location: Local
File Time: Current
Permissions: Private workspace
A private workspace can be used only by its owner.
Comment:
Working folders:
Status
Source Control Folder
Local Folder
Active
$/VSCookbook2015
C:\Users\jemar\Source\Workspaces\VSCookbook.

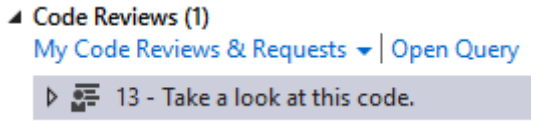

HOME
CODE
WORK
BUILD
TEST
RELEASE
Search work items
Welcome
Overview
Welcome
Get started using Visual Studio Team Services to make the most of your team dashboard.
Manage Work
Add work to your board
Collaborate on code
Add code to your repository
Continuously integrate
Automate your builds
Visualize progress
Learn how to add charts
Open User Stories
Query returned no results. Create new work items or edit query to see results.
0
View query
Team Members
It's lonely in here...
Invite a friend
Work
Backlog
Board
Task board
Queries

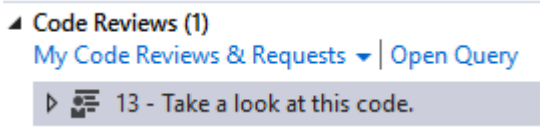

Add users and groups
To add users or groups to this group, just type their sign-in addresses or group aliases
User or group
JM
J Martin
Search users and groups
Use semicolons to separate multiple entries
Save changes
Cancel

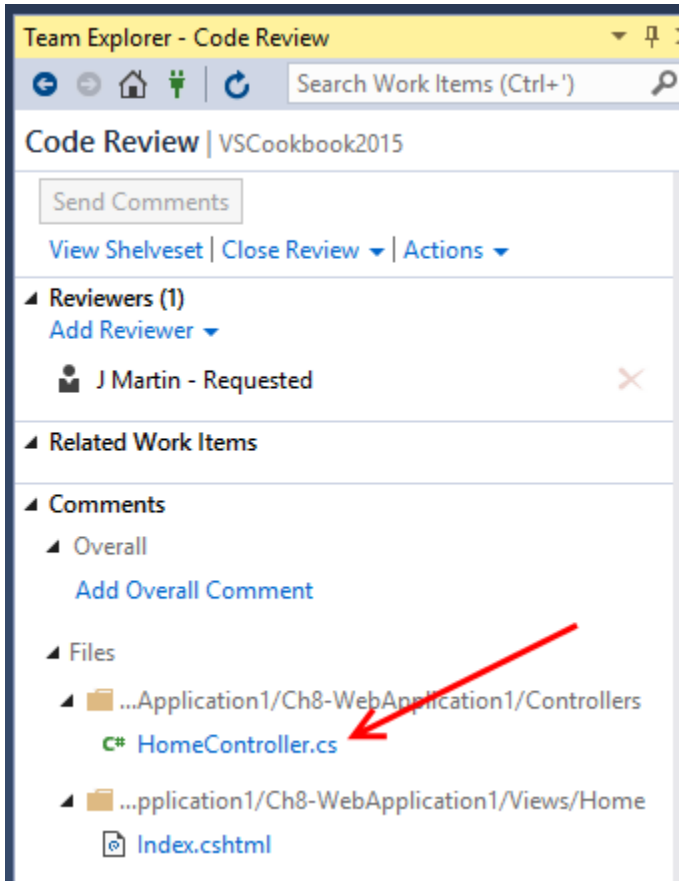

Team Explorer - Pending Changes
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
Check In
Shelve
Actions
Comment
Enter a check-in comment
Related Work Items
Included Changes (2)
Exclude All | View Options
C:\Users\jemar\Documents\Visual Studio 2015\Proje...
Controllers
HomeController.cs
Views\Home
Index.cshtml

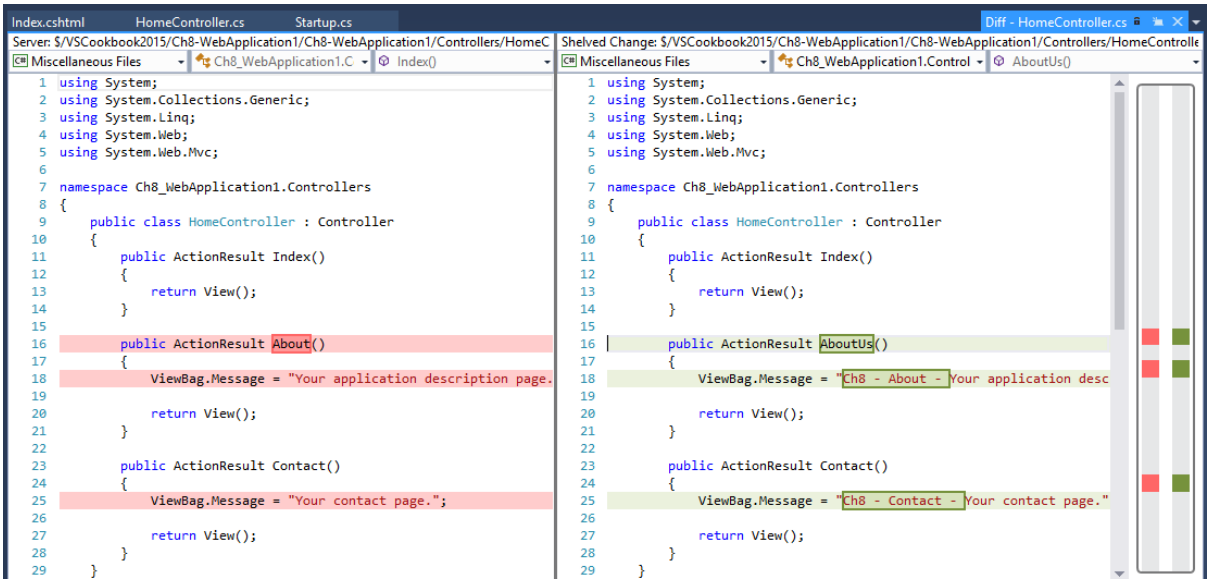

Team Explorer - Pending Changes
Notifications
Search Work Items (Ctrl+')
Pending Changes | VSCookbook2015
Check In
Shelve
Actions
Comment
Related Work Items
Included Changes (2)
Exclude All | View Option
Find Shelvesets
Resolve Conflicts
Undo All
Request Review
Manage Workspaces...
Open Source Control Explorer

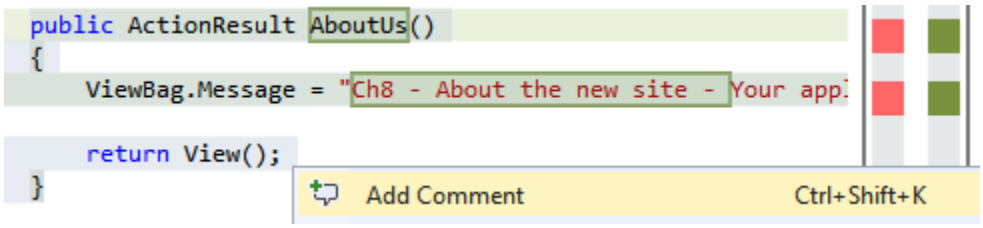

Team Explorer - New Code Review
Search Work Items (Ctrl+')
New Code Review | VSCookbook2015
2 edit(s) | View Changes
Select one or more reviewers to review your changes and enter a comment for them if appropriate
J Martin
Add Reviewer | Press Enter to add this reviewer
Take a look at this code.
VSCookbook2015
Enter a description (optional)
Submit Request
Cancel

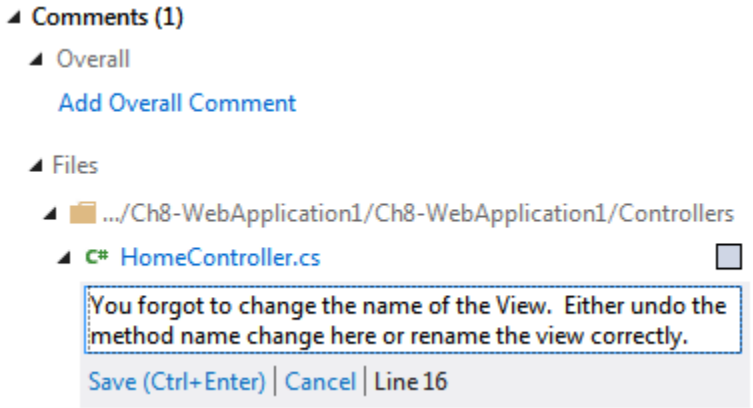

Code Reviews (1)
My Code Reviews & Requests | Open Query
13 - Take a look at this code.

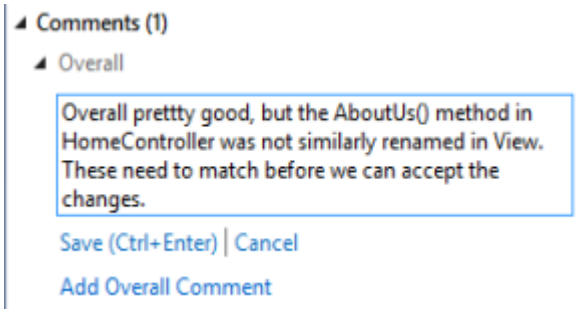

Code Reviews (1)
My Code Reviews & Requests | Open Query
13 - Take a look at this code.

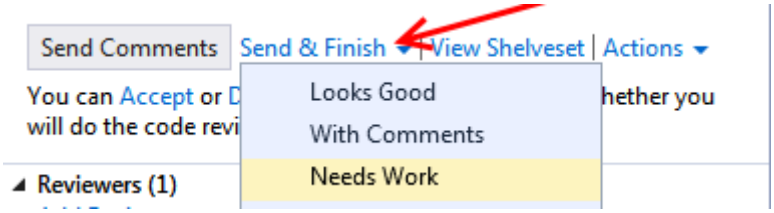

Team Explorer - Code Review
Search Work Items (Ctrl+')
Code Review | VSCookbook2015
Send Comments
View Shelveset | Close Review | Actions
Reviewers (1)
Add Reviewer
J Martin - Requested
Related Work Items
Comments
Overall
Add Overall Comment
Files
...Application1/Ch8-WebApplication1/Controllers
HomeController.cs
...pplication1/Ch8-WebApplication1/Views/Home
Index.cshtml

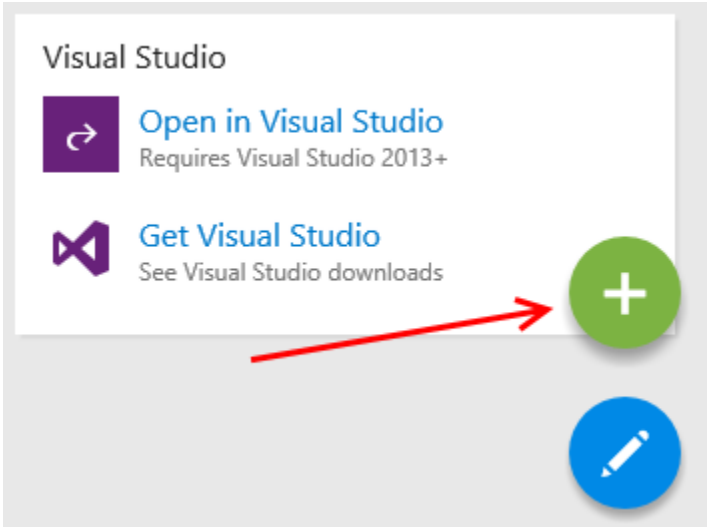

Index.cshtml
HomeController.cs
Startup.cs
Diff - HomeController.cs
Server: $/VSCookbook2015/Ch8-WebApplication1/Ch8-WebApplication1/Controllers/HomeC
Shelved Change: $/VSCookbook2015/Ch8-WebApplication1/Ch8-WebApplication1/Controllers/HomeControlle
Miscellaneous Files
Ch8_WebApplication1.C
Index()
Ch8_WebApplication1.Control
AboutUs()
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Mvc;
namespace Ch8_WebApplication1.Controllers
{
public class HomeController : Controller
{
public ActionResult Index()
{
return View();
}
public ActionResult About()
{
ViewBag.Message = "Your application description page.
return View();
}
public ActionResult Contact()
{
ViewBag.Message = "Your contact page.";
return View();
}
}
public ActionResult AboutUs()
{
ViewBag.Message = "Ch8 - About - Your application desc
ViewBag.Message = "Ch8 - Contact - Your contact page."


public ActionResult AboutUs()
{
ViewBag.Message = "Ch8 - About the new site - Your app
return View();
}
Add Comment
Ctrl+Shift+K


Comments (1)
Overall
Add Overall Comment
Files
.../Ch8-WebApplication1/Ch8-WebApplication1/Controllers
HomeController.cs
You forgot to change the name of the View. Either undo the method name change here or rename the view correctly.
Save (Ctrl+Enter) | Cancel | Line 16


Comments (1)
Overall
Overall prettty good, but the AboutUs() method in HomeController was not similarly renamed in View. These need to match before we can accept the changes.
Save (Ctrl+Enter) | Cancel
Add Overall Comment


Send Comments
Send & Finish
View Shelveset
Actions
You can Accept or D
will do the code revi
hether you
Looks Good
With Comments
Needs Work
Reviewers (1)


Visual Studio
Open in Visual Studio
Requires Visual Studio 2013+
Get Visual Studio
See Visual Studio downloads

# Add Widget

Other

## Other Links

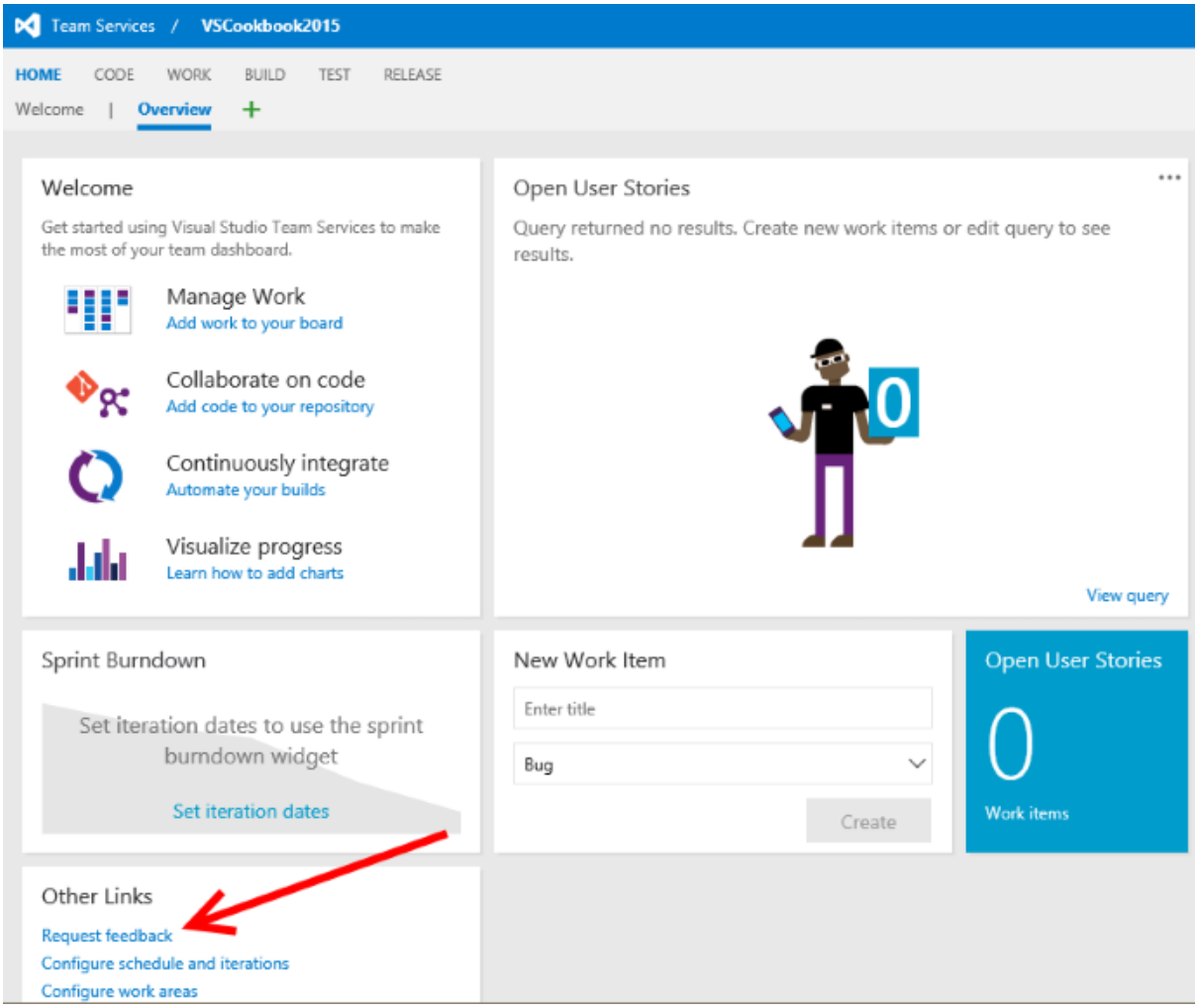
Adds a quick link to Feedback Client. Admins can configure iterations and work areas.

By Microsoft

Learn More

Don't see a widget? Explore the Extension Gallery

Add Close




1

**Select Stakeholders**

The people you select will receive an email request that includes a link to launch Microsoft Feedback Client, the tool stakeholders use to provide feedback.

2

**Tell Stakeholders How to Access the Application**

Microsoft Feedback Client will display a link to launch the specified application and your exact instructions, which might include login credentials, specific navigations steps to follow, or general context of the application to review.

◉ Web Application ○ Remote Machine ○ Client Application

www.packtpub.com

3

**Tell Stakeholders How to Focus Their Feedback**

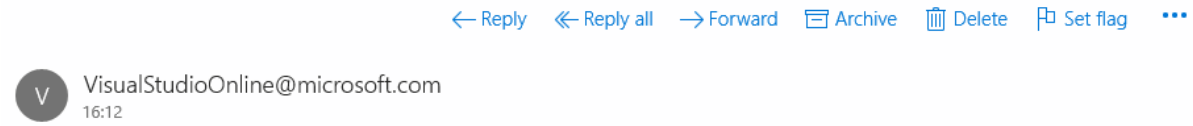
Scope the feedback request to only the areas of the product you care about. You can request feedback on one to five items.

Item: 1

Look for cookbooks of interest

B I U

+ Add feedback item




V VisualStudioOnline@microsoft.com
16:12

**Jeff Martin is inviting you to provide feedback on team project VSCookbook2015**
To: @hotmail.com

We want your feedback for the following items:

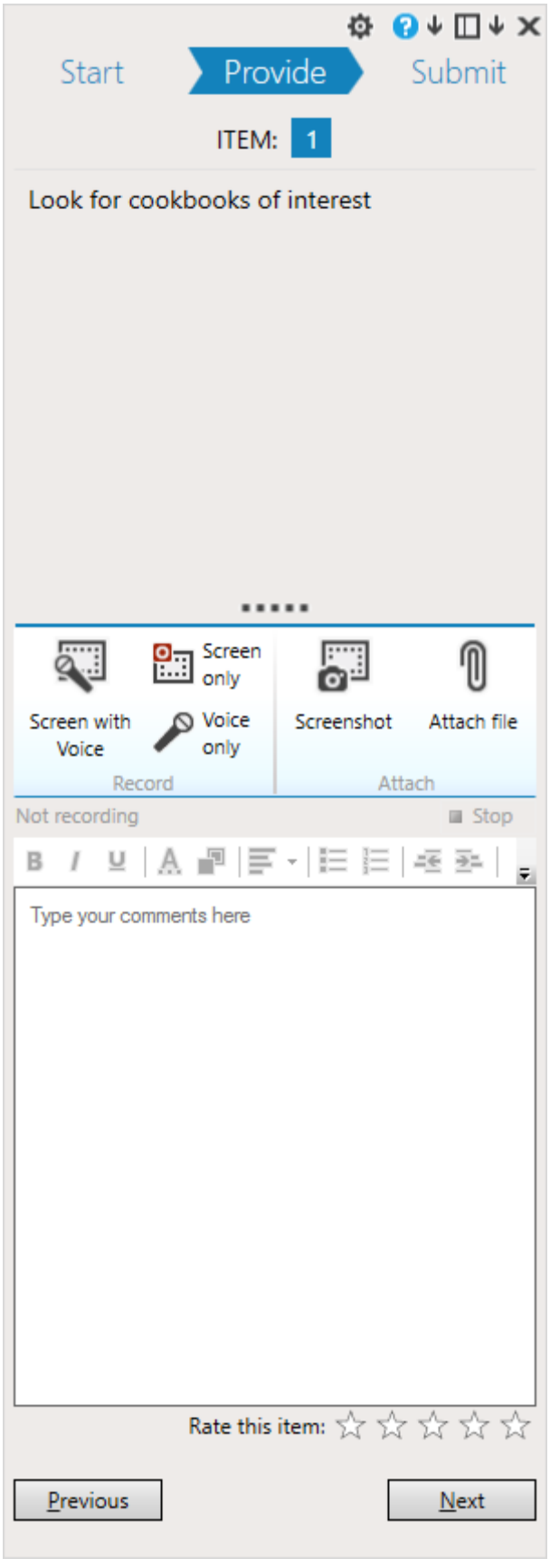
1. Look for cookbooks of interest

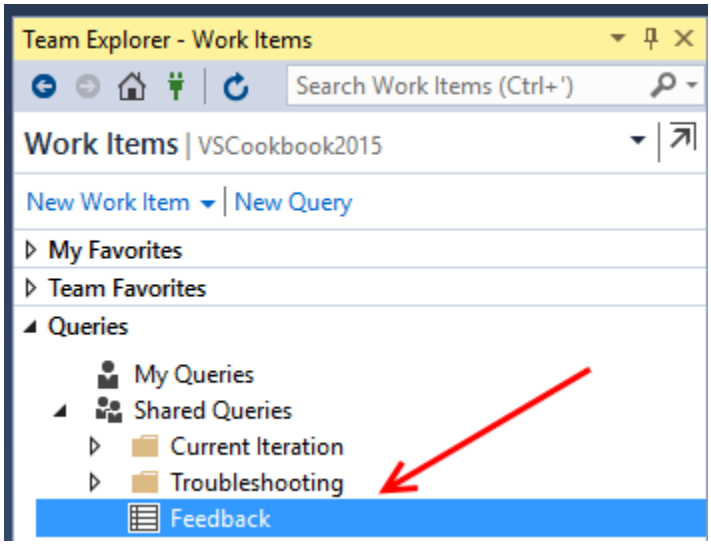
Start your feedback session

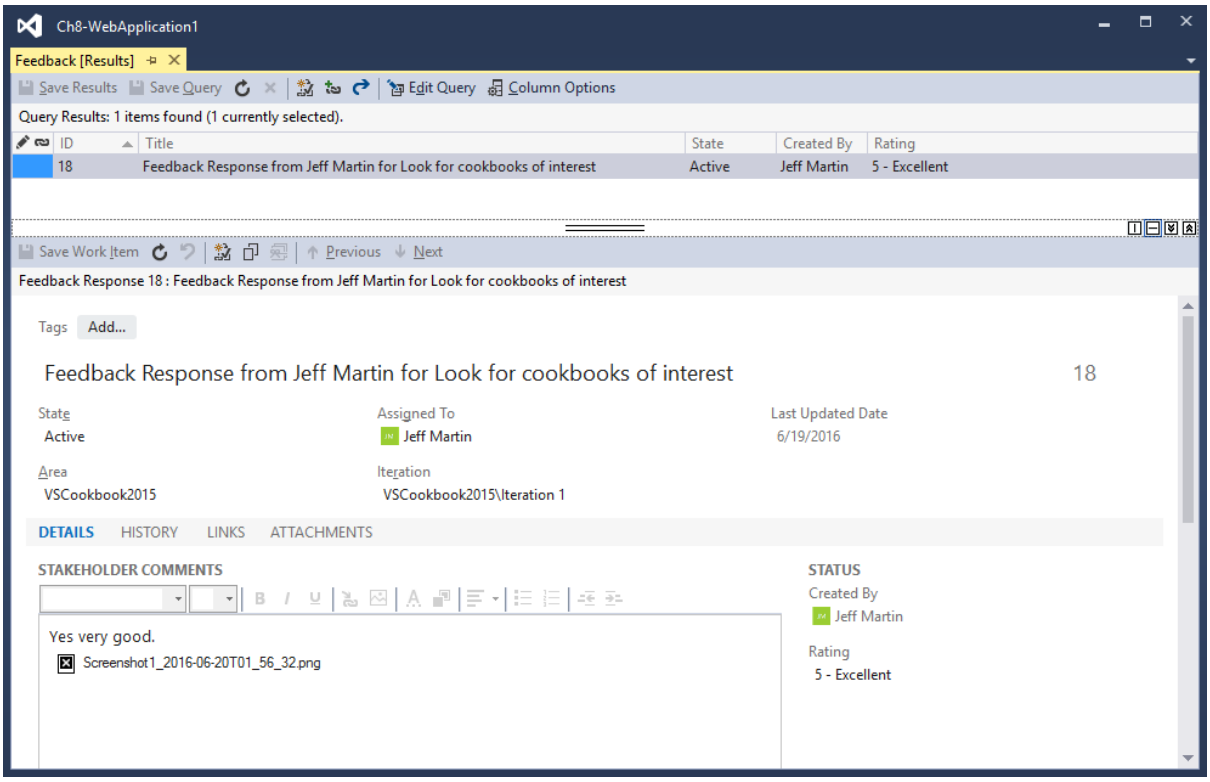
If the feedback tool is not already installed on your machine, install the feedback tool

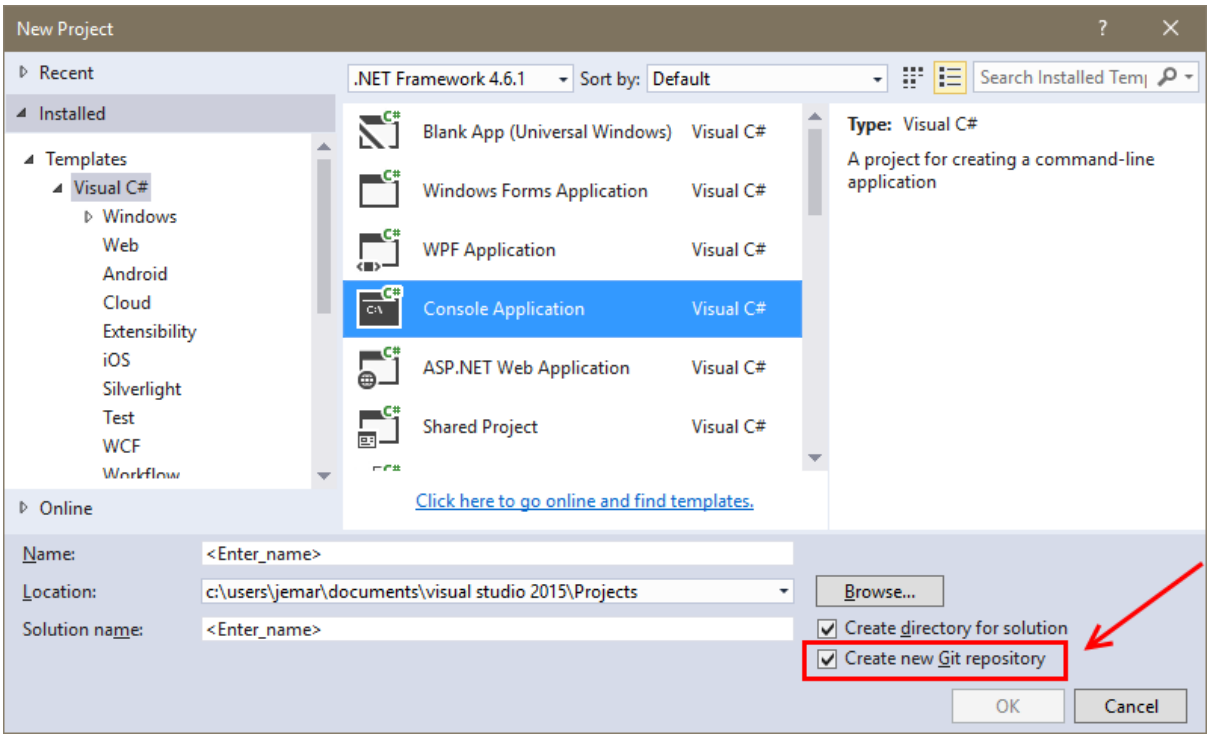
Thanks,
Jeff Martin

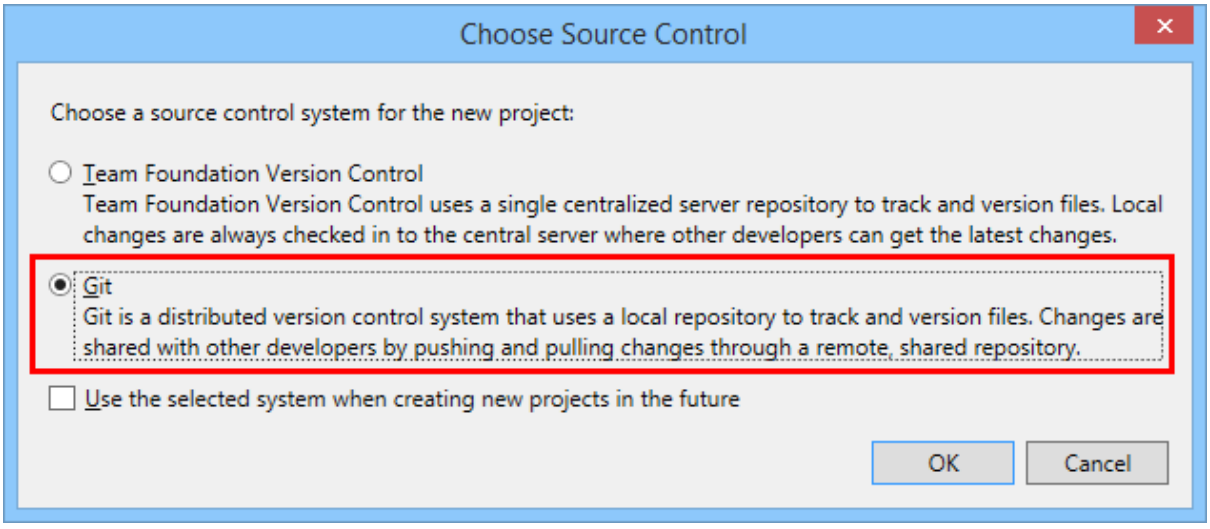
*If clicking the "Start your feedback session" link fails to launch the feedback session, copy the following URL* mfbclients:// samplesite .visualstudio.com/DefaultCollection/p:VSCookbook2015?rid=17 *and paste it into a browser address bar to start the session.*

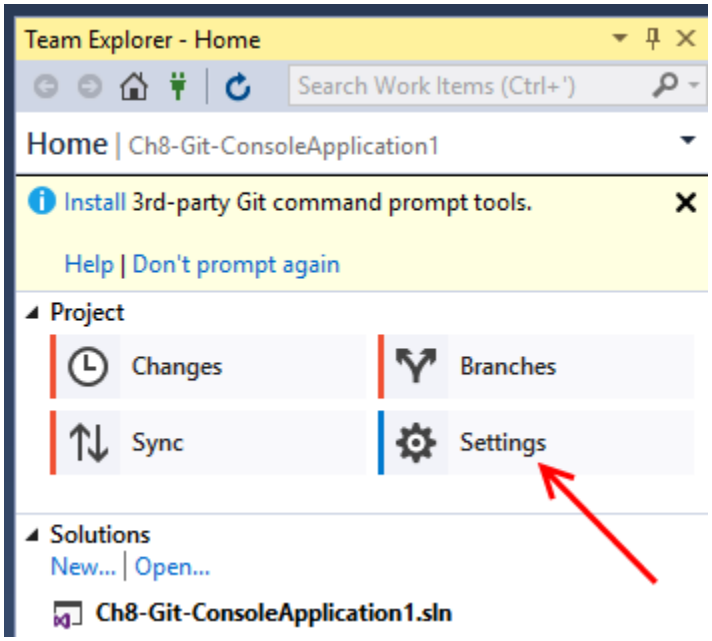

Start
Provide
Submit
ITEM: 1
Look for cookbooks of interest
Screen with Voice
Screen only
Voice only
Record
Screenshot
Attach file
Attach
Not recording
Stop
Type your comments here
Rate this item:
Previous
Next

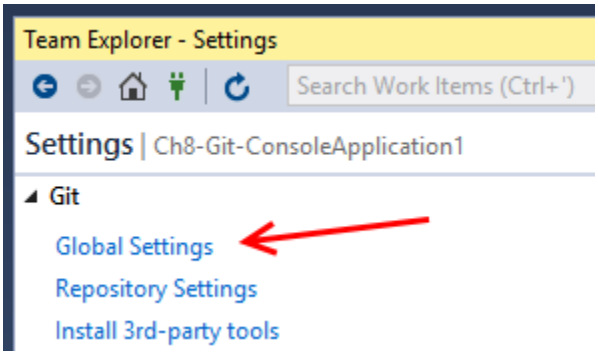

Team Explorer - Work Items
Search Work Items (Ctrl+')
Work Items | VSCookbook2015
New Work Item | New Query
My Favorites
Team Favorites
Queries
My Queries
Shared Queries
Current Iteration
Troubleshooting
Feedback

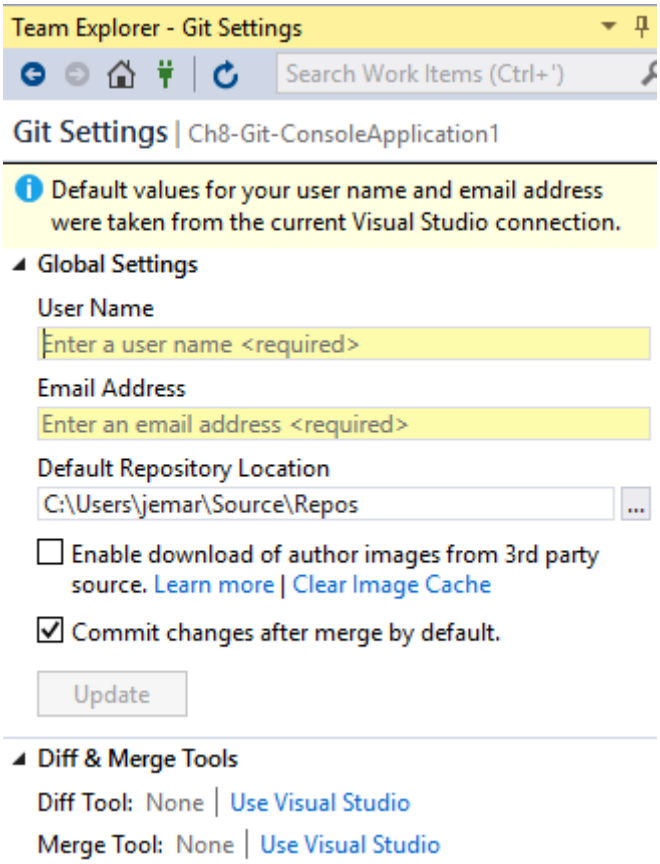

Ch8-WebApplication1
Feedback [Results]
Save Results
Save Query
Edit Query
Column Options
Query Results: 1 items found (1 currently selected).
ID
Title
State
Created By
Rating
18
Feedback Response from Jeff Martin for Look for cookbooks of interest
Active
Jeff Martin
5 - Excellent
Save Work Item
Previous
Next
Feedback Response 18 : Feedback Response from Jeff Martin for Look for cookbooks of interest
Tags
Add...
Feedback Response from Jeff Martin for Look for cookbooks of interest
18
State
Active
Assigned To
Jeff Martin
Last Updated Date
6/19/2016
Area
VSCookbook2015
Iteration
VSCookbook2015\Iteration 1
DETAILS
HISTORY
LINKS
ATTACHMENTS
STAKEHOLDER COMMENTS
Yes very good.
Screenshot1_2016-06-20T01_56_32.png
STATUS
Created By
Jeff Martin
Rating
5 - Excellent

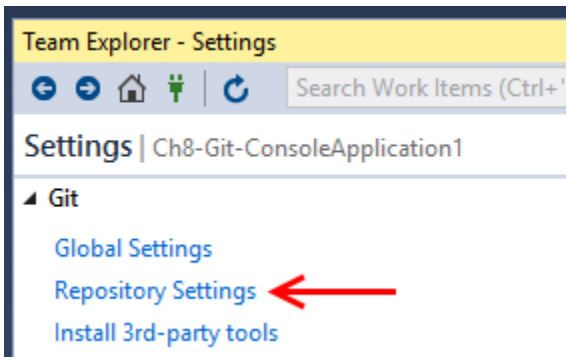

New Project
Recent
Installed
Templates
Visual C#
Windows
Web
Android
Cloud
Extensibility
iOS
Silverlight
Test
WCF
Workflow
Online
.NET Framework 4.6.1
Sort by: Default
Search Installed Tem
Blank App (Universal Windows) Visual C#
Windows Forms Application Visual C#
WPF Application Visual C#
Console Application Visual C#
ASP.NET Web Application Visual C#
Shared Project Visual C#
Click here to go online and find templates.
Type: Visual C#
A project for creating a command-line application
Name: <Enter_name>
Location: c:\users\jemar\documents\visual studio 2015\Projects
Solution name: <Enter_name>
Browse...
Create directory for solution
Create new Git repository
OK
Cancel

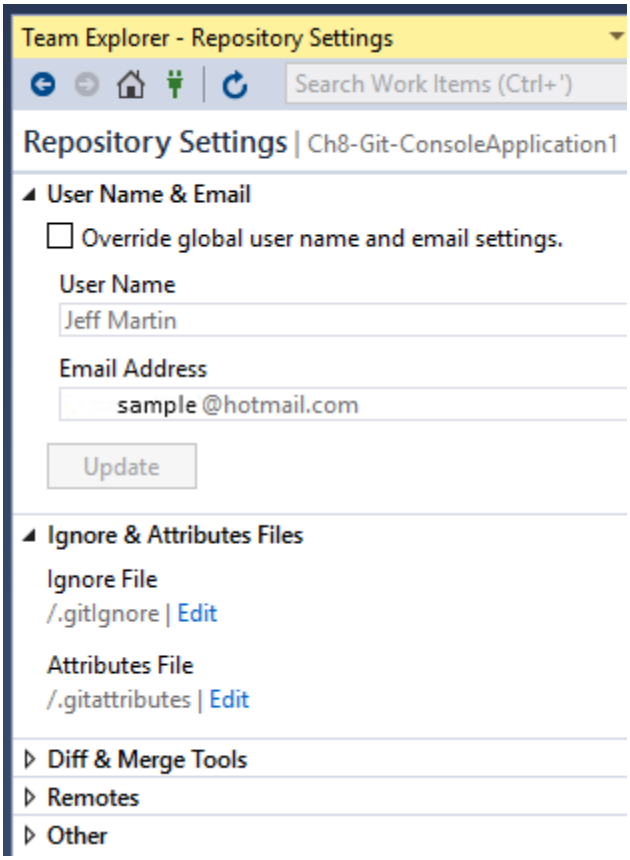

Choose Source Control
Choose a source control system for the new project:
Team Foundation Version Control
Team Foundation Version Control uses a single centralized server repository to track and version files. Local changes are always checked in to the central server where other developers can get the latest changes.
Git
Git is a distributed version control system that uses a local repository to track and version files. Changes are shared with other developers by pushing and pulling changes through a remote, shared repository.
Use the selected system when creating new projects in the future
OK
Cancel

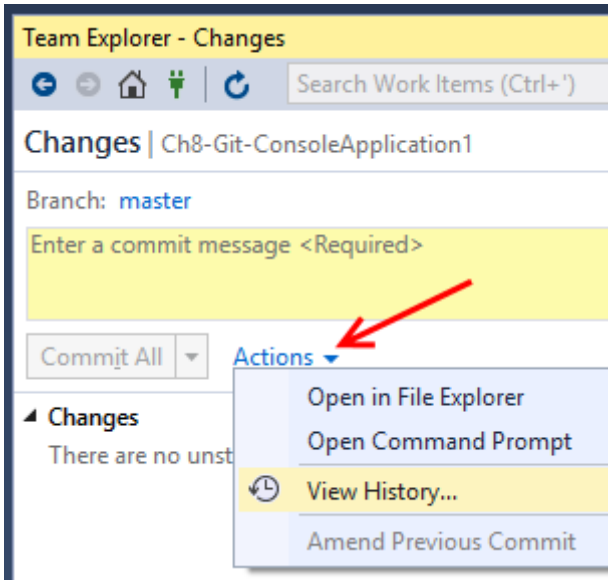

Team Explorer - Home
Search Work Items (Ctrl+')
Home | Ch8-Git-ConsoleApplication1
Install 3rd-party Git command prompt tools.
Help | Don't prompt again
Project
Changes
Branches
Sync
Settings
Solutions
New... | Open...
Ch8-Git-ConsoleApplication1.sln

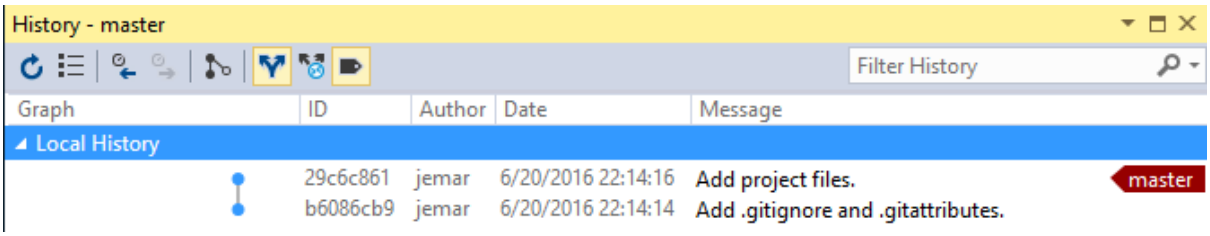

Team Explorer - Settings
Search Work Items (Ctrl+')
Settings | Ch8-Git-ConsoleApplication1
Git
Global Settings
Repository Settings
Install 3rd-party tools

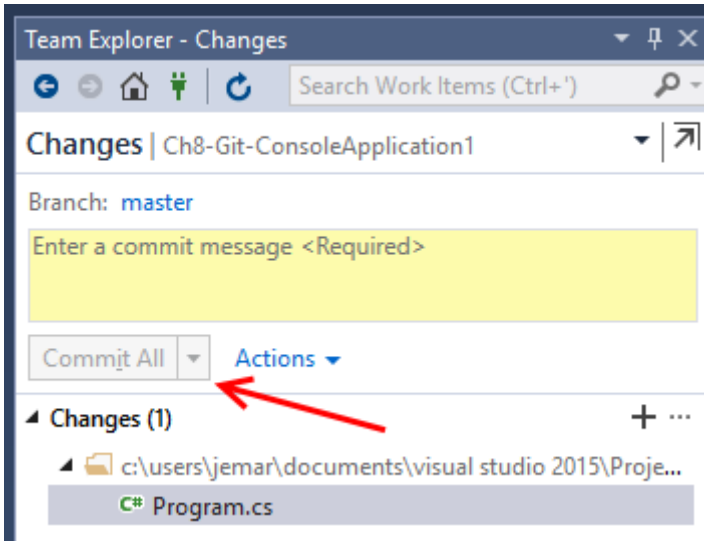

Team Explorer - Git Settings
Search Work Items (Ctrl+')
Git Settings | Ch8-Git-ConsoleApplication1
Default values for your user name and email address were taken from the current Visual Studio connection.
Global Settings
User Name
Enter a user name <required>
Email Address
Enter an email address <required>
Default Repository Location
C:\Users\jemar\Source\Repos
Enable download of author images from 3rd party source. Learn more | Clear Image Cache
Commit changes after merge by default.
Update
Diff & Merge Tools
Diff Tool: None | Use Visual Studio
Merge Tool: None | Use Visual Studio

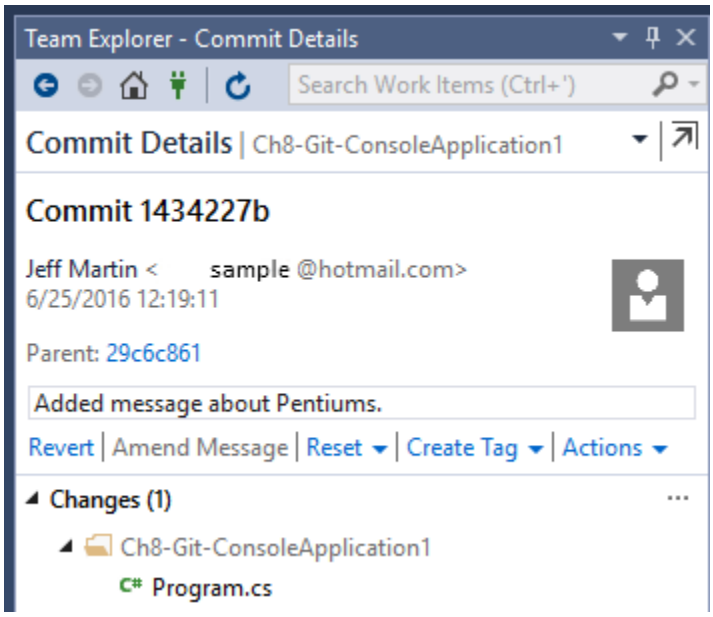

Team Explorer - Settings
Search Work Items (Ctrl+'
Settings | Ch8-Git-ConsoleApplication1
Git
Global Settings
Repository Settings
Install 3rd-party tools

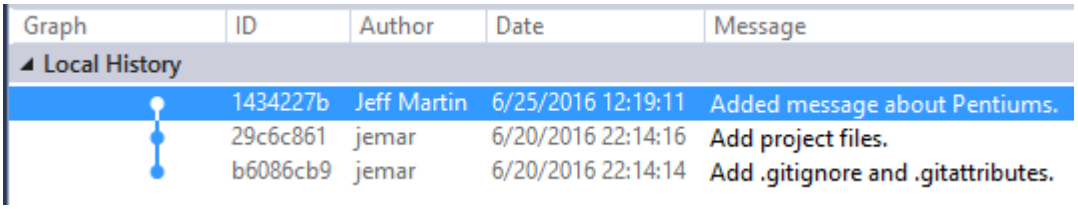

Team Explorer - Repository Settings
Search Work Items (Ctrl+')
Repository Settings | Ch8-Git-ConsoleApplication1
User Name & Email
Override global user name and email settings.
User Name
Jeff Martin
Email Address
sample @hotmail.com
Update
Ignore & Attributes Files
Ignore File
/.gitIgnore | Edit
Attributes File
/.gitattributes | Edit
Diff & Merge Tools
Remotes
Other

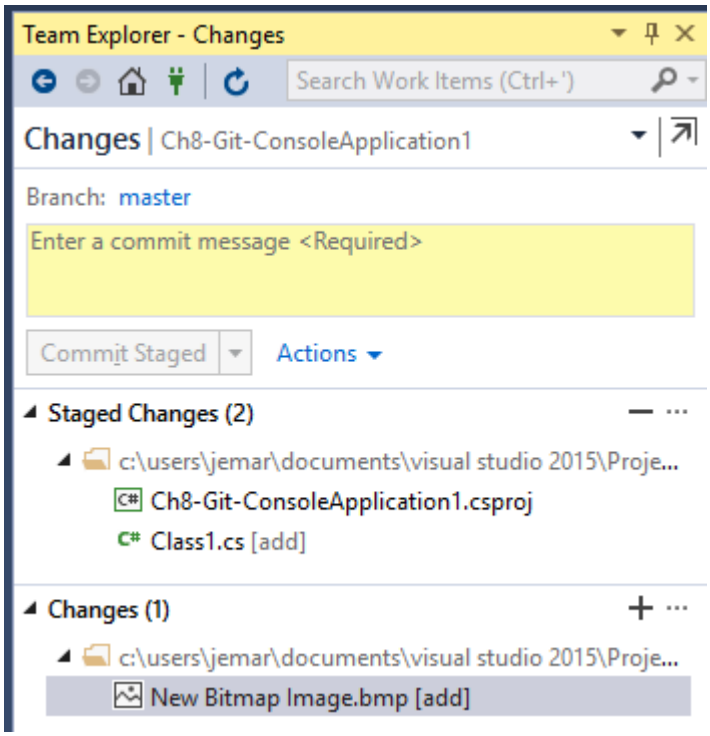

Team Explorer - Changes
Search Work Items (Ctrl+')
Changes | Ch8-Git-ConsoleApplication1
Branch: master
Enter a commit message <Required>
Commit All
Actions
Changes
There are no unst
Open in File Explorer
Open Command Prompt
View History...
Amend Previous Commit

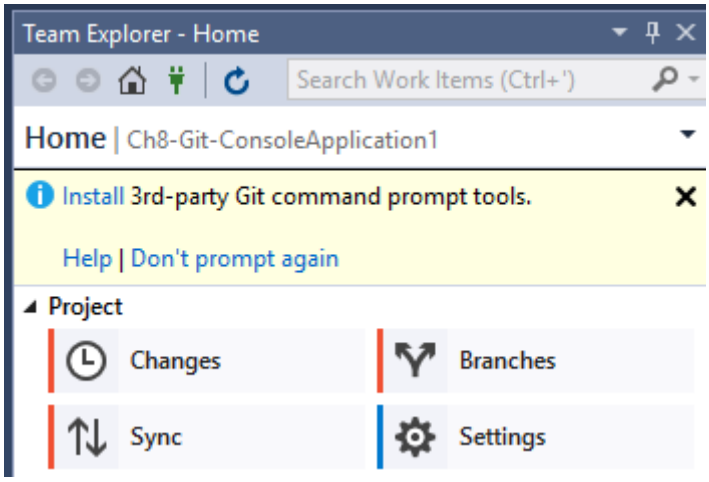

History - master
Filter History
Graph
ID
Author
Date
Message
Local History
29c6c861 jemar 6/20/2016 22:14:16 Add project files. master
b6086cb9 jemar 6/20/2016 22:14:14 Add .gitignore and .gitattributes.

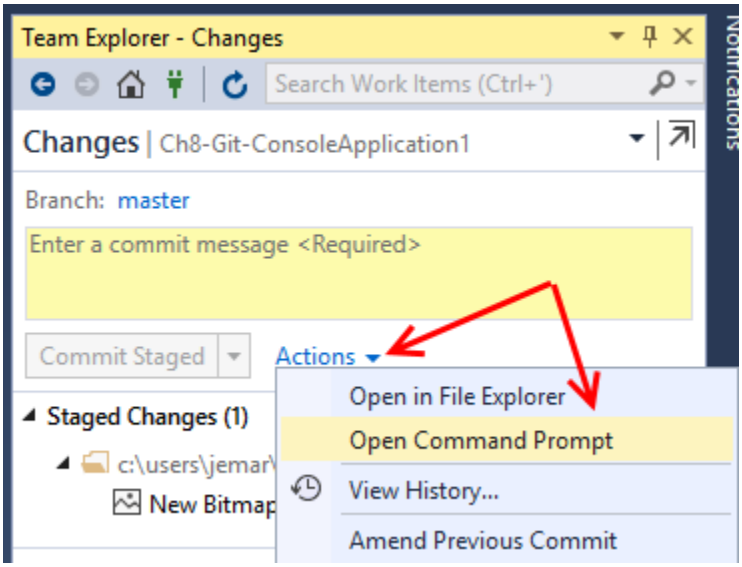

Team Explorer - Changes
Search Work Items (Ctrl+')
Changes | Ch8-Git-ConsoleApplication1
Branch: master
Enter a commit message <Required>
Commit All
Actions
Changes (1)
c:\users\jemar\documents\visual studio 2015\Proje...
Program.cs

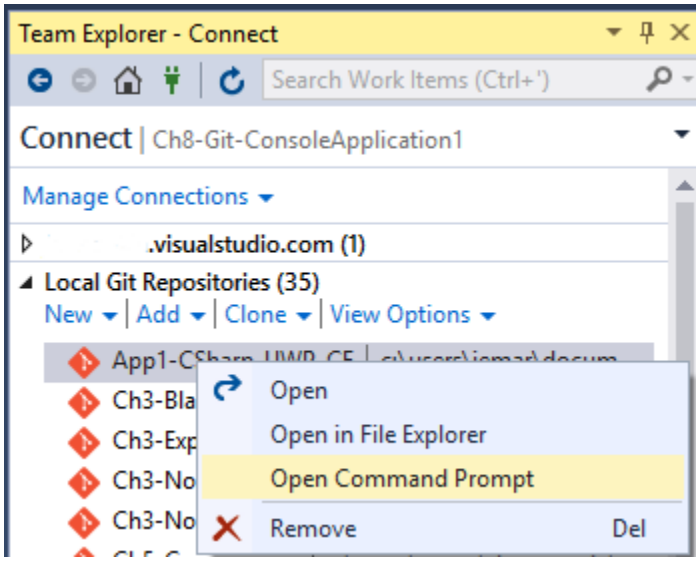

Team Explorer - Commit Details
Search Work Items (Ctrl+')
Commit Details | Ch8-Git-ConsoleApplication1
Commit 1434227b
Jeff Martin < sample @hotmail.com>
6/25/2016 12:19:11
Parent: 29c6c861
Added message about Pentiums.
Revert | Amend Message | Reset | Create Tag | Actions
Changes (1)
Ch8-Git-ConsoleApplication1
Program.cs


Graph
ID
Author
Date
Message
Local History
1434227b
Jeff Martin
6/25/2016 12:19:11
Added message about Pentiums.
29c6c861
jemar
6/20/2016 22:14:16
Add project files.
b6086cb9
jemar
6/20/2016 22:14:14
Add .gitignore and .gitattributes.

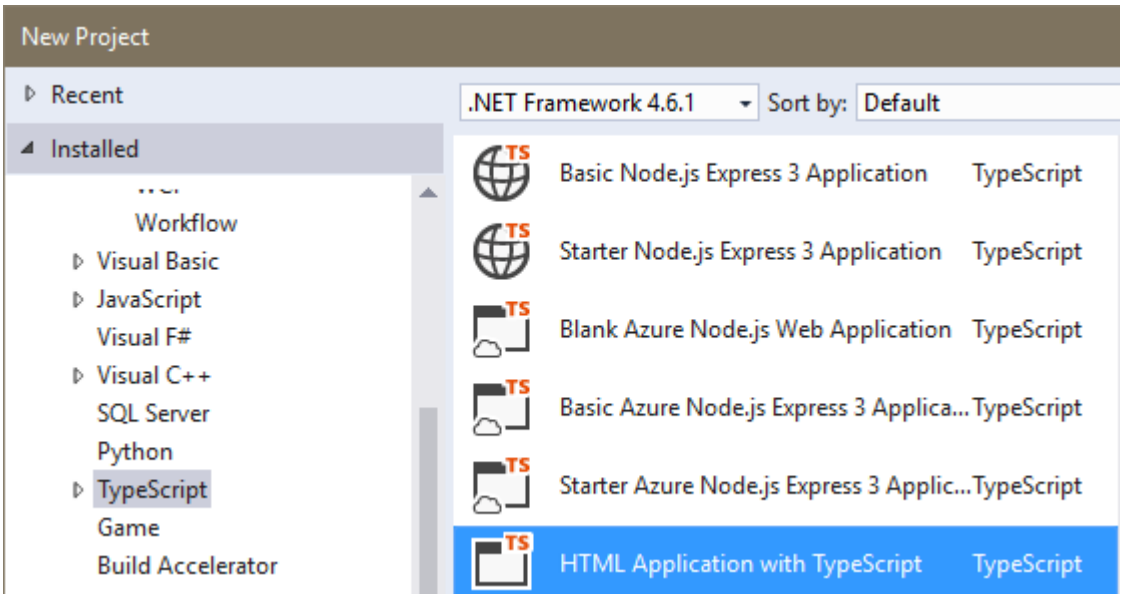

Team Explorer - Changes
Search Work Items (Ctrl+')
Changes | Ch8-Git-ConsoleApplication1
Branch: master
Enter a commit message <Required>
Commit Staged
Actions
Staged Changes (2)
c:\users\jemar\documents\visual studio 2015\Proje...
Ch8-Git-ConsoleApplication1.csproj
Class1.cs [add]
Changes (1)
c:\users\jemar\documents\visual studio 2015\Proje...
New Bitmap Image.bmp [add]


Team Explorer - Home
Search Work Items (Ctrl+')
Home | Ch8-Git-ConsoleApplication1
Install 3rd-party Git command prompt tools.
Help | Don't prompt again
Project
Changes
Branches
Sync
Settings

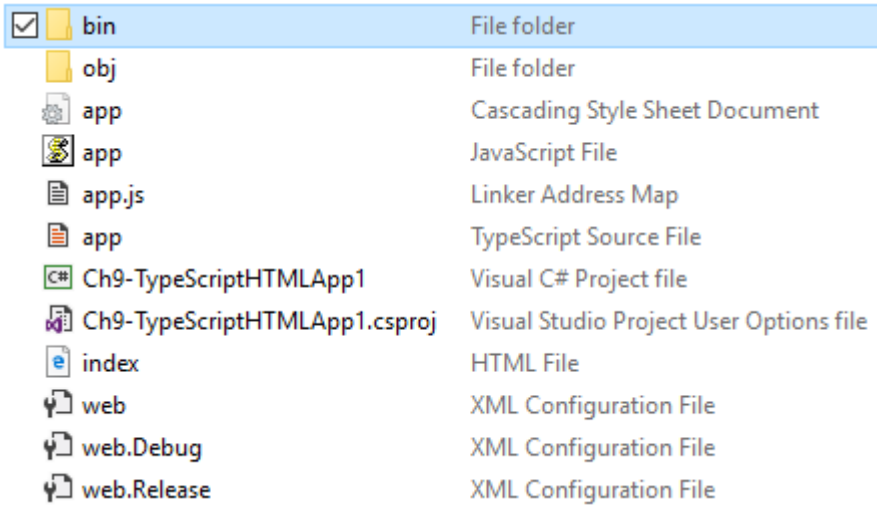

Team Explorer - Changes
Search Work Items (Ctrl+')
Changes | Ch8-Git-ConsoleApplication1
Branch: master
Enter a commit message <Required>
Commit Staged
Actions
Staged Changes (1)
c:\users\jemar
New Bitmap
Open in File Explorer
Open Command Prompt
View History...
Amend Previous Commit
Notifications

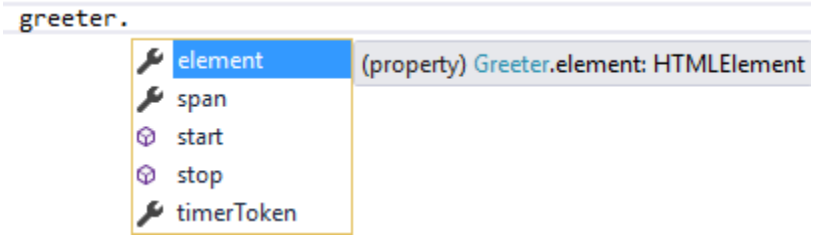

Team Explorer - Connect
Search Work Items (Ctrl+')
Connect | Ch8-Git-ConsoleApplication1
Manage Connections
.visualstudio.com (1)
Local Git Repositories (35)
New | Add | Clone | View Options
Ch3-Bla
Ch3-Exp
Ch3-No
Ch3-No
Open
Open in File Explorer
Open Command Prompt
Remove
Del

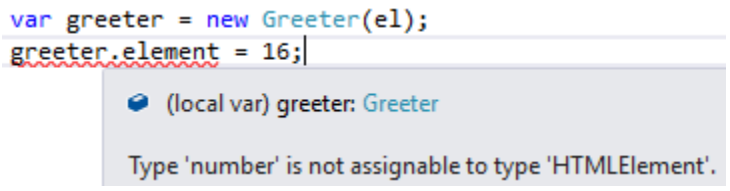
# Chapter 9: Languages



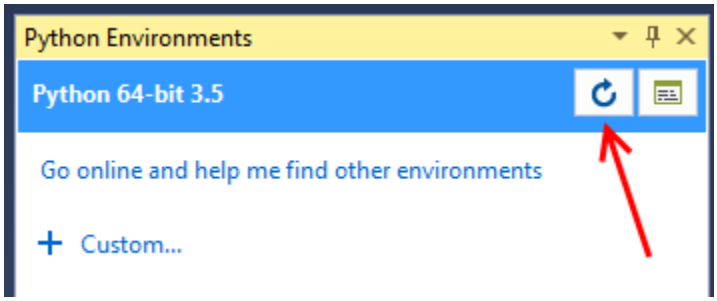

```
<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="utf-8" />
    <title>TypeScript HTML App</title>
    <link rel="stylesheet" href="app.css" type="text/css" />
    <script src="app.js"></script>
</head>
<body>
    <h1>TypeScript HTML App</h1>

    <div id="content"></div>
</body>
</html>
```

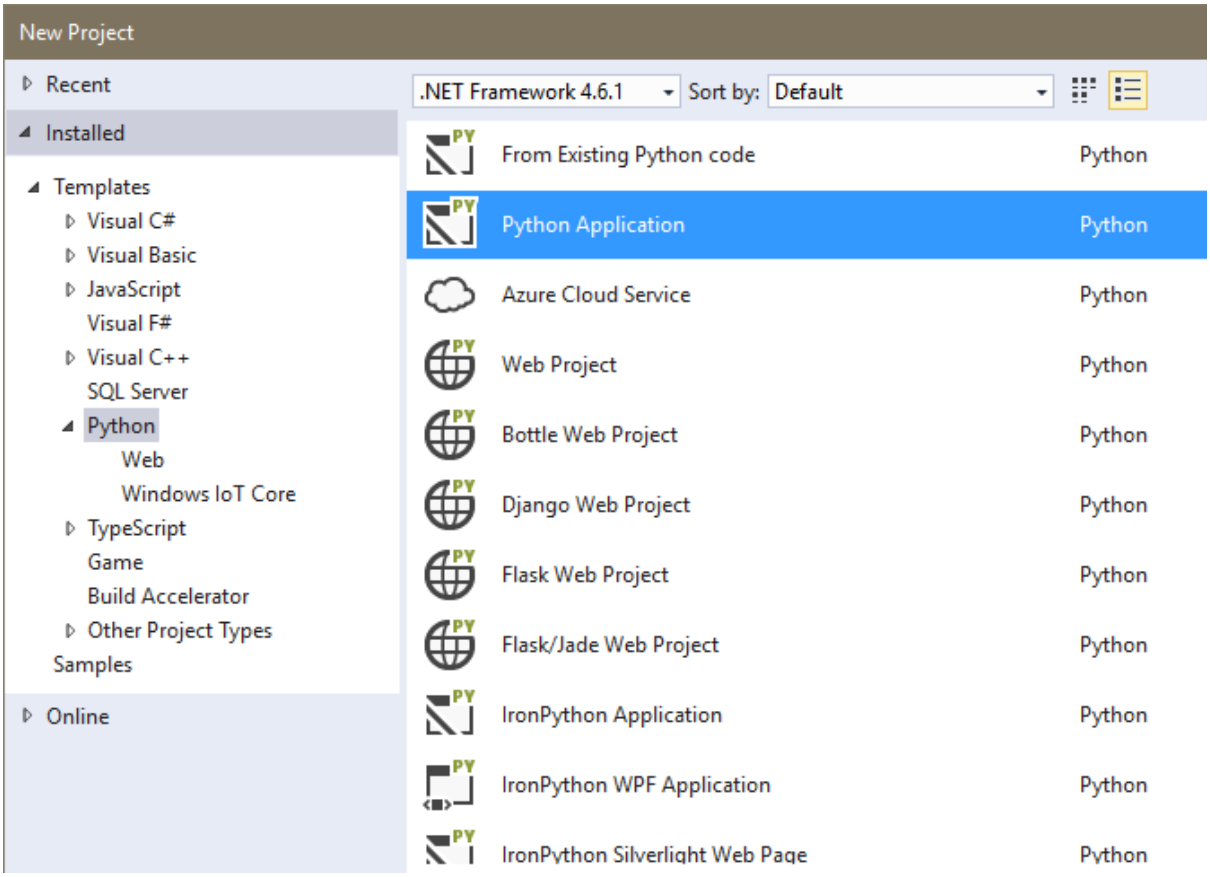


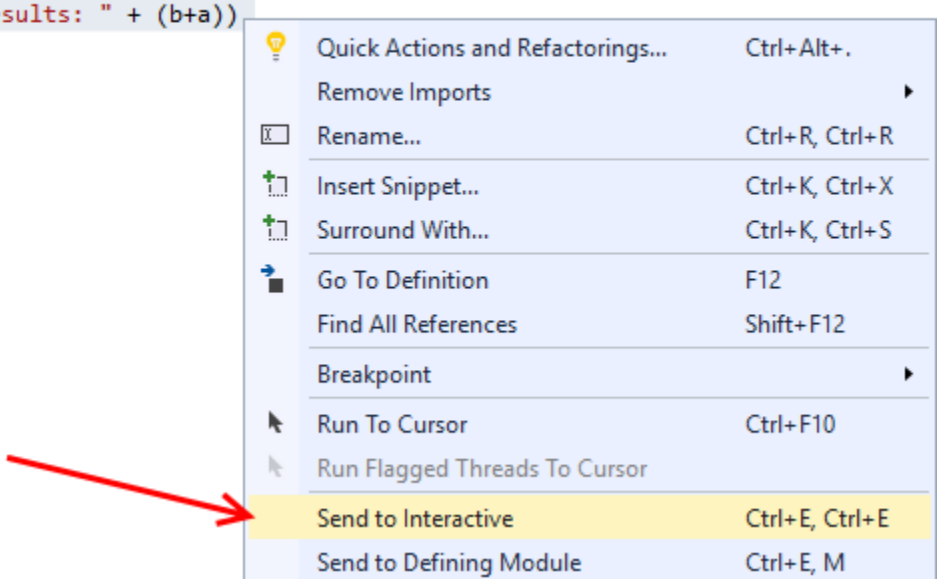



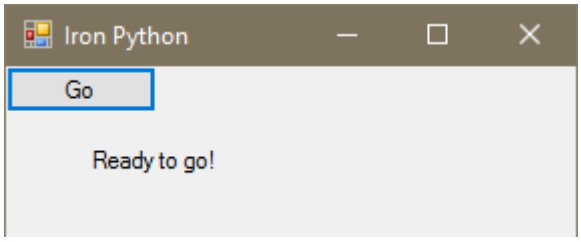

```
var el = document.getElementById('content');
var greeter = new Greeter(el);
greeter.start();
```

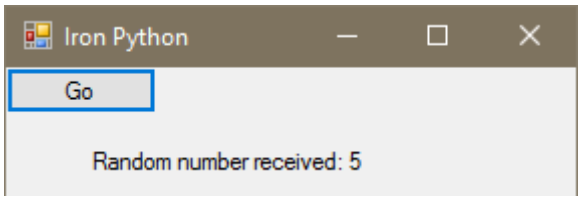

Python Environments
Python 64-bit 3.5
Go online and help me find other environments
Custom...

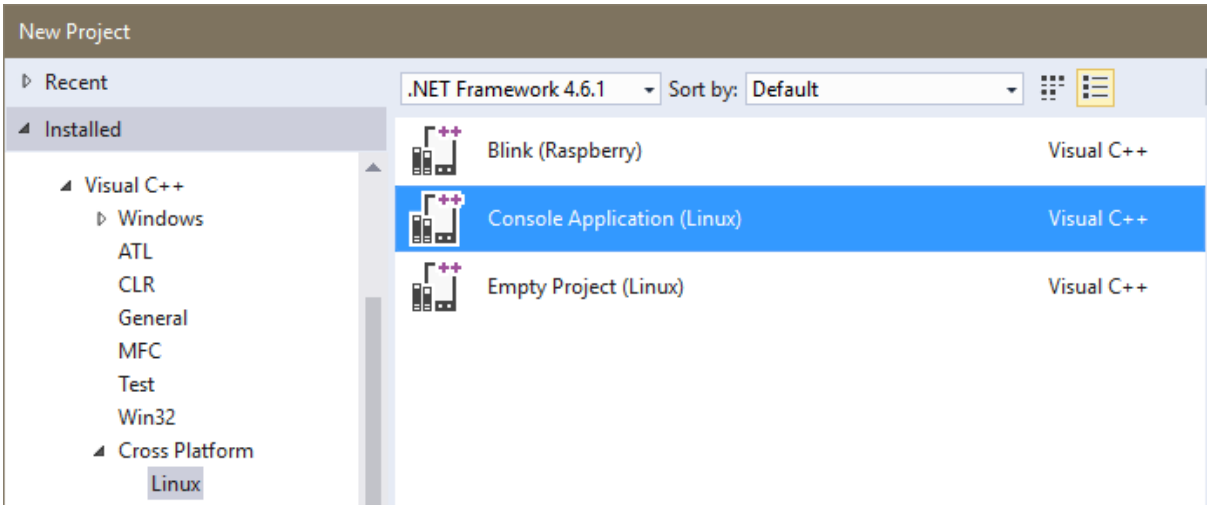

New Project
Recent
Installed
Templates
Visual C#
Visual Basic
JavaScript
Visual F#
Visual C++
SQL Server
Python
Web
Windows IoT Core
TypeScript
Game
Build Accelerator
Other Project Types
Samples
Online
.NET Framework 4.6.1
Sort by:
Default
From Existing Python code
Python
Python Application
Python
Azure Cloud Service
Python
Web Project
Python
Bottle Web Project
Python
Django Web Project
Python
Flask Web Project
Python
Flask/Jade Web Project
Python
IronPython Application
Python
IronPython WPF Application
Python
IronPython Silverlight Web Page
Python

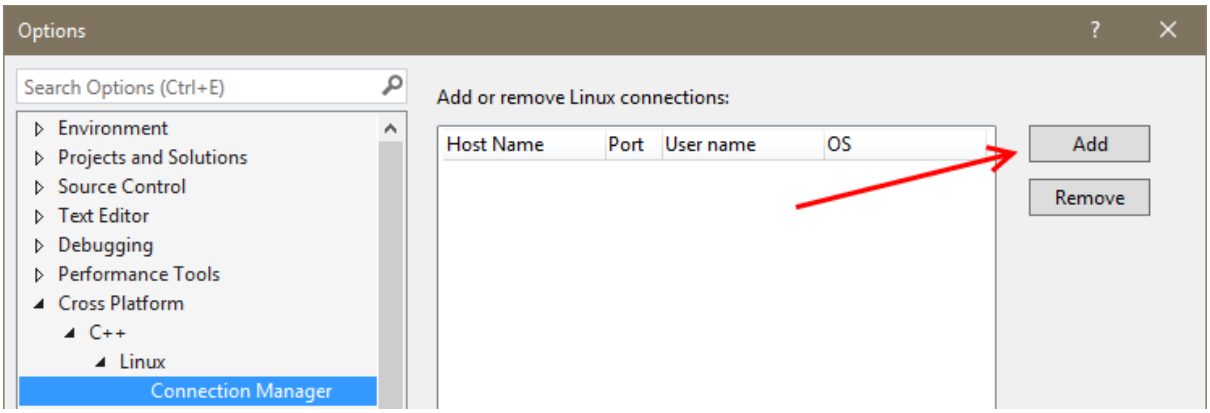
```
print('Hello World')
a=32
b=64
print("Results: " + (b+a))
```




Iron Python
Go
Random number received: 5


New Project
Recent
Installed
Visual C++
Windows
ATL
CLR
General
MFC
Test
Win32
Cross Platform
Linux
.NET Framework 4.6.1
Sort by:
Default
Blink (Raspberry)
Visual C++
Console Application (Linux)
Visual C++
Empty Project (Linux)
Visual C++


Options
Search Options (Ctrl+E)
Environment
Projects and Solutions
Source Control
Text Editor
Debugging
Performance Tools
Cross Platform
C++
Linux
Connection Manager
Add or remove Linux connections:
Host Name
Port
User name
OS
Add
Remove

# Connect to Linux

This project uses remote builds, and a remote machine is required to host the builds and debug. Please enter the remote machine details below.

Host name:

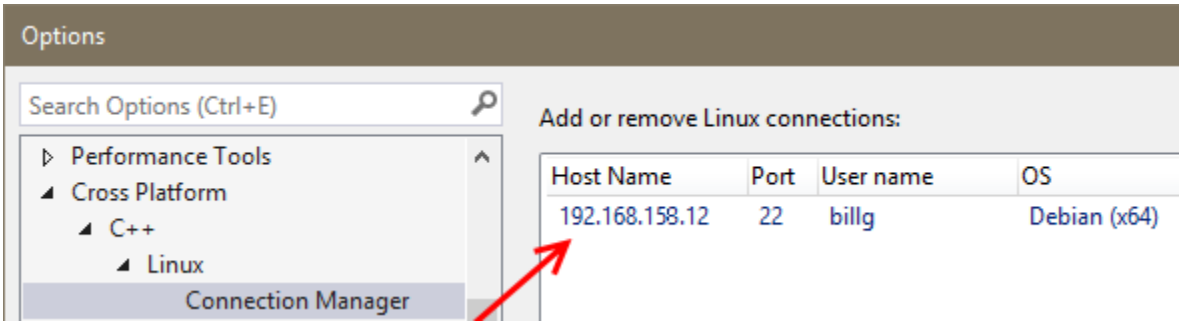
Port: 22

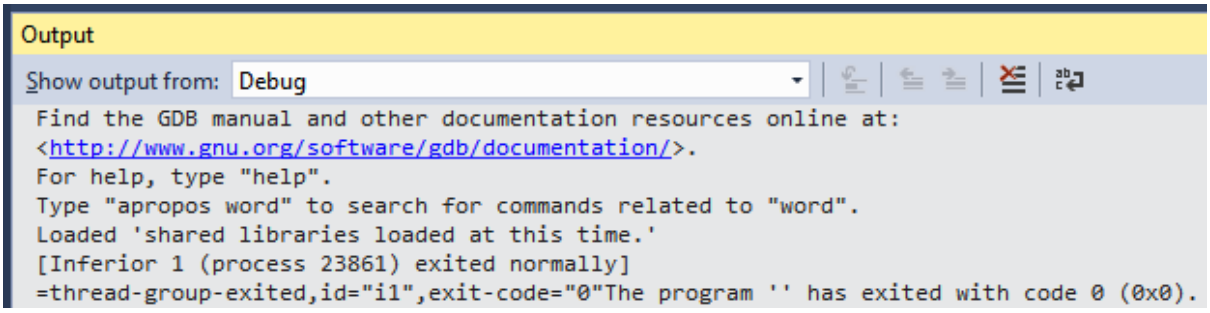
User name:

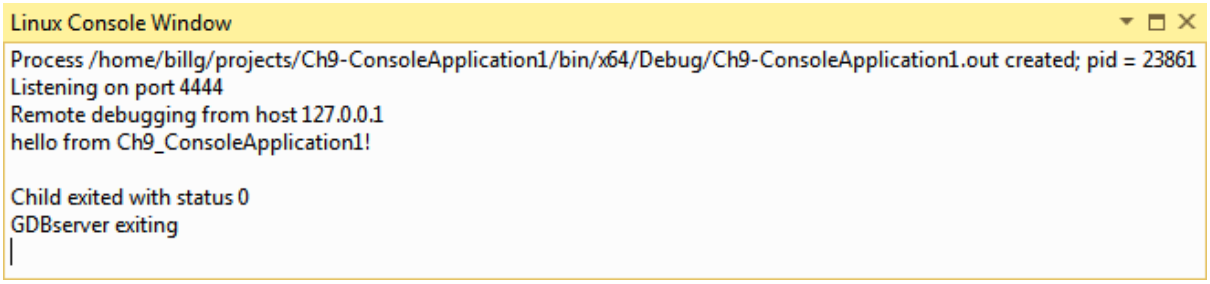
Authentication type: Password

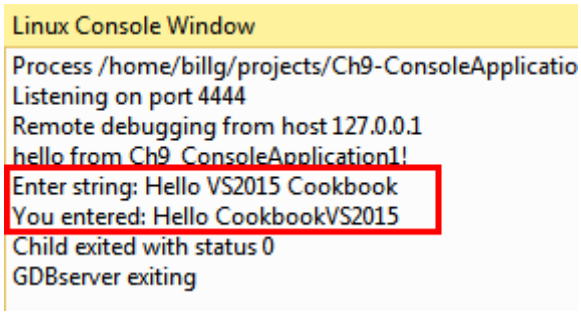
Password:

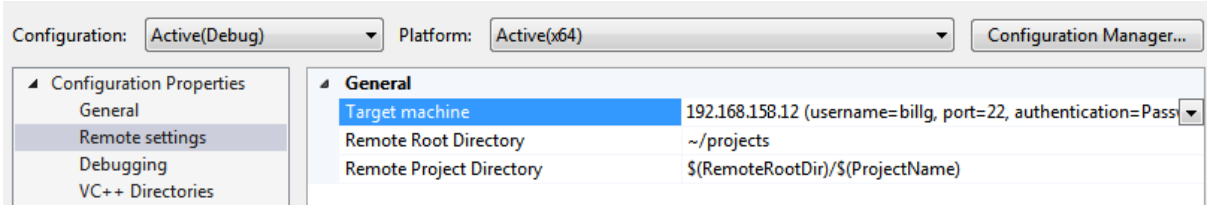
Connect Cancel



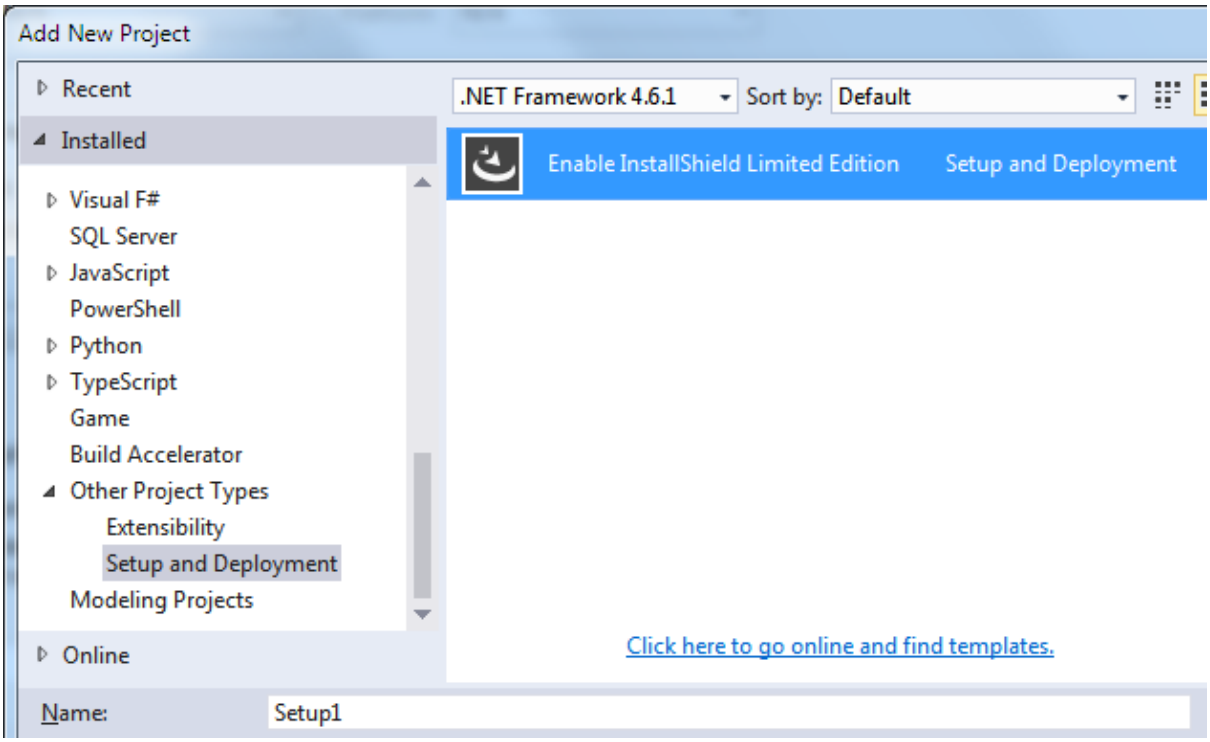

Output
Show output from: Debug
Find the GDB manual and other documentation resources online at:
<http://www.gnu.org/software/gdb/documentation/>.
For help, type "help".
Type "apropos word" to search for commands related to "word".
Loaded 'shared libraries loaded at this time.'
[Inferior 1 (process 23861) exited normally]
=thread-group-exited,id="i1",exit-code="0"The program '' has exited with code 0 (0x0).

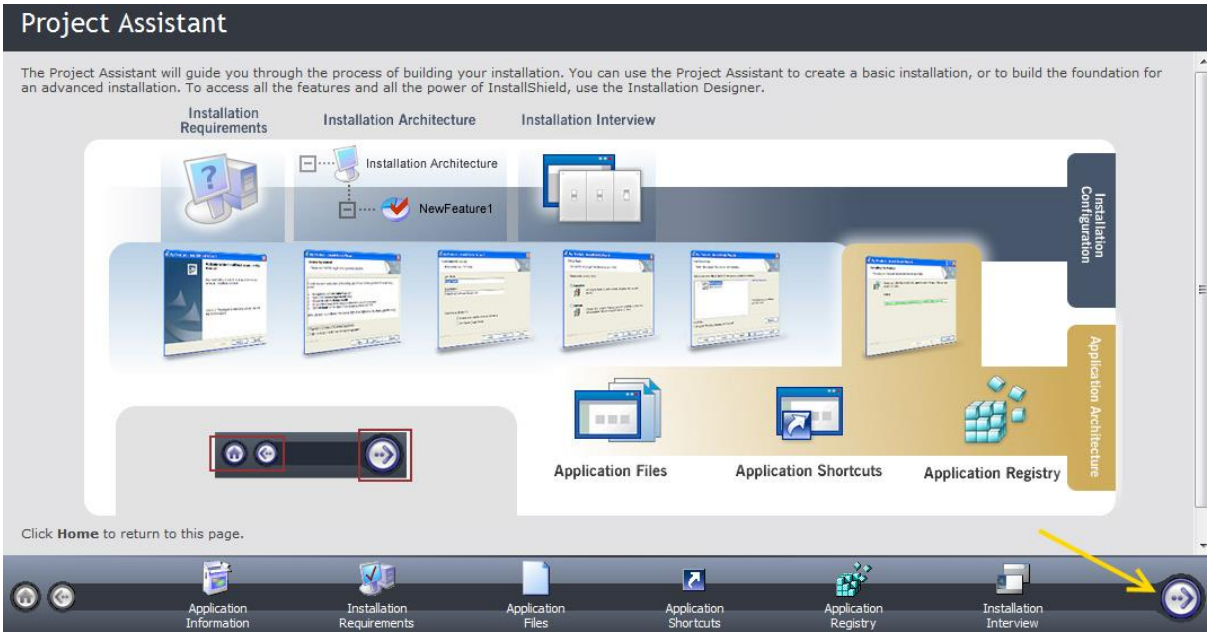

Linux Console Window
Process /home/billg/projects/Ch9-ConsoleApplication1/bin/x64/Debug/Ch9-ConsoleApplication1.out created; pid = 23861
Listening on port 4444
Remote debugging from host 127.0.0.1
hello from Ch9_ConsoleApplication1!
Child exited with status 0
GDBserver exiting

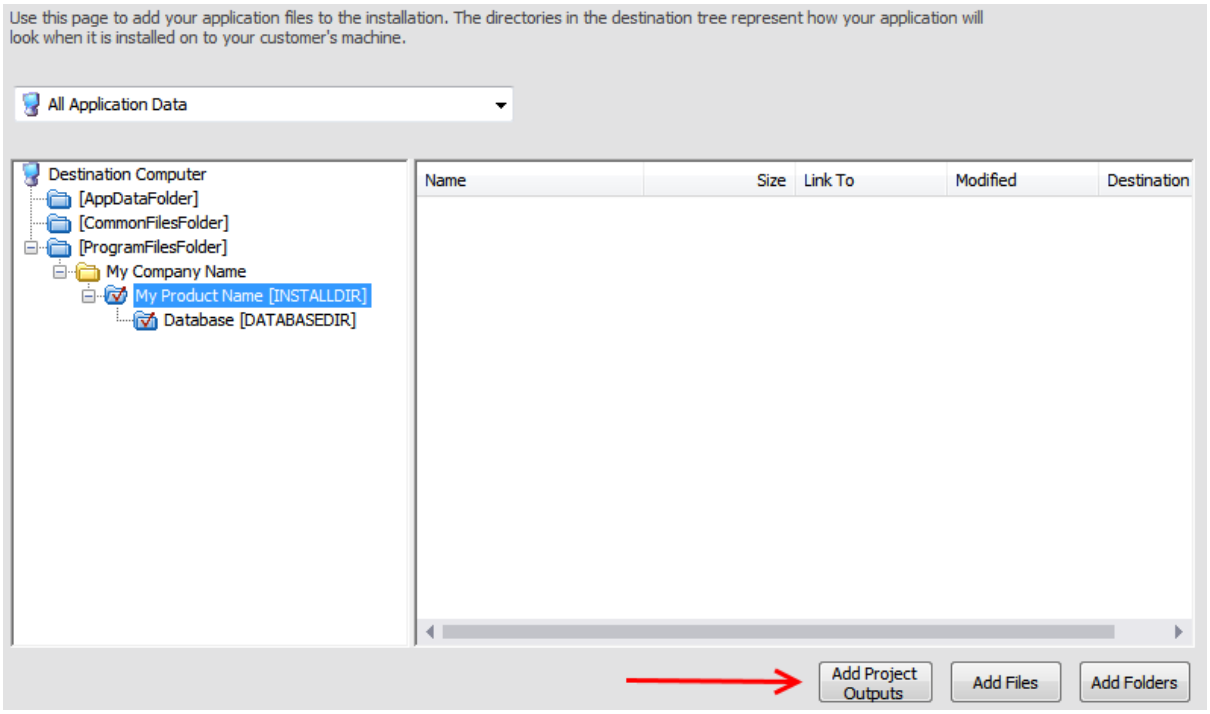

Linux Console Window
Process /home/billg/projects/Ch9-ConsoleApplicatio
Listening on port 4444
Remote debugging from host 127.0.0.1
hello from Ch9_ConsoleApplication1!
Enter string: Hello VS2015 Cookbook
You entered: Hello CookbookVS2015
Child exited with status 0
GDBserver exiting

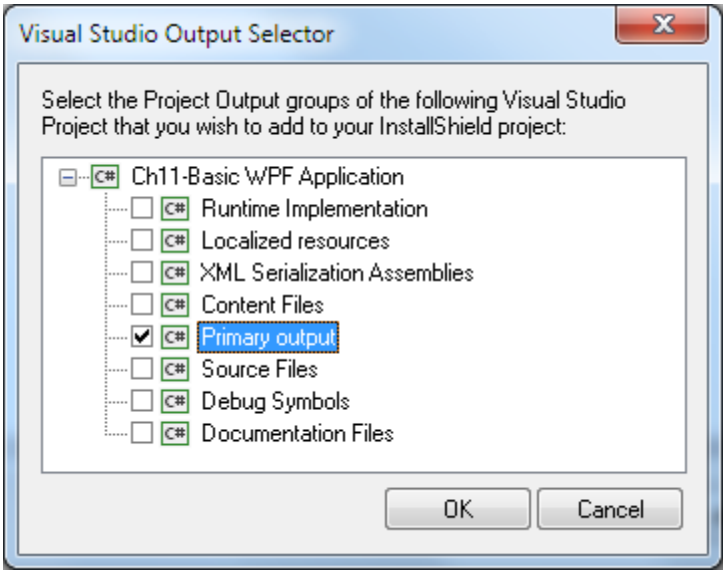

Configuration: Active(Debug)
Platform: Active(x64)
Configuration Manager...
Configuration Properties
General
Remote settings
Debugging
VC++ Directories
General
Target machine
192.168.158.12 (username=billg, port=22, authentication=Pass
Remote Root Directory
~/projects
Remote Project Directory
$(RemoteRootDir)/$(ProjectName)

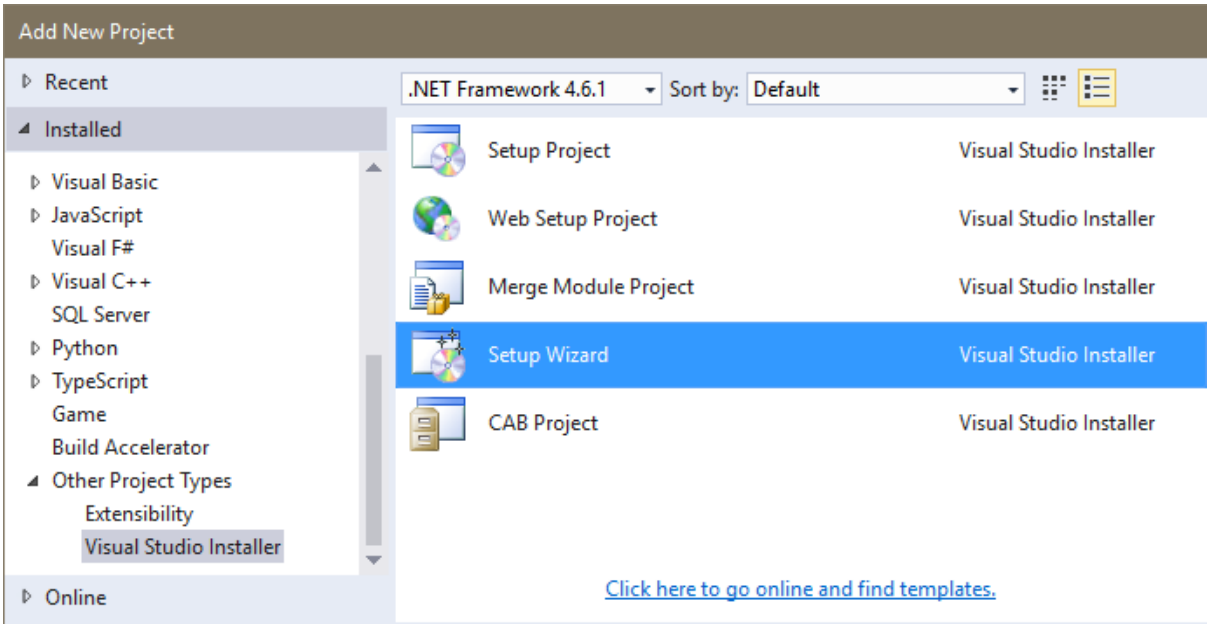
# Chapter 10: Final Polish

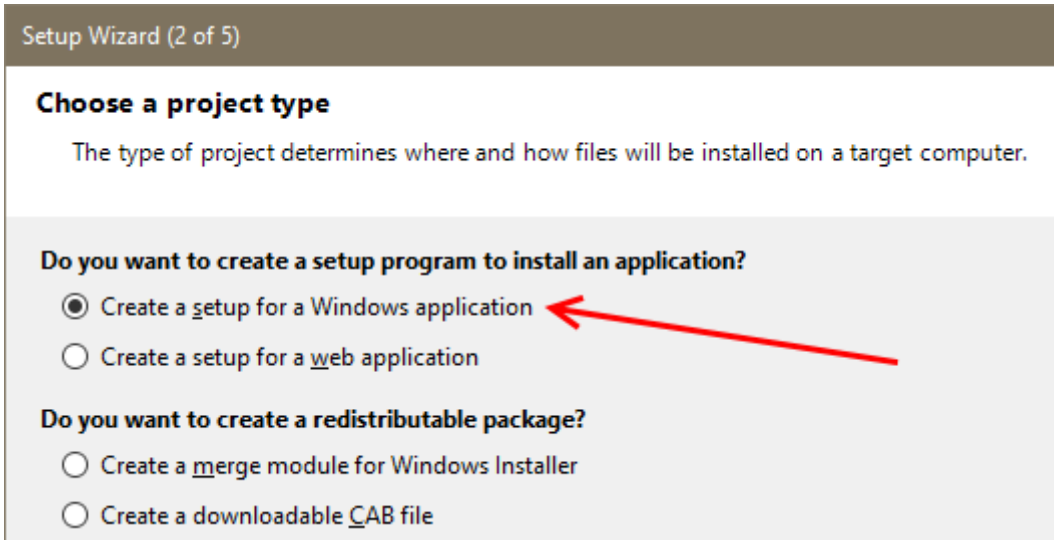


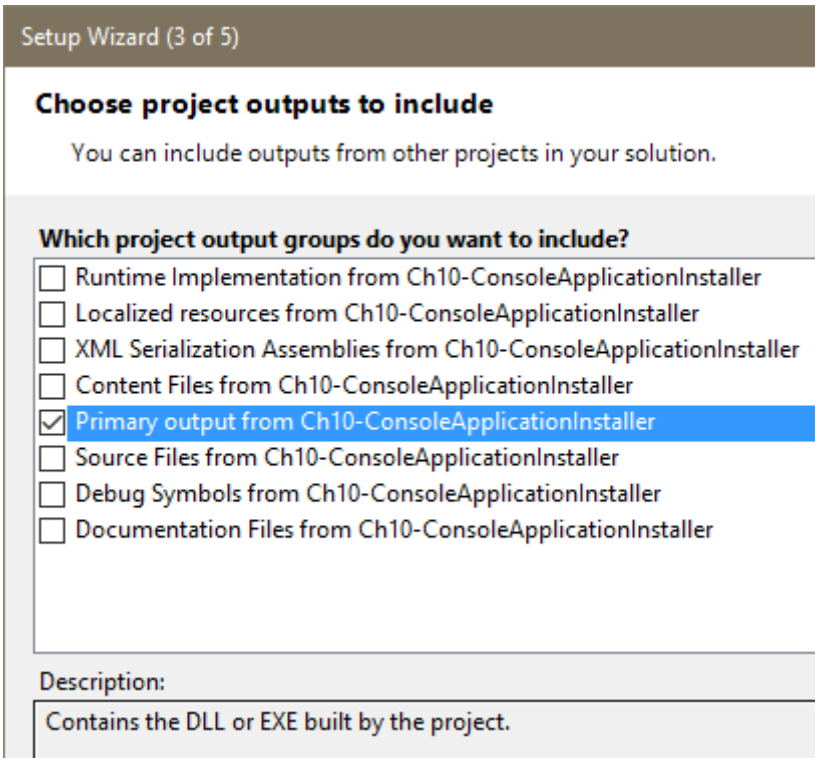

Project Assistant
The Project Assistant will guide you through the process of building your installation. You can use the Project Assistant to create a basic installation, or to build the foundation for an advanced installation. To access all the features and all the power of InstallShield, use the Installation Designer.
Installation Requirements
Installation Architecture
Installation Interview
Installation Architecture
NewFeature1
Installation Configuration
Application Architecture
Application Files
Application Shortcuts
Application Registry
Click Home to return to this page.
Application Information
Installation Requirements
Application Files
Application Shortcuts
Application Registry
Installation Interview

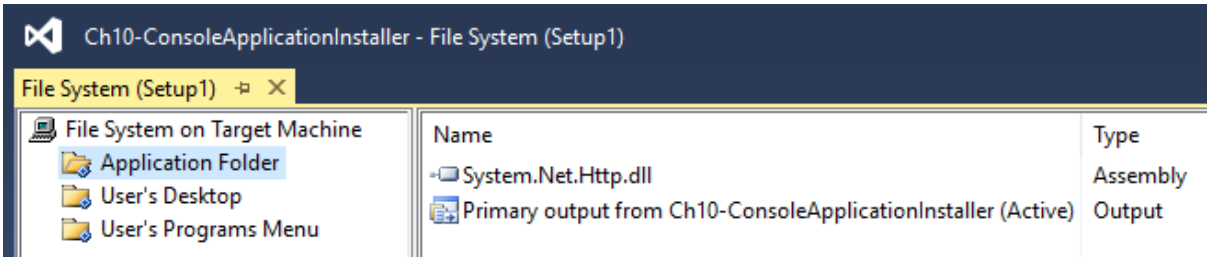

Use this page to add your application files to the installation. The directories in the destination tree represent how your application will look when it is installed on to your customer's machine.
All Application Data
Destination Computer
[AppDataFolder]
[CommonFilesFolder]
[ProgramFilesFolder]
My Company Name
My Product Name [INSTALLDIR]
Database [DATABASEDIR]
Name
Size
Link To
Modified
Destination
Add Project Outputs
Add Files
Add Folders

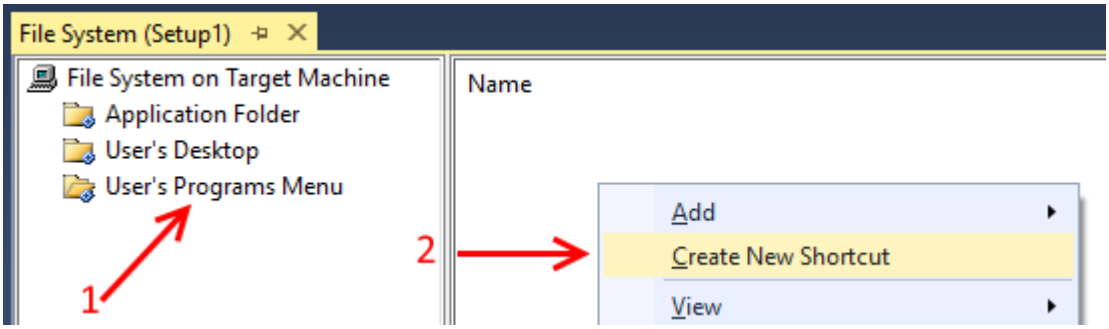

Visual Studio Output Selector
Select the Project Output groups of the following Visual Studio Project that you wish to add to your InstallShield project:
Ch11-Basic WPF Application
Runtime Implementation
Localized resources
XML Serialization Assemblies
Content Files
Primary output
Source Files
Debug Symbols
Documentation Files
OK
Cancel

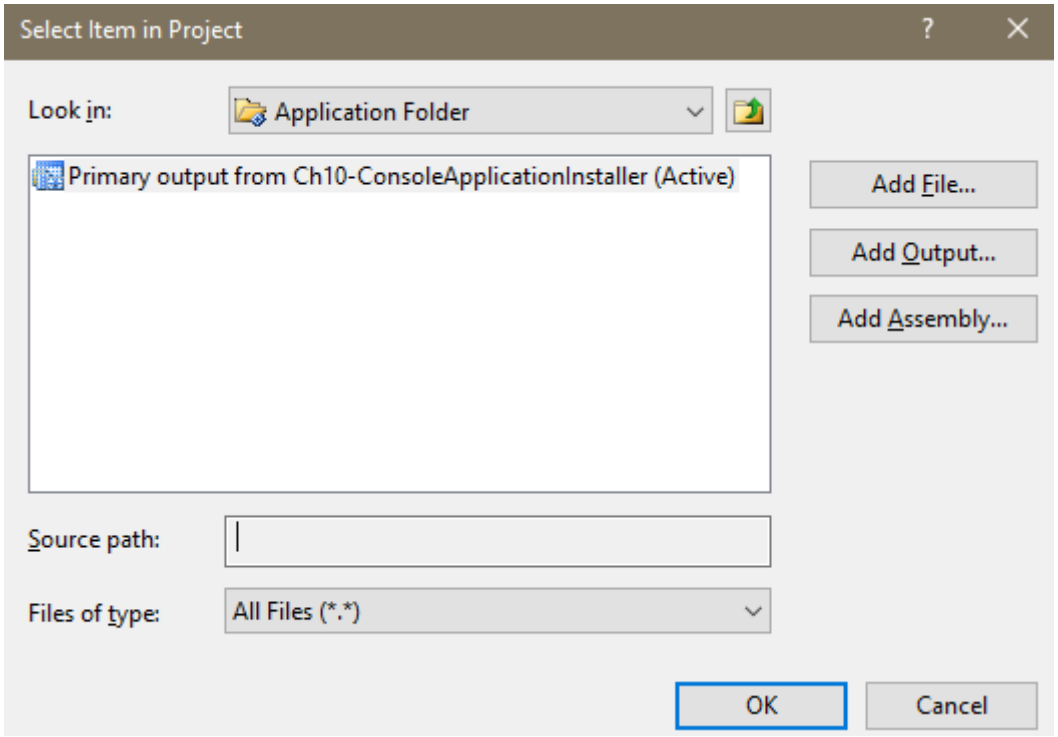

Add New Project
Recent
Installed
Visual Basic
JavaScript
Visual F#
Visual C++
SQL Server
Python
TypeScript
Game
Build Accelerator
Other Project Types
Extensibility
Visual Studio Installer
Online
.NET Framework 4.6.1
Sort by:
Default
Setup Project
Visual Studio Installer
Web Setup Project
Visual Studio Installer
Merge Module Project
Visual Studio Installer
Setup Wizard
Visual Studio Installer
CAB Project
Visual Studio Installer
Click here to go online and find templates.

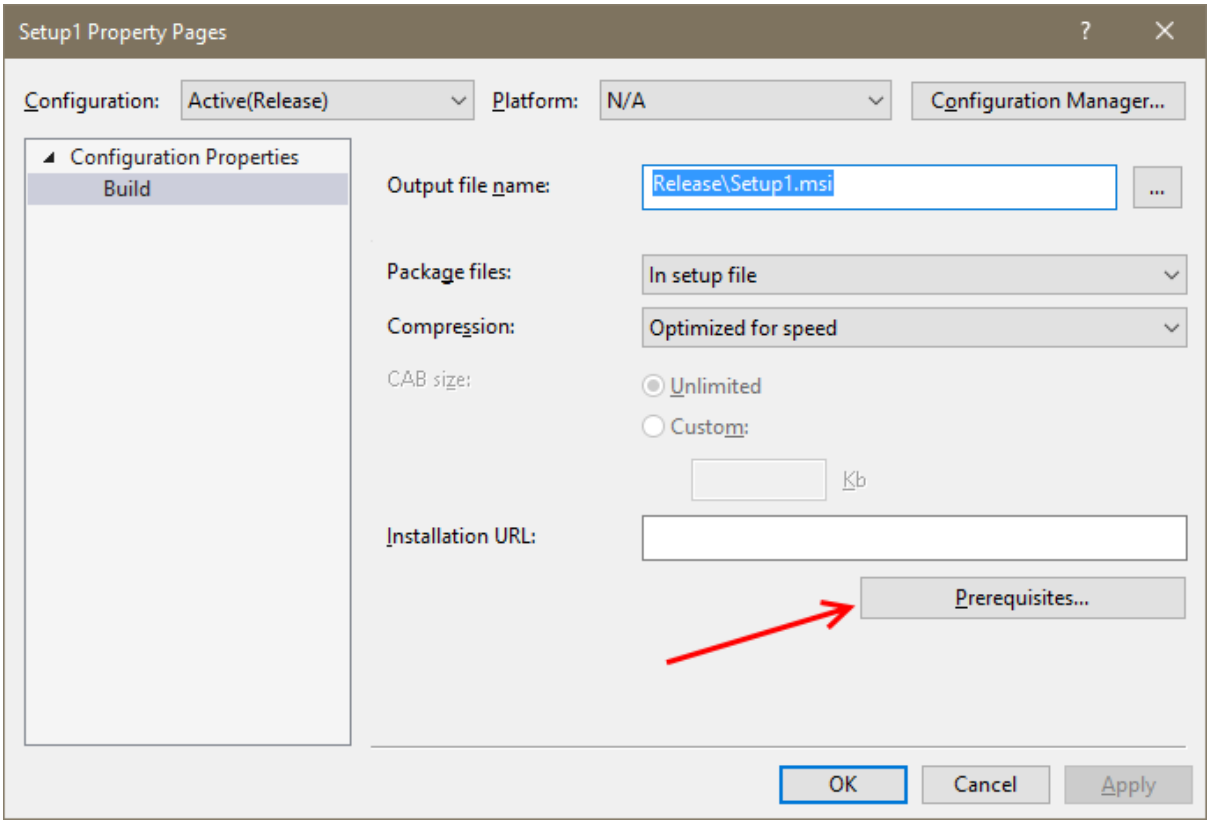

Setup Wizard (2 of 5)
Choose a project type
The type of project determines where and how files will be installed on a target computer.
Do you want to create a setup program to install an application?
Create a setup for a Windows application
Create a setup for a web application
Do you want to create a redistributable package?
Create a merge module for Windows Installer
Create a downloadable CAB file

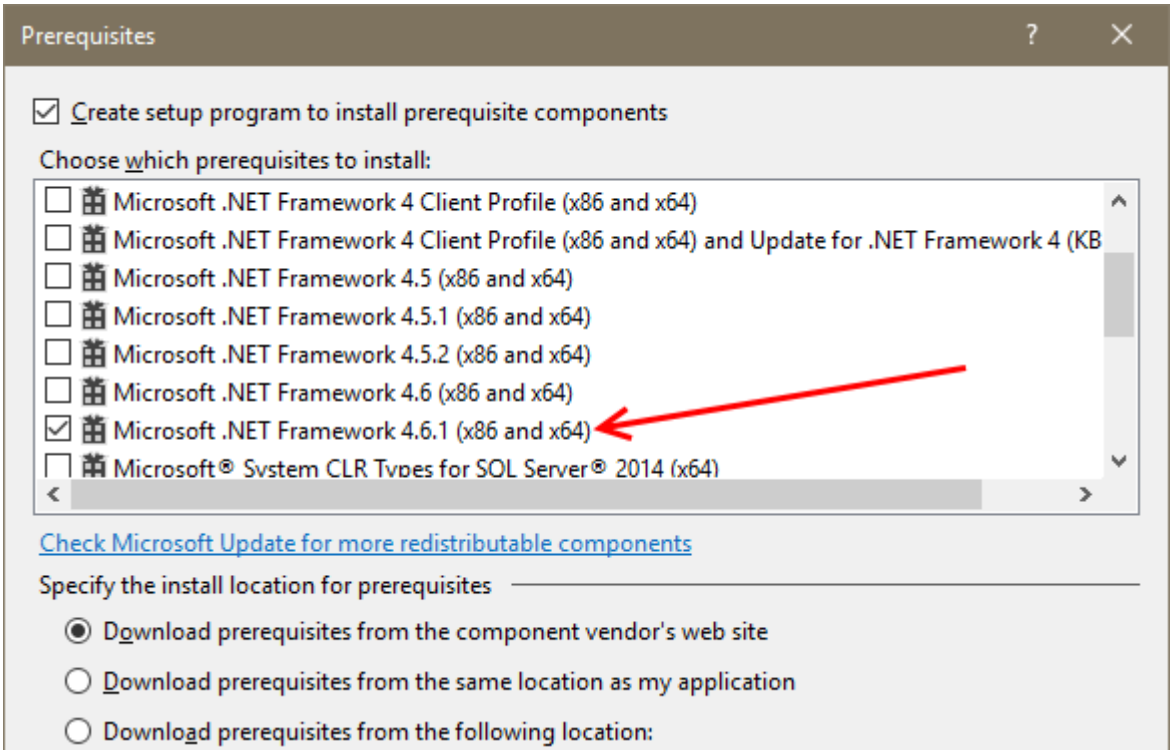

Setup Wizard (3 of 5)
Choose project outputs to include
You can include outputs from other projects in your solution.
Which project output groups do you want to include?
Runtime Implementation from Ch10-ConsoleApplicationInstaller
Localized resources from Ch10-ConsoleApplicationInstaller
XML Serialization Assemblies from Ch10-ConsoleApplicationInstaller
Content Files from Ch10-ConsoleApplicationInstaller
Primary output from Ch10-ConsoleApplicationInstaller
Source Files from Ch10-ConsoleApplicationInstaller
Debug Symbols from Ch10-ConsoleApplicationInstaller
Documentation Files from Ch10-ConsoleApplicationInstaller
Description:
Contains the DLL or EXE built by the project.

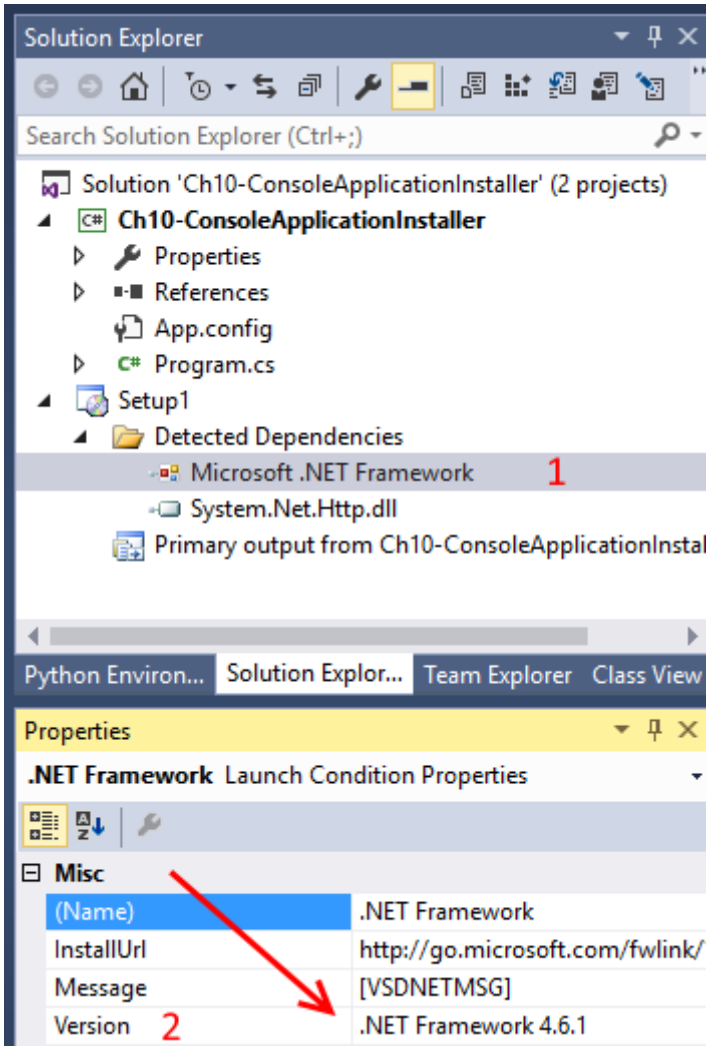

Ch10-ConsoleApplicationInstaller - File System (Setup1)
File System (Setup1)
File System on Target Machine
Application Folder
User's Desktop
User's Programs Menu
Name
Type
System.Net.Http.dll
Assembly
Primary output from Ch10-ConsoleApplicationInstaller (Active)
Output

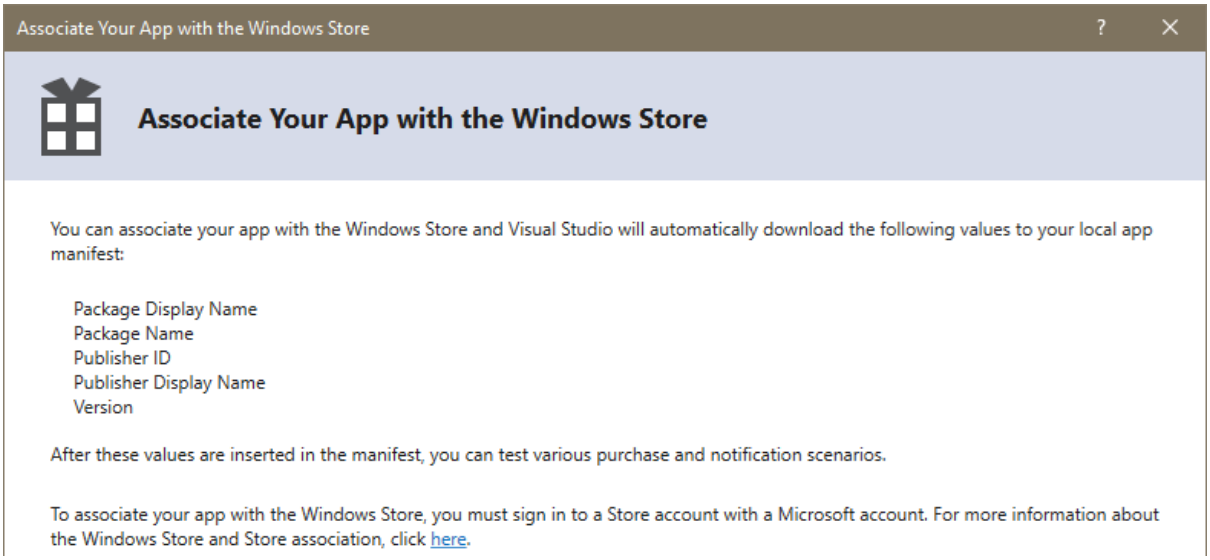

File System (Setup1)
File System on Target Machine
Application Folder
User's Desktop
User's Programs Menu
Name
1
2
Add
Create New Shortcut
View

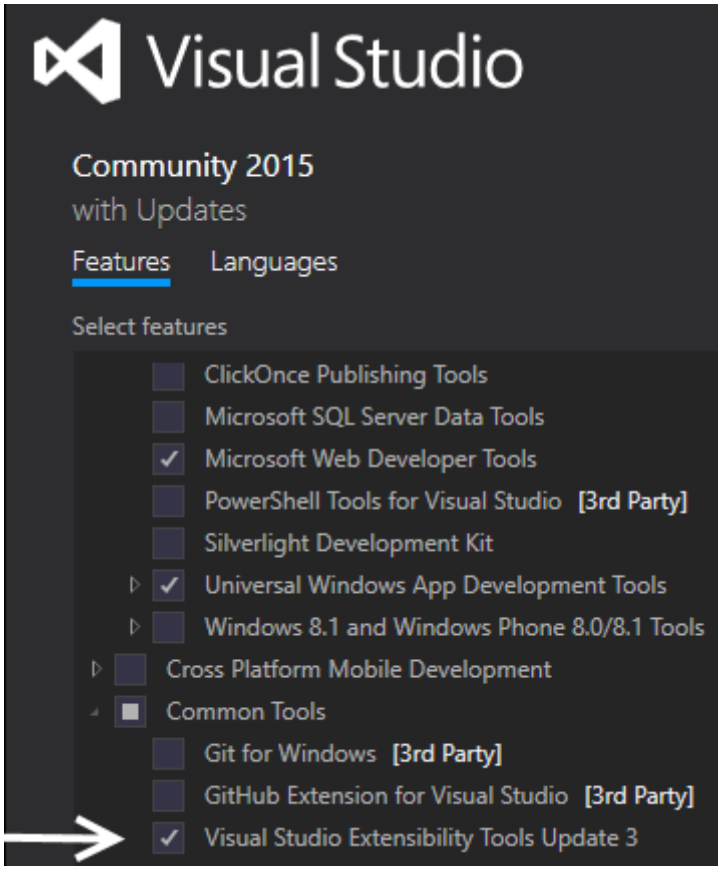

Select Item in Project
Look in:
Application Folder
Primary output from Ch10-ConsoleApplicationInstaller (Active)
Add File...
Add Output...
Add Assembly...
Source path:
Files of type:
All Files (*.*)
OK
Cancel

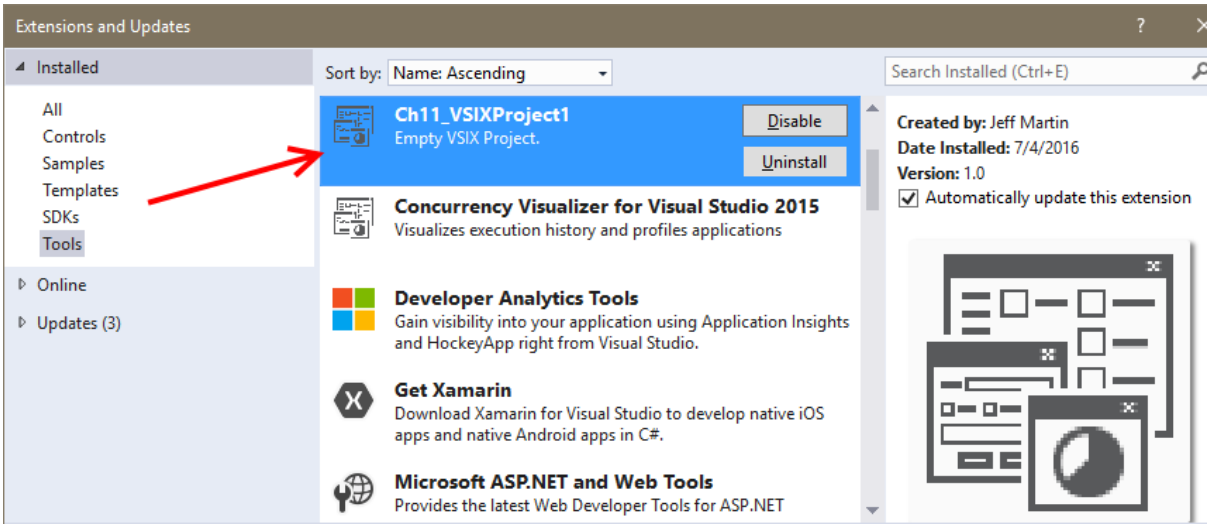

Setup1 Property Pages
Configuration:
Active(Release)
Platform:
N/A
Configuration Manager...
Configuration Properties
Build
Output file name:
Release\Setup1.msi
...
Package files:
In setup file
Compression:
Optimized for speed
CAB size:
Unlimited
Custom:
Kb
Installation URL:
Prerequisites...
OK
Cancel
Apply

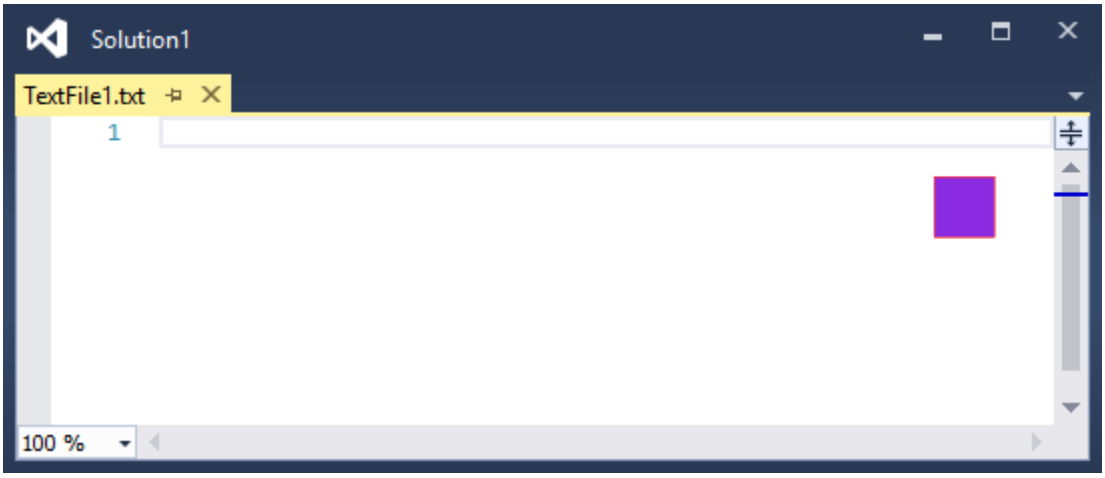

Prerequisites
Create setup program to install prerequisite components
Choose which prerequisites to install:
Microsoft .NET Framework 4 Client Profile (x86 and x64)
Microsoft .NET Framework 4 Client Profile (x86 and x64) and Update for .NET Framework 4 (KB
Microsoft .NET Framework 4.5 (x86 and x64)
Microsoft .NET Framework 4.5.1 (x86 and x64)
Microsoft .NET Framework 4.5.2 (x86 and x64)
Microsoft .NET Framework 4.6 (x86 and x64)
Microsoft .NET Framework 4.6.1 (x86 and x64)
Microsoft® System CLR Types for SQL Server® 2014 (x64)
Check Microsoft Update for more redistributable components
Specify the install location for prerequisites
Download prerequisites from the component vendor's web site
Download prerequisites from the same location as my application
Download prerequisites from the following location:

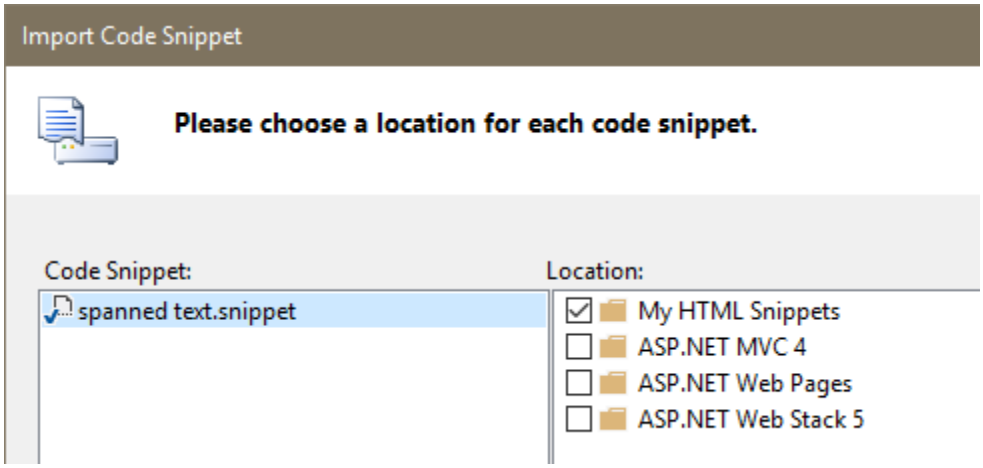

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Ch10-ConsoleApplicationInstaller' (2 projects)
Ch10-ConsoleApplicationInstaller
Properties
References
App.config
Program.cs
Setup1
Detected Dependencies
Microsoft .NET Framework
1
System.Net.Http.dll
Primary output from Ch10-ConsoleApplicationInstal
Python Environ...
Solution Explor...
Team Explorer
Class View
Properties
.NET Framework Launch Condition Properties
Misc
(Name)
.NET Framework
InstallUrl
http://go.microsoft.com/fwlink/
Message
[VSDNETMSG]
Version
2
.NET Framework 4.6.1

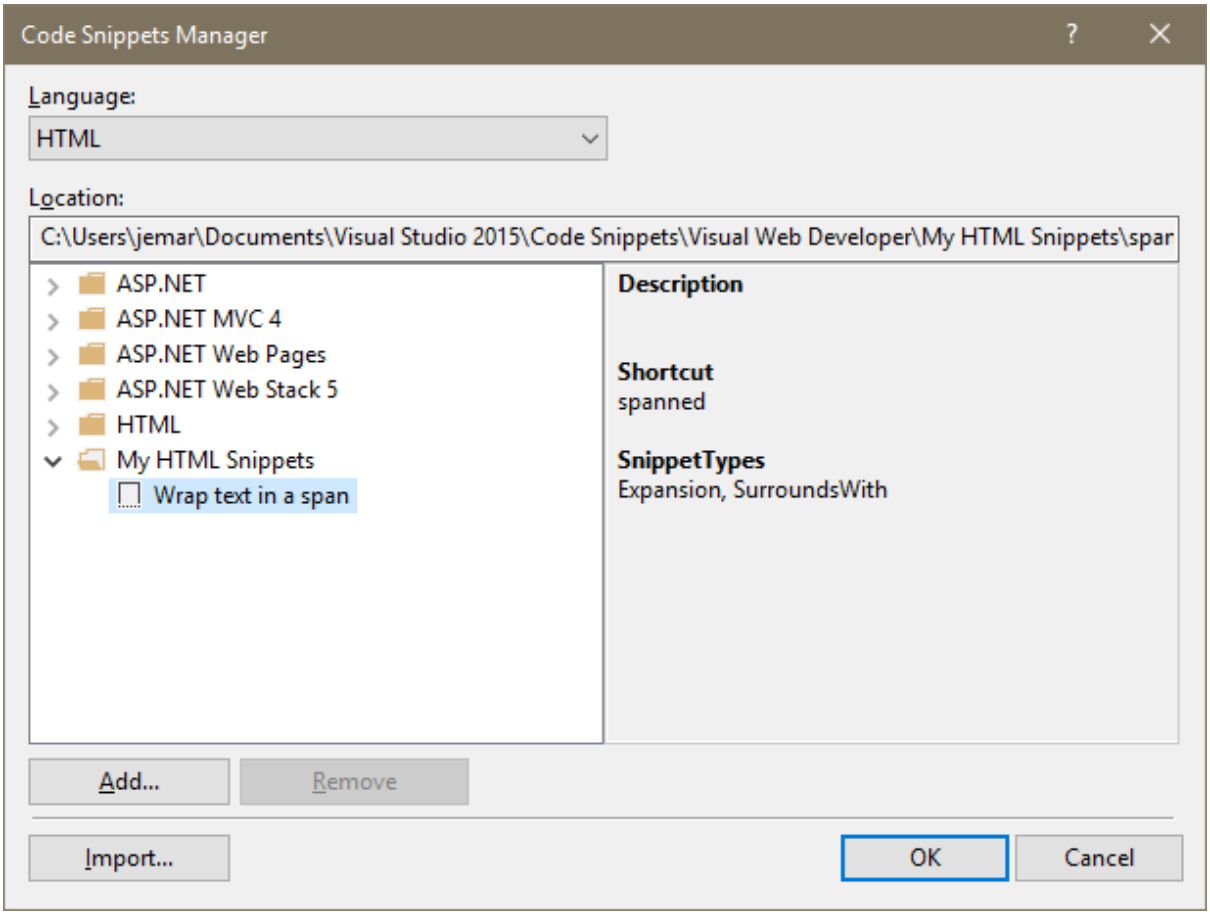

Associate Your App with the Windows Store
Associate Your App with the Windows Store
You can associate your app with the Windows Store and Visual Studio will automatically download the following values to your local app manifest:
Package Display Name
Package Name
Publisher ID
Publisher Display Name
Version
After these values are inserted in the manifest, you can test various purchase and notification scenarios.
To associate your app with the Windows Store, you must sign in to a Store account with a Microsoft account. For more information about the Windows Store and Store association, click here.

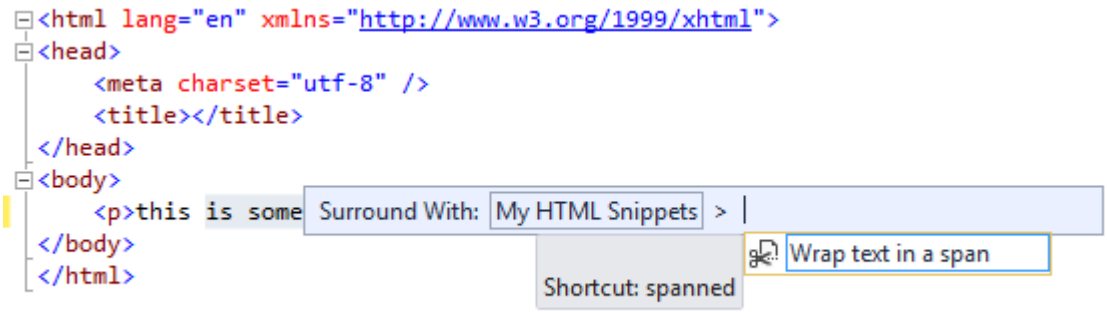

Visual Studio
Community 2015
with Updates
Features
Languages
Select features
ClickOnce Publishing Tools
Microsoft SQL Server Data Tools
Microsoft Web Developer Tools
PowerShell Tools for Visual Studio [3rd Party]
Silverlight Development Kit
Universal Windows App Development Tools
Windows 8.1 and Windows Phone 8.0/8.1 Tools
Cross Platform Mobile Development
Common Tools
Git for Windows [3rd Party]
GitHub Extension for Visual Studio [3rd Party]
Visual Studio Extensibility Tools Update 3


Extensions and Updates
Installed
All
Controls
Samples
Templates
SDKs
Tools
Online
Updates (3)
Sort by: Name: Ascending
Search Installed (Ctrl+E)
Ch11_VSIXProject1
Empty VSIX Project.
Disable
Uninstall
Concurrency Visualizer for Visual Studio 2015
Visualizes execution history and profiles applications
Developer Analytics Tools
Gain visibility into your application using Application Insights and HockeyApp right from Visual Studio.
Get Xamarin
Download Xamarin for Visual Studio to develop native iOS apps and native Android apps in C#.
Microsoft ASP.NET and Web Tools
Provides the latest Web Developer Tools for ASP.NET
Created by: Jeff Martin
Date Installed: 7/4/2016
Version: 1.0
Automatically update this extension


Solution1
TextFile1.txt
1
100 %


Import Code Snippet
Please choose a location for each code snippet.
Code Snippet:
spanned text.snippet
Location:
My HTML Snippets
ASP.NET MVC 4
ASP.NET Web Pages
ASP.NET Web Stack 5


Code Snippets Manager
Language:
HTML
Location:
C:\Users\jemar\Documents\Visual Studio 2015\Code Snippets\Visual Web Developer\My HTML Snippets\spar
ASP.NET
ASP.NET MVC 4
ASP.NET Web Pages
ASP.NET Web Stack 5
HTML
My HTML Snippets
Wrap text in a span
Description
Shortcut
spanned
SnippetTypes
Expansion, SurroundsWith
Add...
Remove
Import...
OK
Cancel


<html lang="en" xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta charset="utf-8" />
<title></title>
</head>
<body>
<p>this is some
Surround With: My HTML Snippets >
Wrap text in a span
Shortcut: spanned
</body>
</html>