



Today's session will be recorded and available 24/7 on <http://tv.telerik.com>



What's New & Awesome in Visual Studio Productivity Tools Q2 2013



Schedule



June 17th – Monday
11:00am EDT

What's New & Awesome in [XAML](#) Q2 2013

June 17th – Monday
12:00pm EDT

What's New & Awesome in [WinForms](#) Q2 2013

June 18th – Tuesday
11:00am EDT

What's New & Awesome in [ASP.NET AJAX](#) Q2 2013

June 18th – Tuesday
12:30am EDT

Manage your RadControls projects more effectively with [Telerik TeamPulse](#)

June 19th – Wednesday
11:00am EDT

What's New & Awesome in [Windows8 XAML](#) & [Windows Phone](#) Q2 2013

June 19th – Wednesday
12:00pm EDT

What's New & Awesome in [Windows8 HTML](#) Q2 2013

June 19th – Wednesday
1:00pm EDT

What's New & Awesome in [Telerik Reporting](#) and [OpenAccess ORM](#) Q2 2013

June 20th – Thursday
11:00am EDT

Meet the Next Generation of [Kendo UI Complete for ASP.NET MVC Extensions](#)

**June 20th – Thursday
12:00pm EDT**

What's New & Awesome in [Visual Studio Productivity Tools](#) Q2 2013

June 21st – Friday
1:00pm EDT

Automating HTML5 and AJAX UI Tests with the [Telerik Testing Framework](#)

License Giveaway



- Three attendees will receive a Just license (JustCode, JustMock, or JustTrace) of their choice for attending this webinar.
- The sinners will be notified by email within 24 hours of the end of the webinar.



Write a Visual Studio Gallery review



- Share your experience with the community and help other developers with your feedback.
- We are giving away
 - 5 free Just* licenses and
 - 5 cool JustTrace T-shirts
- How does it work? Simple:
 - Write a VSG review for any Just* product before the end of June,
 - Let us know at just@telerik.com,
 - Chose what license you would like to win (JustCode, JustMock or JustTrace)
 - Winners drawn and notified at the end of the month

Have you considered a case study?



- Minimum Time Commitment
- Build industry credentials.
- You have complete control.
- We will promote you and the cases study heavily.
- Possible maintenance and support extensions
- Dedicated calls with product team and/or evangelists
- Potential custom training with our Developer Evangelists

Roadmap for Today



- Q1 2013 – A quick review
- JustDecompile
- JustMock
- JustTrace
- JustCode
- Watch until the end to see something awesome!

Introductions



Phil Japikse

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Senior Developer Evangelist, Telarik

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Introductions



James Bender

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Developer Evangelist, Telerik

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Blog: <http://blogs.telerik.com/james-bender>





Q1 2013 Release Recap

Highlights from Q1 2013



■ JustMock

- Fully profiled Automocking
- Improved Profiler Compatibility
- Improved Integration with CI Servers

■ JustDecompile

- Speed, speed, and more speed!
- Plugin Manager

■ JustTrace

- New/Improved VS Extension
- Object tracking snapshot view
- More Analysis!

■ JustCode

- LESS Support
- Improved Code Problems
- Additional Code Templates
- Import/Export Templates

For more information check out our videos at

<http://tv.telerik.com/channels/telerik-q1-2013-webinar-week>



JustDecompile

JustDecompile

- Enhanced Decompileation
 - Fewer Errors
 - Improved Formatting
- User Interface improvements
 - Tab support





Demo - JustDecompile



JustMock

JustMock



- Improved Future Mocking
- Unified Public API
- Mocking By Example
- Silverlight Elevated Mocking
 - Help->Advanced Usage->Silverlight Mocking
- Continual improvements with other profiled tools
 - NCover, dotCover and more!
- Continual improvements with build systems
 - TFS, CruiseControl.NET, Team City, Jenkins, and more!

Future Mocking



```
public class Login
{
    private UserValidationService _service;
    public Login()
    {
        _service = new UserValidationService();
    }
    public bool LoginUser(string userName, string password)
    {
        return (_service.ValidateUser(userName, password)) != 0;
    }
}
```


Future Mocking Tests



```
[Test]
public void ShouldMockInstanceCreatedInSUT()
{
    var service = new UserValidationService();
    var userName = "Bob";
    var password = "password";
    service.Arrange(x => x.ValidateUser(userName, password))
        .IgnoreInstance()
        .Returns(5);
    var sut = new Login();
    var result = sut.LoginUser(userName, password);
    Assert.IsTrue(result);
}
```

Future Constructor Mocking



```
public class UserValidationServiceCtor
{
    public UserValidationServiceCtor()
    {
        throw new NotImplementedException();
    }
    public int ValidateUser(string userName, string password)
    {
        throw new NotImplementedException();
    }
}
```

Future Constructor Mocking Tests



```
[Test]
public void ShouldMockConstructorForFutureInstances()
{
    Mock.Arrange(() => new UserValidationServiceCtor()).DoNothing();
    var service = new UserValidationServiceCtor();
    var userName = "Bob";
    var password = "password";
    service.Arrange(x => x.ValidateUser(userName, password))
        .IgnoreInstance().Returns(5);
    var sut = new Login();
    var result = sut.LoginUser(userName, password);
    Assert.IsTrue(result);
}
```

MsCorlib



```
public class Login
{
    public DateTime LastLoginTime { get; private set; }

    public bool LoginUser(string userName, string password)
    {
        this.LastLoginTime = DateTime.Now;
        return true;
    }
}
```

MsCorlib Mocking (The Old Way)



```
[TestFixture]
public class OldMsCorLibTests
{
    static OldMsCorLibTests()
    {
        Mock.Replace(() => DateTime.Now).In<Login>(x => x.LoginUser("Bob", "Password"));
    }
    [Test]
    public void ShouldMockMSCorLibOldWay()
    {
        Mock.Arrange(() => DateTime.Now).Returns(new DateTime(1900, 4, 12));
        var sut = new Login();
        sut.LoginUser("Bob", "Password");
        Assert.AreEqual(1900, sut.LastLoginTime.Year);
        Assert.AreEqual(4, sut.LastLoginTime.Month);
        Assert.AreEqual(12, sut.LastLoginTime.Day);
    }
}
```

MsCorlib Tests (New and Improved)



```
[Test]
public void ShouldMockMSCorLibNewWay()
{
    Mock.Arrange(() => DateTime.Now)
        .Returns(new DateTime(1900, 4, 12));
    var sut = new Login();
    sut.LoginUser("Bob", "Password");
    Assert.AreEqual(1900, sut.LastLoginTime.Year);
    Assert.AreEqual(4, sut.LastLoginTime.Month);
    Assert.AreEqual(12, sut.LastLoginTime.Day);
}
```

Mocking By Example



```
[Test]
public void ShouldMockByExample()
{
    var installInfo = Mock.CreateLike<IInstallInfo>(me =>
        me.InstallPackages == new List<IInstallPackage>
        {
            Mock.CreateLike<IInstallPackage>(
                pkg => pkg.Installer.Name == "blocked1"
                && pkg.Installer.BlockingCondition.Name == "foo"),
            Mock.CreateLike<IInstallPackage>(
                pkg => pkg.Installer.Name == "blocked2"
                && pkg.Installer.BlockingCondition.Name == "bar"),
        });
}
```



Demo - JustMock



JustTrace

JustTrace



- Enhanced User Experience
- New Profiler Analysis
 - Memory
 - Potential Binding Leaks View
 - Disposed Objects View
 - Performance
 - Bottlenecks View
- WPFInBrowser application (XBAP)
- Profile the next started application matching name



Demo - JustTrace



JustCode

JustCode



- Enhanced Test Runner
 - UI Improvements
 - Duration of tests
 - More detailed result
 - Build Options
 - WinJS Testing
- Templates Improvements
 - Export/Import
 - File Templates
- Debugging Decompiled Code

Test Runner Improvements



Explorer Results

Build options: Whole solution if changed

Group by: Namespace and Type

Run: 12 Passed: 12

- └─ D_JustMockDemos_Profiled.A_LoginTests (3 tests)
 - ✓ ShouldLoginWithValidCredentials [0:00.02]
 - ✓ ShouldLoginWithValidCredentialsMocked [0:00.02]
 - ✓ ShouldLoginWithValidCredentialsMocked [0:00.02]
- └─ D_JustMockDemos_Profiled.B_PartialMocking (1 tests)
 - ✓ ShouldPartiallyMockClass [0:00.03]
- └─ D_JustMockDemos_Profiled.C_MockingStatics (2 tests)
 - ExtensionMethodTests (1 tests)
 - ✓ ShouldMockExtensionMethods [0:00.02]
 - StaticMockingTests (1 tests)
 - ✓ ShouldMockStatics [0:00.03]
- └─ D_JustMockDemos_Profiled.D_FutureMocking (1 tests)
 - FutureMockingTests (1 tests)

Additional Information



Details Console Output Console Errors

Wrap

Error Message:

Expected: True
But was: False

Exception Message:

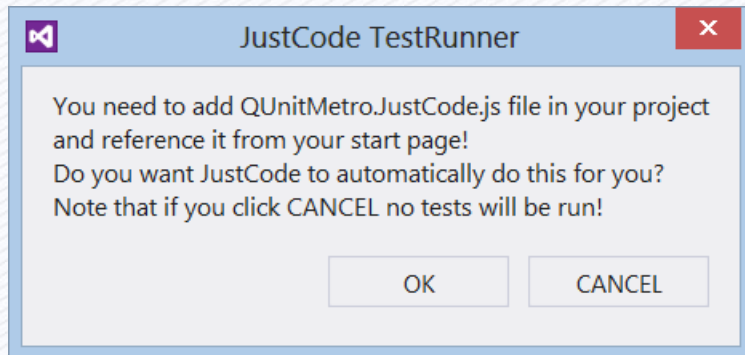
Expected: True
But was: False

StackTrace:

```
at NUnit.Framework.Assert.That(Object actual, IResolveConstraint expression, String message, Object[] args)
at NUnit.Framework.Assert.IsTrue(Boolean condition)
at D_JustMockDemos_Profiled.A_MockingConcretes.LoginTests.ShouldLoginWithValidCredentialsMocked() in c:\Users\Phil Japikse.Philsw530-THINK\SkyDrive\Documents\Speaking\Presentations\UnitTesting\JustMockDemos\B_JustMockDemos_Profiled\A_MockingConcretes>LoginTests.cs:line 46
```

WinJS Unit Testing

- Leverages QUnit Metro
 - `qunitmetro.js`
- JustCode Adds
 - `qunitmetro.justcode.js`





DEMO – WinJS Unit Testing Test Runner Improvements

Import/Export Templates



Export code template definitions to file

AVAILABLE CODE TEMPLATES

C#

- fe `foreach ($3=GET_ELEMENT_TYPE($1)$ $2=SUGGEST_ELEMENT_NAME($1)$ in $1=SELECT_VARIABLE([],System.Collections.ArrayList,System.Colle`
|
}
- fl `for (int $2=SUGGEST_INDEX_NAME()$ = 0; 2 < $1=SELECT_VARIABLE([]).Length; 2++)`
{
\$3=GET_ELEMENT_TYPE(\$1)\$ \$4=SUGGEST_ELEMENT_NAME(\$1)\$ = \$1\$[\$2\$];
|
}
- fc `for (int $2=SUGGEST_INDEX_NAME()$ = 0; 2 < $1=SELECT_VARIABLE(System.Collections.ArrayList,System.Collections.IList,System.Collections.Ge`
{
\$3=GET_ELEMENT_TYPE(\$1)\$ \$4=SUGGEST_ELEMENT_NAME(\$1)\$ = \$1\$[\$2\$];
|
}
- f `for (int $2=SUGGEST_INDEX_NAME()$ = 0; 2 < $1=SELECT_VARIABLE(int,uint)$; 2++)`
{
|
}
- cw `Console.WriteLine($1=SELECT_VARIABLE());|`

Select All Select None Expand All Collapse All Export Cancel

File Templates

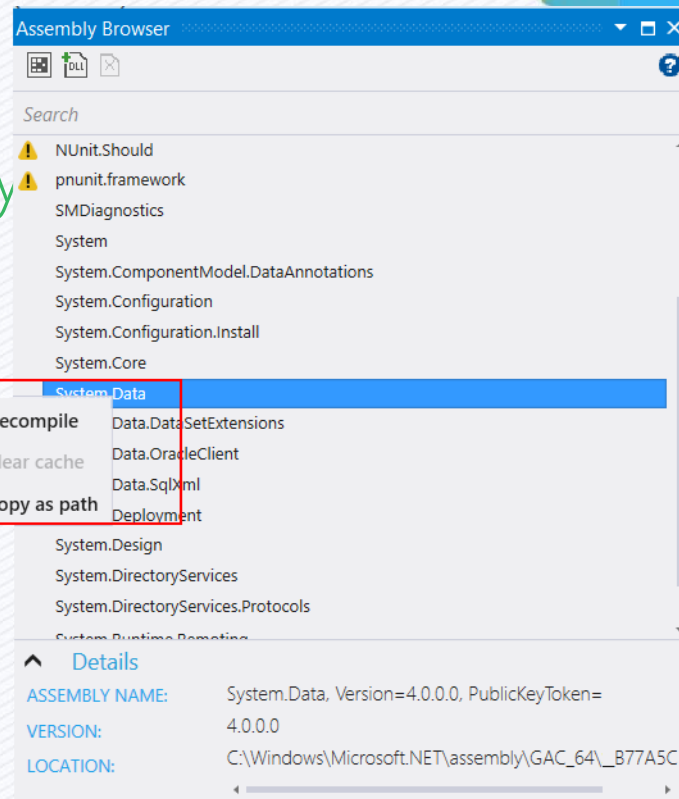
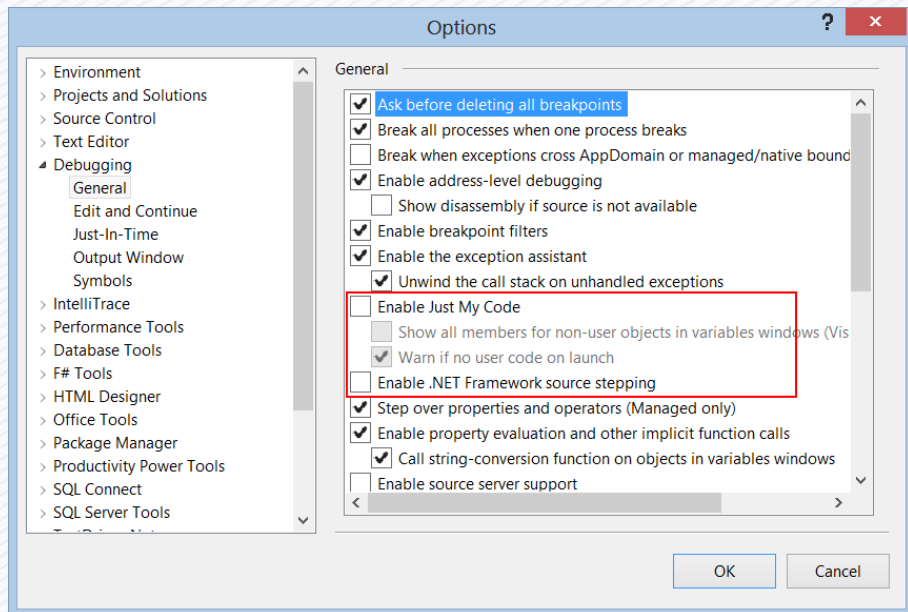


```
$NEW_FILE$
using System;
using NUnit.Framework;
using Telerik.JustMock;
using Telerik.JustMock.Helpers;
namespace $1=SUGGEST_NAMESPACE()$
{
    [TestFixture]
    public class $2=GET_FILE_NAME()$
    {
        [Test]
        public void Should$3$()
        {
        }
    }
}
```



Demo - Templates

Debugging Decompiled Code





Demo – Debug Decompiled Code

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Resources



- Productivity Tools Blog
 - blogs.telerik.com/justteam

JustCode

telerik.com/justcode

JustTrace

telerik.com/justtrace

JustMock

telerik.com/justmock

JustDecompile

telerik.com/justdecompile

For more information on Q1 2013 check out our videos at
<http://tv.telerik.com/channels/telerik-q1-2013-webinar-week>

Q & A



Download Visual Studio Productivity Tools at
<http://www.telerik.com>

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