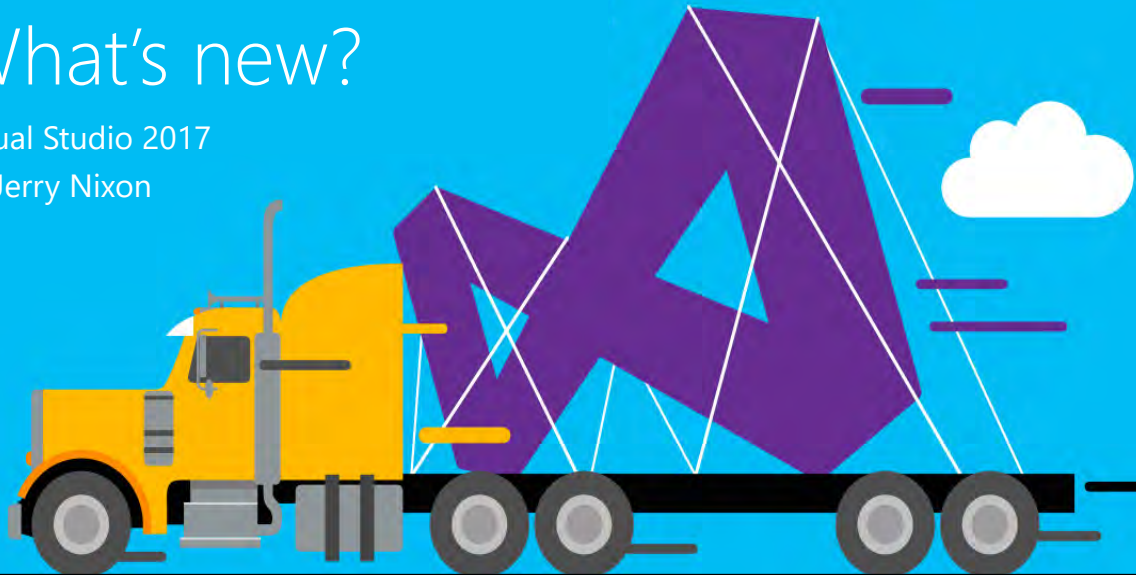




What's new?

Visual Studio 2017

By Jerry Nixon



Installer

Visual Studio installer

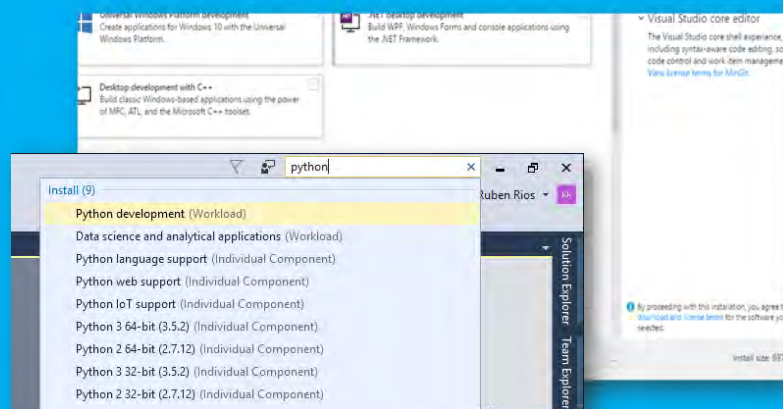
Simpler installer

Smaller installer

Faster installer

GitHub integrated

Access in Quick launch



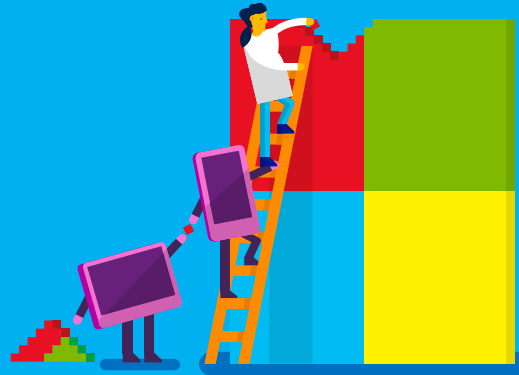
Performance

Performance

Faster startup (50%)

Faster solution load

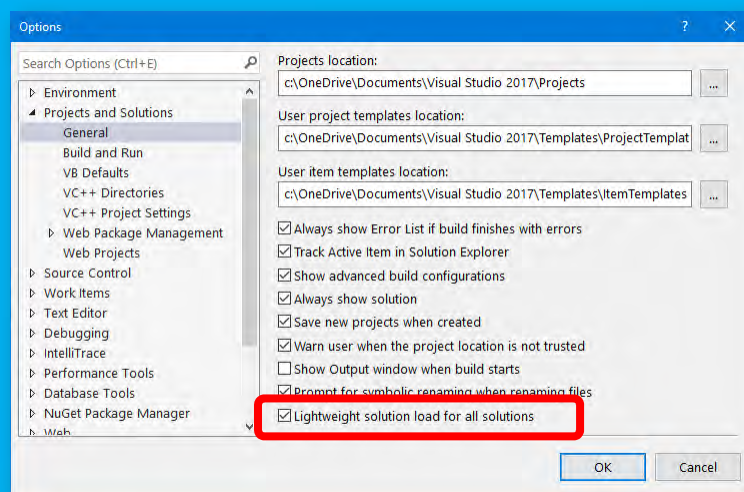
Monitors extension performance



Solutions

Improves load time for large solutions

Best suited for C# and C++ solutions



Overview

Supported

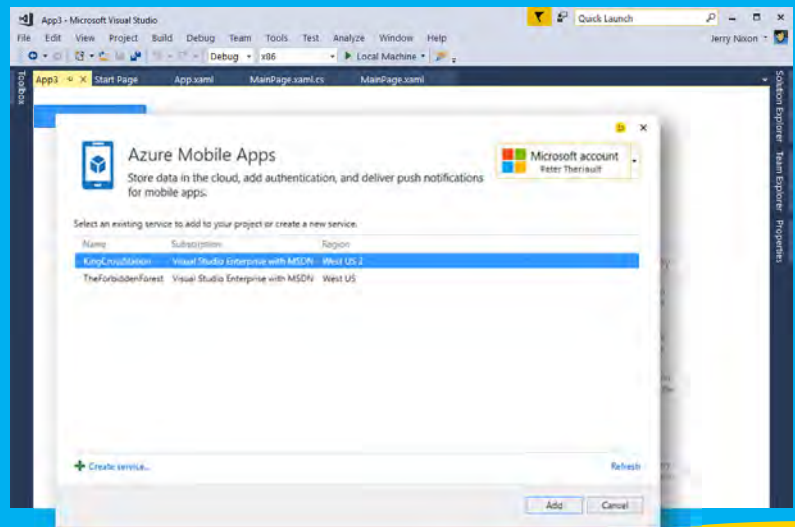
ASP.NET

UWP

Cordova

Connected Services

Wizard-based



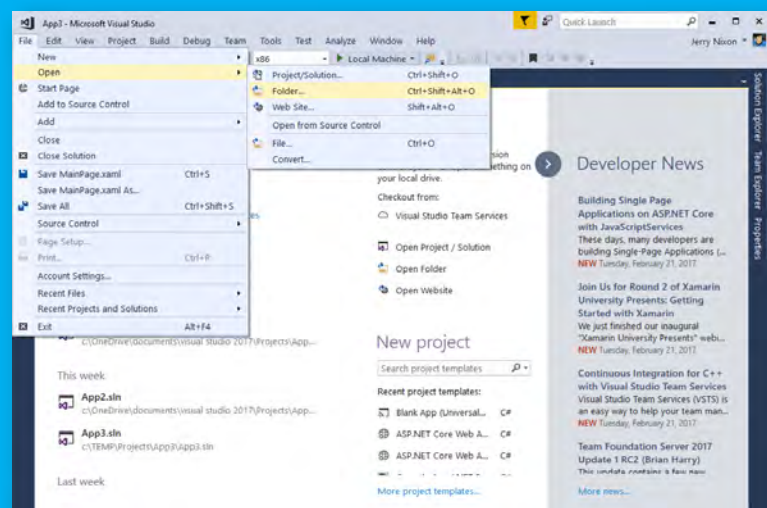
Open Folder

Open folder

Search code

Scope Solution Explorer

Open Command Prompt



Welcome features

Start page

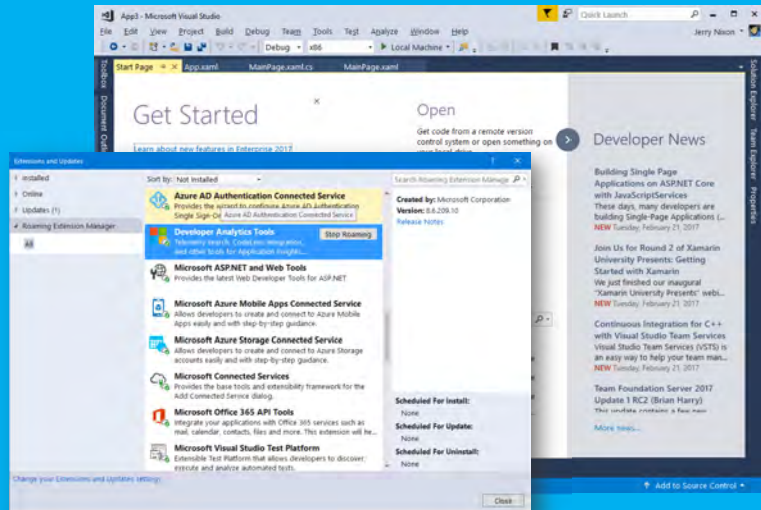
New project

Dismissible "get started"

Roaming MRU repos

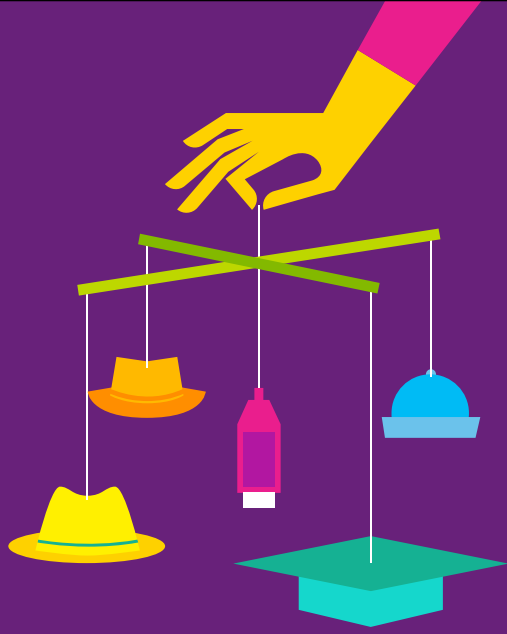
Roaming Extensions

Install nickname



Visual Studio 2017
Developer candy

DEMO



Recap

- Versions
- Subscriptions
- Installer
- Performance
- Lightweight Solution
- Project Overview
- Open Folder
- Developer Candy

Thank you. Questions?



Productivity in C#

Visual Studio 2017


By Adam Tuliper



Visual Studio 2017
C# support

DEMO





Recap

- C# 6 support
- C# 7 support
- Expression bodies
- Custom task types
- Value tuples
- Nested functions
- Ref returns

Thank you. Questions?

Developer

Visual Studio 2017

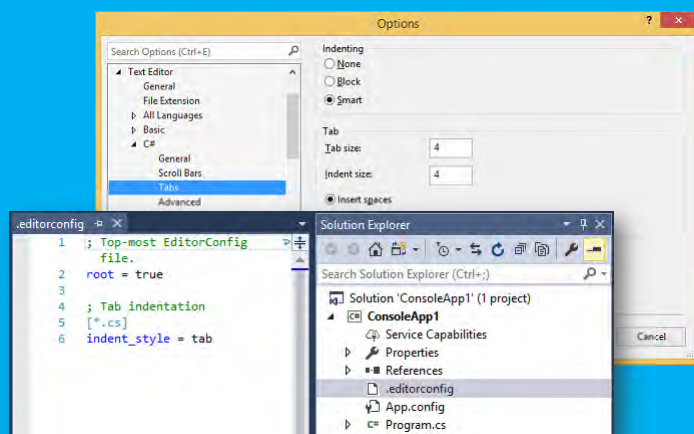
By Andrew Hanson



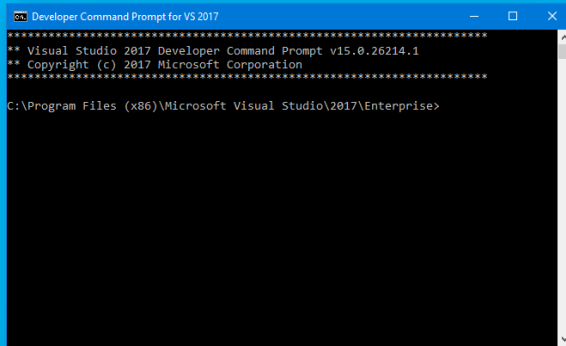
EditorConfig

Coding consistency

EditorConfig settings are supported in all Visual Studio-supported languages except for XML.



Developer command prompt



Environment variables will reflect installed workloads only

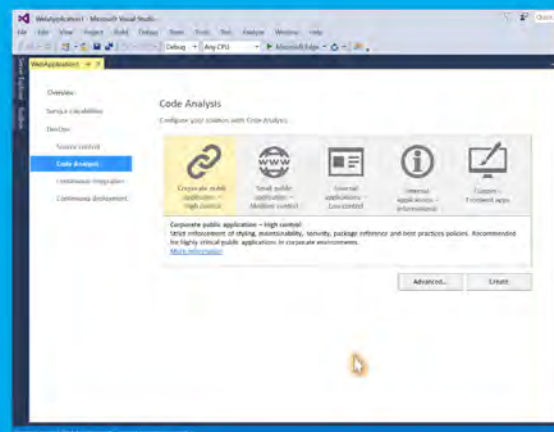
`common7\tools\vsdevcmd.bat -help`

Live Code Analysis

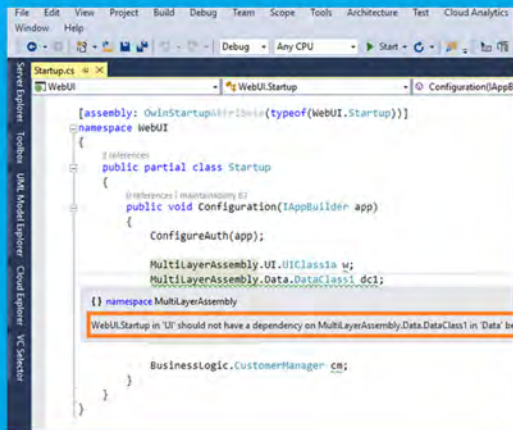
Enforce Code Style Across Your Team

Define code style and code analysis rules across multiple developers and teams.

Developers get real-time feedback if they violate code style or code analysis rules.



Live Dependency Validation



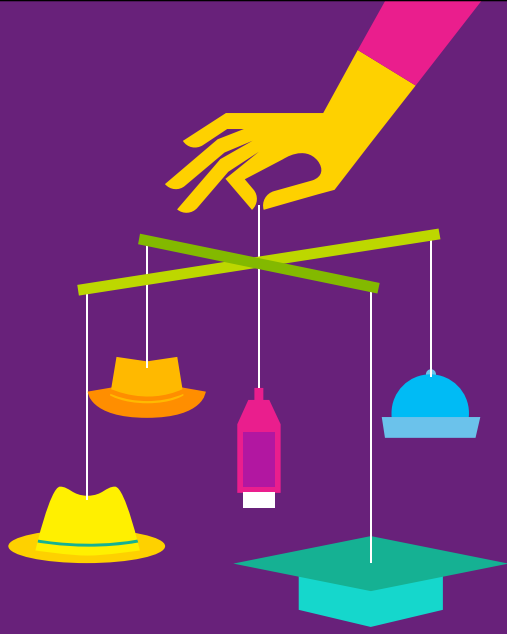
Validate Dependencies As You Type

Violation alerts as you type. Architect express dependencies in a Layer Diagram.

As you type, warnings are available in the Error List and green underlined notations.

Visual Studio 2017
Developer productivity

DEMO




Recap

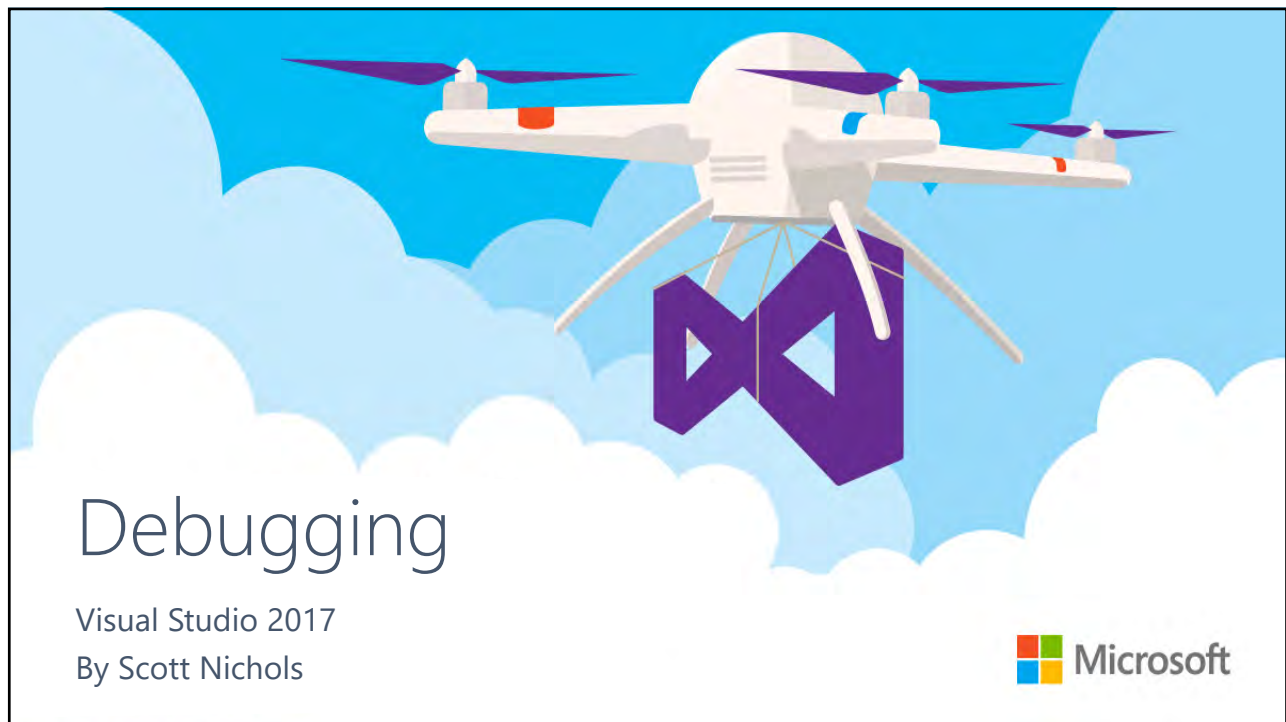
- Editor config
- Command prompt
- Code analysis
- Dependency validation

The illustration shows a hand placing a weight on a balance scale. The scale has two pans. The left pan contains a yellow hat and an orange hat. The right pan contains a blue hat. A green square base is positioned below the scale.

Thank you. Questions?



The slide features a purple background on the left and a blue background on the right. The Microsoft logo is located in the bottom right corner.

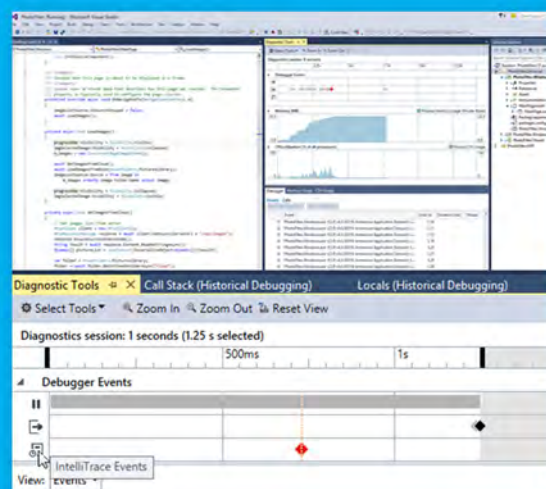


IntelliTrace

No More «No Repro»

Diagnosing unexpected behavior can take hours of searching and breakpoints.

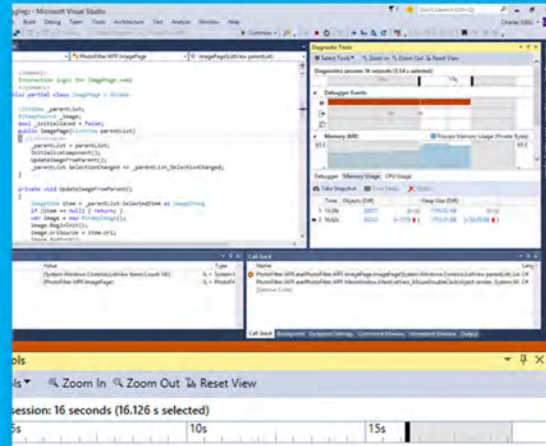
With IntelliTrace get a history execution and navigate back in time to see state.



.NET Dump Analysis

Prevent Performance Issues

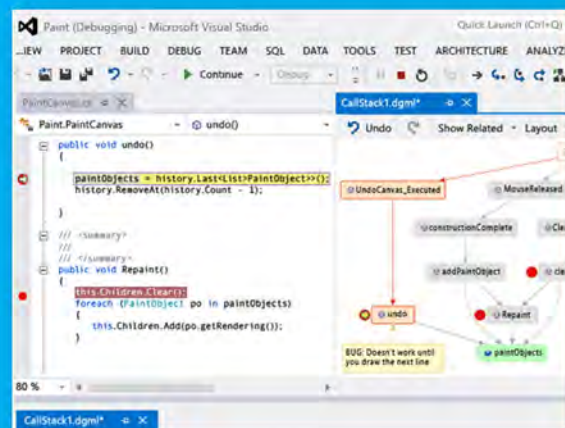
Use profiling tools – without the debugger – to get performance insights.



Visual Debugger

Visualize Your Code

Code Map debugger integration enables debugging complex software without getting lost. See where issues happen.

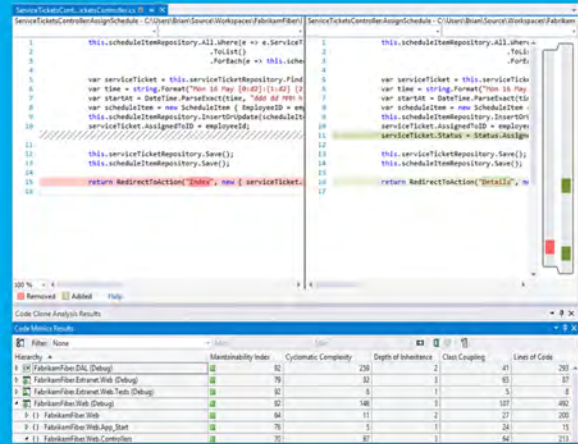


Code Analysis

Visualize Your Code

Identify potential issues using best-practice rules.

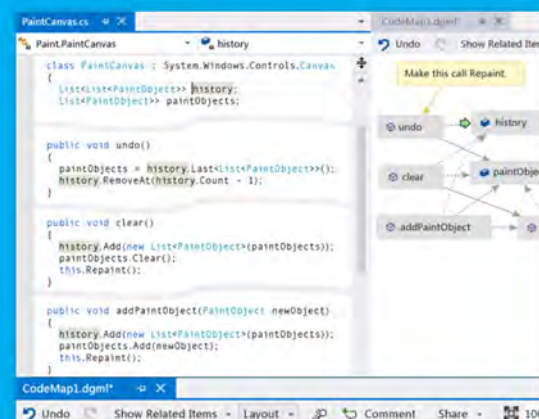
Running static code analysis tools during development.



Code Maps

Visualize Your Code

Map relationships in code with code maps. When you create code maps, they appear next to the code editor.



Developer candy

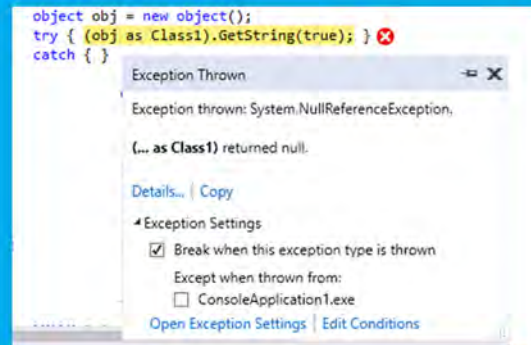
Exception helper

Non-modal dialog with instant access to inner exceptions

Attach to process filter

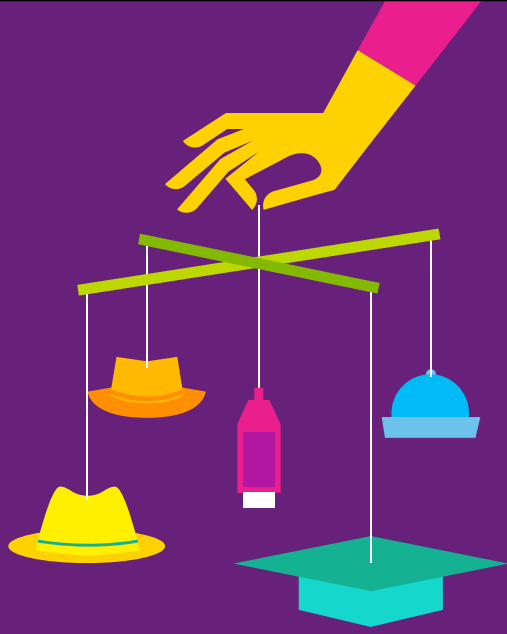
Re-attach to process

Run to click



Visual Studio 2017
Debugging

DEMO




Recap

- IntelliTrace
- .NET Dub Analysis
- Visual Debugger
- Code Analysis
- Code Maps

The illustration shows a hand placing a yellow hat on a balance scale. The scale has a green beam and a green base. On the left side, there is a yellow hat and a pink bottle. On the right side, there is a blue hat. The background is purple.

Thank you. Questions?



The slide features a purple background on the left and a blue background on the right. The text "Thank you. Questions?" is in the top left. The Microsoft logo is in the bottom right.

Testing

Visual Studio 2017

By Richard Clements

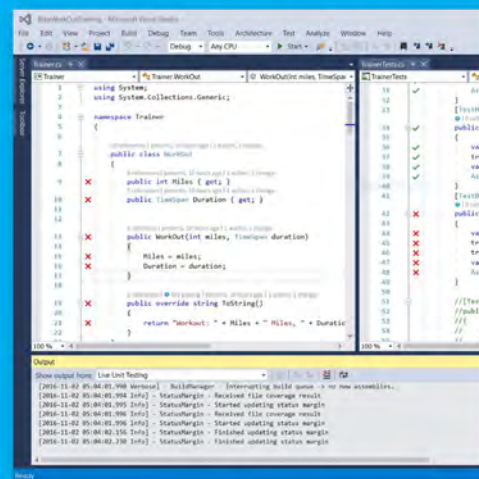


Live Unit Testing

Run Unit Tests While Coding

Get continuous feedback on the quality of your code with margin notations.

As you code, the editor runs unit tests in the background. Code is notated.

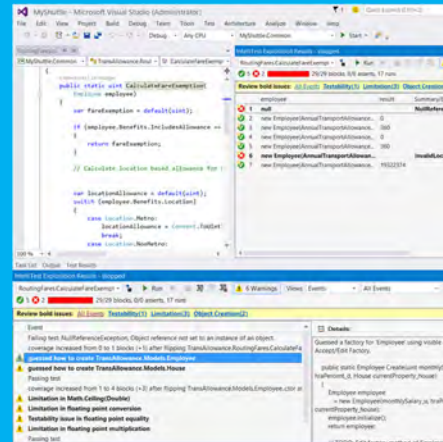


IntelliTest

Unit Testing – Now Better

Use IntelliTest to generate relevant unit tests for your code, automatically.

IntelliTest identifies the various code paths in selected blocks.

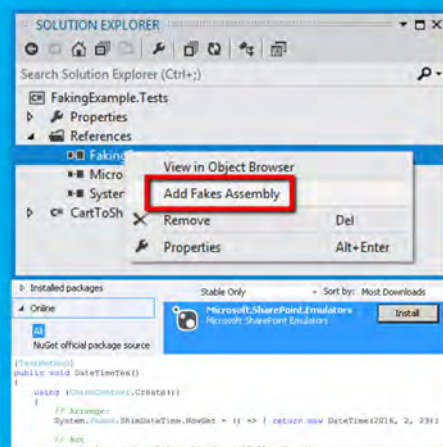


Microsoft Fakes

Unit Test Isolation

Improve your unit tests. Fakes isolate code by replacing parts with stubs.

Stubs and shims allow testing even when parts are not working.

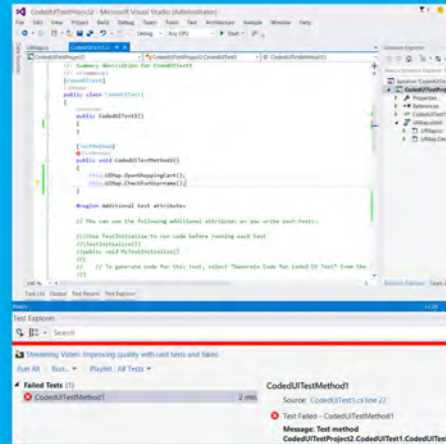


Coded UI Testing

Automate Manual Testing

Reduce regression testing by using the Coded UI framework to automate testing.

Create a coded UI test to ensure the UI works and displays correctly.

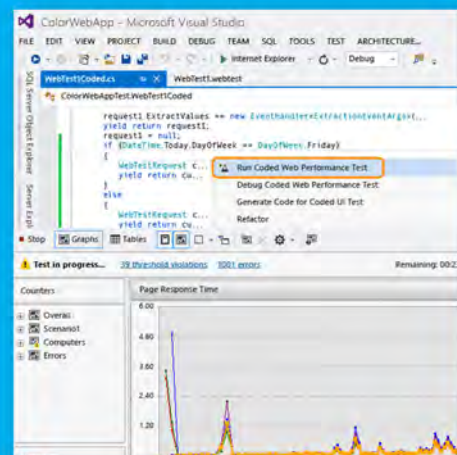


Load Testing

Know Your Limits

Visual Studio makes integrating load testing into your process easy.

Load testing provides the analytics to solve problems before deployment.



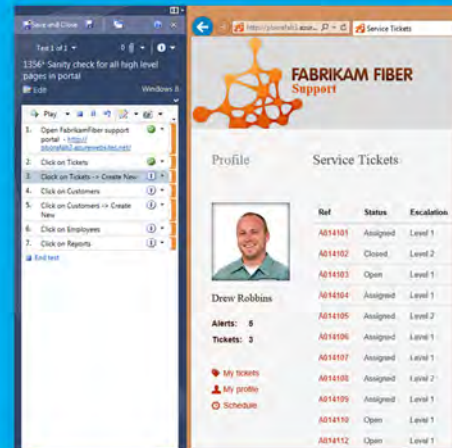
Manual Testing

Run, Record, Play Back

Capture steps performed and the fully instrumented result.

High-fidelity defect reports go directly to the development team.

Recorded tests can be played back later to reproduce context.



Visual Studio 2017 Testing

DEMO




Recap

- Live Unit Testing
- IntelliTest
- Microsoft Fakes
- Coded UI Testing
- Load Testing
- Manual Testing

The illustration shows a hand placing a weight on a balance scale. The scale has two pans. The left pan contains a yellow hat, an orange hat, and a pink bottle. The right pan contains a blue dome. The scale is balanced on a green base.

Thank you. Questions?

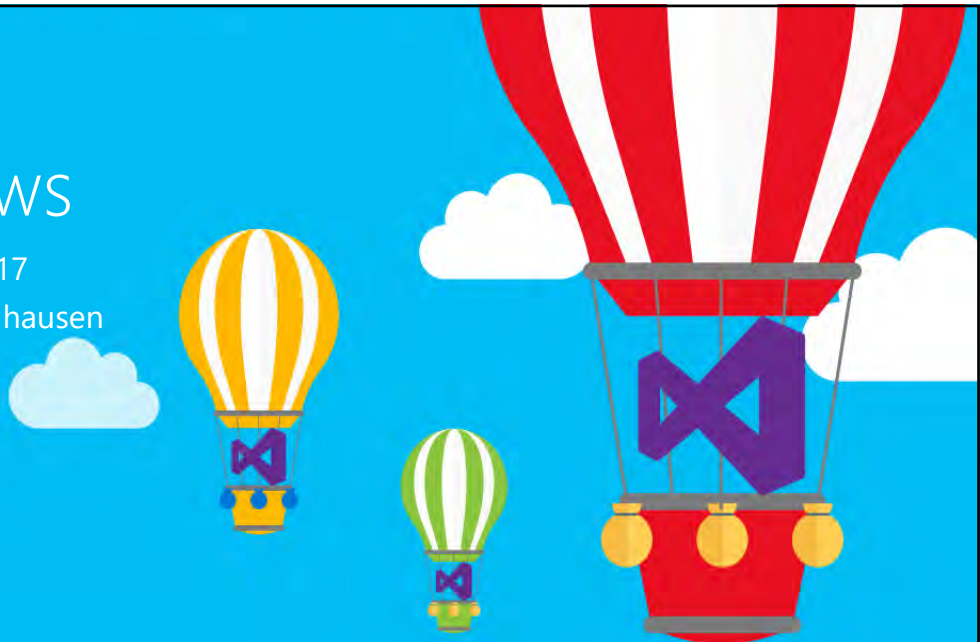


The slide features a purple background on the left and a blue background on the right. The text "Thank you. Questions?" is in the purple area. The Microsoft logo is in the bottom right corner of the blue area.

Windows

Visual Studio 2017

By Richard Hundhausen



Windows features

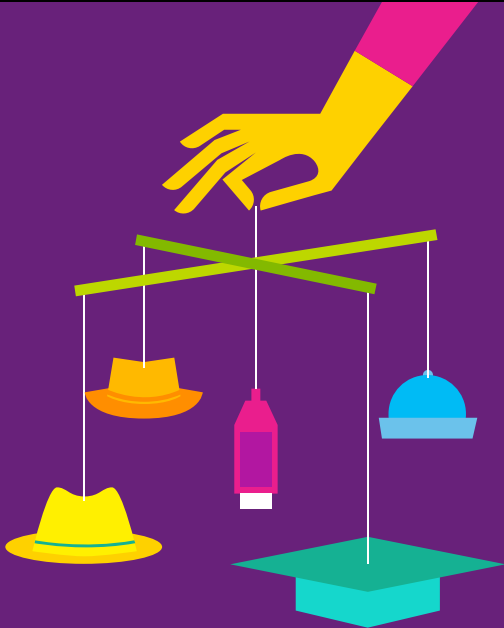
XAML Edit and continue

XAML UI Analysis

XAML Refactoring

UWP Visual Assets

Project Centennial



Recap

- XAML Edit and continue
- XAML UI Analysis
- XAML Refactoring
- UWP Visual Assets
- Project Centennial

Thank you. Questions?



Mobile

Visual Studio 2017

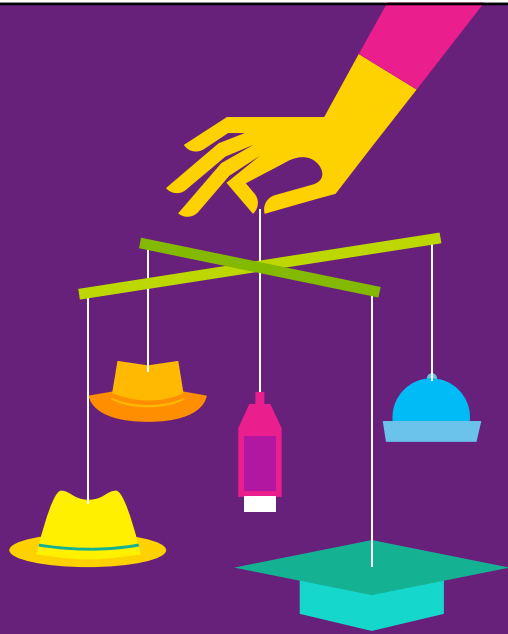
By Brian Lagunas



Mobile features



Recap



Thank you. Questions?

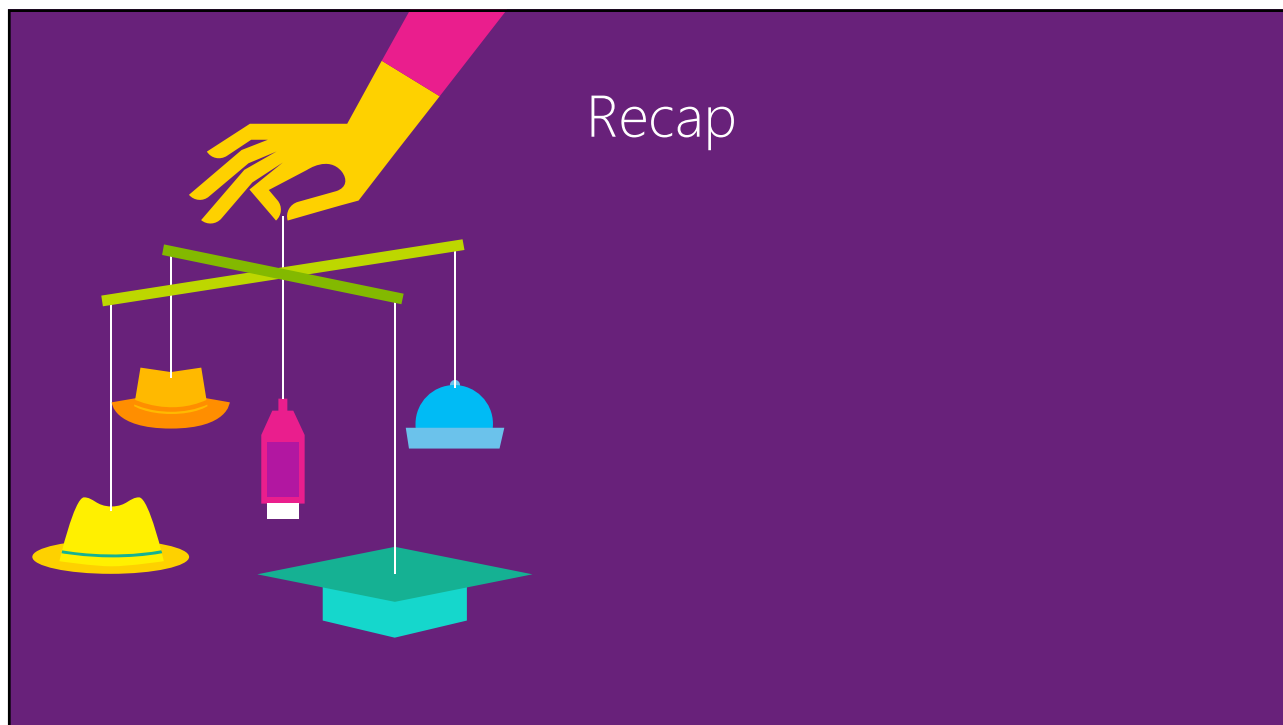
Web

Visual Studio 2017

By Mark Michaelis



Web features



Thank you. Questions?



Data

Visual Studio 2017

By Jason Brimhall



Data features

Redgate

SQL prompt

ReadyRoll

SQL Search

SQL Command Line

Text Templates

Visual Studio 2017
Data

DEMO

Code Generation

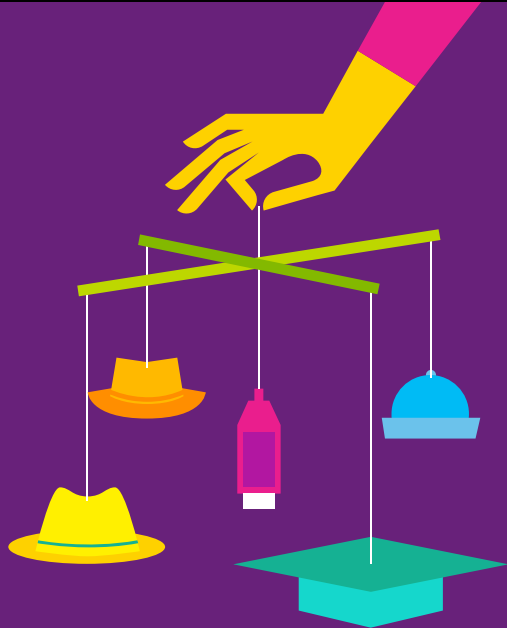
Built-in tooling

Generating comments, implementations, classes, methods, types, etc.

T4 Text Templates

A mixture of text blocks and control logic that can generate a text file

```
<#@ output extension=".txt" #>
<#@ assembly name="System.Xml" #>
<#
  System.Xml.XmlDocument configurationData = ...; // Read a data file here.
#>
namespace Fabrikam.<# configurationData.SelectSingleNode("jobName").Value #>
{
  ... // More code here.
}
```



Recap

- Redgate
- SQL prompt
- ReadyRoll
- SQL Search
- SQL Command Line
- Text Templates

Thank you. Questions?