

31.8.–3.9.2015
in Nürnberg



Herbstcampus

Wissenstransfer
par excellence

Inspiziert

Code-Analysen mit Roslyn

Christian Giesswein

Giesswein-Apps



GIESSWEIN-APPS

Code-Analysen mit Roslyn

Ing. Christian Giesswein, MSc.

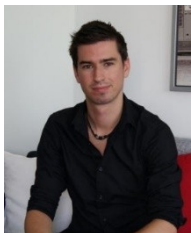
@giessweinweb

About Me



GIESSWEIN-APPS

- Ing. Christian Giesswein, MSc.
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- Giesswein-Apps (Österreich / Tirol)
 - Trainings / Coaching
 - Consulting
 - Individualentwicklung



Microsoft
CERTIFIED
Professional

Microsoft
CERTIFIED
Trainer

Microsoft
CERTIFIED
Solutions Developer
Windows Store Apps

Microsoft
CERTIFIED
Technology
Specialist

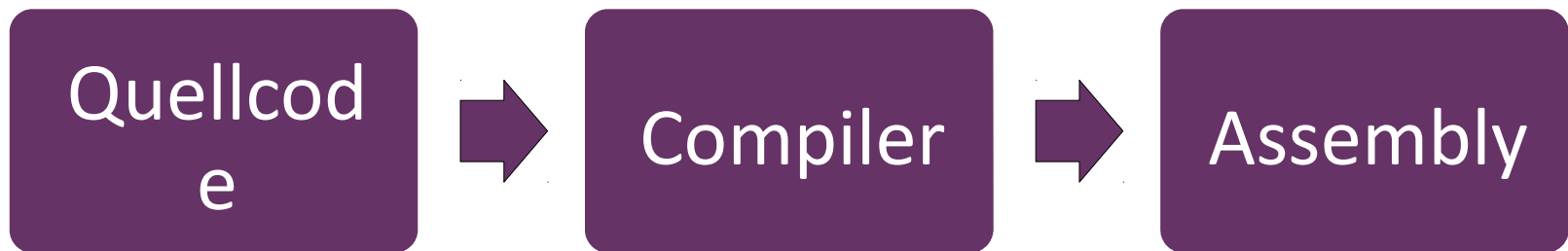
Microsoft
CERTIFIED
Professional
Developer

Microsoft
CERTIFIED
Solutions Developer
Web Applications



- Die neue .NET Compiler Platform
 - <https://roslyn.codeplex.com>
 - <https://github.com/dotnet/roslyn>
- Visual Studio 2015
- C# 6.0
 - <https://github.com/dotnet/roslyn/wiki/Languages-features-in-C%23-6-and-VB-14>

- „Früher“ war es üblich den Compiler als Black-Box zu betrachten



- Mit Roslyn wird diese Black-Box für uns sichtbarer und erweiterbarer

Doing



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The screenshot shows a Windows application window titled "MainWindow". The window contains a code editor with the following C# code:

```
namespace Test
{
    public class Program
    {
        public static void Main()
        {
            System.Console.WriteLine("Hallo!!!");
            System.Console.ReadLine();
        }
    }
}
```

Below the code editor, there is a status bar that reads "Letzter Build war: False". Below the status bar, there is a red error message box that reads: "'Console' does not contain a definition for 'Read1Line'".

Der magische SyntaxTree



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```
namespace Test
{
    public class Program
    {
        public static void Main()
        {
            Console.WriteLine("");
        }
    }
}
```

Koslyn Syntax visualizer

Syntax Tree

- NamespaceKeyword [4..13]
- IdentifierName [14..18]
- OpenBraceToken [20..21]
- ▾ ClassDeclaration [27..154]
 - PublicKeyword [27..33]
 - ClassKeyword [34..39]
 - IdentifierToken [40..47]
 - OpenBraceToken [53..54]
 - ▾ MethodDeclaration [64..147]
 - PublicKeyword [64..70]
 - StaticKeyword [71..77]
 - PredefinedType [78..82]
 - IdentifierToken [83..87]
 - ParameterList [87..89]
 - ▾ Block [99..147]
 - OpenBraceToken [99..100]
 - ▾ ExpressionStatement [114..136]
 - ▾ InvocationExpression [114..135]
 - ▾ SimpleMemberAccessExpression [114..131]
 - IdentifierName [114..121]
 - DotToken [121..122]
 - ▾ IdentifierName [122..131]
 - IdentifierToken [122..131]

Properties

Type IdentifierNameSyntax
Kind IdentifierName

.NET Compiler Platform SDK Kostenlos

The .NET Compiler Platform ("Roslyn") provides open-source C# and Visual Basic compilers with rich code analysis APIs. You can build code analysis tools with the same APIs that Microsoft is using to implement Visual Studio! Also includes the Syntax Visualizer, a Visual Studio ...

ERSTELLT VON:	Visual Studio Product Team (Microsoft)	ZULETZT AKTUALISIERT	20.07.2015
REZENSIONEN	★★★★★ (0) Rezension	VERSION	1.0.0.50618
UNTERSTÜTZT	Visual Studio 2015	LIZENZ	Ansicht
DOWNLOADS	Herunterladen (4.308)	FREIGABE	       
ÜBERSETZT NACH	English	FAVORITEN	Zu Favoriten hinzufügen
TAGS	Refactoring , code analysis , SDK , Visualizer , syntax , roslyn		

- <https://visualstudiogallery.msdn.microsoft.com/2ddb7240-5249-4c8c-969e-5d05823bcb89>

Eigene Codediagnosen/Fixes



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1-Verweis

```
static void Main(string[] args)
{
    if (true)
    {
        Main(args);
    }
}
```

Füge Klammern hinzu
MyCodeDiagnostics unterdrücken

MyCodeDiagnostics Type name '{0}' contains lowercase letters

```
...
if (true)
{
    Main(args);
}
...

```

Änderungen in Vorschau anzeigen
Alle Vorkommen korrigieren in: [Dokument](#) | [Projekt](#) | [Lösung](#)

„Echte“ Projekte mit Roslyn



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- <http://vsrefactoringessentials.com>
- <https://github.com/icsharpcode/RefactoringEssentials>



Refactoring Essentials

The premier free Visual Studio 2015 extension for C# and VB.NET refactorings, including code best practice analyzers to improve your projects.

Install »

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Fork 33

Tweet 68

The background of the slide features a close-up of a beer glass on the left, partially filled with a golden beer. A label on the glass is visible, showing the word 'CHIAITTO' in reverse. To the right of the glass, a purple business card is partially visible, featuring a circular logo with a stylized 'G' and 'P' and some text that is difficult to read. The entire scene is overlaid with a semi-transparent purple filter.

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... oder persönlich :-)

Vielen Dank für Ihre Aufmerksamkeit