Roslyn

Compiler-as-a-Service

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The olden days

Black-box compiler



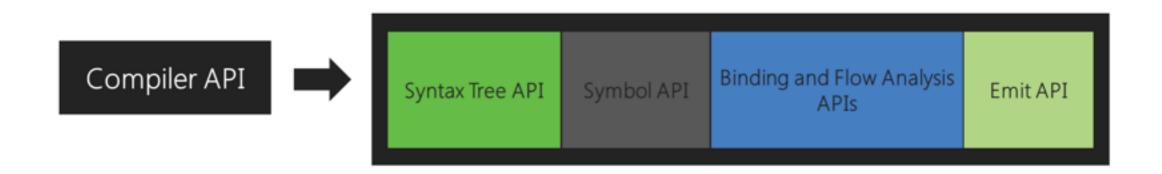
Getting info on code is hard

Out with the old, In with the new

- C# 5.0 / 6.0
- IDE experience
 - IntelliSense
 - Code analysis
- Open Source

Compiler-as-a-Service

Compiler internals as APIs



Layers of APIs

Core Compiler Layer

Language Specific Layer

Compilers

Workspace Layer

Features

Editor Features

Language Service

How do we benefit?

- Visual Studio experience will become better
 - Better refactoring
 - Better code analysis
 - Better IntelliSense
- New language features
- ASP.Net vNext
 - Save/Refresh

Should I get excited?

- If you just use Visual Studio?
 - Not so much, but at least a little bit
- If you're big on code analysis?
 - Yes, code analysis is a lot easier
- If you're a compiler nerd?
 - Yes!

Demo 1

Code analysis

Demo 2

Exception filters

