



Using Roslyn to improve your codebase

Jiří Činčura
@cincura_net
www.tabsoverspaces.com



Before



Blackbox

Compiler vs. Visual Studio language services

Written in unmanaged code 😊

Refactorings, renames, references, ...

Roslyn



Next (currently last 😊) generation C# (etc.) compiler

Almost 10 years

Open platform

i.e. access to syntax and semantic models

Rich API

Open source

Roslyn



Almost completely immutable

Lazy initialization

Lock-free

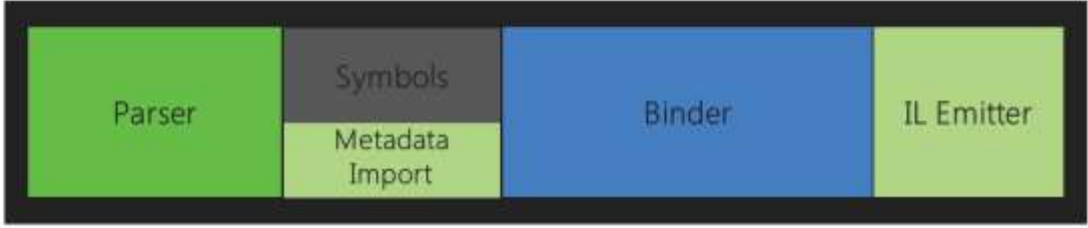
Language Service



Compiler API



Compiler Pipeline



Roslyn



Syntax Tree API

lexical and syntax information

Symbol API

i.e. Find All References


Binding and analysis API

i.e. casting, name conflicts

Emit API



Demo

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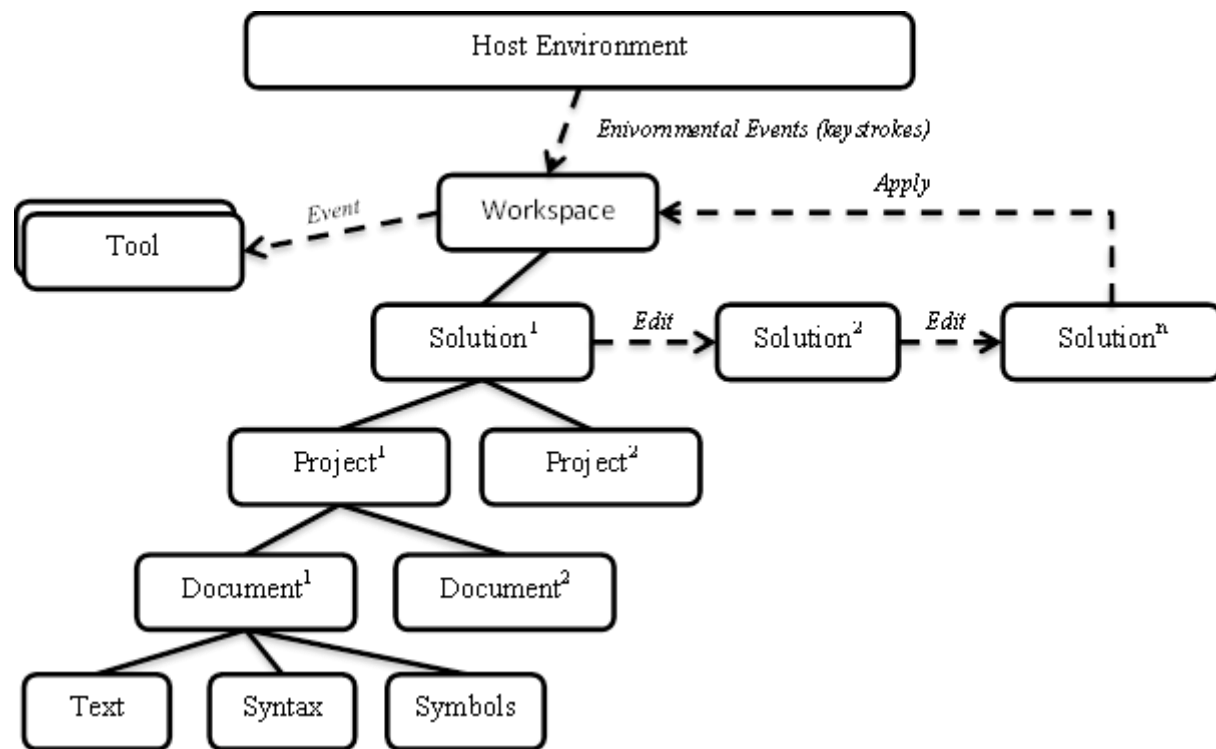
Tools



<https://roslynquoter.azurewebsites.net/>

<https://sharplab.io/>

Workspaces





Demo

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Questions?

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