

Using Roslyn to improve your codebase

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Before

- Blackbox
- Compiler vs. Visual Studio language services
- Written in unmanaged code 😊
- Refactorings, renames, references, ...

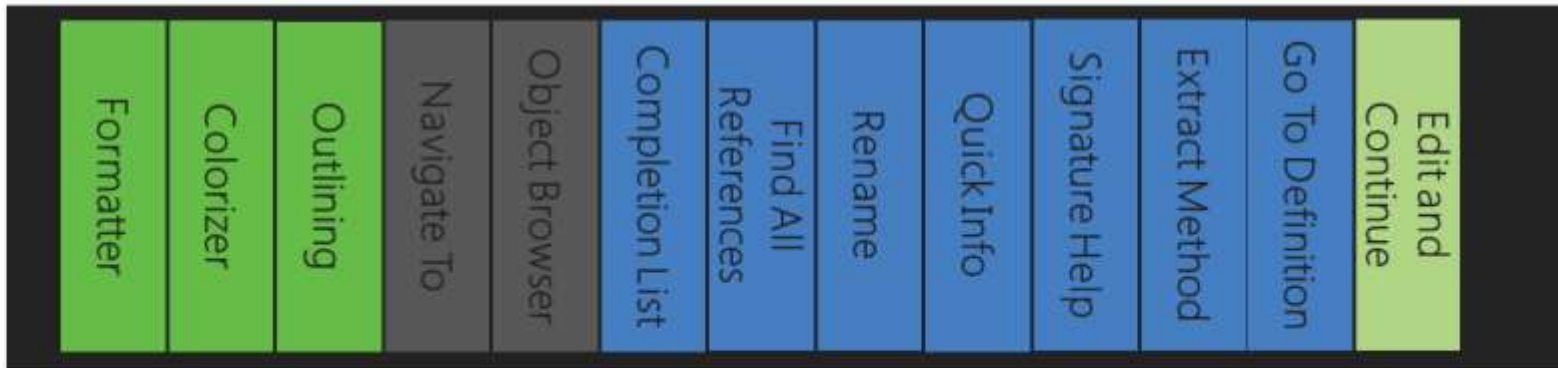
Roslyn

- Next (currently last 😊) generation C# (etc.) compiler
 - Almost 10 years
- Open platform
 - i.e. access to syntax and semantic models
- Rich API
- Open source

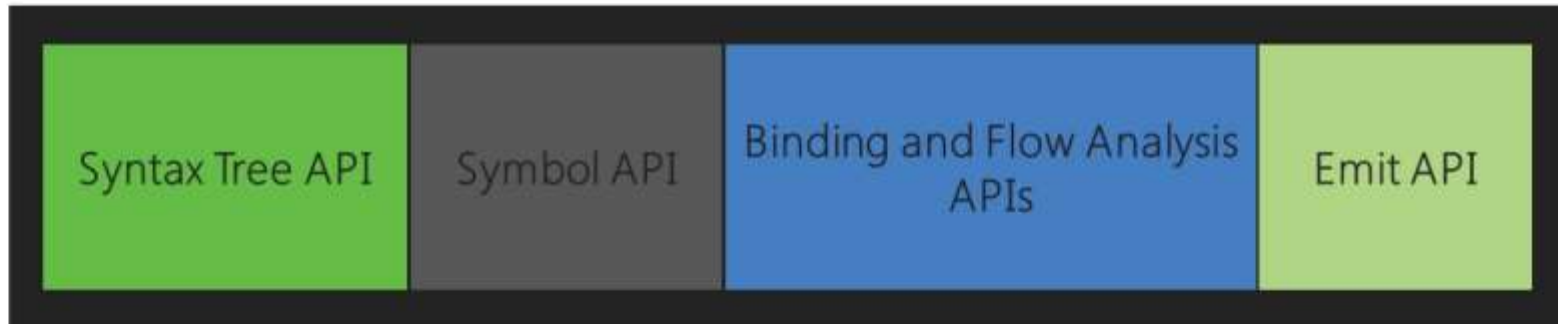
Roslyn

- Almost completely immutable
- Lazy initialization
- Lock-free

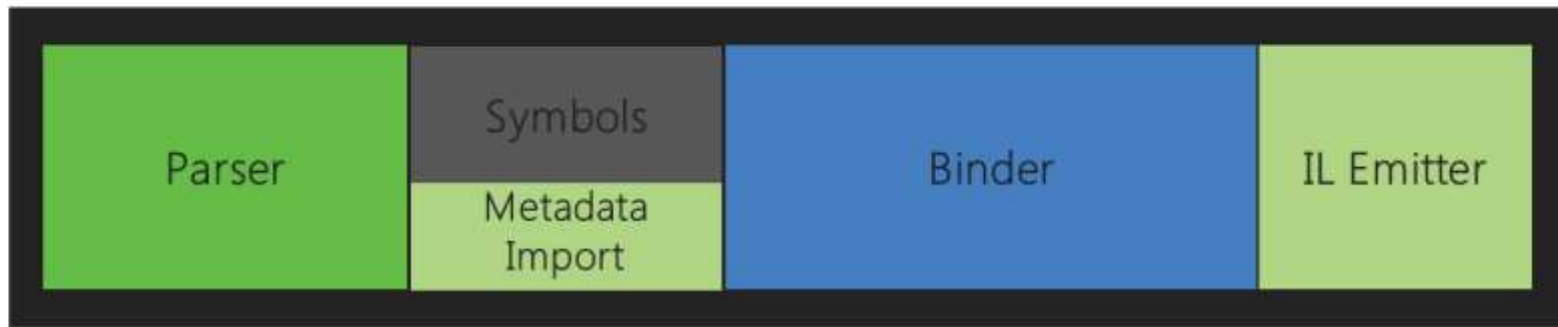
Language Service



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

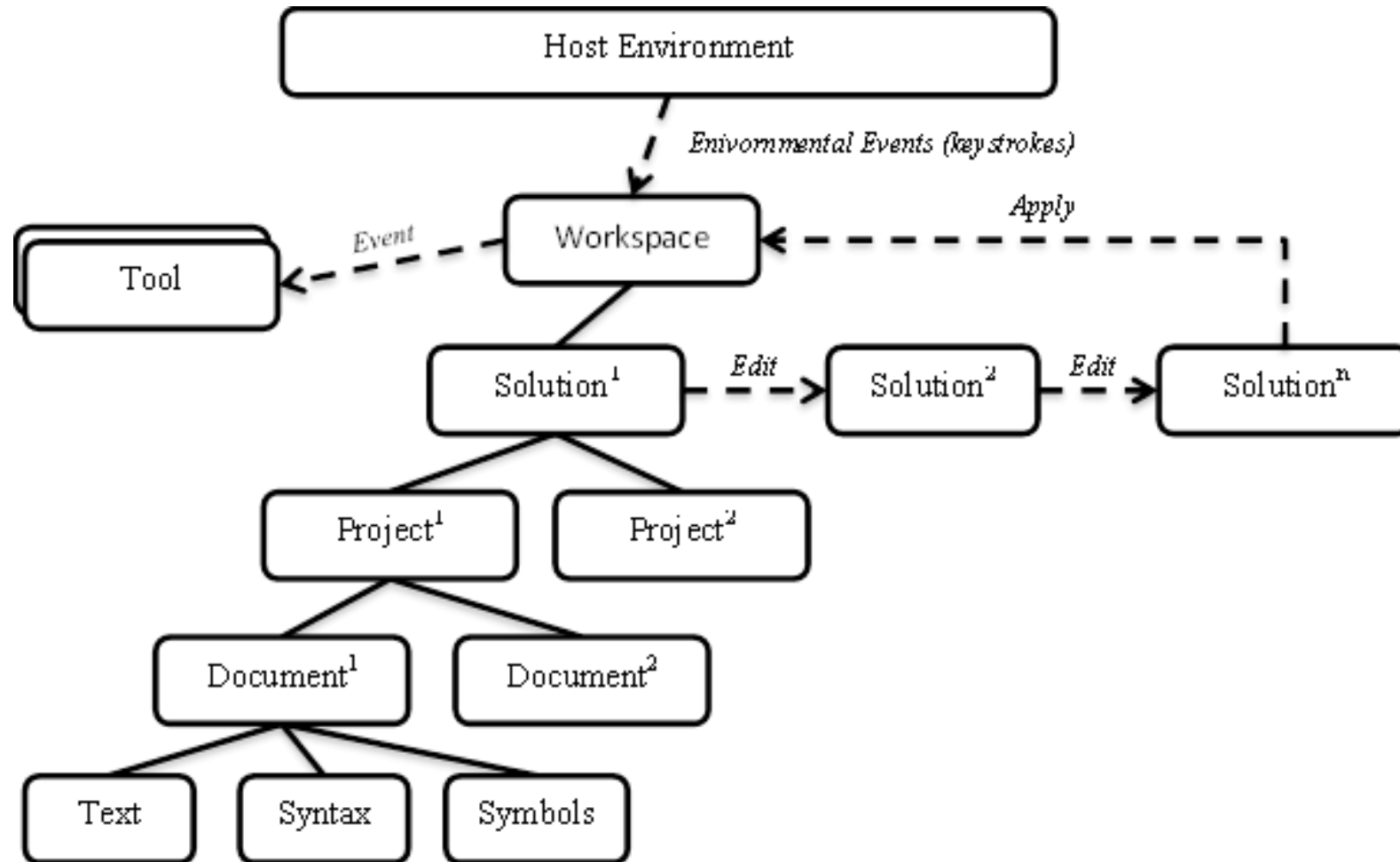
Demo

Tools

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

<https://sharplab.io/>

Workspaces



Demo

Q & A

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