

Cross Platform EF Core and a Look at the Newest Tooling



Julie Lerman

MOST TRUSTED AUTHORITY ON ENTITY FRAMEWORK

@julielerman thedatafarm.com



Overview



Exploring EF Core in VS2017 using the upcoming msbuild support for csproj

Building an EF Core dependent app with Visual Studio Code in Windows

Building an EF Core dependent app with Visual Studio Code in OS X

Interacting with raw data with cross-platform tools



EF Core with .NET Core csproj Support in Visual Studio 2017







Project Metadata in Latest .NET Core Tools

**project.json
will no longer be
supported**

**Return to msbuild
with an
improved csproj file (xml)**



.NET Core & .NET Standard Libraries

	.NET Core	.NET Standard
Full .NET Runtime		
.NET Core Runtime		
Universal Windows Platform		

Details of .NET Standard versioning relative to supported runtimes and APIs
github.com/dotnet/standard/blob/master/docs/versions.md



```
<ItemGroup>
  <DotNetCliToolReference Include="Package.Name"
                        Version="Version #"/>
</ItemGroup>
```

Add CLI Tools Packages Manually to csproj

Element is **DotNetCliToolReference**

Keep tools in separate ItemGroup



Migrating the ASP.NET Core Solution Created in Visual Studio 2015



Switching to SQLite & Running EF Core Migrations in VS2017



Coding with EF Core in Visual Studio Code



EF Core & Visual Studio Code in Windows



Interacting with Raw Data While Still in Visual Studio Code





I have not updated this demo to use the 1.0.0 SDK.

This demo

- .NET Core SDK Preview
- EF Core 1.0.0 ➡ 1.1.0
- EF Core preview tools
- project.json

RTM Tools




- .NET Core SDK 1.0.0
- EF Core 1.1.1
- EF Core Tools 1.0.0
- csproj



Task Manager

File Options View

Processes Performance App history Startup Users Details Services

Name	16% CPU	40% Memory	0% Disk	0% Network
Apps (10)				
>  Microsoft Visual Studio 2015 (32 bit)	0%	161.9 MB	0 MB/s	0 Mbps
>  SSMS (32 bit)	0.3%	74.2 MB	0.1 MB/s	0.1 Mbps
>  Visual Studio Code (32 bit)	0%	19.0 MB	0 MB/s	0 Mbps



Coding & Debugging EF Core in OS X with PostgreSQL



Exploring Data Created by EF Core in OS X



Key Takeaways About EF Core



Run cross-platform
Build & debug cross-platform
Native runtime

Visual Studio
2015, 2017 & Mac

VS Code
Cross platform

Flexible
Full .NET or .NET Core
Visual Studio 2015, 2017, Mac
CLI & Visual Studio Code



EF Core

Production Ready



Actively Evolving



Visual Designer

*3rd party support

Familiar APIs



Full .NET Support



*4.5.1 +

.NET Core Support



Lightweight API(s)



Better APIs, New Features



Non-Relational Data

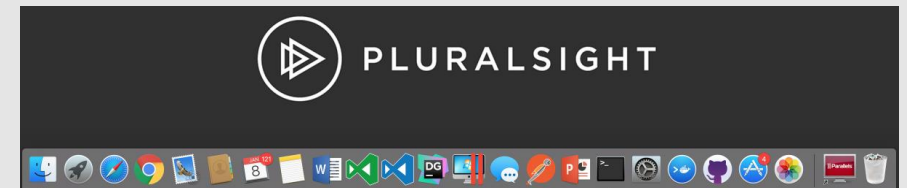
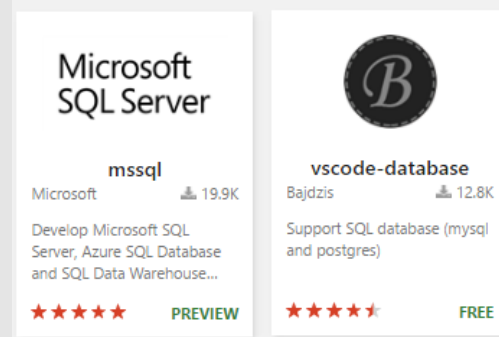
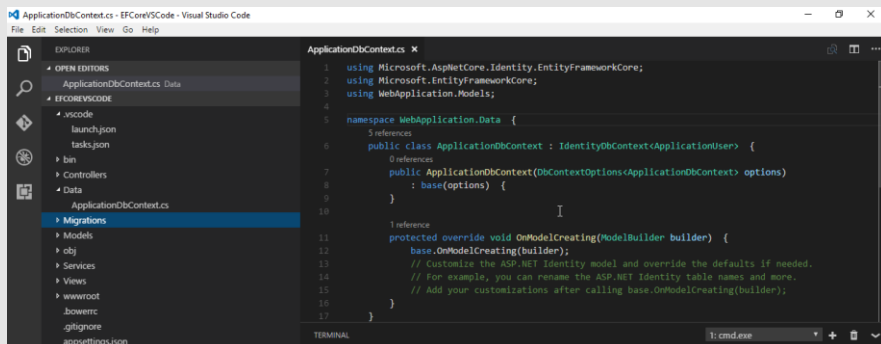
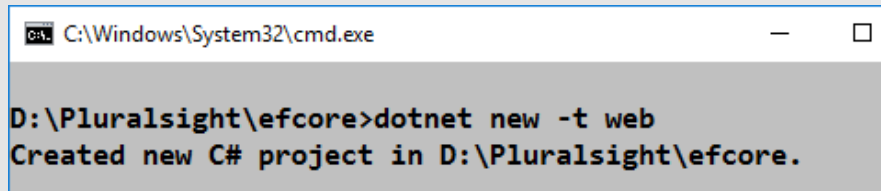
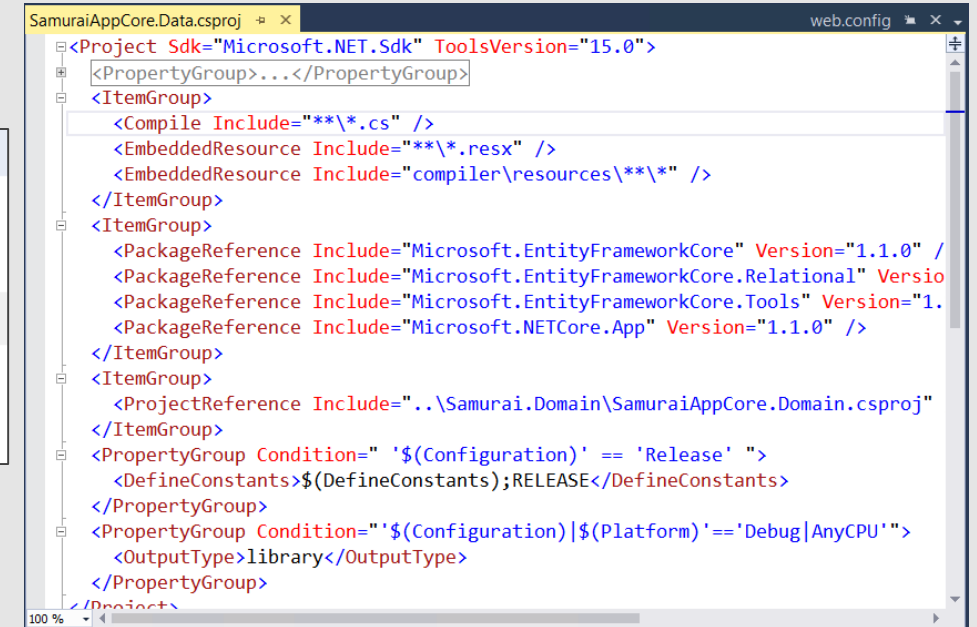
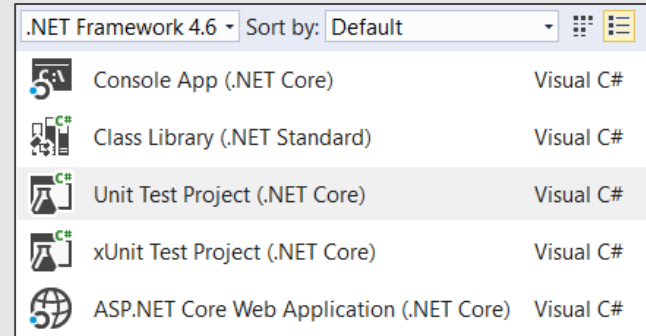
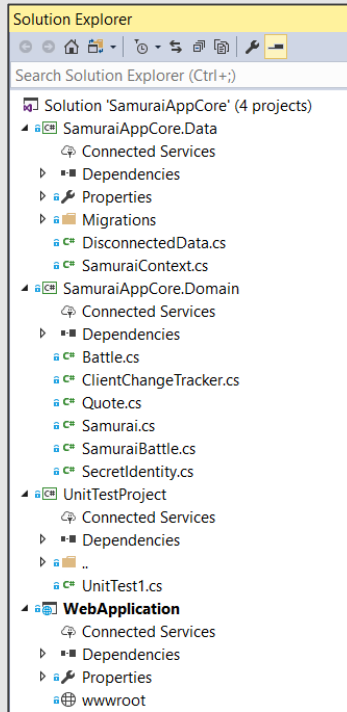
*future support

Open-Source (on Github)



Visual Studio 2017 RC

Review



Resources

Entity Framework Core on GitHub github.com/aspnet/entityframework

EF Core Roadmap bit.ly/efcoreroadmap

EF Core Documentation docs.microsoft.com/ef

My GitHub account: github.com/julielerman

PostgreSQL EF Core Provider: npqsql.org/efcore/index.html

Blog post about .NET Core MSBuild Tools

blogs.msdn.microsoft.com/dotnet/2016/11/16/announcing-net-core-tools-msbuild-alpha

EF Core 1.1 Announcement

blogs.msdn.microsoft.com/dotnet/2016/11/16/announcing-entity-framework-core-1-1

My blog post about making identity tables lower case

thedatafarm.com/data-access/ef-core-postgres-and-the-camel-cased-identity-tables

Visual Studio Code docs code.visualstudio.com

Electron electron.atom.io

Jet Brains DataGrip jetbrains.com/datagrip



Entity Framework Core: Getting Started

CROSS-PLATFORM EF CORE
AND A LOOK AT UPCOMING TOOLING



Julie Lerman

MOST TRUSTED AUTHORITY ON ENTITY FRAMEWORK

@julielerman thedatafarm.com

