The Future of .NET Desktop Development

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Nice to meet you!

- Application architect @ Realdolmen

- Microsoft MVP since 2014

- Runs a user group called MADN

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Let's start with the 'why?'

- Who's been doing WinForms lately?

- How about WPF?

- New development?

- Maintenance?

Let's start with the 'why?'

2.4 Million
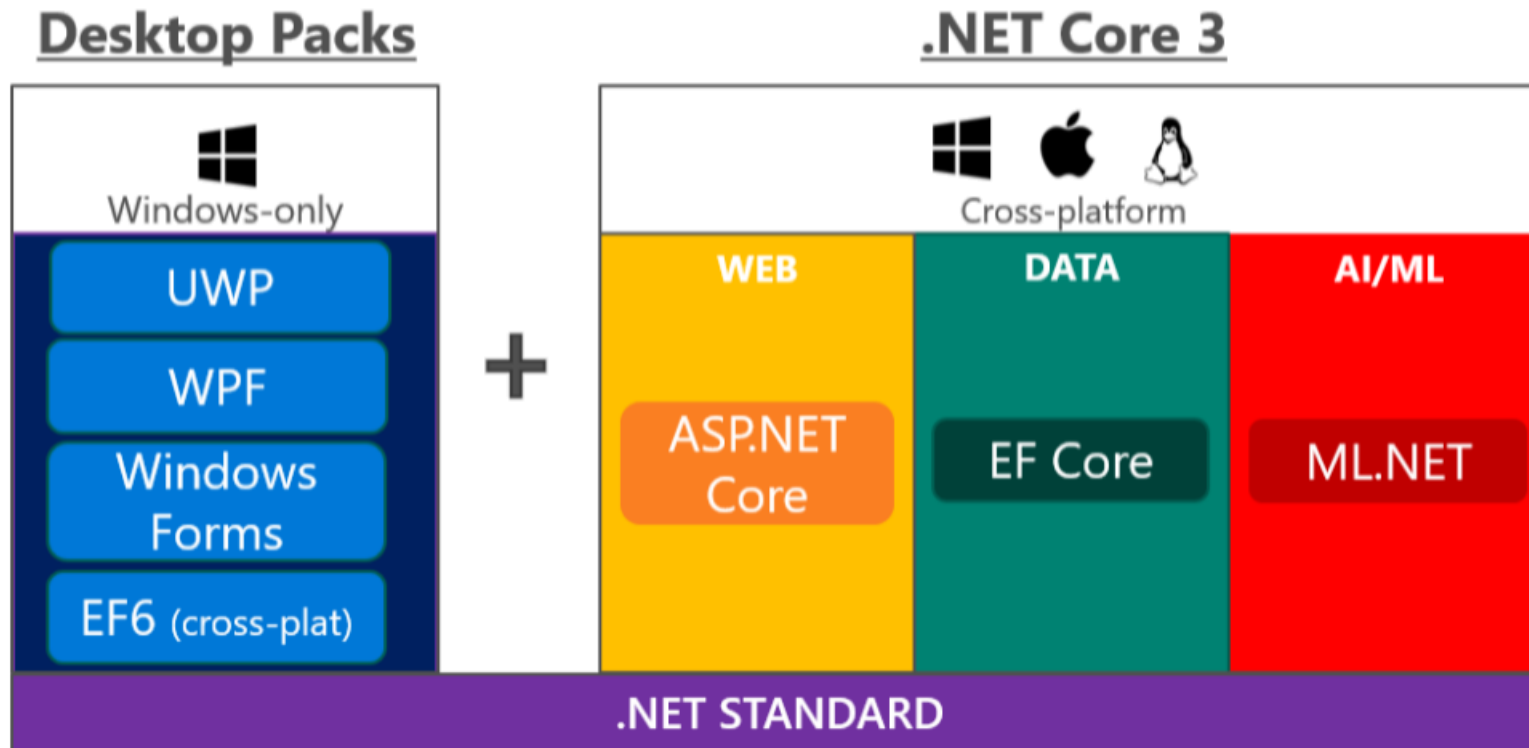developers are building desktop apps in Visual Studio every month

800 Million
Devices are running Windows 10

Source: Ignite 2018 / Build 2019
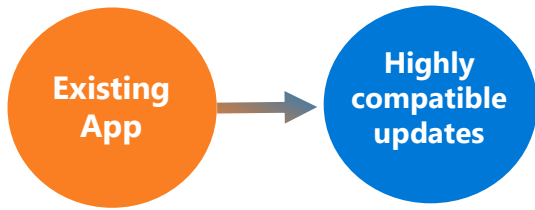
What does .NET Core 3 bring to the table?

- > `dotnet new wpf`
- > `dotnet new winforms`
- XAML Islands
- High DPI
- Win10 API access
- Self contained applications

Modernize desktop apps with .NET Core 3

Update .NET Framework Apps

Modernize Desktop Apps with .NET Core 3

Existing App

Highly compatible updates

Install .NET Core updates per your needs

.NET Framework 4.8

Windows-only

Highly-compatible, targeted improvements, like last few releases

.NET Core 3

Windows-only

UWP

WPF

Windows Forms

Cross-platform

WEB	DATA	AI/ML
ASP.NET Core	EF 6 EF Core	ML.NET

.NET STANDARD

- .NET Framework support **unchanged** (supported for life of Windows)

- Side-by-side support
- Self-contained EXEs

- XAML Islands - WinForms & WPF apps can host UWP controls
- Full access to Windows 10 APIs

FEATURES IN BOTH FXs

What's Next?

Demo

Starting a new app

Current Status

- .NET Core 3 Preview 5 released at //Build last week

- GA in September 2019

- .NET 5 in November 2020

- Building / debugging with Visual Studio 2019
  - Preview channel or manually enable .NET Core preview support
  - No designer support so far
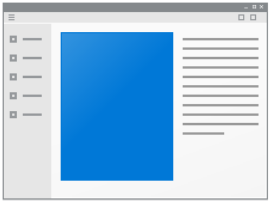
Migrating to .NET Core 3

- .NET portability analyzer
  - https://docs.microsoft.com/en-us/dotnet/standard/analyzers/portability-analyzer
- Migrate to PackageReference
- Migrate libraries to .NET Standard
- Run the app
- Port tests

https://docs.microsoft.com/en-us/dotnet/core/porting/

Demo

Migrating to .NET Core 3

App Distribution

Setup.exe

MSI

MSIX

Microsoft® Application Virtualization

script.vbs

MSIX

- No machine rot
- Containerized
- Differential updates
- Automatic updates

Distribution

- Store / Store for Business
- File Share
- HTTPS endpoint
- Anywhere

Demo

Packing application

Takeaways

- Desktop development is here to stay!
- .NET Core is the way forward => to be renamed to .NET 5
- All new desktop apps should run on .NET Core 3
- Existing apps that are being developed can migrate to .NET Core 3
- MSIX for app install

Resources

- https://devblogs.microsoft.com/dotnet/net-core-3-and-support-for-windows-desktop-applications/
- https://docs.microsoft.com/en-us/dotnet/core/whats-new/dotnet-core-3-0
- https://oren.codes/

Any Questions?

Thank You!

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