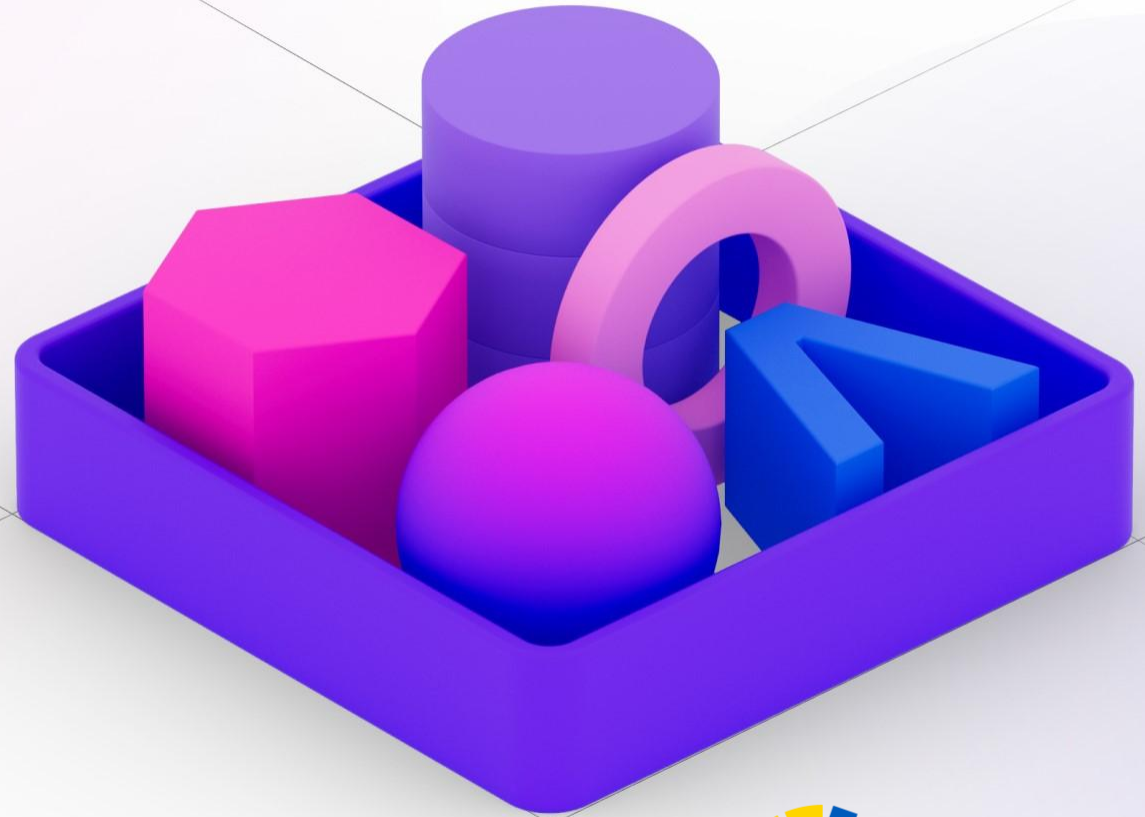


# .NET Conf 2023





# Da WinForm al Web: La transizione è possibile con Blazor Hybrid!

Nicola Paro



# A Real Life Story

Maybe





# A Real Life Story

- Applicativo per la gestione degli ordini
- Hanno più client connessi al database
- Applicativo WinForm .NET Framework 3.5

Form1

Orders Products

	OrderID	CustomerID	EmployeeID	OrderDate	RequiredDate
	10248	VINET	5	04/07/1996	01/08/1996
	10249	TOMSP	6	05/07/1996	16/08/1996
▶	10250	HANAR	4	08/07/1996	05/08/1996
	10251	VICTE	3	08/07/1996	05/08/1996
	10252	SUPRD	4	09/07/1996	06/08/1996
	10253	HANAR	3	10/07/1996	24/07/1996
	10254	CHOPS	5	11/07/1996	08/08/1996

Order Details

Order ID	10250
Customer	Hanari Carnes
Employee	Margaret Peacock
Shipping	
Address	Rua do Paço, 67
City	Rio de Janeiro
Region	RJ
Postal Code	05454-876
Country	Brazil

	OrderID	ProductID	ProductName	UnitPrice
▶	10250	41	Jack's New England Clam Chow...	7.7000
	10250	51	Manjimup Dried Apples	42.4000
	10250	65	Louisiana Fiery Hot Pepper Sauce	16.8000



# A Real Life Story

Problematiche dell'implementazione attuale

**Legacy  
Codebase**

**Sincronizzazione**

**Problemi di  
Sicurezza**

**Manutenzione e  
Distribuzione**

**Scalabilità**

**Tecnologia  
Obsoleta**



# A Real Life Story

Desiderata

**Scalabilità**

**Maggior  
Sicurezza**

**Accesso anche  
da Remoto**

**UI Moderna**

**Aggiornabilità**

**Compatibilità  
con Dispositivi  
Diversi**



# A Real Life Story

Desiderata

Orders		Products			
OrderID	CustomerID	EmployeeID	OrderDate	RequiredDate	
10248	VINET	5	04/07/1996	01/08/1996	
10249	TOMSP	6	05/07/1996	16/08/1996	
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10251	VICTE	3	06/07/1996	05/08/1996	
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<https://northwind.boh>



## Blazor Hybrid on WinForm



# Blazor Hybrid On WinForms

Differenze con le altre modalità di utilizzo di Blazor

- Eseguito **nativamente** nel dispositivo client.
- Può accedere a tutte le funzionalità del dispositivo utilizzando .NET
- Renderizzato in una **WebView2** “embeddata” all’interno dell’applicazione tramite un canale in interoperabilità.

<https://github.com/dotnet/maui/blob/main/src/BlazorWebView/src/SharedSource/WebView2WebViewManager.cs#L201>

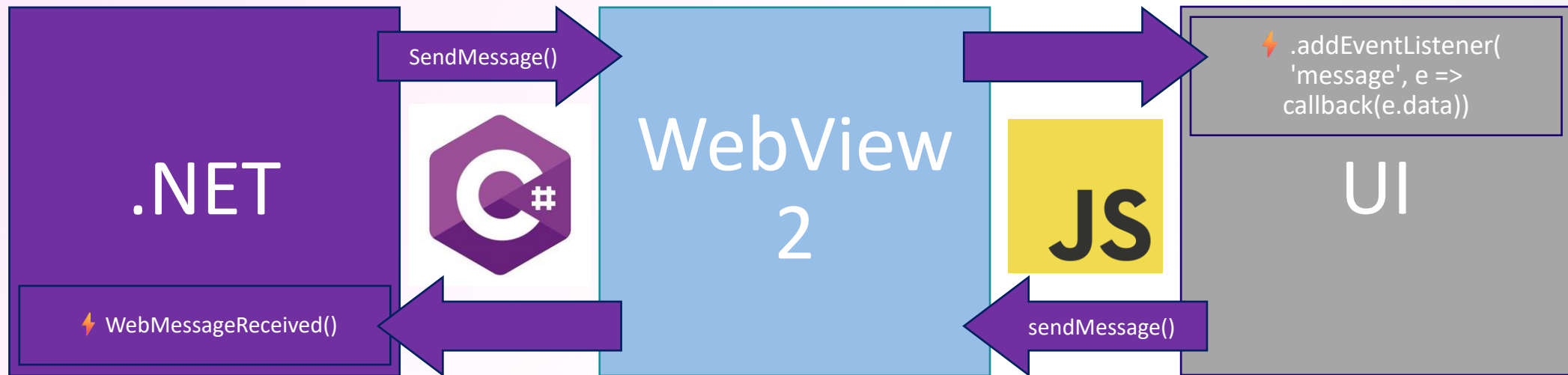
# Blazor Hybrid On WinForms

Che cos'è WebView2 ?

- Microsoft Edge WebView2 è un runtime che fornisce funzionalità web-based ad applicativi desktop.
- Utilizza Microsoft Edge come rendering engine.










# Blazor Hybrid On WinForms

Comunicazione tra .NET e WebView2



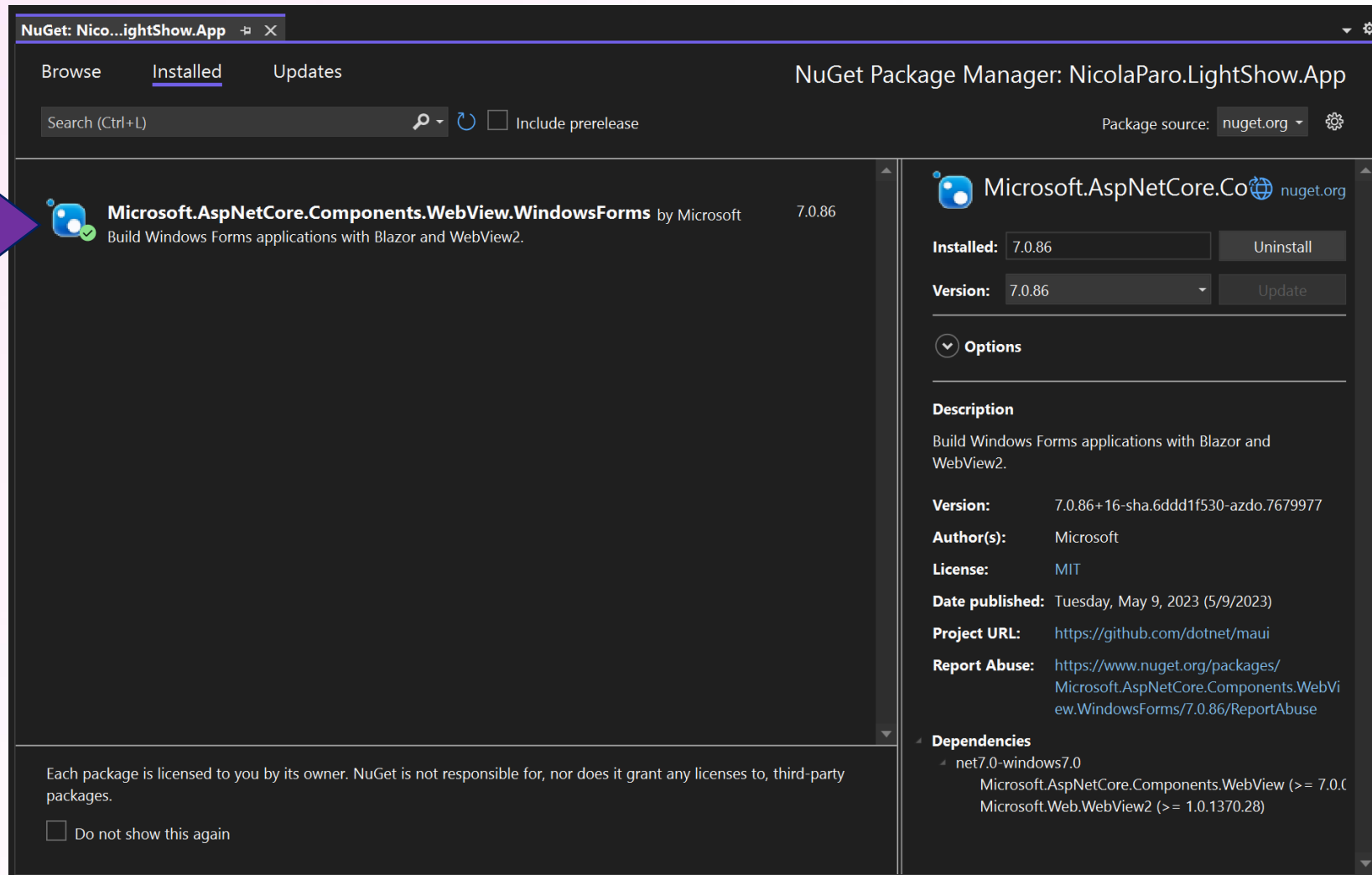
# Blazor Hybrid On WinForms

## Workloads

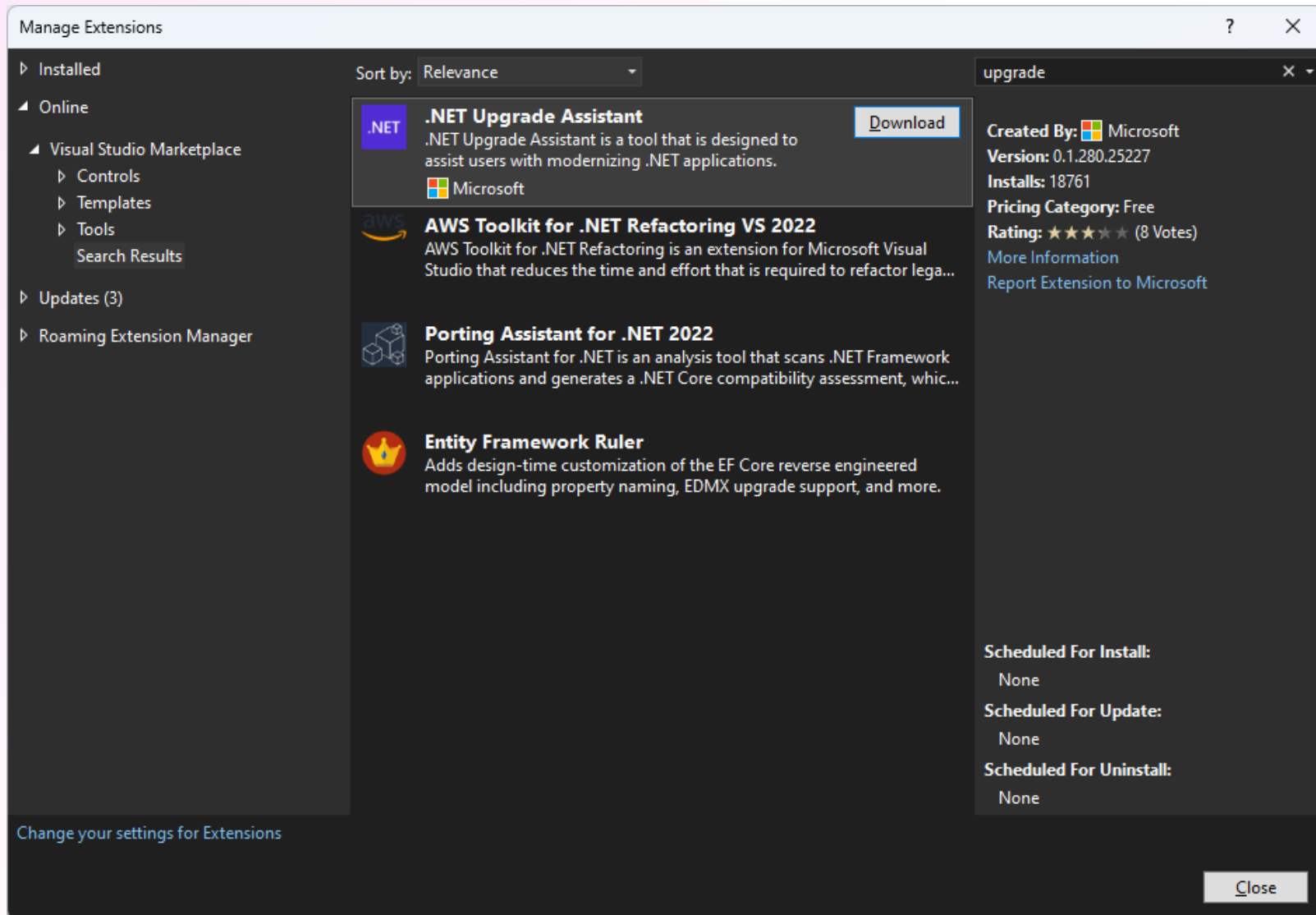
Workloads	Individual components	Language packs	Installation locations
Web & Cloud (4)			
 <b>ASP.NET and web development</b> Build web applications using ASP.NET Core, ASP.NET, HTML/JavaScript, and Containers including Docker supp...	<input checked="" type="checkbox"/>		
 <b>Azure development</b> Azure SDKs, tools, and projects for developing cloud apps and creating resources using .NET and .NET Framework....	<input checked="" type="checkbox"/>		
 <b>Python development</b> Editing, debugging, interactive development and source control for Python.	<input type="checkbox"/>		
 <b>Node.js development</b> Build scalable network applications using Node.js, an asynchronous event-driven JavaScript runtime.	<input type="checkbox"/>		
Desktop & Mobile (5)			
 <b>.NET Multi-platform App UI development</b> Build Android, iOS, Windows, and Mac apps from a single codebase using C# with .NET MAUI.	<input checked="" type="checkbox"/>		
 <b>.NET desktop development</b> Build WPF, Windows Forms, and console applications using C#, Visual Basic, and F# with .NET and .NET Frame...	<input checked="" type="checkbox"/>		
 <b>Desktop development with C++</b> Build modern C++ apps for Windows using tools of your choice, including MSVC, Clang, CMake, or MSBuild.	<input type="checkbox"/>		
 <b>Mobile development with C++</b> Build cross-platform applications for iOS, Android or Windows using C++.	<input type="checkbox"/>		
 <b>Universal Windows Platform development</b> Create applications for the Universal Windows Platform with C#, VB, or optionally C++.	<input checked="" type="checkbox"/>		

# Blazor Hybrid On WinForms

Nuget per utilizzare Blazor Hybrid

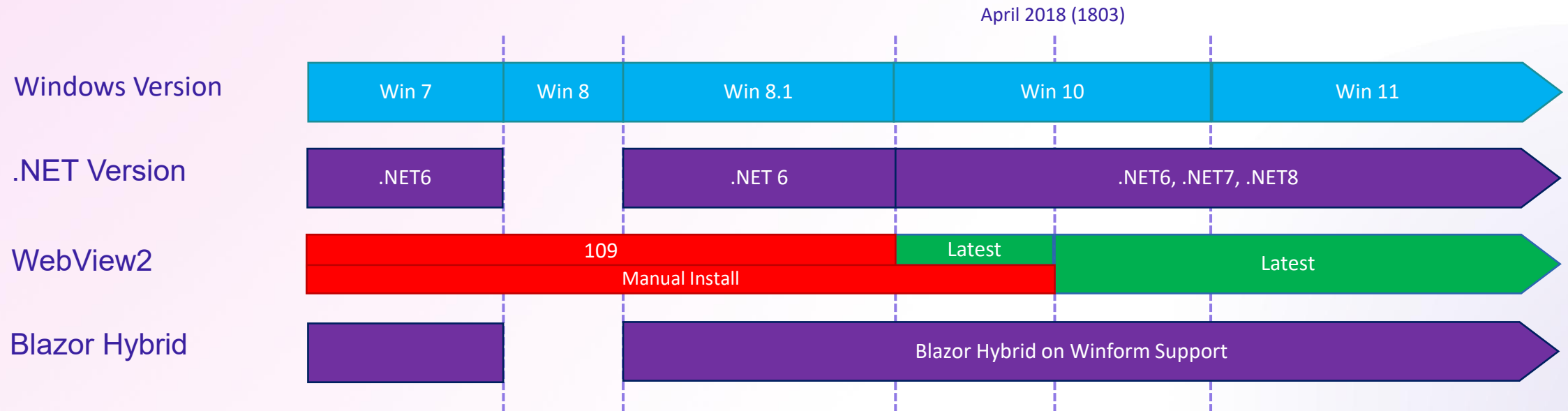


# .NET Migration Tool



Demo

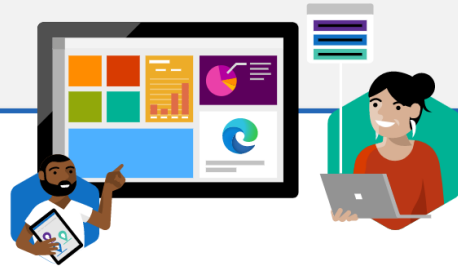
# Where can you Deliver a Blazor Hybrid app?





# Where can you Deliver a Blazor Hybrid app?

## Download the WebView2 Runtime



When distributing your application, there are a few ways you can ensure the WebView2 Runtime is on client machines. [Learn more](#) about those options. For installation issues and error codes see our [troubleshooting guide](#).

### Evergreen Bootstrapper

The Bootstrapper is a tiny installer that downloads the Evergreen Runtime matching device architecture and installs it locally. There is also a Link that allows you to programmatically download the Bootstrapper.

[Get the Link](#) ↓

[Download](#) ↓

### Evergreen Standalone Installer

A full-blown installer that can install the Evergreen Runtime in offline environment. Available for x86/x64/ARM64.

[x86](#) ↓

[x64](#) ↓

[ARM64](#) ↓

### Fixed Version

Select and package a specific version of the WebView2 Runtime with your application.

Select Version

113.0.177... ▼

Select Architecture

arm64 ▼

[Download](#) ↓

<https://developer.microsoft.com/en-us/microsoft-edge/webview2/>

# Alcune considerazioni...

- La strada verso il web è lunga e tortuosa
  - Librerie vecchie o non più supportate
  - Personalizzazioni a librerie di componenti implementate molti anni fa
- Ci sono molti modi per migrare verso il web: Blazor Hybrid è una delle possibilità

# Ci piace Blazor?



Blazor Developer Italiani è la prima **community italiana** dedicata allo sviluppo di applicazioni con **Blazor**

# Thank You!



# Q & A

## Nicola Paro

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[github.com/nicolaparo](https://github.com/nicolaparo)