



TOPIC

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

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Thanks to our partners



A Real Life Story

Maybe



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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

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Problematiche dell'implementazione attuale



**Legacy
Codebase**

Sincronizzazione

**Problemi di
Sicurezza**

**Manutenzione e
Distribuzione**

Scalabilità

**Tecnologia
Obsoleta**

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Desiderata



Scalabilità

**Maggior
Sicurezza**

**Accesso anche
da Remoto**

UI Moderna

Aggiornabilità

**Compatibilità
con Dispositivi
Diversi**

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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
10250	HANAR	4	06/07/1996	05/08/1996
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Order Details				
Order ID	10250	OrderID	ProductID	ProductName
Customer	Hanari Carnes			UnitPrice
Employee	Margaret Peacock	10250	41	Jack's New England Clam Chow...
Shipping		10250	51	Marginal Dried Apples
Address	Rua do Paço, 67	10250	65	Louisiana Fiery Hot Pepper Sauce
City	Rio de Janeiro			
Region	RJ			
Postal Code	05454-876			
Country	Brazil			



<https://northwind.boh>



Blazor Hybrid on WinForm

Blazor è un framework per la creazione di interfacce web client-side utilizzando .NET.

Cosa possiamo fare?

Creare interfacce web utilizzando C# invece che JS*

Condividere logica tra server e client

Utilizzare librerie .NET anche lato client**

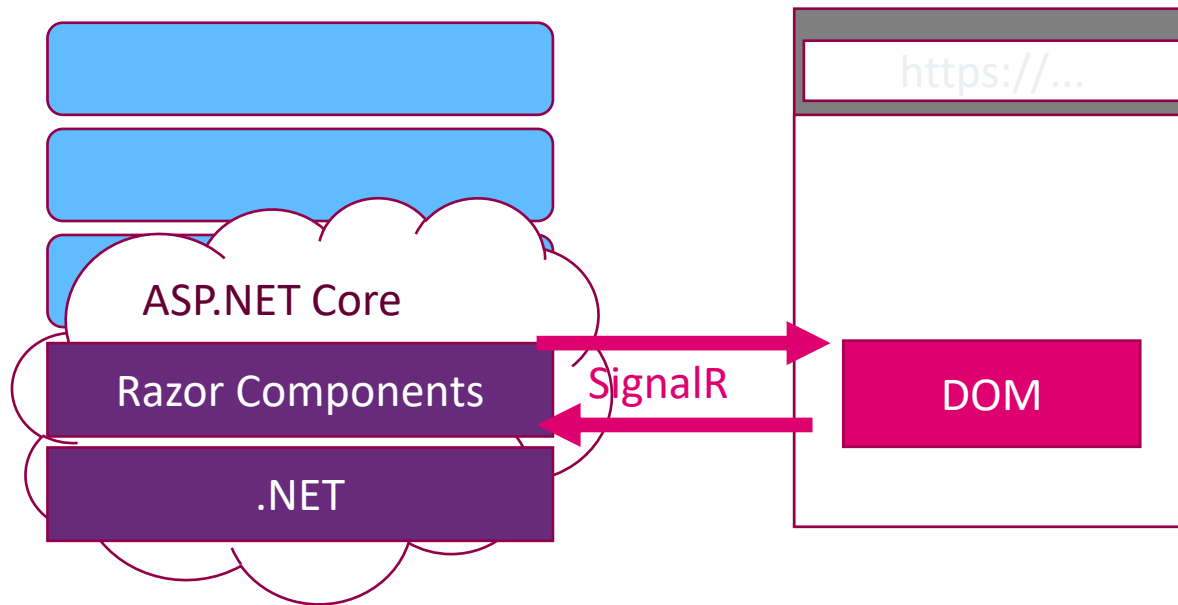
* Non è vero, JS rimane per molte cose l'unica strada percorribile

** Con alcune restrizioni.

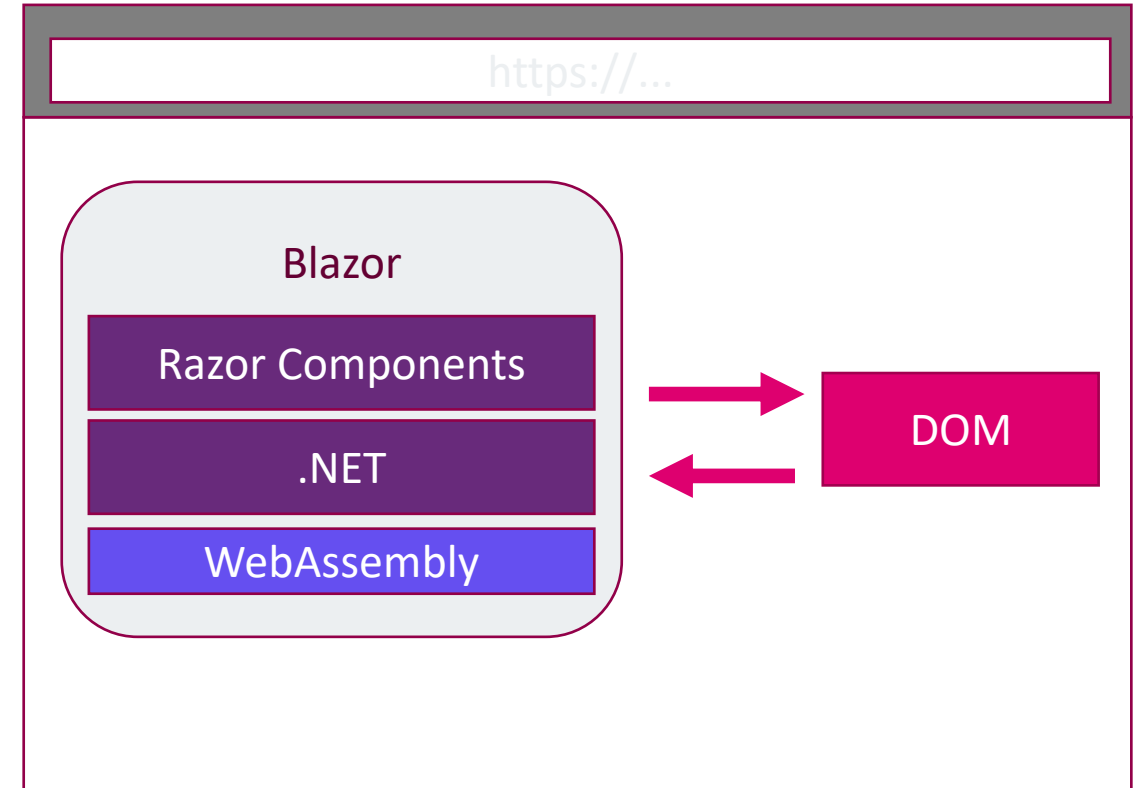
Blazor Interactive: Server vs WebAssembly



Interactive Server



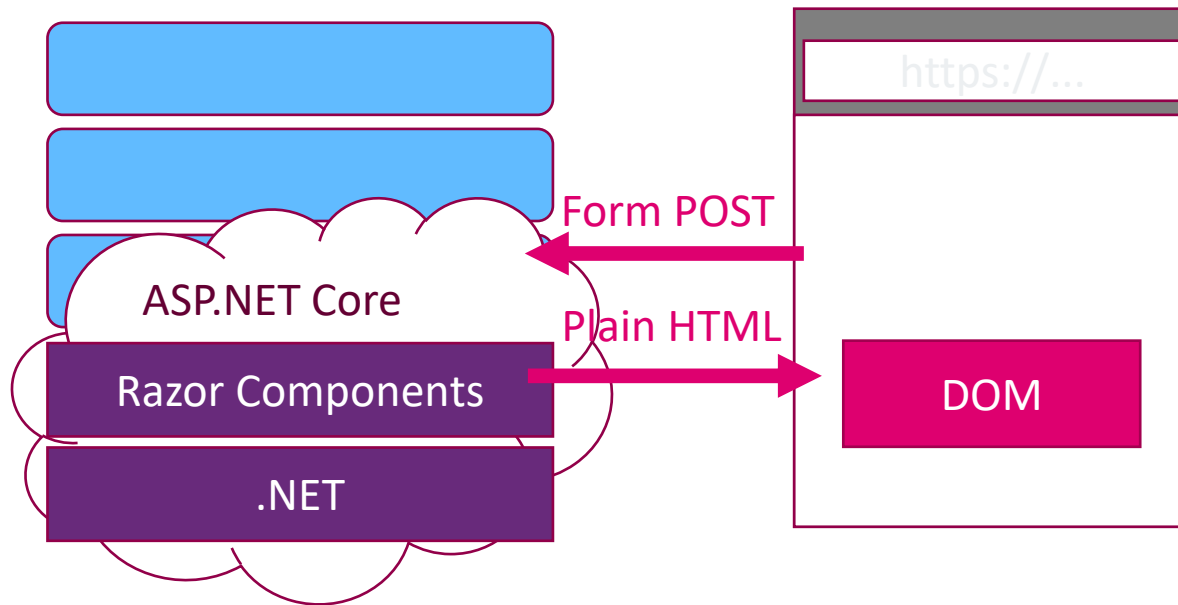
Interactive WebAssembly



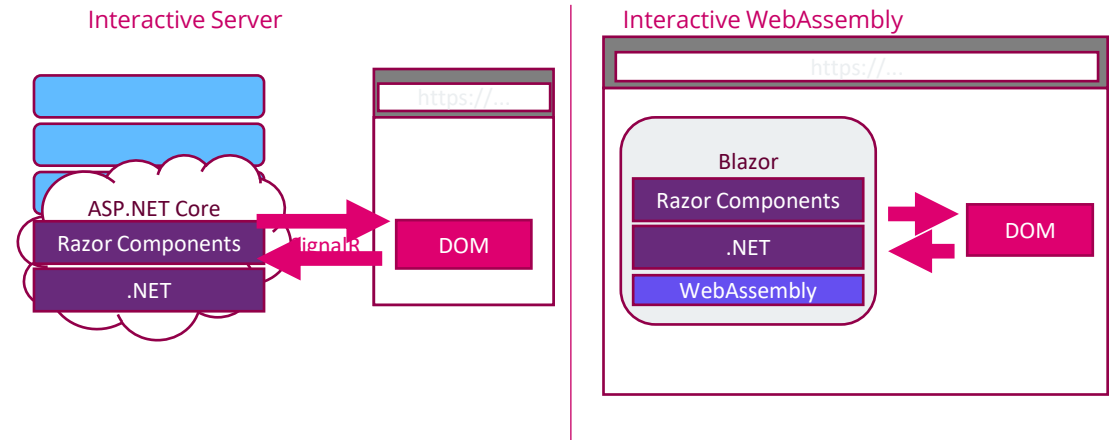
Blazor Static Server vs Interactive



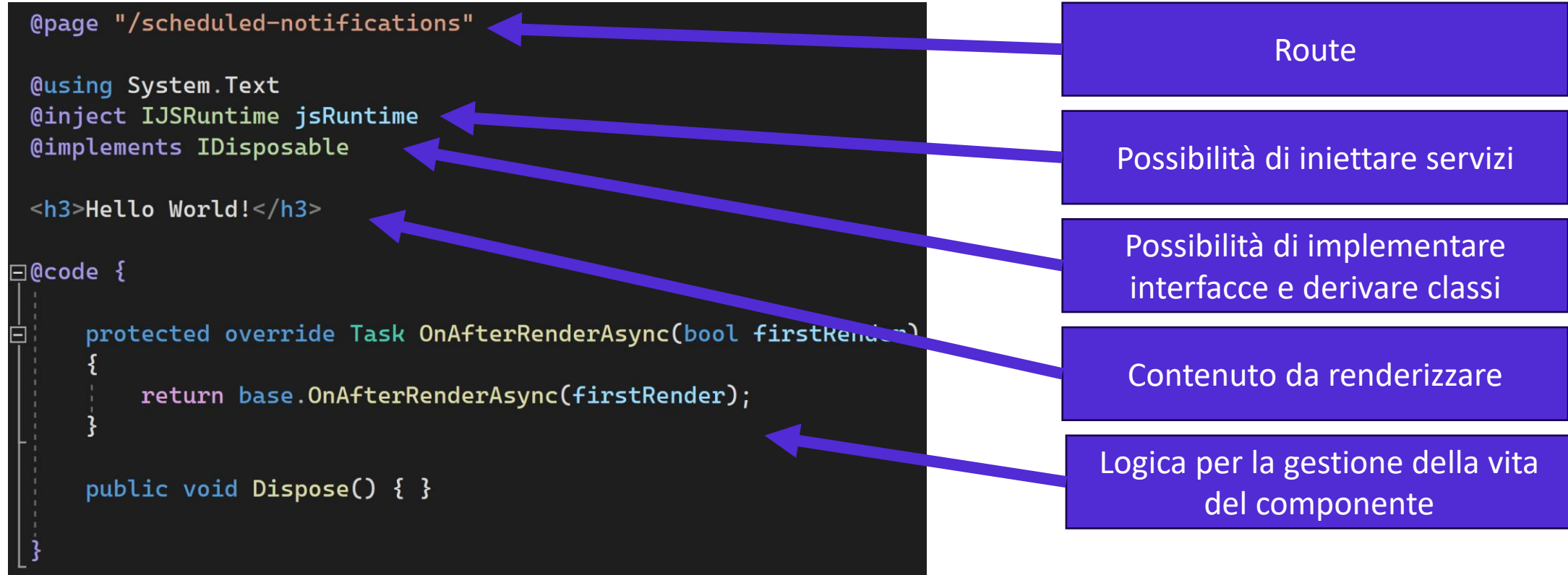
Static Server

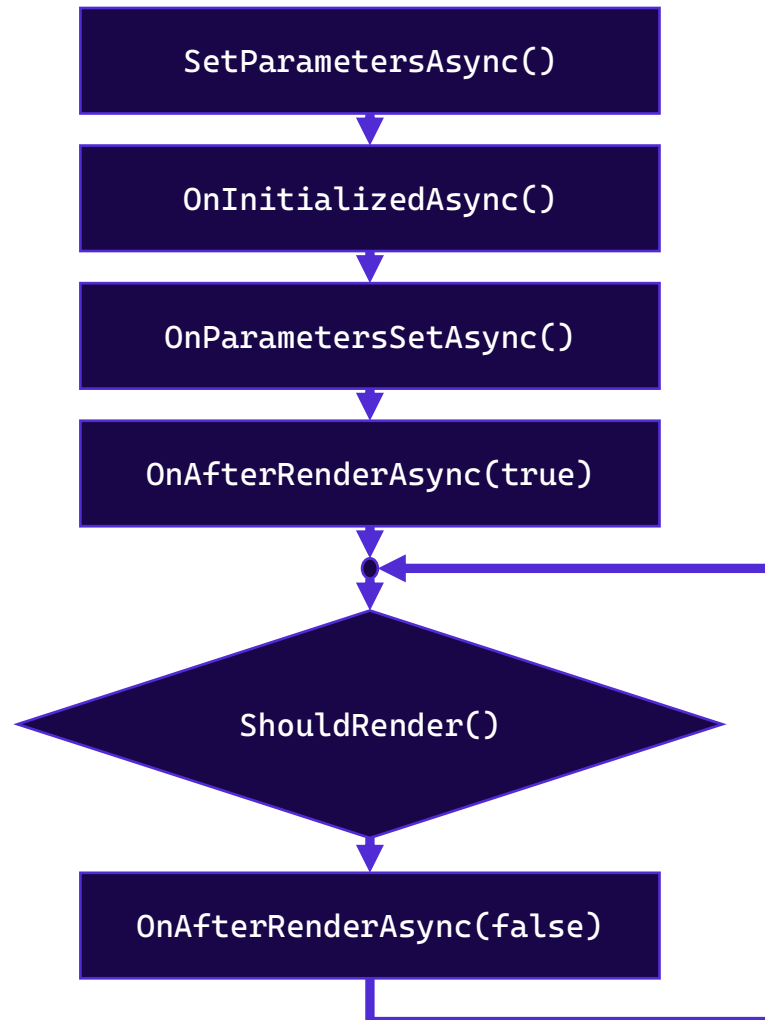


Interactive



Struttura di un Razor Component / Blazor Page

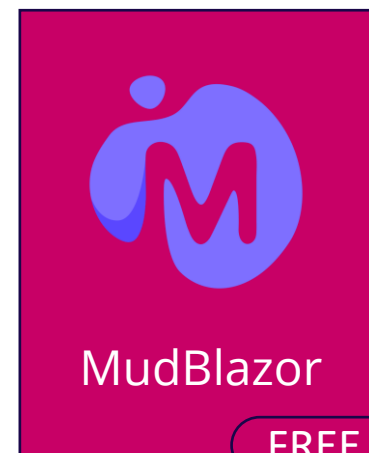
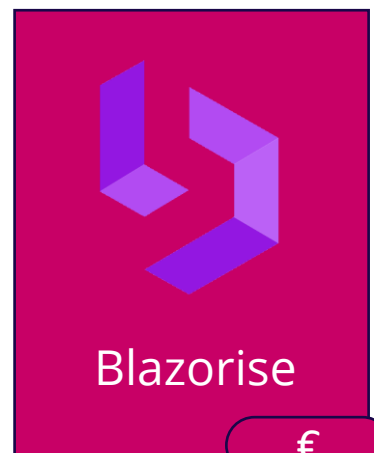
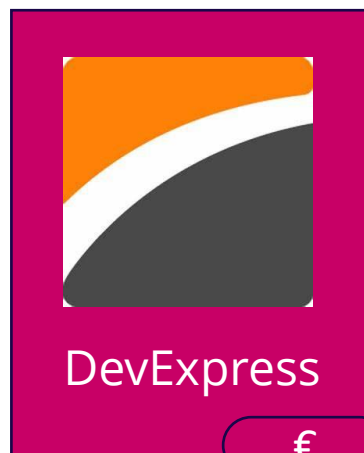




Special Guest

`DisposeAsync()`

`Dispose()` e `DisposeAsync()` sono invocati all'unload del componente se il componente implementa `IDisposable` o `IAsyncDisposable`



And many more...

Or Bring your Own!



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>



Che cos'è WebView2 ?

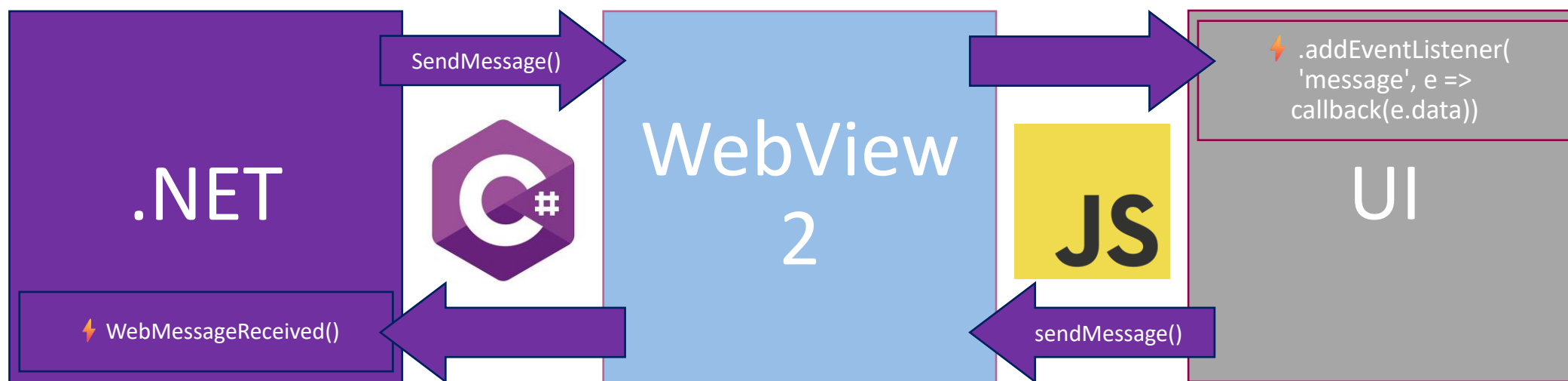
Microsoft Edge WebView2 è un runtime che fornisce funzionalità web-based ad applicativi desktop.

Utilizza Microsoft Edge come rendering engine.

Blazor Hybrid On WinForms












Comunicazione tra .NET e WebView2



Blazor Hybrid On WinForms



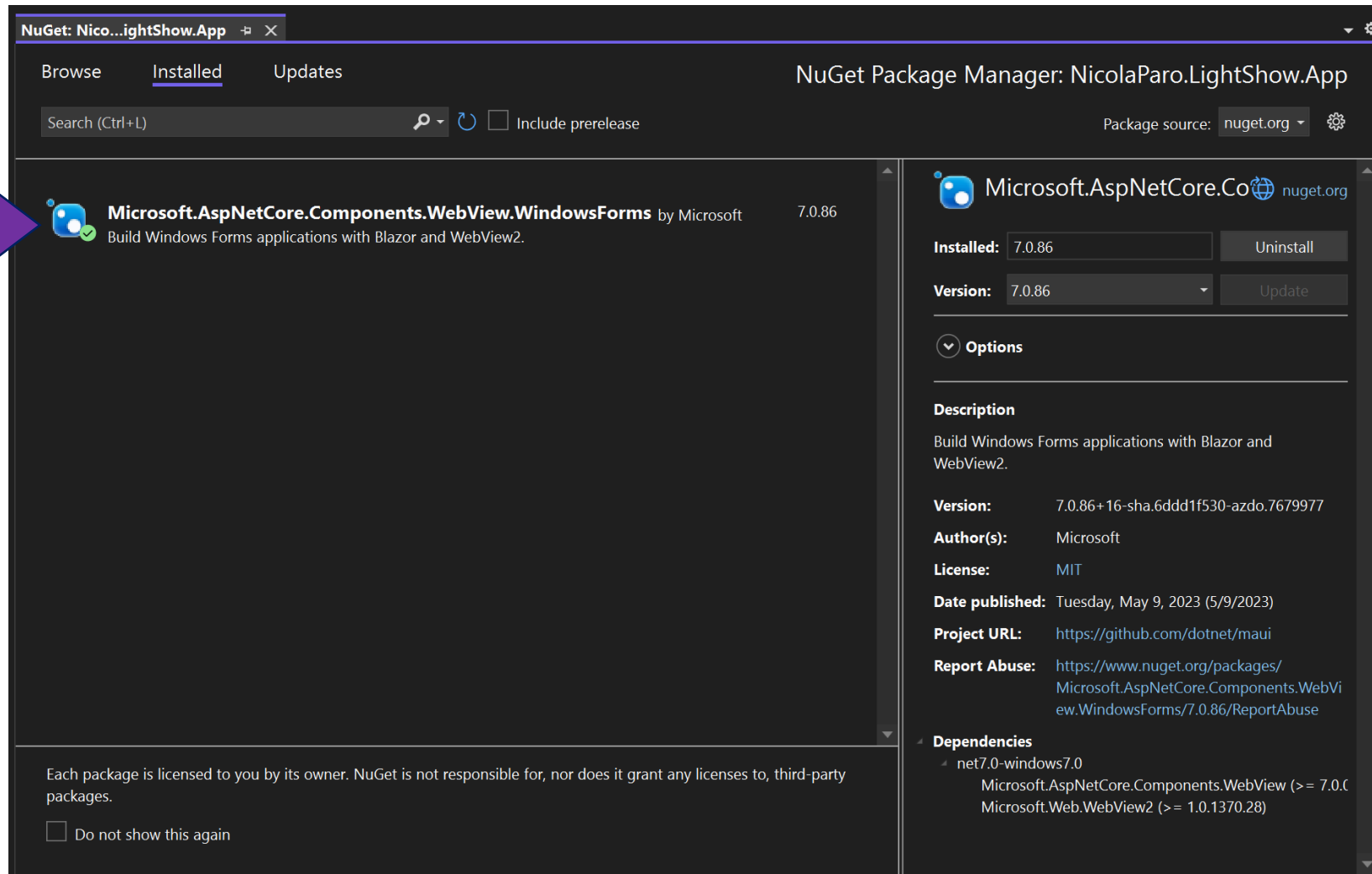
Workloads

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

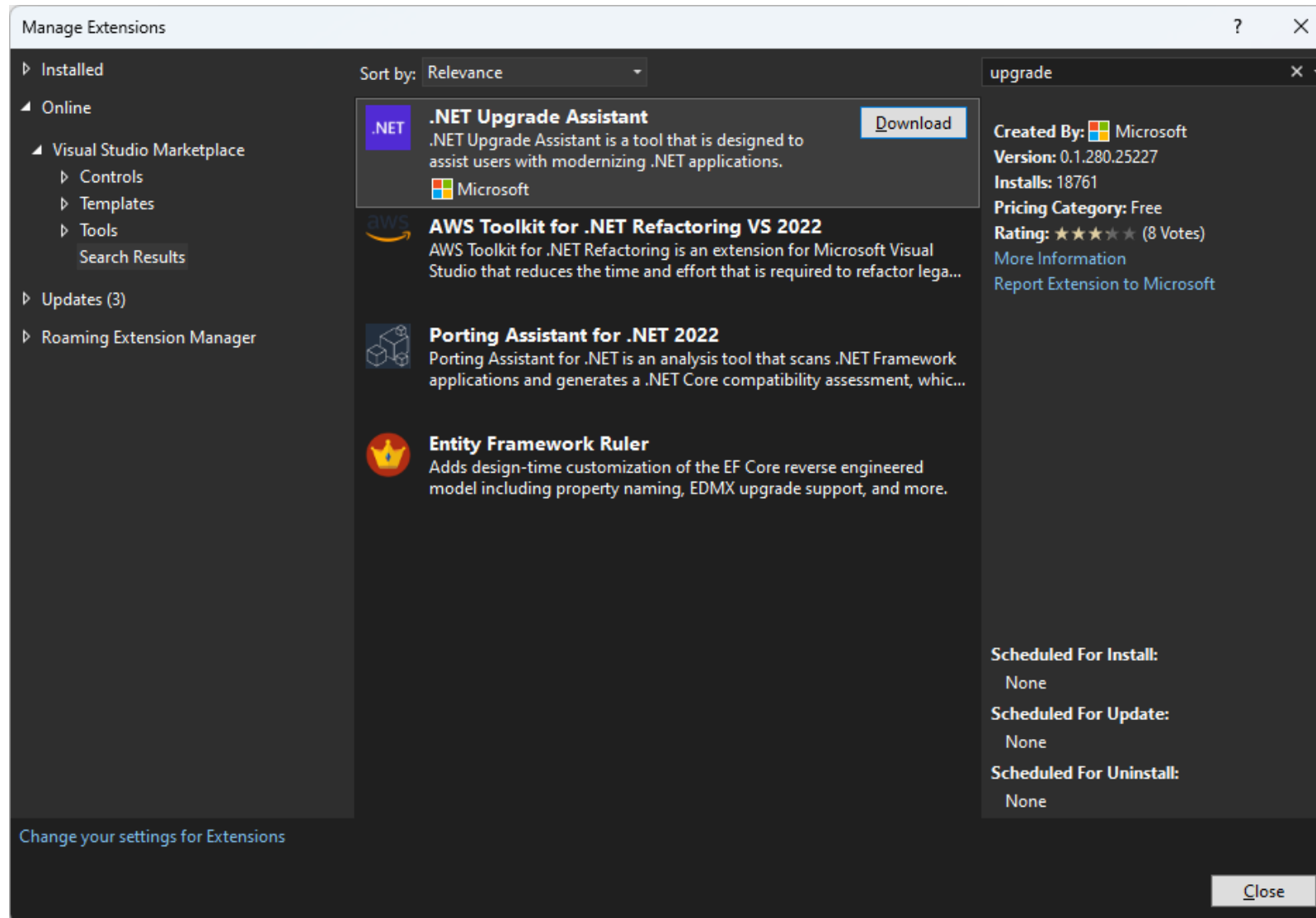
Blazor Hybrid On WinForms



Nuget per utilizzare Blazor Hybrid



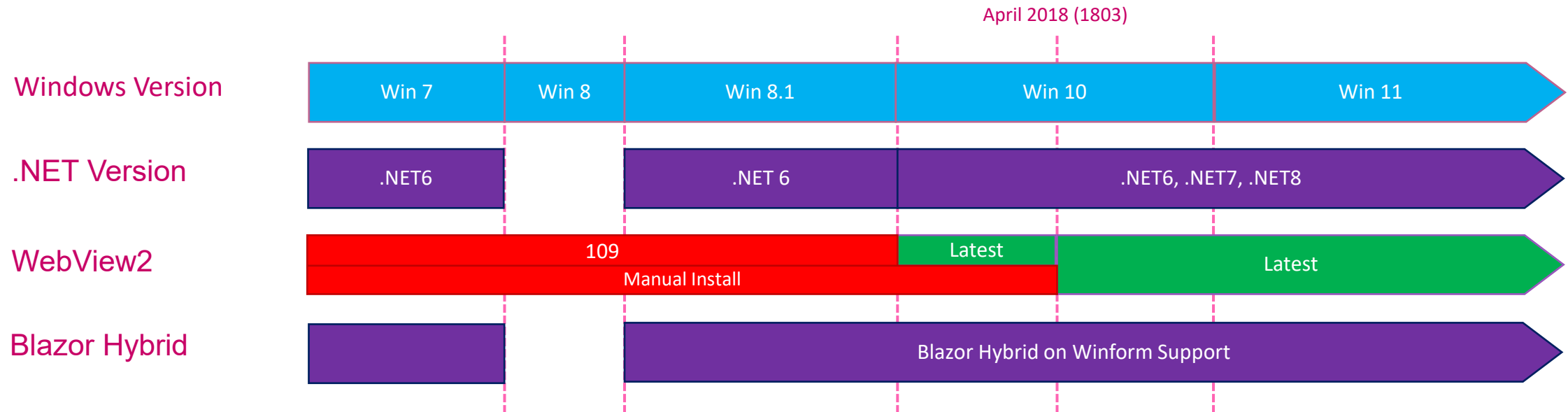
.NET Migration Tool





Demo

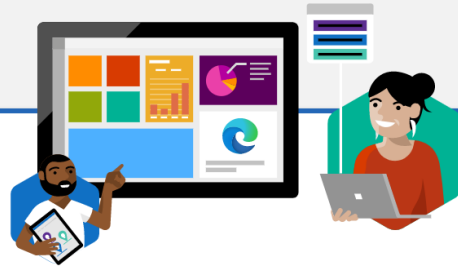
Where can you Deliver a Blazor Hybrid app?



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](#) ↓



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



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

About Me



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Thank you

Any questions?



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