



# CommunityToolkit.Mvvm by Microsoft

CommunityToolkit.Mvvm 1.3M updated today  Stars 2.1k

## Details

### Info

#### ! INFO

Name: **CommunityToolkit.Mvvm**

Author: Microsoft

NuGet: <https://www.nuget.org/packages/CommunityToolkit.Mvvm>

You can find more details at <https://learn.microsoft.com/en-us/dotnet/communitytoolkit/mvvm/generators/overview>

Source : <https://github.com/CommunityToolkit/dotnet>

## About

#### i NOTE

Shows how to implement INotifyPropertyChanged,ObservableProperty and RelayCommand

Unfortunately , not yet a separate package just for those.

Also, this show that RSCG could generate multiple partial declarations

## How to use

### Example ( source csproj, source files )

**CSharp Project**    Program.cs    MyViewModel.cs

---

This is the CSharp Project that references **CommunityToolkit.Mvvm**

```
<Project Sdk="Microsoft.NET.Sdk">

  <PropertyGroup>
    <OutputType>Exe</OutputType>
    <TargetFramework>net7.0</TargetFramework>
    <ImplicitUsings>enable</ImplicitUsings>
    <Nullable>enable</Nullable>
  </PropertyGroup>

  <ItemGroup>
    <PackageReference Include="CommunityToolkit.Mvvm" Version="8.2.0" />
  </ItemGroup>

  <PropertyGroup>
    <EmitCompilerGeneratedFiles>true</EmitCompilerGeneratedFiles>
  </PropertyGroup>
</Project>
```

This is the use of **CommunityToolkit.Mvvm** in *Program.cs*

```
// See https://aka.ms/new-console-template for more information
using test;

Console.WriteLine("Hello, World!");

MyViewModel myViewModel = new();
myViewModel.Name = "Andrei";
var x=myViewModel.SayHelloCommand;
```

This is the use of **CommunityToolkit.Mvvm** in *MyViewModel.cs*

```
using CommunityToolkit.Mvvm.ComponentModel;
using CommunityToolkit.Mvvm.Input;

namespace test;

[INotifyPropertyChanged]
public partial class MyViewModel
{
    [ObservableProperty]
    private string? name;

    [RelayCommand]
    private void SayHello()
    {
        Console.WriteLine("Hello");
    }
}
```

## Generated Files

Those are taken from \$(BaseIntermediateOutputPath)\GeneratedX

**test.MyViewModel.g.cs**

**test.MyViewModel.g.cs**

**\_KnownINotifyPropertyChangedArgs.g.cs**

**test.MyViewModel.SayHello.g.cs**

```
// <auto-generated/>
#pragma warning disable
#nullable enable
namespace test
{
    /// <inheritdoc/>
    partial class MyViewModel : global::System.ComponentModel.INotifyPropertyChanged
    {
        /// <inheritdoc cref = "global::System.ComponentModel.INotifyPropertyChanged.I"
        [global::System.CodeDom.Compiler.GeneratedCode("CommunityToolkit.Mvvm.SourceGenerators",
            "8.2.0.0")]
        [global::System.Diagnostics.CodeAnalysis.ExcludeFromCodeCoverage]
        public event global::System.ComponentModel.PropertyChangedEventHandler? PropertyChanged
        {
            /// <summary>
            /// Raises the <see cref = "PropertyChanged"/> event.
            /// </summary>
            /// <param name = "e">The input <see cref = "global::System.ComponentModel.Pr
            instance.</param>

            [global::System.CodeDom.Compiler.GeneratedCode("CommunityToolkit.Mvvm.SourceGenerators",
                "8.2.0.0")]
            [global::System.Diagnostics.DebuggerNonUserCode]
            [global::System.Diagnostics.CodeAnalysis.ExcludeFromCodeCoverage]
```

```

// <auto-generated/>
#pragma warning disable
#nullable enable
namespace test
{
    /// <inheritdoc/>
    partial class MyViewModel
    {
        /// <inheritdoc cref="name"/>

[global::System.CodeDom.Compiler.GeneratedCode("CommunityToolkit.Mvvm.SourceGenerators",
"8.2.0.0")]
        [global::System.Diagnostics.CodeAnalysis.ExcludeFromCodeCoverage]
        public string? Name
        {
            get => name;
            set
            {
                if (!global::System.Collections.Generic.EqualityComparer<string?>.Default.Equals(name, value))
                {
                    OnNameChanging(value);
                    OnNameChanging(default, value);
                    name = value;
                    OnNameChanged(value);
                    OnNameChanged(default, value);

OnPropertyChanged(global::CommunityToolkit.Mvvm.ComponentModel.__Internals.__KnownINotifyPropertyChanged);
                }
            }
        }

        /// <summary>Executes the logic for when <see cref="Name"/> is changing.</summary>
        /// <param name="value">The new property value being set.</param>
        /// <remarks>This method is invoked right before the value of <see cref="Name"/> is updated.</remarks>
        void OnNameChanging(string? value)
        {
        }

        void OnNameChanged(string? value)
        {
        }
    }
}

[global::System.CodeDom.Compiler.GeneratedCode("CommunityToolkit.Mvvm.SourceGenerators",

```

```

// <auto-generated/>
#pragma warning disable
#nullable enable
namespace CommunityToolkit.Mvvm.ComponentModel.__Internals
{
    /// <summary>
    /// A helper type providing cached, reusable <see cref="global::System.ComponentModel
instances
    /// for all properties generated with <see
    cref="global::CommunityToolkit.Mvvm.ComponentModel.ObservablePropertyAttribute"/>.
    /// </summary>

    [global::System.CodeDom.Compiler.GeneratedCode("CommunityToolkit.Mvvm.SourceGenerator",
    "8.2.0.0")]
    [global::System.Diagnostics.DebuggerNonUserCode]
    [global::System.Diagnostics.CodeAnalysis.ExcludeFromCodeCoverage]
    [global::System.ComponentModel.EditorBrowsable(global::System.ComponentModel.EditorBrowsableState.Never)]
    [global::System.Obsolete("This type is not intended to be used directly by user code")]
    internal static class __KnownINotifyPropertyChangedArgs
    {
        /// <summary>The cached <see cref="global::System.ComponentModel.PropertyChangedEventArgs"
        "Name" generated properties.</summary>
        [global::System.ComponentModel.EditorBrowsable(global::System.ComponentModel.EditorBrowsableState.Never)]
        [global::System.Obsolete("This field is not intended to be referenced directly by user code")]
        public static readonly global::System.ComponentModel.PropertyChangedEventArgs PropertyChangedEventArgs =
        global::System.ComponentModel.PropertyChangedEventArgs("Name");
    }
}

```

```

// <auto-generated/>
#pragma warning disable
#nullable enable
namespace test
{
    /// <inheritdoc/>

```

# Usefull

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[https://ignatandrei.github.io/RSCG\\_Examples/v2/docs/CommunityToolkit.Mvvm](https://ignatandrei.github.io/RSCG_Examples/v2/docs/CommunityToolkit.Mvvm)

































