



System.Text.Json by Microsoft

System.Text.Json 1.1G updated today  Stars 12k

Details

Info

INFO

Author: Microsoft

NuGet: <https://www.nuget.org/packages/System.Text.Json/>

You can find more details at <https://learn.microsoft.com/en-us/dotnet/standard/serialization/system-text-json/source-generation>

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

About

NOTE

Json Serialize without reflection

How to use

Example (source csproj, source files)

CSharp Project Program.cs WeatherForecast.cs

OptionsExampleContext.cs

This is the CSharp Project that references System.Text.Json

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

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

    <CompilerGeneratedFilesOutputPath>$(BaseIntermediateOutputPath)\GeneratedX</CompilerGeneratedFilesOutputPath>
  </PropertyGroup>

</Project>
```

This is the use of System.Text.Json in Program.cs

```
using JsonSerializerOptionsExample;
```

This is the use of System.Text.Json in WeatherForecast.cs

```
namespace JsonSerializerOptionsExample;

public class WeatherForecast
{
    public DateTime Date { get; set; }
    public int TemperatureCelsius { get; set; }
    public string? Summary { get; set; }
}
```

This is the use of System.Text.Json in OptionsExampleContext.cs

```
using System.Text.Json.Serialization;

namespace JsonSerializerOptionsExample;

[JsonSerializable(typeof(WeatherForecast))]
internal partial class OptionsExampleContext : JsonSerializerContext
{
}
```

Generated Files

Those are taken from \$(BaseIntermediateOutputPath)\GeneratedX

OptionsExampleContext.DateTime.g.cs

OptionsExampleContext.g.cs

OptionsExampleContext.GetJsonTypeInfo.g.cs

OptionsExampleContext.Int32.g.cs

OptionsExampleContext.PropertyNames.g.cs

OptionsExampleContext.String.g.cs

OptionsExampleContext.WeatherForecast.g.cs

SourceGenerationContext.g.cs

RegexGenerator.g.cs

```
// <auto-generated/>

#nullable enable annotations
#nullable disable warnings

// Suppress warnings about [Obsolete] member usage in generated code.
#pragma warning disable CS0618

namespace JsonSerializerOptionsExample
{
    internal partial class OptionsExampleContext
    {
        private global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::System.Text.Json.Serialization.WeatherForecast> GetWeatherForecastTypeInfo()
        {
            /// <summary>
            /// Defines the source generated JSON serialization contract metadata for a weather forecast.
            /// </summary>
        }
    }
}
```

```
// <auto-generated/>
```

```
#nullable enable annotations
```

```
#nullable disable warnings
```

```
// Suppress warnings about [Obsolete] member usage in generated code.
```

```
#pragma warning disable CS0618
```

```
namespace JsonSerializerOptionsExample
```

```
{
```

```
[global::System.CodeDom.Compiler.GeneratedCodeAttribute("System.Text.Json.SourceGenerators",  
"7.0.8.17405")]
```

```
    internal partial class OptionsExampleContext
```

```
    {
```

```
        private static global::System.Text.Json.JsonSerializerOptions s_defaultOptions;
```

```
    } = new global::System.Text.Json.JsonSerializerOptions()
```

```
    {
```

```
        DefaultIgnoreCondition =
```

```
global::System.Text.Json.Serialization.JsonIgnoreCondition.Never,
```

```
        IgnoreReadOnlyFields = false,
```

```
        IgnoreReadOnlyProperties = false,
```

```
        IncludeFields = false,
```

```
        WriteIndented = false,
```

```
    };
```

```
        private static global::JsonSerializerOptionsExample.OptionsExampleContext?
```

```
s_defaultContext;
```

```
        /// <summary>
```

```
        /// The default <see
```

```
        cref="global::System.Text.Json.Serialization.JsonSerializerContext"/> associated with
```

```
        <see cref="global::System.Text.Json.JsonSerializerOptions"/> instance.
```

```
        /// </summary>
```

```
// <auto-generated/>
```

```
#nullable enable annotations
```

```
#nullable disable warnings
```

```
// Suppress warnings about [Obsolete] member usage in generated code.
```

```
#pragma warning disable CS0618
```

```
namespace JsonSerializerOptionsExample
```

```
{
```

```
    internal partial class OptionsExampleContext:
```

```
global::System.Text.Json.Serialization.Metadata.IJsonTypeInfoResolver
```

```
    {
```

```
        /// <inheritdoc/>
```

```
        public override global::System.Text.Json.Serialization.Metadata.JsonTypeInfo
```

```
GetTypeInfo(global::System.Type type)
```

```
    {
```

```
        if (type == typeof(global::JsonSerializerOptionsExample.WeatherForecast))
```

```
        {
```

```
            return this.WeatherForecast;
```

```
        }
```

```
        if (type == typeof(global::System.DateTime))
```

```
        {
```

```
            return this.DateTime;
```

```
        }
```

```
        if (type == typeof(global::System.Int32))
```

```
        {
```

```
            return this.Int32;
```

```
        }
```

```
        if (type == typeof(global::System.String))
```

```
        {
```

```
            return this.String;
```

```
        }
```

```
// <auto-generated/>
```

```
#nullable enable annotations
```

```
#nullable disable warnings
```

```
// Suppress warnings about [Obsolete] member usage in generated code.
```

```
#pragma warning disable CS0618
```

```
namespace JsonSerializerOptionsExample
```

```
{
```

```
    internal partial class OptionsExampleContext
```

```
    {
```

```
        private global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::System.Int32>
```

```
        /// <summary>
```

```
        /// Defines the source generated JSON serialization contract metadata for a given type.
```

```
        /// </summary>
```

```
        public global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::System.Int32>
```

```
        {
```

```
            get => _Int32 ??= Create_Int32(Options, makeReadOnly: true);
```

```
        }
```

```
        private global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::System.Int32>
```

```
        Create_Int32(global::System.Text.Json.JsonSerializerOptions options, bool makeReadOnly)
```

```
        {
```

```
            global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::System.Int32>
```

```
            global::System.Text.Json.Serialization.JsonConverter? customConverter;
```

```
            if (options.Converters.Count > 0 && (customConverter = GetRuntimeProvidedConverter(
```

```
typeof(global::System.Int32))) != null)
```

```
            {
```

```
                jsonTypeInfo =
```

```
global::System.Text.Json.Serialization.Metadata.JsonMetadataServices.CreateValueInfo<global::System.Int32>
```

```
(customConverter);
```

```
            }
```

```
            else
```

```
            {
```

```
                jsonTypeInfo =
```

```
// <auto-generated/>

#nullable enable annotations
#nullable disable warnings

// Suppress warnings about [Obsolete] member usage in generated code.
#pragma warning disable CS0618

namespace JsonSerializerOptionsExample
{
    internal partial class OptionsExampleContext
    {
        private static readonly
global::System.Text.Json.JsonEncodedText PropName_Date =
global::System.Text.Json.JsonEncodedText.Encode("Date");
        private static readonly
global::System.Text.Json.JsonEncodedText PropName_TemperatureCelsius =
global::System.Text.Json.JsonEncodedText.Encode("TemperatureCelsius");
        private static readonly
global::System.Text.Json.JsonEncodedText PropName_Summary =
global::System.Text.Json.JsonEncodedText.Encode("Summary");
    }
}
```

```
// <auto-generated/>

#nullable enable annotations
#nullable disable warnings

// Suppress warnings about [Obsolete] member usage in generated code.
#pragma warning disable CS0618

namespace JsonSerializerOptionsExample
```



```
// <auto-generated/>
```

```
#nullable enable annotations
```

```
#nullable disable warnings
```

```
// Suppress warnings about [Obsolete] member usage in generated code.
```

```
#pragma warning disable CS0618
```

```
namespace JsonSerializerOptionsExample
```

```
{
```

```
    internal partial class OptionsExampleContext
```

```
    {
```

```
        private global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::J
```

```
        /// <summary>
```

```
        /// Defines the source generated JSON serialization contract metadata for a g
```

```
        /// </summary>
```

```
        public global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::J
```

```
        {
```

```
            get => _WeatherForecast ??= Create_WeatherForecast(Options, makeReadOnly:
```

```
        }
```

```
        private global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::J
```

```
Create_WeatherForecast(global::System.Text.Json.JsonSerializerOptions options, bool m
```

```
        {
```

```
            global::System.Text.Json.Serialization.Metadata.JsonTypeInfo<global::Jso
```

```
            global::System.Text.Json.Serialization.JsonConverter? customConverter;
```

```
            if (options.Converters.Count > 0 && (customConverter = GetRuntimeProvided
```

```
typeof(global::JsonSerializerOptionsExample.WeatherForecast))) != null)
```

```
            {
```

```
                jsonTypeInfo =
```

```
global::System.Text.Json.Serialization.Metadata.JsonMetadataServices.CreateValueInfo<
```

```
customConverter);
```

```
            }
```

```
            else
```

```
            {
```

```
                global::System.Text.Json.Serialization.Metadata.JsonObjectInfoValues<
```

```
// <auto-generated/>
```

```
#nullable enable annotations
```

```
#nullable disable warnings
```

```
// Suppress warnings about [Obsolete] member usage in generated code.
```

```
#pragma warning disable CS0618
```

```
namespace BothModesNoOptions
```

```
{
```

```
[global::System.CodeDom.Compiler.GeneratedCodeAttribute("System.Text.Json.SourceGenera  
"7.0.8.17405")]
```

```
    internal partial class SourceGenerationContext
```

```
    {
```

```
        private static global::System.Text.Json.JsonSerializerOptions s_defaultOptions
```

```
    } = new global::System.Text.Json.JsonSerializerOptions()
```

```
    {
```

```
        DefaultIgnoreCondition =
```

```
global::System.Text.Json.Serialization.JsonIgnoreCondition.Never,
```

```
        IgnoreReadOnlyFields = false,
```

```
        IgnoreReadOnlyProperties = false,
```

```
        IncludeFields = false,
```

```
        WriteIndented = true,
```

```
    };
```

```
        private static global::BothModesNoOptions.SourceGenerationContext? s_defaultC
```

```
        /// <summary>
```

```
        /// The default <see
```

```
cref="global::System.Text.Json.Serialization.JsonSerializerContext"/> associated with
```

```
<see cref="global::System.Text.Json.JsonSerializerOptions"/> instance.
```

```
        /// </summary>
```

```
        public static global::BothModesNoOptions.SourceGenerationContext Default =>
```

```
// <auto-generated/>
#nullable enable
#pragma warning disable CS0162 // Unreachable code
#pragma warning disable CS0164 // Unreferenced label
#pragma warning disable CS0219 // Variable assigned but never used
```

```
namespace JsonSerializerOptionsExample
```

```
{
    partial class WeatherForecast
    {
        /// <remarks>
        /// Pattern explanation:<br/>
        /// <code>
        /// ○ Match with 2 alternative expressions, atomically.<br/>
        ///     ○ Match a sequence of expressions.<br/>
        ///         ○ Match a character in the set [Aa].<br/>
        ///         ○ Match a character in the set [Bb].<br/>
        ///         ○ Match a character in the set [Cc].<br/>
        ///     ○ Match a sequence of expressions.<br/>
        ///         ○ Match a character in the set [Dd].<br/>
        ///         ○ Match a character in the set [Ee].<br/>
        ///         ○ Match a character in the set [Ff].<br/>
        /// </code>
        /// </remarks>
    }
}
```

```
[global::System.CodeDom.Compiler.GeneratedCodeAttribute("System.Text.RegularExpressions",
"7.0.8.17405")]
```

```
    private static partial global::System.Text.RegularExpressions.Regex
    AbcOrDefGeneratedRegex() =>
    global::System.Text.RegularExpressions.Generated.AbcOrDefGeneratedRegex_0.Instance;
    }
}
```

```
namespace System.Text.RegularExpressions.Generated
```

```
{
    using System;
```

Usefull

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https://ignatandrei.github.io/RSCG_Examples/v2/docs/System.Text.Json

