



### I just wanna use **Json.NET** in Unity!

- Json.NET is a powerful, open source, and free serializing solution.
- But it's too smart to serialize something like Vector3 or Color, etc.
- It even tries to serialize the "normalized" property and throw a loop exception.
- And it always treats a dictionary key as a string, even if it's an array.

### Overview:

- This has some common type converters, and sets them as default to make it up..
- If you're using Json.NET, just import and forget this, then coding like before.
- An official DLL is included in case you don't have it, just remove it if you had.

The further technical documentation is available [here](#).  
And the tutorial is right below.

### Remarks:

- Remember to set the "Api Compatibility Level" to .NET 2.0 before importing.
- Thank James Newton-King!
- This's released as feedback for free.

## Release Notes:

1.0.2

- Update the documentation link.

1.0.1

- Change NotImplementedException in some converters to InvalidOperationException, avoid showing in MonoDevelop's task list since unnecessary.
- Update the included Json.NET to 9.0.1.

1.0

- First release.

## Publish Notes:

- Requires: Unity 5.1.0f3 or higher.
- Category: Scripting / Input - Output
- Keywords: Json NET Converter Serialize Deserialize



# JsonNetUtility

Released Packages » [Json.NET Converters](#)

Integrate custom `Newtonsoft.Json.JsonConverter` to use [Json.NET](#) in Unity. [More...](#)

## Static Public Attributes

`static JsonSerializerSettings` **defaultSettings**

The default `Newtonsoft.Json.JsonSerializerSettings`. [More...](#)

## Detailed Description

Integrate custom `Newtonsoft.Json.JsonConverter` to use [Json.NET](#) in Unity.

To use [Json.NET](#), please set Unity "PlayerSettings/Api Compatibility Level" to .NET 2.0. Then download from its website and import the .NET 2.0 dll. [Json.NET](#) doesn't support serializing some types originally, e.g., `UnityEngine.Vector3`. This has the `defaultSettings` includes necessary custom converters by default for Unity using it. And assign to `Newtonsoft.Json.JsonConvert.DefaultSettings` when initializing if the original `null`.

Now we can use [Json.NET](#) just like before:

```
Debug.Log(JsonConvert.SerializeObject(Vector3.up));  
var vec = JsonConvert.DeserializeObject("{\"x':1.0,'y':0.0}", typeof(Vector2));
```

User can directly modify `defaultSettings` for customization, and override it:

```
JsonConvert.DefaultSettings = () => new JsonSerializerSettings(){  
    Converters = JsonNetUtility.defaultSettings.Converters,  
    DefaultValueHandling = DefaultValueHandling.Populate  
};
```

## Member Data Documentation

The default Newtonsoft.Json.JsonSerializerSettings.

All its properties stay default, but the Converters includes below:

1. All custom Newtonsoft.Json.JsonConverter with constructor needs no params.
2. All Newtonsoft.Json.JsonConverter from **WanzyeeStudio.Json**.
3. Newtonsoft.Json.Converters.StringEnumConverter.
4. Newtonsoft.Json.Converters.VersionConverter.

# DictionaryConverter

Released Packages » [Json.NET Converters](#)

Custom Newtonsoft.Json.JsonConverter for System.Collections.Generic.Dictionary. [More...](#)

Inherits JsonConverter.

## Public Member Functions

- |                 |   |
|-----------------|---|
| override bool   | <b>CanConvert</b> (Type objectType)<br>Determine if the type is System.Collections.Generic.Dictionary. <a href="#">More...</a>  |
| override object | <b>ReadJson</b> (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)<br>Read as System.Collections.Generic.KeyValuePair array to rebuild a dictionary. <a href="#">More...</a> |
| override void   | <b>WriteJson</b> (JsonWriter writer, object value, JsonSerializer serializer)<br>Write as System.Collections.Generic.KeyValuePair array. <a href="#">More...</a>  |

## Detailed Description

Custom Newtonsoft.Json.JsonConverter for System.Collections.Generic.Dictionary.

## Member Function Documentation

### override bool CanConvert ( Type objectType )

Determine if the type is System.Collections.Generic.Dictionary.

#### Parameters

**objectType** Type of the object.

#### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                          Type          objectType,
                          object        existingValue,
                          JsonSerializer serializer
                          )
```

Read as System.Collections.Generic.KeyValuePair array to rebuild a dictionary.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                          object        value,
                          JsonSerializer serializer
                          )
```

Write as System.Collections.Generic.KeyValuePair array.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

# BoundsConverter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Bounds. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Bounds. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write x and y. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Bounds.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Bounds.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```

override object ReadJson ( JsonReader    reader,
                           Type          objectType,
                           object         existingValue,
                           JsonSerializer serializer
                           )

```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader**            The Newtonsoft.Json.JsonReader to read from.

**objectType**    Type of the object.

**existingValue** The existing value of object being read.

**serializer**      The calling serializer.

```

override void WriteJson ( JsonWriter    writer,
                           object        value,
                           JsonSerializer serializer
                           )

```

Write x and y.

### Parameters

**writer**        The Newtonsoft.Json.JsonWriter to write to.

**value**        The value.

**serializer** The calling serializer.

## Property Documentation

```

override bool CanRead

```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.



# ColorConverter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Color. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Color. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write r, g, b and a. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Color.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Color.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                          Type          objectType,
                          object         existingValue,
                          JsonSerializer serializer
                          )
```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                         object         value,
                         JsonSerializer serializer
                         )
```

Write r, g, b and a.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

## Property Documentation

```
override bool CanRead
```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.

# Matrix4x4Converter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Matrix4x4. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Matrix4x4. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write the 16 components. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Matrix4x4.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Matrix4x4.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                           Type          objectType,
                           object        existingValue,
                           JsonSerializer serializer
                           )
```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                          object        value,
                          JsonSerializer serializer
                          )
```

Write the 16 components.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

## Property Documentation

```
override bool CanRead
```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.

# QuaternionConverter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Quaternion. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Quaternion. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write x, y, z and w. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Quaternion.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Quaternion.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                          Type          objectType,
                          object        existingValue,
                          JsonSerializer serializer
                          )
```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                          object        value,
                          JsonSerializer serializer
                          )
```

Write x, y, z and w.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

## Property Documentation

```
override bool CanRead
```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.

# RectConverter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Rect. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Rect. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write x, y, width and height. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Rect.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Rect.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                          Type          objectType,
                          object         existingValue,
                          JsonSerializer serializer
                          )
```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                          object         value,
                          JsonSerializer serializer
                          )
```

Write x, y, width and height.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

## Property Documentation

```
override bool CanRead
```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.



# RectOffsetConverter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.RectOffset. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.RectOffset. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write left, right, top and bottom. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.RectOffset.

## Member Function Documentation

**override bool CanConvert ( Type objectType )**

Determine if the type is UnityEngine.RectOffset.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                           Type          objectType,
                           object        existingValue,
                           JsonSerializer serializer
                           )
```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                          object        value,
                          JsonSerializer serializer
                          )
```

Write left, right, top and bottom.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

## Property Documentation

```
override bool CanRead
```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.

# Vector2Converter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Vector2. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Vector2. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write x and y. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Vector2.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Vector2.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```

override object ReadJson ( JsonReader    reader,
                           Type          objectType,
                           object         existingValue,
                           JsonSerializer serializer
                           )

```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader**        The Newtonsoft.Json.JsonReader to read from.

**objectType**    Type of the object.

**existingValue** The existing value of object being read.

**serializer**    The calling serializer.

```

override void WriteJson ( JsonWriter    writer,
                           object        value,
                           JsonSerializer serializer
                           )

```

Write x and y.

### Parameters

**writer**        The Newtonsoft.Json.JsonWriter to write to.

**value**        The value.

**serializer**    The calling serializer.

## Property Documentation

```

override bool CanRead

```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.

# Vector3Converter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Vector3. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Vector3. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write x, y and z. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Vector3.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Vector3.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                          Type          objectType,
                          object         existingValue,
                          JsonSerializer serializer
                          )
```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                          object         value,
                          JsonSerializer serializer
                          )
```

Write x, y and z.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

## Property Documentation

```
override bool CanRead
```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.

# Vector4Converter

Released Packages » [Json.NET Converters](#)

Newtonsoft.Json.JsonConverter for UnityEngine.Vector4. [More...](#)

Inherits JsonConverter.

## Public Member Functions

override bool **CanConvert** (Type objectType)  
Determine if the type is UnityEngine.Vector4. [More...](#)

override object **ReadJson** (JsonReader reader, Type objectType, object existingValue, JsonSerializer serializer)  
Not implemented, unnecessary because CanRead is false. [More...](#)

override void **WriteJson** (JsonWriter writer, object value, JsonSerializer serializer)  
Write x, y, z and w. [More...](#)

## Properties

override bool **CanRead** [get]  
Return false, since default serializer does well. [More...](#)

## Detailed Description

Newtonsoft.Json.JsonConverter for UnityEngine.Vector4.

## Member Function Documentation

override bool **CanConvert** ( Type objectType )

Determine if the type is UnityEngine.Vector4.

### Parameters

**objectType** Type of the object.

### Returns

true if this can convert the specified type; otherwise, false.

```
override object ReadJson ( JsonReader    reader,
                          Type          objectType,
                          object        existingValue,
                          JsonSerializer serializer
                          )
```

Not implemented, unnecessary because CanRead is false.

### Returns

The object value.

### Parameters

**reader** The Newtonsoft.Json.JsonReader to read from.

**objectType** Type of the object.

**existingValue** The existing value of object being read.

**serializer** The calling serializer.

```
override void WriteJson ( JsonWriter    writer,
                          object        value,
                          JsonSerializer serializer
                          )
```

Write x, y, z and w.

### Parameters

**writer** The Newtonsoft.Json.JsonWriter to write to.

**value** The value.

**serializer** The calling serializer.

## Property Documentation

```
override bool CanRead
```

get

Return false, since default serializer does well.

true if this instance can read; otherwise, false.