

1 System.TypedReference Structure

```
2 [ILAsm]  
3 .class public sequential sealed serializable TypedReference extends  
4 System.ValueType  
  
5 [C#]  
6 public struct TypedReference
```

7 Assembly Info:

- 8 • *Name:* mscorlib
- 9 • *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00]
- 10 • *Version:* 2.0.x.x
- 11 • *Attributes:*
 - 12 ○ CLSCompliantAttribute(false)

13 Summary

14 Describes an object that contains both a managed pointer to a location and a runtime
15 representation of the type that can be stored at that location.

16 Inherits From: System.ValueType

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18 **Library:** Vararg

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20 **Thread Safety:** All public static members of this type are safe for multithreaded operations.
21 No instance members are guaranteed to be thread safe.

22

23 Description

24 [*Note:* This type is not CLS-Compliant.]

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26 A `System.TypedReference` is a type/value combination used to support variable
27 argument lists (as used by C++, for example), among other things.

28 `System.TypedReference` is a built-in value type that can be used for parameters and
29 local variables.

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31 Arrays of `System.TypedReference` cannot be created.

32

33 A `System.TypedReference` cannot be boxed as it contains `ByRefs`, so it cannot reside on
34 the heap.

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1 TypedReference.Equals(System.Object)

2 Method

```
3 [ILAsm]  
4 .method public hidebysig virtual bool Equals(object obj)  
5 [C#]  
6 public override bool Equals(object obj)
```

7 Summary

8 Determines whether the current instance and the specified `System.Object` represent the
9 same type and value.

10 Parameters

| Parameter | Description |
|------------|--|
| <i>obj</i> | The <code>System.Object</code> to compare to the current instance. |

11

12 Return Value

13 `true` if *obj* represents the same type and value as the current instance; otherwise,
14 `false`.

15 Description

16 [Note: This method overrides `System.Object.Equals`.]
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1 TypedReference.GetHashCode() Method

```
2 [ILAsm]  
3 .method public hidebysig virtual int32 GetHashCode()  
4 [C#]  
5 public override int GetHashCode()
```

6 Summary

7 Generates a hash code for the current instance.

8 Return Value

9 A `System.Int32` containing the hash code for the current instance.

10 Description

11 The algorithm used to generate the hash code is unspecified.

12

13 [*Note:* This method overrides `System.Object.GetHashCode()`.]

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1
2 **TypedReference.GetTargetType(System.Type**
3 **dReference) Method**

```
4 [ILAsm]  
5 .method public hidebysig static class System.Type GetTargetType(valuetype  
6 TypedReference value)  
7 [C#]  
8 public static Type GetTargetType(TypedReference value)
```

9 **Summary**

10 Returns the type of the target of the specified `System.TypedReference`.

11 **Parameters**

| Parameter | Description |
|--------------|--|
| <i>value</i> | The value whose target's type is to be returned. |

12
13 **Return Value**

14 The `System.Type` of the target of the specified `System.TypedReference`.

15

1
2 **TypedReference.MakeTypedReference(System.Object, System.Reflection.FieldInfo[])**
3
4 **Method**

```
5 [ILAsm]  
6 .method public hidebysig static valuetype TypedReference  
7 MakeTypedReference(object target, class System.Reflection.FieldInfo[]  
8 flds)  
  
9 [C#]  
10 public static TypedReference MakeTypedReference(object target, FieldInfo[]  
11 flds)
```

12 **Summary**

13 Makes a System.TypedReference for a field identified by a specified object and list of
14 field descriptions.

15 **Parameters**

| Parameter | Description |
|---------------|---|
| <i>target</i> | An object that contains the field described by the first element of <i>flds</i> . |
| <i>flds</i> | A list of field descriptions where each element describes a field that contains the field described by the succeeding element. Each described field must be a value type. |

16
17 **Return Value**

18 A System.TypedReference for the field described by the last element of *flds*.

19 **Description**

20 This method returns a System.TypedReference to the terminal field, where the target
21 parameter contains the field described by the first element of *flds*, the field described by
22 the first element of *flds* contains the field described by the second element of *flds*, and
23 so on, until the terminal field is reached.

24 **Exceptions**

| Exception | Condition |
|---------------------------------|--|
| System.ArgumentException | The <i>flds</i> array has no elements. |

| | |
|--------------------------------------|---|
| | <p>-or-</p> <p>An element of <i>flds</i> is not a <code>System.Reflection.FieldInfo</code>.</p> |
| System.ArgumentNullException | <p><i>target</i> or <i>flds</i> is null.</p> <p>-or-</p> <p>An element of <i>flds</i> is null.</p> |
| System.MissingMemberException | <p>Parameter <i>target</i> does not contain the field described by the first element of <i>flds</i>, or an element of <i>flds</i> describes a field that is not contained in the field described by the succeeding element of <i>flds</i>.</p> <p>-or-</p> <p>The field described by an element of <i>flds</i> is not a value type.</p> |

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TypedReference.SetTypedReference(System.TypedReference, System.Object) Method

```
[ILAsm]  
.method public hidebysig static void SetTypedReference(valuetype  
TypedReference target, object value)  
  
[C#]  
public static void SetTypedReference(TypedReference target, object value)
```

Summary

Converts the specified value to a System.TypedReference.

Parameters

| Parameter | Description |
|---------------|-------------------------------|
| <i>target</i> | The target of the conversion. |
| <i>value</i> | The value to be converted. |

Description

This method converts *value* to *target*.

Exceptions

| Exception | Condition |
|-------------------------------------|---|
| System.ArgumentNullException | <i>value</i> is null. |
| System.InvalidCastException | The requested conversion is not possible. |

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TypedReference.TargetTypeToken(System.TypedReference) Method

```
[ILAsm]  
.method public hidebysig static valuetype System.RuntimeTypeHandle  
TargetTypeToken(valuetype TypedReference value)  
  
[C#]  
public static RuntimeTypeHandle TargetTypeToken(TypedReference value)
```

Summary

Returns the internal metadata type handle for the specified `System.TypedReference`.

Parameters

| Parameter | Description |
|--------------|--|
| <i>value</i> | The <code>System.TypedReference</code> for which the type handle is requested. |

Return Value

The internal metadata type handle for the specified `System.TypedReference`.

1
2 **TypedReference.ToObject(System.TypedRefer**
3 **ence) Method**

```
4 [ILAsm]  
5 .method public hidebysig static object ToObject(valuetype TypedReference  
6 value)  
7 [C#]  
8 public static object ToObject(TypedReference value)
```

9 **Summary**

10 Converts the specified `System.TypedReference` to a `System.Object`.

11 **Parameters**

| Parameter | Description |
|--------------|---|
| <i>value</i> | The <code>System.TypedReference</code> to be converted. |

12
13 **Return Value**

14 The `System.Object` that results from the conversion of the specified
15 `System.TypedReference`.

16 **Description**

17 [*Note:* This might involve a boxing operation.]
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