

# System.TypedReference Structure

```
[ILAsm]
.class public sequential sealed serializable TypedReference extends
System.ValueType

[C#]
public struct TypedReference
```

## Assembly Info:

- *Name:* mscorlib
- *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00 00]
- *Version:* 2.0.x.x
- *Attributes:*
  - CLSCompliantAttribute(false)

## Summary

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

## Inherits From: System.ValueType

## Library: Vararg

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

## Description

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

A `System.TypedReference` is a type/value combination used to support variable argument lists (as used by C++, for example), among other things. `System.TypedReference` is a built-in value type that can be used for parameters and local variables.

Arrays of `System.TypedReference` cannot be created.

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

# 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. |

## 13 Return Value

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

## 16 Description

17 [Note: This method overrides `System.Object.Equals.`]  
18  
19  
20  
21  
22

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

## 11 Description

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

13  
14 [*Note:* This method overrides `System.Object.GetHashCode.`]  
15  
16  
17

# TypedReference.GetTargetType(System.Type dReference) Method

```
[ILAsm]
.method public hidebysig static class [mscorlib]System.Type
GetTargetType(valuetype TypedReference value)

[C#]
public static Type GetTargetType(TypedReference value)
```

## Summary

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

## Parameters

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

## Return Value

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

# TypedReference.MakeTypedReference(System.Object, System.Reflection.FieldInfo[])

## Method

```
[ILAsm]
.method public hidebysig static valuetype TypedReference
MakeTypedReference(object target, class
[mscorlib]System.Reflection.FieldInfo[] flds)

[C#]
public static TypedReference MakeTypedReference(object target, FieldInfo[]
flds)
```

### Summary

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

### 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. |

### Return Value

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

### Description

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

## Exceptions

| Exception                            | Condition  |
|--------------------------------------|--|
| <b>System.ArgumentException</b>      | The <i>flds</i> array has no elements.<br><br>-or-<br><br>An element of <i>flds</i> is not a <code>System.Reflection.FieldInfo</code> .  |
| <b>System.ArgumentNullException</b>  | <i>target</i> or <i>flds</i> is null.<br><br>-or-<br><br>An element of <i>flds</i> is null.  |
| <b>System.MissingMemberException</b> | 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> .<br><br>-or-<br><br>The field described by an element of <i>flds</i> is not a value type. |

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

# TypedReference.TargetTypeToken(System.TypedReference) Method

```
[ILAsm]  
.method public hidebysig static valuetype  
[mscorlib]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 <i>System.TypedReference</i> for which the type handle is requested. |

## Return Value

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



## TypedReference.ToObject(System.TypedReference) Method

```
[ILAsm]  
.method public hidebysig static object ToObject(valuetype TypedReference  
value)  
  
[C#]  
public static object ToObject(TypedReference value)
```

### Summary

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

### Parameters

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

### Return Value

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

### Description

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