

# 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]
- *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.

# TypedReference.Equals(System.Object) Method

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

## Summary

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

## Parameters

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

## Return Value

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

## Description

[*Note:* This method overrides `System.Object.Equals`.]

# TypedReference.GetHashCode() Method

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

## Summary

Generates a hash code for the current instance.

## Return Value

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

## Description

The algorithm used to generate the hash code is unspecified.

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

# TypedReference.GetTargetType(System.TypedReference) 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. -or-

	An element of <i>flds</i> is not a <code>System.Reflection.FieldInfo</code> .
<b>System.ArgumentNullException</b>	<p><i>target</i> or <i>flds</i> is null.</p> <p>-or-</p> <p>An element of <i>flds</i> is null.</p>
<b>System.MissingMemberException</b>	<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>

# 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 System.TypedReference 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.]