

System.NullReferenceException Class

```
[ILAsm]
.class public serializable NullReferenceException extends
System.SystemException

[C#]
public class NullReferenceException: SystemException
```

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(true)

Summary

Represents the error that occurs when there is an attempt to dereference a null object reference.

Inherits From: System.SystemException

Library: BCL

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:* Applications throw the `System.ArgumentNullException` rather than `System.NullReferenceException`.

The following CIL instructions throw `System.NullReferenceException`:

- `callvirt`
- `cpblk`
- `cpobj`
- `ldlema`
- `ldelem.<type>`

```

1      ·  ldfld
2      ·  ldfla
3      ·  ldind.<type>
4      ·  ldlen
5      ·  stelem.<type>
6      ·  stind.<type>
7      ·  stfld
8      ·  throw
9      ·  unbox
10     ·  initblk
11 ]

```

12 **Example**

13

14 The following example demonstrates an error that causes a
15 System.NullReferenceException exception.

16

17 [C#]

```

18 using System;
19 public class Ints {
20     public int[] myInts;
21 }
22 public class NullRefExample {
23     public static void Main() {
24         Ints ints = new Ints();
25         try {
26             int i = ints.myInts[0];
27         }
28         catch( NullReferenceException e ) {
29             Console.WriteLine( "Caught error: {0}.", e);
30         }
31     }
32 }
33

```

34 The output is

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```

36 Caught error: System.NullReferenceException: Object reference not set to an
37 instance of an object.
38     at NullRefExample.Main().

```

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1 **NullReferenceException(System.String)**

2 **Constructor**

```
3    [ILAsm]  
4    public rtspecialname specialname instance void .ctor(string message)  
  
5    [C#]  
6    public NullReferenceException(string message)
```

7 **Summary**

8 Constructs and initializes a new instance of the `System.NullReferenceException` class.

9 **Parameters**

Parameter	Description
<i>message</i>	A <code>System.String</code> that describes the error. The content of <i>message</i> is intended to be understood by humans. The caller of this constructor is required to ensure that this string has been localized for the current system culture.

13 **Description**

14 This constructor initializes the `System.NullReferenceException.Message` property of
15 the new instance using *message*. If *message* is null, the
16 `System.NullReferenceException.Message` property is initialized to the system-
17 supplied message provided by the constructor that takes no arguments. The
18 `System.NullReferenceException.InnerException` property is initialized to null.

NullReferenceException(System.String, System.Exception) Constructor

```
[ILAsm]
public rtspecialname specialname instance void .ctor(string message, class
System.Exception innerException)

[C#]
public NullReferenceException(string message, Exception innerException)
```

Summary

Constructs and initializes a new instance of the `System.NullReferenceException` class.

Parameters

Parameter	Description
<i>message</i>	A <code>System.String</code> that describes the error. The content of <i>message</i> is intended to be understood by humans. The caller of this constructor is required to ensure that this string has been localized for the current system culture.
<i>innerException</i>	An instance of <code>System.Exception</code> that is the cause of the current <code>Exception</code> . If <i>innerException</i> is non-null, then the current <code>Exception</code> was raised in a catch block handling <i>innerException</i> .

Description

This constructor initializes the `System.NullReferenceException.Message` property of the new instance using *message*, and the `System.NullReferenceException.InnerException` property using *innerException*. If *message* is null, the `System.NullReferenceException.Message` property is initialized to the system-supplied message provided by the constructor that takes no arguments.

[*Note:* For information on inner exceptions, see `System.Exception.InnerException`.]