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:* 1.0.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 IL instructions throw **System.NullReferenceException**:

- callvirt

- cpblk

- cpobj

- ldelema

- ldelem.<type>

1   • ldfld

2   • ldflda

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

35
36   Caught error: System.NullReferenceException: Object
37   reference not set to an instance of an object.

```
1          at NullRefExample.Main().
2
3
```

NullReferenceException() Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor()


[C#]
public NullReferenceException()
```

Summary

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

Description

This constructor initializes the
System.NullReferenceException.Message property of the new
instance to a system-supplied message that describes the error, such
as "The value 'null' was found where an instance of an object was
required." This message takes into account the current system culture.

The **System.NullReferenceException.InnerException** property is
initialized to **null**.

NullReferenceException(System.String) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
message)

[C#]
public NullReferenceException(string message)
```

Summary

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

Parameters

Parameter	Description
message	A **System.String** that describes the error. The content of *message* 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.

Description

This constructor initializes the
System.NullReferenceException.Message property of the new
instance using *message*. If *message* is **null**, the
System.NullReferenceException.Message property is initialized to
the system-supplied message provided by the constructor that takes
no arguments. The
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
message	A **System.String** that describes the error. The content of *message* 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.
innerException	An instance of **System.Exception** that is the cause of the current Exception. If *innerException* is non-null, then the current Exception was raised in a catch block handling *innerException*.

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.]