

1 System.IndexOutOfRangeException Class

```
2 [ILAsm]
3 .class public sealed serializable IndexOutOfRangeException extends
4 System.SystemException
5
6 [C#]
7 public sealed class IndexOutOfRangeException: SystemException
```

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(true)

13 Summary

14 Represents the error that occurs when an attempt is made to access an element of an
15 array with an index that is outside the bounds of the array.

16 Inherits From: System.SystemException

17
18 **Library:** BCL

19
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.

23 Description

24 [*Note:* The following CIL instructions throw System.IndexOutOfRangeException:

- 25 • ldelem.<type>
- 26 • ldelema
- 27 • stelem.<type>

28]

29 Example

30 The following example demonstrates an error that causes a
31 System.IndexOutOfRangeException exception.

```
32 [C#]
```

```
34 using System;
```

```
1 public class IndexRangeTest {
2     public static void Main() {
3         int[] array = {0,0,0};
4         try {
5             for (int i = 0; i<4; i++) {
6                 Console.WriteLine("array[{0}] = {1}",i,array[i]);
7             }
8         }
9         catch (IndexOutOfRangeException e) {
10            Console.WriteLine("Error: {0}",e);
11        }
12    }
13 }
```

14
15 The output is

```
16
17 array[0] = 0
18 array[1] = 0
19 array[2] = 0
20 Error: System.IndexOutOfRangeException: Index was outside the bounds of the
21 array.
22     at IndexRangeTest.Main()
23
```

24

1 IndexOutOfRangeException() Constructor

```
2 [ILAsm]  
3 public rtspecialname specialname instance void .ctor()  
4 [C#]  
5 public IndexOutOfRangeException()
```

6 Summary

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

9 Description

10 This constructor initializes the `System.IndexOutOfRangeException.Message` property of
11 the new instance to a system-supplied message that describes the error, such as "An
12 array index is out of range." This message takes into account the current system
13 culture.

14
15 The `System.IndexOutOfRangeException.InnerException` property is initialized to
16 null.

17

1 IndexOutOfRangeException(System.String) 2 Constructor

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

7 Summary

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

10 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.

11 12 Description

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

18

1 IndexOutOfRangeException(System.String, 2 System.Exception) Constructor

```
3 [ILAsm]  
4 public rtspecialname specialname instance void .ctor(string message, class  
5 System.Exception innerException)  
  
6 [C#]  
7 public IndexOutOfRangeException(string message, Exception innerException)
```

8 Summary

9 Constructs and initializes a new instance of the `System.IndexOutOfRangeException`
10 class.

11 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 exception. If <i>innerException</i> is non-null, then the current exception was raised in a catch block handling <i>innerException</i> .

12 13 Description

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

20
21 [Note: For information on inner exceptions, see `System.Exception.InnerException`.]
22
23

24