

# 1 System.OverflowException Class

```
2 [ILAsm]  
3 .class public serializable OverflowException extends  
4 System.ArithmeticException  
  
5 [C#]  
6 public class OverflowException: ArithmeticException
```

## 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 the result of an arithmetic operation is too large  
15 to be represented by the destination type.

## 16 Inherits From: System.ArithmeticException

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.

22

## 23 Description

24 In languages that detect overflow, this is the exception that gets thrown. For example,  
25 in C#, the checked keyword is used to detect overflow conditions. A  
26 System.OverflowException exception occurs only in a checked context.

27

28 [*Note:* The following CIL instructions throw System.OverflowException:

- 29 • add.ovf.<signed>
- 30 • conv.ovf.<to type>
- 31 • conv.ovf.<to type>.un
- 32 • mul.ovf.<type>
- 33 • sub.ovf.<type>
- 34 • newarr

1 ]

## 2 **Example**

3 The following example demonstrates an error that causes a `System.OverflowException`  
4 exception.

5

6 [C#]

```
7 using System;
8 public class OverflowExample {
9     public static void Main() {
10         int i = 400;
11         byte b = 0;
12         try {
13             checked { b = (byte)( i ); }
14         }
15         catch ( OverflowException e ) {
16             Console.WriteLine( "Error caught: {0}", e );
17         }
18     }
19 }
```

20  
21 The output is

22

23 Error caught: System.OverflowException: Arithmetic operation resulted in an  
24 overflow.

25 at OverflowExample.Main()

26

27

# 1 OverflowException() Constructor

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

## 6 Summary

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

## 8 Description

9 This constructor initializes the `System.OverflowException.Message` property of the new  
10 instance to a system-supplied message that describes the error. This message takes into  
11 account the current system culture.

12 The `System.OverflowException.InnerException` property is initialized to `null`.  
13

14

# 1 OverflowException(System.String)

## 2 Constructor

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

### 7 Summary

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

10

### 11 Description

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

17

# 1 OverflowException(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 OverflowException(string message, Exception innerException)
```

## 8 Summary

9 Constructs and initializes a new instance of the `System.OverflowException` 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.
<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> .

## 11 12 Description

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

18  
19 [Note: For information on inner exceptions, see `System.Exception.InnerException`.]  
20  
21

22